

APPENDIX K

NATIONAL HISTORIC PRESERVATION ACT
SECTION 106 COMPLIANCE CORRESPONDENCE

**APPENDIX K:
NATIONAL HISTORIC PRESERVATION ACT
SECTION 106 COMPLIANCE CORRESPONDENCE**

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Dear,

The Las Cruces District of the Bureau of Land Management (BLM) is processing a mining action in Sierra County, New Mexico. The proposed mining action is the reopening of the Copper Flat Mine that is east of Hillsboro, in Sierra County, New Mexico. The mine is located on BLM and private lands in Sections 25, 26, 27, 35, and 36 of Township (T) 15 South (S), Range (R) 7 West (W), and within Section 31 of T 15 S, R 6 W, as depicted on the Skute Stone Arroyo, New Mexico and Hillsboro, New Mexico United States Geological Service (USGS) Quadrangles (see Map Figure 1).

A cultural resources survey was performed within the proposed mine project area as a part of the analysis for the Environmental Impact Statement (EIS) that is being developed for this project. Fifty-three sites were revisited or newly recorded during the course of that survey. Of these fifty-three sites, fifty-one have historic, primarily mining-related components. There are nine sites that have prehistoric components. Among these nine are seven flaked stone sites, one site with flaked stone and possible features (roasters), and one site that contains petroglyph panels with prehistoric and historic glyphs. A map that shows the locations of the recorded sites is attached to this document after the project area map (Map Figure 2). A table of sites with their temporal assignment and National Register of Historic Places eligibility status is to be found attached after the maps.

The contracting company recommended that, if avoidance of the sites was feasible, then the sites should be avoided. However, given the nature of the proposed activity, avoidance may not be an option for some or all of the sites within the project area. Because of this potential, a memorandum of agreement, a research design, plan of work, and NAGPRA treatment plan will need to be developed for the sites within the project area.

To help facilitate the EIS work and to ensure that all potentially culturally significant sites are accounted for in the planning process we are asking whether there are any Traditional Cultural Properties or other sites within the project area about which you have information so that we are able to work with you to preserve them or mitigate the effects of the project on them.

This letter is being sent maintain our relationships with consulting tribes as well as to meet our consultation requirements under Section 106 of the National Historic Preservation Act, The Native American Graves and Repatriation Act, the American Indian Religious Freedom Act, as well as our 2004 Protocol and IM No. MN-2005-037. In honoring these laws and documents, we are asking whether there exist any known Traditional Cultural Properties or other areas of religious or cultural significance that would require avoidance, reconsideration of the Area of Potential Effect, or other mitigation of the effects of the proposed actions. If there are properties or issues that can be mitigated, we will consult further on the proper methods for that mitigation.

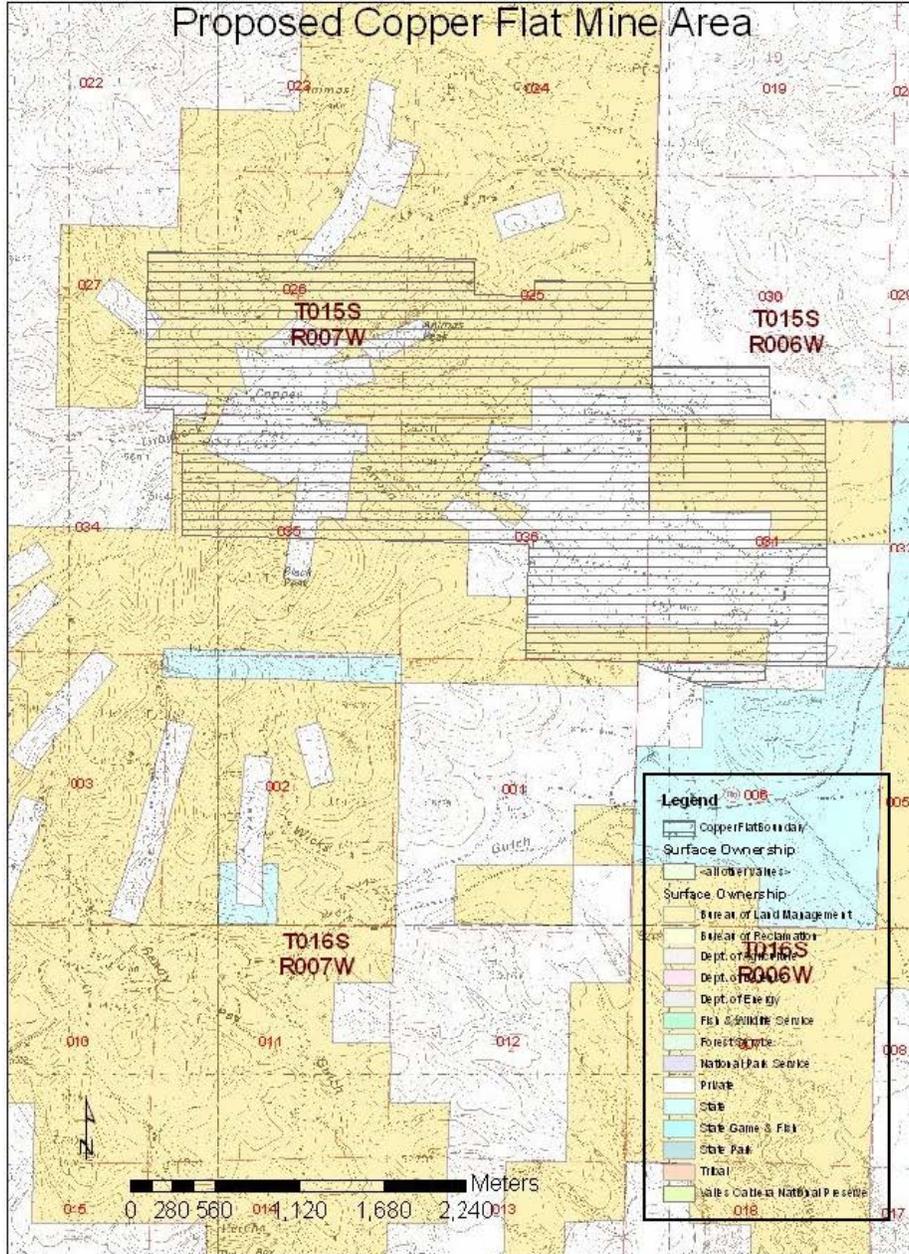
In response to this letter or if you wish to begin further consultation on this issue, please contact our archaeologist, David Legare, at (575) 525-4398 or by e-mail at david_legare@blm.gov.

Thank you,

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Bill Childress
District Manager
Las Cruces District Office
Bureau of Land Management

Map Figure 1: Overview of the proposed mine location.



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Map Figure 2: Locations of cultural resource sites within the proposed mine location.

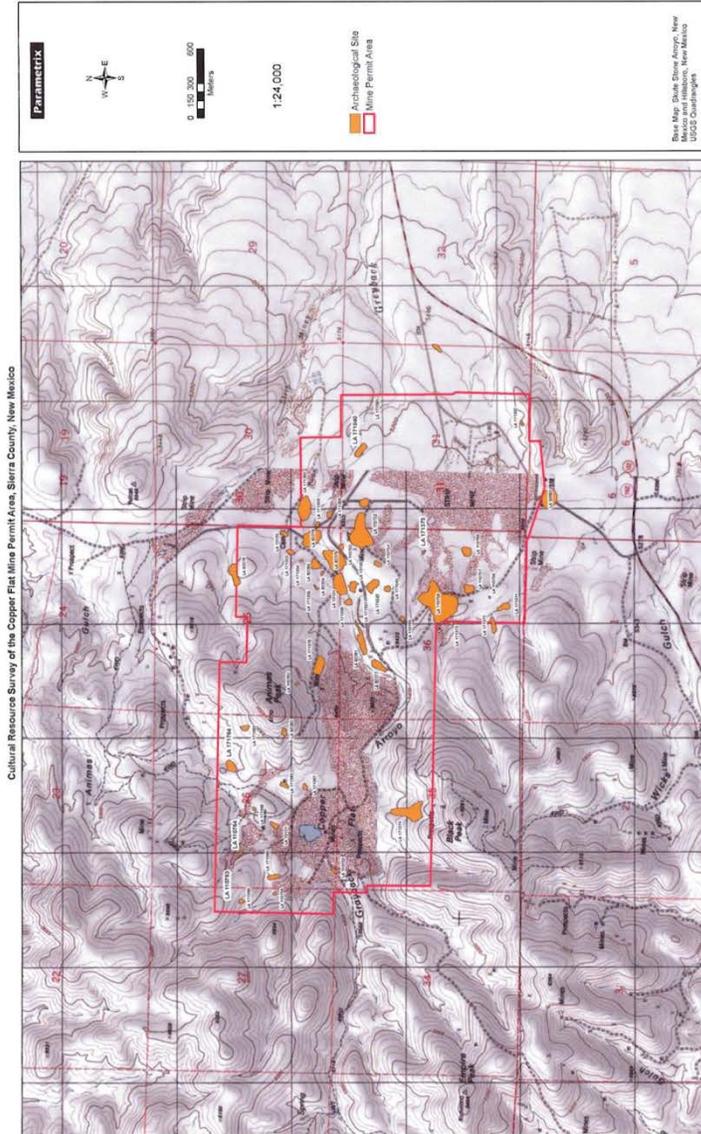


Figure A3: Updated and Newly Discovered Archaeological Sites Within the Project Area (1:24,000)

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Table of Sites, Temporality, and NRHP Eligibility		
Site	Temporality (Prehistoric or Historic)	Eligibility Summary
LA 13121	Prehistoric/Historic	Previously determined <i>eligible</i> in 1996
LA 13130	Historic	Previously recommended <i>eligible</i> in 1991 (no SHPO determination). Currently recommended individually <i>eligible</i> under Criteria A and D
LA 13131	Prehistoric/Historic	Previously recommended <i>eligible</i> in 1991 (no SHPO determination). Currently recommended individually <i>eligible</i> under Criteria A and D
LA 13135	Historic	Previously recommended <i>not eligible</i> in 1991 (no SHPO determination). Currently recommended individually <i>eligible</i> under Criterion D
LA 82276	Historic	Previously recommended <i>eligible</i> in 1991 (no SHPO determination). Currently recommended individually <i>eligible</i> under Criteria A and Contributing element of district
LA 82277	Prehistoric/Historic	Previously recommended <i>eligible</i> in 1991 (no SHPO determination). Currently recommended <i>not eligible</i>
LA 82278	Historic	Previously recommended <i>eligible</i> in 1991 (no SHPO determination). Currently recommended individually <i>eligible</i> under Criteria A and D
LA 82279	Prehistoric/Historic	Previously recommended <i>eligible</i> in 1991 (no SHPO determination). Currently recommended individually <i>eligible</i> under Criteria A and D
LA 82280	Historic	Previously recommended <i>eligible</i> in 1991 (no SHPO determination). Currently recommended individually <i>eligible</i> under Criteria A and D
LA 82281	Historic	Previously recommended <i>eligible</i> in 1991 (no SHPO determination). Currently recommended individually <i>eligible</i> under Criteria A and D
LA 82282	Historic	Previously recommended <i>eligible</i> in 1991 (no SHPO determination). Currently recommended individually <i>eligible</i> under Criteria A and D
LA 82334	Historic	Previously recommended <i>not eligible</i> in 1990 (no SHPO determination). Currently recommended <i>not eligible</i> under any criteria
LA 110752	Prehistoric/Historic	Previously given a status of <i>not determined</i> Currently recommended <i>not eligible</i> under any criteria
LA 110753	Historic	Previously determined <i>eligible</i> in 1996
LA 110754	Prehistoric/Historic	Previously given a status of <i>not determined</i>
LA 110755	Prehistoric/Historic	Previously given a status of <i>not determined</i> Currently recommended individually <i>eligible</i> under Criteria A and D
LA 110756	Historic	Previously given a status of <i>not determined</i> Currently recommended individually <i>eligible</i> under Criteria A and D
LA 110757	Prehistoric/Historic	Previously given a status of <i>not determined</i> . Currently recommended individually <i>eligible</i> under Criteria A and D
LA 110758	Prehistoric	Previously given a status of <i>not determined</i>
LA 110759	Historic	Previously determined <i>eligible</i> in 1996
LA 110760	Historic	Previously given a status of <i>not determined</i> . Currently recommended as <i>undetermined</i>
LA 110761	Historic	Previously recommended <i>not eligible</i> in 1990 (no SHPO determination) Currently recommended <i>not eligible</i> under any criteria
LA 110762	Historic	Previously determined <i>eligible</i> in 1996

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LA 110763	Prehistoric/Historic	Previously determined <i>eligible</i> in 1996
LA 110764	Prehistoric	Previously given a status of <i>not determined</i> . Currently recommended <i>not eligible</i> under any criteria
LA 110766	Prehistoric/Historic	Previously given a status of <i>not determined</i> . Currently recommended individually <i>eligible</i> under Criteria A and D
LA 171040	Historic	Recommended <i>not eligible</i> for individual listing under any criteria
LA 171042	Historic	Recommended as <i>undetermined</i> for individual listing
LA 171043	Historic	Recommended as <i>undetermined</i> for individual listing
LA 171353	Historic	Recommended <i>eligible</i> for individual listing under Criterion A
LA 171354	Historic	Recommended <i>eligible</i> for individual listing under Criterion A
LA 171355	Historic	Recommended <i>eligible</i> for individual listing under Criterion A
LA 171356	Historic	Recommended <i>eligible</i> for individual listing under Criteria A and D
LA 171357	Historic	Recommended <i>eligible</i> for individual listing under Criterion A
LA 171358	Historic	Recommended <i>not eligible</i> for individual listing under any criteria
LA 171359	Prehistoric/Historic	Recommended <i>eligible</i> for individual listing under Criterion D
LA 171360	Historic	Recommended <i>eligible</i> for individual listing under Criteria A and D
LA 171361	Historic	Recommended <i>not eligible</i> for individual listing under any criteria
LA 171362	Historic	Recommended as <i>undetermined</i> for individual listing
LA 171363	Historic	Recommended <i>eligible</i> for individual listing under Criterion A
LA 171364	Historic	Recommended <i>eligible</i> for individual listing under Criteria A and D
LA 171365	Historic	Recommended <i>eligible</i> for individual listing under Criterion A
LA 171366	Historic	Recommended <i>not eligible</i> for individual listing under any criteria
LA 171367	Historic	Recommended <i>eligible</i> for individual listing under Criterion A
LA 171368	Historic	Recommended <i>not eligible</i> for individual listing under any criteria
LA 171369	Historic	Recommended <i>not eligible</i> for individual listing under any criteria
LA 171371	Historic	Recommended <i>eligible</i> for individual listing under Criteria A and D
LA 171372	Prehistoric/Historic	Recommended <i>eligible</i> for individual listing under Criteria A and D
LA 171373	Historic	Recommended as <i>undetermined</i> for individual listing
LA 171374	Historic	Recommended <i>eligible</i> for individual listing under Criteria A and D
LA 171375	Historic	Recommended <i>not eligible</i> for individual listing under any criteria
LA 171376	Historic	Recommended <i>eligible</i> for individual listing under Criteria A and D

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LeRoy N. Shingoitewa
CHAIRMAN

Herman G. Honanie
VICE-CHAIRMAN

November 19, 2012

Bill Childress, District Manager
Attention: David Legare, Archaeologist
Bureau of Land Management, Las Cruces District Office
1800 Marquess Street
Las Cruces, New Mexico 88005

Dear Mr. Childress,

This letter is in response to your correspondence dated November 6, 2012, regarding the proposed reopening of the Copper Flat Mine east of Hillsboro. The Hopi Tribe claims cultural affiliation to the Paleo, Archaic, Mimbres and Mogollon prehistoric cultural groups in the Las Cruces District. The Hopi Cultural Preservation Office supports the identification and avoidance of prehistoric archaeological sites, and we consider the prehistoric archaeological sites of our ancestors to be Traditional Cultural Properties. Therefore, we appreciate the Bureau of Land Management (BLM), Las Cruces Field Office's solicitation of our input and your efforts to address our concerns.

The Hopi Cultural Preservation Office understands a cultural resources survey as part of an environmental impact statement being developed for this proposal identified 13 prehistoric sites, 9 of which are considered National Registrar eligible, including a petroglyph panel. We understand that these sites may not be able to be avoided by project activities and that a memorandum of agreement and treatment plan are being developed.

Therefore, we have determined that this proposal may adversely affect prehistoric sites significant to the Hopi Tribe, and we request continuing consultation on it. Please provide us with copies of the cultural resources survey report of the area of potential effect, draft environmental impact statement and any proposed treatment plans for review and comment.

If you have any questions or need additional information, please contact Terry Morgart at the Hopi Cultural Preservation Office at 928-734-3619 or tmorgart@nsn.us. Thank you for your consideration.

Respectfully,

A handwritten signature in black ink, appearing to read "Leigh J. Kuwanwisiwma".

Leigh J. Kuwanwisiwma, Director
Hopi Cultural Preservation Office

xc: New Mexico State Historic Preservation Office



White Mountain Apache Tribe
Office of Historic Preservation
PO Box 507
Fort Apache, AZ 85926
Ph: (928) 338-3033 Fax: (928) 338-6055

To: David Legare, BLM Archaeologist, Las Cruces District Office
Date: November 30, 2012
Project: Reopening of the Copper Flat Mine, Hillsboro, Sierra County, New Mexico

.....
The White Mountain Apache Tribe Historic Preservation Office appreciates receiving information on the proposed project, November 06, 2012. In regards to this, please attend to the following checked items below.

► ***There is no need to send additional information unless project planning or implementation results in the discovery of sites and/or items having known or suspected Apache Cultural affiliation.***

N/A - The proposed project is located within an area of probable cultural or historical importance to the White Mountain Apache tribe (WMAT). As part of the effort to identify historical properties that maybe affected by the project we recommend an ethno-historic study and interviews with Apache Elders. The tribe's ***Cultural Heritage Resource Director Mr. Ramon Riley*** may be contacted at (928) 338-3033 for further information should this become necessary.

► Please refer to the attached additional notes in regards to the proposed project:

We have received and reviewed the information regarding BLM proposal to re-open the Copper Flat mine located east of Hillsboro, Sierra County, New Mexico, and we have determined the proposed project **will not have an adverse effect** on the White Mountain Apache tribe's (WMAT) historic properties and/or traditional cultural resources. Regardless, we recommend **any/all archaeological sites be avoided and any/all ground disturbing activities be monitored if there are reasons to believe that there are human remains and/or funerary objects are present, and if such remains and/or objects are encountered all project activities should cease and the proper authorities and/or affiliated tribe(s) be notified to evaluate the situation.**

Thank you. We look forward to continued collaborations in the protection and preservation of place of cultural and historical significance.

Sincerely,

Mark T. Altaha

White Mountain Apache Tribe
Historic Preservation Office

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Department of Cultural Affairs
Historic Preservation Division
Bataan Memorial Building
407 Galisteo Street, Suite 236
Santa Fe, NM 87501
Att'n.: Ms. Michelle Ensey

Dear Ms. Ensey:

Please find the revised report "Cultural Resource Inventory of the Copper Flat Mine Permit Area, Sierra County, NM" enclosed for your review. This report is recorded with the Museum of New Mexico, Museum of Indian Arts and Culture, Laboratory of Anthropology (hereafter, LA) NMCRIS report number 122233. The report was prepared to determine what sites exist within the proposed project area that could be affected by reopening and operating the Copper Flat Mine. The report was prepared by Parametrix of Albuquerque, New Mexico for New Mexico Copper Corporation. Submittal of this report was delayed awaiting blast vibration data from the mine proponent. That data indicated that there is a fifty foot area outside the project area on the west side that could, potentially, be impacted by blast vibration. As this constitutes a single transect by one archaeologist, Mr. David Legare will perform that survey and submit it as an addendum to this report at a later date.

This project was performed as part of the analysis for an Environmental Impact Statement that is being considered by the Bureau of Land Management (BLM), Las Cruces District Office.

The lands under consideration are public lands under the jurisdiction of the BLM and privately held parcels.

The survey reported in NMCRIS report 122233 resulted in the discovery of twenty-three newly identified sites, revisits to twenty-nine previously recorded sites, eighteen sites that could not be relocated, four HCPI properties that were discovered or revisited and registered, and 490 isolated occurrences. The eighteen previously recorded sites that could not be relocated were outside of the project area or no longer meet the definitions of an archaeological site. The bulk of these sites appear to have been destroyed by previous mining activities. No surficial evidence exists for eleven sites that were recorded in the 1970s by New Mexico State University. The remainder are outside of the proposed project area. No data recovery information could be found for the sites that were believed destroyed. Among the twenty-nine previously recorded sites that were revisited, thirteen had been determined eligible for the National Register of Historic Places (NRHP) by the New Mexico State Historic Preservation Officer (SHPO). Twelve of these thirteen retain integrity and are recommended as still eligible for the NRHP. One (LA 82277) has been badly disturbed by previous mining activity and no longer retains sufficient integrity to qualify for the NRHP. Eleven previously recorded sites had undetermined NRHP status. Four of these sites (LA110755, LA 110756, LA 110757, and LA110766) are now recommended as eligible for the NRHP because of the work performed during this project. Two other sites (LA 110752 and LA 110764) are now recommended to be ineligible for the NRHP. Five sites (LA

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110754, LA 110758, LA 110760, LA 171042, and LA 171043) were recommended to retain their NRHP status of undetermined. Six of the previously recorded sites had been determined not eligible for the NRHP. Four of the above (LA 82334, LA 110761, LA 110765, and LA 171040) should retain that ineligible status. However, LA 13135 is recommended as eligible for the NRHP under criterion "d." This site is a cemetery but it meets the special requirements under Criterion Consideration D: Cemeteries. This site has the potential to provide information about nearby sites that is not available from any other known sources. Site LA 110762 is recommended as eligible under criterion "a" because of its association with events important to local history.

Eight of the twenty-three newly recorded sites (LA 171356, LA 171359, LA 171360, LA 171364, LA 171371, LA 171374, LA 171372, and LA 171376) were recommended eligible for the NRHP either under criterion "d" or under criteria "a" and "d." Seven sites (LA 171353, LA 171354, LA 171355, LA 171357, LA 171363, LA 171365, and LA 171267) were recommended as eligible for the NRHP under criterion "a" only because they lack information potential but they are associated with events that are important to local history. Two sites (LA 171362 and LA 171373) are recommended as having undetermined status for the NRHP. Six of the twenty-three newly recorded sites (LA 171358, LA 171361, LA 171366, LA 171368, LA 171369, and LA 171375) are recommended as not eligible to the NRHP under any criterion.

In addition, four structures were recorded on HCPI forms and registered into that system as HCPI 30633, HCPI 31363, HCPI 31364, and HCPI 31365.

HCPI 30633 (The Toney House in LA 110753) is an abandoned one and one-half story stucco-covered adobe residence with a gable roof. The building has two, shed-roofed additions (probably later additions) on the northwest and southeast. The northwest wing is a roofed garage. These additions were made more than 50 years ago.

HCPI 31363 (Hillscher House in LA 110759) is an isolated, one-story building that has a rectangular footprint and was constructed of concrete, brick, and adobe. The building has a side-gabled roof with a southern addition with a side-gabled roof and a shed roof extending from the eastern roofline that forms a partial-width porch. The roofs are covered by corrugated metal panels. On the north and south elevations are exterior, brick chimneys. The south chimney has a relatively recent stucco plaster coating. The existing, original windows are double hung and wood framed.

HCPI 31364 (Gold Dust Building in LA 50092) is a white, one-story, stucco-covered, adobe-brick building. HCPI 31364 and the town of Gold Dust (LA 50092) are located outside of the current project area but lie within the fifty foot buffer that was inspected for standing structures. The building has a square footprint and is built on an above-grade concrete foundation. The original portion of the building has a gabled roof clad in corrugated metal panels. A northern addition has a flat roof with parapets. An enclosed, corner porch was constructed of wood frame and plywood. This appears to have been the latest addition to the structure. All of the windows appear to be original and are wood-framed and double-hung.

HCPI 31365 (Greyback Shack in LA 82278) is a single-room structure. The lower portions of the walls are rock and the upper portion is adobe brick. The building has a flat to slightly-sloped roof of wood planks. The fenestration and door are wood encased but windows and doors are missing.

The BLM concurs with recommendations made by Parametrix for the sites above.

Because this proposed undertaking is the restarting of operations at an existing open-pit copper mine, there is the potential for the project to damage or destroy one, some, or all of the sites that are considered either undetermined or eligible for the NRHP that were recorded for this report. This proposed undertaking is expected to be underway for approximately twenty years. In the light of the above facts, there are several stipulations that appear in order.

The first of these stipulations is that those sites that currently have an undetermined status for the NRHP should be subjected to further testing to determine their eligibility for that register.

The second stipulation is that, given the long time frame, the past history of damage to sites by the previous mining operations, and uncertain nature of the direction and scope of further mine excavations and waste rock dumping, those sites that have already been determined eligible for the NRHP as well as those that may be determined eligible for that register through a testing program should be enclosed in protective fencing to prevent inadvertent damages.

The third stipulation is that a treatment plan that is sufficiently open-ended to allow for changes in archaeological methodology and that addresses all of the necessary forms of investigation including, but not necessarily limited to, archival, ethnological, and archaeological investigations that can shed light upon the functions of the sites as well as the people who carried out the activities associated with those functions.

The fourth stipulation is that, due to the long operational duration expected for the reopened mine, a programmatic agreement that outlines the appropriate procedures that must be followed in the event that an expansion of the mine, its facilities, or any other operational activity is expected at any time during the expected operation of the mine. This programmatic agreement must be agreed upon and signed by all of the principal concerned parties (i.e., the mine operators, the BLM, the New Mexico SHPO, and any other primary, interested parties).

An additional issue that arose during the survey by Parametrix is that of a possible historic district. This district, if it were to be realized, would most likely encompass the existing historic district at Lake Valley, the Copper Flat Mine area, the areas around the towns of Hillsboro and Kingston, the Animas Creek, the Animas Hills, Wicks Gulch, and the upper Percha Creek. Lake Valley and Hillsboro are currently listed on the New Mexico State Register of Historic Properties and Hillsboro is listed on the NRHP. The theme under which such a district might be organized would be that of mining as it represents the mining boom that occurred in the area in the 1870s and 1880s and that continued through the 1950s in

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some places (Lake Valley). The area also witnessed a second, smaller peak in the 1930s when the depression made small scale mining feasible during the Great Depression.

This district does not currently exist. It is well outside the scope of the current project to tackle such a large secondary project. Nevertheless, sites within the Copper Flat Mine area that have the potential to contribute to such a district were identified during this work.

If you have any questions or concerns, please contact our archaeologist, Mr. David Legare, at (575) 525-4398 or by e-mail at dlegare@blm.gov.

Thank you for your time in consideration of this report.

Bill Childress
District Manager
Las Cruces District Office
Bureau of Land Management

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Susana Martinez
Governor

STATE OF NEW MEXICO
DEPARTMENT OF CULTURAL AFFAIRS
HISTORIC PRESERVATION DIVISION

BATAAN MEMORIAL BUILDING
407 GALISTEO STREET, SUITE 236
SANTA FE, NEW MEXICO 87501
PHONE (505) 827-6320 FAX (505) 827-6338

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LAS CRUCES, NM 88005

December 13, 2013

Mr. Dave Legare
Bureau of Land Management
Las Cruces District Office
1800 Marquess St.
Las Cruces, NM88005

Dear Mr. Legare,

Thank you for providing the New Mexico State Historic Preservation Officer (SHPO), a survey report entitled *Cultural Resources Inventory of the Copper Flat Mine Permit Area, Sierra County, New Mexico (NMCRIS 122233; HPD log 98586)* I am providing SHPO review comments for the project with this letter.

The SHPO concurs with the Bureau of Land Management's (BLM) determinations of eligibility (DOE) that 38 properties are eligible for listing in the National Register of Historic Places (NRHP).

The SHPO concurs with the BLM's DOE that all eleven of the previously recorded sites not relocated during the current survey are not eligible for listing in the NRHP.

The consultant recommended that an additional six resources were not eligible for listing in the NRHP under any criterion, but that four of these may be contributing elements to a potential historic district. The BLM's position on this recommendation is not clearly stated in the letter, and BLM personnel did not enter DOEs on either the LA forms or in NMCRIS. It is SHPO's opinion that these four properties eligibility should remain undetermined pending additional consultation between our offices. We will need to conduct additional consultation to establish how their eligibility as contributing elements of a potential historic district will be evaluated.

The SHPO concurs with the BLM that thirteen archaeological sites have undetermined eligibility for listing in the NRHP. Our offices need further consultation to determine when and how eligibility for these sites will be established.

The SHPO also agrees that the undertaking is will be best managed under a Programmatic Agreement (PA). Consequently, the SHPO does not concur with the assessment of effect or recommended treatments to avoid, minimize or mitigate adverse effects to historic properties because we believe that these should be deferred until the development of the PA, which should include the assessment of the blast effects report cited in the consultation letter.

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* Our office looks forward to continuing consultation with the BLM for this project. If you have any questions or comments please feel free to call me directly at (505) 827-4425 or email me at bob.estes@state.nm.us.

Sincerely,

A handwritten signature in blue ink that reads "Bob Estes". The signature is written in a cursive style with a large initial "B" and "E".

Bob Estes

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Las Cruces District Office
1800 Marquess Street
Las Cruces, New Mexico 88005
www.blm.gov/nm



In Reply Refer To:

8100 (L0310)

SEP 17 2014

Ms. Katie Emmer
Permitting & Environmental Compliance
New Mexico Copper Corporation
2424 Louisiana Blvd., NE
Albuquerque, NM 87110

Dear Ms. Emmer:

This letter was sent to the New Mexico State Historic Preservation Officer and is our Determination of Effect for the New Mexico Copper Corporation's (NMCC) proposed Copper Flat Mine. This Determination of effect is based on the report entitled "Cultural Resource Inventory of the Copper Flat Mine Permit Area, Sierra County, New Mexico" that was produced by Parametrix under NMCRIS Activity #122233. This letter also contains determinations of effect for each of the sites under each of the proposed alternatives that are being considered in the Environmental Impact Statement (EIS) for this project. This level of detail was selected because of the different effects of each proposed alternative.

The proposed NMCC Copper Flat Mine will be an adverse effect undertaking as a result of the destruction of or damage to sites caused by the proposed mining operation and that are within the proposed project area.

In order to more fully address the effects of the undertaking, maps of the three proposed alternatives to be addressed in the EIS were created with all of the site locations plotted (see enclosed maps). Because the areal extent of each of the alternatives has been determined, it became practical to assess impacts by alternative. The following table outlines effects to the sites by site and alternative.

In this table the entry "Vibration/Direct" indicates that there are structures or structural remains with standing walls and that are subject to partial direct effects as well as the indirect effects of ground vibrations resulting from the use of explosives in the mine pit or from those vibrations caused by the near passage of ore hauling trucks.

The use of the term "Inadvertent" is used to indicate that a site is located close enough to the mine operations that, while effects cannot be positively identified or predicted, there is some possibility that accidental damage may occur because of the site's location. These are generally sites that are not subject to direct or identifiable indirect effects of the mining operation itself.

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The term is, in effect, a proximity warning and measures will need to be developed to offset any potential for damage that may or may not occur. The "Recommendations" column contains items that will be brought to the proponent for their consideration to remove or mitigate effects to sites.

Determinations of Effect for Copper Flat Mine Alternatives					
LA Number	Eligibility	Effects			Recommendations
		Preferred Action	Alternative 1	Alternative 2	
50092	Yes	Vibration	Vibration	Vibration	
171362	Undetermined	Inadvertent	Inadvertent	Inadvertent	Fence site to avoid inadvertent effects
171361	No	No effect	No effect	No effect	
171040	No	No effect	No effect	No effect	
171371	Yes	Direct	Direct	Direct	
171372	Yes	Vibration/Direct	Vibration/Direct	Vibration/Direct	
110758	Undetermined	Direct	Direct	Direct	
110757	Yes	Direct	Direct	Direct	
110766	Yes	Direct	Direct	Direct	
171373	Undetermined	No effect	No effect	No effect	
110759	Yes	Vibration/Direct	Vibration/Direct	Vibration/Direct	
171375	Undetermined	Direct	Direct	Direct	
171360	Yes	Direct	Direct	Direct	
110761	No	No effect	No effect	No effect	
110765	No	No effect	No effect	No effect	
171358	No	No effect	No effect	No effect	
171359	Yes	Inadvertent	Inadvertent	Inadvertent	Fence site to avoid inadvertent effects
82278	Yes	Vibration/Direct	Vibration/Direct	Vibration/Direct	Move topsoil pile and fence site, then no direct effect
13135	Yes	Direct	Direct	Direct	Move topsoil pile and fence site, then no effect
171353	Yes	Direct	Direct	Direct	
171354	Yes	Direct	Direct	Direct	
110753	Yes	Direct	Direct	Direct	
110755	Yes	Direct	Direct	Direct	
82280	Yes	Direct	Direct	Direct	
82276	Yes	No effect	No effect	No effect	
82279	Yes	Vibration/Direct	Vibration/Direct	Vibration/Direct	

Determinations of Effect for Copper Flat Mine Alternatives (Concluded)					
LA Number	Eligibility	Effects			Recommendations
		Preferred Action	Alternative 1	Alternative 2	
82334	No	No effect	No effect	No effect	
171355	Yes	Direct	Direct	Direct	
13131	Yes	Direct	Direct	Direct	
171356	Yes	Direct	Direct	Direct	
13130	Yes	Direct	Inadvertent	Direct	Fence site to avoid inadvertent effects
110754	Undetermined	Direct	Direct	Direct	
171042	Undetermined	Direct	Direct	Direct	
171043	Undetermined	Direct	Direct	Direct	
171357	Yes	Direct	Inadvertent	Direct	Fence site to avoid inadvertent effects
82281	Yes	Direct	Direct	Direct	
110760	Undetermined	Direct	Direct	Direct	
82277	No	No effect	No effect	No effect	
171376	Yes	Direct	Direct	Direct	
110762	Yes	Direct	Direct	Direct	
82282	Yes	No effect	No effect	No effect	
171364	Yes	No effect	No effect	No effect	
171365	Yes	Direct	Direct	Direct	
171363	Yes	No effect	No effect	No effect	
171367	Yes	Direct	Direct	Direct	
171374	Yes	No effect	No effect	No effect	Fence activity to ensure no effects
171366	Undetermined	No effect	No effect	No effect	Fence site to ensure no effects
13121	Yes	Direct	Direct	Direct	
110764	No	No effect	No effect	No effect	
110752	No	No effect	No effect	No effect	
171369	Undetermined	No effect	No effect	No effect	
110756	Yes	No effect	Direct	No effect	
171368	Undetermined	No effect	No effect	No effect	
110763	Yes	No effect	No effect	No effect	

NATIONAL HISTORIC PRESERVATION ACT
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If you have any questions or concerns, please contact David V. Legare, BLM Archaeologist, at (575) 525-4398 or by e-mail at dlegare@blm.gov.

Thank you for your time in consideration of this issue.

Sincerely,



Bill Childress
District Manager

3 Enclosures

L0310:DLegare:cp:9/11/2014:x4375:CopperFlat.NMCC.EffectsLtr

NATIONAL HISTORIC PRESERVATION ACT
SECTION 106 COMPLIANCE CORRESPONDENCE



Susana Martinez
Governor

STATE OF NEW MEXICO
**DEPARTMENT OF CULTURAL AFFAIRS
HISTORIC PRESERVATION DIVISION**

BATAAN MEMORIAL BUILDING
407 GALISTEO STREET, SUITE 236
SANTA FE, NEW MEXICO 87501
PHONE (505) 827-6320 FAX (505) 827-6338

RECEIVED
LAS CRUCES DISTRICT OFFICE
2014 JUN 26 PM 1:04
LAS CRUCES, NM 87901

June 24, 2014

Mr. David Legare
Bureau of Land Management
Las Cruces District Office
1800 Marquess St.
Las Cruces, NM88005

Dear Mr. Legare,

On behalf of the New Mexico State Historic Preservation Officer (SHPO) I have am writing to provide concurrence with the Bureau Land Managements' (BLM) finding of an adverse effect for the New Mexico Copper Corporation's Copper Flat Mine project (HPD log 99329).

The SHPO is looking forward to developing either a Programmatic Agreement (PA) or a Memorandum of Agreement to resolve the adverse effect.

If you have any questions or comments, please feel free to call me directly at (505) 827-4225 or email me at bob.estes@state.nm.us.

Sincerely,

A handwritten signature in blue ink that reads "Bob Estes".

Bob Estes

NATIONAL HISTORIC PRESERVATION ACT
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include an open-pit mine, tailings piles, impoundment areas, equipment yards, roads, and a variety of supporting infrastructure, and it has the potential to adversely affect numerous archaeological sites defined as historic properties under the National Historic Preservation Act (NHPA). The Copper Flat Mine permit area (MPA) includes 2,200 acres (approximately 900 acres of private land and 1,300 acres administered by the BLM). The project will be completed entirely with private funds. This proposed mine area is at the core of a larger mining district that covered a much larger area.

The BLM Las Cruces District is serving as the lead review agency for the purposes of Section 106 of the NHPA for the reopening of the mine and supports the creation of this historic district.

BLM Archaeologist, David V. Legare, made the findings and recommendations in this report. If you have any questions or concerns, please contact Mr. Legare at (575) 525-4398 or by e-mail at dlegare@blm.gov.

Another copy of the report has been submitted to the New Mexico State Land Office for review.

Thank you for your time in consideration of this issue.

Sincerely,



Bill Childress
District Manager

1 Enclosure

Concur with recommendation of
eligibility and/or effects as proposed
S. Makofeld 11/04/2016
for NM State Historic Preservation Office



APPENDIX L

NATIONAL HISTORIC PRESERVATION ACT
PROGRAMMATIC AGREEMENT

**APPENDIX L:
NATIONAL HISTORIC PRESERVATION ACT
PROGRAMMATIC AGREEMENT**

Programmatic Agreement for the Copper Flat Mine

BLM-MOU-NM-L0000-1701

**PROGRAMMATIC AGREEMENT
AMONG
BUREAU OF LAND MANAGEMENT, LAS CRUCES DISTRICT OFFICE,
NEW MEXICO STATE HISTORIC PRESERVATION OFFICER,
NEW MEXICO STATE LAND OFFICE, AND
THEMAC RESOURCES GROUP LIMITED/NEW MEXICO COPPER CORPORATION
REGARDING
RESOLUTION OF ADVERSE EFFECTS TO HISTORIC PROPERTIES
FROM THE COPPER FLAT MINE, HILLSBORO, NEW MEXICO**

WHEREAS, New Mexico Copper Corporation (NMCC), a wholly-owned subsidiary of THEMAC Resources Group Limited, proposes to reestablish a poly-metallic mine and processing facility partially located on public lands owned by the United States of America and administered by the Bureau of Land Management (BLM), and has submitted a proposed mine plan of operations (MPO) to the BLM Las Cruces District Office; and

WHEREAS, the undertaking consists of the BLM authorizing implementation of the MPO pursuant to the General Mining Law of 1872 (30 U.S.C. §§22-42), which would include the construction, operation, and reclamation of the Copper Flat Mine and associated infrastructure and ancillary facilities. BLM's authorization also conforms with the BLM Surface Management Regulation (43 CFR Part 3809), the Mining and Minerals Policy Act of 1970, as amended (30 U.S.C. §21 et seq.), and the Federal Land Policy and Management Act of 1976 (43 U.S.C. §1761); and

WHEREAS, the BLM serves as the lead federal agency for compliance with the National Environmental Policy Act (NEPA) (42 U.S.C. §§4321-4347) and Section 106 of the National Historic Preservation Act (NHPA), as amended (54 U.S.C. §306108) for the undertaking, and the BLM has considered three action alternatives (the Proposed Action at 17,500 tons per day [tpd], Alternative 1 – Accelerated Operations at 25,000 tpd, and Alternative 2 – Accelerated Operations at 30,000 tpd) in the Copper Flat Mine Environmental Impact Statement (EIS); and

WHEREAS, the MPO details the construction, operation, and reclamation of an open pit mine, flotation mill, tailings impoundment, waste rock disposal areas, a low-grade ore stockpile, and other ancillary facilities; and

WHEREAS, the BLM has defined the undertaking's Area of Potential Effects (APE) pursuant to the requirements of 36 CFR 800.4(a)(1) as the area within which direct or indirect physical impacts to historic properties could occur as a result of land disturbance, vibrations, changes to erosion patterns, inadvertent damage, and vandalism/illegal artifact collecting (see Attachment 1, attached hereto and incorporated by reference, which defines the extent of the APE); and

WHEREAS, the BLM has conducted Class I archival records search, Class III archaeological survey, and tribal consultation to identify cultural resources within the APE pursuant to the requirements of 36 CFR 800.4(b), and in consultation with the New Mexico State Historic Preservation Officer (SHPO) has evaluated the cultural resources within the APE for their eligibility to the National Register of Historic Places (National Register) under 36 CFR Part 63, pursuant to the requirements of 36 CFR 800.4(c); and

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WHEREAS, the BLM has applied the criteria of adverse effect found in 36 CFR 800.5(a)(2) to historic properties within the APE and has determined that the undertaking will have an adverse effect on 38 to 45 archaeological and architectural properties (depending on the Preferred Alternative selected by the BLM in the NEPA record of decision) that are eligible for the National Register, are of undetermined eligibility, or are contributing properties to the Animas Hills Mining Historic District, and these properties are listed in Attachment 2 (attached hereto and incorporated by reference); and

WHEREAS, the BLM consulted on its determination of effect for the undertaking with the SHPO, pursuant to the requirements of 36 CFR 800.5(a); and

WHEREAS, the BLM has consulted on the resolution of adverse effects on historic properties pursuant to 36 CFR 800.6; and

WHEREAS, the regulations at 36 CFR 800.6(c)(1-3) recognize three types of signatories to this agreement: Signatories, Invited Signatories, and Concurring Parties, which are referred to collectively as the Parties. Signatories and Invited Signatories may include any party who assumes responsibilities under this agreement. Concurring Parties have a demonstrated interest in the undertaking or its effects on historic properties, but do not assume responsibilities under the agreement. Concurring Parties may participate in development of the agreement and may concur with this agreement; and

WHEREAS, the BLM has notified the Advisory Council on Historic Preservation (ACHP) of the undertaking's adverse effect on historic properties, in accordance with 36 CFR 800.6(a)(1), and invited the ACHP to participate in the development of the PA per 36 CFR 800.6(a)(1)(i)(C), and the ACHP has chosen to *not participate* in the consultation; and

WHEREAS, the BLM has consulted with the SHPO during development of this PA and the SHPO is a Signatory to this PA under 36 CFR 800.6(c)(1)(i); and

WHEREAS, in the event BLM approves Alternative 2, the undertaking will be located partially on land administered as State Trust by the New Mexico State Land Office (NMSLO) and the BLM has consulted with the NMSLO in accordance with 36 CFR 800.3(f) regarding the effect of the undertaking on historic properties located on New Mexico State Trust land within the APE, and has invited the NMSLO to sign this PA as an Invited Signatory under 36 CFR 800.6(c)(2)(iii) because NMSLO shall oversee agreed-upon stipulations on NM State Trust Land; and

WHEREAS, the BLM has consulted with NMCC on the undertaking and in the development of this PA in accordance 36 CFR 800.2(c)(4) and 36 CFR 800.6(a)(2), and has been invited by the BLM to sign this PA as an Invited Signatory under 36 CFR 800.6(c)(2)(iii); and

WHEREAS, the BLM has made a reasonable and good faith effort to identify, notify, and seek government-to-government consultation with federally-recognized Indian Tribes that have religious or cultural ties to the APE, or whose ancestors had historic or prehistoric religious or cultural ties to the APE, and may attach religious or cultural significance to historic properties that may be affected by the undertaking under 36 CFR 800.2(c)(2)(ii); and

WHEREAS, the BLM contacted the Comanche Indian Tribe, Fort Sill Apache Tribe, Hopi Tribe, Isleta Pueblo, Kiowa Tribe, Mescalero Apache Tribe, Navajo Nation, White Mountain Apache Tribe, Ysleta del Sur Pueblo, and Zuni Pueblo regarding the undertaking, and the Hopi Tribe indicated to the BLM an interest to continue consultation regarding the undertaking; and

Programmatic Agreement for the Copper Flat Mine

WHEREAS, the Hopi Tribe has consulted on the undertaking and the development of this PA in order to avoid adverse effects to historic properties to the extent practicable, and minimize and mitigate adverse effects that cannot be avoided, and has been invited by the BLM to sign this PA as a Concurring Party under 36 CFR 800.6(c)(3); and

WHEREAS, the New Mexico Energy, Minerals, and Natural Resources Department (Mining and Minerals Division [MMD]) is responsible for review and issuance of a mine permit for the undertaking, and the BLM has consulted with MMD regarding the effects of the undertaking on historic properties, and has invited them to sign this PA as a Concurring Party under 36 CFR 800.6(c)(3); and

WHEREAS, the BLM has made appropriate efforts to involve the public and other interested parties early in the federal decision-making process by notifying them of the undertaking and its effects through the NEPA process and providing them with information on opportunities to comment on the analysis presented in the EIS, including at several public meetings, as required by the Council on Environmental Quality's NEPA regulations (40 CFR 1506.6), and these efforts have included information on the BLM's analysis and determination of the undertaking's effect on historic properties pursuant to the requirements of 36 CFR 800.2(d), and the BLM has considered the public's input in the development of this PA;

NOW, THEREFORE, the BLM, SHPO, NMSLO, and NMCC agree that the undertaking will be implemented in accordance with the following stipulations in order to take into account and resolve the effect of the undertaking on historic properties.

STIPULATIONS

NMCC is responsible for complying with the conditions set forth in the final MPO, other applicable permits for the undertaking, and this PA, and the BLM shall require NMCC to implement the construction, operation, and reclamation of the undertaking in accordance with the stipulations of this PA through the terms and conditions of the final MPO. The PA will become a binding condition in the MPO and will be applicable to any successors or assigns to the MPO.

The provisions of this PA will commence upon the BLM's issuance of a Record of Decision for the EIS that selects an action alternative (Proposed Action, Alternative 1, or Alternative 2). Implementation of the mitigation actions in Stipulation VI will begin after the BLM's approval of the final MPO.

BLM shall ensure that the following stipulations are enforced and carried out:

I. DEFINITIONS

Unless defined differently in this PA, all terms are used in accordance with 36 CFR 800.16. "Days" refers to calendar days.

II. PROFESSIONAL REQUIREMENTS

A. Professional Qualifications

1. All cultural resource work carried out pursuant to this PA will be carried out by or under the direct supervision of qualified individuals meeting the federal qualifications in the discipline appropriate to the properties being treated, as established by the

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Programmatic Agreement for the Copper Flat Mine

Secretary of the Interior and previously published in 36 CFR Part 61, Appendix A.

2. For cultural resource work carried out on State Trust land or private land, qualified individuals shall also meet the New Mexico state standards in the discipline appropriate to the properties being treated, as established in 4.10.8 New Mexico Administrative Code (NMAC) and 4.10.11 NMAC.

B. Laws, Regulations, Statutes, and Rules

1. All cultural resource work carried out pursuant to this PA will be consistent with the NHPA (54 U.S.C. §300101 et seq.), and will be conducted under applicable Federal and state permits.
2. Cultural resource work carried out on BLM-administered land will be consistent with the Archeological Resources Protection Act (ARPA) (16 U.S.C. §470aa-mm; 36 CFR Part 296) and Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. §3001 et seq.; 43 CFR Part 10). Qualified individuals shall hold the appropriate permit from the BLM to conduct such work.
3. Cultural resource work carried out on State Trust land or private land will be consistent with the New Mexico Cultural Properties Act (CPA) (Sections 18-6-1 et seq. NMSA 1978), and with New Mexico standards for archaeological survey (4.10.15 NMAC), excavation (4.10.16 NMAC), excavation of unmarked human burials (4.10.11 NMAC), mechanical excavation on private lands (4.10.14 NMAC), and monitoring (4.10.17 NMAC). Qualified individuals shall hold the appropriate permit issued by the Cultural Properties Review Committee (CPRC) to conduct such work.

C. Standards and Guidelines

1. All cultural resource work carried out pursuant to this PA will meet the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 Federal Register 44,716 – 44,742, September 23, 1983).
2. Cultural resource work carried out pursuant to this PA will take into consideration the ACHP's guidance found in *Recovery of Significant Information from Archeological Sites*, the *ACHP Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects*, dated February 23, 2007, and the guidance found in the National Register Bulletin series published by the National Park Service.
3. Cultural resource work carried out pursuant to this PA on BLM-administered land will conform with BLM Manual 8110 – *Identifying and Evaluating Cultural Resources*, BLM Manual 8150 – *Permitting Uses of Cultural Resources*, and BLM Manual Supplement H-8100-1 – *Procedures for Performing Cultural Resource Fieldwork on Public Lands in the Area of New Mexico BLM Responsibilities*.

III. ROLES AND RESPONSIBILITIES

- A. All Signatories and Invited Signatories shall carry out their responsibilities and shall coordinate all actions required under this PA as specified herein.

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B. The BLM shall:

1. Be responsible for administering this PA, adhering to its stipulations, and overseeing the implementation of all mitigation actions contained in the Historic Properties Treatment Plan (HPTP; see Stipulation VI).
2. Conduct all tribal government-to-government consultation, and coordinate all tribal consultation as described in this PA and the HPTP.
3. Assemble and distribute information, notifications, documentation, plans, and reports to the Parties.
4. Coordinate responses to review comments received from the Parties, and oversee incorporation of changes to deliverables.
5. Review and issue appropriate permits for mitigation actions occurring on BLM land.
6. The BLM shall maintain a contact list of the persons authorized to speak for the Parties and shall use this list when making notifications, requests, reports, or other contact under this PA. Any Party may add to or change its authorized contact person(s) by providing written notice of the addition or change to the BLM. The BLM shall provide the current contact list to all Parties of this PA, and shall notify all Parties whenever a contact person is added or changed as provided herein.

C. SHPO shall:

1. Review and provide comment on plans, preliminary reports, and technical reports and deliverables for mitigation actions included in this PA and the HPTP.
2. Coordinate with the CPRC in the review of permit applications for mitigation actions occurring on New Mexico State Trust land and private lands.
3. Advise and assist the BLM in carrying out its NHPA, Section 106 responsibilities with regard to this undertaking.

D. NMSLO shall:

1. Be responsible for overseeing the implementation of mitigation actions on New Mexico State Trust land.
2. Review plans, preliminary reports, and technical reports and deliverables for mitigation actions occurring on New Mexico State Trust land.

E. NMCC shall:

1. Comply with the stipulations, conditions, and mitigation actions set forth in this PA and the HPTP, and any other plans resulting thereof.
2. Be responsible for preparation and implementation of treatment plans, under the oversight of the BLM and NMSLO, as appropriate.

Programmatic Agreement for the Copper Flat Mine

3. Fund, support, assist, and conduct, either directly or through qualified consultants or contractors, the procedures as set forth in this PA and the HPTP, and ensure that all such activities are conducted in a professional manner, consistent with this PA and applicable Federal laws, regulations, New Mexico statutes, and rules.
4. Assist in the preparation and distribution of information, documentation, plans, deliverables, and reports to reviewers, as necessary and as requested by the BLM.
5. Fund and ensure the curation of all archaeological collections/recovered cultural materials resulting from the implementation of this PA and the HPTP, pursuant to Stipulation XIII of this PA.

IV. TRIBAL CONSULTATION PROTOCOLS

- A. The tribal consultation process conducted under NEPA and NHPA for the proposed undertaking will continue under this PA.
- B. The BLM shall afford Tribes, including but not limited to the Hopi Tribe, a reasonable and meaningful opportunity to be involved in the development of treatment plans and the implementation of mitigation actions.
- C. The BLM shall afford Tribes the opportunity to review and comment on any draft plan or report associated with the undertaking, including but not limited to, documentation related to the identification and evaluation of historic properties, the assessment of effects, the evaluation of alternatives to avoid or minimize adverse effects, the development of appropriate mitigation actions, and the disposition and treatment of human remains and funerary objects under NAGPRA and the New Mexico CPA.
- D. Tribes may contact the BLM at any time to request government-to-government consultation and/or confidentiality regarding their concerns about the effects of the undertaking on properties of religious and cultural significance to the Tribes.
- E. Those Tribes who are not already Concurring Parties to this PA are afforded the opportunity to become a Concurring Party at their discretion.
- F. The BLM shall consult with Tribes to agree upon procedures for notifying and consulting with Tribes in the event of a discovery of Native American human remains and/or funerary objects, and shall include these procedures in the appropriate treatment plans described in this PA. All burial sites, human remains, and funerary objects, regardless of affiliation, will be treated with dignity and respect at all times.

V. SCHEDULE FOR IMPLEMENTATION OF ACTIONS

- A. NMCC shall, within 120 days of the BLM's issuance of a Record of Decision that selects one of the action alternatives, provide the BLM with a draft schedule that ensures that required mitigation actions are completed in a timely manner, while minimizing project delays and in compliance with the timelines contained in this PA. The BLM shall distribute the draft schedule to the Parties, who will have 15 calendar days to review and provide comment to BLM.

Programmatic Agreement for the Copper Flat Mine

- B. NMCC shall revise the schedule in accordance with the comments received and in consultation with the BLM. BLM shall distribute the revised schedule to the Parties.
- C. No construction activities will occur in an area of the undertaking until the BLM has issued a Notice to Proceed (NTP) to NMCC. Requests for NTPs will be approved only if such authorizations will not restrict subsequent measures to avoid, minimize, or mitigate the adverse effects to historic properties, as agreed to in this PA and the HPTP. Conditions for issuance of a NTP, pending compliance with all other applicable laws and regulations, are:
 - 1. The BLM may authorize construction to begin on lands under any ownership or jurisdiction for this undertaking where there are no historic properties present.
 - 2. The BLM may authorize construction to begin on lands under any ownership or jurisdiction for this undertaking where all direct effects to historic properties and unevaluated cultural resources will be avoided.
 - 3. The BLM may authorize construction to begin on lands under any ownership or jurisdiction for this undertaking where provisions of this PA and the HPTP have been implemented.

VI. HISTORIC PROPERTIES TREATMENT PLAN

- A. The BLM shall require the NMCC to prepare an HPTP that specifies the steps to be taken to avoid, minimize, or mitigate adverse effects to historic properties resulting from the construction, operation, and reclamation of the Copper Flat Mine and its associated infrastructure. To the extent practicable, effects to historic properties will be avoided or minimized. When adverse effects to historic properties cannot be avoided or minimized, the HPTP shall specify the treatment measures to be implemented at each property. If the HPTP proposes sampling of either individual properties or types of properties, the plan must explain the rationale for the approach and level of effort proposed.
- B. The NMCC shall submit a draft of the HPTP to the BLM for initial review and comments. The BLM shall provide the Parties a copy for review and comments on the adequacy of the proposed treatment measures. The Parties will have 60 calendar days to review and provide comments. If no comments are received by the BLM within the 60-calendar-day review period, concurrence with the draft HPTP will be assumed. If comments are received, the BLM shall ensure that all comments are taken into consideration in finalizing the HPTP and the BLM shall advise the NMCC of the required revisions, which NMCC shall undertake. The BLM in consultation with the SHPO shall approve the final HPTP and shall notify NMCC when the final HPTP has been approved. The final HPTP will be incorporated into this PA as Attachment 3 (attached hereto and incorporated by reference) and will become a binding condition of the MPO.
- C. The HPTP will include measures to address adverse effects to National Register-eligible archaeological and architectural properties through archival research, oral history collection, data recovery, structural studies, Historic American Buildings Survey (HABS)/ Historic American Engineering Record (HAER)/Historic American Landscapes Study (HALS) recording, and public interpretation. The HPTP will include but not be limited to the following elements:

Programmatic Agreement for the Copper Flat Mine

1. Historic Context -- Archival and Oral History Research

- a) Collection of oral history and archival information will be integral to developing a detailed historic context for the project area, and to defining and interpreting the results of archaeological excavation and architectural and engineered feature recording activities. Information collected during the archival research also has the potential to influence the archaeological excavations and architectural and engineered feature recording efforts to be conducted at historic properties within the APE (see Stipulations VI[C][2 and 3] of this PA).
- b) The HPTP will include a description of research efforts to be undertaken to collect archival information and oral history that focuses on the development, expansion, and eventual contraction of historic mining and associated activities on the east slope of the Black Range, particularly in the area of the Animas Hills. Preliminary research will be conducted during preparation of the HPTP to identify the best archives for this research and the nature of the relevant holdings at those archives. The HPTP will include a discussion of the likelihood for such resources to influence the planned archaeological excavations and architectural and engineered feature recording efforts.
- c) A stand-alone technical historic context will be developed:
 - i. The research will utilize existing primary and secondary resources, as well as ethnographic work with Hispanic and Anglo communities and families. Historic mine patents and information relating to mine patents will be researched. Genealogical information will be included as appropriate. Information from other archaeological, architectural, and historical investigations in the area, including investigations conducted under the HPTP, will be included.
 - ii. An annotated Table of Contents for the historic context will be prepared and reviewed by the Parties in accordance with Stipulation VIII(A)(2) of this PA, to guide development of the context.
 - iii. The context will include a discussion of material culture that would aid archaeological and architectural interpretations conducted for this undertaking and for unrelated investigations conducted in the future.
 - iv. An appendix to the historic context will provide an annotated bibliography that also provides information about the archives and materials investigated.
 - v. Hard copies and digital copies (on CD) of the historic context will be made available to interested stakeholders (e.g., area libraries, historic preservation organizations, state and federal agencies). Placement of the context on the websites of preservation organizations and the New Mexico State Records Center and Archives will be explored and implemented where practicable. Distribution will be determined by the BLM in consultation with the Parties.

Programmatic Agreement for the Copper Flat Mine

- d) The historic context will be prepared in accordance with Stipulation VIII(A)(2) of this PA.
- e) NMCC shall conduct the archival and oral history research, and develop, produce, and distribute the historic context, under the oversight and subject to the approval of the BLM.

2. Archaeological Data Recovery

- a) Drawing from the historic context, the HPTP will include a research design and data recovery plan for the National Register-eligible archaeological sites, including at a minimum:
 - i. A research design that specifies research questions appropriate to the properties affected and in the context of the culture history and knowledge of the area and current research gaps. The design will identify data needed to address the research questions, the data recovery approach, which NRHP-eligible sites will be investigated, and the specific work proposed at each site.
 - ii. Archaeological excavation at standing architectural and engineered features will be included where appropriate to collect materials associated with the built environment. Data resulting from these excavations can inform and compliment other information to more fully interpret these types of properties and features.
 - iii. A testing plan for archaeological sites that currently have undetermined National Register-eligibility, in order to determine their eligibility, and the strategy or strategies for incorporating these newly eligible sites into the data recovery plan. The BLM shall consult with the Parties on eligibility following the process in Stipulation XI.
 - iv. The methods and techniques to be used during testing and data recovery excavation for field investigations, collections processing, laboratory analysis, data analysis, and reporting.
 - v. A suspension/termination plan that stipulates procedures to be implemented if the undertaking is halted during implementation of testing and data recovery.
 - vi. Provisions for the custody and curation of recovered cultural materials, in accordance with Stipulation XIII of this PA.
 - vii. A Burial Plan of Action that sets forth procedures for identifying, treating, consulting, curating, and repatriating marked and unmarked burials and graves encountered on BLM, State Trust, or private lands during the undertaking or implementation of the actions in the HPTP.

A. Marked burials or graves are defined as interments that are

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identifiable as such from their surface expression due to traditional or customary marking. This definition will be applied as follows for the undertaking:

1. Within a marked cemetery – a grave with any type of traditional or customary surface marking (e.g., head or foot stone, pile of rocks, boundary) will be treated as a marked grave. Graves that have no discernible surface marking will be treated as unmarked graves.
 2. External to a marked cemetery – a grave that is clearly marked as such (e.g., head or foot stone) will be treated as a marked grave. Graves that require physical investigation of the location to determine if an interment is present, even with some surface marking that is unclear (e.g., pile of rocks), will be treated as unmarked graves.
- B. The Burial Plan of Action will include procedures for treatment of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony discovered on BLM land. Such procedures will be in accordance with the provisions under NAGPRA (25 U.S.C. §3001 et seq.; 43 CFR Part 10).
- C. The Burial Plan of Action will include procedures for treatment of unmarked burials located on State Trust and private lands. Such procedures will be in accordance with the provisions under NAGPRA or the New Mexico CPA (§18-6-11.2 NMSA 1978; implementing rule at 4.10.11 NMAC), as appropriate.
- D. The Burial Plan of Action will include permitting requirements and procedures for determining ultimate disposition of remains and objects in accordance with Stipulation XIII of this PA, NAGPRA (25 U.S.C. §3001 et seq.; 43 CFR Part 10), and New Mexico CPA (§18-6-11.2 NMSA 1978; implementing rule at 4.10.11 NMAC).
- b) Information collected during the archival research has the potential to influence the archaeological efforts to be conducted at historic properties within the APE. In addition, archaeological excavations at one site could influence the efforts conducted at other sites. The HPTP will address the likelihood and types of influences that are possible and how the changes will be incorporated into the excavation plans.
- c) Information collected as a result of archival research and architectural and engineered feature recording (see Stipulations VI[C][1 and 3]) will be combined with the results of the archaeological work to help understand the historic properties within the APE.

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- d) NMCC shall complete the testing and data recovery fieldwork at an archaeological property prior to the commencement of construction activities within 200 feet of that archaeological property. Completion of fieldwork is attained when all planned field activities at the archaeological property, as detailed in the HPTP, have been accomplished and the preliminary field report for that work has been accepted as final by the BLM, as described in Stipulation VIII(A)(1) of this PA.

3. Architectural and Engineered Features Recording

- a) Architectural and engineered features will be adversely affected through land disturbance or vibrations during implementation of the undertaking. The HPTP will include measures to address these effects through documentation.
- b) The HPTP will identify and describe the types of documentation that will be prepared and the specific properties that will be documented. Documentation will include recording of architectural features at a modified HABS Level II/III (for standing buildings), and for engineered features a modified HAER Level III that agrees with New Mexico Historic Preservation Division requirements. HALS Level III recording will be implemented for the mining district as a whole.
- c) The HPTP will consider the appropriateness of conducting additional types of studies of the architectural and engineered features, such as vibratory studies and engineering analyses. Archaeological investigations at these features or the properties of which they are a part will also be considered and described in the HPTP.
- d) Information collected during the archival research and the archaeological investigations conducted at sites with architectural and engineered features has the potential to influence the recording efforts to be implemented at these properties within the APE. The HPTP will address the likelihood and types of influences that are possible and how the changes will be incorporated into the recording plans.
- e) Information collected as a result of archival research and archaeological excavation (see Stipulations VI[C](1 and 2)) will be combined with the architectural and engineered feature recordings to help understand these properties.
- f) NMCC shall complete the architectural recording prior to the commencement of construction activities within 200 feet of the historic architectural property. Completion of recording is attained when the recording materials have been accepted as final by the BLM, as described in Stipulation VIII(A)(1) of this PA.

4. Public Interpretive Materials

- a) NMCC shall develop and produce interpretive materials for distribution to the public based on the findings arising from the other work conducted as part of

Programmatic Agreement for the Copper Flat Mine

the HPTP. The materials could include pamphlets, popular reports, interpretive displays, or outdoor signage. The specific nature of the interpretive materials will be described in the HPTP.

- b) The NMCC shall develop the interpretive materials in accordance with Stipulation VIII(A)(2) of this PA, under the oversight and subject to the approval of the BLM.
- c) NMCC shall distribute the interpretive materials to area libraries, historic preservation organizations, and relevant state and federal agencies, as appropriate. Placement of the materials on the websites of historic preservation organizations and the New Mexico State Records Center and Archives will be explored and implemented where practicable.
- d) NMCC shall prepare and conduct a presentation in Hillsboro regarding the cultural resource and historical investigations conducted under this PA and the results. The presentation will be developed in accordance with Stipulation VIII(A)(2) of this PA. The presentation will be advertised using methods similar to advertising for a public meeting.
- e) NMCC shall conduct the same presentation for the Sierra County Historical Society in Truth or Consequences. This presentation will also be advertised using methods similar to advertising for a public meeting.

5. Fencing

- a) Any historic property located near construction, operation, or reclamation activities will require installation of site protective fencing for the duration of the undertaking to prevent inadvertent affects to the historic property. The HPTP shall include protocols and procedures for determining, installing, and removing fencing where needed, and requirements for inspection and repair.
- b) For properties that will be completely destroyed by the undertaking, fencing will not be required.
- c) NMCC shall install and maintain required fencing in accordance with the HPTP.
- d) NMCC shall remove historic property fencing in accordance with the HPTP after reclamation activities have been completed, upon direction from BLM.

6. Monitoring

- a) Monitoring is an integral element of mitigation and will be conducted as a means of ensuring property protection methods are effective. Monitoring will be conducted to identify previously unrecorded cultural materials and previously unanticipated affects to historic properties. The HPTP will include the procedures to be implemented to conduct monitoring of this undertaking.

Programmatic Agreement for the Copper Flat Mine

- b) Two types of monitoring will be conducted: activity-specific monitoring and long-term condition monitoring. Activity-specific monitoring will be conducted for ground-disturbing activities occurring during the construction, operation, and reclamation stages of the undertaking. Long-term condition monitoring will be conducted to monitor the effectiveness of protection strategies (e.g., historic property fencing, erosion control devices).
- c) The HPTP will include the requirements for reporting monitoring activities.
- d) Discoveries of previously unrecorded cultural materials or previously unanticipated affects to historic properties will be treated in accordance with the HPTP and Stipulations XI and XII of this PA.
- e) NMCC shall implement monitoring and associated reporting responsibilities, under the oversight and subject to the approval of the BLM.

7. Unanticipated Discoveries of Properties and Effects

- a) The HPTP will include the procedures to be implemented in the event that potential historic properties are discovered, or unanticipated effects to historic properties are found, or human remains, suspected human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during implementation of the undertaking, to include during archaeological excavation, historic property fencing, monitoring, mine facility construction, mine operation, and reclamation.
 - i. The procedures to be followed in the event of a discovery and described in the HPTP will include notification, planning, fieldwork, analysis, treatment, disposition, and reporting requirements.
 - ii. In the event that human remains are discovered, the procedures in the HPTP's Burial Plan of Action, described in this PA at Stipulation VI(C)(1)(a)(vi), will be implemented. These procedures will ensure compliance with NAGPRA (25 U.S.C. §3001 et seq.; 43 CFR Part 10) and the New Mexico CPA (§18-6-11.2 NMSA 1978; implementing rule at 4.10.11 NMAC), as appropriate.
- b) Any evaluations of eligibility necessitated by the discovery will be conducted in accordance with Stipulation XI of this PA. Any assessments of effect to historic properties necessitated by the discovery will be conducted in accordance with Stipulation XII of this PA.
- c) NMCC shall develop treatment plans and reporting for discoveries, and BLM shall consult with the Parties regarding the plans and reports, in accordance with the HPTP and Stipulations VII and VIII of this PA.
- d) NMCC shall implement the unanticipated discoveries procedures, under the oversight and subject to the approval of the BLM.

Programmatic Agreement for the Copper Flat Mine

VII. PLAN DEVELOPMENT

- A. Development, consultation, and review for the HPTP, as well as additional plans that result from monitoring, unanticipated discoveries, and changes to the undertaking, will abide by the following procedures.
1. Plans will be developed in consultation with the Parties. NMCC shall develop the plans, under the oversight of the BLM, and the BLM shall facilitate the consultation.
 2. Drafts of all plans will be distributed by the BLM to the Parties for a review and comment period. The BLM shall determine, based on the complexity of the particular plan, if the review and comment period will be 30 days or 60 days in length. The format for distribution will be hardcopy and electronic to the SHPO and NMSLO, and electronic only to the other Parties.
 3. The BLM shall determine, based on the extent and nature of comments received, how many revisions, if any, are needed for a particular plan. The BLM shall use its discretion to determine if a meeting is needed to address issues raised in the comments.
 4. All comments will be taken into consideration. The BLM shall attempt to resolve any conflicting comments through continued consultations.
 5. The BLM shall ensure that NMCC addresses each comment received. BLM will have the option of requiring NMCC to complete a comment response table for a particular revision. The comment response table will include all comments received and responses to those comments, and will be distributed with the resulting plan revision.
- B. The BLM shall notify the Parties of approval of any plan, and shall provide a copy of the final plan to the Parties. The format for distribution will be hardcopy and electronic to the SHPO and NMSLO, and electronic only to the other Parties.

VIII. REPORTING

- A. Reporting of mitigation actions contained in this PA and the HPTP will conform to the following protocols.
1. Preliminary Field Reports
 - a) NMCC shall prepare preliminary reports describing the completion of fieldwork for site treatments, as described in this PA and the HPTP. Such reports will comply with the standards described in 4.10.16 NMAC, regardless of the land status of the site. Preliminary reports will demonstrate the completion and sufficiency of excavation, or other procedures or site treatments, as described in the HPTP.
 - b) NMCC shall distribute preliminary reports to the BLM, SHPO, and the NMSLO (if work was completed on NMSLO land). The format for distribution will be hardcopy and electronic for each report.

Programmatic Agreement for the Copper Flat Mine

- c) Those three agencies will have 15 days to review the report and either concur that fieldwork is complete or request additional fieldwork. If further work is deemed necessary in order to fulfill the objectives of the HPTP, the three agencies shall consult to determine the nature and scope of that work. The BLM shall notify NMCC of the additional work.
- d) The BLM shall notify NMCC when construction may proceed within 200 feet of the area of completed fieldwork if a timely objection is not made.

2. Technical Reports and Other Deliverables

- a) NMCC shall prepare technical reports and other deliverables describing the results of fieldwork activities, historical research, or other mitigation actions as described in this PA and the HPTP according to the standards and permit guidelines appropriate to the type of resource and the associated land status.
 - b) The BLM shall distribute drafts of all technical reports and other deliverables to the Parties for a review and comment period. The BLM shall determine, based on the complexity of the particular report or deliverable, if the review and comment period will be 30 days or 60 days in length. The format for distribution will be hardcopy and electronic to the SHPO and NMSLO, and electronic only to the other Parties.
 - c) All comments will be taken into consideration. The BLM shall determine, based on the extent and nature of comments received, how many revisions are needed for a particular report or deliverable. The BLM shall use its discretion to determine if a meeting is needed to address issues raised in the comments.
 - d) The BLM shall ensure that NMCC addresses each comment received. BLM will have the option of requiring NMCC to complete a comment response table for a particular revision. The comment response table will include all comments received and responses to those comments, and will be distributed with the resulting report or deliverable revision.
- B. The BLM shall notify the Parties of its "acceptance-as-final" of any preliminary field report or technical report or deliverable. The BLM shall distribute the final version of all technical reports and other deliverables to the Parties. The format for distribution will be hardcopy and electronic to the SHPO and NMSLO, and electronic only to the other Parties.

IX. HISTORIC PROPERTY PROTECTION PROCEDURES

- A. NMCC shall implement procedures during construction, operation, and reclamation of the undertaking to reduce the likelihood for inadvertent direct and indirect effects to historic properties.
- 1. NMCC shall follow best management practices during construction and other surface-disturbing activities, including use of erosion control methods, to minimize the potential for such activities to indirectly affect historic properties.
 - 2. NMCC shall ensure that driving of vehicles and equipment occurs only in areas

Programmatic Agreement for the Copper Flat Mine

identified in the final MPO for development.

- B. NMCC shall implement a program of Cultural Resource Sensitivity Training for its workers, contractors, and subcontractors for the duration of the undertaking.
1. NMCC shall provide cultural resource sensitivity training to all mine personnel, staff, employees, contractors, subcontractors, and all cultural resource professionals (including, but not limited to, archaeologists) operating onsite during construction, operation, and reclamation of the proposed undertaking.
 2. The training will address: the importance of the area's cultural resources, restrictions on areas that personnel are allowed to access, recognizing unanticipated discoveries of cultural materials or human remains, recognizing unanticipated damage to historic properties, procedures to follow in the event of a discovery, and other subjects identified as relevant during the development of the training program.
 3. Discoveries of previously unrecorded cultural materials or human remains and previously unanticipated affects to historic properties will be treated by appropriate personnel (see Stipulation II of this PA) in accordance with the HPTP.
 4. NMCC shall prepare the training session and training materials, under the oversight and subject to the approval of the BLM. NMCC shall develop the training curriculum in accordance with the procedures described in Stipulation VIII(A)(2) of this PA, and in consultation with the Parties. The training session and associated materials will be finalized and ready for implementation prior to BLM-approval of the final MPO.
 5. NMCC shall require those taking the training to sign a form documenting their training and their comprehension of the information presented, and shall keep records of the trainings. NMCC shall provide documentation of the implementation of this training program to the BLM as part of reporting procedures described in Stipulation XV of this PA.
 6. A clause regarding this cultural resource sensitivity training program, its requirements, and the ramifications of violations of procedures designed to protect historic properties in the APE will be included in all relevant contract and subcontract documents issued by NMCC for the undertaking. The clause will also state that contractors and subcontractors will be required to stop work if they discover cultural materials and to avoid known historic properties as appropriate.

X. CHANGES TO THE UNDERTAKING

- A. If NMCC makes modifications of, or additions to, the planned construction, operation, or reclamation of the undertaking, the BLM shall review the proposed plan and the agency's responsibilities under Section 106 of the NHPA and the terms of this agreement to determine if there is a need for changes to the APE or the possibility for additional effects to historic properties.
- B. The BLM shall consult in writing with the SHPO on its determination and provide the SHPO 15 days to review and respond.

Programmatic Agreement for the Copper Flat Mine

1. If the BLM determines, with SHPO concurrence, that no addition to the APE is needed and there is no change to the undertaking's effect on historic properties, the proposed plans may proceed.
 2. If the BLM determines, with SHPO concurrence, that an addition to the APE is required and/or that additional work is necessary to assess the effect of the proposed plans on historic properties, the work will be conducted in accordance with Stipulations XI and XII of this PA.
 - a) Reporting of the work will be conducted in accordance with Stipulation VIII(A)(2) of this PA.
 - b) Newly identified adverse effects will be resolved through development and implementation of a mitigation plan. Development of the plan will be accomplished in accordance with Stipulation VII of this PA.
 - c) Implementation of the modified undertaking will not proceed until new adverse effects have been mitigated and resolved.
 3. If the BLM and the SHPO cannot agree on the determination, the BLM shall follow the dispute resolution procedures found in Stipulation XVIII of this PA.
- C. If at any time NMCC elects to not construct and operate the Copper Flat Mine, NMCC shall notify the BLM in writing and shall implement the termination plans in the HPTP (see Stipulations VI(C)(1)(a)(iv) and VI(C)(2)(b)(iii) of this PA). The BLM shall notify the Parties of the decision.

XI. IDENTIFICATION AND EVALUATION OF ELIGIBILITY

- A. Additional fieldwork, reporting, and consultation to identify and evaluate historic properties may be necessary for completion of requirements in this PA and the HPTP. Efforts to identify and evaluate historic properties for National Register eligibility will be conducted by qualified personnel pursuant to Stipulation II(A) of this PA and in accordance with the appropriate agency review and permits per Stipulation II(B) of this PA.
- B. NMCC shall implement the fieldwork and reporting, under the oversight and subject to the approval of the BLM. BLM shall consult with the land managing agency, SHPO, and the other Parties on the findings and its determinations per Stipulation VIII(A)(2).
 1. If the Parties concur with the BLM's determination of eligibility, or if no written objections are received within the BLM-designated review period, the BLM may proceed.
 2. The BLM shall consult to resolve any objections received regarding determinations of eligibility received in writing within the review period. If the BLM cannot resolve the objection, the BLM shall refer the property in question to the Secretary of the Interior per 36 CFR 800.4(c)(2).

Programmatic Agreement for the Copper Flat Mine

XII. ASSESSMENT OF EFFECT

- A. Additional assessments of the effects of the undertaking on historic properties are anticipated for completion of requirements in this PA and the HPTP.
- B. BLM shall consult with the land managing agency, SHPO, and the other Parties on its assessments of effect, per Stipulation VIII(A)(2) of this PA.
 - 1. If the Parties concur with the BLM's determination of effect, or if no written objections are received within the BLM-designated review period, BLM may proceed.
 - 2. The BLM shall consult to resolve any objections received regarding determinations of effect received in writing within the review period. If the BLM cannot resolve the objection, the BLM shall follow the dispute resolution procedures found in Stipulation XVIII of this PA.
- C. If the BLM determines, through consultation with the Parties, that an effect will be adverse, BLM and NMCC shall evaluate alternatives to avoid or minimize the adverse effect in consultation with the Parties.
- D. If the BLM determines that the adverse effect cannot be avoided, the BLM and NMCC shall develop and consult with the Parties on a mitigation plan pursuant to Stipulation VII of this PA. NMCC shall implement the mitigation plan, under the oversight and subject to the approval of the BLM.

XIII. CURATION OF RECOVERED CULTURAL MATERIALS AND ASSOCIATED RECORDS

- A. The following procedures will be followed for establishing the disposition and curation of cultural materials and associated records recovered as a result of implementation of mitigation actions contained in this PA and HPTP. These procedures do not apply to human remains, associated funerary objects, unassociated funerary objects, sacred objects, and objects of cultural patrimony as defined in NAGPRA (25 U.S.C. §3001 et seq., and amendments; implementing regulations at 43 CFR Part 10) and the New Mexico CPA (§18-6-11.2 NMSA 1978; implementing rule at 4.10.11 NMAC).
 - 1. BLM-Administered Land
 - a) All cultural materials and associated records recovered from BLM-administered land, which do not fall under the purview of NAGPRA nor are subject to State statutes regarding human remains, will remain the custody of the U.S. government. NMCC shall curate such materials and associated records at the Museum of New Mexico, Museum of Indian Arts and Culture in Santa Fe, New Mexico.
 - b) The BLM shall consult with Tribes regarding decisions about appropriate long-term curation methods for cultural materials that embody special characteristics or functions that necessitate a specific process for ritual retirement. This consultation process will be included in the HPTP's Burial Plan of Action as described in Stipulation VI(C)(1)(a)(vi) of this PA.

Programmatic Agreement for the Copper Flat Mine

2. State Trust Land

- a) All cultural materials and associated records recovered from State Trust land, which do not fall under the purview of the burial provisions of the New Mexico CPA or other State statutes regarding human remains, will remain the custody of the New Mexico Commissioner of Public Lands, who shall hold title in trust. NMCC shall curate such materials and associated records, by default, at the Museum of New Mexico, Museum of Indian Arts and Culture per the requirements of 4.10.8 NMAC.
- b) The BLM and NMSLO shall consult with Tribes regarding decisions about appropriate long-term curation methods for cultural materials that embody special characteristics or functions that necessitate a specific process for ritual retirement.

3. Private Land

- a) All cultural materials and copies of associated records recovered from privately-owned land, which do not fall under the purview of the burial provisions of the New Mexico CPA or other State statutes regarding human remains, will, by default, remain the custody of the private landowner and NMCC shall return them to the landowner.
 - i. The private landowner may elect to relinquish custody of the cultural materials to the BLM, as the NHPA Section 106 lead agency, as allowed for under 36 CFR Part 79. Such relinquishment will be documented with a completed Deed of Gift, as found in 36 CFR Part 79, Appendix A, from the private landowner to the BLM. Curation of relinquished cultural materials will be in accordance with Stipulation XIII(A)(1) of this PA.
 - ii. The private landowner may elect to relinquish custody of the cultural materials directly to the Museum of New Mexico, as allowed under the *Procedures Manual for Submission of Archaeological Artifact and Records Collections* (Museum of Indian Arts and Culture, 2002). Such relinquishment will be documented with a completed Deed of Gift, as found in Appendix A of the manual, from the private landowner to the Museum of New Mexico, and will require approval of acceptance of the cultural materials by the Museum of New Mexico Board of Regents.
 - iii. In the case of (i) and (ii) above, the BLM shall consult with Tribes regarding decisions about appropriate long-term curation methods for cultural materials that embody special characteristics or functions that necessitate a specific process for ritual retirement. Although the materials were recovered from privately-owned land, this consultation process will follow the procedures described in the HPTP's Burial Plan of Action as described in Stipulation VI(C)(1)(a)(vi) of this PA.

Programmatic Agreement for the Copper Flat Mine

- b) The original of the associated records shall, in all instances, be curated by NMCC at the Museum of New Mexico, Museum of Indian Arts and Culture.
- B. The Burial Plan of Action in the HPTP will include specific provisions for determining and implementing the custody, treatment, disposition, and curation of Native American and non-Native American human remains, associated funerary objects, unassociated funerary objects, sacred objects, and objects of cultural patrimony in accordance with NAGPRA (25 U.S.C. §3001 et seq., and amendments; implementing regulations at 43 CFR Part 10), the New Mexico CPA (§18-6-11.2 NMSA 1978; implementing rule at 4.10.11 NMAC), and other State statutes regarding human remains. NMCC shall implement these provisions, under the oversight and subject to the approval of the BLM.
- C. NMCC shall curate at the Museum of Indian Arts and Culture, or return to the private landowner, as appropriate, cultural materials within 6 months of acceptance by the BLM of the final technical report that addresses the subject cultural materials.

XIV. CONFIDENTIALITY

- A. Section 304 of the NHPA provides that the head of a Federal agency may withhold from public disclosure information regarding the location, character, or ownership of a historic property when disclosure may cause a significant invasion of privacy, risk harm to the historic property, or impede the use of a traditional religious site by practitioners. The Archaeological Resources Protection Act (ARPA; 16 U.S.C. § 470hh; 43 CFR 7.18) provides that information concerning the nature and location of any archaeological resource for which the excavation or removal requires a permit or other permission may not be made available to the public unless the Federal land manager concerned determines that such disclosure would not create a risk of harm to such resources or to the site at which such resources are located.
- B. Consistent with Section 304 of the NHPA and the ARPA, cultural resources data obtained in association with the proposed undertaking will be treated as confidential by all Parties, except as otherwise required by law. The Signatories to this PA shall determine what information may be released to the other Parties in furtherance of compliance with the terms of this PA.
- C. To the extent allowed by state statute, information on the location of archaeological resources will be held confidential as provided by the New Mexico CPA (§18-6-11.1 NMSA 1978).

XV. PERFORMANCE MONITORING AND REPORTING

Each year following execution of this PA, until it expires or is terminated, the BLM shall provide all Parties to this PA a summary report detailing work undertaken pursuant to the terms of this PA. Such report will include mitigation efforts conducted and their results, any scheduling changes proposed, any problems encountered, and any disputes or objections received in BLM's efforts to carry out the terms of this PA. NMCC shall assist the BLM with preparation of the annual report, as requested by the BLM.

XVI. TERM OF AGREEMENT

- A. This PA will remain in effect for 25 years from the date of execution hereof, unless the PA is terminated earlier in accordance with Stipulation XIX of this PA or amended to continue longer in accordance with Stipulation XVII of this PA. The BLM shall ensure that the Parties

Programmatic Agreement for the Copper Flat Mine

re-evaluate the PA every five (5) years, and that any amendments to this PA will be made in consultation with the Parties in accordance with the amendment process describe herein (see Stipulation XVII).

- B. If the undertaking goes into hiatus, and is reactivated at a later time, this PA will remain in effect for the undertaking provided the Copper Flat Mine is still operating under the same MPO. Under these conditions, there will be no requirement to revise this PA.
- C. In the event that there is an amendment to the existing MPO, the BLM shall determine if the amendment constitutes a change in the effect to historic properties for the undertaking, per Stipulation X of this PA, and if it could require an amendment to the PA or a new PA.

XVII. AMENDMENT

- A. Any Signatory or Invited Signatory to this PA may request that the other Signatories and Invited Signatories consider amending the agreement if circumstances change over time and warrant revision of the stipulations of this agreement. Except in the case of amendments addressing resolution of disputes pursuant to Stipulation XVIII of this PA, amendments will be executed in writing and will be signed by all Signatories and Invited Signatories in the same manner as the original PA.
- B. During the amendment process, the undertaking will proceed as described in the MPO and the existing PA will remain in force.

XVIII. DISPUTE RESOLUTION

- A. Should any Signatory, Invited Signatory, or Concurring Party to this PA object at any time to any actions proposed or the manner in which the terms of this PA are implemented, the BLM shall consult with such Party to resolve the objection. If the BLM determines that such objection cannot be resolved, the BLM shall:
 - 1. Forward all documentation relevant to the dispute, including the BLM's proposed resolution to the ACHP. The ACHP shall provide the BLM with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the BLM shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories, and concurring parties, and provide them with a copy of this written response. The BLM shall then proceed according to its final decision.
 - 2. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, the BLM may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the BLM shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the PA, and provide them and the ACHP with a copy of such response.
 - 3. The BLM's responsibility to carry out all other actions subject to the terms of this PA that are not the subject of the dispute will remain unchanged.

Programmatic Agreement for the Copper Flat Mine

XIX. TERMINATION

- A. Any Signatory or Invited Signatory to this PA may initiate termination by providing written notice to the other Signatories and Invited Signatories of their intent.
- B. After notification by the initiating party, the Signatories and Invited Signatories will have 30 days to consult to seek agreement on amendments or any other actions that would address the issues and avoid termination.
- C. In the event of termination, the BLM shall refer to 36 CFR Part 800 to address any remaining adverse effects.

XX. COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS; SEVERABILITY CLAUSE

This PA is subject to all applicable Federal laws, regulations and rules, whether now in force or hereafter enacted or promulgated. Nothing in this PA shall be construed as in any way impairing the general powers of the BLM under such applicable laws, regulations, and rules. If any term or provision of this PA is held to be invalid or illegal, such term or provision shall not affect the validity or enforceability of the remaining terms and provisions. Meeting the terms of this PA shall not excuse any failure to comply with all applicable laws and regulations, whether or not these laws and regulations are specifically listed herein.

XXI. EXECUTION AND COMPLETION OF SECTION 106

- A. Execution of this PA, and implementation of its terms, evidence that the BLM has taken into account the effects of the undertaking on historic properties and afforded the ACHP an opportunity to comment, in accordance with Section 106 of the NHPA and its implementing regulations 36 CFR Part 800, and has satisfied its NHPA Section 106 responsibilities for all actions associated with the undertaking.
- B. In witness whereof, the Parties to this PA, through their duly authorized representatives, have executed this PA on the dates set out below, and certify they have read, understood, and agreed to the terms and conditions of this PA as set forth herein.
- C. The BLM shall distribute copies of this PA and all signed pages to the ACHP, Signatories, Invited Signatories, and Concurring Parties once the PA is executed.
- D. The effective date of this PA is the date of the last Signatory signature affixed to these pages.

Programmatic Agreement for the Copper Flat Mine

SIGNATURE

**PROGRAMMATIC AGREEMENT
AMONG
BUREAU OF LAND MANAGEMENT, LAS CRUCES DISTRICT OFFICE,
NEW MEXICO STATE HISTORIC PRESERVATION OFFICER,
NEW MEXICO STATE LAND OFFICE, AND
THEMAC RESOURCES GROUP LIMITED/NEW MEXICO COPPER CORPORATION
REGARDING
RESOLUTION OF ADVERSE EFFECTS TO HISTORIC PROPERTIES
FROM THE COPPER FLAT MINE, HILLSBORO, NEW MEXICO**

BUREAU OF LAND MANAGEMENT, LAS CRUCES DISTRICT OFFICE (*Signatory*)



William T. Childress, District Manager

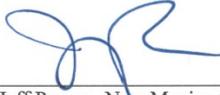
Date: 11/1/16

Programmatic Agreement for the Copper Flat Mine

SIGNATURE

**PROGRAMMATIC AGREEMENT
AMONG
BUREAU OF LAND MANAGEMENT, LAS CRUCES DISTRICT OFFICE,
NEW MEXICO STATE HISTORIC PRESERVATION OFFICER,
NEW MEXICO STATE LAND OFFICE, AND
THEMAC RESOURCES GROUP LIMITED/NEW MEXICO COPPER CORPORATION
REGARDING
RESOLUTION OF ADVERSE EFFECTS TO HISTORIC PROPERTIES
FROM THE COPPER FLAT MINE, HILLSBORO, NEW MEXICO**

NEW MEXICO STATE HISTORIC PRESERVATION OFFICER (*Signatory*)



Date: _____

11/2/16

Jeff Pappas, New Mexico State Historic Preservation Officer

Programmatic Agreement for the Copper Flat Mine

SIGNATURE

**PROGRAMMATIC AGREEMENT
AMONG
BUREAU OF LAND MANAGEMENT, LAS CRUCES DISTRICT OFFICE,
NEW MEXICO STATE HISTORIC PRESERVATION OFFICER,
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REGARDING
RESOLUTION OF ADVERSE EFFECTS TO HISTORIC PROPERTIES
FROM THE COPPER FLAT MINE, HILLSBORO, NEW MEXICO**

NEW MEXICO STATE LAND OFFICE (*Invited Signatory*)

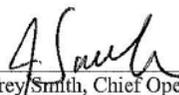
_____ Date: _____
Aubrey Dunn, State Land Commissioner

Programmatic Agreement for the Copper Flat Mine

SIGNATURE

**PROGRAMMATIC AGREEMENT
AMONG
BUREAU OF LAND MANAGEMENT, LAS CRUCES DISTRICT OFFICE,
NEW MEXICO STATE HISTORIC PRESERVATION OFFICER,
NEW MEXICO STATE LAND OFFICE, AND
THEMAC RESOURCES GROUP LIMITED/NEW MEXICO COPPER CORPORATION
REGARDING
RESOLUTION OF ADVERSE EFFECTS TO HISTORIC PROPERTIES
FROM THE COPPER FLAT MINE, HILLSBORO, NEW MEXICO**

THEMAC RESOURCES GROUP LIMITED/ NEW MEXICO COPPER CORPORATION (*Invited Signatory*)



Jeffrey Smith, Chief Operating Officer

Date: 11/9/2016

Programmatic Agreement for the Copper Flat Mine

SIGNATURE

**PROGRAMMATIC AGREEMENT
AMONG
BUREAU OF LAND MANAGEMENT, LAS CRUCES DISTRICT OFFICE,
NEW MEXICO STATE HISTORIC PRESERVATION OFFICER,
NEW MEXICO STATE LAND OFFICE, AND
THEMAC RESOURCES GROUP LIMITED/NEW MEXICO COPPER CORPORATION
REGARDING
RESOLUTION OF ADVERSE EFFECTS TO HISTORIC PROPERTIES
FROM THE COPPER FLAT MINE, HILLSBORO, NEW MEXICO**

HOPI TRIBE (*Concurring Party*)

_____ Date: _____
Herman G. Honanie, Chairman

Programmatic Agreement for the Copper Flat Mine

SIGNATURE

**PROGRAMMATIC AGREEMENT
AMONG
BUREAU OF LAND MANAGEMENT, LAS CRUCES DISTRICT OFFICE,
NEW MEXICO STATE HISTORIC PRESERVATION OFFICER,
NEW MEXICO STATE LAND OFFICE, AND
THEMAC RESOURCES GROUP LIMITED/NEW MEXICO COPPER CORPORATION
REGARDING
RESOLUTION OF ADVERSE EFFECTS TO HISTORIC PROPERTIES
FROM THE COPPER FLAT MINE, HILLSBORO, NEW MEXICO**

NEW MEXICO ENERGY, MINERALS, & NATURAL RESOURCES DEPARTMENT (*Concurring Party*)



Tony Delfin, Acting Cabinet Secretary

Date: 11-30-16

Programmatic Agreement for the Copper Flat Mine

Attachment 1

**Copper Flat Mine
Area of Potential Effects**

The BLM determined that the proposed Copper Flat Mine would have the potential to adversely affect historic properties through direct and indirect physical impacts to such properties from mine activities.

The Area of Potential Effect (APE) for this undertaking consists of the areas within which direct land disturbance from construction, operations, and reclamation activities are planned to occur, as well as exploration activities which are defined as potentially occurring anywhere within the mine permit area. This APE also consists of those areas within which there is the potential for indirect impacts, including changes to erosion patterns, inadvertent damage, vandalism, and illegal artifact collecting. For the Proposed Action and Alternative 1, the extent for these types of impacts is the same and consists of the area within the mine permit area, associated water supply pipeline and well field, and millsite claims. For Alternative 2, the extent includes these same areas, plus the area of a new substation proposed for State Trust Land.

The APE also consists of areas where vibrations from blasting, drilling, or heavy equipment traffic could potentially impact resources. Critical distances for ground-borne vibrations are established in the noise analysis in Section 3.21 of the Copper Flat Mine environmental impact statement. Blasting, and the associated blast hole drilling for placement of explosives, both of which would be confined to the open pit, could impact extremely fragile historic buildings and ruins within 792 feet. Heavy equipment traffic and exploration drilling, which would occur throughout the mine site project area, could impact such resources within 42 feet. The extent for this type of impact would be the same for the Proposed Action and the two action alternatives. The APE for vibration impacts under the Proposed Action and both action alternatives includes the area within the mine permit area, plus a small area located outside the mine permit area southwest of the open pit.

Figure 1 illustrates the extent of the APE. Figures 2 through 4 show the development areas within the mine permit area for the Proposed Action, Alternative 1, and Alternative 2.

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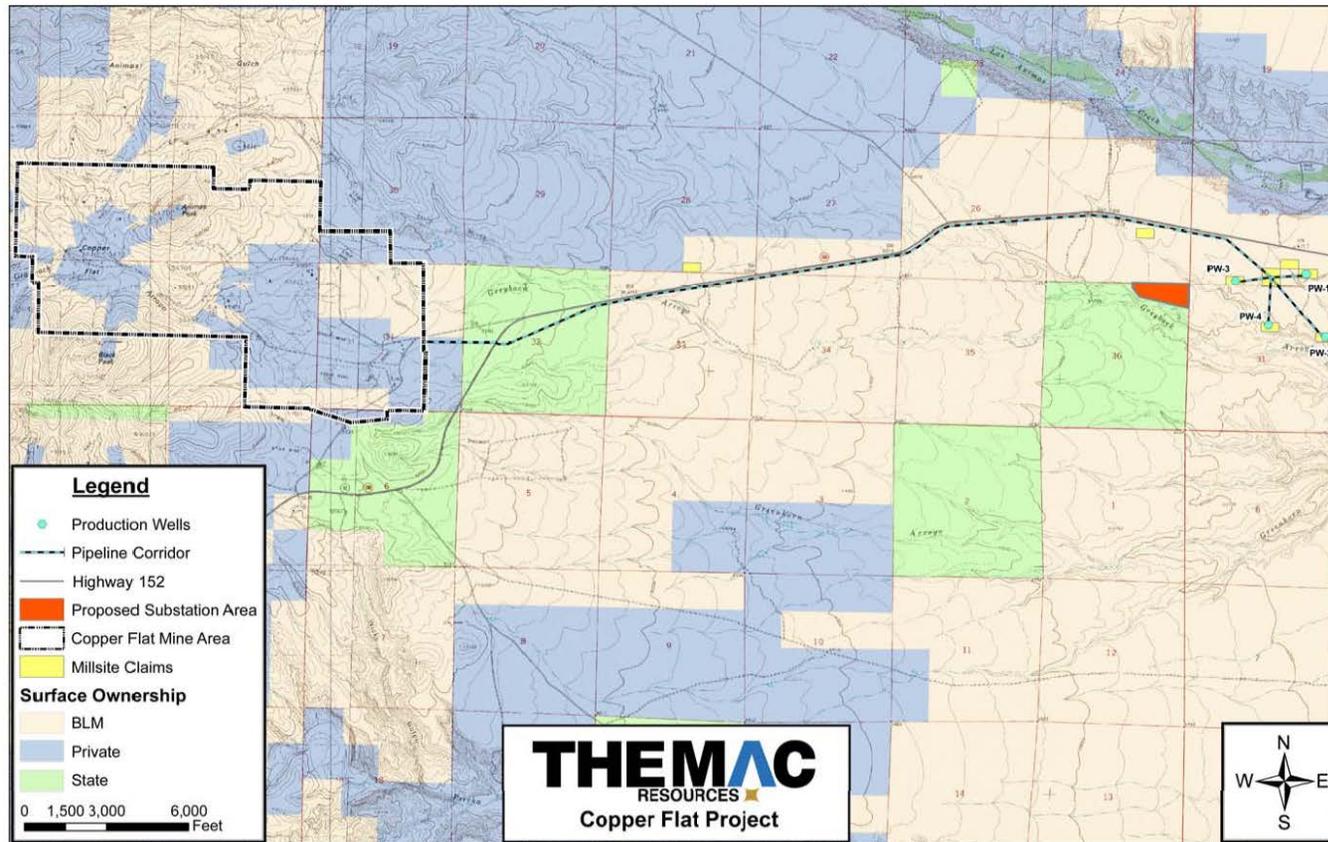


Figure 1. The Area of Potential Effect, which consists of the mine permit area, the water pipeline and wellfield, the millsite claims, and the substation (Alternative 2 only).

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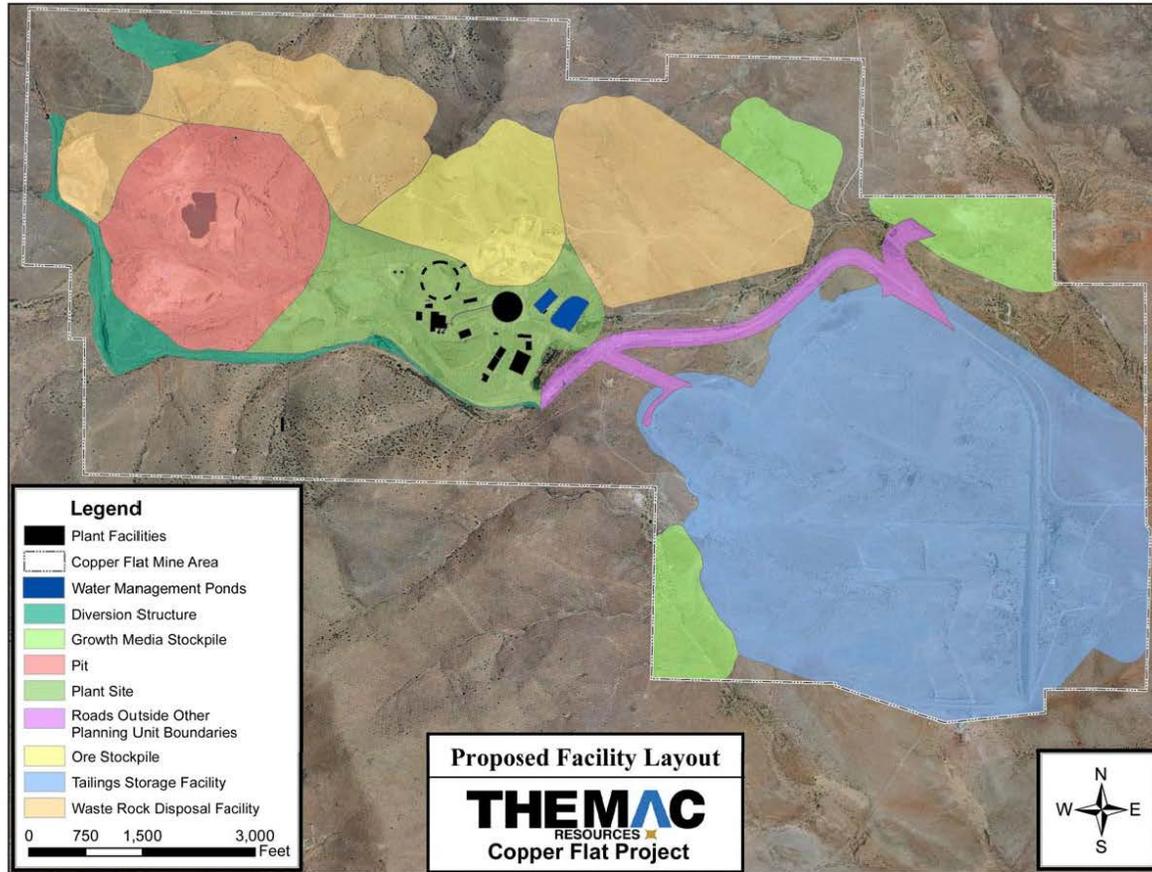


Figure 2. Development areas within the mine permit area under the Proposed Action.

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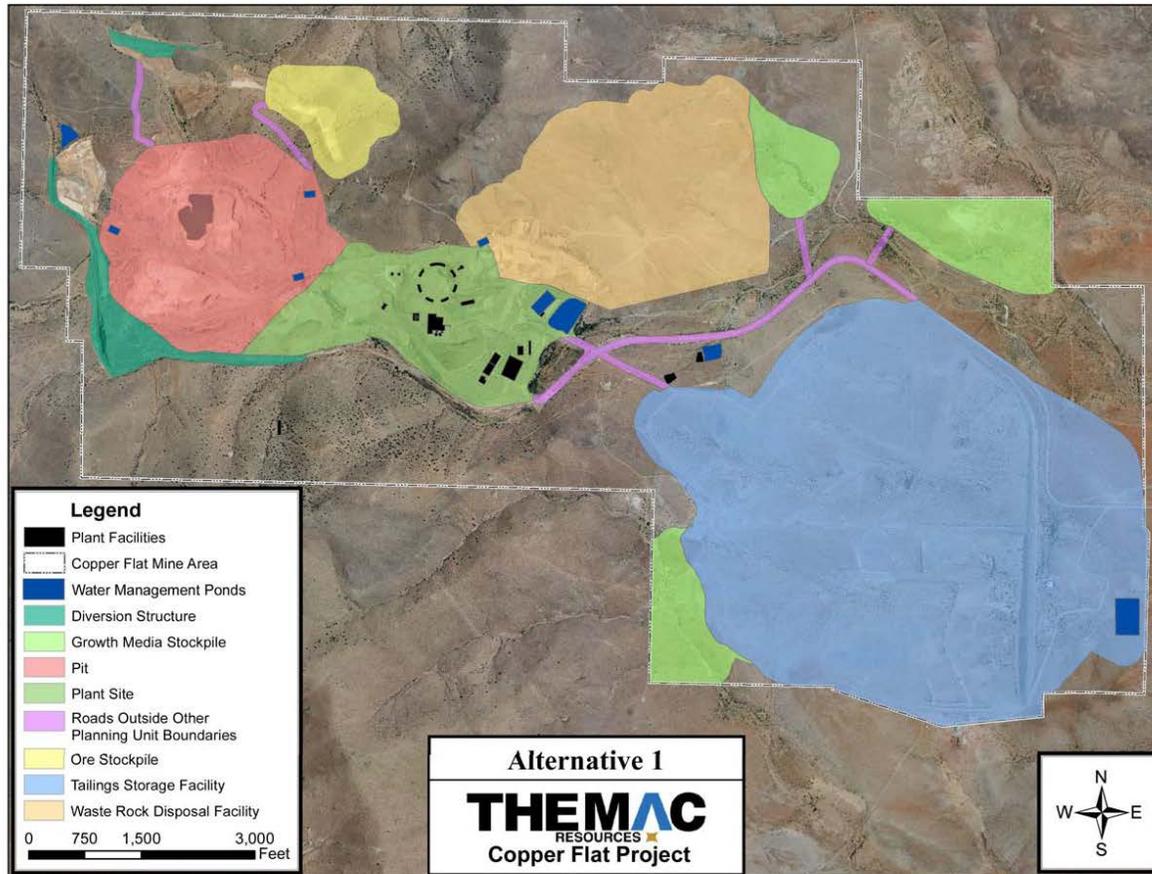


Figure 3. Development areas within the mine permit area under Alternative 1.

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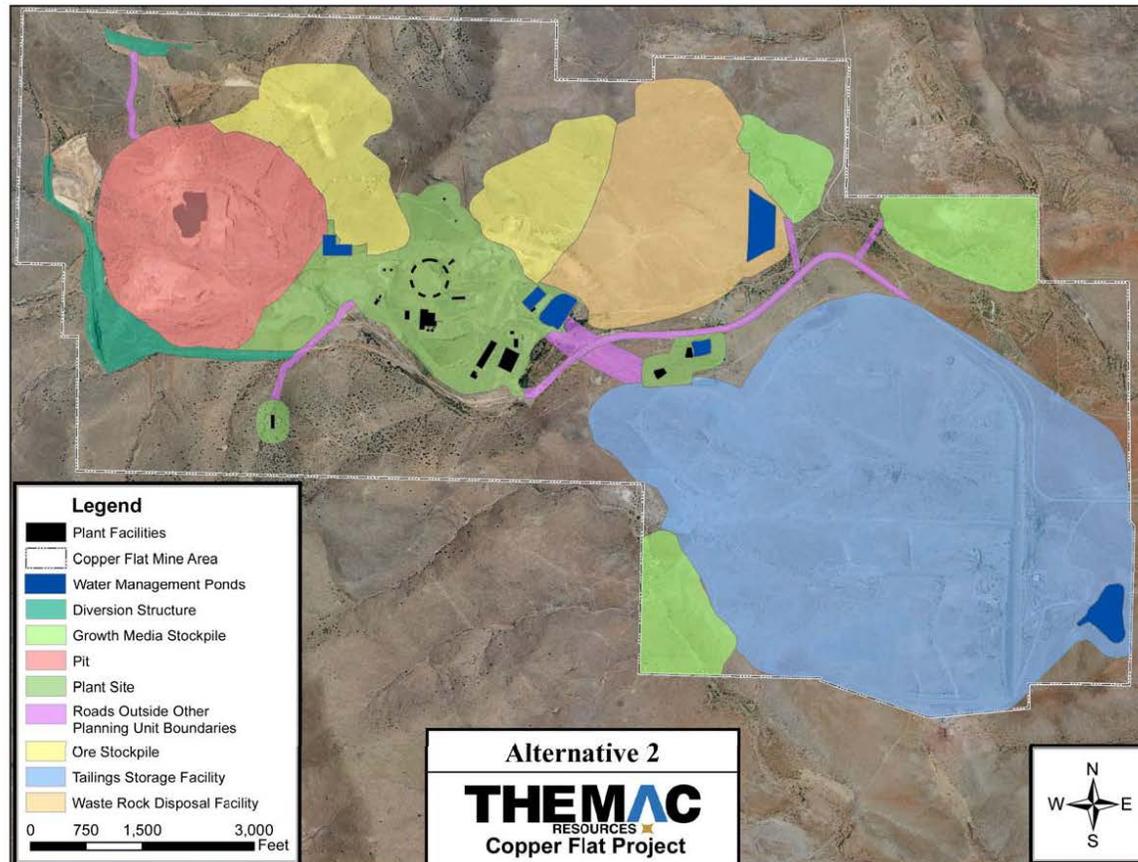


Figure 4. Development areas within the mine permit area under Alternative 2.

Programmatic Agreement for the Copper Flat Mine

Attachment 2

Historic Properties Affected by the Undertaking

LA = Laboratory of Anthropology; BLM = Bureau of Land Management; NMSLO = New Mexico State Land Office; NRHP = National Register of Historic Places

* = inadvertent effects are effects that occur as a result of close proximity to undertaking activities. Inadvertent effects could include changes to erosion patterns, accidental trespass onto properties, vandalism, and illegal artifact collecting. Under nominal conditions, these effects would not occur; they would occur under anomalous situations. Measures are included in the MPO, such as erosion control, and will be included in the HPTP, such as worker training, to help lower the risk for these types of effects. However, based on anecdotal observations for facilities of this type and size, these types of effects are anticipated to happen to some degree during the undertaking.

LA Number	Land Status	Description	Individual NRHP Eligibility	Contributing to District?	Effects		
					Proposed Action	Alternative 1	Alternative 2
Mine Permit Area							
13121	BLM	Prehistoric lithic scatter, historic mining features	A, D	yes	Direct	Direct	Direct
13130	private	Historic residential site	A, D	yes	Direct	Inadvertent *	Direct
13131	private	Historic residential site, prehistoric lithic scatter	A, D	yes	Direct	Direct	Direct
13135	BLM	Historic cemetery	D	yes	Direct	Direct	Direct
50092	private	<i>Gold Dust Building</i>	A	yes	Vibration	Vibration	Vibration
82276	BLM	Historic mining and residential features	A, D	yes	No effect	No effect	No effect
82277	BLM	Historic mining features, prehistoric lithic scatter	undetermined	yes	Direct	Direct	Direct
82278	BLM, private	<i>Greyback Shack</i> , historic mining and residential features, portion of <i>Placares</i> community	A, D	yes	Vibration/Direct	Vibration/Direct	Vibration/Direct
82279	private	Historic mining features	A, D	yes	Direct	Vibration/Direct	Vibration/Direct

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LA Number	Land Status	Description	Individual NRHP Eligibility	Contributing to District?	Effects		
					Proposed Action	Alternative 1	Alternative 2
82280	BLM, private	Historic mining and residential features	A, D	yes	Direct	Direct	Direct
82281	private	Historic mining features	A, D	yes	Direct	Direct	Direct
82282	BLM	<i>Little Jewess Mine</i> , historic mining features	A, D	yes	Direct	No effect	No effect
82334	private	Historic mining features	not eligible	yes	Direct	Direct	Direct
110752	BLM	Prehistoric lithic scatter, historic mining features	undetermined	yes	Direct	Direct	Direct
110753	private	<i>Toney House</i> , historic residential and mining features	A, C, D	yes	Direct	Direct	Direct
110754	private	Prehistoric lithic scatter, historic mining feature	undetermined	yes	Direct	Direct	Direct
110755	private	Historic residential and mining features	A, D	yes	Direct	Direct	Direct
110756	BLM	Historic mining features	A, D	yes	Direct	Direct	No effect
110757	private	Prehistoric lithic scatter, historic mining and residential features	A, D	yes	Direct	Direct	Direct
110758	private	Prehistoric lithic scatter	undetermined	no	Direct	Direct	Direct
110759	private	<i>Hillscher House</i> , historic mining and residential features	A, D	yes	Vibration/Direct	Vibration/Direct	Vibration/Direct
110760	private	Historic residential feature	undetermined	yes	Direct	Direct	Direct
110761	BLM	Historic check dams and artifact scatter	not eligible	no	No effect	No effect	No effect
110762	BLM	Historic mining features	A	yes	Direct	Direct	Direct
110763	BLM	Prehistoric rock art , historic graffiti	A, C	no	No effect	No effect	No effect

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LA Number	Land Status	Description	Individual NRHP Eligibility	Contributing to District?	Effects		
					Proposed Action	Alternative 1	Alternative 2
110764	BLM	Prehistoric thermal features and lithic scatter	undetermined	no	Direct	Direct	No effect
110765	private	Mining features, unknown age	undetermined	yes	Direct	Direct	Direct
110766	private	Historic mining features	A, D	yes	Direct	Direct	Direct
171040	BLM	Historic ranching site	undetermined	no	No effect	No effect	No effect
171042	BLM	Historic mining features	undetermined	yes	Direct	Direct	Direct
171043	BLM	Historic artifact scatter	undetermined	yes	Direct	Direct	Direct
171353	BLM	Historic mining features	A, D	yes	Direct	Direct	Direct
171354	BLM	Historic mining and residential features	A, D	yes	Direct	Direct	Direct
171355	BLM, private	Historic mining features	A, D	yes	Direct	Direct	Direct
171356	private	Prehistoric lithic scatter, historic mining and residential features	A, D	yes	Direct	Direct	Direct
171357	private	Historic trail	A	yes	Direct	Inadvertent	Direct
171358	private	Historic feature of unknown use	undetermined	no	Direct	No effect	No effect
171359	private	Prehistoric and historic artifact scatter	D	no	Inadvertent	Inadvertent	Inadvertent
171360	private	Historic mine-related features	A, D	yes	Direct	Direct	Direct
171361	BLM	Historic grave	D	yes	No effect	No effect	No effect
171362	private	Historic residential features	undetermined	yes	Inadvertent	Inadvertent	Inadvertent
171363	BLM	Historic mining features	A	yes	No effect	No effect	No effect
171364	BLM	Historic mining and residential features	A, D	yes	Inadvertent	No effect	No effect
171365	private	Historic mining features	A	yes	Direct	Direct	Direct
171366	BLM	Historic mining features	not eligible	yes	Direct	No effect	No effect

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LA Number	Land Status	Description	Individual NRHP Eligibility	Contributing to District?	Effects		
					Proposed Action	Alternative 1	Alternative 2
171367	private	Historic mining features	A	yes	Direct	Direct	Direct
171368	BLM	Historic mining features	not eligible	yes	No effect	No effect	No effect
171369	BLM	Historic mining features	not eligible	yes	Direct	No effect	No effect
171371	BLM, private	Historic mining and residential features	A, D	yes	Direct	Direct	Direct
171372	BLM, private	Historic mining and residential features	A, D	yes	Vibration/Direct	Vibration/Direct	Vibration/Direct
171373	BLM	Historic feature of unknown use	undetermined	no	No effect	No effect	No effect
171374	BLM	Historic mining and residential features	A, D	yes	No effect	No effect	No effect
171375	private	Historic mining feature	not eligible	yes	Direct	Direct	Direct
171376	BLM	<i>Llewellyn Tunnel</i> , historic mining features	A, D	yes	Direct	Direct	Direct
WATER PIPELINE							
171036	NMSLO, private	Historic mining features	not eligible	no	No effect	No effect	No effect
171037	BLM	Historic hearth, historic and prehistoric artifacts	not eligible	no	No effect	No effect	No effect
171039	BLM	Historic artifact scatter	not eligible	no	No effect	No effect	No effect
SUBSTATION							
181501	NMSLO	Prehistoric lithic scatter	D	no	No effect	No effect	No effect
181502	NMSLO	Prehistoric lithic scatter	not eligible	no	No effect	No effect	No effect
MILLSITE CLAIMS							
171038	BLM	Prehistoric lithic procurement site	D	no	No effect	No effect	No effect
181503	BLM	Prehistoric artifact scatter	undetermined	no	No effect	No effect	No effect

Programmatic Agreement for the Copper Flat Mine

Attachment 3
Copper Flat Mine
Historic Properties Treatment Plan

APPENDIX M

IMPLAN REPORT

APPENDIX M: IMPLAN REPORT

1.0 INTRODUCTION

This report expands on the results of the IMPLAN model incorporated into Section 3.22 (Socioeconomics) of the Copper Flat mine Final Environmental Impact Statement (FEIS). This report was developed in response to comments requesting that an appendix be added to further explain the economic model used in the analysis; as well as to clarify use of specific terms.

One commenter found the results of the IMPLAN model and economic impact analysis to be fundamentally biased toward the mine by relying on economic impact modeling funded by New Mexico Copper Corporation (NMCC). NMCC commissioned an economic report from the Arrowhead Center (NM State University) in 2012, however, neither the model nor the results of that model were used in the EIS. The economic impact modeling in the EIS was conducted independently and objectively by the EIS preparer under the technical direction of BLM. The assumptions, methodology, and design of the model were different than those of the Arrowhead Center's economic model; overall the model used in the EIS resulted in lower economic benefits. The assumptions, methodology, and design of the model are described in this report.

The remainder of this report is organized into the following sections:

1. Setting up the IMPLAN Model – This section describes the approach to setting up the IMPLAN model for all alternatives, including how the study area and type of regional model were selected; what project costs were used and what assumptions were made; the temporal bounds of the model; how the mining sector was added to the model; and how the applied multipliers were used to determine the results. Constraints of the model are mentioned throughout.
2. IMPLAN Model for the Proposed Action – This section explains what sector, values, and years were used to build each phase of the model for the Proposed Action (i.e., Pre-Construction/Permitting, Construction/Site Preparation, Mining Operations, Closure/Reclamation); presents the overall economic impacts from the Proposed Action; and presents what sectors were most affected by the Proposed Action.
3. IMPLAN Model for Alternative 1 (Accelerated Operations – 25,000 Tons per Day) – This section highlights differences in the values and years used to build each phase of the model for Alternative 1. It is as opposed to for the Proposed Action; presents the overall economic impacts from Alternative 1; presents what sectors were most affected by Alternative 1.
4. IMPLAN Model for Alternative 2 (Accelerated Operations – 30,000 Tons per Day) – This section highlights differences in the values and years used for each phase of the model for Alternative 2 compared to the Proposed Action and Alternative 1. It presents the results for Alternative 2; and presents what sectors were most affected by Alternative 2.

Section 3.22.1 of the FEIS describes the current economic conditions of Sierra County in detail, including population and housing; labor; earnings; and public finance. As such, this information is not repeated in this report.

2.0 SETTING UP THE IMPLAN MODEL

The economic impacts of the development, operation, and reclamation phases of the Proposed Action and alternatives are estimated using the Impact Analysis for Planning (IMPLAN) input-output economic modeling system, originally developed by the Minnesota IMPLAN Group. IMPLAN is a commonly used modeling system to perform economic impact analysis and is widely used in both the public and private sectors. IMPLAN, along with other commonly used modeling systems (e.g., RIMS II, REMI), are based on the national input-output model produced by the Bureau of Economic Analysis (BEA). IMPLAN

PRO Version 3 was used to produce the estimates in this report, and the latest data and structural matrices available at the time the model was developed (i.e., the model was developed in 2014 therefore 2014 data was used).

Economic impact analysis is an attempt to measure the net change in economic activity in a given geographic area that results from a change in economic activity. Often, the change in economic activity refers to new spending or employment associated with a new business or a business expansion. The concept of economic impact analysis is that a new dollar spent in a local area results in more than one dollar in economic activity in the area. The key feature of an input-output (I-O) model is its ability to examine relationships among industries.

2.1 Advantages and Disadvantages of Input-Output Models

I-O models are the single most widely used technique for estimating the impacts of regional policy and industry changes. No other modeling approach captures the complex relationships among industries and ultimate consumers as well as I-O models. There are several advantages and disadvantages to I-O models, as described below.

Advantages to I-O models include the following.

- I-O models are based on detailed inter-industry relationships, which allow us to examine the effects of a change in one industry on other industries.
- I-O models allow analysts to examine both the direct and indirect effects of a change in economic activity.
- I-O models are relatively easy to understand.
- I-O models can be modified. For example, the national input-output models can be scaled to a different geographic level such as a state or a county.
- I-O models can also be modified to take into account a new industry.
- The results of I-O models can be reconciled with other familiar measures of economic activity such as Gross Domestic Product (GDP).

Disadvantages or limitations of I-O models include the following.

- I-O models use linear production functions. This means that I-O models have constant returns to scale (doubling all inputs results in a doubling of output), while many modern industries exhibit increasing returns to scale.
- The coefficients of I-O models are based on a given set of relative prices that are assumed not to change during the projection period. If, for example, energy prices increase substantially after the model is constructed, the model will not reflect the tendency of industry to reduce energy use through more energy efficient production techniques or equipment.
- The relationships expressed in I-O models are based on the technology used at the time the model was constructed. Rapid changes in technology will not be appropriately accounted for in the models.
- Regional (state and county) I-O models are generally derived from the national models and may not adequately capture specific regional inter-industry relationships (Arrowhead Center 2012).

IMPLAN has been used to determine the economic impact of the Copper Flat mine through its direct operations, local supplier purchases and employee spending. Note that potential impacts on the value of

public lands, the tourism industry, air and water quality, wildlife habitat, and recreational and cultural resources are not addressed in this analysis.

2.2 Study Area and Single-Region Input-Output Analysis

For this project, Sierra County was defined as the study area because all local project spending and most economic impacts would occur in Sierra County. Three main methodologies for the type of regional model were explored for this project and are described in more detail below.

1. Single-Region Input-Output (SRIO) analysis with Sierra County as the study area;
2. SRIO analysis with Sierra County and surrounding counties as the study area; or
3. Multi-Regional Input-Output (MRIO) analysis with Sierra County as the study area.

Both the SRIO and MRIO analyses are appropriate methodologies for this project – each with its pros and cons. Ultimately, a SRIO analysis with Sierra County defined as the study area was deemed the most appropriate analysis to estimate economic impacts of the Copper Flat mine.

Some commenters asked why impacts to surrounding counties were not included in the model, because some workers might commute from surrounding counties to work at the Copper Flat mine in Sierra County. This was considered when determining the study area and deciding between a SRIO and MRIO analysis. A SRIO analysis assumes that the direct effect of spending in one county (i.e., Sierra County) would cause indirect and induced effects in that same county; leakages into other counties are lost with this analysis. A SRIO analysis with Sierra County as the study area was selected because the study area is mostly selected based on where the direct spending is taking place. No direct effects (i.e., direct spending) would occur in any of the surrounding counties, so defining Sierra County as the study area was the most obvious choice. IMPLAN defines employment at the site of work, so all employees regardless of where they live are counted as employment for the study area if they work within the study area (IMPLAN (MIG 2018b)). The direct effect of the Copper Flat mine would not affect direct employment figures with the SRIO analysis, only indirect and induced employment figures. An SRIO analysis loses some of the indirect effects and induced effects to leakage, or dollars of labor income generated by the Copper Flat mine and paid to employees working in Sierra County that live outside Sierra County. Once the employee leaves Sierra County with their income, these dollars are no longer tracked by IMPLAN. However, where an employee lives are considered is considered by the Employment Compensation and Proprietor Income fields (MIG 2018b).

Alternatively, an SRIO analysis with Sierra County and the surrounding counties (i.e., Socorro, Lincoln, Otero, Dona Ana, Luna, Grant, and Catron counties) could have been selected as the study area to capture “leaked” impacts. This would have allowed the geographic range to be expanded to capture data that are otherwise lost due to the leakage described above. However, the specificity and individual identities of Sierra County and each of the additional counties included in the newly defined study area would have been lost. In that analysis the geographies and impact results would have become aggregated (i.e., the impacts would have been counted more than once or overestimated). In order to avoid aggregating the results, more information would have been needed. NMCC anticipates hiring over 70 percent of the workforce from Sierra County and surrounding counties. The portion of labor hired locally would be highly dependent on the skill levels of the local labor force at the time of hiring for the construction phase and the applicability of these skills for the operations phase. At this point, it is unknown (and would have been impossible to estimate) what proportion of workers might live in Sierra County, Socorro, Lincoln, Otero, Dona Ana, Luna, Grant, and Catron counties. As such, an SRIO analysis with Sierra County and the surrounding counties as the study area was not selected.

Lastly, a MRIO analysis with Sierra County as the study area was also considered. A MRIO analysis extends the supply chain impacts and captures an additional round of impacts. It uses the multiplier identity of the core county (i.e., Sierra County) where the direct effect takes place to show how the activity in the core county affects other counties (i.e., the seven counties surrounding Sierra County) within a functional economy. Unlike an SRIO analysis, which assumes that the direct effect of spending in one county (i.e., Sierra County) would cause indirect and induced effects in that same county; leakages into other counties are not lost with a MRIO analysis. Therefore, a MRIO analysis would capture feedback linkages from purchases in Sierra County to the surrounding counties until all purchasing dollars are leaked from the indirect and induced effects.

Selecting the MRIO analysis was complicated by the need to add the mining sector to Sierra County. IMPLAN does not have the historical data needed to provide a multiplier for mining in Sierra County because no mining is performed in Sierra County. Multipliers are generated largely from regional purchase coefficients (RPCs) and the national direct input technical requirements matrix (also known as the “A” Matrix). RPCs represent the percentage of local demand that is satisfied by local supply. IMPLAN estimates RPCs with trade flow models for each individual IMPLAN sector at the county level (MIG 2018a). The national “A” Matrix quantifies, for each major industry, what and how much of the outputs from other industries are needed in order to produce that industry’s own outputs. For a MRIO model, IMPLAN uses interstate trade flow matrices from the U.S. Department of Health and Human Services in combination with regional demand and supply-demand pool ratios. This gives a limited or artificial upper bound on the RPCs. This can create problems on a regional scale if additional industries are added to the region, reducing the level of inter-regional trade flow (EMSI no date). Tradeflow RPCs are not responsive to edits to the underlying study area data (MIG 2015).

All three methodologies have advantages and disadvantages. Often, the study area is selected based on where the direct spending would take place. Direct impacts to Sierra County would be most accurate by using a SRIO model that defines Sierra County as the study area. Some of the indirect and induced effects to leakage are lost, but where an employee lives is considered in the Employment Compensation and Proprietor Income fields (MIG 2018b). The copper mining sector needed to be added to the IMPLAN model – regardless of whether an SRIO or MRIO analysis was selected. However, doing so would have created problems in the MRIO analysis. In most cases, using a SRIO and MRIO analysis will not produce significant variances in the results (MIG 2018c). Ultimately, adding the copper mining sector to (only) Sierra County in a SRIO analysis was deemed the optimum approach. The additional cost and labor associated with constructing a MRIO analysis would produce limited additional benefit, so a traditional SRIO analysis was conducted for this project.

2.3 Multipliers

A “multiplier” is a number used by economists to determine the impact of a project on the economy. It is the ratio of total change in output or employment to initial change (or direct change). Multipliers are a numeric method of describing the secondary impacts stemming from a change. For example, an employment multiplier of 1.8 would suggest that for every 10 employees hired in a given industry, 8 additional jobs would be created in other industries, such that 18 total jobs would be added to the given economic region.

The IMPLAN multipliers measure these related effects. The IMPLAN database includes multipliers for 440 industries, including sectors that are not currently represented in a county. As described above, all values other than the National per Worker values will be set to zero for sectors that are not currently represented in the county. The multipliers in IMPLAN are defined as the sum of the direct, indirect, and induced effects divided by the direct impact. Direct, indirect, and induced effects are defined below.

- *Direct effects* – The set of expenditures applied to the predictive model (i.e., I/O multipliers) for impact analysis (i.e., a \$10 million-dollar order is a \$10 million-dollar direct effect).
- *Indirect effects* – Expenditures within the study region on supplies, services, labor, and taxes.
- *Induced effects* – Money that is re-spent in the Region of Influence (ROI) as a result of spending from the indirect effect.

Each of these steps (direct, indirect, and induced) recognizes an important leakage from the economic study area spent on purchases outside of the study area. The term leakage, as used here, is the non-consumptive use of income, including savings, taxes, and imports that leak out of the main flow between output, factor payments, national income, and consumption. Eventually these leakages would stop the cycle (MIG 2012). While direct impacts refer to the dollar value of economic activity that circulates through the economy, State and county taxes, inventory, and other similar payments do not circulate through the economy in the same manner.

Adding a Mining Sector to Sierra County

In most cases, a county contains fewer than 440 industries and 547 sectors, since not all industries and sectors are represented in any given study area (e.g., no cotton is grown in California). Because no mining has taken place in Sierra County since the early 1980s, the model did not originally include a mining sector. However, IMPLAN allows sectors to be added to the model.

The default mining sector in Sierra County (or in any county where mining does not currently take place) uses multipliers based on national per-worker values for the copper mining industry. Sierra County data for industries can be edited as they relate to total employment and output (i.e., value of production), or value added (i.e., employee compensation, proprietor income, other property type income, indirect business tax) (MIG 2014). This information was adjusted for the mining sector in Sierra County using the annual operating costs and workforce figures for each alternative provided by NMCC (NMCC 2014a and NMCC 2014b). Because no other mine is proposed in Sierra County at this time, the Copper Flat mine project specifics were the only information relevant to the mining sector in Sierra County.

NMCC anticipates hiring over 70 percent of the workforce from Sierra County as well as surrounding counties. The portion of labor hired locally would be highly dependent on the skill levels of the local labor force at the time of hiring for the construction phase and the applicability of these skills for the operations phase. NMCC is working with the local community to identify skills anticipated for operations to allow interested individuals to prepare for enhancing their skill set (NMCC 2014b). The IMPLAN model is adjusted to capture employee compensation that would occur in Sierra County. It should be noted that the mining industry, like many industries, is affected by market forces such as supply, demand, and the rising and falling prices of mineral commodities. This analysis does not capture potential mining operational changes in response to market forces.

2.4 Analysis by Parts – Building the IMPLAN Model

The IMPLAN model scenario can be divided into four activities for this project – or the four phases of each alternative. A scenario (e.g., the Proposed Action) is defined by activities that consist of a set of events. For example, an activity is the construction phase and an event is the amount spent for one year of the construction phase. Building a model in IMPLAN can be likened to writing a story. A series of events (i.e., sentences) form an activity (i.e., a paragraph). A set of activities (i.e., paragraphs) form a scenario (i.e., chapter of a book); and several scenarios tell a story. The cost and year for each event within the activities that make up each alternative are presented in Sections 3, 4, and 5 or in IMPLAN Model for the Proposed Action, Alternative 1, and Alternative 2, respectively.

Project Costs

All cost data were provided to Solv by the NMCC Project Manager (NMCC 2014a) and are 2014 costs. The exact project costs per phase and the temporal bounds of the model vary for each alternative and are described in more detail under each alternative (See Sections 3, 4, and 5). The analysis of socioeconomic resources identifies aspects of the social and economic environment that are sensitive to changes and that may be affected by the proposal to conduct mining operations for a period of approximately 11 to 16 years.

Based on consultation with NMCC, expenditures for the construction phase under all alternatives were adjusted to reflect that approximately 15 percent of total purchases for equipment and materials would occur in Sierra County. Specialized equipment and materials required for copper mining are not available locally and therefore would be shipped from other areas (i.e., the State of New Mexico or nationally). The economies of surrounding counties would not be affected by these local supplier purchases made in Sierra County.

Construction activities were assumed to start in 2014 under all alternatives. While actual construction will take thirteen months, all construction activity is assumed to occur in 2014. The expenditures include spending on construction of all administration and processing buildings and mine equipment. Total expenditures for construction and mine equipment are estimated to be just under \$298 million. The economic analysis completed by NMCC and tax consultants for the feasibility study indicates that approximately 15 percent of construction phase costs, or approximately \$55 million, would be spent in Sierra County (NMCC 2014b). The IMPLAN model is adjusted to capture costs that would be spent in Sierra County during the construction phase.

Other capital expenditures will occur during the life of the mine. These expenditures are for new mine and plant equipment to replace the mine and plant equipment initially purchased. The plant equipment will be purchased from out-of-state and will have no impact on the Sierra County or the state. The mine equipment will be purchased in-state (out-of-county) and will have an impact on the state and then indirectly on Sierra County. Each expenditure is entered as an event in the IMPLAN model. The following three sections presents the inputs by phase under each alternative.

2.5 Definition of Terms

The economic impacts discussed in the next section that would result from the Copper Flat mine include the direct activity created by the mining operation, as well as the impacts created by local supplier purchases and employee spending. Economic impacts measure the effects of economic stimuli, or expenditures, in the local economy. All industries have some kind of economic impact in the rest of the economy. Resource-based industries like the Copper Flat mine that pay higher wages and also make local purchases create greater local economic impacts than firms that do not possess these characteristics. In the IMPLAN model, businesses produce goods to sell to other businesses, consumers, governments, and purchasers outside the region. The output is produced using labor, capital, fuel, and intermediate inputs. The demand for labor, capital, and fuel per unit of output depends on their relative costs.

The modeled impacts include the direct effects of spending for construction activities and consumption spending, the indirect effects of local vendors providing goods and services to the primary firms, and the induced impacts of employees of these firms spending a portion of their earnings in the local economy. Economic impacts discussed include direct, indirect, and induced jobs, personal income, and economic activity, or output, that could be generated by the Copper Flat mine. Indirect impacts are the result of the multiplier effect and capture supported supplier and consumer businesses and their employees throughout

Sierra County that could be affected by the Copper Flat mine. Induced impacts are from employees of these businesses spending a portion of their earnings in Sierra County.

Economic impacts are generally measured in terms of changes in output, value added, labor income, and employment. Output or economic activity is measured in dollars and corresponds roughly to gross sales. Goods and services used to produce other goods and services are known as intermediate goods. Value added excludes intermediate goods and services. GDP is a value-added concept. In brief, output counts some production more than once while value added does not. Value added can be considered as the local or regional counterpart to GDP. Labor income, also measured in dollars, consists of wages and salaries including benefits and proprietor’s income. Employment is measured in terms of numbers of jobs. Jobs refer to both full and part-time employment (Arrowhead Center 2012).

Employment estimates are expressed differently if the supporting spending is short-term (i.e., the construction phase) or long-term or recurring (i.e., the operation phase). The pre-construction and construction phases of building the mine are temporary – once construction is completed, the impacts cease. The model employed in this analysis provides an estimate of the number of jobs associated with a given level of spending, but since that spending will occur over several years, the jobs impacts occur over several years. For example, if construction of a new building takes three years to complete and will support 300 jobs, the estimate is not 300 jobs each lasting for three years. Rather, the estimate is 300 person-years of employment supported. On average, the impact of the building construction would be 100 jobs per year; however, construction employment is highly variable based on the phase of the construction program, so the actual job impacts at any given time could vary dramatically. Therefore, jobs related to temporary expenditures are expressed as person-years of employment. For recurring spending such as the operations phase, the impact estimates are considered recurring and the job estimates are for “permanent” jobs each year.

Results are expressed in terms of employment (annual average full- and part-time jobs); wages and salaries or labor income (total payroll costs, including benefits); total economic activity (total value of production); and direct taxes. All results are expressed in 2014 dollars and are not adjusted for inflation.

3.0 IMPLAN MODEL FOR THE PROPOSED ACTION

In this section, the sector, values, and years used to build each phase of the model are presented for each phase of activity associated with the Proposed Action (permitting, construction, operation, and reclamation). Tables presenting the events and top 10 sectors affected by each phase were included in addition to the FEIS to provide a more granular explanation of the model. Tables presenting project costs and the economic impacts by phase with associated discussion are also presented in Section 3.22 of the FEIS.

3.1 Project Costs of the Proposed Action

Operation of the mine would occur over a 16-year period, and while the phases are sequential, there would be some overlap as the activities of an earlier phase continue during the implementation of subsequent phases. The duration and estimated project costs by phase are shown below in Table 3-1 (NMCC 2014a).

Table 3-1. NMCC Estimated Project Costs – Proposed Action

Table 3-1. NMCC Estimated Project Costs - Proposed Action		
Description	Duration (years)	Cost (USD)
Pre-construction/permitting	2	\$18,408,000
Construction/site preparation	2	\$363,535,000
Mining operations	17	\$1,408,196,000
Closure/reclamation	3	\$45,398,000
Total	24	\$1,835,537,000

Source: NMCC 2014a.

Note: All estimates include resource taxes and exclude income taxes.

3.2 Pre-Construction/Permitting

The period from 2014 to 2016 is assumed for the permitting phase, and costs are estimated at \$18.4 million (NMCC 2014a). Approximately \$15.9 million of the pre-construction/permitting costs occurred in 2014; approximately \$1.67 million occurred in 2015; and an estimated \$838,000 will occur in 2016.

To begin an analysis, IMPLAN requires a starting value in one of the following four fields: Industry Sales, Employment, Employee Compensation, or Proprietor Income. IMPLAN will automatically fill in the remaining fields that are unknown based on underlying study area relationships. If two or more fields contain information, IMPLAN will estimate the remaining values based on the entered Event Value (MIG 2018e). In this case, Industry Sales for each year is known, or the dollar value that is triggering the Event (i.e., “Event Value”). Table 3-2 shows the Event Description (i.e., sector), Event Value (i.e., Industry Sales), and Event Year (i.e., when event is planned) for the Permitting Phase under the Proposed Action.

Table 3-2. Permitting Phase Events – Proposed Action

Table 3-2. Permitting Phase Events – Proposed Action		
Event Description	Event Value	Event Year
Environmental and other technical consulting services	\$15,894,000	2014
Environmental and other technical consulting services	\$1,676,000	2015
Environmental and other technical consulting services	\$838,000	2016
Total	\$18,408,000	N/A

Note: N/A=Not Applicable

The pre-construction/permitting phase would generate over \$15 million in total economic activity and support almost 250 direct, indirect, and induced jobs from 2014 to 2016 – translating to over \$13 million in labor income. The permitting phase would support 175 full- and part-time direct jobs and \$11.4 million in labor income from 2014 to 2016. Of the 175 direct jobs supported during this 3-year period, 152 of those occurred in 2014. About 21 jobs (indirect) would be generated through purchases from local businesses. Another 53 jobs (induced) would be generated through the purchases of those receiving income and consequently spending that income locally. Overall economic impacts of the permitting phase by employment, salaries and wages, and economic activity are presented below. (See Table 3-3.)

Table 3-3. Economic Impacts of Permitting Phase in Sierra County – Proposed Action

Table 3-3. Economic Impacts of Permitting Phase in Sierra County – Proposed Action			
Impact Type	Employment	Labor Income	Value Added
Direct effect	175	\$11,408,052	\$11,456,789
Indirect effect	21	\$613,451	\$982,044
Induced effect	53.2	\$1,398,719	\$2,987,959
Total effect	249	\$13,420,222	\$15,417,792

Source: Calculations using IMPLAN PRO Version 3.

The 175 full and part-time jobs would be generated mostly in the environmental and other technical consulting services sector. Note that a direct employment effect does not necessarily represent direct employment by NMCC during this phase. Activities performed in this sector could include legal advice and representation; accounting, bookkeeping, and payroll services; architectural, engineering, and specialized design services; surveying and mapping services; consulting services; research services; and other professional, scientific, and technical services. In addition to the “environmental and other technical consulting services” sector, the other sectors that would be affected by the permitting phase under the Proposed Action are shown below in Table 3-4.

Table 3-4. Top 10 Sectors Affected by the Permitting Phase in Sierra County – Proposed Action

Table 3-4. Top 10 Sectors Affected by the Permitting Phase in Sierra County – Proposed Action			
Sector	Employment	Labor Income*	Value Added
Environmental and other technical consulting services	174.8	\$11,425,962.0	\$11,474,775.8
Food services and drinking places	12.4	\$196,817.3	\$336,156.6
Private hospitals	4.0	\$227,210.0	\$253,908.6
Offices of physicians, dentists, and other health practitioners	4.0	\$186,709.9	\$195,713.3
Nursing and residential care facilities	3.9	\$99,739.2	\$119,506.1
Retail Stores - General merchandise	2.8	\$69,567.9	\$113,357.7
Retail Stores - Food and beverage	2.8	\$63,587.3	\$101,855.1
Civic, social, professional, and similar organizations	2.7	\$36,824.1	\$36,575.1
Employment services	2.1	\$35,917.8	\$41,139.8
Real estate establishments	1.9	\$17,827.0	\$168,679.1
Total	211.6	\$12,360,162.7	\$12,841,667.2

Source: Calculations using IMPLAN PRO Version 3.

Note: *Includes wages and benefits.

3.3 Construction/Site Preparation

Impacts associated with the construction of the mine facilities would be a one-time event. Construction of the project is planned to occur from 2016-2018, though most construction activity would occur in 2017. The impact scenario was constructed based on the peak number of construction jobs and annual construction costs. Table 3-5 shows the Event Description (i.e., sector), Event Value (i.e., Industry Sales), and Event Year (i.e., when event is planned) for the construction phase under the Proposed Action.

Table 3-5. Construction Phase Events – Proposed Action

Table 3-5. Construction Phase Events – Proposed Action		
Event Description	Event Value	Event Year
Support activities for other mining	\$50,873,000	2016
Support activities for other mining	\$291,369,000	2017
Support activities for other mining	\$21,293,000	2018
Total	\$363,535,000	N/A

Note: N/A=Not Applicable

Total construction costs are estimated to be \$363.5 million, of which approximately \$55 million would be spent in Sierra County (NMCC 2014b). Most of the initial investment of \$101.5 million for mobile and fixed plant equipment would occur outside of Sierra County (some within the State, some not), so these expenditures are not considered in the impact analysis. Dollar impacts are presented in 2014 (constant) dollars and are not adjusted for inflation. (See Table 3-6.)

Table 3-6. Economic Impacts of Construction Phase in Sierra County – Proposed Action

Table 3-6. Economic Impacts of Construction Phase in Sierra County – Proposed Action			
Impact Type	Employment	Labor Income	Value Added
Direct effect	221	\$10,523,194	\$20,170,889
Indirect effect	25	\$885,317	\$1,396,175
Induced effect	50	\$1,306,941	\$2,753,525
Total effect	296	\$12,715,452	\$24,320,590

Source: Calculations using IMPLAN PRO Version 3.

The construction phase includes wholesale purchases of mining equipment, payments to construction firms, payments for outside services, and purchases of fuels, electricity and supplies. Despite the \$363.5 million that would be spent during the construction phase, the number of jobs directly supported and the associated labor income is relatively low. The reason for the disparity between expenditure figures and the economic impacts is that the expenditure categories registering the largest gains (e.g., wholesale purchases of mining equipment and fuels and petroleum products) have small local economic impacts per \$1 million of spending compared to service sectors. Mining equipment may be purchased from wholesalers in New Mexico but is produced entirely out of State.

Indirect impacts result from directly impacted industries purchasing supplies and materials from other industries. Indirect jobs include local vendors from whom NMCC would make purchases and local retail stores and establishments where Copper Flat employees would shop. Induced impacts occur when employees of the directly and indirectly affected industries spend the wages they receive. The indirect and induced jobs created during construction and operation phases are often relatively low-wage jobs such as restaurant workers or convenience store clerks.

In addition to the “support activities for other mining” sector, the other sectors that would be affected by the construction phase under the Proposed Action are shown below in Table 3-7.

Table 3-7. Top 10 Sectors Affected by the Construction Phase in Sierra County – Proposed Action

Table 3-7. Top 10 Sectors Affected by the Construction Phase in Sierra County – Proposed Action			
Sector	Employment	Labor Income*	Value Added
Support activities for other mining	221.4	\$10,523,194.30	\$20,170,889.50
Food services and drinking places	9.1	\$144,462.90	\$246,737.30
Architectural, engineering, and related services	7.6	\$401,668.30	\$410,099.90
Civic, social, professional, and similar organizations	4.4	\$60,560.50	\$60,150.90
Private hospitals	3.9	\$219,073.30	\$244,815.70
Offices of physicians, dentists, and other health practitioners	3.8	\$178,131.10	\$186,720.80
Nursing and residential care facilities	3.8	\$95,487.00	\$114,411.10
Monetary authorities and depository credit intermediation activities	2.7	\$92,959.70	\$338,158.50
Retail Stores - General merchandise	2.6	\$64,958.70	\$105,847.20
Retail Stores - Food and beverage	2.6	\$59,382.40	\$95,119.60
Total	262.0	\$11,839,878.30	\$54,733,296.70

Source: Calculations using IMPLAN PRO Version 3.

Note: *Includes wages and benefits.

3.4 Mining Operations

As discussed in Section 2.3 above, the IMPLAN model was customized to incorporate a sector for copper mining that does not currently exist in Sierra County. No mining has taken place in Sierra County since the early 1980s. The introduced mining sector used multipliers based on national per-worker values for the copper mining industry and is adjusted for project specifics. The IMPLAN impact scenario was constructed based on knowing the annual operating costs and workforce. While expenditures in Sierra County have some effect on the rest of the State and expenditures in the rest of the State have some effect on Sierra County, this analysis does not estimate these interactions.

Table 3-8 shows the Event Description (i.e., sector), Event Value (i.e., Industry Sales), and Event Year (i.e., when event is planned) for the operations phase under the Proposed Action.

Table 3-8. Operations Phase Events– Proposed Action

Table 3-8. Operations Phase Events– Proposed Action		
Event Description	Event Value	Event Year
Mining copper, nickel, lead, and zinc	\$113,000	2016
Mining copper, nickel, lead, and zinc	\$450,000	2017
Mining copper, nickel, lead, and zinc	\$114,364,000	2018
Mining copper, nickel, lead, and zinc	\$103,469,000	2019
Mining copper, nickel, lead, and zinc	\$103,690,000	2020
Mining copper, nickel, lead, and zinc	\$93,683,000	2021
Mining copper, nickel, lead, and zinc	\$103,012,000	2022
Mining copper, nickel, lead, and zinc	\$96,258,000	2023
Mining copper, nickel, lead, and zinc	\$98,797,000	2024

Event Description	Event Value	Event Year
Mining copper, nickel, lead, and zinc	\$88,090,000	2025
Mining copper, nickel, lead, and zinc	\$85,015,000	2026
Mining copper, nickel, lead, and zinc	\$84,178,000	2027
Mining copper, nickel, lead, and zinc	\$84,402,000	2028
Mining copper, nickel, lead, and zinc	\$86,933,000	2029
Mining copper, nickel, lead, and zinc	\$89,032,000	2030
Mining copper, nickel, lead, and zinc	\$73,177,000	2030
Mining copper, nickel, lead, and zinc	\$56,764,000	2030
Mining copper, nickel, lead, and zinc	\$46,768,000	2030
Total	\$1,408,195,000	N/A

Note: N/A=Not Applicable

The operations phase would create over \$1.1 billion in total economic activity; support over 3,300 direct, indirect, and induced jobs over a period of 16 years; and provide over \$262 million in labor income. (See Table 3-9.) Labor income captures all forms of employment income, including wages and benefits. The increase in economic activity in the local economy, or the value added to the local economy, represents the wealth created by the industry activity (i.e., mining).

Table 3-9. Economic Impacts of Operation Phase in Sierra County – Proposed Action

Impact Type	Employment	Labor Income*	Value Added
Direct effect	2,165	\$229,506,397	\$1,070,179,831
Indirect effect	192	\$6,739,617	\$12,666,235
Induced effect	985	\$26,010,211	\$54,778,017
Total effect	3,341	\$262,256,225	\$1,137,624,082

Source: Calculations using IMPLAN PRO Version 3.

Note: *Includes wages and benefits.

The Copper Flat mine would directly generate over 2,100 full and part-time jobs during the 16-year operations phase, including mine workers, administration, and maintenance personnel. (See Table 3-9.) Average direct employment in Sierra County by the mine would be about 127 employees per year. Workers in Sierra County would experience a roughly \$230 million increase in labor income (including benefits), or an average of \$13.5 million per year. Peak yearly impacts would occur in years 3, 4, and 5 of the operations phase; and coincide with the highest annual operating cost(s). Direct employment in peak years would vary between 248 and 285; and compensation would vary between \$24.4 and \$27 million during these 3 years.

Overall, the average annual payroll of Copper Flat employees would contribute significantly to the total wages and salaries in Sierra County. When using an average of \$13.5 million in annual payroll, approximately 80 percent is actually “take home” pay, and the other 20 percent goes toward workers’ compensation, health insurance, unemployment, and Social Security. Thus, approximately \$10.8 million would flow into local economies where employees reside. If 70 percent of the Copper Flat employees live in Sierra County, the total wages and salaries would represent a maximum of 7.5 percent of total employee compensation in Sierra County based on 2010 employee compensation. (See Table 3-66 of the FEIS)

These workers would represent new purchasing power that would support additional jobs and payroll at local retail and service establishments in Sierra County. Unlike basic industries that export most products, local retailers and service establishments recycle money within the local economy. NMCC would make purchases from local vendors and NMCC employees would shop at local establishments. These local vendors and their employees would make additional local purchases. The total impacts include both the direct and secondary impacts created by other local businesses and their employees. Purchases by both NMCC and its employees outside of Sierra County are not considered here. As discussed above, the IMPLAN database includes multipliers for 440 industries (including mining) to measure these related effects. A multiplier is the ratio of total change in output or employment to initial change (or direct change). There is a larger multiplier effect associated with the consumer spending of workers directly supported by mining operations. Through this spending, the Copper Flat mine would indirectly support almost 1,200 indirect and induced jobs.

In addition to the “mining copper, nickel, lead, and zinc” sector, the other sectors that would be affected by the operations phase under the Proposed Action are shown below in Table 3-10.

Table 3-10. Top 10 Sectors Affected by the Operations Phase in Sierra County – Proposed Action

Table 3-10. Top 10 Sectors Affected by the Operations Phase in Sierra County – Proposed Action			
Sector	Employment	Labor Income*	Value Added
Mining copper, nickel, lead, and zinc	2,165.1	\$229,506,396.90	1,070,179,830.90
Food services and drinking places	164.8	\$2,610,938.90	4,459,386.40
Private hospitals	77.9	\$4,371,233.90	4,884,880.20
Offices of physicians, dentists, and other health practitioners	76.5	\$3,554,176.20	3,725,563.20
Nursing and residential care facilities	74.8	\$1,905,240.90	2,282,832.20
Retail Stores - General merchandise	51.3	\$1,268,475.80	2,066,922.40
Retail Stores - Food and beverage	51.2	\$1,159,417.00	1,857,170.90
Civic, social, professional, and similar organizations	50.6	\$693,493.70	688,803.2
Custom computer programming services	48.9	\$1,734,102.20	1,544,675.20
Individual and family services	35.6	\$639,014.80	599,998.50
Total	2,796.7	\$247,442,490.40	1,092,290,063.20

Source: Calculations using IMPLAN PRO Version 3.

Note: *Includes wages and benefits.

3.5 Mine Closure/Reclamation

The 3-year reclamation phase would begin during the last year of operation –in 2033. However, IMPLAN data are not available past 2030. As such, the estimated impacts from this phase may be overstated. The impact scenario was constructed based on knowing the annual operating costs for this phase.

Table 3-11 shows the Event Description (i.e., sector), Event Value (i.e., Industry Sales), and Event Year (i.e., when event is planned) for the Reclamation Phase under the Proposed Action.

Table 3-11. Reclamation Phase Events – Proposed Action

Table 3-11. Reclamation Phase Events – Proposed Action		
Event Description	Event Value	Event Year
Waste management and remediation services	\$15,250,000	2030
Waste management and remediation services	\$15,250,000	2030
Waste management and remediation services	\$10,250,000	2030
Waste management and remediation services	\$4,648,000	2030
Total	\$45,398,000	N/A

Note: N/A=Not Applicable

Hazardous and chemicals materials and reagent management; removing surface facilities; plugging drill holes and water wells; recontouring the disturbance area; and reestablishing vegetation for grazing would directly support 162 direct jobs. Unlike the development and operation phases, due to the nonspecialized workers needed for reclamation, the majority of jobs could be filled by the local labor force. More than \$25 million in economic activity would result from this phase. (See Table 3-12.)

Table 3-12. Economic Impacts of Reclamation Phase in Sierra County – Proposed Action

Table 3-12. Economic Impacts of Reclamation Phase in Sierra County – Proposed Action			
Impact Type	Employment	Labor Income*	Value Added
Direct effect	162	\$11,413,646	\$21,281,855
Indirect effect	31	\$1,034,475	\$1,666,336
Induced effect	51	\$1,358,069	\$2,848,471
Total effect	244	\$13,806,190	\$25,796,661

Source: Calculations using IMPLAN PRO Version 3.

Note: *Includes wages and benefits.

In contrast to the operation phase, the reclamation phase would directly support the waste management and remediation services sector (as opposed to the copper mining sector), which would show the majority of the increased labor income. (See Table 3-12.) However, the reclamation phase would also create additional labor income in the food service and healthcare sectors. In addition to the “waste management and remediation services” sector, the other sectors that would be affected by the reclamation phase under the Proposed Action are shown below in Table 3-13.

Table 3-13. Top 10 Sectors Affected by the Reclamation Phase in Sierra County – Proposed Action

Table 3-13. Top 10 Sectors Affected by the Reclamation Phase in Sierra County – Proposed Action			
Sector	Employment	Labor Income*	Value Added
Waste management and remediation services	166.5	\$11,723,959.00	21,860,463.10
Imputed rental activity for owner-occupied dwellings	0.0	\$0.00	898,019.10
Food services and drinking places	13.9	\$220,554.90	376,699.60
Private hospitals	4.1	\$230,105.50	257,144.30
Offices of physicians, dentists, and other health practitioners	4.0	\$186,599.90	195,598.00
Monetary authorities and depository credit intermediation activities	1.3	\$45,043.50	163,854.30

Table 3-13. Top 10 Sectors Affected by the Reclamation Phase in Sierra County – Proposed Action			
Sector	Employment	Labor Income*	Value Added
Real estate establishments	1.8	\$16,731.00	158,308.70
Nursing and residential care facilities	3.9	\$100,115.50	119,957.00
Retail Stores - General merchandise	2.7	\$66,574.40	108,479.90
Nondepository credit intermediation and related activities	2.2	\$95,214.30	104,770.10
Total	200.5	\$12,684,898.20	24,243,294.10

Source: Calculations using IMPLAN PRO Version 3.

Note: *Includes wages and benefits.

4.0 IMPLAN MODEL FOR ALTERNATIVE 1

In this section, the sector, values, and years used to build each phase of the model are presented for activities associated with Alternative 1 (permitting, construction, operation, and reclamation). Economic impacts discussed under Alternative 1 are compared to those discussed under the Proposed Action. Tables presenting the events and top 10 sectors affected by each phase were included in addition to the FEIS to provide a more granular explanation of the model. Tables presenting project costs and the economic impacts by phase with associated discussion are already presented in Section 3.22 of the FEIS.

4.1 Project Costs of Alternative 1

Project costs under Alternative 1 would be equal to those under the Proposed Action for the permitting, construction, and reclamation phases. Operation of the mine would occur over an 11-year period as opposed to a 16-year period under the Proposed Action. The cost of operations would be lower than under the Proposed Action and the duration would be 6 years shorter. The IMPLAN impact scenario for the operation phase under Alternative 1 was adjusted to reflect this information. Estimated project costs are shown below. (See Table 4-1.)

Table 4-1. NMCC Estimated Project Costs – Alternative 1

Table 4-1. NMCC Estimated Project Costs – Alternative 1		
Description	Duration (years)	Cost (USD)
Pre-construction/permitting	2.0	\$18,408,000
Construction/site preparation	1.5	\$363,535,000
Mining operations	11.0	\$1,305,412,000
Closure/reclamation	3.0	\$45,398,000
Total	17.5	\$1,732,753

Source: NMCC 2014a.

Note: All estimates include resource taxes and exclude income taxes.

4.2 Pre-Construction/Permitting

The overall cost, cost per year, and calendar year of the permitting phase are the same for the Proposed Action and Alternative 1. As such, permitting phase events, economic impacts of the permitting phase,

and sectors affected by the permitting phase of Alternative 1 do not differ from those discussed under the Proposed Action. (See Tables 3-2, 3-3, and 3-4).

4.3 Construction/Site Preparation

The overall cost, cost per year, and calendar year of the construction phase are the same for the Proposed Action and Alternative 1. As such, the construction phase events, economic impacts of the construction phase, and sectors affected by the construction phase under Alternative 1 do not differ from those discussed under the Proposed Action. (See Tables 3-5, 3-6, and 3-7).

4.4 Mining Operations

Table 4-2 shows the Event Description (i.e., sector), Event Value (i.e., Industry Sales), and Event Year (i.e., when event is planned) for the operations phase under Alternative 1.

Table 4-2. Operations Phase Events– Alternative 1

Table 4-2. Operations Phase Events– Alternative 1		
Event Description	Event Value	Event Year
Mining copper, nickel, lead, and zinc	\$113,000	2016
Mining copper, nickel, lead, and zinc	\$450,000	2017
Mining copper, nickel, lead, and zinc	\$143,031,000	2018
Mining copper, nickel, lead, and zinc	\$132,261,000	2019
Mining copper, nickel, lead, and zinc	\$131,633,000	2020
Mining copper, nickel, lead, and zinc	\$117,989,000	2021
Mining copper, nickel, lead, and zinc	\$131,495,000	2022
Mining copper, nickel, lead, and zinc	\$115,024,000	2023
Mining copper, nickel, lead, and zinc	\$114,802,000	2024
Mining copper, nickel, lead, and zinc	\$101,823,000	2025
Mining copper, nickel, lead, and zinc	\$102,218,000	2026
Mining copper, nickel, lead, and zinc	\$106,234,000	2027
Mining copper, nickel, lead, and zinc	\$91,341,000	2028
Mining copper, nickel, lead, and zinc	\$16,999,000	2029
Total	\$1,305,413,000	N/A

Note: N/A=Not Applicable

Under Alternative 1, the operations phase would create over \$1 billion in total economic activity and support 3,100 direct, indirect, and induced jobs over a period of 11 years. (See Table 4-3.) Overall, Alternative 1 would create about 175 fewer direct, indirect, and induced jobs than the Proposed Action.

Table 4-3. Economic Impacts of Operation Phase in Sierra County – Alternative 1

Table 4-3. Economic Impacts of Operation Phase in Sierra County – Alternative 1			
Impact Type	Employment	Labor Income	Value Added
Direct effect	2,078	\$220,306,831	\$1,027,282,854
Indirect effect	168	\$5,891,152	\$11,329,585
Induced effect	916	\$24,206,710	\$50,977,531
Total effect	3,162	\$250,404,692	\$1,089,589,970

Source: Calculations using IMPLAN PRO Version 3.

Under Alternative 1, the Copper Flat mine would directly generate over 2,000 full and part-time jobs during the operations phase. Average direct employment would be about 189 employees per year compared to 127 per year under the Proposed Action (due to the shorter duration of the operations phase). While the overall increase in direct labor income (including benefits) would be about \$10 million higher under the Proposed Action, under Alternative 1 the average labor income per year is about \$6.5 million higher. Peak yearly impacts and peak annual employment would occur in years 3, 4, and 5 of the operations phase and coincide with the highest annual operating cost(s). Peak employment under Alternative 1 would vary between 315 and 357 in years 3, 4, and 5 of the operation phase, and correspond to compensation between \$31 and \$33.7 million for these 3 years.

4.5 Closure/Reclamation

While the total and annual cost of the reclamation phase would be the same for the Proposed Action and Alternative 1, the activities would occur in different calendar year(s). However, since IMPLAN data are not available past 2030, the reclamation phase events, estimated impacts to employment, labor income, and value added, and other sectors affected by the reclamation phase under Alternative 1 do not differ substantially from the Proposed Action. (See Tables 3-11, 3-12, and 3-13).

5.0 IMPLAN MODEL FOR ALTERNATIVE 2

In this section, the sector, values, and years used to build each phase of the model are presented for each phase of activity associated with Alternative 2 (permitting, construction, operation, and reclamation). Economic impacts under Alternative 2 are compared to those discussed under the Proposed Action and Alternative 1. Tables presenting the events and top 10 sectors affected by each phase were included in addition to the FEIS to provide a more granular explanation of the model. Tables presenting project costs and the economic impacts by phase with associated discussion are already presented in Section 3.22 of the FEIS.

5.1 Project Costs of Alternative 2

Project costs under Alternative 2 are the same for the permitting, construction, and reclamation phases under the Proposed Action and Alternative 1. The cost of the operations phase would be higher than under the Proposed Action, but the duration (and therefore the timing) of the phases would be different. The IMPLAN impact scenario for the operation phase under Alternative 2 was adjusted to reflect the differences from the Proposed Action. Similar to Alternative 1, the estimated operational life of the mine is shorter (11 years instead of 16). (See Table 5-1.)

Table 5-1. NMCC Estimated Project Costs – Alternative 2

Table 5-1. NMCC Estimated Project Costs – Alternative 2		
Description	Duration (years)	Cost (USD)
Pre-construction/permitting	4-5	\$18,408,000
Construction/site preparation	1-2	\$363,535,000
Mining operations	11	\$1,525,285,000
Closure/reclamation	3	\$45,398,000
Total	19-21	\$1,952,626,000

Source: NMCC 2014a.

Note: All estimates include resource taxes and exclude income taxes.

5.2 Pre-Construction/Permitting

The overall cost, cost per year, and calendar year of the permitting phase are the same for the Proposed Action and Alternative 2. As such, permitting phase events, economic impacts of the permitting phase, and sectors affected by the permitting phase of Alternative 2 do not differ from those discussed under the Proposed Action. (See Tables 3-2, 3-3, and 3-4).

5.3 Construction/Site Preparation

The overall cost, cost per year, and calendar year of the construction phase are the same for the Proposed Action and Alternative 2. As such, the construction phase events, economic impacts of the construction phase, and sectors affected by the construction phase under Alternative 2 do not differ from those discussed under the Proposed Action. (See Tables 3-5, 3-6, and 3-7).

5.4 Mining Operations

Table 5-2 shows the Event Description (i.e., sector), Event Value (i.e., Industry Sales), and Event Year (i.e., when event is planned) for the operations phase under Alternative 2.

Table 5-2. Operations Phase Events– Alternative 2

Table 5-2. Operations Phase Events– Alternative 2		
Event Description	Event Value	Event Year
Mining copper, nickel, lead, and zinc	\$113,000	2016
Mining copper, nickel, lead, and zinc	\$450,000	2017
Mining copper, nickel, lead, and zinc	\$155,089,000	2018
Mining copper, nickel, lead, and zinc	\$152,367,000	2019
Mining copper, nickel, lead, and zinc	\$136,992,000	2020
Mining copper, nickel, lead, and zinc	\$139,867,000	2021
Mining copper, nickel, lead, and zinc	\$145,669,000	2022
Mining copper, nickel, lead, and zinc	\$117,165,000	2023
Mining copper, nickel, lead, and zinc	\$115,709,000	2024
Mining copper, nickel, lead, and zinc	\$108,716,000	2025
Mining copper, nickel, lead, and zinc	\$112,677,000	2026
Mining copper, nickel, lead, and zinc	\$114,614,000	2027
Mining copper, nickel, lead, and zinc	\$113,621,000	2028
Mining copper, nickel, lead, and zinc	\$80,855,000	2029
Mining copper, nickel, lead, and zinc	\$31,381,000	2030
Total	\$1,525,285,000	N/A

Note: N/A=Not Applicable

Under Alternative 2, the operations phase would create approximately \$1.8 billion in total economic activity and support more than 5,200 direct, indirect, and induced jobs over a period of 11 years; compared to \$1.1 billion in total economic activity and over 3,300 direct, indirect, and induced jobs under the Proposed Action. (See Table 5-3.)

Table 5-3. Economic Impacts of Operation Phase in Sierra County – Alternative 2

Table 3-90. Economic Impacts of Operation Phase in Sierra County – Alternative 2			
Impact Type	Employment	Labor Income	Economic Activity
Direct effect	3,440	\$364,651,777	\$1,700,357,634
Indirect effect	273	\$9,568,219	\$18,473,030
Induced effect	1,506	\$39,762,642	\$83,736,506
Total effect	5,218	\$413,982,638	\$1,802,567,171

Source: Calculations by Author using IMPLAN PRO Version 3.

Alternative 2 would create almost 1,300 more direct jobs than would the Proposed Action; and almost 1,900 more direct, indirect, and induced jobs overall. Average annual direct employment by the mine for Alternative 2 would also be higher than the Proposed Action over the operations phase – about 287 employees per year compared to 127 per year under the Proposed Action. Mine workers in Sierra County would experience a roughly \$365 million increase in labor income (including benefits) during the operations phase, or an average of about \$30.4 million per year – about \$16.9 million more per year than the Proposed Action. Peak yearly impacts would occur in years 3, 4, and 7 of the operations phase, in line with the highest annual operating costs for this alternative. Direct employment in peak years (years 3, 4, and 7 of the operation phase) would vary between 335 and 387 and compensation in these peak years would vary between \$34.3 and \$36.6 million.

Under Alternative 2, the mining operations phase would last 11 years, would cost \$1,525,285,000, and would create 3,440 direct jobs and 273 indirect jobs. Under Alternative 1, the mining operations phase would last 11 years, cost \$1,305,412,000, and create 2,078 direct jobs and 168 indirect jobs. Alternative 2 would create more direct and indirect jobs because the cost for this phase is \$219,873,000 higher. Given that this alternative is the most expensive and has the highest rate of production (30,000 tpd), more money would be allocated for more workers to be able to meet the production schedule.

In addition to the “mining copper, nickel, lead, and zinc” sector, the other sectors that would be affected by the operations phase under the Alternative 2 are shown below in Table 5-3.

Table 5-3. Top 10 Sectors Affected by the Operations Phase in Sierra County – Alternative 2

Table 5-3. Top 10 Sectors Affected by the Operations Phase in Sierra County – Alternative 2			
Sector	Employment	Labor Income*	Value Added
Mining copper, nickel, lead, and zinc	3,439.5	\$364,651,777.30	1,700,357,634.20
Food services and drinking places	252.0	\$3,992,983.60	6,819,867.20
Private hospitals	119.1	\$6,689,426.90	7,475,474.70
Offices of physicians, dentists, and other health practitioners	117.2	\$5,439,928.90	5,702,249.40
Nursing and residential care facilities	114.5	\$2,915,644.90	3,493,483.70
Retail Stores - General merchandise	78.6	\$1,942,161.20	3,164,661.40
Retail Stores - Food and beverage	78.4	\$1,775,182.00	2,843,512.20
Civic, social, professional, and similar organizations	77.8	\$1,065,192.90	1,057,988.40
Custom computer programming services	54.4	\$978,004.00	918,290.20
Individual and family services	54.2	\$1,924,888.30	1,714,620.60
Total	4,385.8	\$391,375,190.10	1,733,547,782.00

Source: Calculations using IMPLAN PRO Version 3.

Note: *Includes wages and benefits.

5.5 Closure/Reclamation

The overall cost, cost per year, and calendar year of the reclamation phase are modeled the same for the Proposed Action and Alternative 2. Because IMPLAN cannot incorporate activities planned past 2030, the reclamation phase events, estimated impacts to employment, labor income, and value added, and other sectors affected by the reclamation phase under Alternative 2 do not differ substantially from the Proposed Action. (See Tables 3-11, 3-12, and 3-13).

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ACRONYMS AND ABBREVIATIONS

FEIS	Final Environmental Impact Statement
GDP	Gross Domestic Product
IMPLAN	Impact Analysis for Planning
I-O	Input-Output
ktons/yr	kilotons per year
MRIO	Multi-Regional Input-Output
NMCC	New Mexico Copper Corporation
RPC	Regional Purchase Coefficient
SRIO	Single-Region Input-Output

APPENDIX N

CCR/CRM

APPENDIX N: CCR/CRM

COPPER FLAT

DRAFT ENVIRONMENTAL IMPACT STATEMENT

COMMENT CATEGORIES AND RESPONSES

MARCH 2018

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Comment Response Overview

The comments presented in this document reflect those received by the Bureau of Land Management Las Cruces District Office during the public comment period (December 6, 2015 to April 4, 2016) for the Copper Flat Mine Draft Environmental Impact Statement (DEIS). The BLM would like to acknowledge the factual comments and opinions provided by reviewers of the DEIS. The consideration of these comments (as responded to in this document) greatly assisted the BLM and their third-party contractor in preparing the Final EIS (FEIS) for publication.

The BLM received a total of 249 comment submissions. A comment submission is defined as a set of written or oral comments received by the BLM. Written comments were submitted using comment forms, letters, and emails. All comments were directly delivered to the BLM. Oral comments were made during the open forum portion of the Public DEIS Meetings, which was captured by a court reporter. Other meeting attendees made comments for the record by dictating to the court reporter.

The comment submissions were reviewed to identify specific comments within each submission. A comment was defined as a thought, concern, question or recommendation. Approximately 1,200 individual comments were identified.

In order to manage the volume of comment submissions and comments received, each comment (i.e., thought, concern, question, recommendation) was categorized by topic. Thirty-seven comment topics were developed to categorize comments. The 37 topics, or comment categories, are listed in the Table of Contents for this document.

Each categorized comment was then assigned a number within its category for organizational purposes. Comments that addressed a similar issue within a category were assigned the same number to facilitate the preparation of comment responses. The comments and their associated responses are presented in this Comment Categories and Responses (CCR) document. Comments with the same category and subcategory number were summarized and a single response is shown in this document.

All of the comments were catalogued in a spreadsheet titled “Comment Response Matrix” that can be found in the Administrative Record for the FEIS. The Comment Response Matrix (CRM) includes the following information for each comment:

- Date the comment submission was received by the BLM
- Commenter’s name and contact information
- Detailed summary of the comment
- Comment category and subcategory number assigned to each comment
- Chapter/Section/Resource Area associated with the comment category.
- BLM’s response to the comment
- File name of the comment submission, which includes the comment code and the commenter’s name (e.g., NGO7_Environmental Law Center)

In the CRM, comments that were summarized for the CCR are shown individually and the response shown for the summarized comments in the CCR has been tailored to specifically address the individual comment. The CRM can be used to locate the original comment submission for the comments summarized in the CCR.

The comment submissions included in the Administrative Record include annotations based on the comment codes, comment categories, and comment subcategories described above.

The remainder of this document is organized by comment categories, shown in the Table of Contents.

Alternatives (ALT)

ALT-1. Support Alternative 2 - the most economical manner in which to operate the mine. Alternative 2 would limit the environmental impact and promote the positive economic impact as a result.

Response: Thank you for your comment.

ALT-2. It is inaccurate to say that the No Action Alternative would not have impacts to the community. If the no action alternative is selected, THEMAC and New Mexico Copper Corporation will have to clean up/reclaim the area; both of which would have impacts.

Response: New Mexico Copper Corporation (NMCC) has an obligation to cleanup/reclaim following activities such as exploration (drilling) but the New Mexico Environment Department (NMED) has no basis to require NMCC to upgrade facilities that were previously reclaimed unless there was a potential or actual impact to water quality from the existing condition. That could potentially come out of the abatement process in the event the No Action Alternative was selected. One place where this could possibly occur would be the tailing impoundment, where the synthetic liner at the base of the new impoundment was to provide a source control measure on top of the existing tailings. Similar conditions may exist for rock piles.

Additionally, the site does not meet Mining and Minerals Division's (MMD) definition for an "existing mining operation" (19.10.1.7.E(2) NMAC) because the mining performed by Quintana did not produce a marketable mineral for a total of at least 2 years between January 1, 1970 and June 18, 1993. Because the mine does not qualify as an existing mining operation per the definition, MMD would not have any jurisdiction to require Quintana or NMCC to reclaim the slopes, waste rock facilities, pit, tailings impoundment, roads, etc. that are currently at the site. The mining performed by Quintana in the 1980s and the mining conducted by smaller entities prior to Quintana are considered to be "pre-New Mexico Mining Act" disturbances that are not able to be regulated by MMD based on the Act and Rules. As such, if the No Action Alternative was selected during the EIS process, the disturbances and reclamation previously performed by Quintana in the 1980s would be allowed by MMD to remain as-is. However, if

old disturbance is re-disturbed by the new NMCC mining operation, those areas that become re-disturbed would fall under the requirements for new mining operations. For example, if NMCC reuses an old waste rock pile, then they would have to meet New Mine Operation and Performance Standards.

ALT-3. Select NMCC's preferred alternative.

Response: Thank you for your comment. The final determination for the Copper Flat mine will be described in detail with the publication of the Record of Decision (ROD) following the publication of the Final Environmental Impact Statement (FEIS).

ALT-4. BLM does not properly identify the Proposed Action and the alternatives. The action alternatives do not reflect a logical or likely set of options or evaluations of feasibility - this results in a report which is deliberately skewed. If the correct proposed action would have been selected, the analysis would have been performed using a different set of data and it would have delivered a different set of conclusions, across the board. Because the preferred alternative was not selected as the proposed action, the analysis is inadequate. Furthermore, a smaller EIS might result if the redundancies were eliminated even if properly reasonable analyses of the alternate Mine Plan of Operation (MPO) were presented. [Same as PA-10]

Response: The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ).

ALT-5. The plant electrical load requirements referenced in section 2.3.6 Electrical Power (Alternative 2) are assumed to be average and not peak loads. [Same as U&I-1]

Response: The values shown are average loads. A complete analysis of electrical power requirements for the alternatives evaluated is provided in Section 3.25 of the EIS. More specific analysis would be required if NMCC builds the electrical substation on site. Peak loads would be a consideration with this analysis.

ALT-6. In section 3.25.2.2: "Alternative 1: Accelerated Operations-25,000 Tons per Day Power," the reference to daily demand of 5559.25MWh should be corrected to 559.25MWh.

Response: The text regarding daily demand has been corrected.

ALT-7. In section 3.25.2.3: “Alternative 2: Accelerated Operations-30,000 Tons per Day Power: there are discrepancies related to the assumption that statements made on section 3.2.6 and 3.25.2.1.1 are referencing elements other than transmission related facilities.

Response: These discrepancies have been corrected in the FEIS.

ALT-8. On page ES-7, BLM gives briefly addresses (and dismisses) the “No Action Alternative” in one, and contradictory paragraph. The statement that local employment and economic revenues would not increase as a result of this alternative is not true. It is estimated that reclamation would create 75 jobs, last four to five years, and cost THEMAC/NMCC \$42 million. That’s quite a bit of revenue, but a huge cost with no return to already strapped THEMAC/NMCC.

Response: The No Action Alternative has been modified for the FEIS.

ALT-9. NMCC does not have water rights in sufficient quantity in the form of a permit from the OSE, a water rights subfile order, or a reasonable plan for how such water rights will be secured or when. Until such water rights are secured, the only alternative the DEIS can support is the No Action Alternative.

Response: With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project. A preferred alternative can be selected regardless of whether water rights have been secured, although NMCC cannot commence mining until water rights are secured.

ALT-10. Why is there not an alternative to the Proposed Action which is environmentally less damaging or that consumes less water? BLM need not choose that alternative, but normally BLM would have to give good reason not to. In this DEIS, there is not even the option of that alternative. Why is that choice not presented to the decision makers? Components of the alternatives consuming the largest amounts of water should not be pursued.

Response: The Proposed Action reflects the MPO submitted to the BLM by NMCC and presented to the public during the scoping process. The chosen alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the

input and proposed alternatives that reflected the substance of the scoping comments and the company's requirements.

ALT-11. To gauge Copper Flat's dependency on copper price fluctuation, the DEIS should look at Quintana's experience as an indication that there has been very limited actual mining operation in the past 40 years. Subsequently, the actual duration would be closer to 600 years as opposed to 12 years under Alternative 2 based on historical trends. Because of the improbable assumption that the mine operation will be continuous for 11, 12, or 16 years, and because much of the DEIS is formulated on that substantially improbable foundation, much of the analysis is misapplied.

Response: The Proposed Action reflects the MPO submitted to the BLM by NMCC and presented to the public during the scoping process. The chosen alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments and the company's requirements. These alternatives, developed as reasonably foreseeable alternatives, are the basis for the analysis contained in the EIS.

ALT-12. Will the Golder TSF design be adequate for the newly Proposed Alternative, Alternative 1, or Alternative 2? How will this speed up of tons per day of tailings material impact the ongoing, field construction of the liner? In addition, how will the extra water (from the liquid portion of the tailings) affect the supernatant pool within the TSF? What will happen if there is a storm event - will there be extra capacity for the extra water taking into consideration the extra water used to mill the ore using Alternative 1 and 2?

Response: The specification and operation of the tailings storage facility (TSF) is essentially the same for each of the alternatives proposed. The major difference is the speed of processing and the proposed liner is adequate for each alternative. Regarding a storm event, the planned TSF is modeled to meet the requirements of a 72-hour maximum storm event and still have the capacity required for each of the alternatives.

ALT-13. In the event of a temporary, short-term halt to mining or suspension of production, "care and maintenance" procedures need to be detailed for each action alternative. As such, the DEIS needs to describe how water balance will be affected; how capture, treatment and disposal of water will be affected; how the formation of a pit lake will be mitigated; and what level of work force is needed to assist in site management.

Response: Section 2.1.15.10, Interim Management Plan, provides an overview of NMCC's plan for any temporary shutdown of the mine.

ALT-14. BLM's designation of the Preferred Alternative is even more appropriate than is currently reflected in the DEIS. There are some areas of the DEIS in which appropriate

clarifications will establish that the Preferred Alternative has even fewer environmental impacts than the DEIS currently indicates.

Response: The BLM will ensure that all impacts associated with the Proposed Action and alternatives are fully described in the FEIS.

ALT-15. It would be helpful for a reader to understand in the footnote in Table 2-28 (§2.3.7.1, at 2-83) exactly what percentage of the total water used in the Preferred Alternative is recycled water, as opposed to freshwater. The FEIS should clarify in the footnote that 72% of the total water use is recycled water. This clarification should be consistent with the text of the DEIS (§2.3.7.1, at 2-83). [Same as PA-34]

Response: The table referenced by the commenter has been corrected to clarify this.

ALT-16. NMCC has developed strong ties to Sierra County over the last several years through conversations with business owners, community leaders, business and social organizations, and citizens. Several official Sierra County government bodies, lawmakers, as well as the Sierra Electric Cooperative Board of Trustees have provided documentation of support for the project.

Response: Thank you for your comment.

ALT-17. Lining of waste rock piles and low-grade ore stockpiles is not considered as an alternative to mitigate potential impacts to groundwater quality. Pit lake water quality is predicted to exceed some standards post-closure, yet no consideration of alternatives for mitigating these impacts is discussed, such as partial or full backfilling of the pit.

Response: As stated in the MPO, “NMCC does not propose to backfill the pit. Backfilling operation would not allow sequential mining of the deposit, may cover future mineral resources, and would be economically unfeasible following closure of the operation.” This statement has been added to the FEIS.

Lining waste rock piles and ore stockpiles is not required by BLM regulation nor under the Copper Rule; this is not a standard industry practice. All waste rock piles and ore stockpiles would be designed to either prevent acid rock drainage (ARD) through encapsulation with non-acid generating material or would be within the pit hydrological containment. Pursuant to the NMED Supplemental Permitting Requirements for Copper Mine Facilities (20.6.7 NMAC), during operations groundwater standards do not apply within the “area of open pit hydrologic containment” (20.6.7.24.D).

The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The water quality standard that would apply is a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality. Therefore, the pit lake would not

be subject to State water quality standards such as those defined in 20.6.4 NMAC.

ALT-18. DEIS claims that all action alternatives will "result in an improvement of water quality as compared to the No Action alternative," ignoring the fact that NMCC has been implementing an abatement plan since 2012 to remediate existing groundwater.

Response: NMCC's plan is to construct and operate the Copper Flat mine as a zero-discharge facility. The proposed operation of Copper Flat will control stormwater, dewater the pit, and replace the Quintana TSF with a lined TSF. In the event that the No Action Alternative is selected, legacy groundwater quality concerns would be addressed with State regulatory oversight; however, the abatement plan in that scenario has not yet been finalized. It is anticipated that the water quality at Copper Flat would ultimately be approximately the same under the Proposed Action, other action alternatives, and the No Action Alternative, although the timing and methods for abatement may be different. The FEIS clarifies the water quality outcomes for the Proposed Action and alternatives.

Air Quality (AQ)

AQ-1. Air quality may improve in the immediate area due to reduced grazing and any reduction of methane gas generator (i.e., cows). [Same as CC-1]

Response: Thank you for your comment.

AQ-2. The project would pollute the air, and dust would negatively affect humans and wildlife in Animas, Caballo, and Hillsboro and in the area.

Response: Thank you for your comment. The Air Quality section of the DEIS, Section 3.2, contains a detailed analysis of the potential for air pollution and dust generation from the Proposed Action and alternatives.

AQ-3. The DEIS provides sufficient details to infer the potential impacts to air quality.

Response: Thank you for your comment.

AQ-4. Suggest that a description of the significance of the total direct and indirect emissions that would occur during mine operational activities be provided in this section of the FEIS (as referenced in Section 3.3.2.1.1: Mine Development and Operation).

Response: A description of the significance of the total direct and indirect emissions that would occur during mine operational activities is provided in Section 3.3.2.1. Short- and medium-term minor adverse effects to air quality would be expected under the Proposed Action. Short-term effects would be due to heavy vehicle emissions and the construction of facilities during site

preparation, while medium-term effects would be due to heavy vehicle emissions and operation of facilities during mine operation and reclamation.

AQ-5. Applying water from the pit lake, which could be of questionable chemical and mineral composition, for dust suppression on roads in the area where exposure to stormwater flows and subsequent transport of sediment inherent to soil erosion from earthen roads can be expected is a concern that must be adequately addressed (page 3-57). [Same as WQ-11]

Response: Pursuant to the NMED Supplemental Permitting Requirements for Copper Mine Facilities (20.6.7 NMAC), during operations groundwater standards do not apply within the “area of open pit hydrologic containment” (20.6.7.24.D). Therefore, the discharge permit would not put limitations on the quality of water used for dust suppression within the area of open pit hydrologic containment. Outside of that area, the discharge permit would likely include limitations on the quality of water that could be used for dust suppression. Any surface runoff from dust suppression would need to be contained such that it does not impact surface waters, but that would not be a component of a groundwater discharge permit, more likely part of a stormwater pollution prevention plan (SWPPP).

For application of *impacted* water for dust suppression *inside* the hydrologic containment area (pit lake area), pit water can be applied as dust suppression without treatment so long as this water is applied inside the hydrologic containment area. If the impacted water adversely affected the soils to a condition that could not support vegetation, then MMD would likely require the application of 36 inches of growth media at feasible reclamation areas (24 inches over foundations or concrete). MMD would look to their Closeout Plan Guidelines to determine whether soil has been adversely affected by metals or other contaminants from applying impacted pit water.

AQ-6. The AERMOD air quality model (p. B-10) that assumes “flat terrain sources” is not accurate; the results and concentration of contaminants would be higher once topographic features are included in the model. In addition, once the modelling is expanded to include the use of AERMAP and AERMET, the proposed air quality plan would not pass the scrutiny of the air pollutant permitting process. Furthermore, it is unclear if Alternative 2 was actually modeled or if emissions estimates were just “pro-rated” based on the Proposed Action and Alternative 1. Given that Alternative 2 is the preferred alternative, air quality impacts for this alternative should be modeled. Additionally, there is no discussion of why air quality impacts are considered “not significant.”

Response: Topography was included in the dispersion modeling. The modeling inputs and results were reviewed by the NMED in the air permitting process to ensure that best modeling practices were used. As outlined in Section 3.2.2.3, if Alternative 2 were ultimately selected, an air permit revision, including an updated dispersion modeling analysis, would be required. As outlined in sections 3.2.2.2 and 3.2.2.3, the Proposed Action would have minor (i.e. less than significant effects) as it would not exceed major source thresholds outlined in the

PSD regulations, generate emissions that would exceed the National Ambient Air Quality Standards (NAAQS) or New Mexico Ambient Air Quality Standards (NMAAQS) at any nearby location, or contribute to a violation of any State, Federal, or local air regulation.

AQ-7. Fugitive air emissions of heavy metals from mining operations could impact surface and groundwater resources in the area [Same as WQ-1].

Response: Section 3.4.2.1.2 provides a technical explanation of why the effects of using water from the pit for dust suppression are considered insignificant. The application and evaporation of applied water would likely result in the deposition of certain constituents on the surface of roadways; however, the runoff from the roadways would be controlled by the surface runoff features.

AQ-8. The document does not sufficiently evaluate and present a discussion of cumulative impacts for a number of resource categories including air quality, and impacts from previous mining operations, as required by NEPA. [Same as CI-2 and NEPA-30]

Response: The air quality assessment included background air pollutant concentrations with air impacts from past and present activities. A discussion of cumulative effects on air quality is provided in Chapter 4 of the EIS. The BLM believes that the cumulative impacts assessment for other resource categories is either sufficient as presented in the DEIS or has been made so in the FEIS with specific input from the subsequent public comment process.

AQ-9. Cannot determine the quality of the air modeling results because were unable to establish from Appendix B the magnitude of the area (i.e., airshed) used to model air pollutant concentrations.

Response: As stated in Section 3.2.1.2, the Copper Flat mining project is located in Air Quality Control Region (AQCR) 153. The area included was sufficient to outline the extent of the distance to the Significant Impact Levels (SILs) for each pollutant. The modeling inputs and results were reviewed by the NMED in the air permitting process to ensure that best modeling practices were used.

AQ-10. The Draft EIS reports that if Alternative 2 were ultimately selected, an air permit revision, including an updated dispersion modeling analysis, would be required. The DEIS mentions that "no mitigation measures for air resources beyond BMPs and regulatory requirements described in the Proposed Action have been identified for any alternative." How would the use of BMPs prevent violations to the Clean Air Act for Alternative 2? Further, the Copper Flat mine would be considered a major source rather than a minor source under Alternative 2 given that its emissions of PM10 and carbon monoxide are predicted to be above thresholds. PSD policy is if a source is "a major source for one, it is major for all." These considerations need to be addressed in the DEIS.

Response: The dispersion modeling was performed to include all receptors within the area of effect. Contours of equal concentration are shown for each pollutant. No receptors were identified that would have concentrations greater than the ambient air quality standards. A discussion of BMPs and reductions by design is presented in Section 3.2.2.1.1.

AQ-11. Recommend the FEIS estimate the GHG emissions associated with the proposal and its alternatives using tools for estimating and quantifying GHG emissions found on CEQ's NEPA.gov website. Furthermore, recommend the FEIS describe measures to reduce GHG emissions associated with the project, including reasonable alternatives or other practicable mitigation opportunities and disclose the estimated GHG reductions associated with such measures. [Same as CC-3]

Response: Quantitative data on anticipated GHG emissions from the Proposed Action and alternatives (followed by a discussion of impacts) have been added to Section 3.3.2.1.1. GHG emissions modeling data contained within the air permit document for the Copper Flat site have been analyzed and interpreted for the EIS.

AQ-12. Recommend that the FEIS and ROD commit to implementation or reasonable mitigation measures that would reduce or eliminate project-related GHG emissions. [Same as CC-4]

Response: See response to comment CC-4.

AQ-13. The DEIS does not provide a dispersion model for the preferred alternative and does not address impacts to the localized air quality and visibility impairment from fugitive dust that could impact transportation and recreation and tourism on the Byways and Ladder Ranch. Mitigation measures have not been identified. [Same as REC-14]

Response: Section 3.2.2 of the EIS addresses the impacts of air pollution and dust from the Proposed Action and alternatives, including the Preferred Alternative. The air dispersion modeling performed for the air permit demonstrated compliance with all applicable ambient air quality standards. Therefore, adverse effects to nearby areas or individuals are not expected. The dispersion modeling included worst case meteorological conditions as a basis for this determination.

AQ-14. The DEIS fails to address what will happen on dry, windy days and during extreme wind events. Pollutants dispersed during such events could be deposited in soils miles from the mine site, and re-circulated whenever the wind blows, resulting in air and water pollution and contamination of soils. Smaller dust particles not only travel farther, they can get deeper into lungs and cause more health problems. Furthermore, the document does not address acute and chronic health effects to local residents.

Response: Section 3.2.2 of the EIS addresses the impacts of air pollution and dust. Section 3.2.2.1.1 states that the modeling performed for the air permit demonstrated compliance with all applicable ambient air quality standards. The air dispersion modeling included worst-case meteorological conditions as a basis for this determination. Therefore, adverse effects to nearby areas or individuals are not expected. Both short- and long-term air quality standards for acute and chronic effects were assessed.

AQ-15. The DEIS fails to take a hard look at the mine's impacts to air quality. General statements such as, "The overall air quality in the vicinity of the mine is good," and, "A review of the results of recent NATA [National Air Toxics Assessment] documents show that cancer, neurological, and respiratory risks in the mine area are well below national levels," are made without citation of any supporting documents. Furthermore, on December 17, 2015, EPA released the most recent update to the National Air Toxics Assessment (NATA). The DEIS was released to the public on November 23, 2015. It clearly did not review "the results of recent NATA documents."

Response: The statements cited from the EIS are in Section 3.2.1, which describes the affected environment. The environmental effects on air quality are outlined in Section 3.2.2 of the EIS. The 2011 NATA was the best available information on the existing air toxics conditions in the area during the preparation of the DEIS (USEPA 2011: <https://www.epa.gov/national-air-toxics-assessment>) and still is. As confirmation, the site was accessed again in September 2016 and January 2018. The 2015 assessment is still being prepared for full public release. No substantial changes to existing air toxics conditions in the area are anticipated with this release.

AQ-16. Climate change impacts were not quantitatively analyzed. No quantitative information is provided in the DEIS for greenhouse gas emissions for the Proposed Action and alternatives. The DEIS analysis appears to be using criteria air pollutant emissions as a surrogate for greenhouse gas emissions without explicitly stating this. [Same as CC-7]

Response: Quantitative data on anticipated GHG emissions from the Proposed Action and alternatives (followed by a discussion of impacts) was added to Section 3.3.2.1.1 of the FEIS. GHG emissions modeling data contained within the air permit document for the Copper Flat site have been analyzed and interpreted for the FEIS.

Bureau of Land Management (BLM)

BLM-1. This project is consistent with BLM's multiple-use mandate and other federal laws including the Federal Land Policy and Management Act.

Response: Thank you for your comment. The BLM evaluated the project's compatibility with multiple use policies and compliance with the Federal Land Policy and Management Act (FLPMA).

BLM-2. The BLM is very explicit in establishing that an EIS must comply with cumulative effects analysis. The analysis is different from the BLM guidance. [Same as CI-17]

Response: Cumulative impacts of the Proposed Action and alternatives are discussed in Section 4.0, Cumulative Impacts, and were written in compliance with BLM guidance.

BLM-3. Request that BLM more fully analyze the impacts of the proposed mining operation on water impacts. As it stands now, the DEIS does not comply with NEPA and BLM's own regulations for surface water management.

Response: The BLM performed a thorough analysis of groundwater, surface water, and water quality that was supplemented by additional analysis in response to comments received from the public, government agencies, and non-governmental organizations. The BLM is not aware of any BLM specific regulations on surface water management as they would apply to the Copper Flat mine.

BLM-4. Who paid for the EIS and how much did it cost? Does the BLM or cooperating agencies plan on challenging conclusion based on opinion in the EIS? Will the BLM send copies of my statement to cooperating agencies?

Response: NMCC pays for costs associated with the EIS, but the BLM is responsible for technical direction of the EIS contract, as well as the final decision made following finalization of the EIS. The EIS contract amount from late 2011 through September 2017 is approximately \$2 million. Assuming the conclusion referenced by the commenter refers to the EIS conclusion, the EIS is the BLM's document and it has been coordinated with cooperating agencies. When a conclusion is reached on the Final EIS, it will represent the BLM's careful review of the Proposed Action and alternatives developed for the proposed mine. The cooperating agencies will receive copies of the Final EIS, which will include all comments received and their responses.

Climate Change and Sustainability (CC)

CC-1. Air quality may improve in the immediate area due to reduced grazing and any reduction of methane gas generator (i.e., cows). [Same as AQ-1]

Response: Thank you for your comment.

CC-2. The assertion in the draft EIS that the aquifers will recharge in a fairly short period of time is of significant importance. The effects of climate change, especially given the mining activities proposed by THEMAC, on a broad spectrum of EIS evaluation criteria may be extreme. None of the impacts of climate change (e.g. reduced snowpack) are discussed in the DEIS and would impact both the runoff and recharge of the aquifer. [Same as GW-19 and SW-11]

Response: Additional description of possible specific climate change impacts has been added to Sections 3.3.1.2 and 3.3.2.1.1 of the EIS. Groundwater responds rapidly to local stresses or inputs (e.g. pumping of wells) but slowly to regional climate changes. Moreover, natural climate is variable and any imprint from global change is very difficult to determine from that variability on a local scale.

The primary projected climate change impact for this area is that the future surface water resources in the Rio Grande will experience an overall decrease in total supply due to a higher rate of evapotranspiration in the contributing basins, and a seasonal shift from less spring runoff (less snowmelt) to more summer runoff (more thunderstorm precipitation).

With consideration of climate change effects, the impact of Copper Flat (in addition to all other local/regional users of surface and ground water) would be proportionally larger as climate change progresses, i.e. the pumping rate affecting the aquifer and rivers would not change, but the impacted resource would be more vulnerable due to changes in recharge rate and quantity. The quantitative effect on aquifers and surface water is speculative.

CC-3. Recommend the FEIS estimate the GHG emissions associated with the proposal and its alternatives using tools for estimating and quantifying GHG emissions found on CEQ's NEPA.gov website. Furthermore, recommend the FEIS describe measures to reduce GHG emissions associated with the project, including reasonable alternatives or other practicable mitigation opportunities and disclose the estimated GHG reductions associated with such measures. [Same as AQ-11]

Response: Quantitative data on anticipated greenhouse gas (GHG) emissions from the Proposed Action and alternatives (followed by a discussion of impacts) has been added to Section 3.3.2.1.1 of the FEIS. GHG emissions modeling data contained within the air permit document for the Copper Flat site have been analyzed and interpreted for the FEIS.

CC-4. Recommend that the FEIS and ROD commit to implementation or reasonable mitigation measures that would reduce or eliminate project-related GHG emissions. [Same as AQ-12]

Response: CEQ's *Final Guidance on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews* (August 2016), which directed agencies to commit to implementation of reasonable mitigation measures to reduce or eliminate project-related GHG emissions, has been withdrawn for further consideration, (March 2017). Operators are required to reduce emissions of hazardous and criteria pollutants including volatile organic compounds (VOCs) as well as methane in accordance with Federal, State, and local rules and regulations. Because the controls to reduce VOCs can also reduce methane, mitigation for methane as a GHG would be in accordance with current federal rules and regulations. Although there are no active regulations

that would require GHG mitigations for the proposed project, NMCC has identified in its air permit an array of monitoring and compliance measures that would be taken, which do involve measures related to the minimization of GHG emissions.

CC-5. Recommend considering climate adaptation measures based on how future climate scenarios may impact the project in the FEIS. For example, an analysis of future climate change resulting in a regionally warmer and drier climate which would increase the potential for evaporative sink conditions should be analyzed. The DEIS provides a brief discussion of climate change and states that the Mine's climate change impacts would be "short-term to medium-term minor adverse effects" (DEIS 3-15 through 3-17), but it fails to provide any supporting documentation or to adequately analyze such impacts, in violation of NEPA 40 C.F.R. Parts § 1502.16 and .23.

Response: Quantitative data on anticipated GHG emissions from the Proposed Action and alternatives (followed by a discussion of impacts) has been added to Section 3.3.2.1.1. GHG emissions modeling data contained within the air permit document for the Copper Flat site have been analyzed and interpreted for the EIS.

CC-6. The DEIS notes recent, severe droughts and recognizes drought as a cumulative impact but analysis is minimal. The DEIS is silent on the cumulative impacts of climate change on surface water use by the project. [Same as SW-27]

Response: A discussion on climate change has been added to the cumulative impact section of the FEIS.

Based on the consensus of the various models described in EIS Section 3.6, Groundwater Resources, the primary projected climate change impact for the project region is that the future surface water resources in the Rio Grande will experience an overall decrease in total supply due to a higher rate of evapotranspiration in the contributing basins, and a seasonal shift from less spring runoff (less snowmelt) to more summer runoff (more thunderstorm precipitation).

With consideration of climate change effects, the impact of Copper Flat (and every other local/regional pumper of surface water) would be proportionally larger as climate change progresses, without drought management policies in place such as New Mexico's Active Water Resource Management (AWRM). An analysis has been added to the FEIS that acknowledges AWRM as a factor in determining cumulative impacts.

In January 2004 AWRM was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution makes priority of right the basis for water administration, but recent drought years have compelled the State Engineer to develop tools for AWRM that enable them

to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes, thus compensating for impacts to the aquifer and rivers.

CC-7. Climate change impacts were not quantitatively analyzed. No quantitative information is provided in the DEIS for greenhouse gas emissions for the Proposed Action and alternatives. The DEIS analysis appears to be using criteria air pollutant emissions as a surrogate for greenhouse gas emissions without explicitly stating this. [Same as AQ-16]

Response: Quantitative data on anticipated GHG emissions from the Proposed Action and alternatives (followed by a discussion of impacts) has been added to Section 3.3.2.1.1. GHG emissions modeling data contained within the air permit document for the Copper Flat site have been analyzed and interpreted for the EIS.

Cultural Resources (CR)

CR-1. The DEIS provides sufficient details to infer the potential impacts to cultural resources.

Response: Thank you for your comment.

CR-2. The FEIS should incorporate any issues raised by, and concurrence from, the ACHP, SHPO, Tribes, NMCC, and the Programmatic Agreement (PA) showing how the significant impacts to cultural and historic resources will be addressed and mitigated. Further, no specific mitigation measures have been outlined, despite the significance of adverse impacts. [Same as REG-9]

Response: A brief description of issues raised by the Advisory Council on Historic Preservation (ACHP) and the Section 106 consulting parties has been added to the FEIS. The FEIS includes a copy of the fully-signed Programmatic Agreement (PA) to resolve the adverse effects to historic properties. A summary of mitigation measures to be implemented has been added to the FEIS.

The BLM has completed its National Historic Preservation Act (NHPA) Section 106 compliance process, which includes all of the steps outlined in the comment. Completion of the process is demonstrated by the fully-signed PA, which is included in the FEIS.

The BLM has completed its NHPA Section 106 compliance process, as demonstrated by the fully-signed Programmatic Agreement now appended to the FEIS, which included all required consultation with agencies and interested parties. A summary of mitigation measures to address the adverse effects to historic properties has been added to the FEIS text.

CR-3. The sacred nature of the land must be protected.

Response: The BLM has considered the impacts to the cultural values of the land, including historical and archaeological sites, and has consulted with Native American groups to ascertain their concerns for any religious or cultural properties. The BLM has developed measures to avoid, minimize, or mitigate impacts in consultation with interested parties. These measures are delineated in the PA, appended to the FEIS.

CR-4. The only way to protect the John I. Hallett Placer Mining Heritage Site (Gold Dust, New Mexico) for which the Proposed Action and the alternatives both intend to bulldoze the entire area for the expansion of the tailings facility, is to change the TSF plans.

Response: Through the Section 106 consultation process, the BLM has developed a PA that would mitigate the effects to the heritage resources located within the Area of Potential Effect (APE), including those resources found at Gold Dust. This PA is included in the FEIS and a summary of the mitigation measures has been added to the FEIS.

CR-5. The DEIS incorrectly discusses (on page 3-168) the historical district; the “district” encompasses an area larger than the APE and thus is beyond the requirements of NEPA. Although load mining of significance was conducted outside the APE, the John I. Hallett site is the most important placer site in New Mexico, and it is located at the very center of the APE and thus within the auspices of the EIS. Subsequently, suitability must be evaluated for designation as a National Historical Site before irreparable and irretrievable damage is done. The site also must be properly reclaimed since the area is polluting groundwater – mitigation is essential as is preservation.

Response: During the Section 106 consultation process, the BLM defined and evaluated an historic district that encompasses the APE and additional areas. The text in the FEIS has been revised to reflect this.

CR-6. A wooden windmill tower known locally as the Rodgers Windmill located 0.25 miles west of the existing mine pit in the Grayback Arroyo System (on private land of the Hillsboro Pitchfork Ranch LLC) was constructed in approximately 1910, is in working condition, and supplies water to livestock and wildlife. Mine activities would harm the historic structure from vibration and loss of groundwater; making the windmill nonfunctional. A survey of this historic structure has not been conducted (not included in Appendix H). An analysis of effects to the windmill must be conducted and included. [Same as NOI-11]

Response: Vibrations: The Rodgers windmill is located approximately 480 meters away from proposed locations of blasting and mine vehicle use. This distance is almost twice the critical distance calculated for possible vibration effects to extremely fragile historic buildings, ruins, and ancient monuments. Because there is no potential effect to this windmill from vibrations, it is not included in the APE. Therefore, no analysis of effects to the windmill will be conducted for the EIS.

Loss of Groundwater: The BLM has evaluated information from the Pitchfork Ranch well closest to the mine site, identified in the EIS as GWQ-4 and known otherwise as the Rodgers windmill. Analyzing the information reveals that water is drawn down in the well approximately 70 feet within the 150-foot deep well as a result of pit dewatering. So, a water column remains at the well but from this finding alone, the BLM cannot assume there would be no impact to well yield. It remains possible that the small amount of bedrock aquifer thickness available after dewatering would not supply enough water to keep the stock tank full. Without more information, the BLM cannot conclude whether there would be adverse impacts. The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment". In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the Pitchfork wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law. The Section 106 PA allows for the future consideration of unanticipated effects to historic properties. At this time, no Section 106 effect to this windmill is anticipated and thus it is not included in the APE. If an impact is identified in the future from groundwater drawdown, the BLM would implement the provisions in the PA to evaluate the windmill for National Register eligibility, and if found eligible, determine if the effect is adverse and implement appropriate mitigation measures to resolve any adverse effect.

CR-7. Photographs on pages 3-180, 3-181, and 3-182 were taken in 2012 after NMCC had actively excavated the site and are misleading. Replace with photographs of the site prior to excavation.

Response: Photos of the site prior to excavation were not available and the photos were not found to be misleading by the BLM.

CR-8. Recommend that the numbers related to sites determined to be eligible for the National Register of Historic Places, sites that have undetermined eligibility, sites that have been determined not to be eligible, and sites that are considered to be potential contributing elements to a future mining-related historic district be revisited to ensure that they accurately reflect current numbers in the current Programmatic Agreement under review by consulting parties.

Response: The text and tables in the FEIS have been revised to match the property counts contained in the PA.

Cumulative Impacts (CI)

CI-1. Copper Flat is not a "green field project;" rather, it has been disturbed by ranching and mining. The mining process will improve the region's land. [Same as LU-4]

Response: Thank you for your comment. Previous mining activities at the site were included in the cumulative impacts analysis as discussed in Chapter 4 of the EIS.

CI-2. The document does not sufficiently evaluate and present a discussion of cumulative impacts for a number of resource categories including air quality, and impacts from previous mining operations, as required by NEPA. [Same as AQ-8 and NEPA-30]

Response: The air quality assessment included background air pollutant concentrations with air impacts from past and present activities. A discussion of cumulative effects on air quality is provided in Chapter 4 of the EIS. The BLM believes that the cumulative impacts assessment for other resource categories is either sufficient as presented in the DEIS or has been made so in the FEIS with specific input from the public comment process.

CI-3. This mining project represents the re-opening of a previously disturbed site. BLM should consider that the area has been previously mined.

Response: Thank you for your comment. Previous mining activities at the site are included in the cumulative impacts analysis in Chapter 4 of the EIS.

CI-4. In section 3.28 "Irreversible and Irrecoverable Commitment of Resources," references to water and groundwater are not consistent with the cumulative impacts analysis for groundwater. Under cumulative impacts, there will be a permanent decrease, whereas it is not mentioned as a permanent decrease in the irretrievable recovery of resources. In regards to the pit lake, the irretrievable and irreversible waste of water (because of the fact that the pit lake would be a permanent drain of water from both surface and groundwater) should not be condoned by the BLM and should not be allowed by the OSE. [Same comment as I&I-1; GW-9]

Response: The permanent reduction of the groundwater level at the pit has been included in Chapter 4, Cumulative Impacts, and Section 3.28 of the EIS, Irreversible and Irrecoverable Commitment of Resources.

CI-5. Concerned about vague or insufficient reclamation and/or closure plans, especially as they relate to wildlife habitat and the potential cumulative impacts. Locations downstream of Percha and Caballo State Parks, both designated as Audubon Important Bird Areas, could also be adversely affected by the displacement of the birds in the mining area. [Same as WL-8, PA-8]

Response: At the completion of mining activities, the site would be restored to conditions and standards that meet approved post-mining land uses. These uses would include native plant communities similar to surrounding undisturbed areas for wildlife habitat, and grazing land potentially suitable for livestock. Once

reclamation is successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels. Also, as noted in EIS Section 2.7, Best Management Practices, in the subsection entitled Threatened and Endangered Species and Special Status Species, ground clearing and other mine development activities would be avoided during breeding and nesting season (generally March 1 through August 31) until the area is surveyed by a qualified biologist to confirm the absence of nests (on the ground and in burrows and vegetation) and nesting activity to avoid impacting migratory birds. Therefore, the numbers of birds displaced during mining operations would be limited and the site would be restored to as good or better conditions for birds than pre-mining conditions. Mitigation measures applicable to migratory birds and special status bird species are described in Section 3.12.3. Thus, any long-term impacts to Audubon Important Bird Areas would be negligible.

CI-6. The document does not sufficiently evaluate and present a discussion of cumulative impacts for a number of resource categories and impacts from previous mining operations, as required by NEPA. The watersheds for mining operations and for the TSF area are not assessed at a level that required permits could be attained from the Dam Safety Office of the OSE. The environmental impacts on water quality of the areas that are not included in the TSF watershed could be quite severe on the Grayback Creek. [Same as WQ-2]

Response: The impact from previous mining operations on water quality is addressed in Section 3.4.2.1.2, which refers to the existing plume of groundwater with elevated total dissolved solids (TDS) that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume. With respect to impacts to water quality outside the TSF area, Section 3.4.2 provides a description of the environmental effects on water quality in the pit area, the TSF area, and the entire mining site. These effects include water quality effects from both point and non-point sources within the Grayback Arroyo watershed. As noted in Section 2.1.3.4, a permit for the proposed dam in the TSF would be required from the Dam Safety Office of the OSE. The requisite data and evaluations will have to be provided in order to obtain the permit.

CI-7. Concerned about vague or insufficient reclamation and/or closure plans, especially as they relate to cumulative impacts on groundwater and surface water. Some of these (such as the impairment of senior water rights) are expected to persist essentially indefinitely. [Same as WR-6]

Response: Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-

administered public land, which may result from operations authorized by the mining laws (43 CFR 3809).

Additionally, NMCC has prepared a MORP for the MMD that details closure plans. At the end of mine operation, NMCC expects most reclamation work would be conducted in the first few years after closure and monitoring would continue until regulatory agencies agree closure and reclamation are complete, at which time the Financial Assurance would be released and the land would be available for the designated post mining land uses.

CI-8. This project constitutes a brownfield redevelopment of a former copper mine - there is nothing "pristine" about the area.

Response: Thank you for your comment.

CI-9. DEIS skirts the issue of the methods by which the mine may be required to mitigate impacts to Rio Grande water supply by deferring to the need of a "comprehensive study" in the future.

Response: The EIS acknowledges that this impact is expected to have a long-term, large-extent, and probable cumulative effect on these surface water resources. This effect would be compensated for through voluntary mitigation offsets and mitigation requirements of the OSE without the need for the referenced comprehensive study.

CI-10. Active Water Resource Management ("AWRM") regulations adopted by the State Engineer (as confirmed by the New Mexico Supreme Court) will undoubtedly result in more active water management in the Lower Rio Grande, especially in light of the pending interstate litigation. Clearly, these issues are "Reasonably Foreseeable Actions" that should have been included in the DEIS, but were not. [Same as REG-6]

Response: An analysis has been added to the FEIS that acknowledges AWRM as a factor in determining cumulative impacts. In January 2004 Active Water Resource Management (AWRM) was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution makes priority of right the basis for water administration, but recent drought years have compelled the State Engineer to develop tools for AWRM that enable them to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes.

CI-11. The DEIS fails to adequately evaluate and discuss the existence of such brownfield at the site and the cumulative effects over the existing brownfield. The Draft EIS fails to describe the interaction among past operations (Quintana Mining) and future plans. In fact, the report

concentrates exclusively on the future aspects of the proposed mining operation and ignores the effects of past activities.

Response: The Proposed Action for the Copper Flat mine is the original Quintana operation with some adjustments in size and processing rate. All the impacts associated with the Quintana mine operation are embedded in the analysis for the Proposed Action. The past, present, and future actions associated with the Proposed Action and the alternatives are presented in Section 4.0, Cumulative Impacts.

CI-12. The wildlife section lacks an in-depth assessment of historic habitat conditions and projections of habitat potential. It also does not take into consideration the cumulative effect of the displacement of both birds and mammals. Because breeding and nesting locations are not adequately identified in surveys, the EIS has not acquired a good baseline upon which the long-lasting effects can be predicted. [Same as WL-2]

Response: In response to this comment, the BLM has reviewed baseline wildlife surveys and found them to be sufficient for producing a satisfactory assessment in the EIS. Terrestrial habitat conditions would not be affected outside the immediate perimeter of the mine site. Because reclamation includes the entire mine area and 52 percent of the area consists of previously disturbed land, conversion to natural habitat would have long-term minor and beneficial impacts to wildlife and migratory birds due to the increase in potential habitat and habitat connectivity. These beneficial impacts would not occur until after the completion of reclamation, but would be long-term starting at that point. Common species are expected to return to the mining area in the long-term after reclamation occurs. Also see response to comment WL-1.

CI-13. The DEIS fails to provide any discussion of lawsuits filed by the State of Texas and the United States against New Mexico in the United States Supreme Court related and fails to address this litigation in an analysis of impacts arising from the Mine's proposed groundwater use. Clearly, the potential for Texas to make additional allegations of damages arising from a completely new depletion in the Project is a significant matter that should be disclosed to the public. [Same as WR-5]

Response: The outcomes of the referenced lawsuits are speculative and should not be used as a factor to determine the impacts of the Proposed Action and alternatives. Instead, it is within the authority of the OSE and not the BLM to apply relevant findings of these lawsuits in its consideration of a water use permit for the project.

CI-14. Concerned about cumulative impacts to surrounding counties from introducing another mine in the region.

Response: Cumulative impacts of the Proposed Action and alternatives, including discussion of past, present, and future activities in other counties are discussed in Section 4.0 of the EIS, Cumulative Impacts.

CI-15. A study needs to be made regarding the cumulative impact of a greatly increased maintenance cost of highway 152. Could the State of New Mexico allocate funds to meet this need? [Same as TR-7]

Response: The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was consulting with the New Mexico Department of Transportation (NMDOT) to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:

- a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.
- b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.
- c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.
- d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.

NMDOT has not identified a requirement for road improvements beyond the pavement overlay, however NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a Memorandum of Understanding (MOU).

CI-16. Concerned about mining companies' poor track record regarding clean-up and reclamation.

Response: The EIS addresses this issue by requiring that a financial guarantee be provided by NMCC for cleanup and reclamation in the event of the company defaulting on this issue in the future.

Section 2.1.15.16, Facility Specific Reclamation, states that a reclamation bond is required by the BLM and State of New Mexico to guarantee completion of project reclamation (43 CFR 3809.500-3809.599).

Additionally, Section 3.22, Socioeconomics states "A reclamation bond is required by the BLM and State of New Mexico to guarantee the completion of Project reclamation. Following regulatory review of the proposed plan of

operations and reclamation techniques presented herein, NMCC will prepare, at a time specified by the BLM [43 CFR 3809.401(d)], a detailed estimate of the cost to fully reclaim the operations as required by 43 CFR 3809.552. This reclamation plan would be administered by the NMEMNRD MMD and the NMED Mining Environmental Compliance Section. Financing would include a mix of equity and debt, but the ratio would depend on market conditions, interest rates, and other factors that would continue to vary over the course of project development. In negotiating specific arrangements for the proposed project, factors such as the operator's financial condition, track record, and management systems would likely affect the terms of financial assurance the government would require to give it a feeling of reasonable certainty (ICMM 2005). While dependent on the resulting amount and terms of financial assurance, mitigation measures are proposed to ensure funding would be available to completely cover reclamation costs."

CI-17. The BLM is very explicit in establishing that an EIS must comply with cumulative effects analysis. The analysis is different from the BLM guidance. [Same as BLM-2]

Response: Cumulative Impacts of the Proposed Action and alternatives are discussed in Section 4.0, Cumulative Impacts, and were written in compliance with BLM guidance.

CI-18. The effect of groundwater depletion within a two-mile radius of the mine pit location would be in perpetuity. The cumulative effects from the loss of surface and groundwater are not addressed. Recommend studying the effects on surface water and evapotranspiration within the Grayback Arroyo system of the Greenhorn Basin; the geology of the Grayback Arroyo system upstream of the mine site is different from areas studied in Las Animas and Percha Creeks. [Same as SW-21]

Response: A detailed discussion of the cumulative effects related to surface water and groundwater are included in related sections within Chapter 4 of the EIS. The information presented in the EIS addresses Grayback Arroyo to the limited extent that it is impacted by the Proposed Action and alternatives.

CI-19. The Draft EIS is flawed in that it does not account for the cumulative effects to wildlife. The cumulative effects of mine development to wildlife are permanent within the Animas Uplift and the Warm Springs Valley. [Same as WL-20]

Response: Cumulative wildlife impacts of the Proposed Action and alternatives are discussed in Section 4.0, Cumulative Impacts.

CI-20. Before an irrevocable commitment of resources is made in the project, the many mistakes and misrepresentations of the analysis must be remedied and the combined, cumulative impact on the socioeconomic life of Sierra County objectively studied. [Same as I&I-3; SE-37]

Response: The BLM believes that the socioeconomic analysis in the FEIS, supplemented with additional information and analysis as a result of information obtained during the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of the National Environmental Policy Act (NEPA). The complete analysis is presented in the FEIS.

CI-21. Natural boundaries are not used in several sections of the DEIS to describe the geographical extent of negative impacts. In many cases the draft uses the area of the mining pit area and ancillary facilities to describe the affected environment; the studies conducted and conclusions reached are specific to the mine site. The Grayback Arroyo System within the Animas Uplift is poorly studied and conclusions reached regarding the impact from mining operations are broad-brush or non-existent.

Response: The boundaries described in the FEIS extend to the limit of impacts from the Proposed Action and the alternatives, natural or otherwise.

The Grayback Arroyo has three surface water quality monitoring stations as stated in Section 3.4, Water Quality. To supplement the historical information provided by the sampling stations, NMCC took baseline samples from these sites during 2010 and 2011. The results of these samples are shown in Figure 3-2 of the FEIS.

CI-22. The DEIS in many respects speaks only to negative environmental impact through mine closure, though the analysis should look beyond the life of the Proposed Action (as stated on page 4-1). [Same as NEPA-24]

Response: NEPA requires that an EIS evaluate cumulative impacts of past, present, and reasonably foreseeable future actions. The commenter does not specify which actions occurring after mine closure should also be analyzed, but many future actions are speculative rather than reasonably foreseeable.

CI-23. Section 4-2 does not take into account the current and continued existence of the Hillsboro Pitchfork Ranch LLC, which has five wells that will be permanently dewatered by mine activities. The development of additional wildlife and livestock watering facilities on BLM and private lands within the Grayback Arroyo System of the Animas Uplift would be precluded if it is permanently dewatered.

Response: The BLM has evaluated information from the Pitchfork Ranch well closest to the mine site, identified in the EIS as GWQ-4 and known otherwise as the Rodgers windmill. Analyzing the information reveals that water is drawn down in the well approximately 70 feet within the 150-foot deep well as a result of pit dewatering. So, a water column remains at the well but from this finding alone, the BLM cannot assume there would be no impact to well yield. It remains possible that the small amount of bedrock aquifer thickness available after dewatering would not supply enough water to keep the stock tank full. Without more information, the BLM cannot conclude whether there would be adverse

impacts. The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment". In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the Pitchfork wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law. The Section 106 PA allows for the future consideration of unanticipated effects to historic properties. At this time, no Section 106 effect to this windmill is anticipated and thus it is not included in the APE. If an impact is identified in the future from groundwater drawdown, the BLM would implement the provisions in the PA to evaluate the windmill for National Register eligibility, and if found eligible, determine if the effect is adverse and implement appropriate mitigation measures to resolve any adverse effect.

CI-24. Other than correction of negative effects from prior attempts at copper production in the Copper Flat Area site, there are no other long-term improvements to habitats (as stated on page 4-10). [Same as WL-22]

Response: Mine site restoration using native plants would provide a long-term benefit to vegetation and habitats that would offset a minimal portion of the overall cumulative effects. Beneficial impacts to habitats would occur after mine restoration of the project site, the Nonnative Phreatophyte/Watershed Management Plan, NMED Watershed Restoration Action Strategy, and any nearby mine reclamation, in addition to activities based on wildlife and land management planning efforts that are currently underway.

CI-25. Cumulative impacts analysis ignores the impact on wildlife from surface water and groundwater depletion. [Same as WL-23]

Response: The FEIS has been revised to reflect the information from the 2013 Baseline Data Report (BDR) Addendum.

CI-26. Disagree that "implementing the Proposed Action would contribute minor adverse cumulative impacts on vegetation," as stated on page 4-10. The Proposed Action would have major, permanent cumulative effects to vegetation outside the mine site. [Same as VEG-17]

Response: Based on the analysis performed for the EIS, any major impacts to vegetation would be confined to the mine site. Areas outside the mine site would

not experience any major impacts to vegetation caused by the proposed mine operation.

CI-27. Disagree that impacts to range are of a "small (limited) extent" because "surface disturbance associated with mineral development and forage use by livestock would result in cumulative effects over a larger area than is analyzed in this document (p. 4-10). Cumulative effects to livestock would be significant to livestock on public and private lands within the Animas Uplift to the west of the mine pit because without water livestock cannot exist (and groundwater and surface water would be reduced). [Same as R&L-2]

Response: Section 3.19.2.1 describes that 384 acres of new surface disturbance would occur on BLM land within the Copper Flat allotment. As shown in Table 3-35, approximately 58 percent of the forage within the Copper Flat Ranch allotment is derived from BLM land. The reduction of 384 acres would be less than a 3 percent loss of forage derived from BLM land (assuming forage is available evenly across the Copper Flat Ranch allotment). Applying the significance criteria for range and livestock impacts established for this analysis (see Appendix A), this amount of forage loss derived from BLM land within an allotment is defined as small (limited) in extent. No adjustment (reduction) to permitted animal unit months (AUMs) because of new surface disturbance of 384 acres for the Copper Flat mine and 20 acres for utility infrastructure and a millsite within the Copper Flat allotment is anticipated.

See also response to R&L-6 regarding mining impacts to surface and groundwater sources that could affect livestock water and forage.

CI-28. Cumulative impacts of mine water use on discharge to the Rio Grande need to be evaluated in more detail. The comprehensive mid-basin study of Caballo Reservoir and the Rio Grande (as noted in the DEIS) should be conducted along with the evaluation of these cumulative impacts on the Rio Grande Compact. [Same as GW-37]

Response: The OSE has statutory authority and responsibility to protect water resources throughout New Mexico, including the area of the proposed mine and wellfield. The BLM has coordinated with the OSE, a designated cooperating agency on the Copper Flat project, and is confident that the State understands the issues raised in this comment and will address them such that existing uses of water are protected annually and cumulatively in a manner consistent with New Mexico law. Mitigations established by the OSE through the regulatory permitting process will make a mid-basin study of the Rio Grande unnecessary.

Environmental Justice (EJ)

EJ-1. The DEIS notes that jobs and income are strongly associated with a number of beneficial health outcomes; the operation of the mine will help citizens and their families out of poverty.

Response: Thank you for your comment.

EJ-2. In light of the Environmental Justice section and Table ES-3, recommend that the methodology to determine local environmental justice community and populations does not utilize averaging. The FEIS should identify each environmental justice communities within, near, and adjacent to the proposed project boundaries, pursuant to Executive Order 12898.

Response: The methodology to determine local environmental justice communities and populations in the FEIS does not utilize averaging. Assuming the comment is in reference to Table 3-85, Minority Percentages and Populations by Census Tract, and Table 3-87, Population Below Poverty Level by Census Tract, the tables provide the total population of each census tract (CT) surrounding CT 9624.02 (the proposed mine is located in CT 9624.02), and an estimate of the minority and low-income population by census tract, respectively. The “aggregate of surrounding CTs” in Tables 3-85 and 3-87 is the sum of the minority and low-income populations divided by the sum of the total populations of the CTs surrounding CT 9624.02.

Had the section utilized averaging in its methodology, the “aggregate of surrounding CTs” would have divided the sum of the minority and low-income populations by nine, or the number of CTs surrounding CT 9624.02. This averaging methodology would have – as pointed out by the commenter – inaccurately illustrated environmental justice (EJ) communities and populations within, near, and adjacent to the proposed project. However, an averaging methodology was not utilized; an aggregating methodology was utilized. As such, EJ communities and populations within, near, and adjacent to the proposed project are not inaccurately illustrated.

The FEIS identifies environmental justice communities within, near, and adjacent to the proposed project, pursuant to Executive Order 12898. The affected environment first considers minority and low-income populations in Truth or Consequences and Sierra County, and compares them to minority and low-income populations in the state. Pursuant to CEQ’s guidance and due to the site-specific nature of the proposed mine, CT data is then used to identify high concentration “pockets” of minority and low-income populations and describe the distribution of these populations, (respectively) in the vicinity of the proposed mine. Sierra County, including Truth or Consequences, is identified as an environmental justice population due to high poverty levels coupled with low median household income levels (See Table 3-86, 3-87, and Figure 3-50). The environmental consequences section (3.23.2) analyzes potential impacts to this environmental justice population in terms of employment opportunities, potential health impacts as related to air and water quality, recreation, transportation and traffic; and supports conclusions made in Table ES-3.

EJ-3. Section 3.23.3 - "mitigation measures" identified potential mitigations measures, but does not clearly delineate what mitigation measures are committed to or those that will be implemented.

Response: NMCC plans to have on-the-job training for specific skills needed at the mine and would likely include administrative skills, professional development, mechanical, and technical skills. NMCC would offer competitive benefits packages per mining industry standards which would include a health insurance package (medical, dental, vision insurance), paid time off, short-term disability, education assistance program, substance abuse prevention, and a retirement savings plan that would encourage employee saving and conform with applicable laws.

The Water Quality (3.4.2) and Air Quality (3.2.2) sections of the EIS include affirmations that BMPs would be employed to protect water and air during the operation of Copper Flat. The FEIS includes language clarifying that NMCC has committed to the mitigation measures discussed in Section 3.23.3

EJ-4. The DEIS does not take into account the environmental justice concerns associated with the fact that mining might result in an unbalanced flow of value upwards and outwards, leaving Sierra County with no natural resources, relatively small economic benefits, and many potential problems, while the money flows out of the region and out of the country.

Response: Potential environmental justice impacts to mine workers through economic pathways, including from “boom and bust” as described by the commenter, are discussed in Section 3.23 of the FEIS, Environmental Justice. Short-term, beneficial impacts that would be felt most by local workers in search of a job as well as adverse impacts commonly associated with “boom” periods are described in the “Employment Opportunities” portion of the Mine Development/Operation phase (Section 3.23.2.1.1). The social and economic benefits would largely be reversed in the long-term after the mine closes and well-paying jobs cease to exist – and are described in the “Employment Opportunities” portion of the Mine Closure/Reclamation phase (Section 3.23.2.1.2). This portion of the analysis also addresses how the boom and bust cycle can more heavily impact low-income populations that have become dependent on the mining boom economy and that find it difficult to maintain the same standard of living and quality of life after the boom ends.

EJ-5. The costs for roadway repair could be significant for low-income communities. Because the public sector pays the costs of road repair, already stressed local and state budgets often can’t handle the cost of increased maintenance from mine truck traffic.

Response: Section 3.22.2.1.3 (Public Finance) describes additional state and local tax revenue from the Copper Ad Valorem and processors tax, as well as the shared distribution of severance taxes between the state and counties/municipalities. NMCC estimates direct tax liabilities of over \$18 million during the construction, operation, and reclamation phases under the Proposed Action; over \$18.5 million under Alternative 1; and over \$22 million under Alternative 2 (summarized in Tables 3-77, 3-80 and 3-83, respectively).

In addition, NMCC has met with the NMDOT to discuss the project and NM 152. In discussions, NMDOT and NMCC have agreed that NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine; proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point; the roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards; all roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT. While no formal agreement has been made between NMDOT and NMCC at this time, NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.

Given the additional tax revenue as well as the pending MOU, it is unlikely that increased road maintenance costs from mine truck traffic would disproportionately impact low-income communities.

Groundwater Resources (GW)

GW – Global Response. This response applies globally to the body of comments received that referenced the assessment of groundwater impacts contained in Section 3.6 of the EIS. Some comments were critical of the impact analysis and of the groundwater model on which the assessment relied. The BLM identified the following as primary criticisms of the DEIS relating to groundwater impacts and the predictive model:

- The model was not subject to a rigorous evaluation by the BLM;
- Necessary sensitivity tests were not performed;
- The model runs did not include pumping during mine start-up;
- The model runs did not include pumping needed if the pit was rapidly refilled;
- The model under-predicts impacts on Caballo Reservoir and the Rio Grande;
- The model under-predicts impacts on tributaries such as Animas Creek;
- The model under-predicts drawdowns in various wells;
- The model under-predicts (or fails to predict) impacts to springs;
- The model does not match observed piezometric data (an example is that water levels are too high near lower Percha Creek);
- Layer 2 should be subdivided to provide appropriate vertical discretization.

The BLM recognizes that water resources are an important component of the environment, that the proposed project would have significant impacts on these resources, and that agencies, NGOs, and members of the public have understandable concerns over the groundwater impacts of the project.

Overview of the BLM's Approach to Assessment of Impacts to Groundwater:

The groundwater model was constructed by John Shomaker & Associates Inc. (JSAI), under contract to NMCC. The model was peer reviewed by BLM staff and by its hydrology and modeling experts from Lee Wilson and Associates, Inc. (LWA). LWA is a New Mexico firm with more than 40 years of experience in evaluation of groundwater and surface water resources along the Rio Grande Rift.

The peer review process was extensive and involved numerous interactions between LWA and JSAI. In that process, LWA's analysis of the model included its own independent evaluation of issues that were later raised as concerns in agency, NGO, and/or public comments. LWA required JSAI's modelers to explain and support model construction and application in detail. LWA's evaluation included developing and running a standalone version of the JSAI model that used publicly available computer codes. The LWA model was used to identify issues in NMCC documents that were then addressed with JSAI. The BLM hydrologist was consulted throughout the review and contributed to the final assessment.

LWA and BLM did not simply rely on data from NMCC in its assessment of the project. Conclusions regarding regional hydrology drew extensively from a U.S. Geological Survey (USGS) report cited in the EIS as Wilson et al. (1981). Water professionals have relied upon that report in New Mexico for 35 years and, in the opinion of the BLM and its consultant, remains the best document for evaluation of conditions in the project area. The USGS report is of particular importance in supporting the model construction with respect to perched water along Las Animas and Percha Creeks, and the presence of geological conditions (faults or ancient river channels) that connect the well field with the Rio Grande to the north. LWA obtained additional information on this feature through personal communications with Dr. John Hawley, an expert on the hydrogeology of the Rio Grande trough.

Based on its evaluations, the BLM has determined that the NMCC model is acceptable for use in predicting potential project impacts. An important reason for this determination is that the model is not used to predict absolute values of future conditions (elevation of the water table, flow of a stream, etc.), but instead is used to predict *changes* in conditions over time and space (e.g. feet of drawdown compared to now, acre-feet of stream depletion compared to existing conditions). The BLM's review found that, while the model predictions are not precise, they provide a reasonable basis for evaluation of how the project would change the environment. Other considerations are that the model reflects a reasonably complete and defensible water balance that accounts for the area's groundwater budget impacts, model calibration was acceptable, and sensitivity runs were performed to validate model results.

OSE is the State agency responsible for regulation, control, and mitigation of impacts to groundwater and surface water supplies pursuant to New Mexico water law, and is a cooperating agency for the EIS. During preparation of the EIS, OSE engaged in close coordination with the BLM and with LWA in review of the NMCC model. However, during preparation of responses to public and agency comments on the DEIS, OSE was

unable to fully cooperate with the BLM because issues regarding NMCC's water rights were in litigation. As a result, the BLM could not rely on OSE to contribute their expertise to the determination of impacts to groundwater or surface water supplies for the Proposed Action and alternatives. Instead, the BLM proposes to impose terms and conditions on their approval of the MPO to address these impacts; see Section 3.6.3 of the FEIS.

BLM's Response to Comments on Section 3.6 of the FEIS:

Based on its review of comments on the DEIS, the BLM identified one issue that required an additional model run and evaluation. Specifically, the BLM agreed that the model should be used to simulate effects from pumping that may occur before and/or after mining, e.g. mine start-up and rapid pit refill. An assessment of those impacts was conducted and is included in the FEIS. Additional sensitivity runs performed by JSAI for NMCC are also reported in the FEIS.

With that exception, the BLM found no comments that contained a technical analysis that demonstrated a significant error in the evaluation of potential groundwater impacts. The BLM has concluded that for purposes of a NEPA evaluation, the model provides reasonable estimates of changes to water levels and surface water depletions.

Other conclusions of the BLM review are summarized below. The primary bases for these conclusions are references cited in the EIS and the professional judgment of Section 3.6 preparers.

- 1) Groundwater models are tools used to answer questions such as what impacts may arise from an action. Groundwater models are not expected to produce a unique or complete solution for that purpose; the fact that a model could be reasonably modified is not a demonstration that the model is invalid. Determining that a model is an appropriate tool to answer particular questions is thus a matter of professional judgment. In this instance the BLM has primarily relied on the review done by the EIS consultant to determine that the model construction is appropriate for the analyses that are required.
- 2) The BLM believes that it is appropriate for the EIS to address impacts to the Rio Grande because of the expected magnitude of the effects, the fact that the Rio Grande flows are fully appropriated, and because there are potentially significant regional, interstate, and international consequences of those effects.
- 3) Comments raising concerns about impacts to local domestic, stock, and irrigation wells did not provide quantification or any other evidence that conflicted with conclusions reached in the DEIS. In the experience of the EIS hydrologists, impacts to water levels in area wells, while of legitimate concern to well owners, are not projected to be of the magnitude that typically generates a regulatory constraint (e.g. a finding of "impairment") in the Rio Grande watershed.
- 4) No model results indicated that the use of any existing well would be constrained, but does predict there would be increased pumping costs to some well owners.

Increased pumping costs are a necessary consequence of groundwater development and are not precluded by New Mexico water law, nor are there provisions for compensation to the impacted well owner unless use of the well is impaired.

- 5) The BLM did require NMCC to create a standalone model of the area of artesian wells near the mouth of Las Animas Creek because of potential corollary effects to surface water resources and potentially important habitats for an endangered species.
- 6) The data on observed piezometric conditions are sparse in much of the model domain, so any map of the existing water table is approximate in most areas. However, the overall flow patterns (toward the east and around the Animas Mountains) are confirmed by the data, are consistent with hydrogeologic principles, and are captured by the model.
- 7) The model is not accurate near lower Percha Creek. The issue of high water levels near the south boundary of the model was reported on p. 3-71 of the DEIS. The BLM and LWA have concluded that this variance does not alter the findings with respect to expected impacts from groundwater pumping if the mine is developed.
- 8) The EIS is clear that the regional water table is far below the elevation of springs along the major drainages and near the mine pit. Thus, the springs are perched and their discharges vary with local locations that are not related to regional hydrologic conditions. Such springs would not be impacted by the Copper Flat project.
- 9) Springs west of the Animas Mountains that may be connected to the water table are, for reasons of distance and intervening geology, not expected to be impacted by the mine.
- 10) Sycamores and other phreatophytic vegetation along Las Animas Creek are sustained by a perched groundwater table that is clearly isolated from the aquifer that would be impacted by project pumping.
- 11) Phreatophytic vegetation in Percha Box is sustained by a shallow groundwater table in shallow bedrock and is not in direct hydrologic connection with the aquifer that would be impacted by project pumping.
- 12) The low hydraulic conductivity of the andesite bedrock at the pit is demonstrated by the low rate of inflow to the existing pit. Bedrock that would be impacted by a deeper pit has been investigated by drilling during mineral exploration with no evidence that conditions would be markedly different from those now observed.
- 13) The model simulates slow recovery of water levels in the pit, and a permanent condition in which the ultimate levels are far deeper than now occur. A faster recovery that would occur if NMCC refills the pit would change the timing but not the magnitude of this impact. The BLM recognizes that at any one time the restored lake levels may be slightly higher or slightly lower than water levels in adjoining bedrock, but does not consider this fluctuation to represent a significant impact to groundwater hydrology.

A sensitivity run reported in the DEIS evaluated conditions that would exist if there were no fault boundary south of the pit. The results from the sensitivity run are very different from what is observed and do not support the hypothesis of greater hydraulic connection to the mine from the south.

- 14) The BLM agrees that the vertical conductivity for layer 2 assumed in the JSAI model may not be correct. The BLM required a sensitivity run be done using a 1:100 ratio of vertical to horizontal conductivity. As reported in Appendix F of the DEIS, the result identified no basis to modify the JSAI model and overall supported the 1:1 ratio used by JSAI. The BLM also did not identify any need to divide model layer 2 into distinct layers in the area of the wellfield, because there is no well-defined clay layer in that location.
- 15) The specific criticism that the JSAI model overestimates recharge in the area of the production well field is incorrect because recharge in that area is set to zero in the model.
- 16) Specifying a high reservoir level in the model is a simplification chosen by JSAI. Given that the model results are a change in elevation, not absolute values, this has no significant effect on the model results although it may result in an overstatement of impacts where groundwater is a direct source of supply to vegetation.

GW-1. Analysis presented in the groundwater resources section is deficient and contains various errors or incorrect impacts assessments (e.g. one commenter challenges the claim in Table 2-9 that “[a]verage water used to process 1 ton of material” will be 633 gallons). Disagree with the analysis due to the baseline on the information presented.

Response: The groundwater resources section was developed with the close cooperation of groundwater experts from the EIS contractor, the BLM, the OSE, and NMCC’s hydrogeologist. The groundwater model developed for NMCC by JSAI was carefully evaluated and validated by the other parties, resulting in a thorough assessment of groundwater impacts. This model is described in Section 3.6.2 of the FEIS. The average water used to process 1 ton of material has been recalculated with a new baseline and the revised figure appears in the FEIS.

GW-2. Concerned that the mine will limit both New Mexico and Colorado’s ability to store water upstream of Elephant Butte. For New Mexico, any reduction in water stored in Caballo Reservoir would have significant impact on the ability of the Middle Rio Grande Valley to store water in El Vado Reservoir. This would have impacts to the domestic and artesian wells that support a wide variety of stakeholders.

Response: In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15

years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

GW-3. The mine would take away groundwater and diminish water in rivers and creeks in the region, which would in turn have a negative impact on the habitat of wildlife, plants, and people that depend on that water to survive.

Response: A detailed discussion of impacts to groundwater resources is included in Section 3.6 of the EIS. The EIS indicates that the primary effect would be on flows in the Rio Grande, which would be subject to mitigation in accordance with obligations imposed by the OSE or agreed to by NMCC. With the possible exception of effects on habitat for the Chiricahua Leopard Frog that may use farm ponds in lower Las Animas Creek, the best information now available indicates there would be minimal effects on the human and biological environment, and no effect on the existing high-quality riparian corridors. The project is not likely to render any of the wells in the area inoperable.

GW-4. General concern related to impacts to water resources and the location of the mine 15 miles to the west of Caballo Reservoir and the Rio Grande is of concern. Broad assertions are made and definitions are not clear (e.g. "notable effect"). The DEIS also does not take into account the ongoing water deficit for the entire area and not seeing the mine's use of water in the context of regional water balance seriously jeopardizes the long-term future of the area. [See NEPA-9, SW-1]

Response: Anticipated effects on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis on which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary mitigations applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC

committed to working with OSE to incorporate into their OSE permit “*all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande*”. NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the EIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.

GW-5. Concerned about impacts to groundwater use/pumping (e.g. the magnitude of the volume of water to be pumped from the Palomas Basin Aquifer and subsequent impacts to the Hatch Valley and hot mineral water sources). The document does not adequately address the impacts to the overall water supply in the region from this change in storage and flow for the critical timeframes, including to groundwater stakeholders such as community, stock watering, and irrigation water users (e.g., farmers below the dam).

Response: The FEIS provides details on the effects of the mining project on water resources and indicates that the primary effect that has the potential to impact other water users would be depletion of flows in the Rio Grande. These effects would be subject to mitigation in accordance with obligations imposed by the OSE and by voluntary actions applied by NMCC. NMCC has committed to provide such mitigation for the duration of the impacts from the project. To the extent the OSE determines NMCC has a vested right to deplete surface flows below the dam without providing an additional offset, and absent the voluntary mitigation, there could be an adverse effect on users of surface water in the Lower Rio Grande Basin and/or Texas that would exist for decades. However, because NMCC would provide mitigation in the form of offsets from upstream, this impact is predicted to not occur.

Groundwater levels would decline near the NMCC wellfield during operations, and then gradually recover. The OSE would determine whether this causes impairment of any existing wells and, if so, would require mitigation; as of mid-2017, no analysis had indicated that such impairment would occur, i.e. there is not expected to be any loss of ability to produce water from existing livestock, domestic, or community supply wells. Some increase in pumping costs may occur, which is an acceptable effect under New Mexico water law. No impacts to Hatch Valley or thermal water sources would reasonably be expected.

The continuous clay layer and the presence of perched water beneath portions of Las Animas Creek are demonstrated by water level measurements and geologic logs, and by the hydrologic reality that sustained flows in the Creek can only

occur if the shallow hydrology is isolated from the deeper water table that is characteristic of the regional hydrology.

GW-6. Discussion of impacts to irrigated lands is missing from the DEIS. On page 3-73, the DEIS notes that the effects of possible irrigation replacement pumping are discussed separately, but this discussion is missing from the DEIS.

Response: Project impacts to irrigated lands are predicted to occur only in the lower part of Las Animas Creek where farms are supplied from wells that produce from an artesian aquifer, and to occur only if well owners choose not to offset decreased aquifer pressures by increasing pumping rates. Drawdown impacts in this area are shown on DEIS Figures 3-13c, 3-16c, and 3-19c.

GW-7. General concerns over groundwater drawdown (even of only ten feet), for mine dewatering and pit lake formation, and reduction of flows to the Percha Box or in Animas Creek from the project and subsequent impacts to and potential to kill off the sycamore trees that line Animas Creek, destroy the creek itself, and impact marginal wells that support a number of tree farms in the area (e.g., pecan). [Same as VEG-1]

Response: Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.

GW-8. Although the project would not impact the upper aquifer in the region, it could impact the lower aquifer in the region.

Response: Effects to the lower aquifer are thoroughly described in Section 3.6 of the EIS, Groundwater Resources.

GW-9. In section 3.28 "Irreversible and Irrecoverable Commitment of Resources," references to water and groundwater are not consistent with the discussion on groundwater in Section 4, "Cumulative Impacts." It says there will be a permanent decrease, whereas it is not mentioned as a permanent decrease in the irretrievable recovery of resources. In regards to the pit lake, the irretrievable and irreversible waste of water (because the pit lake would be a permanent drain of water from both surface and groundwater) should not be condoned by the BLM and should not be allowed by the OSE. [Same as CI-4; I&I-1]

Response: The permanent reduction of the groundwater level at the pit has been included in Section 3.28 of the EIS, Irreversible and Irrecoverable Commitment of Resources.

GW-10. Concerns of the extensive use of groundwater from the proposed mine and the uncertainties/end result of the contamination/recharge and return to the aquifer, Caballo Reservoir, the Rio Grande, and that multiple downstream parties rely on. [Same as WQ-5]

Response: Discussion of the potential impacts to groundwater quality is provided in Section 3.6.2; also refer to Table 3-20a. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain a National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the Multi-Sector General Permit for Storm Water Discharges from Industrial Activities (MSGP). A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the Notice of Intent (NOI) to comply with the MSGP is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site would be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation. See also the response to GW-2 regarding impacts of groundwater pumping on the aquifer and stream flows.

GW-11. The proposed project will not will not have a measurable effect on groundwater or other water users. [Same as SW-3]

Response: Thank you for your comment. Impacts to surface water and groundwater resources are discussed in Sections 3.5 and 3.6, respectively.

GW-12. Need to further analyze how impacts of potential drawdowns will impair existing water sources (including Animas Creek) and what mitigation measures will be required prior to making a decision. In addition, the monitoring should consider not only modifications to long-term average flows, but also finer-scale changes in seasonal flows that may be important for sustaining the vegetation and wildlife habitat in the area.

Response: The focus of this comment is understood to relate to mitigation of effects from drawdowns that impair or affect existing surface waters as to uses, seasonal flows, vegetation, and wildlife habitat.

The BLM understands that a particular concern is the seasonal flow that occurs along the perched reach of Las Animas Creek and which supports irrigation, vegetation, and habitat. No impact to the highly valued resource in this reach is expected to result from the project. This conclusion results from the fact that the shallow groundwater in the reach is not hydrologically connected to the regional

aquifer which is the source of water to the wells that would supply the project. Indeed, the perched water table would not exist if there were a connection to the main regional aquifer, which at present lies at substantial depth below the river. Extensive monitoring is proposed to validate ongoing hydrologic conditions.

NMCC has access to a multi-purpose groundwater monitoring and instrumentation network along Animas Creek and Percha Creek to facilitate monitoring of water levels in the shallow, deep, and artesian aquifers to meet requirements of various agencies, including the OSE as part of the NMCC water pumping permit.

NMCC staff would conduct regular monitoring of groundwater and surface water along Animas and Percha Creeks. In addition to regular monitoring, monitoring of flood events along the creeks as they occur is also planned to gather information about surface flows throughout the year.

NMCC staff would compile an annual report of the multi-purposed groundwater and surface water monitoring network for internal use and outside reporting. Groundwater elevations observed would be compared to model predictions to track the relative accuracy of the model. NMCC would work with OSE to offset surface water effects, and no reduction in irrigation supply would be permitted. See also the response to GW-2 regarding impacts of groundwater pumping on the aquifer and stream flows.

GW-13. The NMCC does not accept as true the estimates of impacts to the water supplies in the Lower Rio Grande related to pumping rates in acre-feet for alternative 1 and 2.

Response: The effects of Alternatives 1 and 2 on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and additional mitigation commitments made by NMCC. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but is not aware of any comments or inputs that would contradict the findings of the DEIS.

GW-14. The DEIS provides sufficient details to infer the potential impacts to groundwater resources.

Response: Thank you for your comment.

GW-15. The DEIS does not prove that the water sheds for Percha creek, Green Horn, and the Animas Creek do not come from the same area of the continental divide as the water that will be used for the proposed mine. This results in an inaccurate analysis of impacts. [Same as SW-7]

Response: Descriptions of the Greenhorn, Las Animas Creek, and Percha Creek drainage basins are provided in Section 3.5.1 of the EIS. These basins are located more than five miles east of the Continental Divide, which generally separates watersheds of the Pacific Ocean from those of the Atlantic Ocean.

The majority of the water needed for the project would be obtained from the Santa Fe Group aquifer, also located east of the Continental Divide. The groundwater model used to assess impacts to surface water resources included surface water features of the Greenhorn, Las Animas Creek, and Percha Creek drainage basins, and thereby, provides a comprehensive assessment of impacts to surface water resources.

GW-16. Since natural infilling is so slow (as referenced in pp. 3-34 through 3-36), and rapid infilling with fresh water from the production wells is anticipated to take 6 months to a year (page 3-34, 3rd paragraph), it seems likely that the water placed in the pit will leak back into the surrounding andesite aquifer; the pit water level will have a higher head than the water level in the andesite aquifer. It seems likely that the water level in the pit will therefore progressively go down due to evapotranspiration and until equilibrium with the surrounding static water level is reached. This scenario isn't described in the DEIS nor whether NMCC will continue to introduce water to the pit until static water level equilibrium is reached. The DEIS isn't clear as to whether the use of this "make-up" water is accounted for in the DEIS alternatives.

Response: The primary purpose of rapidly refilling the pit is to reduce or avoid adverse water quality impacts. It is correct that this would lead to seepage from the lake into the surrounding bedrock until the bedrock water table rises to the level of the pit lake. After that the net flow direction should be from the bedrock to the lake because lake water would be lost to evaporation; however, following large rainfall events, the flow direction may be reversed for some period. The rates of water exchange from pit to bedrock or bedrock to pit would be small compared to other water budget effects of the project and are not considered significant. The permanent pit lake evaporation would be a small but irretrievable loss of resources. These impacts are described in the FEIS.

Water quality impacts related to the pit refill and ongoing water balance are discussed in Section 3.4.

GW-17. Water currently stored in Elephant Butte and Caballo largely is released for economic benefit downstream of Sierra County, and the County receives little benefit other than seasonal recreational use. Water use within the County has not been able to provide sustainable employment or economic resources to allow the County to be economically sustainable. [Same as REC-7; SE-19; SW-12]

Response: Thank you for your comment.

GW-18. Both parties' wells were not tested as part of the DEIS testing of groundwater wells; a much more thorough analysis is needed to understand the impacts to nearby private groundwater wells. Private well impacts could include additional costs from pumping at deeper level or even drilling deeper to access water. Who will be responsible for the cost of deepening the wells? Has the Office of State Engineers been notified that the deepening of the wells may penetrate the artesian basin and will they consent to deepening of the wells? In addition, why did the BLM not notify well owners in Animas Creek Village of planned loss of well water? [Same as SE-28]

Response: The performance of any well west of the mine pit is not known to an extent that would allow an accurate determination of impact on the well and water supply. If pre-mining well performance baselines are established, and impacts to these wells from pit dewatering are demonstrated and documented to the OSE as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with New Mexico law.

GW-19. The assertion in the draft EIS that the aquifers will recharge in a fairly short period of time is of significant importance. The effects of climate change, especially given the mining activities proposed by THEMAC, on a broad spectrum of EIS evaluation criteria may be extreme. None of the impacts of climate change (e.g. reduced snowpack) are discussed in the DEIS and would impact both the runoff and recharge of the aquifer. [Same as CC-2 and SW-11]

Response: Description of possible specific climate change impacts have been added to the EIS in Sections 3.3.1.2 and 3.3.2.1.1. However, groundwater responds rapidly to local stresses or inputs (e.g. pumping of wells) but slowly to regional climate changes. Moreover, natural climate is variable and any imprint from global change is very difficult to determine from that variability on a local scale.

The primary projected climate change impact for this area is that the future surface water resources in the Rio Grande will experience an overall decrease in total supply due to a higher rate of evapotranspiration in the contributing basins, and a seasonal shift from less spring runoff (less snowmelt) to more summer runoff (more thunderstorm precipitation).

With consideration of climate change effects, the impact of Copper Flat (and all other local/regional users of surface and groundwater) would be proportionally larger as climate change progresses, i.e. the pumping rate affecting the aquifer and rivers would not change, but the impacted resource would be more vulnerable due to variations in recharge rate and quantity.

GW-20. The recharge of the aquifers projected in the EIS is based on recent historical (straight-line) averages. If a more scientifically accurate assessment methodology were used (as noted in the comment) the negative impacts of mining operations on surface water and groundwater would be significantly greater because the potential for recharge is so much less than that

projected in the DEIS. The analysis is extremely conservative because of flaws in the methodology used to calculate the damage, which shows obvious bias (e.g., the assertion that a clay bed will protect riparian habitat.)

Response: The recharge estimates were based on evaluations of the regional water budget and on comparisons to published values for similar basins in the region. In the area impacted by the well field, the estimated recharge was zero, and thus with respect to recharge the impacts predicted are already at the maximum. To the extent recharge does occur in that area, the expectation would be less drawdown and faster recovery than described in the EIS.

The evaluation of the clay bed and its role in protection of riparian habitat is based on substantial available data and basic hydrological principles and, in the opinion of the BLM's in-house and consulting hydrologists, is technically valid and not biased. It is this clay bed that supports the riparian habitat.

GW-21. Groundwater impacts will aggravate the negative economic impacts of the mine including reduced property values (because water supplies become more problematic or trees will be killed thus destroying the beauty of the area), reduced revenue from property taxes for the county, out-migration of the more affluent members of the population, and harming the economic possibilities of other users. [Same as SE-20]

Response: The project is not predicted to have effects on water supplies that would lead to direct, adverse economic impacts or direct, adverse impacts on real estate values in Sierra County overall. Revenue from property taxes would increase during the construction phase; and tax revenue would be greater under all action alternatives compared to the No Action Alternative. The potential out-migration of affluent members of the population has been added to the discussion in the FEIS.

See response to SE-41. Section 3.22.1.6.3 discusses factors that can positively affect property values (e.g., availability of and proximity to public land like forests, lakes, and mountains) and negatively affect property values (e.g., noise, light, air pollution). A discussion of other important factors affecting property values (e.g., quality of public education, access to public transit and recreational opportunities, the age and condition of the home itself) have been added to Section 3.22.1.6.3. A discussion of how the introduction of a copper mine could adversely impact the property values of adjacent landowners specifically has been added to Section 3.22.2.1.4, though it is difficult to quantify how much property values would be impacted.

GW-22. When using a bell-shaped curve to identify the most likely scenario that aquifer recharge will be problematic in the future, certainly "irretrievable" and perhaps "irreversible" is found at the top of the bell curve. The DEIS has chosen a scenario that is out on the long legs of the probability curve, drawn from the least likely set of scenarios, as the anticipated outcome of mining operations at Copper Flat. [Same as I&I-2]

Response: The BLM did not identify any aspect of the DEIS that corresponds with the statements made in this comment.

GW-23. How are the depletions of the ground and surface water supplies calculated such as those discussed in Tables 3-15 and 3-16 related to surface water depletion upstream and downstream of Caballo Dam, and Table 2-11 regarding yearly use of 13,370 acre-feet with 3,802 acre-feet from groundwater wells, and page 2-83, alternative 2 which identified that 22,210 acre-feet with 6,105 acre-feet coming from groundwater will be needed? In addition, during drought conditions, pumping could have a more extreme impact on ground and surface water resources in the Rio Grande area (including Elephant Butte and Caballo Reservoirs – additional references in comments of page 3-95, figure 3-21b) [Same as SW-15]

Response: As described in Section 3.5, surface water depletions are calculated from the results of predictive groundwater flow modeling. Tables 3-15 and 3-16 summarize expected surface water depletions due to predicted reductions in groundwater discharge to Las Animas and Percha Creeks, Caballo Reservoir, and the Rio Grande below Caballo Dam. Reductions in groundwater discharge are estimated by comparing groundwater modeling simulation results for the Proposed Action and two mining alternatives to simulation results without mining. The simulation without mining is intended to represent background conditions.

Of the 13,370 AFY of water that would be used at the mine, 3,802 acre-feet would be supplied by groundwater pumped from the mine's well field. The majority of the water used by the mine would be recycled. The predictive groundwater modeling simulation for the Proposed Action includes the 3,802 AFY of groundwater pumping. Results of this simulation are compared to the simulation without mining to determine the depletions presented in Tables 3-15 and 3-16. Similar approaches are used to estimate the depletions associated with the two alternatives; these depletions are also provided in Tables 3-15 and 3-16.

While the surface water depletions due to mining would not vary, the impact of Copper Flat (and all other local/regional uses of surface and groundwater) would be proportionally larger during drought conditions, as surface water supplies would decline and the use of groundwater to offset the drop in surface water supplies may increase. However, NMCC is providing full offsets to these effects that would be equally effective in drought and non-drought conditions such that there would be no net impact on the regional water supply from the project, including Elephant Butte and Caballo reservoirs.

GW-24. The analysis in the EIS and in the environmental surveys focused on the mine area, not on surrounding areas about 15 to 20 miles from the mine. As presented in the EIS, the groundwater east of the mine is at this time the only source described and is the key component to the mining process.

Response: Thank you for your comment.

GW-25. Significance criteria differs from language contained in DEIS. For example, on p. 3-96 and 3-97, the words significant, certain, and permanent are not defined or used in the Significance Criteria, but are used in the body of the text.

Response: Significant is a term that stems from the application of significance criteria used to categorize potential impacts. The use of the word “certain” was meant to convey that it is more likely than “probable,” but has been changed to probable (certain). The use of the word “permanent” was meant to convey a duration greater than “long-term,” but has been changed to long-term (permanent).

GW-26. Concerned with the groundwater flow model because it contains various discrepancies, inaccuracies, and omissions. For example, it minimizes the impacts of groundwater withdrawals on the surface waters of the Rio Grande and Caballo Reservoir, it needs to be tested using site specific hydrogeologic data and a sensitivity analyses, and examining this sensitivity analysis should be completed again so as to determine how to better handle the assumptions. There are also concerns with elevations used, routing of water in Percha Creek, and predicted cumulative surface depletion volumes offered in Table 3-16 relative to the predicted depletion rates identified in Table 3-15. The model does not simulate existing spring discharge or potential impacts to spring(s) discharge; the FEIS should quantify this and document short-term, long-term, and permanent effects from mine pit dewatering. The use of single parameter values with the MODFLOW modeling software contradicts the basic philosophy of this kind of modeling. Furthermore, the DEIS also does not account for the fact that the pit will continue to be in violation of water balance issues relative to groundwater. Finally, model uses an outdated and scientifically criticized method to determine the recharge of aquifers, and therefore, impacts to groundwater are more significant than claimed in the DEIS.

Response: See GW – Global Response at the beginning of this section.

GW-27. Extent parameter in A-5 differs from groundwater – one uses specific geographic area and the other square miles. These should be consistent. [Same as SW-16]

Response: The context for determining the significance of surface water impacts (Appendix A, Surface Water Use table) is the specific drainage basin that would be impacted, and thus is specific to a geographic area. The context for determining the significance of groundwater impacts (Appendix A, Groundwater Use table) is the spatial distribution of the drawdown contours, which is independent of geographic area, and thus appropriately evaluated in terms of area impacted.

GW-28. The words significant, certain, and permanent are not defined or used in the Significance Criteria but are used in the body of the text to describe effects to groundwater from mining operations. There is a disconnect between the terms defined in the Significance Criteria and those used in the body of the DEIS, and this must be corrected.

Response: Significant is a term that stems from the application of significance criteria. The use of the word “certain” was meant to convey that it is more likely than “probable,” but has been changed to probable (certain). The use of the word “permanent” was meant to convey a duration greater than “long-term,” but has been changed to long-term (permanent).

GW-29. An important riparian area exists in North Percha drainage adjacent to and upstream from Hillsboro. It is not depicted in maps or analyzed in the EIS. Figures 3-9 and 3-13a do not include the riparian area west of the mine area in Grayback Arroyo or its tributaries, Warm Springs, and Cold Springs canyons. The cone of depression associated with the mine pit dewatering and mine pit lake will permanently damage or destroy these riparian areas, because the alluvial materials present in these areas is close to the riparian root zone. [Same as VEG-7]

Response: Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water or riparian vegetation in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The riparian vegetation along Grayback is typical of ephemeral floodplains. There is no phreatophytic vegetation, which depends on groundwater, because the water depth is far below rooting depth. The BLM has determined that there is no reasonable basis on which to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.

GW-30. The analysis of effects of the proposed mining operation on groundwater resources is incomplete. It is stated on page 3-61, paragraph 2 that “except near the mine, data on water levels are sparse, making it difficult to accurately map the water table.”

Response: Due to the cited sparsity of information, the model was subjected to multiple sensitivity analyses to determine if results would be impacted by variations in data input. Model and impact interpretations were found to be not sensitive to the potential errors in the NMCC water table map.

GW-31. The model and EIS do not provide detailed ground and surface water depletion data related to the dewatering/cone of depression. Little, if any, measurements have been made by NMCC on wells or springs on private lands of the Hillsboro Pitchfork Ranch L.L.C. The data related to the Warm Springs Valley and associated springs in the model is inadequate; the reduction of 20 AFY in the Grayback Arroyo is not well documented (e.g., scale in Figure 3.15b hides impacts); and no detailed information on flow rates are identified for major springs i.e., Warm Springs and Cold Springs. The data provided by NMCC in Table 3-19 does not account for the permanent reduction in upgradient groundwater caused by mine pit dewatering/cone of depression.

Response: The groundwater model was prepared by an established consulting firm located in New Mexico and was thoroughly reviewed by the EIS consultant and the BLM's in-house hydrologist. This review confirmed that the model is suitable for making useful and valid predictions of the impacts to be expected if

the project is implemented. The BLM considered it unnecessary for NMCC to acquire additional data or conduct detailed evaluations that would not be essential for such impact predictions.

GW-32. Figure 3.11 appears to combine the shallow alluvium along lower tributaries and in the Rio Grande Valley, bedrock in the uplifts and the Santa Fe Group aquifer, and mine-related pumping. Each layer in this graphic should be represented separately in order to fully understand the model and the corresponding impact to groundwater. [Same as REF-11]

Response: The BLM assumes the comment addresses Figure 3-11, which is a map of the grid that covers the entire model area. Figure 3-12 provides details for Layer 2, which is where all pumping and all significant impacts would occur.

GW-33. Recommend that groundwater modeling, water budgets and all associated information to include tables and figures be separated into two categories: groundwater effects associated with *mine pit dewatering cone of depression* and groundwater effects associated with the *mine well field*. The information can then be recombined to provide an overview. The information as presented in its current format is confusing, inconsistent, and misleading in that it does not address the full effects of mine pit dewatering/cone of depression in perpetuity.

Response: The BLM believes that as published, the DEIS is clear in distinguishing impacts that would occur near the mine from those that would occur near the well field. Combining the projected drawdowns on a single map, as is done in Figure 3-11 of the DEIS, provides a more complete disclosure of project consequences.

GW-34. Missing or unclear drawdown graphs; need to include a description of how projected well water levels are derived. Need to include drawdown graphs for Roger Mill, Ladder Mill, and Wicks Mill wells as they are located in the area that will be impacted by mine pit dewatering/cone of depression. Recommend producing maps for each well within the area of the drawdown, show a vertical slice from each affected well to the center of the mine pit. The map should depict current ground water elevation at each well and at the pit center (existing conditions), conditions at the end of mining, and conditions 100 years after the mine is closed. [Same as REF-12]

Response: Appendix F of the EIS contains drawdown graphs for individual wells in the area where drawdown impacts may be experienced and provides a sound basis for evaluation of effects from the project. The BLM believes that these graphs in combination with the maps in Section 3.6 are appropriate for presentation of predicted impacts.

GW-35. Need to implement a well monitoring program for public and private lands potentially impacted by mine pit dewatering and a minimum of five years of data collected before a FEIS is published. The monitoring wells already in existence for the area have shown existing pollution and THEMAC did not commit resources to address this problem.

Response: Section 3.6.3 has been updated to reference implementation of a well monitoring program.

GW-36. The groundwater model is flawed because it does not account for the fact that production water will mostly stay in the ground and be used hardly at all except during short bursts of activity. Much of the aquifer study presented in the DEIS with its prediction of water balance return in 100 years would not apply. None of the hydrographs project a reasonably probable future groundwater reality; they only show the vaguely possible maximum impact.

Response: The groundwater model has been validated by the BLM and EIS contractor and was found to be sufficient for accurately assessing impacts of mining actions.

GW-37. Cumulative impacts of mine water use on discharge to the Rio Grande need to be evaluated in more detail. The comprehensive mid-basin study of Caballo Reservoir and the Rio Grande (as noted in the DEIS) should be conducted along with the evaluation of these cumulative impacts on the Rio Grande Compact. [Same as CI-28]

Response: As discussed in the FEIS, NMCC has obtained water rights sufficient to fully offset its projected impacts to the Rio Grande. With this acquisition, no issues related to the Compact have been identified.

GW-38. Key maps and cross-sections should be provided in the FEIS to support hydrogeology of the TSF discussions in various sections (e.g. sections 3.6.1.2 and 3.6.1.3). A map showing the position of the cross-section in the plan view should also be included in the FEIS along with the location of east-west and north-south cross sections, and monitoring wells. The isoconcentration contour maps need to be provided for sulfate and at least one metal that exceed NM ground water quality standards in the area of the TSF. Maps showing critical elevation information should also be included to truly assess the impact of terrain on surface hydraulics or hydrology on water quality, flood control, air pollutant transport, etc.

Response: Relevant groundwater modeling reports have been added as an appendix to the FEIS. The existing sulphate and metal contamination near the TSF is an independent State cleanup issue. The prescribed treatment process is not known and its effectiveness cannot be prejudged in the NEPA process except that it would be resolved in a way that is protective of the environment; it is not a decision factor for the EIS.

GW-39. There is no mention of the drawdown to wells on lands to the west and south of the cone of depression associated with the mine pit. The NMOSE should determine the drawdown on these wells [Same as REG-14]

Response: Drawdowns on lands to the west and south of the mine pit are shown in DEIS Figures 3-13b (Proposed Action), 3-16b (Alternative 1), and 3-19b (Alternative 2).

GW-40. Although the aquifer may recover from the mine well field pumping, the aquifer would not ever recover from the dewatering and cone of depression associated with the mine pit. Statements made on pages 3-73 and 3-74 (drawn from Table 3-20a) are incorrect.

Response: Pit depletions shown in Table 3-20a are clearly stated as the quantity that would occur 100 years after mining. The fact that these depletions would be permanent is clearly stated in Section 3.6.2.1.1. The last paragraph of Section 3.6.2.3.3 contains the following statement: "Impacts to water levels caused by the pit would also be significant. These effects would be large in magnitude, permanent, and certain, but small in areal extent".

GW-41. The DEIS fails to account for startup water necessary for the Mine's operations under all action alternatives. The BLM should clearly state the initial source of this water and include any additional water needed in the modeling for the Draft EIS.

Response: The groundwater model has been revised to incorporate startup water and the results are shown in the FEIS.

Hazardous Materials and Solid Waste/Solid Waste Disposal (HM&SW)

HM&SW-1. The project would leave a toxic pit.

Response: There is already an existing pit that would be expanded as part of the Proposed Action. The water quality would be monitored and managed as discussed in Section 3.4 of the EIS.

HM&SW-2. The all-volunteer crew in the Hillsboro Fire and Rescue Department (HFRD) are not trained or will likely be trained to safely handle the hazardous materials which will be hauled to the mine (which include diesel fuel, gasoline, propane, explosives, solvents and laboratory chemicals) because expensive special HAZ-MAT truck(s) and equipment would be needed and the HFRD has neither and does not have the funds to supply either. In addition, the current Hillsboro fire station house is packed and cannot accommodate any more trucks or equipment. Why is there no plan for dangerous chemical spills other than diesel?

Response: In the event of a release, the transportation company, licensed and inspected as required by the New Mexico Department of Public Safety/Motor Transportation Division and the DOT, would be responsible for response and cleanup. Local and regional law enforcement and fire protection agencies also may be involved initially to secure the site and protect public safety. In the event of an accident involving the release of hazardous material, CFR Title 49§171.15 and §171.16 require that the carrier notify local emergency response personnel and the U.S. DOT National Response Center. Compliance with these and other regulatory requirements would be met by NMCC and their contracted carriers.

Hazardous materials would be handled as outlined in Section 3.9.2.1.1.2, Materials Management. Storage would have secondary containment as described in these sections to address spill prevention and materials would be

managed and handled per regulations as outlined in this section. In addition, spills are addressed in Section 3.9.2.1.1.3, Releases. A Spill Prevention, Control, and Countermeasure Plan (SPCC) would be developed and implemented that would address spills of not only diesel but all hazardous materials during the operations. The SPCC plan describes the reporting requirements and response actions that would take place in the event of a spill, release, or other upset condition, as well as procedures for cleanup and disposal.

HM&SW-3. A thorough assessment of hazardous materials generation due to mine operation needs to be addressed because any spill or release of toxic compounds along Highway 152 must be quickly controlled by trained personnel. Not being prepared for even one hazardous incident is unacceptable. [Same as HH&PS-7]

Response: The transport of hazardous materials and hazardous wastes on public roadways is controlled by U.S. DOT regulations. Any transport of such materials to or from the mine site must be done in compliance with these regulations to protect public safety. All hazardous materials and waste would be transported by commercial carriers contracted by the NMCC in accordance with the hazardous substances shipping requirements of CFR Title 49 and in compliance with the Federal Motor Carrier Safety Regulations of the DOT, parts 383, 390, 397, and 399. In the event of a release, the transportation company would be responsible for response and cleanup. NMCC would specify that the contract carriers be licensed and inspected as required by the New Mexico Department of Public Safety/Motor Transportation Division and the DOT. The permits, licenses, and certificates are the responsibility of the carrier. CFR Title 49 requires that all shipments of hazardous substances be properly identified and placarded. Shipping documents must be accessible and include safety data sheets that contain information describing the hazardous substance, immediate health hazards, fire and explosion risks, immediate precautions, firefighting information, procedures for handling leaks or spills, first aid measures, and emergency response telephone numbers. Hazardous wastes would also be transported from the project site to be properly disposed of in accordance with Resource Conservation and Recovery Act (RCRA) regulations. Transportation of these waste streams would adhere to all applicable State and Federal regulations including requirements for hazardous waste manifests with shipments, labeling or using placards, and emergency information requirements.

Human Health and Public Safety (HH&PS)

HH&PS-1. Approve of the proposed mine because smart and safe mining techniques will be employed to minimize impacts.

Response: Thank you for your comment. The mining proponent would employ modern mining techniques in compliance with the Mine Safety and Health Act (MSHA).

HH&PS-2. The Mining Safety Board for the State of New Mexico has already started working with the State mining inspector to make sure the mine is in compliance. The NMCC is committed to completing the project in an environmentally safe manner. [Same as REG-3]

Response: Thank you for your comment. Early coordination with mine safety agencies is critical to safe and compliant operations once the mining activity has begun.

HH&PS-3. Concerned with public safety issues due to the additional traffic on Route 152. [Same as TR-2]

Response: The anticipated traffic increase would occur primarily during shift change for the mine. This increase in the worse condition considered would be a Level of Service (LOS) rating of C, which by definition is a stable flow, and therefore would be less than a significant impact. With this increase in traffic, there would be a minor increase in the potential for accidents. In order to account for this, NMCC has a verbal agreement that turn lanes and acceleration lanes would be built to safely accommodate transition from NM-152 and Gold Dust Road and vice versa. This verbal agreement will be formalized into a Memorandum of Understanding prior to the publication of the FEIS.

HH&PS-4. Proper Federal and State regulations will ensure protection of the workers and the environment. [Same as REG-4]

Response: Thank you for your comment. The mining proponent would employ modern mining techniques in compliance with MSHA.

HH&PS-5. Section 2.1.15.6 of the FEIS should include a discussion of the long-term maintenance required for the fences and barricades to restrict access to the site for protection of the public.

Response: The FEIS has been revised in Section 2.1.11 to state that fencing and exclusionary devices would be sufficiently maintained to achieve their intended purpose throughout the project, including during the reclamation stage.

HH&PS-6. An inundation plan should be presented in the EIS to clarify the likelihood of a PMP storm event in the upper watershed. An evacuation plan must be prepared in consultation with the corresponding Emergency Management Agency in Sierra County using the inundation plan developed in this section of the application. The Draft EIS fails to provide any of these logical requirements for OSE Dam Safety Office approval of the proposed operations. [Same as PA-14]

Response: Plans such as those described in the comment would be completed as requirements of the regulatory permitting process. They are not required as part of the EIS evaluation process performed in advance of the permit processing.

HH&PS-7. A thorough assessment of hazardous materials generation due to mine operation needs to be addressed because any spill or release of toxic compounds along Highway 152 must be quickly controlled by trained personnel. Not being prepared for even one hazardous incident is unacceptable. [Same as HM&SW-3]

Response: The transport of hazardous materials and hazardous wastes on public roadways is controlled by U.S. DOT regulations. Any transport of such materials to or from the mine site must be done in compliance with these regulations to protect public safety. All hazardous materials and waste would be transported by commercial carriers contracted by the NMCC in accordance with the hazardous substances shipping requirements of CFR Title 49 and in compliance with the Federal Motor Carrier Safety Regulations of the DOT, parts 383, 390, 397, and 399. In the event of a release, the transportation company would be responsible for response and cleanup. The NMCC would specify that the contract carriers be licensed and inspected as required by the New Mexico Department of Public Safety/Motor Transportation Division and the DOT. The permits, licenses, and certificates are the responsibility of the carrier. CFR Title 49 requires that all shipments of hazardous substances be properly identified and placarded. Shipping documents must be accessible and include safety data sheets that contain information describing the hazardous substance, immediate health hazards, fire and explosion risks, immediate precautions, firefighting information, procedures for handling leaks or spills, first aid measures, and emergency response telephone numbers. Hazardous wastes would also be transported from the project site to be properly disposed of in accordance with RCRA regulations. Transportation of these waste streams would adhere to all applicable State and Federal regulations including requirements for hazardous waste manifests with shipments, labeling or using placards, and emergency information requirements.

HH&PS-8. Highway 152 has no shoulder and the DEIS indicates that no improvements are planned or proposed for that portion of the highway east of Hillsboro. Subsequently, the mine would introduce a bottleneck along the route which would present a particularly dangerous condition because the highway is regularly used by bicyclists since the road has for many years been a nationally designated cross-country touring route that is one of most scenic and popular bicycling tour routes for decades.

Response: There are currently soft shoulders on SH152. NMCC has met with NMDOT several times and has prepared a traffic and pavement study for NMDOT. NMDOT has not expressed a need for paved shoulders and discussions have not identified a lower level of safety due to existing shoulders. There is currently a verbal agreement between NMDOT and NMCC that will evolve into a Memorandum of Understanding and would require a 2-inch overlay on the highway 12 months prior to the beginning of mining operations that would have the strength to sustain expected truck traffic.

HH&PS-9. Humans are not perfect and an accident could happen that could pollute the environment.

Response: Throughout the EIS there are references to Federal, State, and local laws and regulations that would require compliance by the mine proponent and those interacting with the mine, such that accidents would be minimized.

Irreversible and Irrecoverable Commitment of Resources (I&I)

I&I-1. In section 3.28 "Irreversible and Irrecoverable Commitment of Resources," references to water and groundwater are not consistent with the discussion on groundwater in Section 4, "Cumulative Impacts." It says there will be a permanent decrease, whereas it is not mentioned as a permanent decrease in the irrecoverable recovery of resources. In regards to the pit lake, the irrecoverable and irreversible waste of water (because of the fact that the pit lake would be a permanent drain of water from both surface and groundwater) should not be condoned by the BLM and should not be allowed by the OSE. [Same as CI-4; GW-9]

Response: The permanent reduction of the groundwater level at the pit has been included in Section 3.28 of the EIS, Irreversible and Irrecoverable Commitment of Resources.

I&I-2. When using a bell-shaped curve to identify the most likely scenario that aquifer recharge will be problematic in the future, certainly "irrecoverable" and perhaps "irreversible" is found at the top of the bell curve. The DEIS has chosen a scenario that is out on the long legs of the probability curve, drawn from the least likely set of scenarios, as the anticipated outcome of mining operations at Copper Flat. This is reckless, capricious, and arbitrary. [Same as GW-22]

Response: The BLM did not identify any aspect of the FEIS that corresponds with the statements made in this comment.

I&I-3. Before an irrecoverable commitment of resources is made in the project, the many mistakes and misrepresentations of the analysis must be remedied and the combined, cumulative impact on the socioeconomic life of Sierra County objectively studied. [Same as CI-20; SE-37]

Response: The BLM believes that the socioeconomic analysis in the FEIS, supplemented with additional information gathered and analysis conducted as a result of the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of NEPA. The complete analysis is presented in the FEIS.

I&I-4. Paragraph 5 on page 3-305 is misleading: "Some water used for processing and smaller mining-related uses, although extensively recycled, is not renewable and represents an irreversible use of resources. Recovery in the bedrock near the mine pit would be limited. Recovery in the Santa Fe Group would eventually (over decades) be essentially complete." It is not clear that water recovery in the bedrock near the mine put would not recover as water will continue to flow into the mine pit lake forever.

Response: Groundwater modeling for the EIS predicts that the groundwater drawdown in areas immediately adjacent to the proposed pit would be permanent with limited recovery due to groundwater flow characteristics of the andesite bedrock.

I&I-5. Paragraph 7 on page 3-305 is misleading: “The small amount of terrestrial wildlife habitat would be lost long-term due to the expansion of the pit area. Waterfowl would use the expanded pit lake area, but a small amount of terrestrial habitat at the rim of the current pit area would be excavated with the pit expansion.” It does not account for ground and surface water loss in perpetuity due to water continuing to flow in the mine pit lake after mine closure. Based on page 3-21, the existing pit lake does not meet the water quality standards for the designated uses of warm water aquatic, life, livestock watering, or wildlife habitat.

Response: The statement from paragraph 7 of Section 3.28 is correct, and paragraph 5 of the same section acknowledges the long-term loss of groundwater resources in the mine pit area.

Paragraph 7 has been revised with regard to wildlife to better articulate the existing condition of the pit lake and the expected condition post-mining. The paragraph now states that a small amount of terrestrial wildlife habitat would be lost long term due to the expansion of the pit area. Waterfowl would use the expanded pit lake area, but a small amount of terrestrial habitat at the rim of the current pit area would be excavated with the pit expansion.”

The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The water quality standard that would apply is a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality.

Land Ownership and Land Use (LU)

LU-1. Oppose extraction and processing of copper ore and minerals from BLM-public lands because it would be harmful to the environment and future non-mineral farming and grazing use. Oppose mineral extraction on private lands because of the lack of groundwater regulations.

Response: Under Section 302(b) of FLPMA (43 USC 1732[b] and 603[c]; 43 CFR 3802 and 43 CFR 3809), the BLM is charged with allowing mining to occur as one of the multi-purpose uses of the public lands that it oversees, provided that an EA or EIS is completed prior to the start of proposed mining. This EIS allows the BLM decision makers to incorporate a determination of environmental impacts to both private and public lands into its decision-making process.

LU-2. The majority of the project area is on private property, and under the 1872 Mining Law there are patented mining claims that are a property right and therefore the environmental process is different.

Response: The NEPA process is implemented in response to potential effects on BLM lands that require the BLM to approve a MPO. Effects on private lands are analyzed as connected actions to the approval of the MPO. This process will proceed in a manner that is compliant with the 1872 Mining Law, other applicable mining laws, and Federal land management policies.

LU-3. The mine is located in an area that has been previously disturbed by mining.

Response: Thank you for your comment. Previous mining activities at the site are included in the cumulative impacts analysis as discussed in Chapter 4 of the FEIS.

LU-4. Copper Flat is not a "green field project;" rather, it has been disturbed by ranching and mining. The mining process will improve the region's land. [Same as CI-1]

Response: Thank you for your comment. Previous mining activities at the site are included in the cumulative impacts analysis as discussed in Chapter 4 of the FEIS.

LU-5. Understanding that the Hillsboro Pitchfork Ranch L. L.C. is the private land owner to be most greatly affected by the dewatering/cone of depression of the Mine Pit Lake, reference should be made to the ranch and address the cone of depression.

Response: A modeling analysis indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water in the Grayback Arroyo system and therefore would not affect any vegetation growing in this area. Groundwater pumping (including that for pit dewatering) would not affect habitat because existing water depths are far below the rooting depth of vegetation. Thus, impacts from the cone of depression are not anticipated to impact adjacent landowners.

LU-6. Although BLM does not have funds to restore the situation at Copper Flat on its own, why cannot BLM require the present land owners to restore the site, at least to end pollution, if it does not mine? Is this not the responsibility of landowners generally?

Response: The BLM does not have jurisdiction or authority to require private land owners to reclaim their land.

LU-7. The APE delineation is so limited it provides a superficial analysis limited only to the proposed mine site without considering ownership of adjacent, immediate areas. The affected environment should be expanded to include adjacent property owners (including private landowners) and a detailed analysis provided on the historical decrease in land value due to proximity to the proposed mine site.

Response: Adjacent land ownership (including privately owned land) is analyzed and is listed in Table 3-33 within the Affected Environment section of the Land

Ownership and Land Use section of the FEIS. As stated in Section 3.15.2 of the EIS, it is unlikely that any proposed project activities would conflict with BLM or other Federal land uses, plans, or agreements. Several State permits would be required for the proposed project. (See Table 1-1.) These permits would ensure compliance with existing land uses, plans, or agreements.

Please see the response to comment SE-41 for a discussion of land value due to proximity to the proposed mine site.

LU-8. The APE as currently defined is in conflict with the EIS significance criteria for parameter and extent (see page A-16).

Response: This comment does not provide evidence to support these statements.

1. The duration of the project does not impact the APE.
2. Regarding parameter (or magnitude) as stated in the Land Use section of the EIS, it is unlikely that any proposed project activities would conflict with BLM or other Federal land uses, plans, or agreements. Several State permits would be required for the proposed project. These permits would ensure compliance with existing land uses, plans, or agreements. Unincorporated land in Sierra County has no written zoning ordinance or permitting requirements.
3. The EIS significance criteria define small extent as occupying an area less than five percent of the planning area jurisdiction. Large extent is defined as occupying an area greater than five percent of the planning area jurisdiction. The proposed project does not occupy an area greater than five percent of the planning area jurisdiction, which is considered to be Sierra County.

The APE as defined in the land use section does not conflict with stated EIS significance criteria.

LU-9. Need to include effects analysis to wildlife habitat and wildlife recreation on both private and public lands in the Grayback Arroyo system within the Animas Uplift, adjacent upgradient of the mine site.

Response: An analysis of the impacts of the proposed project and alternatives on wildlife habitat on both private and public lands in the Grayback Arroyo system is included in Section 3.10.2 of the EIS.

Though there are no designated trails within the project footprint, if recreational users are accustomed to hiking, backpacking, bird watching, or riding off-highway vehicles (OHVs) through the outer limits of the project footprint, impacts due to restricted use could be minor and long-term. However, due to the presence of existing mining-related structures, the open pit mine and tailings pond, and

existing fencing around parts of the mine area, which already restricts access for human health and safety reasons, recreational activities in this area are not prevalent. Thus, impacts to on-foot recreationists and OHV riders are anticipated to be minor. Impacts to wildlife based recreation on lands within the Grayback Arroyo further from the project site are anticipated to be minor as well. The further away recreation occurs from the project site, the lesser the impacts are anticipated to be.

LU-10. Paragraph 7 on page 3-190 states that the Sierra County's Assessor Office designated land surrounding the mine as "miscellaneous," the code for raw land not currently used. Lands on the Hillsboro Pitchfork Ranch LLC are Agricultural Lands; need to correct in the DEIS.

Response: The text in the EIS has been revised to reflect that Hillsboro Pitchfork Ranch LLC is designated as Agricultural Lands.

LU-11. The DEIS does not keep with the Interim Land Use Policy of Sierra County of 1991 as environmental effects to the Warm Springs Canyon, Cold Springs Canyon, Grayback Arroyo and Animas Uplift are omitted. Withdraw the DEIS and address these concerns. [Same as REG-16]

Response: Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not have environmental effects in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The BLM has determined that there is no reasonable basis upon which to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.

LU-12. Paragraph 1 on page 3-192 states that any changes to soil or water conditions are unlikely to impact the mining area to the point where potential land use would conflict with land management plans by preventing planned land uses or permitting within or nearby the APE. Draining of water sources in perpetuity would likely conflict with land management plans, and should be prohibited in the Mine Development/Operation plan. [Same as PA-31]

Response: The effects of the proposed project and alternatives on water resources are described in the EIS, and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts would be expected to differ to some degree from those predicted, there is no basis upon which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but is not aware of any comments or inputs that would contradict the findings of the FEIS.

LU-13. Pages 3-192 and 3-193 need to be rewritten to reflect NMCC's responsibility to mitigate negative effects or delete sentences with phrases such as "careful consideration." Meaningful,

measurable mitigation measures must be identified and published for public review prior to FEIS.

Response: The text has been revised to replace vague wording with more definite terms. Permitting requirements would assure compliance with existing land use regulations. Because the land use category would not change and land use regulations would be followed, impacts would be expected to be short- and medium-term, less than minor, and adverse during the life of the mine and reclamation activities under the Proposed Action. All post-closure land uses would be in conformance with BLM 1985 White Sands Resource Management Plan (RMP) and the Sierra County Comprehensive Land Use Plan, or their successor plans. Section 2.1.15 details the goals of the Reclamation Plan for the mine. The BLM has determined that no further mitigation measures are necessary.

LU-14. Disagree with impacts analysis on pages 3-192 and 3-193. For example, land uses in and around the mining area will be changed during development and operation of the mine, not after reclamation is complete. Nearby areas will not return to their original condition after the mine is closed, because of the mine pit water cone of depression; therefore, impacts would be permanent and not short- and medium term.

Response: The impacts analysis in Section 3.15.2 does acknowledge changes in land use that would occur during development and operation of the mine, as well as after reclamation is complete. For example, 'limit land use options during mining' and 'loss of appeal of area from change in character' are listed as impacts. These impacts would occur during development and operation.

Impacts related to groundwater drawdown and consequent surface water depletions (i.e., the mine pit water cone of depression) are quantified in the FEIS using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis upon which to expect those differences to change the overall FEIS impact analysis, which states that any changes to soil or water conditions are unlikely to impact the mining area to the point where potential land use would conflict with land management plans by preventing planned land uses or permitting within or nearby the APE. These predicted impacts would be adverse and significant, but would be compensated for through mitigation requirements of the OSE. The BLM appreciates that there is considerable public concern over these impacts, and the methods used to evaluate them, but is not aware of any comments or inputs that would contradict the findings of the FEIS.

Lands and Realty (LR)

LR-1. The APE delineation is so limited it provides a superficial analysis limited only to the proposed mine site without considering ownership of adjacent, immediate areas.

Response: Adjacent land ownership (including privately owned land) is analyzed and is listed in Table 3-33 within the Affected Environment subsection of the Land Ownership and Land Use section. As stated in Section 3.15.2 of the EIS, it is unlikely that any proposed project activities would conflict with BLM or other Federal land uses, plans, or agreements. Several State permits would be required for the proposed project (see Table 1-1). These permits would ensure compliance with existing land uses, plans, or agreements.

LR-2. No roads are depicted within Figure 3-43 or Table 3-34 which show any easements through the mine site.

Response: NMCC recognizes and acknowledges that Pitchfork Ranch currently has access through Copper Flat. During mine operation, NMCC expects to continue to provide Pitchfork Ranch this access through the property but would need to follow agreed upon procedures to ensure safe access. NMCC is prepared to work with Pitchfork Ranch to develop procedures to allow continued access in a safe manner.

LR-3. Need affirmation of an ingress/egress road easement access to adjacent private land through the mine site.

Response: NMCC recognizes and acknowledges that Pitchfork Ranch currently has access through Copper Flat. During mine operation, NMCC expects to continue to provide Pitchfork Ranch this access through the property but would need to follow agreed upon procedures to ensure safe access. NMCC is prepared to work with Pitchfork Ranch to develop procedures to allow continued access in a safe manner.

LR-4. Remove statement on page 3-210 that impacts may be beneficial due to the enhancement of the area, as no evidence has been provided for this statement.

Response: The statement has been removed.

LR-5. A Prescriptive Easement through NMCC/Copper Flat property to the Hillsboro Pitchfork Ranch LLC that is essential for the ranch to conduct business, including access to Rodgers Windmill, cattle management activities, and wildlife habitat improvements. Need to include the existence of this Right of Way prior to issuance of the FEIS.

Response: NMCC recognizes and acknowledges that Pitchfork Ranch currently has access through Copper Flat. During mine operation, NMCC expects to continue to provide Pitchfork Ranch this access through the property but would need to follow agreed upon procedures to ensure safe access. NMCC is prepared to work with Pitchfork Ranch to develop procedures to allow continued access in a safe manner.

LR-6. Does the BLM support the real estate analysis of the EIS? Question: Which is worth more—farm with flowing irrigation well or farm with dry well?

Response: The BLM has reviewed all resource sections of the EIS and supports the conclusions reached in them. Mining activities would follow BMPs to prevent soil or water impacts as described in Sections 3.8, 3.5, and 3.6. Any changes to soil or water conditions are unlikely to impact the mining area to the point where potential land use would conflict with land management plans by preventing planned land uses or permitting within or nearby the APE. The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer that affects existing wells without causing "impairment". In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of the well referenced in the comment is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to a well are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law.

Mineral and Geologic Resources (MG)

MG-1. The geology of the Grayback Arroyo system upstream of the mine area within the Animas Uplift is different from the geologies of Las Animas and Percha Creeks. As such, calculations and assumptions related to groundwater drawdown on pages 3-149 and 3-150 are not valid for the Grayback Arroyo system west of the mine pit. Need to conduct a complete analysis of effects of groundwater drawdown and publish for public review prior the issuance of a FEIS and Letter of Declaration. [Same as VEG-15]

Response: Drawdown maps for all areas impacted by the proposed project are provided in Section 3.6.3 of the DEIS. The BLM has identified no locations where drawdown may potentially have a significant impact on riparian vegetation that is rooted in a shallow water table.

NEPA Process (NEPA)

NEPA-1. The DEIS is inadequate under NEPA and should be withdrawn from the process. BLM should deny NMCC/THEMAC approval to operate the Copper Flat Copper Mine because of the numerous potential impacts to a number of resources and the mandate for BLM to protect the land.

Response: The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts.

NEPA-2. The DEIS is biased towards the Proposed Action being the preferred alternative.

Response: Chapter 2 of the EIS describes the Proposed Action and all reasonable alternatives. The EIS has been prepared to: 1) analyze the environmental impacts of alternatives that would meet the proposed purpose and need; and 2) assist the BLM in deciding whether to approve a preferred alternative. That preferred alternative may be the Proposed Action, an identified alternative, or a combination of analyzed elements of the Proposed Action or alternatives.

The EIS was prepared in accordance with NEPA requirements for the BLM and a ROD will be signed. If the preferred alternative identified in the ROD differs from the MPO, the MPO must be revised by NMCC and approved by the BLM prior to commencing mining operations.

NEPA-3. The DEIS "cherry picks" data and was developed with an end already in sight rather than going through the appropriate process to determine if a project should move forward.

Response: The EIS has been prepared to: 1) analyze the environmental impacts of alternatives that would meet the proposed purpose and need; and 2) assist the BLM in deciding whether to approve a Preferred Alternative that may be the Proposed Action, an identified alternative, or a combination of analyzed elements of the Proposed Action or alternatives.

The EIS has been prepared in accordance with NEPA requirements for the BLM. An informed decision based on the EIS will be made and a ROD will be signed. If the Preferred Alternative identified in the ROD differs from the MPO, the MPO must be revised by NMCC and approved by the BLM prior to commencing mining operations.

NEPA-4. Support BLM's extension of the public review comment period because it allows additional time to fully and correctly absorb all the information contained therein, recommend that BLM host more public meetings because of complexity of issues.

Response: The comment period was extended to give the public additional time and opportunity to review the DEIS. The BLM decided that additional public meetings were not necessary.

NEPA-5. Appropriate information related to the project has been provided throughout the process and public meetings have been informative.

Response: Thank you for your comment. One goal of the NEPA process is to facilitate public input to projects that may affect the public and the human and natural environment.

NEPA-6. The DEIS has been managed appropriately, is complete, has been prepared in compliance with the National Environmental Policy Act and all other federal, state, and local regulations and can be completed in a responsible manner.

Response: Thank you for your comment.

NEPA-7. Draft EIS does a good job analyzing the project from an environmental perspective, clearly identifies the issues, and properly lays the groundwork for necessary environmental protection measures. The assessments are clear, straightforward, and well supported with significant and sufficient data and expert studies relevant to the specific impacts this proposed project would have on lands, air, waters, wildlife, and communities.

Response: Thank you for your comment.

NEPA-8. Request that BLM work through the EIS process efficiently and without delay, do not extend the public comment period any longer, and move forward to the FEIS.

Response: Thank you for your comment.

NEPA-9. The document is flawed in its evaluation of water uses, permitting requirements for its uses, and impacts of these uses. Inaccurate and incomplete information presents an unjustifiable and imbalanced analysis of the effects of water use at the mine in violation of NEPA's requirement for a full and transparent disclosure of issues and impacts. (See GW-4, SW-1)

Response: Anticipated effects on water resources are described in the EIS; those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis on which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary mitigations applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit *“all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande”*. NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but is not aware of any comments or inputs that would contradict the findings of the FEIS.

NEPA-10. The failure to address the impacts of an existing regulatory requirement of the Office of the State Engineer violates NEPA's requirement that impacts be disclosed to the public so that they may understand them.

Response: The comment refers to potential mitigations for surface water depletions to the Caballo Reservoir and Lower Rio Grande system. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

NEPA-11. The DEIS is inadequate and given that impact will be significant and permanent in nature BLM should submit a revised Draft EIS that addresses the multiple deficiencies for the public's review and not proceed to issue a FEIS until after the public has adequate opportunity to submit comments to the revised draft.

Response: The FEIS was objectively prepared, maximizing the use of available information. As provided by NEPA, the process has utilized input from public review of the DEIS to systematically proceed to the FEIS document.

NEPA-12. Technology today, as identified and described in the Draft EIS by the experts enlisted to objectively identify potential effects and to develop measure to mitigate those effects, is capable of minimizing potential negative effects and maximizing potential positive effects.

Response: Thank you for your comment. One goal of the NEPA process is to identify potential effects and mitigate them as necessary to reduce predicted significant effects.

NEPA-13. Leasing of additional surface water would require a review under the USBR 1920 Miscellaneous Purposes Act be observed because NMCC would in this instance be seeking a

change in the purpose of use of Rio Grande Project surface water rights that are otherwise authorized for the single purpose of irrigation. The 1920 Act would also invoke NEPA, and therefore NMCC and the BLM may very well be subject to yet another EIS. [Same as REG-11]

Response: The 1920 Miscellaneous Purposes Act authorizes the Bureau of Reclamation (BOR) to enter contracts to supply water from any irrigation system project for purposes other than irrigation. While buying or leasing surface water irrigation rights for the purpose of mining may require additional analysis under NEPA, the BLM would not be the lead agency for that action as the BLM does not authorize or administer the sale, lease or transfer of water rights or changes of beneficial use.

NEPA-14. Questions of the viability of all of the figures provided by the company – urges BLM to investigate whether or not they are truly viable.

Response: It is often true that the proponent of the action has some of the most relevant information that describes implementation of the project. The BLM has independently validated information and figures provided by the proponent to promote impartiality of the impact evaluation process.

NEPA-15. The subject DEIS fails to establish a credible Proposed Action and alternatives for analysis as required by Statute and Enabling Regulations. The requirement to comply with other Federal Laws was not identified as a need in the DEIS. Even at the summary level, the Proposed Action does not "reflect the largest possible impact of the mining footprint at Copper Flat" - at the detail level, this discrepancy is even more obvious. [Same as PA-9]

Response: The selection of alternatives was systematically conducted using input from the scoping process at an alternatives-selection session at which the BLM and State cooperating agencies considered alternatives that reflected the substance of the scoping comments. The Purpose and Need Statement in the FEIS and Section 1.1 Purpose and Need describe the BLM's obligation for taking action on the project. Compliance with Federal laws that are relevant to the BLM's need for taking action on the project is discussed in Section 1.1. The Proposed Action has a larger disturbance footprint than the two action alternatives, reflecting improved, more efficient mining operations used in the alternatives.

NEPA-16. Significance criteria (duration, extent, likelihood) are difficult if not impossible for the public to understand.

Response: The commenter was not specific about which criteria are difficult to understand. The terms used in this section are commonly used in NEPA analysis, and for purposes of consistency continue to be used. However, the criteria have been further explained through additions to the glossary.

NEPA-17. The Duration parameter must include the level “permanent” to differentiate from “long-term.” Effects on cultural resources are listed as permanent, and effects to many other resource topics are also permanent but are listed as long-term.

Response: For purposes of determining the significance of a potential effect, there is little or no difference that separates the characterization of long-term and permanent effects.

NEPA-18. The level definitions for Extent must be consistent within the DEIS; level definitions for various resource topics are substantially different.

Response: The characteristics of analyzed resources vary and it is reasonable that the descriptions of extent vary also for these resources. Resource analysts have chosen descriptions of extent that are based on available science and professional judgement for their analysis and a review performed for the response to this comment found that the descriptions of extent are neither inaccurate nor inconsistent, and are presented in a manner that appears understandable to the public.

NEPA-19. During the scoping process, a stochastic study using Fibonacci numbers was requested of BLM to estimate the probability of the project’s failure. In so far as this probability study was ignored, the present DEIS violates the Council on Environmental Quality’s regulations for scoping.

Response: It is not the responsibility of the BLM to assess the probability of the project’s failure, but rather to assess the environmental effects of implementing the project as proposed and appropriate alternatives.

NEPA-20. Encourage the BLM to move cautiously and in conformance with all NEPA regulations when analyzing the true impacts of the Copper Flat Mine. The adverse effects this project will have both on the environment and the New Mexico tourism economy calls into question its benefit to the public.

Response: The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision that has impartially considered all relevant environmental and social impacts.

NEPA-21. The DEIS assumes that untested technology will reduce impacts and thus fails to do an adequate assessment. Estimates of impacts to clean water, clean air, wildlife habitat, and public health need to be based on actual records of similar operations. [Same as PA-30]

Response: It is unclear what untested technology is of concern in this comment. The BLM has evaluated proven technologies with regard to impact reduction and has utilized reliable records and data in its evaluation, as presented in the EIS.

NEPA-22. The DEIS violates NEPA because it fails to contain the required detailed analysis of all baseline conditions, and also fails to disclose that information is incomplete or unavailable.

Response: A review of baseline conditions was performed for response to this comment and was found to be satisfactory for the analyses performed and in compliance with NEPA.

NEPA-23. BLM fails to identify the regulatory environment under different management scenarios as an issue for analysis, in violation of NEPA. 40 CFR Part § 1501.7. The DEIS should compare the following factors under different management scenarios: number of agency inspections, the thoroughness of these inspections, the ability to review the adequacy of the reclamation bond and adjust it as needed, the frequency of bonding review, bonding amounts, the past history of bonding increases, the past history of calculating the correct bond, the amount of potential fines for violations, and the ability to require and manage a fund for long-term water treatment. [Same as REG-17]

Response: It is not the responsibility of the BLM through the EIS process to evaluate the adequacy of the external agency inspections, bonding requirements, or determination of fines. The above listed items are outlined in the 43 CFR 3809 regulations and are not considered to fall within the scope of the EIS as they are regulatory compliance issues and not environmental impacts.

NEPA-24. The DEIS in many respects speaks only to negative environmental impact through mine closure, though the analysis should look beyond the life of the Proposed Action (as stated on page 4-1). [Same as CI-22]

Response: NEPA requires that an EIS evaluate cumulative impacts of past, present, and reasonably foreseeable future actions. The comment has not been specific about actions occurring after mine closure that should also be analyzed, but many future actions are speculative rather than reasonably foreseeable.

NEPA-25. In exercising its authority under 43 C.F.R. §3809.500, BLM must also comply with its NEPA mandate by disclosing and analyzing the amount, scope and form of financial assurance to make certain that such a critical issue is subjected to public review and comment. The DEIS is inadequate because it does not disclose any detail about how BLM will ensure that funds will be available as long as they are needed to implement NMCC's closure and post-closure obligations. The assurances are required to protect the public from the massive financial liability posed by the Proposed Action, and these financial assurance mechanisms assume that the site will not become a Superfund site, which history shows is common upon closure of mines.

Response: The 3809 regulations do not require information regarding reclamation cost estimates (RCEs) and Long-Term Trusts (LTTs) for the plan of operations to be considered complete for NEPA review. Therefore, BLM does not and will not require such information from the operator, or generate it, for NEPA review unless the 3809 regulations are changed. The reason the BLM

regulations do not include RCEs/LTTs in the NEPA process is that NEPA requires the agency to analyze potential environmental impacts from a proposed major federal action. The RCEs/LTT estimates are a financial back-up if the operator fails to comply with the reclamation requirements. Those estimates are not part of the environmental impact analysis.

NEPA-26. BLM has failed to publicly disclose that Mangi Environmental Group, Inc. were preparers of the DEIS. BLM also failed to procure the required disclosure statement from Solv. The public is therefore unable to determine whether there exists a conflict of interest between Solv and NMCC. BLM must either revise or supplement the DEIS with this information and identify which work product of Mangi Environmental Group, Inc. was incorporated into the DEIS.

Response: Mangi Environmental Group, Inc. (Mangi) was awarded a contract in November 2011, via a third-party contract arrangement with NMCC, to assist the BLM in the preparation of the EIS. As part of the proposal for this contract, Mangi provided a Disclosure Statement certifying that there was no conflict of interest between Mangi, NMCC, and the work on the Copper Flat EIS. Effective December 31, 2013, Mangi Environmental Group changed its name to Solv LLC. The company federal employer identification number (FEIN) and DUNS number remain the same. The BLM has determined that the disclosure statement originally submitted by Mangi is binding on Solv LLC because they are the same entity.

NEPA-27. The hearing on Copper Flat Mine should have been in Caballo, Animas Creek Village, not Truth or Consequences because that's where the people live and the farms are that the mine will pump water from.

Response: Several factors determined the locations of the public meetings, and the selection of Truth or Consequences and Hillsboro offered the optimum balance of these factors.

NEPA-28. The Proposed Action and alternatives do not “prevent unnecessary or undue degradation of public lands by operations authorized by the mining laws” as required under 43 CFR Subpart 3809: Surface Management and 43 CFR Subpart 3809.401 which requires a number of plans and information including water management plans, quality assurance plans, monitoring plans, post-closure management plan, interim management plan, and reclamation cost estimate. BLM must disapprove the plan of operation as it does not meet the applicable content requirements of state law or 43 CFR §3809.420(b)(11)(i). Liners under waste rock piles and low-grade ore stockpiles are not planned to be used to minimize uncontrolled migration of leachate even though the DEIS states that there is moderate to high potential for generation of acid rock drainage or other deleterious leachate with sufficient percolation.

Response: In response to this comment, the BLM has reviewed its NEPA process for this EIS and found that the process is in compliance with 43 CFR Subpart 3809 requirements. Additionally, the BLM has concluded that liners are

not necessary under waste rock piles and low-grade ore stockpiles. Lining waste rock piles and ore stockpiles is not required by BLM regulation nor under the Copper Rule; this is not a standard industry practice.

NEPA-29. BLM did not adequately examine all the environmental consequences of the Proposed Action required to make a fully-informed and well-considered decision. Request that BLM amend the DEIS to ensure that the agency can make a decision that is based on a complete understanding of the environmental consequences of the Proposed Action and alternatives, and facilitate taking actions that protect, restore, and enhance the environment. As it stands now, the DEIS does not comply with NEPA and BLM's own regulations for surface water management. Some of the items not covered by the Draft EIS, or addressed inadequately, are substantial and it is doubtful that, if challenged, the Draft EIS would stand up to the "hard look" standard set forth in NEPA jurisprudence.

Response: The comment did not provide basis or specifics for items not covered by the EIS, or addressed inadequately, but in response to this comment and in consideration of other comments received, the BLM has reviewed the thoroughness of its examination of environmental consequences for the Proposed Action and alternatives and found them to be compliant with NEPA. The BLM is not aware of BLM surface water management regulations that have not been complied with in completing this EIS.

NEPA-30. The document does not sufficiently evaluate and present a discussion of cumulative impacts for a number of resource categories including air quality, and impacts from previous mining operations, and therefore violates NEPA. [Same as AQ-8 and CI-2]

Response: The air quality assessment included background air pollutant concentrations which includes air impacts from past and present activities. A discussion of cumulative effects is provided in Chapter 4 of the EIS. The BLM believes that the cumulative impacts assessment for other resource categories is either sufficient as written in the FEIS or were supplemented with specific input from the public comment process for the FEIS.

Noise and Vibrations (NOI)

NOI-1. Concerned with the analysis of noise from ore trucks hauling on Highway 152 – the DEIS does not adequately evaluate these impacts. More specifically, it is inadequate to state that because of the remote location, the effects of noise would be negligible (e.g. page 3-229). The mine will create noise pollution both from the constant roar of trucks transporting mine material on Highway 152 and because it is an open pit mine.

Response: Truck operations on site were included in the noise model discussed in Section 3.21.2.1.1 of the EIS. Section 3.20.2.1 indicates operations in years 1-5 would require 10-14 truckloads per day to and from the site. This is approximately one truck per hour. Due to the limited number of trucks and the small number of nearby residences, the effects of truck noise would be negligible.

NOI-2. The impact on the seismic environment in the Advanced Inertial Test Laboratory (AITL), building 1256, from mining activities such as blasting and ore processing is unknown. The created seismic disturbances generated at the mine will be naturally attenuated by the 83 miles of soil and rock between the mine and AITL. AITL requests that a line of communication be established with mine management to enable correlation of seismic data recording with the blasting effects. Advanced scheduling of disturbance producing activities would provide opportunities to schedule low noise characterization testing around the mining activities.

Response: Thank you for your comment. This request has been relayed to NMCC.

NOI-3. The DEIS fails to identify and analyze the Mine's impacts to night skies and the noise and vibrations impacts to recreation opportunities on the Ladder Ranch. Tranquility and the ability for guests to enjoy a dark, clear night skies are key expectations of visitors to the Ladder Ranch. [Same as REC-5]

Response: A summary of New Mexico's Night Sky Protection Act (1978) has been added to Section 3.14.1 of the FEIS. All lighting associated with mining is listed under the Act as an exemption. The nearest Dark Sky area designated by the International Dark Sky Places program is over 150 miles away from the mine. This information is summarized in Section 3.14.2 of the FEIS. Further analysis on night skies is not required.

Noise and vibration impacts from the proposed project are discussed in Section 3.21 of the EIS. As stated in Section 3.21.2.1, the Proposed Action would not contribute to a violation of any State, Federal, or local noise or vibration regulation. As also stated in this section of the EIS, during each blasting event that would occur at the mine, which occur only during daylight hours, the 130-dBP peak noise levels would extend 556 feet from the point of detonation. This area of high concern and complaint would remain entirely within the mine area, and no nearby noise sensitive areas would be exposed to these levels of noise. The 115-dBP peak noise levels would extend 2,344 feet from the point of detonation. The level of concern and complaints associated with individual acoustical events would be moderate within this area. Although this area of moderate concern and complaint may extend beyond the mine area, there are no residences within this distance. Depending on meteorological conditions, blasting activities may be heard by residences and others as much as several miles from the site. However, these events would best be characterized as "audible but distant" and would not be appreciably intrusive. Due to the limited frequency of the loud acoustical events and the distance to the nearest nearby residents, these effects would be minor.

NOI-4. The effects to wildlife from noise sensitivity are overlooked. Human activity can impact habitat suitability in three ways: displacing wildlife through habitat occupation, reducing habitat suitability by altering physical characteristics of habitat; or displacing wildlife by altering

wildlife perception of the suitability of the habitat through other than physical alteration (e.g., noise, activity). Blasting from the Mine could adversely affect the behavior of the captive wolves being held at Ladder Ranch prior to their release in the wild.

Response: The effects of noise and human activity on wildlife are addressed in the Biological Resources section of the EIS. BLM has consulted with the US Fish and Wildlife Service concerning potential impacts to federally-listed species in the project area, including the species at the Ladder Ranch. The product of the Section 7 Consultation process will include protective and mitigation actions for all listed species that may be affected by the project. The specific analysis for listed species and all protective and mitigation actions derived via the consultation process with USFWS are included in the Biological Assessment as part of the EIS analysis. Protective and mitigation actions for listed as well as other wildlife species will be included in the Record of Decision.

An outcome of the USFWS consultation process is a Biological Assessment (BA) that evaluates the potential for the Copper Flat Mine project to jeopardize the Mexican gray wolf, Bolson tortoise, and Black-tailed prairie dog at the Ladder Ranch. The consultation findings and proposed mitigation measures are described in detail in the BA and summarized in the Threatened and Endangered Species section of this Final EIS. A brief synopsis of the BA findings is as follows:

Mexican Gray Wolf: Noise and ground vibrations from blasting at the mine site were evaluated for their potential to adversely affect the Mexican gray wolf in its holding facility 3.5 miles (18,480 ft.) from the mine site. As discussed in detail in the BA, noise at the blast site would reach 130 to 140 dBP (peak pressure of impact noises like blasting) but diminish to 115 dBP within 2,344 ft. The unimpeded straight-line dBP would be diminished 6 dBP for each doubling of distance and by the time the sound reached the wolves 18,480 ft. away it would be 18 dBP less, or less than 100 dBP, which is the noise of a passing motorcycle. However, this is a straight-line calculation. In fact, the mine blasts would primarily be contained within the mine pit itself, which is in a topographic bowl surrounded by ridges, so the straight-line calculated sound levels would apply only to points directly above the mine pit. The actual sound at the wolf holding facility would be greatly attenuated by the intervening terrain.

Blasting would occur within the excavated mine pit with charges placed in the pit walls well below the ground surface level of the larger mine site area so that the sound will project primarily horizontally into the center of the mine pit and vertically above the pit, thus containing and diminishing the highest sound levels. The mine site is located within a flat topographic bowl surrounded by higher elevation ridges including Animas Peak that would further intercept and diminish sound waves similar to the effect of roadside sound barriers on traffic noise. Wolves hear well up to a frequency of 25 kHz. Some researchers believe that the actual maximum frequency detected by wolves is much higher, perhaps up to

80 kHz (the upper auditory limit for humans is 20 kHz), Low frequency noise carries greater distances than high frequency noise from the same source. Blast overpressure generally produces low frequency air overpressure of 2 Hz. Humans detect noise in the range of 20 Hz to 20 KHz, but little is known specifically about wolves' sensitivity to low frequencies. Dogs' hearing, likely similar to wolves, is attuned to a wider, higher frequency range than that of humans (67 Hz – 45 kHz), so it is likely that the airborne noise impacts from the low-frequency blasts would not be perceived with the higher-frequency-attuned wolves.

Blasting sound may reach the wolf holding facility at a perceptible level above ambient background noise but at the 3.5-mile distance would likely not be louder than trucks and equipment used on-site at Ladder Ranch, which would be in the range of 75 to 90 dB. Blasting would occur during daylight hours only. This timing constraint and the perception that the noise is coming from a long distance away may in combination allow the wolves to habituate to the noise after a few days.

Blasting ground vibrations are likely to be imperceptible to the wolves at the 3.5-mile (18,480 ft.) distance. Ground-borne vibration effects from blasting would diminish within 1,000 ft. of the blast hole to a level that would be barely perceptible by humans, who have hearing similar to, but in a narrower range of perception than that of a wolf, which is attuned to higher frequencies. At 18 times that distance, the blast vibrations would likely not be perceptible to either humans or wolves. The finding for the Mexican gray wolf therefore is that the Copper Flat project may affect, but would not likely adversely affect the wolf at Ladder Ranch.

Bolson tortoise: The comment expressed concern that mine blasting would collapse the burrows of the Bolson tortoise. According to the comment, the Bolson tortoise burrows are located 2.5 miles (13,200 ft.) from the mine site. A recent study, cited in the BA, of the potential effects of blasting and traffic vibrations on tortoises found that an impact of 0.4 inches per second (ips) peak particle velocity (PPV) is a conservative estimate of the vibration level that could affect a tortoise burrow. A safe distance resulting from a conservative impact level of 0.4 inches per second Peak Particle Velocity (PPV) would protect the burrow from damage. Analysis in the BA shows that ground-vibration effects from the mine blasts would radiate outward from the blast hole but would diminish to a level of 0.12 Peak Particle Velocity (PPV) at a distance of 792 ft. away, and to a level ten times lower than the 0.4 PPV conservative impact level (0.04 PPV) at a distance of 1,573 ft. Because the Bolson tortoise burrows are located more than 8 times farther from the mine site than the distance at which the vibrations would be ten times *lower* than the conservative impact level, the BA concluded that there would be no effect on the Bolson tortoise burrows at Ladder Ranch.

There is little known about noise impacts to reptiles, though “dune-buggy” noise had an adverse effect on hearing of the fringe-toed lizard (*Uma scoparia*) at durations of 500 seconds or longer (95 dBA). Blast events at the mine would be 1 to 2 seconds in duration. Therefore, airborne sounds from very short-duration blasting at 2.5 miles (13,200 ft.) away with intervening terrain would be substantially lower than 100 dBA. It would possibly be perceptible to the tortoises but, not likely to cause adverse impacts because of the short noise duration, substantial distance and intervening terrain which would reduce airborne sound impacts to below 100 dB. The analysis which concluded that there would be no effect of the mining project on the Bolson tortoise is detailed in the BA and summarized in the Threatened and Endangered Wildlife section of this Final EIS.

Black-tailed prairie dogs: The comment states that Ladder Ranch has been restoring black-tailed prairie dog colonies within two miles (10,560 ft.) of the mine. The comment notes concerns that blasting and other mining operations could cause the collapse of burrows and alter behavior patterns. Similar to the discussion above for the Bolson tortoise, at a distance of two miles, blasting vibration effects would have diminished to be barely perceptible, so no impacts to their burrows or behavior from such distant blast vibrations are expected to occur to Ladder Ranch prairie dogs.

NOI-5. Disagree with extent (limited), duration (short to medium-term), and magnitude of effects (minor), as well as overall impact conclusion (not significant). Adverse effects would be long-term in duration, 15 to 20 years for the preferred alternative. The magnitude of effects would be moderate, as noise levels will affect wildlife and therefore create an incompatible land use in undeveloped and agricultural areas. The extent would be large, given that noise would be audible for several miles. Table ES-3 Summary of Impacts on page ES-9 should be changed to from not significant to significant.

Response: The effects of noise on wildlife are addressed in the Biological Resources section (Section 3.10) of the EIS. As stated in Section 3.10, the noise generated by construction and operation activities (including blasting) at the proposed mine could impact nearby wildlife by startling individuals or masking natural sounds that animals are generating or hearing. The noise impacts could result in displacement of wildlife species in and around the proposed mine site. Overall, the noise impacts to wildlife are expected to be minor, long-term, and adverse. However, according to Table 3-1, the overall impact would remain insignificant. Please see discussion in NOI-4 above for additional information related to noise effect analyses for specific species on the nearby Ladder Ranch.

NOI-6. Need to clarify in contour lines in Figure 3-46 “Estimated Noise from the Proposed Action” is cumulative to all mining equipment that is likely to be in operation at any time? Or do the contour lines represent one piece of mine equipment activity at a time.

Response: The noise contours are cumulative to all mining equipment that is likely to be in operation at any time, with a 10-dB penalty for any equipment operating between the hours of 10:00 p.m. and 7:00 a.m.

NOI-7. The statement: “For example, for a surface mining operation at which several hundred charges are detonated each year, peak pressure levels can exceed 140 dB in areas where annual DNL values indicate that noise is recommended for residential use” does not make sense. Is the author stating that a level of 140dB is recommended for residential land use areas?

Response: The general statement is included to indicate that in some situations, a few very loud events may solicit concern and complaints from individuals, although the average levels of noise are completely compatible with residential land use. For example, for a surface mining operation at which several hundred charges are detonated each year, peak pressure levels can exceed 140 dB in areas that otherwise have annual day-night average sound level (DNL) values indicating the noise level is acceptable for residential use. Section 3.21.2.1.1 indicates that "blasting activities may be heard by residences and others as much as several miles from the site. However, these events would be characterized as "audible but distant" and would not be appreciably intrusive." This is because the peak levels would be below 115 dBP.

NOI-8. In paragraph 1 on page 3-22, the statement: "Although not a good descriptor of the overall noise environment like the DNL, peak levels relate well to the level of concern and possibility of complaints among people living nearby after an individual blast event" does not address effects to wildlife in the Animas Lift.

Response: The effects of noise on wildlife are addressed in the Biological Resources section of the EIS (Section 3.10). As stated in Section 3.10, the noise generated by construction and operation activities (including blasting) at the proposed mine could impact nearby wildlife by startling individuals or masking natural sounds that animals are generating or hearing. The noise impacts could result in displacement of wildlife species in and around the proposed mine site. Overall, the noise impacts to wildlife are expected to be minor, long-term, and adverse. However, according to Table 3-1, the overall impact would remain insignificant. Please see discussion in NOI-4 above for additional information related to noise effect analyses for specific species on the nearby Ladder Ranch.

NOI-9. Paragraph 1 on page 3-22 does not state how many blasting events are expected to be conducted within a given timeframe. Without an approximate frequency of blasting events, it is impossible for the public to quantify the effects of blasting.

Response: As outlined in Section 3.21.2.1.1, and based on the noise modeling for proposed mine operations (Figure 3-46 of the FEIS), the average levels of noise would be completely compatible with residential land use. To address individual blasting events, Section 3.21.2.1.1 of the EIS indicates that "blasting activities may be heard by residences and others as much as several miles from

the site. These events would best be characterized as "audible but distant" and would not be appreciably intrusive." The number and frequency of blasting events have been added to the FEIS.

NOI-10. Table 3-47, Figure 3-46, and Table 3-49 each infer a somewhat different effect from noise associated with mine operations. The cumulative effects from noise operations are not described or depicted. Recommend analyzing the effects of noise to include effects to wildlife using a combination of Figure 3-46 and 3-47 to allow the public to fully understand the noise effects of mine operations, weighted against existing conditions.

Response: Figure 3-46 presents the estimated noise from operation activities (e.g., operation of heavy machinery and trucks) under the Proposed Action; however, it does not include the potential noise impacts from blasting. Table 3-49 does not present the impacts of blasting under the Proposed Action, it presents the guidelines used to estimate the noise impacts from blasting activities at the proposed mine site. The estimated impacts from blasting activities is discussed under "Noise from Blasting" in Section 3.21.2.1. However, the figures and tables in Section 3.21 were reviewed and revised for consistency.

Figures 3-46 and 3-47 present the noise impacts under the Proposed Action and Alternatives 1 and 2, respectively. The combined noise effects were not analyzed because only one alternative would be selected and implemented (i.e., they are mutually exclusive).

The effects of noise on wildlife are addressed in the Biological Resources section of the EIS (Section 3.10). As stated in Section 3.10, the noise generated by construction and operation activities (including blasting) at the proposed mine could impact nearby wildlife by startling individuals or masking natural sounds that animals are generating or hearing. The noise impacts could result in displacement of wildlife species in and around the proposed mine site. Overall, the noise impacts to wildlife are expected to be minor, long-term, and adverse. However, according to Table 3-1, the overall impact would remain insignificant. Please see discussion in NOI-4 above for additional information related to noise effect analyses for specific species on the nearby Ladder Ranch.

NOI-11. There is no discussion of the Rodgers Windmill, a historic structure located 0.25 miles west of the existing mine pit. Mine activities would harm the historic structure from vibration and loss of groundwater, and have not been studied. An analysis of effects to the windmill must be conducted and included. [Same as CR-6]

Response: Vibrations: The Rodgers windmill is located approximately 480 meters away from proposed locations of blasting and mine vehicle use. This distance is almost twice the critical distance calculated for possible vibration effects to extremely fragile historic buildings, ruins, and ancient monuments. Because there is no potential effect to this windmill from vibrations, it is not

included in the APE. Therefore, no analysis of effects to the windmill will be conducted for the EIS.

Loss of Groundwater: The BLM has evaluated information from the Pitchfork Ranch well closest to the mine site, identified in the FEIS as GWQ-4 and known otherwise as the Rodgers windmill. This analysis revealed that water is drawn down in the well approximately 70 feet within the 150-foot deep well as a result of pit dewatering. So, a water column remains at the well but from this finding alone, the BLM cannot assume there would be no impact to well yield. It remains possible that the small amount of bedrock aquifer thickness available after dewatering would not supply enough water to keep the stock tank full. Without more information, the BLM cannot conclude whether there would be adverse impacts. The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment". In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or drilling of a new one if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the Pitchfork wells is not known to an extent that will allow an accurate determination of impact.

If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law. The Section 106 PA allows for the future consideration of unanticipated effects to historic properties. At this time, no Section 106 effect to this windmill is anticipated and thus it is not included in the APE. If an impact is identified in the future from groundwater drawdown, the BLM would implement the provisions in the PA to evaluate the windmill for National Register eligibility, and if found eligible, determine if the effect is adverse and implement appropriate mitigation measures to resolve any adverse effect.

NOI-12. The mitigation measures on page 3-230 are inadequate and incomplete. No reference or weight is given to wildlife impacts. BMPs are a poorly defined practice with no clear or concise definition. Mitigations to Noise and Vibration must be identified by and agreed to by NMCC prior to issuance of a FEIS.

Response: The level of effects from noise would be minor and no mitigation measures would be required. All equipment would be maintained in good working order with factory installed mufflers. All blasting would be confined to daytime hours. The effects of noise on wildlife are discussed in the Biological Resources section of the EIS.

NOI-13. The DEIS at 3-225 only identifies the Federal Noise Control Act of 1972 as governing law regarding noise and vibrations and claims that "Neither the State of New Mexico nor Sierra County have noise ordinances." This is incorrect, and for this reason alone the BLM must either revise or supplement the DEIS with a noise and vibrations impacts analysis governed by all applicable federal and state laws and guidance policies.

Response: As there are no applicable noise ordinances, the noise assessment and the determination of the level of effects was based on the modeled sound levels - both overall DNL and peak level during blasting. This approach is comprehensive, conservative, and is a standard practice in determining the level of effects under NEPA. The overall noise environment is expected to be completely compatible with nearby residential areas. Individual blasting events would be audible but distant. These effects would be less than significant.

NOI-14. The DEIS at 3-226 also claims that, "There are no nearby noise-sensitive receptors (churches, schools, hospitals, or residences) in the immediate vicinity of the proposed Copper Flat Copper project," which is inaccurate. Ladder Ranch is within the immediate vicinity of the Mine. Ladder is a residence for the ownership representatives and staff of the Ranch, and it is a commercial bison operation, ecotourism destination, and site of numerous endangered and threatened species restoration projects. Additionally, Ladder Headquarters is comprised of historic buildings constructed in the early 1900s from rock and mortar. Several miles of water pipelines, five wells and four cement base steel rimmed water storage units are also located within two to three miles of the Mine. All of these structures will be subjected to noise and continuous vibrations from blasting on a daily basis, suffering unknown damage to structural integrity.

Response: Table 3-50 in the EIS shows structural damage thresholds relative to the condition of the structure and the distance from various sources of vibration. Structures beyond 792 feet from a blasting event, including Ladder Ranch, would not suffer any damage from airborne or ground-transmitted vibrations.

NOI-15. It is unclear what factors are considered in the study relied upon by the DEIS and what the study's spatial and temporal parameters are. It is necessary for BLM to include the following factors in its analysis: Evaluation of Sound Characteristics, Receptor Locations (Ladder Ranch, Scenic Byways); and thresholds for Significant SPL Increase. It is also necessary for BLM to conduct noise monitoring at a currently active open-pit copper mine to establish complete baseline data.

Response: The noise assessment is based on the modeled sound levels - both overall DNL and peak level during blasting. This approach is comprehensive, conservative, and is a standard practice in determining the level of effects under NEPA. Section 3.21.2.1.1 of the EIS describes the data and assumptions outlines the basic factors included in the noise modeling.

Paleontology (PL)

No comments received.

Proposed Action (PA)

PA-1. The Proposed Action is based on sound geotechnical design, and elements of the mining plan of operation (open pit mine operation, tailings disposal design, etc.) appear typical of other approved mine operations.

Response: Thank you for your comment.

PA-2. The Proposed Action outlined in the DEIS does not match the description of the proposed project on the THEMAC website.

Response: The Proposed Action in the FEIS was developed to match the MPO submitted to the BLM by NMCC. Since the MPO was first submitted to the BLM, there have been engineering studies and further development of information that have opened up the potential to successfully implement other courses of mine action. The BLM decided that it was reasonable to introduce other alternatives that incorporate some of the evolving information. NMCC prefers the higher ore production rate of Alternative 2 even though this differs from what is presented in the Proposed Action that is derived from the original MPO. The MPO will be revised to reflect any changes required to match what is adopted as the preferred alternative in the ROD.

PA-3. Do not support the Proposed Action due to the potential risk and adverse impacts to the environment, groundwater resources, public safety, and wildlife; consider impacts other than the jobs that would be created.

Response: Thank you for your comment.

PA-4. THEMAC/New Mexico Copper Corporation (NMCC) is applying to open up the mine again so they don't have to reclaim the area. Both dry stack tailings and reclamation of the pit are reasonable demands embraced at other mines by other regulators.

Response: The NMED indicates that they would not have a basis to require NMCC to upgrade facilities that were previously reclaimed unless there was a potential or actual impact to water quality from the existing condition. That could potentially result from the ongoing abatement process in the event the No Action Alternative was selected. One place where this could occur would be the tailing impoundment, where the synthetic liner at the base of the new impoundment was to provide a source control measure on top of the existing tailings. Similar conditions may exist for rock piles.

The site does not meet MMD's definition for an "existing mining operation" (19.10.1.7.E(2) NMAC) because the mining performed by Quintana did not produce a marketable mineral for a total of at least two years between January 1, 1970 and June 18, 1993. Because the mine does not qualify as an existing mining operation per the definition, MMD would not have any jurisdiction to require Quintana or NMCC to reclaim the slopes, waste rock facilities, the pit,

tailings impoundment, roads, etc. that are currently at the site. The mining performed by Quintana in the 1980s and the mining conducted by smaller entities prior to Quintana are considered “pre-New Mexico Mining Act” disturbances that are not regulated by MMD based on the Act. If the No Action Alternative was selected during the EIS process, the disturbances and reclamation previously performed by Quintana in the 1980s would be allowed by MMD to remain as-is. However, if old disturbance is re-disturbed by the new NMCC mining operation, those areas that become re-disturbed would fall under the requirements for new mining operations. If NMCC reuses an old waste rock pile, then they would have to meet New Mine Operation and Performance Standards.

Current mine reclamation requirements are more stringent and restrictive than reclamation standards in place at the closure of the Copper Flat mine in the early 1980s. Under these stricter standards, the condition of reclaimed lands would be noticeably more acceptable and beneficial than what was in place following the previous mine closure.

An alternative using dry stack tailings was considered and eliminated, as described in Section 2.5.1 of the EIS.

PA-5. Support project due to economic benefits. Increases in quality jobs, reduction in unemployment, expansion of supplier services, support and increases to tax revenues and other miscellaneous benefits would generally increase prosperity and economic sustainability of the entire region. [Same as SE-1]

Response: Thank you for your comment.

PA-6. Approve the proposed mining project because the project will be completed in accordance with necessary environmental requirements that minimize impacts by reusing various parts of the original processing and mining features. More than 70 percent of the water would be reclaimed from mining processes. New science has been developed in extraction methods and procedures which reduces blasting and shifting of overburden. The project will be under constant monitoring by Federal and State agencies, and will operate under more environmentally friendly regulations.

Response: Thank you for your comment.

PA-7. General concerns regarding existence of plans for accidental spills that could affect groundwater and drinking water.

Response: The FEIS addresses this issue by showing the EPA requirement for a Spill Prevention and Countermeasures Plan in Table 1.1. Additionally, a Spill Contingency Plan is discussed in Section 2.1.16.

PA-8. Concerned about vague or insufficient reclamation and/or closure plans at the project site and in the vicinity of the project site, especially as they relate to protecting groundwater, surface water, cumulative impacts, and wildlife habitat. Some of these (such as the impairment of senior

water rights) are expected to persist essentially indefinitely. In addition, locations downstream of Percha and Caballo State Parks, both designated as Audubon Important Bird Areas, could also be adversely affected by the displacement of the birds in the mining area.

Response: At the completion of mining activities, the site would be restored to conditions and standards that meet approved post-mining land uses. These uses would include native plant communities like surrounding undisturbed areas for wildlife habitat, and grazing land potentially suitable for livestock. Once reclamation is successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels. Also, as noted in EIS Section 2.7, Best Management Practices, in the subsection entitled Threatened and Endangered Species and Special Status Species, ground clearing and other mine development activities would be avoided during breeding and nesting season (generally March 1 through August 31) until the area is surveyed by a qualified biologist to confirm the absence of nests (on the ground and in burrows and vegetation) and nesting activity to avoid impacting migratory birds. Therefore, the numbers of birds displaced during mining operations would be limited and the site would be restored to as good or better conditions for birds than pre-mining conditions. Thus, any long-term impacts to Audubon Important Bird Areas would be negligible.

PA-9. The subject DEIS fails to establish a credible Proposed Action and alternatives for analysis as required by Statute and Enabling Regulations. The requirement to comply with other Federal Laws was not identified as a need in the DEIS. Even at the summary level, the Proposed Action does not "reflect the largest possible impact of the mining footprint at Copper Flat" - at the detail level, this discrepancy is even more obvious. [Same as NEPA-15]

Response: The selection of alternatives was systematically conducted using input from the scoping process at an alternatives selection session at which the BLM and State cooperating agencies considered alternatives that reflected the substance of the scoping comments. The purpose and need statement in the FEIS and Section 1.1, Purpose and Need, describe the BLM's obligation for taking action on the project. Compliance with Federal laws that are relevant to the BLM's need for taking action on the project are identified in Section 1.1. The Proposed Action would have a larger disturbance footprint than the two action alternatives, reflecting improved, more efficient mining operations used in the alternatives.

PA-10. BLM does not properly identify the Proposed Action and the alternatives. The action alternatives do not reflect a logical or likely set of options - this results in a report which is deliberately skewed. If the correct Proposed Action would have been selected, the analysis would have been performed using a different set of data and it would have delivered a different set of conclusions, across the board. Because the preferred alternative was not selected as the Proposed Action, the analysis is inadequate. Furthermore, a smaller EIS might result if the redundancies were eliminated even if properly reasonable analyses of the alternate MPOs were presented. [Same as ALT-4]

Response: The Proposed Action reflects the MPO submitted to the BLM by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for EIS documents preferred by the CEQ.

PA-11. It is unclear what the duration of mining operations are under the BLM proposal since it is variously reported as 11 years and 12 years (p. 2-72).

Response: This inconsistency has been clarified and corrected.

PA-12. How would this project prevent similar contamination (that resulted in the area becoming a brownfield) from occurring, to a greater extent, by implementation of the identical technologies used as in past mining operations? [Same as WQ-3]

Response: Section 3.4.2.1.2 refers to the existing plume of groundwater with elevated TDS that resulted from past operations. The section explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume.

Additionally, current mine reclamation requirements are more stringent and restrictive than reclamation standards in place at the closure of the Copper Flat mine in the early 1980s. Under these stricter standards, the condition of reclaimed lands would be noticeably more acceptable and beneficial than what was in place following the previous mine closure.

PA-13. In Section 2.1.15.2 Post-Mining Land Use, post-mining use of the pit would include a water reservoir for wildlife habitat, partially filled with water from subsurface groundwater flow and surface water runoff resulting in a permanent TSF following closure. Recommend the FEIS incorporate a discussion of the specific parameters which, if met, would allow use of the pit as a reservoir for wildlife habitat because post-mining use may be incompatible with an undetermined length of post-closure care, discussions of fencing requirements to prohibit wildlife during use, the nature of the pit walls having over 700 feet of relief and the unknown impacts of disposal piles and treatment facilities on pit water quality. In the reclamation, the pit walls are left with slopes too steep to hold vegetation; thus, the pit might not be reclaimed leaving it an erosion hazard. With the bottom of the pit raised, the pit walls could be contoured to a reasonable slope that will hold vegetation and prevent soil erosion.

Response: FEIS Section 2.1.15.2, Post-Mining Land Use, states: "Following closure, the mine area would continue to support mineral development, grazing, wildlife habitat, watershed, and recreation. Following closure, the pit would

rapidly refill with water from subsurface groundwater flow and surface water runoff resulting in a permanent water body. The purpose of the rapid refill is to minimize water quality degradation in the pit lake, making it more suitable as wildlife habitat. The only post-closure use of the pit is a water reservoir for wildlife habitat.”

PA-14. An inundation plan should also be presented in the EIS to clarify the likelihood of a PMP storm event in the upper watershed. An evacuation plan must be prepared in consultation with the corresponding Emergency Management Agency in Sierra County using the inundation plan developed in this section of the application. The draft EIS fails to provide any of these logical requirements for OSE Dam Safety Office approval of the proposed operations. [Same as HH&PS-6]

Response: Plans such as those described in the comment would be completed as requirements of the regulatory permitting process. They are not required as part of the EIS evaluation process performed in advance of the permit processing.

Section 2.1.15.6, Environmental Considerations for Reclamation states “Diversion and Overland Flow: The surface drainage of the mine area was designed to contain or control the 100-year/24-hour storm event.”

PA-15. Post-mining reclamation of the area will be to higher standards than current reclamation of the area thus improving the long-term reclamation and productive use of these lands.

Response: The post-mining reclamation activities would adhere to all current laws and regulations regarding this aspect of the process. Thank you for your comment.

PA-16. Recommend including a pit lake conceptual model in Section 2.1.1 - Mine Operation.

Response: The pit lake conceptual model has been run and graphics related to this model have been included in the FEIS.

PA-17. Recommend that an illustration be provided in the FEIS showing in the plan view what NMCC is proposing and the area of the pit wall that would be affected by such reclamation (referenced in Section 2.1.15.16 - Facility-Specific Reclamation).

Response: A description and plan for open pit reclamation at the level of detail requested by the commenter may be found in Appendix E of the Mine Operations and Restoration Plan (MORP)(NMCC2017a). The information is too detailed for inclusion in the EIS, so in this section the reader is referred to the MORP, Appendix E, for more information.

PA-18. There is no indication whatsoever that NMCC is committed to the long-term maintenance of impacts from the proposed mining activity, some of which (such as the

impairment of senior water rights) are expected to persist essentially indefinitely (Same as WR-10).

Response: NMCC's commitment to the long-term maintenance of the mine environs is evidenced by their compliance with the requirement that a financial guarantee be provided for cleanup and reclamation in the event of the company defaulting on this issue in the future.

FEIS Section 2.1.15.16, Facility Specific Reclamation, states "Reclamation Bond: A reclamation bond is required by the BLM and State of New Mexico to guarantee completion of project reclamation (43 CFR 3809.500-3809.599)."

Additionally, Section 3.22, Socioeconomics, states "A reclamation bond is required by the BLM and State of New Mexico to guarantee the completion of project reclamation. Following regulatory review of the proposed plan of operations and reclamation techniques presented herein, NMCC will prepare, at a time specified by the BLM [43 CFR 3809.401(d)], a detailed estimate of the cost to fully reclaim the operations as required by 43 CFR 3809.552. This reclamation plan would be administered by the NMEMNRD MMD and the NMED Mining Environmental Compliance Section. Financing will include a mix of equity and debt, but the ratio will depend on market conditions, interest rates, and other factors that will continue to vary over the course of project development. In negotiating specific arrangements for the proposed project, factors such as the operator's financial condition, track record, and management systems will likely affect the terms of financial assurance the government will require to give it a feeling of reasonable certainty (ICMM 2005). While dependent on the resulting amount and terms of financial assurance, mitigation measures are proposed to ensure funding would be available to completely cover reclamation costs."

PA-19. Need additional detail about how the controlled drainage would limit the generation of acid and leachable metals when precipitation comes into contact with the exposed rock of the pit walls. [Same as WQ-22]

Response: Sections 2.1.15.6 and 2.1.15.16 describe the actions that would be taken to minimize and manage acid rock drainage. In addition, the surface drainage hydraulics and hydrology of the site would be analyzed and presented in greater detail and verified during the engineering design phase of the project. This includes any applicable infrastructure and control measures associated with the hydraulics and hydrology of the TSF. The analysis and design related to these items would be developed in accordance with current regulatory requirements and design criteria.

PA-20. In Section 3.4.2.1.2 Mine Closure/Reclamation, page 3-40: It appears there is a missing step and/or inaccuracies related to the proposed reclamation plan, including a lack of information on the feasibility of pit backfilling that details economic, environmental, and safety factors, for the waste rock dumps that discusses the placement of cover material on top of the re-graded

waste rock. In addition, the Mine Closure/Reclamation Plan does not meet all performance and reclamation standards and requirements of the NM Mining Act and constitutes an “unnecessary or undue degradation of public lands” under 43 CFR §3809.5. There is no material handling plan for waste rock piles and low-grade ore stockpiles that describes how non-point source surface releases of acid or other toxic substances will be contained within the permit area, and that all other surface flows from the disturbed area are treated to meet all applicable state and federal regulations. Furthermore, there is no rock characterization and handling plan. BLM and the public are not able to understand the potential for acid generation from waste rock piles and low-grade ore stockpiles and how surface and groundwater quality will be protected. Please revise the FEIS.

Response: As stated in Section 2.1.1 of the FEIS: “Because the deposit cannot be mined sequentially, there is no plan to backfill the pit although some benign waste rock would be used for pad preparation, plant site development, and in connection with the reclamation of disturbed areas.” Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809).

Section 2.1.15.6, Environmental Considerations for Reclamation, states “Acid Rock Drainage (ARD): Partially oxidized transitional waste rock would be managed and reclaimed to alleviate potential ARD. The transitional waste rock may be segregated and placed in the west and north waste rock disposal areas. The exact method of disposal and possible segregation would be determined through the current geochemical testing program and the development of a material handling plan.” This material handling plan will be developed and in place, in accordance with all Federal and State laws and regulations, prior to the reclamation of the mine. To forecast these requirements 10+ years in the future would not be realistic. The BLM will require the development of this plan and the FEIS and ROD will stipulate its development.

PA-21. Table 2-12 on page 2-40 states the volume of top dressing cover needed, but Table 2-5 and Section 2.1.15.9 don’t provide enough information to determine if the volume of required top dressing is available on site. It also does not provide the assumed thickness of top dressing required. Page 2-37 under the heading of Acid Rock Drainage, provides a total thickness of up to 36” of cover materials, but Table 2-12 doesn’t describe what portion of the 36” is top dressing. The table should present this information rather than making the reader back-calculate this value.

Response: Tables 2-5 and 2-12 have been adjusted to provide clarification on this issue. Table 2-31 has been added to show reclamation cover requirements for Alternative 2.

PA-22. NMCC does not have the water for rapid filling of the pit at the cessation of mining as proposed. The adjudicated amount of water approved for the mine project is 888.783 acre-feet per year (AFY). Even if rapid filling were possible, it is a bad proposal due to long-term water quality issues at the pit lake. Groundwater inflow rates of the pit lake represent an overall average and doesn't indicate the absence of bi-directional communication between groundwater and Pit Lake. This presents a potentially too simplistic account of what might be happening underground to imagine that pollution from the pit lake is not entering groundwater – especially if rapid filling is not possible.

Response: As stated in Section 2.1.15.16, Facility Specific Reclamation: “NMCC does not propose to backfill the pit. Groundwater inflow formed a lake in the former pit. The current water level is at about 5,439 feet; therefore, pit dewatering would be necessary during operations. Following cessation of dewatering activities, a lake would again form in the pit. The post-closure pit water elevation is estimated to be approximately 4,900 feet. The depth of the lake would fluctuate a few feet depending on precipitation and the evaporation rate. If natural refilling were to be selected, this would proceed over a number of years.”

The paragraph continues “rapid filling, proposed as mitigation, would occur much more quickly. This would occur under conditions of water right approval to quickly submerge mineralized wallrock and limit mineral oxidation and formation of soluble mineral residue.”

PA-23. The 12 and 30-year time period for post-mining monitoring is inadequate for a number of reasons (stipulated in the comment) and recommends that BLM require the Mine Plan of Operations (MPO) to include post-mining monitoring and implementation of the pit lake water quality management plan for a minimum of 100 years – at which time the need for additional or continued monitoring may be required. BLM should consider the small costs to NMCC as opposed to the large cost to the public. BLM needs to consider that in addition to the water usage, flooding and leaving a pit lake leads to the possibility of perpetual management of the pit lake water to meet water quality standards in the pit lake, protect groundwater in the vicinity of the open pit and prevent the pit lake from creating a threat to wildlife. [Same as WQ-21]

Response: Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Additionally, reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809). The length of post-mining monitoring of the material resources would be determined by the State of New Mexico in association with the permits issued to the Copper Flat mine.

Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the

event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements. Backfilling the lake was considered as an alternative, but was determined to be economically infeasible. The backfilling alternative has been added to Section 2.5, Alternatives Considered but Eliminated in the FEIS.

PA-24. Since NMCC acquired the mine property, they also acquired the responsibility to reclaim the environment that was damaged by Quintana Corporation. The FEIS should specifically include NMCC's responsibility to reclaim mitigate the damages caused by prior open pit mining operations at the Copper Flat sites. Reference to the Groundwater section on page 4-9, paragraph 4, where the impact to groundwater from Quintana Corporation activities are described.

Response: New Mexico Copper Corporation (NMCC) has an obligation to cleanup/reclaim following activities such as exploration (drilling) but the New Mexico Environment Department (NMED) has no basis to require NMCC to upgrade facilities that were previously reclaimed unless there was a potential or actual impact to water quality from the existing condition. A plan for mitigation could potentially result from the abatement process in the event the No Action Alternative was selected. One place where this could possibly occur would be the tailing impoundment, where the synthetic liner at the base of the new impoundment was to provide a source control measure on top of the existing tailings. Similar conditions may exist for rock piles.

Additionally, the site does not meet Mining and Minerals Division's (MMD) definition for an "existing mining operation" (19.10.1.7.E(2) NMAC) because the mining performed by Quintana did not produce a marketable mineral for a total of at least 2 years between January 1, 1970 and June 18, 1993. Because the mine does not qualify as an existing mining operation per the definition, MMD would not have any jurisdiction to require Quintana or NMCC to reclaim the slopes, waste rock facilities, pit, tailings impoundment, roads, etc. that are currently at the site. The mining performed by Quintana in the 1980s and the mining conducted by smaller entities prior to Quintana are considered to be "pre-New Mexico Mining Act" disturbances that are not able to be regulated by MMD based on the Act and Rules. As such, if the No Action Alternative was selected during the EIS process, the disturbances and reclamation previously performed by Quintana in the 1980s would be allowed by MMD to remain as-is. However, if old disturbance is re-disturbed by the new NMCC mining operation, those areas that become re-disturbed would fall under the requirements for new mining operations. For example, if NMCC reuses an old waste rock pile, then they would have to meet New Mine Operation and Performance Standards.

PA-25. The whole DEIS is flawed because the study does not apply a "can and will" test on the Proposed Action in order to determine the proper objects of analysis for the impact study. The "can and will" test is different than a mining feasibility study.

Response: 43 CFR Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and the use of common sense, rather than simply those that are desirable from the standpoint of the applicant.

Additionally, the EIS must identify all the direct and indirect effects that are known, and make a good faith effort to explain the effects that are not known but are "reasonably foreseeable." (43 CFR Section 1508.8(b).)

PA-26. Because the mine is marginal at best, the impact is a much greater disturbance of the natural environment of the lands in the Copper Flat Project and a costlier operation with more use of energy and water.

Response: The BLM believes that the EIS accurately portrays the potential impacts to the human environment that would be caused by the Proposed Action and alternatives.

PA-27. As part of a partial pit backfill alternative, which is the preferred reclamation under Federal mining laws, a Plan of Operation must include plans for "[m]ine reclamation, including information on the feasibility of pit backfilling that details economic, environmental, and safety factors." If the NMCC MPO does not give such details, the BLM should include such in its EIS.

Response: As required by the BLM, it is stated in the MPO that "NMCC does not propose to backfill the pit. Backfilling during operation would not allow sequential mining of the deposit, may cover future mineral resources, and it would be economically unfeasible following closure of the operation." This statement has been added to the FEIS.

PA-28. The use of water for partial backfilling might violate New Mexico water law (which requires conservation of water) since it does not promote general economic welfare. It is not even clear that such a use of water is within the state's understanding of "beneficial use," the defining factor in determining water rights in New Mexico.

Response: As required by the BLM, it is stated in the MPO that "NMCC does not propose to backfill the pit. Backfilling during operation would not allow sequential mining of the deposit, may cover future mineral resources, and it would be economically unfeasible following closure of the operation." This statement has been added to the FEIS. Additionally, the FEIS has been corrected to state that all relative laws, both State and Federal, would be adhered to in regard to water rights.

PA-29. The NMCC Mining Plan of Operation has never been (and is not currently) available to the general public at the Truth or Consequences Public Library or at the Hillsboro Public Library.

Response: The MPO has never been made available at the Truth or Consequences or Hillsboro public libraries but is readily available at the BLM Las Cruces District office.

PA-30. The DEIS assumes that untested technology will reduce impacts and thus fails to do an adequate assessment. Estimates of impacts to clean water, clean air, wildlife habitat, and public health need to be based on actual records of similar operations. [Same as NEPA-21]

Response: It is unclear what untested technology is of concern in this comment. The EIS has attempted to evaluate proven technologies with regard to impact reduction and the BLM has utilized reliable records and data in its evaluation of impacts.

PA-31. Paragraph 1 on page 3-192 states that any changes to soil or water conditions are unlikely to impact the mining area to the point where potential land use would conflict with land management plans by preventing planned land uses or permitting within or nearby the APE. Draining of water sources in perpetuity would likely conflict with land management plans, and should be prohibited in the Mine Development/Operation plan. [Same as LU-12]

Response: The effects of the proposed project and alternatives on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but is not aware of any comments or inputs that would contradict the findings of the FEIS.

PA-32. The NMCC MPO includes a provision for using Best Management Practices (BMPs) to conserve water, but it is not required by BLM to do so. Subsequently, the whole water section is understood to be NMCC's projections of water use without BLM's intervention, and this uncritical adoption of NMCC's MPO results in a fatal flaw in the discussion of water quantity.

Response: The BMPs listed in the MPO provide the reader with details regarding NMCC standard operating procedures. These BMPs are not meant to be all-inclusive as to the action NMCC would be required to follow. These requirements would be identified as terms and conditions for the BLM's approval of the FEIS.

PA-33. The statement that "[r]unoff from mines into surrounding environments alters the pH of the receiving soils, contaminates soils with trace elements, and ultimately deteriorates soil fertility" (§ 3.8.2.1.1, at p. 3-111) may give the inaccurate impression that runoff protections will not be present at the Mine (in accordance with the stormwater management plan that will prevent pollution that may cause an exceedance of the applicable standards). The FEIS should clarify that fully enforceable controls will be in place. [Same as SOI-5]

Response: Section 3.4.2.1.2 Mine Closure/Reclamation, under the subtitle *Non-point Source Pollution from Disturbed Areas on the Mine Area* states that "prior to initiating construction or mining activities, NMCC would need to obtain a Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity. This permit will require preparation of a Stormwater Pollution Prevention Plan (SWPPP); installation and use of BMPs for prevention of non-point source pollution from mine facilities; and routine inspection, maintenance, and recordkeeping for all stormwater pollution control facilities." The statement in 3.8.2.1.1 has been clarified.

PA-34. It would be helpful for a reader to understand in the footnote in Table 2-28 (§2.3.7.1, at 2-83) exactly what percentage of the total water used in the Preferred Alternative is recycled water, as opposed to freshwater. The FEIS should clarify in the footnote that 72% of the total water use is recycled water. This clarification should be consistent with the text of the DEIS (§2.3.7.1, at 2-83). [Same as ALT-15]

Response: The table referenced by the commenter has been corrected to clarify this.

PA-35. The DEIS does not provide details of the Interim Management Plan. The existing discussion provided in the DEIS appears to be a placeholder only and provides no detail on how the project area would be managed during periods of temporary closure to prevent unnecessary or undue degradation.

Response: Section 2.1.15.10 provides an overview of the Interim Management Plan. The FEIS clarifies that this section is only an overview of the actual plan.

PA-36. Statements made in Section 2.1.4 (2-22) seem to indicate that the WRDFs will be placed in locations previously used by operators. Clarification may be needed with respect to the primary WRDF ENE of Animas Peak which will predominantly be placed on undisturbed ground.

Response: Section 2.1.4 states that waste rock disposal facilities (WRDFs) would be located adjacent to the open pit in areas used for waste rock disposal by the previous operator. These disposal areas would be expanded to cover approximately 260 acres. For the primary WRDF east-northeast of Animas Peak, which would predominantly be placed on undisturbed ground, reclamation materials (including suitable growth media and "topsoil") would be removed and stockpiled for future use in reclamation. Language has been added clarifying

that WRDFs would be located in areas disturbed by the previous operator as well as undisturbed areas.

PA-37. On page 2-22, 2.1.4, it is stated that suitable growth media or "top soil" will be removed prior to placement of waste rock. Is it known whether the growth media will be scrapped down to the bedrock contact or will just the top 1-2 feet be salvaged?

Response: It is anticipated that 1-2 feet of growth media would be scrapped, but at no time would this exceed bedrock contact. The FEIS has been changed to state this.

Purpose and Need (P&N)

P&N-1. There are discrepancies, concerns, and misrepresentations related to water use rights, permits, and new water use appropriations regarding water rights as determined by the Office of the State Engineer, the copper company, and what the courts will eventually rule regarding surface and groundwater resources. Any shortfall in meeting water use recycling goals will have to be made up with fresh water and will fundamentally effect surface and ground water supplies and be included in the Proposed Action. [Same as WR-1]

Response: With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project.

P&N-2. The preferred alternative does not meet BLM's stated purpose.

Response: It is unclear why the commenter believes that the preferred alternative does not meet the BLM's stated purpose. The BLM has carefully reviewed the preferred alternative and finds that it does meet the stated purpose as written in the FEIS.

Range and Livestock (R&L)

R&L-1. Need to analyze if pollution contamination from mining dust and pit water will have any effect on livestock and wildlife health. [Same as WL-9]

Response: Section 3.2.2 describes best management practices and mitigation measures to minimize impacts from fugitive dust from mine operations. The air quality modeling that was performed for an air permit from the NMED demonstrated compliance with air quality standards for pollutant emissions.

Fugitive dust would be controlled by applying water, stabilizing disturbed soils, covering waste rock stock piles, and using equipment control technologies.

Pursuant to the NMED Supplemental Permitting Requirements for Copper Mine Facilities (20.6.7 NMAC), during operations, groundwater standards do not apply within the "area of open pit hydrologic containment" (20.6.7.24.D) so the post-mining pit water quality would not be required to meet wildlife or livestock standards. However, as the post-mining pit lake water quality standards are determined by MMD as a permitting condition to be similar to pre-mining water quality conditions. As described in Section 3.19.2, NMCC proposes to fence the mine area and install gates or cattle guards at access locations to prevent wildlife and livestock from entering the property.

The water quality of the existing pit lake is summarized in Section 3.4.1. Section 3.4.2 explains that the proposed MPO would require a preliminary pit lake water quality management plan that describes reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period. Section 3.4.2.1.2 provides a technical explanation of why the effects of using the water from the pit for dust suppression are considered insignificant. The application and evaporation of applied water would likely result in the deposition of certain constituents on the surface of roadways; however, the runoff from the roadways would be controlled by the surface runoff features.

The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The water quality standard that would apply is a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality.

Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC. In addition, per NMAC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period.

Also see responses to comments VEG-4, WQ-1 and WQ-19.

R&L-2. Disagree that impacts to range are of a "small (limited) extent" because "surface disturbance associated with mineral development and forage use by livestock would result in cumulative effects over a larger area than is analyzed in this document (p. 4-10). Cumulative effects to livestock would be significant to livestock on public and private lands within the Animas Uplift to the west of the mine pit because without water livestock cannot exist (and groundwater and surface water would be reduced). Any reduction in forage has the potential to cause the allotment permittee to reduce the number of animals on the allotment or change their

grazing plan. Effects to forage are not analyzed or quantified within the DEIS, but the assumed reduction in available surface water would negatively impact livestock forage. [Same as CI-27]

Response: As described in Section 3.19.2.1, mine development would impact a total of 745 acres of BLM land within the proposed mine area (725 acres on the Copper Flat Ranch allotment and 20 acres on the Warm Springs Ranch allotment). Of the 745 acres, 361 acres have been previously disturbed and 384 acres would be new disturbance. The 384 acres of new surface disturbance would occur on BLM land within the Copper Flat allotment. As shown in Table 3-35, approximately 58 percent of the forage within the Copper Flat Ranch allotment is derived from BLM land. The reduction of 384 surface acres would result in an approximately 5 percent loss of forage derived from BLM land (assuming forage is available evenly across the Copper Flat Ranch allotment). Applying the significance criteria for range and livestock impacts established for this analysis (see Appendix A), this amount of forage loss is defined as small (limited) in extent. Therefore, no adjustment (reduction) to permitted AUMs is anticipated.

As stated in Section 3.6, impacts to individual private wells, other than artesian wells, are not simulated in the model. Drawdowns can impact pumping costs and well yield. Measurable impacts to well yield would be expected only to wells that: a) draw their water from the Santa Fe Group aquifer; b) are close enough to the production wells that impacts to water levels might be measured in tens of feet; and c) are so shallow such drawdown would impede production (i.e., penetrate only several tens of feet into the aquifer). At this time, the BLM has identified no such wells. Also, as stated in Section 3.11, groundwater drawdown would have a minimal effect on surface water (water used for livestock forage).

The BLM has evaluated information from the well closest to the mine site from the west, identified in the EIS as GWQ-4 and known otherwise as the Rodgers windmill. Analyzing the information reveals that water is drawn down approximately 70 feet within the 150-foot deep well as a result of pit dewatering. Therefore, a water column remains at the well, but from this finding alone, the BLM cannot assume there would be no impact to well yield. It remains possible that the small amount of bedrock aquifer thickness available after dewatering would not supply enough water to keep the stock tank full. Without more information, the BLM cannot conclude whether there would be adverse impacts.

The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment". In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this

law recognizing that the performance of wells west of the mine is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law.

R&L-3. Request clarification on two contradicting statements in the DEIS on pages 3-213 and 3-214. "The BLM has determined that this further reduction in surface acres does not warrant a decrease in permitted use and "an adjustment reduction" to permitted AUMs for this allotment may be necessary. Unclear whether a reduction in permitted use will be necessary.

Response: The text has been revised to, "As a result of rangeland monitoring studies and a Proposed Decision issued August 23, 1982, livestock numbers permitted on the Copper Flat Allotment No. 16079 were adjusted from 151 to 133 Animal Units. Monitoring studies continued and supported the Proposed Decision and a Rangeland Agreement was signed September 10, 1987. Since the BLM had previously reduced the number of animal units to account for the development of the Quintana Minerals Mine, no adjustment (reduction) to permitted AUMs because of new surface disturbance of 384 acres for the Copper Flat mine and 20 acres for utility infrastructure and a millsite within the Copper Flat allotment is proposed."

R&L-4. Consider that the 1999 Copper Flat EIS resulted in the reduction of 18 animal units to account for the development of Quintana Mine. As such, there should be some type of mitigation and/or compensation measures to the affected ranching operations that bear a disproportionate burden of the impacts.

Response: The adjustment to livestock numbers permitted on the Copper Flat Allotment No. 16079 from 151 Animal Units to 133 Animal Units was the result of rangeland monitoring studies that were completed and the Proposed Decision issued August 23, 1982. Monitoring studies continued and supported the decision, and a Rangeland Agreement was signed in September 10, 1987. No adjustment (reduction) to permitted AUMs because of new surface disturbance for mine development and operation on BLM land within the Copper Flat allotment is proposed. Measures to minimize adverse impacts to range and livestock are described in Section 3.19.3. Any changes made to livestock grazing numbers would be in accordance with BLM Grazing Regulations 43 CFR Part 4100.

R&L-5. Table 3.35 misrepresents BLM Grazing Allotments on the Hillsboro Pitchfork Ranch LLC Warm Spring Ranch allotment, because it does not take into account the private land associated with the allotment. The actual number of livestock grazed within Grayback Arroyo system to the west of the mine site is much larger than indicated.

Response: Table 3.35 lists the allotments that the project site (mine property, pipeline, and mill sites) would overlap, resulting in surface disturbance to these

allotments. The source of the information presented in the table is from the BLM Rangeland Administration System (RAS) database. The RAS database did not list the amount of private acreage included in the Warm Springs Ranch allotment; therefore, Footnote 3 to the table acknowledged that the allotment is much larger than just the 151 acres of BLM land listed. This allotment is billed only for the small amount of public land (3 Cattle at 100% Public Land). The ranch/allotment is much larger, and capable of supporting more livestock. Due to the allotment being largely private land, the BLM only charges for the small amounts of public land. Although the project site does appear to overlap with both private and public land on Warm Springs Ranch No. 06143 in Sections 34 and 35, T. 15S, R. 7W (owned by Pitchfork Ranch LLC), the proposed project would not result in surface disturbance to this allotment and was therefore not listed in the table.

R&L-6. Discussion on page 3-213 does not take into account that effects to grazing would extend outside the mine site to public and private lands in the Grayback Arroyo System of the Animas Uplift. The reduction in surface water and permanent loss of groundwater within the Animas Uplift would cause animal reduction numbers of major magnitude and be catastrophic to the Hillsboro Pitchfork Ranch LLC. Need to recognize the ecological and economic effect in the EIS.

Response: Section 3.5.1 describes the surface water features that encompass the area west and east of the mine property, and Section 3.5.2 describes the impacts to these features from pumping groundwater to develop and operate the mine. Results from the groundwater modeling indicate that the deep bedrock aquifer that would be impacted by dewatering the mine pit is not hydrologically connected to surface waters near the mine pit. Drawdown of this deep aquifer would therefore not affect surface water sources that support vegetation west of the mine property, having no significant cumulative impacts to livestock forage (vegetation). Also see responses to comments VEG-6, VEG-7, SW-25, SW-21, and CI-18.

The Grayback Well is located approximately 480 meters away from proposed locations of blasting and mine vehicle use. As stated in Section 3.6, impacts to individual private wells, other than artesian wells, are not simulated in the model. Drawdowns can impact pumping costs and well yield. Measurable impacts to well yield would be expected only to wells that: a) draw their water from the Santa Fe Group aquifer; b) are close enough to the production wells that impacts to water levels might be measured in tens of feet; and c) are so shallow such drawdown would impede production (i.e., penetrate only several tens of feet into the aquifer). At this time, the BLM has identified no such wells. Also, as stated in Section 3.11, groundwater drawdown would have a minimal effect on surface water (water used for livestock forage).

The BLM has evaluated information from the well closest to the mine site from the west, identified in the EIS as GWQ-4 and known otherwise as the Rodgers windmill. Analyzing the information reveals that water is drawn down

approximately 70 feet within the 150-foot deep well as a result of pit dewatering. Therefore, a water column remains at the well, but from this finding alone, the BLM cannot assume there would be no impact to well yield. It remains possible that the small amount of bedrock aquifer thickness available after dewatering would not supply enough water to keep the stock tank full. Without more information, the BLM cannot conclude whether there would be adverse impacts.

The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment". In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations.

The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the Animas Uplift wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law.

R&L-7. Need to conduct surveys of evapotranspiration on the Animas Uplift, and quantify impacts to Range and Livestock and wildlife. [Same as WL-21]

Response: Evapotranspiration (ET) occurs from vegetation and open water surfaces. As described in Section 3.5.2, results from the groundwater modeling indicate that the deep bedrock aquifer that would be impacted by dewatering the mine pit is not hydrologically connected to surface waters located in the Animas Uplift. The water in the mine pit would be an ET source; however, this water source during mine operations would not have any impact to livestock or wildlife. Other open water surfaces in the Animas Uplift would not be affected by mine operations and would therefore not justify additional analysis of ET rates.

R&L-8. The mitigation measures proposed in paragraph 1, page 3-215 are inadequate. Need to identify mitigation measures for the impacts described in this section.

Response: The BLM believes that the mitigation measures listed would be adequate to minimize the adverse impacts to range and livestock from proposed development and operation of the mine.

References (REF)

REF-1. References, support documents, surveys, or data used in DEIS are missing, not sufficient, or lack a scientific basis. References and studies also need to be made available in a clear, easy-to-locate way.

Response: All sources utilized to inform the NEPA evaluation are listed in proper format in the References section of the EIS so that the reader may locate any source desired.

REF-2. The DEIS is missing items in List of References; or the in-text citation is inconsistent with the List of References.

Response: The References section of the FEIS has been revised to include several missing items.

REF-3. Provides pictures of Animas Creek and vegetation; and other supporting data.

Response: The BLM acknowledges the commenter's submittal of pictures of Animas Creek and vegetation as well as other supporting data.

REF-4. The DEIS is deficient in cross-referencing relevant information to corresponding sections. Volume 1 of the DEIS does not show all of the actual water declines in figure 3- 16b – it only goes to 60 feet; the actual projections in Appendix F also show deficits at 70 and 80 feet. This seems like a deliberate effort to mislead the public. In addition, a figure overlapping the declines resulting from increased pumping (figure 3-19c) with an accurate figure 3-16b would be useful. Groundwater will continue to flow in the pit lake forever with the DEIS estimate of 38 and 39 acre-feet per year – more than 12 million gallons -- for the proposal. The rate is presumably greater for the preferred alternative. This will increase groundwater depletion.

Response: The BLM believes that the graphics are presented with sufficient detail to convey the essential conclusions of the analysis. As noted in the main text, the maximum impacts are not hidden but are reported and displayed in an Appendix. Moreover, these maxima occur within the well field and do not impact any parties other than NMCC. It is correct that the groundwater flow into the pit and evaporation from the pit lake represent an ongoing and permanent depletion of groundwater. The different alternatives would have the same magnitude of this impact.

REF-5. Figures 3-10 and 3-9 should include graben and paleo-channel locations along with the cross sections. In addition, the relationship of the supply wells for these two features is not shown on Figure 3-9. In addition, recommend including a map in the FEIS showing the location of Cross-Section C-C on Figure 3-10.

Response: Comment noted; the BLM believes that the graphics in the FEIS effectively portray the necessary information.

REF-6. Recommend the FEIS include the JSAI report (2014) which describes the modelling developed for NMCC upon which the DEIS is based. On page 3-44, 3.4.2.1.2, please note that the JSAI 2014 report also shows both sulfate and TDS exceedances in a small subset of MWs downgradient of the TSF.

Response: The JSAI report (2014) has been included as an Appendix to the FEIS.

REF-7. Section 2.1.4.1 Reclamation Material seems out of place as a heading under Waste Rock Disposal Facility. This section would seem better located under Section 2.1.8 Growth Media, Section 2.1.9 Borrow Areas or 2.1.15.9 Plant Growth Media and Cover Materials.

Response: Section 2.1.4.1, Reclamation Material, is consistent with how it is placed within the MPO. It was kept in the section to maintain consistency between documents.

REF-8. Table 2-5 on page 2-23 should include a reference/citation of where this data was obtained because this table shows a substantial increase in the available reclamation material compared to the estimates provided in the report by Stetson Engineers, Inc. entitled “Order 1 Soil Survey of Permit Area” dated September 14, 2011 (provided by THEMAC as appendix 6-A to the Baseline Data Report).

Response: Table 2-5 in Section 2.1.4.1 was embedded in the source document used for the Proposed Action, the MPO. Since the table was taken from the MPO directly, it was more appropriate citing that document as the source.

REF-9. The calculations using what data is available in Table 3-10 show an impact of 42.6 AFY. This is in conflict with the statement at the bottom of page 3-73 which states: “Table 3-20a does not include the flow resulting from pit deepening and dewatering cone of depression. That impact is modeled at 21 AFY at the end of mining.

Response: The BLM believes that the statement on p. 3-73 correctly summarizes the model results.

REF-10. There are various issues associated with Figures 3-29, 3-30, 3-31, and 3-32 in the document. Some files are pixelated and one Figure 3-29 appears to be two images superimposed on each other.

Response: Figure 3-29 has been replaced in the FEIS. The other figures have been reformatted to address pixilation issues.

REF-11. Figure 3.11 appears to combine the shallow alluvium along lower tributaries and in the Rio Grande Valley, bedrock in the uplifts and the Santa Fe Group aquifer, and mine-related pumping. Each layer in this graphic should be represented separately in order to fully understand the model and the corresponding impact to groundwater. [Same as GW-32]

Response: The BLM assumes that the comment addresses Figure 3-11, which is a map of the grid that covers the entire model area. Figure 3-12 provides details for Layer 2, which is where all pumping and all significant impacts would

occur. The Final Groundwater Model Report is attached to the FEIS as an appendix.

REF-12. Missing or unclear drawdown graphs; need to include a description of how projected well water levels are derived. Need to include drawdown graphs for Roger Mill, Ladder Mill, and Wicks Mill wells as they are located in the area that will be impacted by mine pit dewatering/cone of depression. Recommend producing maps for each well within the area of the drawdown, show a vertical slice from each affected well to the center of the mine pit. The map should depict current ground water elevation at each well and at the pit center (existing conditions), conditions at the end of mining, and conditions 100 years after the mine is closed. [Same as GW-34]

Response: Appendix E of the EIS contains drawdown graphs for individual wells in the area where drawdown impacts may be experienced and provides a sound basis for evaluation of effects from the Project. The BLM believes that these graphs, in combination with the maps in Section 3.6, are appropriate for presentation of predicted impacts.

REF-13. The Draft EIS does not contain a Figure 3-13, but does contain Figures 3-13a and 3-13b. Figures 3-13a and 3-13b do not show any wetland areas. Need to clarify the use of term wetlands with the term riparian area used in other sections of the EIS. [Same as SOI-2]

Response: Definitions for wetland areas and riparian areas as stated in EPA (2005) have been added to the glossary in the FEIS.

The project area contains a small amount of wetlands. A small cattail wetland adjacent to the pit lake would be removed since pumping of the pit lake would be necessary prior to mining and continuously throughout the life of the mine with bedrock water drawdown in this area greater than 100 feet. This small wetland would be mined out when the pit is deepened to 900 feet below the current surface, so no surface soils would remain. The second wetland area, near the main mine entrance, would not be affected by drawdown associated with the Proposed Action because it would be outside of the drawdown area. A more extensive acreage of riparian vegetation occurs along Las Animas and Percha Creeks. The EIS text has been expanded to include these definitions and explanations.

The style convention used in the EIS is that where figures have two parts, they are listed as Figure Xa and Figure Xb, with no Figure X that stands alone.

REF-14. No vegetative surveys were conducted in the Animas Uplift to the west of the mine pit, in the Grayback Arroyo System or in the area of the cluster of springs located on private lands of the Hillsboro Pitchfork Ranch LLC located within the Warm Springs Valley. Thus, no baseline vegetative data has been compiled for these areas. [Same as VEG-9]

Response: Modeling analysis for the EIS representing the regional hydrology indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water in the Grayback Arroyo or the area of springs on Hillsboro Pitchfork Ranch in Warm Springs Valley. Consequently, there would be no effect on vegetation in these areas.

REF-15. Riparian areas in figures throughout the EIS are shown inconsistently or are omitted from the figure. For example, Figure 3-26 depicts an almost continuous Arroyo Riparian zone through the proposed mine area. Other figures in the Draft EIS omit or do not show this riparian area. Figures 3-9, 3-13a, 3-16a, as well as other figures in the Draft EIS depict different riparian areas. It is impossible from the Draft EIS for the public to gain a comprehensive understanding of the riparian areas affected by the down effect of the mine well field and mine pit dewatering/cone of depression. [Same as VEG-10]

Response: Figure 3-26 depicts the features of the mine site only. It does not show any riparian or other relevant features outside the mine site boundary because the discussion that it supports focuses on direct effects to the features at the mine site from re-opening the mine and dewatering the pit. Figures 3-9, 3-13a, and 3-16a depict the much larger project area which was evaluated for potential indirect impacts from the drawdown of the deep aquifer as a result of pumping. The riparian area in Figure 3-26 depicts the extent of vegetation in the arroyo riparian zone that transects the mine site with rerouting south of the pit area. Figures 3-9, 3-13a, and 3-16a depict the riparian zones along Percha and Las Animas Creeks, which were evaluated for potential drawdown effects.

REF-16. The DEIS does not list the Golder Associates Report in page 19 – references section. Since Golder's report gives information on the TSF, and the fact that wording concerning the TSF used on many pages in the DEIS is taken verbatim from the Golder report, it should be listed. In addition, information on how to view the original document would add needed detail to assist with the scoping process.

Response: The information from Golder Associates on the TSF was embedded in the source document used for the Proposed Action, the MPO. Since the wording was taken from the MPO directly, it is more appropriate to cite that document as the source.

REF-17. Page 36, Figure 5.15 depicts a map of wells used in the pump test; none of the monitoring wells are west of the feature that is supposed to be the cause of the steep gradient of the groundwater table. This lack of evidence invalidates the assumption that drinking water in Hillsboro and the environs will not be affected by the mine's use of production wells.

Response: Water levels at the proposed well field are at least 800 feet lower than in the Hillsboro area, indicating that the overall water table gradient between the locations is substantial. Drawdowns at the well field would not have a measurable impact in Hillsboro.

Recreation (REC)

REC-1. Concerned with the impacts the mine would have to the recreational experience (e.g., hiking). The DEIS 1) fails to identify Ladder, Caballo Lake State Park and Percha Dam State Park as key recreational sites in Sierra County (DEIS 3-194); 2) fails to adequately analyze the Mine's impacts on water levels at Caballo Reservoir and Elephant Butte Lake; and 3) fails to adequately analyze streamflow reduction impacts to Las Animas and Cave creeks.

Response: 1) Recreation sites at Ladder Ranch, Caballo Lake State Park, and Percha Dam State Park are now identified in the FEIS.

Section 3.16.2.1.1 of the EIS states that though there are no designated trails within the project footprint, if recreational users are accustomed to hiking through the outer limits of the project footprint, impacts due to restricted use could be minor and long-term. However, due to the presence of existing mining-related structures, the open pit mine and tailings pond, and existing fencing around parts of the mine area, which already restricts access for human health and safety reasons, recreational activities in this area are not prevalent. Thus, impacts to hikers are anticipated to be minor.

As described in Section 3.16.2.1.1, impacts to recreation due to increased noise caused by drilling associated with mine construction and operation along this route are anticipated to be minor and long-term. Noise from the mine equipment would comply with and would be regulated under MSHA regulations. Mufflers and other noise abatement equipment would be installed where applicable at the mine. However, even with implementation of these measures, the level of noise within the project footprint would increase under the Proposed Action. This would impact recreationists' experience during use of the public land within and immediately adjacent to the project footprint (such as on Ladder Ranch) by hikers and backpackers on non-designated trails or those utilizing Ladder Ranch's ecotourism program. Impacts from noise associated with construction and operation of the mine is discussed in greater detail in Section 3.21, Noise and Vibrations.

As stated in Section 3.21.2.1, the Proposed Action would not contribute to a violation of any State, Federal, or local noise or vibration regulation. As also stated in this section of the EIS, during each blasting event that would occur at the mine, which would occur only during daylight hours, the 130-dBP peak noise levels would extend 556 feet from the point of detonation. This area of high concern and complaint would remain entirely within the mine area, and no nearby noise sensitive areas would be exposed to these levels of noise. The 115-dBP peak noise levels would extend 2,344 feet from the point of detonation. The level of concern and complaints associated with individual acoustical events would be moderate within this area. Although this area of moderate concern and complaint may extend beyond the mine area, there are no residences within this distance. Depending on meteorological conditions, blasting activities may be heard by residences and others as much as several miles from the site.

However, these events would best be characterized as "audible but distant" and would not be appreciably intrusive. Due to the limited frequency of the loud acoustical events and the distance to the nearest nearby residents, these effects would be minor.

2) In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande system, including Caballo and Elephant Butte Reservoirs, resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

3) Evidence from well monitoring and the results of groundwater modeling indicate that mine operations would have a negligible impact on surface water flows in the areas of Las Animas Creek, Cave Cree, and Percha Creek that currently support riparian vegetation including the Las Animas Creek sycamores. None of these creeks are at risk of being destroyed or altered adversely by mine operations. Streamflow reduction impacts that would result from the Proposed Action and alternatives are discussed in detail in Section 3.6 of the EIS.

REC-2. Proposed mining would improve key industries in the area, including recreation and tourism. [Same as SE-31]

Response: Thank you for your comment.

REC-3. Concerns that the project may cut off the roads that the public use to access BLM recreational areas. Route 152 is important to the recreation and tourism economy and provides access to Gila National Forest and Gila Wilderness. [Same as SE-10 and TR-3]

Response: Mine operations would not cut off access to the Gila National Forest and the Gila Wilderness on Route 152 or other regularly used access routes.

Other potential impacts to these areas are discussed in Sections 3.16 and 3.22 of the EIS.

REC-4. Truth or Consequences is a great place to raise a family because of the recreational opportunities available such as fishing, boating, skiing, laking, hunting, and hiking.

Response: Thank you for your comment.

REC-5. The DEIS fails to identify and analyze the Mine's impacts to night skies and the noise and vibration impacts to recreation opportunities on the Ladder Ranch. Tranquility and the ability for guests to enjoy a dark, clear night skies are key expectations of visitors to the Ladder Ranch. [Same as NOI-3]

Response: A summary of New Mexico's Night Sky Protection Act (1978) has been added to Section 3.14.1 of the FEIS. All lighting associated with mining is listed under the Act as an exemption. The nearest Dark Sky area designated by the International Dark Sky Places program is over 10 miles away from the mine. This information is summarized in Section 3.14.2 of the FEIS. Further analysis on night skies is not required.

Noise and vibration impacts from the proposed project are discussed in Section 3.21 of the EIS. As stated in Section 3.21.2.1, the Proposed Action would not contribute to a violation of any State, Federal, or local noise or vibration regulation. As also stated in this section of the EIS, during each blasting event that would occur at the mine, which occur only in daylight hours, the 130-dBP peak noise levels would extend 556 feet from the point of detonation. This area of high concern and complaint would remain entirely within the mine area, and no nearby noise sensitive areas would be exposed to these levels of noise. The 115-dBP peak noise levels would extend 2,344 feet from the point of detonation. The level of concern and complaints associated with individual acoustical events would be moderate within this area. Although this area of moderate concern and complaint may extend beyond the mine area, there are no residences within this distance. Depending on meteorological conditions, blasting activities may be heard by residences and others as much as several miles from the site. However, these events would best be characterized as "audible but distant" and would not be appreciably intrusive. Due to the limited frequency of the loud acoustical events and the distance to the nearest nearby residents, these effects would be minor.

REC-6. The extraction will hopefully provide a large man-made lake or reservoir and recreational area.

Response: As described in Section 3.6 of the EIS, Groundwater, the water quality in the pit lake after mining would not be suitable for water-contact recreation.

REC-7. Water currently stored in Elephant Butte and Caballo largely is released for economic benefit downstream of Sierra County, and the County receives little benefit other than seasonal recreational use. Water use within the County has not been able to provide sustainable employment or economic resources to allow the County to be economically sustainable. [Same as GW-17; SE-19; SW-12]

Response: Thank you for your comment.

REC-8. The mine will not significantly impact recreation and will be reclaimed according to strict standards at the end of mining.

Response: Thank you for your comment.

REC-9. The groundwater usage will destroy the Sycamore trees that provide habitat for rare birds which brings tourism to the area, as bird watchers flock to the area.

Response: Evidence from well monitoring and the results of groundwater modeling indicate that mine operations would have a negligible impact on surface water flows in the areas of Las Animas Creek and Percha Creek that currently support riparian vegetation including the Las Animas Creek sycamores. Neither creek is at risk of being destroyed or altered adversely by mine operations.

REC-10. The DEIS does not evaluate the scenic environmental impact, and infrastructure damage impact of the mine and the truck traffic on the Lake Valley Backcountry Byway and Geronimo Trail Scenic Byway (receiving national status in 2005) and the Southern coast to coast cross country route. While the DEIS states that the Byways promote tourism in the area, there is no analysis provided that demonstrates the potential impacts to Byways-related tourism from the Proposed Action or alternatives. Additionally, the negative impacts to recreation and tourism on the Ladder Ranch have not been assessed. Associated mitigation measures for these impacts are also not discussed. [Same as TR-9]

Response: The scenic environmental impact of the proposed project on the scenic and backcountry byways is analyzed in Section 3.22.2.1.6 of the EIS. This analysis does demonstrate the potential impacts to Byways-related tourism. The cumulative contribution of the mine on recreational/scenic driving along scenic byways was found to be negligible to minor.

The FEIS addresses the scenic environmental impact of the Proposed Action and alternatives in Section 3.16, Recreation and Section 3.17, Special Management Areas. Additionally, "infrastructure damage impact of the mine and the truck traffic" is addressed in Section 3.20, Transportation and Traffic.

If adverse impacts to recreation and tourism on the Ladder Ranch were to occur as a result of mining operations, impacts are anticipated to be minor. Where noise from the project is concerned, truck operations on site were included in the noise model discussed in Section 3.21.2.1.1 of the EIS. Section 3.20.2.1

indicates that operations in years 1-5 would require 10-14 truckloads per day to and from the site. This is approximately one truck per hour. Due to the limited number of trucks and the small number of nearby residences, the effects of truck noise would be negligible. As stated in Section 3.21.2.1, the Proposed Action would not contribute to a violation of any State, Federal, or local noise or vibration regulation.

Noise at the blast site would reach 130 to 140 dBP (peak pressure of impact noises like blasting) but diminish to 115 dBP within 2,344 ft. The unimpeded straight-line dBP would be diminished 6 dBP for each doubling of distance. However, this is a straight-line calculation. In fact, the noise of mine blasts would primarily be contained within the mine pit itself, which is in a topographic bowl surrounded by ridges, so the straight-line calculated sound levels would apply only to points directly above the mine pit. The actual sound for most recreationists and tourists would be greatly attenuated by the intervening terrain.

Blasting would occur within the excavated mine pit with charges placed in the pit walls well below the ground surface level of the larger mine site area so that the sound will project primarily horizontally into the center of the mine pit and vertically above the pit, thus containing and diminishing the highest sound levels. The mine site is located within a flat topographic bowl surrounded by higher elevation ridges including Animas Peak that would further intercept and diminish sound waves similar to the effect of roadside sound barriers on traffic noise.

Low frequency noise carries greater distances than high frequency noise from the same source. Blast overpressure generally produces low frequency air overpressure of 2 Hz. Humans detect noise in the range of 20 Hz to 20 KHz, so it is likely that the airborne noise impacts from the low-frequency blasts would not be perceived within the frequency range of humans.

Blasting sound may reach the Ladder Ranch at a perceptible level above ambient background noise but it would likely not be louder than trucks and equipment used on-site at Ladder Ranch, which would be in the range of 75 to 90 dB. Blasting would occur during daylight hours only. This timing constraint and the perception that the noise is coming from a long distance away may in combination allow the receptors to habituate to the noise after a few days. The level of concern and complaints associated with individual acoustical events would be moderate within this area. Depending on meteorological conditions, blasting activities may be heard as much as several miles from the site. However, these events would best be characterized as "audible but distant" and would not be appreciably intrusive.

Where traffic from the project is concerned, the traffic increase would occur primarily during shift change for the mine. This increase in the worse condition

considered would be a LOS rating of C, which by definition is a stable flow, and therefore would be less than a significant impact.

REC-11. Figure 3-38 on page 3-197 does not address the adjacent private property to the west with a common fence line. The configuration of the APE is misleading; the APE should be revised to include those areas of 21B.

Response: The BLM has determined that there is no reasonable basis to adjust the boundaries of the APE delineated in the Recreation section of the EIS to include Game Management Unit (GMU) 21B. All recreation areas to be directly or indirectly impacted by the Proposed Action and alternatives have been analyzed.

REC-12. An analysis should be conducted of the history of both in-state and out of state hunting licenses for all categories in area 21B. Analysis to include deer inventories, projection of future deer inventories, revenue streams derived to the State of New Mexico and surrounding area, as well as potential loss in such revenue streams as a result of loss in big game, varmints and upland birds as it relates to proposed project.

Response: The analysis requested is outside the scope of this NEPA evaluation. Significant loss of big game, varmints, and upland birds are not anticipated as a result of the proposed project. Section 3.10.2.1.2 of the EIS states: "Losses of mammals, birds, or wildlife in general are not expected to be significant as a result of the project. Proposed project activities may cause minor disruptions to foraging, migratory movement, or breeding behavior of some species. A few animals may be killed during these activities because they are driven out of their foraging territories and are made more susceptible to predation, but these losses would not be expected to impact the species as a whole. There is currently a vast amount of undeveloped land in nearby areas where wildlife can temporarily relocate for cover and foraging."

REC-13. The DEIS states that "[a]dditional tree removal for the addition of haul roads and construction of facilities would contribute minor and long-term adverse impacts to recreation in the area based on the increased degradation of visual quality." (§ 3.16.2.1.1, at 3-200). There are, however, no groups of trees along the proposed haul road routes. It is therefore possible, and even likely, that there will in fact be no additional tree removal under the Preferred Alternative, and thus no such hypothesized adverse impacts to recreational activities that the DEIS acknowledges are not prevalent. The FEIS should clarify this accordingly.

Response: The EIS has been updated to reflect this information.

REC-14. The DEIS does not provide a dispersion model for the preferred alternative and does not address impacts to the localized air quality and visibility impairment from fugitive dust that could impact transportation and recreation and tourism on the Byways and Ladder Ranch. Mitigation measures have not been identified. [Same as AQ-13]

Response: Section 3.2.2 of the EIS addresses the impacts of air pollution and dust from the Proposed Action and alternatives, including the Preferred Alternative. The air dispersion modeling performed for the air permit demonstrated compliance with all applicable ambient air quality standards. Therefore, adverse effects to nearby areas or individuals are not expected. The dispersion modeling included worst case meteorological conditions as a basis for this determination.

Regulatory Compliance (REG)

REG-1. NMCC is going through a rigorous permitting process and providing the appropriate information related to the proposed project in an upfront and straightforward manner.

Response: Thank you for your comment. Information provided by NMCC through the permitting process and as a contributor to the EIS process has helped to provide a clear background for the BLM.

REG-2. NMCC is trying to follow industry best practice, including trying to mitigate/minimize to acceptable levels of risk of potential releases of contaminants.

Response: Thank you for your comment. NMCC has been cooperative and forthcoming in the evaluation of potential impacts.

REG-3. The Mining Safety Board for the State of New Mexico has already started working with the State mining inspector to make sure the mine is in compliance. The NMCC is committed to completing the project in an environmentally safe manner. [Same as HH&PS-2]

Response: Thank you for your comment. Early coordination with mine safety agencies is critical to having safe and compliant operations once the mining activity has begun.

REG-4. Proper Federal and State regulations will ensure protection of the workers and the environment. [Same as HH&PS-4]

Response: Thank you for your comment. The mining proponent would employ modern mining techniques in compliance with MSHA.

REG-5. The Mine did not publish notice of its application during the application process with the State Engineer for a permit to deepen and repair its wells, and NMPG's members had no opportunity to protest the granting of the application.

Response: The permit application process is a parallel activity to the EIS evaluation, but the notice referred to in the comment is not a requirement of EIS preparation.

REG-6. Active Water Resource Management ("AWRM") regulations adopted by the State Engineer (as confirmed by the New Mexico Supreme Court) will undoubtedly result in more

active water management in the Lower Rio Grande, especially in light of the pending interstate litigation. Clearly, these issues are "Reasonably Foreseeable Actions" that should have been included in the DEIS, but were not. [Same as CI-10]

Response: An analysis has been added to the FEIS that acknowledges AWRM as a factor in determining cumulative impacts. In January 2004 Active Water Resource Management (AWRM) was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution makes priority of right the basis for water administration, but recent drought years have compelled the State Engineer to develop tools for AWRM that enable them to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes.

REG-7. Agencies like OSE/ISC, MMD, NMED, NMDGF, Rio Grande Compact Commission, Reclamation, irrigation districts, and others (federal, state, local agencies), as appropriate, should be coordinated with when the NMCC finalizes their water supplies under their three options listed.

Response: Coordination and required actions with listed agencies and entities have been or will be performed as required by laws and regulations.

REG-8. No concurrences are provided for any conclusion reached in the DEIS and the FEIS should incorporate concurrence from the USFWS and New Mexico Department of Game and Fish (NMDGF) on impacts of the proposed project to wildlife and migratory birds, and a commitment for mitigation. [Same as WL-5]

Response: The specific analysis for listed species and all protective and mitigation actions derived via the consultation process with USFWS are included in the Biological Assessment as part of the EIS analysis process. Protective and mitigation actions for listed as well as other wildlife species will be included in the Record of Decision. The New Mexico Department of Game and Fish (NMDGF) is a designated cooperating state agency that is closely coordinating on project development and the EIS process. An independent concurrence is not required.

REG-9. The FEIS should incorporate any issues raised by, and concurrence from, the ACHP, SHPO, Tribes, NMCC, and the Programmatic Agreement (PA) showing how the significant impacts to cultural and historic resources will be addressed and mitigated. Further, no specific mitigation measures have been outlined, despite the significance of adverse impacts. [Same as CR-2]

Response: Three individual comments were coded as CR-2/REG-9. Each required a slightly different response, as shown below.

[Agency] A brief description of issues raised by the ACHP and the Section 106 consulting parties has been added to the FEIS. The FEIS includes a copy of the fully-signed PA to resolve the adverse effects to historic properties. A summary of mitigation measures to be implemented has been added to the FEIS.

[Public] The BLM has completed its NHPA Section 106 compliance process, which includes all of the steps outlined in the comment. Completion of the process is demonstrated by the fully-signed PA, which is included in the FEIS.

[NGO] The BLM has completed its NHPA Section 106 compliance process, as demonstrated by the fully-signed PA now appended to the FEIS, which included all required consultation with agencies and interested parties. A summary of mitigation measures to address the adverse effects to historic properties has been added to the FEIS text.

REG-10. The Draft EIS fails to address impacts to the administration of the Rio Grande Compact (the "Compact") and to the Compact states of NM, CO, and TX. This includes impacts to the timing of Article VII and actual or hypothetical spill as defined in Article I.

Response: The FEIS acknowledges that "This impact is expected to have a long-term, large-extent, and probable cumulative effect on these surface water resources."

In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

REG-11. Leasing of additional surface water would require a review under the USBR 1920 Miscellaneous Purposes Act be observed because NMCC would in this instance be seeking a

change in the purpose of use of Rio Grande Project surface water rights that are otherwise authorized for the single purpose of irrigation. The 1920 Act would also invoke NEPA, and therefore NMCC and the BLM may very well be subject to yet another EIS. [Same as NEPA-13]

Response: The 1920 Miscellaneous Purposes Act authorizes BOR to enter contracts to supply water from any irrigation system project for purposes other than irrigation. While buying or leasing surface water irrigation rights for the purpose of mining may require additional NEPA, the BLM would not be the lead agency for that action as the BLM does not authorize or administer the sale, lease or transfer of water rights or changes of beneficial use.

REG-12. The New Mexico Interstate Stream Commission (NMISC) Draft Regional Water Plan indicates that if about 2,000 acre-ft./yr. of flow to the Rio Grande as reported in the DEIS is stopped and not made up, it would be a violation of section 5.1, p6.

Response: The FEIS acknowledges that “this impact is expected to have a long-term, large-extent, and probable cumulative effect on these surface water resources.” This effect would be compensated for through mitigation requirements of the OSE without the need for addressing the administration of the Rio Grande Compact.

REG-13. “MMD” should be substituted for NMED in the last sentence on page 2-87, Section 2. NMED does not typically regulate exploration disturbance, but the New Mexico Mining and Minerals Division does.

Response: The substitution has been made in the FEIS, as requested by the commenter.

REG-14. There is no mention of the drawdown to wells on lands to the west and south of the cone of depression associated with the mine pit, which are private or BLM public lands. The New Mexico OSE should determine the drawdown on those wells. [Same as GW-39]

Response: Drawdowns on lands to the west and south of the mine pit are shown in FEIS Figures 3-13b (Proposed Action), 3-16b (Alternative 1), and 3-19b (Alternative 2).

REG-15. NMOSE should design a mitigation program to be agreed upon by affected public and private landowners damaged by mine pit dewatering, and complete this progress prior to the issuance of a final EIS.

Response: The BLM, with assistance from the OSE and other state cooperating agencies, as well as contributions received through the public and agency comment process, has developed mitigation measures to minimize impacts to resources where practical and appropriate. These measures have been discussed in relevant resource sections throughout the EIS.

REG-16. The DEIS does not keep with the Interim Land Use Policy of Sierra County of 1991 as environmental effects to the Warm Springs Canyon, Cold Springs Canyon, Grayback Arroyo and Animas Uplift are omitted. Withdraw the DEIS and address these concerns. [Same as LU-11]

Response: Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not have environmental effects in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The BLM has determined that there is no reasonable basis to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.

REG-17. BLM fails to identify the regulatory environment under different management scenarios as an issue for analysis, in violation of NEPA. 40 CFR Part § 1501.7. The DEIS should compare the following factors under different management scenarios: number of agency inspections, the thoroughness of these inspections, the ability to review the adequacy of the reclamation bond and adjust it as needed, the frequency of bonding review, bonding amounts, the past history of bonding increases, the past history of calculating the correct bond, the amount of potential fines for violations, and the ability to require and manage a fund for long-term water treatment. [Same as NEPA-23]

Response: It is not the responsibility of the BLM through its EIS process to evaluate the adequacy of the external agency inspections, bonding requirements, or determination of fines. The above listed items are outlined in the 43 CFR 3809 regulations and are not considered to fall within the scope of the EIS as they are regulatory compliance issues and not environmental impacts.

REG-18. The DEIS fails to provide information required under FLPMA and BLM § 3809 regulations.

Response: The BLM has reviewed the FEIS document for compliance with FLPMA and BLM § 3809 regulations and has concluded that it is in compliance.

REG-19. The DEIS's review, and the BLM's selection of Alternative 2 as its "Preferred Alternative," are based on the overriding assumption that NMCC has statutory rights to use all of the public lands at the Mine site under the 1872 Mining Law. However, where Project lands have not been verified to contain, or do not contain, such rights, BLM's more discretionary multiple-use authorities apply. BLM's Preferred Alternative violates provisions of FLPMA and the Multiple Use Sustained Yield Act, laws mandating that agencies manage, or at least consider managing, these lands for non-mineral uses - something which the BLM fails to do or consider.

Response: On public lands where NMCC controls unpatented mining claims, they have the right under the General Mining Law of 1872 as amended to use the claims for mining related purposes. The BLM is not obligated by any law to perform validity on mining claims before approving a mine plan on lands open to location. Until the lands are determined by the BLM not to be valid the claims are assumed to be valid.

The commenter is referred to Department of the Interior Solicitor Opinion M-37012 for more details on legal requirements for determining mining claim validity before approving a mining plan of operations.

REG-20. Will the BLM require the EIS contract author to rewrite this statement to follow 3.3.1.4 titled “Regulatory Requirements Related to Climate Change and Sustainability?” According to EO 13148, “Greening the Government”, all Federal agencies must take necessary actions to integrate environmental accountability into day-to-day decisions.

Response: CEQ's *Final Guidance on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews* (August 2016) guidance has been withdrawn for further consideration (March 2017). However, the BLM acknowledges the effects of climate change and estimates GHG direct and indirect potential emissions, using various tools such as reasonable foreseeable development and EPA's emission estimation factors for GHGs, in its NEPA documents. It is important to also note that the withdrawn guidance was not a regulation and does not change any law, regulation, or other legally binding requirement.

REG-21. The BLM must ensure that this project, established under the General Mining Law of 1872, complies with the ESA before allowing mining activities to proceed. The Bureau of Land Management should reinitiate informal consultation with the U.S. Fish and Wildlife Service to determine what effect the project may have on the Southwestern Willow Flycatcher in the Caballo reach, the Caballo Delta North and the Rio Grande below the Caballo Dam and determine the need to enter into formal consultation. [Same as T&E-5]

Response: The BLM has entered into consultation with the USFWS concerning impacts to federally-listed species found in the project area. Protection and mitigation measures would be implemented in any instance where the project may adversely affect these species. These measures will be identified in the ROD. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, “wet offsets,” to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation

water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

The presence of wildlife including any listed species at, or surrounding Caballo Lake that are sensitive to lake water level is also a function of Upper Rio Grande River water that is available in any given year, which is affected by the amount allocated to agricultural irrigation, and legal obligations to Texas, Mexico, and other users. The wet offsets ensure the overall amount of water delivered to Caballo is not diminished by the mine water drawdown. Water level fluctuation in the lake will continue to be the result of river water availability and demand downstream. Wildlife and wildlife habitat present as a function of water fluctuation in Caballo Lake would not change.

REG-22. Section 1.6.3 concludes with the erroneous claim: “The OSE will ultimately approve the availability of adequate water rights in accordance with the ongoing process described above.” But the OSE cannot approve beforehand these water rights, and the BLM cannot guarantee such approval. NMCC’s “ongoing process” to obtain enough water to mine is fraught with difficulties unacknowledged and unanalyzed by BLM.

Response: The EIS has been revised to indicate that OSE has not approved water rights in advance of a regulatory review.

Scope of the FEIS (SCOPE)

SCOPE-1. The following comments received were either not relevant, speculative, or outside the scope of the FEIS:

- Discussion of family and personal history.
- Personal anecdote of septic tank installation gone bad.
- The mine has moved from investor to investor and company to company and all have gone bankrupt, left town, and have had no success recovering materials in an economically viable way.
- THEMAC/NMCC does not have the money to mill oxidized ore or perform the reclamation that is required.
- The area is producing radiation to the surrounding areas.
- Large quantities of ore originally scheduled for milling have oxidized and would be difficult to mill.
- National economy and security is dependent on mining.
- Support the project because of domestic commodity production. The food, fiber, energy, timber, minerals, etc. support our quality of life.
- The BLM needs to expedite this copper mine because when the renewable energy projects get moving again, we are going to be short on copper and all of these projects need it.

- The U.S. needs responsible domestic production of natural resources and the mine will produce copper and other valuable metals in NM.
- Financial benefits offset any temporary and/or minimal permanent disturbances to the surrounding area.
- Renewable energy needs of Sierra County are dependent upon a continued supply of copper from the Copper Flat Mine. Initial planning and work to reach the current stage of development for the site (including spent energy and overburden removal) provides a good reason not to go elsewhere and start over to reach an ore body.
- The mine will allow Americans to depend on their own natural resources and not push resource extraction overseas where extraction can result in terrible environmental conditions. The mine will ensure natural resources used by Americans are extracted in a responsible way.
- There are uncertainties and instability in the copper market, along with the investment the county will have to make to support the influx of jobs makes the project likely not to be viable and will not provide a staying stimulus to the local economy.
- The average life of a metal mine has declined significantly in recent decades. The Copper Flat Project is an example of this reduced mine life. The DEIS states the life of the project ranges from 11-16 years.
- I frankly do not trust our state Environment Department or our Game Commission, because of the political weight of business and industry on those agencies.
- Continues to be a need for sources of copper used in the building of infrastructure, necessary to sustain the improvements in the standard of living throughout the world.
- THEMAC is a marginal company. It has no assets other than Copper Flat. It has never developed a mine. It has never operated a mine. It functions entirely on loans that carry a very high interest rate (20%) at a time of generally low interest rates. It is listed on a stock market for venture stocks (TSX Venture) where it is classified as a Tier Two company, the riskiest category, and its shares are hovering around \$0.01 Canadian. Furthermore, there is no assessment of the market strength of NMCC or its parents and the company's financial staying power is called into question.
- Can NMCC afford to pay for the additional water it may need to obtain for the operation of the mine. The NMCC already has a demonstrated financial shortfall of 56 million dollars. Has BLM considered this?
- Inferring that the public is not smart enough to understand this comprehensive document which includes "complex hydrological and water modeling studies..." is condescending and many people in the area take umbrage with it. There is such an apparent bias and disregard for the public's intelligence and desires that the BLM official in charge of the document should be replaced with someone not so greatly influenced by THEMAC and Santa Fe Politicians.
- Commenter describes the Tulla Resources Group's history of successfully conducting mining operations in coordination with local communities.
- The DEIS does not consider, analyze, and/or research the possible other and potentially better uses for the vast quantity of water claimed by NMCC. There is no comparative analysis of the amount of water required by other industries, businesses, or activities in which beneficial use is inherent.
- The DEIS would profit a foreign enterprise at the expense of the human welfare of citizens of the United States.

- Please do not underutilize my work and group it with nonprofessional comments in your response. I have written a body of calculations in addition to what I have submitted. Please respond to my questions and comments individually without grouping with other questions from other concerned citizens.
- Allow the Copper Flat preferred plan of operations because "we'd better learn to communicate with the microbes and learn what they want before they threaten us with extinction."
- The solution to pollution is not dilution or regulation. Instead it is innovation which only the metals/minerals can achieve. When the metals are scarce it is prohibitively expensive to conduct research, whereas if the elements are abundant then man, machine and bacteria can achieve wonders we can only dream about.
- As indicated in the groundwater section, the transmissivity of the pit lake water into the surrounding alluvial aquifers is low and so releases of metal impacted groundwater from the pit lake to the surrounding aquifer is low. As discussed, the local groundwater will flow into the pit rather than out of the pit long after mining operations have ceased. The EIS indicates that there will be some long-term impact to the regional water supply due to the requirement for groundwater to supply some of the operations. The question is, does this outweigh the economic benefits of the mine?

Response: These comments are outside the scope of the FEIS.

Short-term Use and Long-term Productivity (STULTP)

STULTP-1. The effects of mine construction would permanently harm the long-term productivity of lands surrounding the mine site. This permanent effect would be a direct consequence of the mine pit water cone of depression caused by mine pit dewatering, and then the continuing flow of groundwater into the pit/cone of depression once mining operations have ended.

Response: The permanent groundwater drawdown at the mine pit has been identified and discussed in the FEIS along with any associated impacts, but has also been specifically addressed in the section on Short-term Use and Long-term Productivity.

STULTP-2. The area of influence for mine effects is described as the Copper Flat mine area. What is the definition of the area of potential effect by mine construction and operation in the DEIS? This is inconsistent in the document; sometimes it is defined as the mine site and well fields, utility sites and rights of ways and other times referred to (vaguely) as the Copper Flat mine area. The affected land is much greater in area than the "site."

Response: The affected area varies in size according to the resource being analyzed. For example, visual resources have a much greater area of potential effect due to potentially lengthy lines of sight than would generally be true of a resource such as soils, which are typically affected only in disturbed areas.

STULTP-3. Disagree with the statement on page 3-304: "No significant impacts to long-term productivity are expected to occur from the proposed project." There will be significant

permanent negative impacts from mine construction and operations that would extend well beyond the mine site and would negatively impact both public lands and private lands on the Hillsboro Pitchfork Ranch LLC.

Response: It is unclear which specific permanent negative impacts to which the commenter refers. The BLM has reviewed this comment and is satisfied that any potentially significant permanent negative impacts have been identified and are addressed.

Socioeconomics (SE)

SE-1. Support project due to overarching economic benefits. Increases in quality jobs, reduction in unemployment, expansion of supplier services, support and increases to tax revenues and other benefits would generally increase prosperity and economic sustainability of the entire region. [Same as PA-5]

Response: Thank you for your comment.

SE-2. Concerned about impacts related to quality of life, including increased noise, traffic, and dust. It is negligent for a large corporation to come in and completely take the resources away from hard working farmers, ranchers, small business owners just trying to survive.

Response: Thank you for your comment. Potential impacts related to quality of life, including increased noise and traffic, are discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life). The purpose of the FEIS is not to discern whether it is negligent (or responsible) for a corporation to conduct operations but rather to evaluate the potential impacts from the Proposed Action and alternatives.

SE-3. Analysis in the socioeconomics section of the document contains inadequacies and deficiencies, and does not generally contain a sufficient level of analysis. For example, page 2-24 and page 3-259 show orders of magnitude difference in number of jobs created. Other examples are provided in various comments. Furthermore, the DEIS seems to concentrate on the dollar benefits of hypothetical jobs rather than the action's costs and substitutes pro-mining bias for objectivity. The comparison between the market value of water and jobs created by the Proposed Action (because the impact of one is the negation of the other), is completely avoided in the socioeconomic study.

Response: Table 2-7 on page 2-24 of the DEIS shows the mine workforce for Year One. These are some of the inputs to the IMPLAN input-output model (the other main input is annual project costs). Table 3-74 on page 3-259 of the DEIS shows the number of direct, indirect, and induced jobs that would be created during years 3 and 4 – or the construction phase of the proposed project. Table 3-75 on page 3-259 of the DEIS shows the direct, indirect, and induced jobs that would be created starting in year 5 to year 21 – or the operations phase of the proposed project. As such, Table 2-7 is not inconsistent with Tables 3-74 and 3-75; these tables simply present different information. The IMPLAN input-output

model estimates the effects of spending for development activities and consumption spending of new residents and construction workers; the indirect effects of local vendors providing goods and services to the primary firms; and the induced impacts of employees of these firms spending a portion of their earnings in the local economy. Economic impacts are measured in terms of income and employment generated (or lost) due to the Proposed Action.

The purpose of the FEIS is to present potential adverse and beneficial impacts; not to compare different costs or conduct the equivalent of a cost-benefit analysis. It is not the BLM's responsibility to decide what the water will be used for or to determine a proponent's Proposed Action. For this EIS, the BLM is charged with determining the potential impacts of a mining company seeking to execute an action that involves water use. Had a company proposed to pump groundwater and manufacture bottled water for distribution, the BLM would similarly evaluate the potential impacts of that activity.

SE-4. Recommend adding an appendix to explain the inputs and the outputs of the socioeconomic model used in the analysis.

Response: An appendix has been added to the EIS to explain the inputs and outputs of the socioeconomic model.

SE-5. The region of influence is not properly determined and therefore the analysis is not properly evaluated. The analysis is flawed due to the narrowly defined CDP (Census Designated Place) data, which excludes homes, businesses, and citizens located in the proximity of the mine (i.e., the 88042 zip code) as well as citizens in the surrounding counties of Grant and Luna. In addition, direct, consequent and cumulative socioeconomic impacts of the Copper Flat Project upon areas in New Mexico outside Sierra County are not addressed.

Response: The region of influence (ROI) does include the Hillsboro CDP in Sierra County, but the ROI is defined as Sierra County (as noted in the second and third paragraphs of 3.22.1 (Affected Environment)). As such, homes, businesses, and citizens located in the proximity of the mine are not excluded from the analysis. Surrounding counties of Grant and Luna are excluded from the ROI for consideration of direct impacts, but indirect impacts for these counties are considered.

SE-6. Table 3-68 indicates that the percent of persons over 25 with a college degree is 0%. The information in the table is inaccurate and the DEIS skews the socioeconomic picture of the area. There are a number of prominent citizens and highly educated people in the area.

Response: The information contained in Table 3-68 was obtained using U.S. Census Bureau data, 2006-2010. Based on feedback from the public, the information has proven to be inaccurate. More accurate information is not available. This information was removed from Table 3-68 of the DEIS (Table 3-76 of the FEIS).

SE-7. Uncertainties and instability in the copper market, along with the investment the county will have to make to support the influx of jobs makes the project likely not to be viable and will not provide a staying stimulus to the local economy. [Same as SCOPE-1]

Response: See Section 3.22.2 of the EIS for a detailed discussion of economic activity from the proposed mine. The purpose of the FEIS is not to discern the viability of the mine or copper mining generally but to evaluate the potential impacts from the alternatives.

SE-8. The potential for hiring of workers for the mine that would not be local (rather they will be professionals from somewhere else) discredits the notion that the local population would benefit from the increase in jobs as presented in the DEIS. In addition, it is likely these jobs would not be permanent.

Response: Section 2.1.5 of the FEIS indicates that NMCC would provide employment opportunities to individuals living in the immediate area of the mine. It is likely that personnel from outside the local area would be required to meet the full staffing needs of the mine; however, the southwestern United States provides a large base of experienced personnel to complete the employee roster (NMCC 2014a).

SE-9. Information in the socioeconomics section as it relates to housing costs and relative affluence/poverty of the area does not include or take into account that there are homes that average between \$500K and \$1M. This presents an inaccurate picture of the need for economic incentives to the area, such as the proposed project.

Response: Table 3-63 in the FEIS, "Value of Owner-Occupied Housing Units, 2010" has been added to present the value of homes by Block Groups in Sierra County, Hillsboro CDP, Truth or Consequences, Sierra County, and New Mexico; as well as the median value of owner-occupied housing units. Table 3-57 in the DEIS (Table 3-62 in the FEIS), "Housing Characteristics" was also updated to present total housing units, occupied housing units, and the homeownership rate by Block Groups in Sierra County.

SE-10. Route 152 is important to the tourism economy, including access to Gila National Forest and Gila Wilderness. [Same as REC-3 and TR-3]

Response: The project would not close roads needed to access the Gila National Forest and Gila Wilderness. As discussed in Section 3.22.2.1.6 of the EIS, the extent to which an active mine would deter tourists or recreationists from travelling Route 152 is difficult to quantify. However, it is likely that during the 1- to 2-year construction period, some may avoid the portion of NM-152 (from Hillsboro east to the junction of NM-152 and Highway 85), where the Geronimo Trail Scenic Byway and the Lake Valley Backcountry Byway overlap, due to the perception of increased traffic and air emissions hindering their experience. Visitation at the Gila National Forest in the western edge of Sierra County may

decrease during this time since the Black Range Ranger Districts (including the Gila Wilderness) is most easily accessed via NM-152.

Additionally, the portion of the Geronimo Trail Scenic Byway that follows NM-152 is located in a former mining area, which promotes tourism through sightseeing tours of abandoned mines and ghost towns. While some tourists may be deterred due to the perception of increased traffic and air quality or the degradation of visual quality, some may instead be drawn to the area. The Copper Flat mine project could create or renew interest in nearby ghost mining towns, the mining process, and the evolution of mining in the area benefiting tourism.

SE-11. The no action alternative for clean-up and reclamation of the site would provide jobs and tax revenue.

Response: Thank you for your comment. A discussion of socioeconomic impacts due to jobs and tax revenue under the No Action Alternative has been added to Section 3.22.2.4.

SE-12. There are a number of reasons why the project would reduce the longevity of NM-152 which would subsequently increase maintenance costs for the county associated with road repair and infrastructure and are not adequately addressed in the transportation, socioeconomics, or utilities and infrastructure sections (e.g. because NM 152 is a chip seal route not designed for specific load carrying capacity, a steady stream of 43-ton trucks would quickly destroy the road and should not be allowed unless the roadway is rebuilt from Mile Marker 55 east to the Interstate.) Furthermore, because it's more likely that a large number of employees would come from Silver City rather than Hillsboro and Truth or Consequences, more users of the road would accelerate deterioration of the Highway 152 surface from its beginning at Highway 180 east to the mine. [Same as TR-1]

Response: The increased rate of roadway deterioration is described in the Traffic and Transportation Section (3.20) for the Proposed Action and each of the alternatives. NMCC has consulted with NMDOT to discuss the project and NM 152. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine. Turn lanes and acceleration lanes would be added to facilitate traffic flow and provide enhanced safety for the traffic around the heavy trucks within 12 months of the beginning of the mine construction and prior to the full operation of the mine. After these enhancements are completed, the state would resume normal maintenance of NM-152. While no formal agreement has been made between NMDOT and NMCC at this time, NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.

Section 3.22.2.1.3 (Public Finance) describes additional state and local tax revenue from the Copper Ad Valorem and processors tax, as well as the shared distribution of severance taxes between the state and counties/municipalities.

NMCC estimates direct tax liabilities of over \$18 million during the construction, operation, and reclamation phases under the Proposed Action; over \$18.5 million under Alternative 1; and over \$22 million under Alternative 2 (summarized in tables 3-77, 3-80 and 3-83 of the DEIS, respectively and tables 3-85, 3-88, and 3-91 of the FEIS, respectively). The additional tax revenue would allow the county and state to address any increased maintenance costs associated with road repair and infrastructure following the initial enhancements.

Given the pending MOU between NMCC and NMDOT as well as the additional tax revenue from the project, potential impacts from increased road maintenance costs would be negligible; and this information has been added to the discussion in the FEIS.

SE-13. It is important to engage in education and meet community needs as it relates to the Copper Flat Mine. THEMAC has taken the time to have meetings to update and educate the public and explain what they are doing.

Response: Thank you for your comment.

SE-14. THEMAC/NMCC does not have the money to mill oxidized ore or perform the reclamation that is required. Ensure that the operation is bonded in such a way that reclamation is guaranteed at the conclusion of the operation. In addition, the FEIS should incorporate a discussion of financial assurance to ensure effective reclamation, closure, and post-closure management. Furthermore, The DEIS does not review and make sure that the reclamation costs are real and it should provide proof that they are not unreasonable. This proof is needed to ensure that taxpayers are not left to pay for the reclamation. Further, the DEIS proposes as mitigation less liquid forms of financial assurance that increase the risk to the public sector and reduce it for the mining company. This has the potential to create a large financial liability on the public sector. Subsequently, it is necessary that the public understand the magnitude of clean-up costs and the financial instruments that will be used to guarantee that the mine site can be reclaimed should NM Copper Corporation go bankrupt.

Response: Bonding is not within the scope of the FEIS. The BLM, MMD, and NMED would all require that NMCC submit “financial assurance” (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party.

The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount “must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan...” as well as 19.10.12 NMAC, which details MMD’s requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMAC and 43 CFR 3809.552(b), MMD and the BLM

would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMAC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.

SE-15. Need to consider long-term positive effects of boom and bust from mining.

Response: Thank you for your comment. Potential long-term positive effects of boom and bust from mining have been added to the discussion in the FEIS.

SE-16. The project would not create the amount of jobs and wages paid as discussed (based on the IMPLAN model – which counts job years and not jobs and is misleading), and the top jobs will be given to out of state employees, leaving the lowest paid workers to do the grunt work. In addition, contrary to the assertion in the DEIS related to job creation from the proposed mine, virtually no one from Hillsboro and few would come from Truth or Consequences. Hillsboro is occupied entirely by retired personnel and most of the residents in Truth or Consequences are retired, on disability or already employed within the community. The estimate that 70% of the workforce would be local would rely on massive “cross-overs,” those that leave one job to take another. This is juxtaposed with NMCC clearly stating that 70% of workers would commute two hours from 73 miles away. This is presented as local, even though they don't say it is from within Sierra County, because it is not. These two issues represent other negative economic and social impacts neglected in the DEIS. Furthermore, confusion exists in the indirect employment numbers for the operational phases of Alternative 1 (168 job years or 15.3 jobs) and Alternative 2 (273 job years or 24.8 jobs).

Response: Thank you for your comment. The possibility of “cross-overs” has been added and the use of the term “local” has been clarified in the discussion in the FEIS; as will the IMPLAN terms in Appendix M.

Text has been added to Section 3.22.2.3.3 explaining why Alternative 2 would create more direct and indirect jobs than Alternative 1. Under Alternative 1, the mining operations phase would last 11 years and cost \$1,305,412,000; and create 2,078 direct jobs and 168 indirect jobs. Under Alternative 2, the mining operations phase would last 11 years and cost \$1,525,285,000; and create 3,440 direct jobs and 273 indirect jobs. Alternative 2 would create more direct and indirect jobs because the cost for this phase is \$219,873,000 higher. Given that this alternative is the most expensive and has the highest rate of production (30,000 tons per day), more money would be allocated for more workers to be able to meet the production schedule.

SE-17. Pages 3-73 through 3-89 of the DEIS discuss the reduction of flows of waters and that in order to adequately offset the surface water impacts in the Rio Grande the Copper Flat Mine would have to acquire consumptive-use water rights which would dry up such a large amount of acreage and would have social, economic and environmental impacts that are not addressed in the DEIS such as the lack of future potential development as a result of lack of water. The fact

that economic growth is limited because of water rights and availability is a fundamental fact not mentioned in the socioeconomic study. [Same as WR-7]

Response: With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project.

In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

SE-18. The document completely fails to identify the economic impacts and legal implications of a significantly large, new depletion of surface water associated with the Rio Grande Project. [Same as SW-8]

Response: The predicted impacts are adverse and significant, but will be compensated for through mitigation requirements of OSE. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a

lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

SE-19. Water currently stored in Elephant Butte and Caballo largely is released for economic benefit downstream of Sierra County, and the County receives little benefit other than seasonal recreational use. Water use within the County has not been able to provide sustainable employment or economic resources to allow the County to be economically sustainable. [Same as GW-17; REC-7; SW-12]

Response: Thank you for your comment.

SE-20. Groundwater impacts will aggravate the negative economic impacts of the mine including reduced property values (because water supplies become more problematic), reduced revenue from property taxes for the county, out-migration of the more affluent members of the population, and harming the economic possibilities of other users. [Same as GW-21]

Response: The project is not predicted to have effects on water supplies that would have direct, adverse economic impacts or direct, adverse impacts on real estate values in Sierra County overall. Revenue from property taxes would increase during the construction phase; and tax revenue would be greater under all action alternatives compared to the No Action Alternative. The potential out-migration of residents has been added to the discussion in the FEIS.

Section 3.22.1.6.3 discusses factors that can positively affect property values (e.g., availability of and proximity to public land like forests, lakes, and mountains) and negatively affect property values (e.g., noise, light, air pollution). A discussion of other important factors affecting property values (e.g., quality of public education, access to public transit and recreational opportunities, the age and condition of the home itself) have been added to Section 3.22.1.1.2 and 3.22.2.1.4. A discussion of how the introduction of a copper mine could adversely impact the property values of adjacent landowners specifically has

been added to the 3.22.2.1.4, though it is difficult to quantify how much property values would be impacted.

SE-21. Need to consider the impact of a short-term boom and bust economy over a period of twelve years followed by an economy which is less robust and stable than it is presently.

Response: The potential impacts of a “boom and bust” economy are discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life).

SE-22. The DEIS does not discuss large stable inflow of wealth into the county from the growing retirement community – both of which bring money into the county through spending and increased property taxes. The changing demographics of the area are not discussed from an economic perspective and the mining operations could have negative impacts on this community that provides economic value to the area. Furthermore, in the coming, boomer-retiring, decades, there will be much more money and need in residential rather than mining developments. BLM would do better financially, leasing the land to developers instead of subsidizing sure failures that will sacrifice its land.

Response: The potential to deter retirees (as well as tourists and recreationists) is discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life), and the potential out-migration of residents has been added to the discussion for the FEIS. It is not the BLM’s responsibility to decide the proponent’s Proposed Action. For this EIS, the BLM is charged with determining the potential impacts of a mining company seeking to execute an action that involves water use. Had a real estate developer proposed leasing for construction of homes, the BLM would have evaluated potential impacts from that activity instead.

SE-23. The median value of owner-occupied housing units in the Hillsboro area is listed as "n/a" in p. 3 - 238, Table 3-57 "Housing Characteristics" even though the information is readily available from the Sierra County Tax Office.

Response: The median value of owner-occupied housing units in the Hillsboro Census Designated Place (CDP) has been added to Table 3-57 in the DEIS (Table 3-63 of the FEIS).

SE-24. The DEIS uses the SpacePort America project as an example for how similar projects have provided economic benefits, jobs, whereas it has not realized and delivered on the promise of economic improvements identified in the FAA FEIS.

Response: The SpacePort America project is not used as an example of how similar projects have provided economic benefits or jobs; it is included in the discussion of the affected environment for socioeconomics (Section 3.22.1 of the EIS) because it helps describe the current conditions of the local economy. Further, the data included in Section 3.22.1 of the EIS regarding jobs created was provided by the CEO of Spaceport America, and reflects actual jobs created during the construction and development of the spaceport.

SE-25. Various issues related to the DEIS analysis of tax revenue from the mine. On page 3-245 the taxable value of copper production is listed, not the actual taxes paid, giving the impression of benefit. The DEIS states that the mine will be subject to the processors tax but exempt from the resources tax because the ore would be processed in New Mexico, but the ore will probably be processed outside of New Mexico. The discussion of tax revenues from the proposed mine are treated as additive – which does not represent an adequate evaluation of how tax revenues from commodities work. It is unclear what impacts this would have on state revenues from mining– this is not discussed.

Response: The taxable value of copper production in Section 3.22.1.4.4 (page 3-245) is included as part of the Affected Environment discussion to provide a framework for the discussion of potential tax revenue in Environmental Consequences. Text was added to clarify the implications of the ad valorem tax. The net taxable value for property tax purposes; county property tax obligation, and the property tax obligation per person in Sierra County was added and explained for Sierra County. In addition, figures for Grant County are used to provide an example of property tax obligations for a county that is subject to the copper ad valorem tax (and Grant County was the only county in New Mexico to produce copper in 2009).

The statement that the mine will be subject to the processors tax but exempt from the resources tax because the ore would be processed in New Mexico has been updated to reflect that the ore will likely be processed outside of New Mexico. While this error has been corrected in the Affected Environment, no associated change is needed in Environmental Consequences. Section 3.22.2.1.3 (Public Finance) of the DEIS describes additional state and local tax revenue from the Copper Ad Valorem and processors tax, as well as the shared distribution of severance taxes between the state and counties/municipalities.

Potential impacts on state revenues from mining are discussed in Section 3.22.2.1.3 (Public Finance). NMCC estimates of direct tax liabilities for the Proposed Action, Alternative 1, and Alternative 2 are summarized in Tables 3-77, 3-80 and 3-83, respectively – most of these taxes are levied by the state. As explained in the section, “tax estimates assume metal prices of \$3.00/lb. for copper; \$9.50/lb. for molybdenum; \$1,350/oz. for gold; and \$22/oz. for silver. Ultimately, State and local tax revenue would be proportional to copper, molybdenum, gold, and silver prices for that year.” Tax revenue is treated as additive in the EIS because it is outside the scope of the FEIS to predict the global price of copper out 17.5, 21, or 24 years (depending on the alternative) and adjust state revenues accordingly. As stated by the commenter, commodities are very responsive to supply and demand curves. But commodities are not responsive to the point of decreasing the per unit revenue generated by copper production (at the Copper Flat mine) and causing the global price of copper to drop. Commodities are, however, responsive to China’s demand, worldwide oil prices, and advances in mining and processing

technologies. As such, it is unlikely that an increase in copper production (from the Copper Flat mine) would cause state revenues to remain the same or even diminish.

SE-26. The statement in the DEIS re: water-based activities at state parks (§ 3.22.2.1.6, at 3-264) does not take into account the specific circumstances of the Mine. Unlike proposals for new mining operations where none previously existed, the Preferred Alternative is for re-establishment of an existing Mine, to which there is currently no access, and from which the public is already excluded. The statement speculates about the possibility of adverse impacts without addressing how close a mine would need to be to a state park for revenues to be impacted. The Preferred Alternative would not adversely impact any state park revenue and visitation to any greater degree than may currently exist, and the FEIS should adjust the aforementioned statement accordingly.

Response: Thank you for your comment. The impacts analysis has been adjusted to consider the proximity of the proposed mine to state parks as it relates to revenue and visitation.

SE-27. Since New Mexico Copper Corporation will post a financial assurance bond (expected to be over \$45 million) that will be calculated to cover the cost of reclamation in the event that the company fails, tax payers won't get stuck with the "cost of cleanup" at the end of mine operations.

Response: Thank you for your comment.

SE-28. A much more thorough analysis is needed to understand the impacts to nearby private groundwater wells. Private well impacts could include additional costs from pumping at deeper levels or even drilling deeper to access water. Who will be responsible for the cost of deepening the wells? Has the State Engineers office been notified that the deepening of the wells may penetrate the artesian basin and will the State Engineers office consent to deepening of the wells? In addition, why did the BLM not notify well owners in Animas Creek Village of planned loss of well water? [Same as GW-18]

Response: The BLM has identified no wells of other ownership in the immediate vicinity of the pumping wells or pit, where the most significant drawdown impacts would occur. Drawdowns at more distant wells are projected to be small and would not be permanent. Under New Mexico water law, a user of groundwater has no obligation to compensate existing well owners for such costs unless the usefulness of the well is impaired.

SE-29. The jobs for local persons within the community pool that will result from the mine would require supervision from contracting agencies that know the company processes and safety procedures, but that companies will look to hire locals and to promote from within that pool of talent. Employees are trained and once with the company, they will have the opportunity to move on with the company to other projects and use what they have learned for this project. There is always a preference for the hiring of local workers.

Response: Thank you for your comment.

SE-30. Table 2-7 on page 2-24 appears to contain inaccurate information. Because the estimated number of employees needed in year 1 of the Proposed Action is the same as Table 2-18 for year 1 of Alternative 1. It seems likely that the estimated number of employees needed for Alternative 1 (an accelerated rate of mining) would require additional employees compared to the Proposed Action.

Response: Thank you for your comment. The information presented in Table 2-7 and 2-18 has been confirmed to be accurate.

SE-31. Proposed mining would improve key industries in the area, including recreation and tourism. [Same as REC-2]

Response: Thank you for your comment.

SE-32. There are numerous inaccuracies, discrepancies, misinterpretations, and inadequacies in and with the IMPLAN model. These issues are related to basic assumptions and methods for analysis, verification of calculations, misuse of multiplier such as “national per-worker values for the copper mining industry,” neglecting the concept of circulation as it relates to the circulation of value in the larger economy, ambiguity on boundaries selected, etc.

Response: An appendix has been included in the FEIS to clarify assumptions and methods for the analysis conducted and to explain the inputs and outputs of the economic model used. The definition of direct impacts has been clarified to state that direct impacts refer to the dollar value of economic activity available to circulate through the economy; while state and county taxes, inventory, and other payments of these types do not circulate through the economy. This concept of circulation is applied throughout the section without using the exact term.

SE-33. Although stated in the DEIS, there is no evidence from prospective employers that the low educational levels of prospective employees prevented potential employers from moving to Sierra County. The cornerstone of the DEIS narrative that Sierra County’s poor economic status results from the low capacity of its poor residents is inaccurate.

Response: The statements in the DEIS to which the commenter refers were adapted from the 2006 Sierra County Comprehensive Plan, which made the conclusions based on a variety of sources, including the 2000 census, local

documentation, and interviews with officials. The relevant statements have been removed from the FEIS.

SE-34. The county does not, statistically speaking, desperately need jobs. The most probable reason companies choose not to move to the county is because there is no evidence of a local employable workforce because Sierra County has been historically a retirement area for working class people living on other types of fixed incomes such as disability pay. In addition, the “outward migration” of residents as a result of lack of employment is inaccurate. There is a historic trend for younger residents to leave town to pursue employment or higher education, and 2000 and 2010 do not provide any evidence at all to support “outward migration” and the need for new sources of local employment in order to retain residents.

Response: Thank you for your comment. This information has been incorporated into the Affected Environment subsection of the Socioeconomics section of the EIS to better qualify the demographic and economic data presented for Sierra County.

SE-35. The direct, consequent and cumulative socioeconomic impacts of the increase in people and cashflow would result in inflation and increased demand for housing that would raise costs. Further, the DEIS does not consider the types of housing that might be needed (e.g., temporary places like motels, RV parks, short-term rentals) or the prices relative to the potential workers’ salaries to determine if economically housing is available. This would put pressure on those individuals living on fixed incomes, fixed income renters who make up a large part of the county’s population, or for whom disabilities make them permanently unemployed. It would subsequently increase homelessness, reduce the tax base that provides for schools, and increase the need for social services. In addition, specific impacts to schools and health systems are not discussed.

Response: The Socioeconomics section of the FEIS has been updated to consider fixed income renters with disabilities. However, if fixed income renters become unable to pay rent, the tax base would not be affected as the tax base is related to property taxes/owners.

Section 3.22.2.1.4 (Population and Housing) discusses the increase in population due to mine workers and their families and the associated demand on housing in Sierra County. The population is projected to increase by approximately 100 individuals during the course of the construction phase and by 120-170 individuals over the course of the operation phase. Considering the almost 30 percent vacancy rate in 2010 in Sierra County (2,400 unoccupied housing units), there would be minimal demands on the local housing supply during this timeframe and little or no transient housing would be required in the project area or in the communities closest to the project area. Those who relocate would have ample housing options in Sierra County, and an in-migration would help offset local housing vacancies. A statement has been added to the FEIS to clarify that the increased housing demand is not expected to increase prices in a

way that would preclude workers. Furthermore, income per worker in the mining industry is higher than the average income per worker across all industries.

Section 3.22.1.5.3.1 (Schools) describes total enrollment, functional capacity, number of classrooms, and student-to-teacher ratio for the schools in the Truth or Consequences School District. The “Schools” portion of Section 3.22.2.1.5 (Community Services) evaluates potential impacts to schools based on the number of children enrolled under the age of 5 years and a projected increase in enrollment at a rate of 2.4 percent per year on average. It is noted that the Truth or Consequences Elementary School is expected to be over capacity starting in the sixth year of operation of the proposed project, and that other elementary schools could accommodate the projected increase in enrollment.

Section 3.22.1.5.2 (Health Services) describes the type, size, and capacity of the Sierra Vista Hospital as well as other healthcare facilities in Sierra County. The Health Services portion of Section 3.22.2.1.5 (Community Services) evaluates the potential impacts to medical services, the staffed bed-to-person ratio, and access in an emergency situation – concluding that “given that Sierra County is a health professional shortage area, any increase in population would further strain the existing medical services. Increased tax revenues could facilitate existing staff and hiring new staff at publicly funded medical facilities.”

SE-36. The DEIS calculations and evaluation of socioeconomic impacts should be based on the dollar value of water, that is, based on potable water having a necessary social and economic value measurable in dollars and cents. Further, there should be an evaluation of how alternative uses of the water would impact jobs, tax revenue, and the general economy.

Response: It is not the BLM’s responsibility to decide what the water will be used for or to determine a proponent’s Proposed Action. Instead, the BLM is charged with determining the potential impacts of a mining company seeking to execute an action that involves water use. Had another company proposed activities using an alternative use of water, the BLM would similarly evaluate the potential impacts of this activity (including impacts to jobs, tax revenue, and the general economy).

SE-37. Before an irretrievable commitment of resources is made in the project, the many faults, fallacies, and misrepresentations of the analysis must be remedied and the combined, cumulative impact on the socioeconomic life of Sierra County objectively studied. [Same as CI-20; I&I-3]

Response: The BLM believes that the socioeconomic analysis in the FEIS, supplemented with additional information and analysis because of the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of NEPA. The complete analysis is presented in the FEIS.

SE-38. The Animas Creek watershed is a key destination for eco-tourists and its degradation will cause irreparable damage to businesses which depends on a thriving ecosystem.

Response: The BLM believes that the socioeconomic analysis of effects on the Las Animas Creek watershed in the FEIS, supplemented with additional information and analysis collected during the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of NEPA. The complete analysis is presented in the FEIS.

SE-39. The groundwater drawdown of the mine will put the Animas Creek Nursery out of business.

Response: Thank you for your comment. The commenter did not provide supporting information as to why the Animas Creek Nursery would go out of business.

SE-40. The negative socioeconomic effects of mine development would be permanent in duration, given that depletion of surface and groundwater in the Grayback Arroyo System within the Animas Uplift would be permanent.

Response: The minimal permanent effects anticipated are described in the FEIS. The BLM finds the analysis of these effects sufficient to support relevant findings in the FEIS.

SE-41. The APE delineation is so limited it provides a superficial analysis limited only to the proposed mine site without considering ownership of adjacent, immediate areas. The affected environment should be expanded to include adjacent property owners (including private landowners) and a detailed analysis provided on the historical decrease in land value due to proximity to the proposed mine site.

Response: Adjacent land ownership (including privately owned land) is analyzed and is listed in Table 3-33 of the DEIS within the Affected Environment subsection of the Land Ownership and Land Use section of the FEIS. As stated in Section 3.15.2, it is unlikely that any proposed project activities would conflict with BLM or other Federal land uses, plans, or agreements. Several State permits would be required for the proposed project. (See Table 1-1.) These permits would ensure compliance with existing land uses, plans, or agreements.

Section 3.22.1.1.2 (p. 3-237 and 3-238) in the Socioeconomics section of the DEIS includes the current (2010) median value of homes in Truth or Consequences, Sierra County, and New Mexico. Current (2010-2014 estimates) of housing characteristics and property values by Census Tract and Block Group in Sierra County have been added to Section 3.22.1.1.2 of the FEIS (See Tables 3-62 and 3-63). Housing characteristics and property values for Sierra County and New Mexico in 1970, 1980 and 1990 have also been added to Section 3.22.1.2 of the FEIS (see Tables 3-64 and 3-65). It is difficult to say whether property values increased or decreased as a result of the operation of Quintana

Mine, due in part to its short-lived operation, and also because several factors can affect real estate values.

The location and proximity to an operation with negative externalities (noise, light, air pollution) can negatively impact property values. Section 3.22.1.6.3 notes that the proximity to environmental amenities can influence where people choose to live (in-migration) and how much people are willing to pay for housing (i.e., property values). Other important factors affecting property values include quality of public education (i.e., school district); access to public transit or recreational opportunities; the age and condition of the home itself; and history of other negative events (e.g., fire, site of a violent crime). A discussion of these other factors has been added to Section 3.22.1.1.2. Section 3.22.2.1.6 concludes: “The negative perception of mining impacts on natural amenities – especially on water quantity and water quality, wildlife, and air quality – that attract recreationists and potential residents in the first place could be a deterrent in both the short- and long-term.” A discussion of how the introduction of a copper mine could adversely impact the property values of adjacent landowners specifically has been added to the 3.22.2.1.4, concluding that the Proposed Action and alternatives would likely have a negative effect on property values in Sierra County overall, and the effect would likely be greatest on properties in CT 9624.02, BG 2, or those closest to the mine area. However, it is difficult to quantify how much property values would be impacted.

SE-42. The negative impacts to recreation and tourism have not been quantified and factored into the economic impact analysis.

Response: Annual visitation and revenue at State parks and national forests in Sierra County are presented in Table 3-70 in Section 3.22.1.6.2. As discussed in Section 3.22.2.1.6 of the EIS, the extent to which an active mine would deter tourists or recreationists is difficult to quantify. However, the potential impacts have been factored into the impacts analysis. It is likely that during the 1-2 year construction period, some may avoid the portion of NM-152 (from Hillsboro east to the junction of NM-152 and Highway 85), where the Geronimo Trail Scenic Byway and the Lake Valley Backcountry Byway overlap, due to the perception of increased traffic and air emissions hindering their experience. Visitation at the Gila National Forest in the western edge of Sierra County may decrease during this time since the Black Range Ranger District (including the Gila Wilderness) is most easily accessed via NM-152. NM-152 is one of three routes providing access to the Wilderness Ranger District; and one of six to the Silver City Ranger District. Economic benefits derived from direct spending on food, gas, lodging, etc., as well as GRTs generated from visitor spending would also be affected.

Additionally, the portion of the Geronimo Trail Scenic Byway that follows NM-152 is located in a former mining area, which promotes tourism through sightseeing tours of abandoned mines and ghost towns. While some tourists may be deterred due to the perception of increased traffic and air quality or the

degradation of visual quality, some may instead be drawn to the area. The Copper Flat mine project could create or renew interest in nearby ghost mining towns, the mining process, and the evolution of mining in the area and thereby benefit tourism. Other potential impacts to recreation and tourism are discussed throughout Section 3.16 (Recreation) and Section 3.22 (Socioeconomics); including the potential impacts to quality of life and recreational values which are also discussed in Section 3.22.2.1.6.

SE-43. Socioeconomic impact mitigation measures identified in the DEIS will increase negative impacts to the public sector. The DEIS proposes as mitigation less liquid forms of financial assurance that increase the risk to the public sector and reduce it for the mining company. This has the potential to create a large financial liability on the public sector. The rationale for these mitigation measures is lacking.

Response: Financial Guarantee is a method to ensure compliance with the terms and conditions of a mining permit. This is not a mitigation measure and has been removed from the EIS.

SE-44. The DEIS fails to take a "hard look" at the impact of ongoing labor-displacing technological change that constantly reduces the workforce required for any level of Mine production. [Same as SCOPE-1]

Response: While commodities are responsive to advances in mining and processing technologies that may affect the mine's workforce, it is impossible to predict these advances and therefore this is outside the scope of the EIS.

SE-45. The DEIS fails to take a "hard look" at the fact that Mine employees are very mobile, commuting long distance to work while maintaining their residences outside of the area immediately impacted by the mining and milling. This causes a significant amount of the Mine's payroll to "leak" out of the region immediately around the Mine.

Response: Section 3.22.2.1.4 considers that a portion of mine workers would commute to the mine and would not relocate to Sierra County. As stated in the DEIS, "NMCC anticipates hiring over 70 percent of the workforce from communities within a 75-mile radius of the mine; some employees would commute from counties adjacent Sierra County. With a total population of 11,988, a labor force of 5,923, and an unemployment rate of 6.2 percent in 2010, Sierra County would only fill a portion of mining jobs needed for all phases of the proposed project...Construction workers are expected to commute to the project area from their residences rather than relocate, and typically commute up to 2 hours one way for a job, or an average of 73 miles and maximum of 115 miles one way (Gilmore et al. 1982)."

Section 3.2.2.1 explains that the economic model captures "leakages" from the economic study region spent on purchases outside of Sierra County. As stated in the DEIS, "the IMPLAN input-output model estimates the effects of spending

for development activities and consumption spending of new residents and construction workers; the indirect effects of local vendors providing goods and services to the primary firms; and the induced impacts of employees of these firms spending a portion of their earnings in the local economy. Economic impacts are measured in terms of income and employment generated (or lost) due to the Proposed Action...Each of these steps (direct, indirect, and induced) recognizes an important "leakage" from the economic study region spent on purchases outside of the defined area. "Leakage" is the non-consumptive use of income, including savings, taxes, and imports that "leak" out of the main flow between output, factor payments, national income, and consumption. Eventually these leakages would stop the cycle (MIG 2012)."

SE-46. The DEIS fails to take a "hard look" at the fact that mines always deplete their economically viable ore deposits and shut down. The average life of a metal mine has declined significantly in recent decades. The Copper Flat Project is an example of this reduced mine life (and will close sooner than the 11-16 years, as stated in the DEIS). [Same as SCOPE-1]

Response: The duration of the Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The purpose of the FEIS is to evaluate the potential impacts from the alternatives, and evaluating the potential impacts from unknown variations of the alternatives is outside the scope of the EIS.

SE-47. The DEIS fails to take a "hard look" at the costs associated with the damage to water resources. In an arid state where water is likely to become even scarcer due to the effects of global climate change, the economic value of water will increase, both in terms of its value as a commodity and its value as an economic driver. The DEIS fails entirely to quantify and analyze the costs associated with the Mine's water use.

Response: The project is not predicted to have significant, adverse effects on water supplies that would have direct, adverse economic impacts. The FEIS quantifies and analyzes the impacts associated with the proposed mining activities, and considers its impact on economic drivers that could be impacted - like recreation and tourism, quality of life, and recreational values (See Section 3.22.2.1.6). However, just as the EIS does not present impacts in terms of the value of water as a commodity and its value as an economic driver, it does not present impacts in terms of the value of wildlife or clean air or cultural resources as commodities and their values as economic drivers. This type of analysis - known as an ecosystem services valuation - is neither common nor required in a socioeconomics impacts analysis under NEPA.

SE-48. The DEIS is fundamentally biased toward the mine by relying uncritically on economic impact modeling funded by NMCC.

Response: NMCC did commission an economic report from the Arrowhead Center (NM State University) in 2012, however, neither the model nor the results of this report were used in the EIS. The economic impact modeling in the EIS was conducted independently and objectively by the EIS preparer under the technical direction of BLM. The assumptions, inputs, and design of the model were different than those of the Arrowhead Center's economic model; overall the model used in the EIS resulted in lower economic benefits. An appendix has been included in the EIS to explain the inputs and outputs of the economic model.

SE-49. The DEIS exaggerates local economic impacts of the construction phase of the Mine for Sierra County by assuming that most of the supplies needed to operate the Mine will be produced by and purchased from local business firms.

Response: The DEIS does not assume that most of the supplies needed to operate the mine will be produced by and purchased from local business firms. As stated in the DEIS, "Equipment and materials would be procured locally to the extent possible, but specialized equipment and materials required for copper mining are not available locally. Such items would be shipped from other areas. The economic analysis completed by NMCC and tax consultants for the feasibility study indicates that approximately 15 percent of construction phase costs, or approximately \$55 million, would be spent in Sierra County (NMCC 2014c). The IMPLAN model is adjusted to capture costs that would be spent in Sierra County during the construction phase."

SE-50. The DEIS understates the size of the visitor economy that can be negatively impacted by the Mine.

Response: Annual visitation and revenue at State parks and national forests in Sierra County are presented in Table 3-70 in Section 3.22.1.6.2. This data was provided by the agency that manages the state parks or national forests in Sierra County, or New Mexico Energy, Minerals, and Natural Resources Department and the United States Forest Service (respectively). The size of the visitor economy is based on the best available data, and the commenter does not provide supporting documentation or evidence that indicates otherwise.

Figure 3-48 in Section 3.22.1.6.2 shows taxable gross receipts for the accommodation and food; and arts, entertainment, and recreation sectors; as well as the remaining sectors in Sierra County for 2010. New Mexico Taxation and Revenue posts monthly data on gross tax receipts by NAICS code, including accommodation and food services. While not all tax receipts from accommodation and food services can be attributed to recreation and tourism, this provides one measure showing the importance of this sector in Sierra County

over a period of 12 months. Overall, the accommodation and food services and arts, entertainment, and recreation sectors accounted for 10.3 percent of all gross taxable receipts in 2010 (NMTR 2010b).

Soils (SOI)

SOI-1. Need to consider that using pit water for dust suppression will result in the deterioration of soil fertility. Need to analyze the extent to which soil and vegetation would be harmed by mine dust and pit water. [Same as VEG-4]

Response: The NMED is currently processing NMCC's discharge permit application, so there is no current regulatory requirement regarding the use of pit water for dust suppression. Pursuant to the NMED Supplemental Permitting Requirements for Copper Mine Facilities (20.6.7 NMAC), during operations groundwater standards do not apply within the "area of open pit hydrologic containment" (20.6.7.24.D). Therefore, the discharge permit would not put limitations on the quality of water used for dust suppression within the area of open pit hydrologic containment. Outside of that area, the discharge permit would likely include limitations on the quality of water that could be used for dust suppression. Any surface runoff from dust suppression would need to be contained such that it would not impact surface waters, but that would not be a component of a groundwater discharge permit, more likely part of a SWPPP.

For application of *impacted* water for dust suppression *inside* the hydrologic containment area (pit lake area), pit water can be applied as dust suppression without treatment as long as this water is applied inside the hydrologic containment area. If the impacted water adversely affected the soils to a condition that could not support vegetation, then MMD would likely require the application of 36" of growth media at feasible reclamation areas (24 inches over foundations or concrete). MMD would look to their Closeout Plan Guidelines to determine whether soil was adversely affected by metals or other contaminants from applying impacted pit water.

SOI-2. The Draft EIS does not contain a Figure 3-13, but does contain Figures 3-13a and 3-13b. Figures 3-13a and 3-13b do not show any wetland areas. Need to clarify the use of term wetlands in this section with the term riparian area used in other sections of the EIS. [Same as REF-13]

Response: Definitions for wetland areas and riparian areas as stated in EPA (2005) have been added to the glossary in the FEIS.

The project area contains a small amount of wetlands. A small cattail wetland adjacent to the pit lake would be removed since pumping of the pit lake would be necessary prior to mining and continuously throughout the life of the mine with bedrock water drawdown in this area greater than 100 feet. This small wetland would be mined out when the pit is deepened to 900' below the current surface, so no surface soils would remain. The second wetland area, near the main mine

entrance, would not be affected by drawdown associated with the Proposed Action because it would be outside of the drawdown area. A more extensive acreage of riparian vegetation occurs along Las Animas and Percha Creeks. The EIS text has been expanded to include these definitions and explanations.

The style convention used in the EIS is that where figures have two parts they are listed as Figure-Xa and Figure Xb, with no Figure X that stands alone.

SOI-3. There is no reference or discussion as to the effect to hydric soils in the Warm Springs Valley area, specifically the wetlands associated with Warm and Cold Springs located on the Hillsboro Pitchfork Ranch LLC. An analysis of the potential effects of the mine pit watering to these springs must be conducted and published in the final EIS.

Response: Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not affect hydric soils, surface water, or riparian vegetation in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The riparian vegetation and associated hydric soils along Grayback is typical of ephemeral floodplains. There is no phreatophytic vegetation, which depends on groundwater, because the water depth is far below rooting depth. The BLM has determined that there is no reasonable basis to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.

SOI-4. Soil erosion will continue in the open, un-reclaimed pit area.

Response: Lands exposed or disturbed by mining operations would be reclaimed in accordance with a state-approved reclamation plan.

SOI-5. The DEIS makes the statement that "[r]unoff from mines into surrounding environments alters the pH of the receiving soils, contaminates soils with trace elements, and ultimately deteriorates soil fertility." (§ 3.8.2.1.1, at p. 3-111). This does not address the specific conditions and restraints involving runoff at the Mine under the Preferred Alternative and may give the inaccurate impression that such runoff protections will not be present at the Mine (in accordance with the stormwater management plan that will prevent pollution that may cause an exceedance of the applicable standards). The FEIS should clarify that fully enforceable controls will be in place. [Same as PA-33]

Response: Section 3.4.2.1.2, Mine Closure/Reclamation, under the subtitle *Non-point Source Pollution from Disturbed Areas on the Mine Area* states that "prior to initiating construction or mining activities, NMCC would need to obtain a Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity. This permit will require preparation of a Stormwater Pollution Prevention Plan (SWPPP); installation and use of BMPs for prevention of non-point source pollution from mine facilities; and routine inspection, maintenance, and recordkeeping for all stormwater pollution control facilities." The statement in 3.8.2.1.1 has been clarified.

SOI-6. Section § 3.8.2.1.1, at p. 3-111 assumes that pit water used for dust suppression will contain high levels of contaminants, and dust suppression using pit water will result in elevated contaminants in soils. This does not take into account that BLM would require a groundwater Discharge Permit from the NMED," thereby subjecting those discharges to applicable New Mexico groundwater standards. (§ 2.1.7.2, at 2-29). The FEIS should clarify that any water used for dust suppression will be tested pursuant to the discharge permit and that no water containing high levels of the listed contaminants will be used for dust suppression.

Response: The FEIS has been revised to address this concern.

SOI-7. There is no factual basis for the statement: "[t]here would also be indirect impacts from groundwater pumping and pollutant migration via wind and water that would affected [sic] a larger area beyond the mine area." (§ 3.8.2.3, at 3-113). If there is no such factual basis, NMCC respectfully requests that the statement be deleted from the FEIS.

Response: The FEIS has been revised to address this concern.

SOI-8. The FEIS should be clarified to confirm that the referenced USDA standard for calcium carbonate is the appropriate standard for considering the effects of caliche in soil covers.

Response: The FEIS has been revised to address this concern.

Special Management Areas (SMA)

No comments to date.

Surface Water Resources (SW)

SW-1. General concern related to impacts to water resources and the location of the mine 15 miles to the west of Caballo Reservoir and the Rio Grande is of concern. Broad assertions are made and definitions are not clear (e.g. "notable effect"). The DEIS also does not take into account the ongoing water deficit for the entire area and not seeing the mine's use of water in the context of regional water balance seriously jeopardizes the long-term future of the area. [Same as NEPA-9, GW-4]

Response: Anticipated effects on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of OSE. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit *"all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande"*. NMCC would fully offset calculated and actual depletions to the Rio

Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over the impacts and the methods used to evaluate them, but is not aware of any comments or inputs that would contradict the findings of the FEIS.

SW-2. General concern about the mine's surface water use and impacts to surface water quality. Request that BLM more fully analyze the impacts of the proposed mining operation on surface water impacts.

Response: A detailed discussion of surface water use is included in Section 3.5 of the EIS and a discussion of surface water quality is included in Section 3.4.

SW-3. The proposed project will not have a measurable effect on other water users. [Same as GW-11]

Response: Thank you for your comment. Impacts to surface water and groundwater resources are discussed in Sections 3.5 and 3.6, respectively.

SW-4. The FEIS should incorporate a discussion of the unnamed drainage/arroyo located north of the existing pit lake and Animas Peak because it is a tributary to Grayback Arroyo and joins with it to the east of the TSF and because the existing Waste Rock Disposal Facilities (WRDFs) are located within this drainage.

Response: Discussion has been added to Section 3.5.1.1 of the FEIS describing the unnamed arroyo located to the north of the existing pit lake and Animas Peak. Stormwater runoff from mine facilities, such as the WRDFs, would be captured and potentially used as process water. Stormwater runoff from the WRDFs would be diverted into collection ditches; no discharge is expected to occur.

SW-5. There are a number of general concerns associated with the proposed flood control dam. One is that it is not clearly discussed in the EIS and subsequently, it is assumed that the EIS refers to a perimeter dam around the TSF facilities. Regardless, the BLM draft EIS presents an oversimplified panorama on flood control dam approval by the OSE Dam Safety Office. Engineering either dam may take several years and would require multiple resources that are not discussed in the draft EIS. Another concern is associated with the types of materials and their potential to breach.

Response: The proposed mining operations would not alter the existing Grayback diversion channel. This channel would be maintained and used to manage stormwater flows. Stormwater flows captured in the Grayback Arroyo upgradient of mine facilities would continue to be diverted around the mine,

including the TSF facilities. Section 3.5.2.1 of the EIS describes stormwater management and diversion.

The perimeter dam referred to in the comment is associated with the TSF facilities that would be used for the placement and management of tailings during mining operations. The dam's purpose is not flood control. A permit would be obtained from the OSE for dam construction and operation.

SW-6. Storage in Caballo Reservoir could change enough, due to the groundwater pumping for the mine, that the vegetation around the reservoir could be impacted. [Same as VEG-2]

Response: Vegetation surrounding Caballo Lake that is a result of lake water level is also a function of Upper Rio Grande River water that is available in any given year, the amount allocated to agricultural irrigation and legal obligations to other users. The wet offsets ensure the overall amount of water delivered to Caballo is not diminished by the mine water drawdown. Water level fluctuation in the lake will continue to be the result of river water availability and demand downstream. Vegetation present as a function of water fluctuation in Caballo Lake would not change. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

SW-7. The DEIS does not prove that the watersheds for Percha Creek, Green Horn, and the Animas Creek do not come from the same area of the continental divide as the water that will be used for the proposed mine. This results in an inaccurate analysis of impacts. [Same as GW-15]

Response: Descriptions of the Greenhorn, Las Animas Creek, and Percha Creek drainage basins are provided in Section 3.5.1 of the EIS. These basins

are located more than five miles east of the Continental Divide, which generally separates watersheds of the Pacific Ocean from those of the Atlantic Ocean.

Much of the water needed for the project will be obtained from the Santa Fe Group aquifer, also located east of the Continental Divide. The groundwater model used to assess impacts to surface water resources included surface water features of the Greenhorn, Las Animas Creek, and Percha Creek drainage basins, and thereby provides a comprehensive assessment of impacts to surface water resources.

SW-8. The document completely fails to identify the economic impacts and legal implications of a significantly large, new depletion of surface water in the Rio Grande Project. [Same as SE-18]

Response: The predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of OSE. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit *“all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande”*. In a subsequent letter to the BLM (dated June 29, 2017), NMCC confirmed that an offset will be obtained through a surface water lease executed with the Jicarilla Apache Nation for a period of 15 years. The 15-year period will start when the crushing of ore begins. After 15 years, the lease will be extended or another water source secured. In an August 24, 2017 letter to the BLM, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29. NMCC would accomplish this by taking one or more of the following actions: (1) extending the Jicarilla Apache Nation surface water lease, (2) securing another lease; or (3) securing and permanently retiring water rights that physically affect the river today. Effects of the Proposed Action on socioeconomics are discussed in Section 3.22.

SW-9. The DEIS provides sufficient details to infer the potential impacts to surface water.

Response: Thank you for your comment.

SW-10. A larger dam, capable of controlling PMP flows for the whole mine watershed, would result in more adequate flood control and limit sediment transport downstream to Caballo Dam. Concerns regarding the location of the emergency spillway as it relates to Caballo Dam.

Response: The proposed mining operations would not alter the existing Grayback diversion channel. This channel would be maintained and used to manage stormwater flows. Stormwater flows captured in the Grayback Arroyo upgradient of mine facilities would continue to be diverted around the mine. Section 3.5.2.1 of the EIS describes stormwater management and diversion.

The dam is not proposed for flood control. A tailings dam is proposed for the placement and management of tailings during mining operations. A permit would be obtained from the OSE for dam construction and operation.

SW-11. The assertion in the draft EIS that the aquifers will recharge in a fairly short period of time is of significant importance. The effects of climate change, especially given the mining activities proposed by THEMAC, on a broad spectrum of EIS evaluation criteria may be extreme. None of the impacts of climate change (e.g. reduced snowpack) are discussed in the DEIS and would impact both the runoff and recharge of the aquifer. [Same as GW-19 and CC-2]

Response: Additional description of possible specific climate change impacts has been added to Sections 3.3.1.2 and 3.3.2.1.1 of the FEIS. Groundwater responds rapidly to local stresses or inputs (e.g. pumping of wells) but slowly to regional climate changes. Moreover, natural climate is variable and any imprint from global change is very difficult to determine from that variability on a local scale.

The primary projected climate change impact for this area is that the future surface water resources in the Rio Grande will experience an overall decrease in total supply due to a higher rate of evapotranspiration in the contributing basins, and a seasonal shift from less spring runoff (less snowmelt) to more summer runoff (more thunderstorm precipitation).

With consideration of climate change effects, the impact of Copper Flat (and every other local/regional pumper of surface water) would be proportionally larger as climate change progresses, without drought management policies in place such as New Mexico's Active Water Resource Management (AWRM). An analysis has been added to the FEIS that acknowledges AWRM as a factor in determining cumulative impacts.

In January 2004 AWRM was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution makes priority of right the basis for water administration, but recent drought years have compelled the State Engineer to develop tools for AWRM that enable them to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes, thus compensating for the impacts to the aquifer and rivers.

SW-12. Water currently stored in Elephant Butte and Caballo largely is released for economic benefit downstream of Sierra County, and the County receives little benefit other than seasonal recreational use. Water use within the County has not been able to provide sustainable employment or economic resources to allow the County to be economically sustainable. [Same as GW-17; REC-7; SE-19]

Response: Thank you for your comment

SW-13. Disagree with conclusions related to surface water resources. For example, on p. 3-53 – Las Animas Creek does not contribute perennial surface water flow to the Rio Grande, and field data used to develop those sections are inadequate.

Response: Baseline characterization data for the project were collected in accordance with NMAC 19.10.6. Perennial reaches exist in both Percha and Las Animas Creeks; however, these perennial reaches are separated from the Rio Grande by ephemeral reaches, and therefore do not contribute perennial flow to the Rio Grande.

SW-14. Distinguish between permanent and long-term impacts, see page 3-55, Section 3.5.2.1 paragraph 1.

Response: The Surface Water Use table in Appendix A of the EIS provides definitions for the terms used to describe surface water quantity impacts. Long-term impacts have a duration of greater than 5 years. The surface water depletions are predicted to last more than 5 years, but would not be permanent as shown in Figure 3-6 of the EIS.

SW-15. How are the depletions of the ground and surface water supplies calculated such as those discussed in Tables 3-15 and 3-16 related to surface water depletion upstream and downstream of Caballo Dam, and Table 2-11 regarding yearly use of 13,370 acre-feet with 3,802 acre-feet from groundwater wells, and page 2-83, alternative 2 which identified that 22,210 acre-feet with 6,105 acre-feet coming from groundwater will be needed? In addition, during drought conditions, pumping could have a more extreme and amplified impact on ground and surface water resources in the Rio Grande area (including Elephant Butte and Caballo Reservoirs – additional references in comments of page 3-95, figure 3-21b) [Same as GW-23]

Response: As described in Section 3.5, surface water depletions are calculated from the results of predictive groundwater flow modeling. Tables 3-15 and 3-16 summarize expected surface water depletions due to predicted reductions in groundwater discharge to Las Animas and Percha Creeks, Caballo Reservoir, and the Rio Grande below Caballo Dam. Reductions in groundwater discharge are estimated by comparing groundwater modeling simulation results for the Proposed Action and two mining alternatives to simulation results without mining. The simulation without mining is intended to represent background conditions.

Of the 13,370 AFY of water that would be used at the mine, 3,802 acre-feet would be supplied by groundwater pumped from the mine's well field. The majority of the water used by the mine would be recycled. The predictive groundwater modeling simulation for the Proposed Action includes the 3,802 AFY of groundwater pumping. Results of this simulation are compared to the simulation without mining to determine the depletions presented in Tables 3-15 and 3-16. Similar approaches are used to estimate the depletions associated

with the two alternatives; these depletions are also provided in Tables 3-15 and 3-16.

With consideration of climate change effects, the impact of Copper Flat (and every other local/regional pumper of surface water) would be proportionally larger as climate change progresses, without drought management policies in place such as New Mexico's Active Water Resource Management (AWRM). An analysis has been added to the FEIS that acknowledges AWRM as a factor in determining cumulative impacts.

In January 2004 AWRM was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution makes priority of right the basis for water administration, but recent drought years have compelled the State Engineer to develop tools for AWRM that enable them to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes, thus compensating for the impacts to the aquifer and rivers.

SW-16. Extent parameter in A-5 differs from groundwater – one uses specific geographic area and the other square miles. These should be consistent. [Same as GW-27]

Response: Different extent definitions are used in the EIS to describe the surface water and groundwater impacts. They are different water resources and are hydraulically separated except for some areas where drainages are perennial and along the Rio Grande. In addition, groundwater impacts generally extend radial from pumping wells and regions, and are best defined in terms of impacted area, whereas impacts to surface water features can affect entire drainage reaches, which tend to be long and linear.

Square miles are used for groundwater because the primary groundwater impacts are due to pit dewatering and well field pumping. It therefore makes sense to define extent based on the area of impacts from these pumping regions. On the other hand, the extent of surface water impacts is based on predicted impacts to surface water features (i.e. drainages) and their proximity to the mine.

SW-17. On page A-5, the definitions of Extent and Likelihood level are the same; the DEIS uses the same level definition to describe Extent (a geographic area) and Likelihood (the probability of an impact occurring). How can these be the same?

Response: There was an error in the definitions provided for 'Likelihood' presented on the Surface Water Use table in Appendix A of the DEIS. The definitions have been corrected in the FEIS.

SW-18. The Draft EIS uses the fixed reservoir elevation of 4,200 feet for all time periods: pre-mining, during the mining operations, and post mining. The Bureau of Reclamation has historical data showing end of month levels of the Reservoir since the date of construction and these values should be used.

Response: The groundwater model developed to predict drawdown and surface water depletions was peer reviewed by the BLM. The review included discussions with OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis to expect those differences to change the overall impact analysis. The BLM considers the groundwater model to be suitable for NEPA analysis.

The Caballo Reservoir is simulated as a head-dependent boundary with the elevation specified at 4,200 feet above mean sea level. Although high, the use of this elevation for the Caballo Reservoir does not preclude the use of the model for the prediction of impacts. The determination of impacts is not greatly impacted by such an issue because the impacts are based on a comparative analysis of different simulated conditions. The impact predictions are based on a modeled comparison of conditions with and without mining, rather than on a match between modeled and observed data.

SW-19. Locations of springs impacted by mine development and operations is poorly described. What does “except for springs located in the immediate vicinity of the open pit” mean? Within the mine pit area, within 1,000 yards of the mine pit area, within two miles of the mine pit area?

Response: The phrase referenced by the commenter was intended to refer to the bedrock seeps and springs at the open pit. The phrase has been removed from the FEIS to eliminate confusion. In addition, the paragraph containing the removed phrase has been rewritten to add clarity. Some of the bedrock seeps and springs at the open pit could be impacted, but based on baseline characterization data the majority of the seeps and springs appear to flow only in response to direct precipitation and would therefore not be impacted by pit dewatering.

SW-20. The DEIS does not present an adequate assessment of the surface hydraulics and hydrology associated with the TSF for the upper watershed above the new mine facility (shown approximately in red in Figure 2) and the lower watershed at the TSF itself (shown approximately in blue in Figure 2). There are also concerns that a failure to maintain the proper perimeter embankment elevation of the TSF will place the safety of the dam at risk. Copper laden sediments could, under this and other scenarios, be transported to Caballo Dam under the probable maximum precipitation (PMP) event. In addition, the hydrograph for a PMP storm event and an inundation plan should also be presented in the EIS to clarify this potential catastrophic event. An evacuation plan must be prepared in consultation with the corresponding Emergency Management Agency in Sierra County using the inundation plan developed in this section of the application. The draft EIS fails to provide any of these logical requirements for OSE Dam Safety Office approval of the proposed operations. [Same as WQ-12]

Response: The existing Grayback diversion channel would be maintained and used to manage stormwater flows. Stormwater flows captured in the Grayback Arroyo upgradient of mine facilities would continue to be diverted around the mine, including the TSF. Section 3.5.2.1 describes stormwater management and diversion.

The TSF would be designed to contain inflows and direct precipitation associated with the 72-hour probable maximum precipitation (PMP) event, which is 26 inches for the site. Diversions would be constructed for impoundment run-on control and sized to convey the peak discharge associated with the 72-hour PMP. A permanent spillway capable of passing the design storm would be required at closure after the tailings surface has been regraded and a reclamation cover is in place. A permit would be obtained from the OSE for dam construction and operation. The surface drainage hydraulics and hydrology would be analyzed and presented in greater detail and verified during the engineering design phase of the project. This includes any applicable infrastructure and control measures associated with the hydraulics and hydrology of the TSF. The analysis and design related to these items would be developed in accordance with current regulatory requirements and design criteria.

A review of aerial photographs shows no human habitations in or adjacent to Grayback Wash between the TSF and Caballo Lake (Golder, 2010); therefore, an evacuation plan is not required.

Discussion has been added to Section 3.5.2.1 of the FEIS describing the design of the TSF and stating that no human habitations exist in or adjacent to Grayback Wash between the TSF and Caballo Lake.

SW-21. The effect of groundwater depletion within a two-mile radius of the mine pit location would be in perpetuity. The cumulative effects from the loss of surface and groundwater are not addressed. Recommend studying the effects on surface water and evapotranspiration within the Grayback Arroyo system of the Greenhorn Basin; the geology of the Grayback Arroyo system upstream of the mine site is different from areas studied in Las Animas and Percha Creeks. [Same as CI-18]

Response: Impacts to surface water and groundwater resources are discussed in Sections 3.5 and 3.6, respectively, of the EIS and are quantified using a groundwater flow model. The analysis presented in the EIS includes the Greenhorn Arroyo Drainage Basin.

Impacts to the Greenhorn Arroyo Drainage Basin drainages from groundwater pumping are not expected, as the drainages are ephemeral and hydraulically separated from groundwater.

SW-22. While the existing riparian area located in the Grayback Wash east of the mine area is discussed on page 3-58, paragraph 2, there is no reference to the existing riparian area in Grayback Arroyo, upstream to the west of the mine pit lake. These riparian corridors that would be impacted by the cone of depression should be identified on appropriate maps and figures and addressed. In addition, the phrase “attempt to maintain the existing riparian area” is vague and does not seem appropriate in an EIS.

Response: Pit dewatering would not impact riparian areas located west of the open pit and within the Greenhorn Arroyo Drainage Basin. Surface water features west of the open pit that help to support riparian vegetation are ephemeral and hydrologically disconnected from the bedrock aquifer. These surface water features, including the spring BG shown in Figure 3-5 of the EIS, flow in direct response to precipitation events.

The riparian area east of the mine area is believed to have been created during the previous mining operation through the collection of stormwater and alterations to surface water drainage patterns. NMCC would work to restore the stormwater collection pond that is believed to have created the riparian area; however, the exact configuration that led to the creation of the riparian area is not known and complete restoration may not be possible.

Additional text has been added to Section 3.5.2.1.2 in response to this comment.

SW-23. Discrepancy between page 3-58, paragraph 3 and table 3-17 page 3-56 describing mine pit lake water loss. Either mine pit dewatering calculations are not accurate, or water loss from the mine pit lake after closure is not accurate. Evaporation off the pit lake could be very large accumulatively.

Response: Table 3-17 in Section 3.5.2.1 summarizes sources of water and their associated quantities to support mining operations. Pit dewatering quantities reported in this table represent pumping of the open pit during mining operations, not losses due to evaporation. On the other hand, the 100 AFY described in Section 3.5.2.1.2 is the estimated maximum evaporation loss from the pit lake at closure, when groundwater inflow and stormwater runoff from within the perimeter of the pit would begin to form a pit lake.

SW-24. Given the significant impact to the environment and public and private land income, mitigation measures for potential surface water depletions must be identified.

Response: Predicted impacts to surface water are adverse and significant, but would be compensated for through mitigation requirements of OSE. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit “all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande”. In a subsequent letter to the BLM (dated June 29, 2017), NMCC confirmed that an offset would be obtained through a surface water lease

executed with the Jicarilla Apache Nation for a period of 15 years. The 15-year period would start when the crushing of ore would begin. After 15 years, the lease would be extended or another water source secured. In an August 24, 2017 letter to the BLM, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29. NMCC would accomplish this by taking one or more of the following actions: (1) extending the Jicarilla Apache Nation surface water lease, (2) securing another lease; or (3) securing and permanently retiring water rights that physically affect the river today.

SW-25. The impacts analysis of the Greenhorn Arroyo Basin is incomplete. It is identified as a drainage basin in the Affected Environment but not considered in the impacts analysis. Need to collect information upstream to the west of the pit mine, quantify the amount of surface or groundwater that would be lost (as is done for Las Animas Creek and Percha drainage basins), and consider effects to vegetation (including riparian areas) as well as livestock and wildlife. A complete analysis of affects to riparian areas, to include the negative effect to wildlife habitat and livestock grazing from mine pit dewatering/cone of depression within the Grayback Arroyo system must be conducted and published for public review, and complete prior to the issuance of a final EIS and Letter of Declaration. [Same as VEG-6 and WL-11]

Response: As discussed in Section 3.5.1.1 of the EIS, the Greenhorn Arroyo drainage basin is drained by ephemeral washes that flow in direct response to high-intensity rainfall events, which generally occur during the summer months. The proposed mining operation is not expected to substantially impact surface water resources within, and vegetation associated with, these ephemeral drainages, including those located west of the mine site. The ephemeral washes are hydrologically disconnected from the bedrock aquifer, and therefore would not be impacted by open pit dewatering. The existing Grayback diversion channel would continue to be used to capture stormwater flows in the Grayback Arroyo upgradient (west) of mine facilities and divert them around the mine.

SW-26. The DEIS fails to contain complete hydrologic baseline data because it does not contain adequate stream flow measurements for Las Animas Creek.

Response: Baseline characterization data for the project were collected in accordance with NMAC 19.10.6, are presented in a Baseline Characterization report prepared by Intera and dated February 2012, and are summarized in Section 3.5.1.2 of the EIS.

SW-27. The Draft EIS notes recent, severe droughts and recognizes drought as a cumulative impact but analysis is minimal and is silent on the cumulative impacts of climate change on surface water use by the project. [Same as CC-7]

Response: Discussion on the cumulative impacts of climate change has been added to the cumulative impact section of the FEIS for climate change.

Based on the consensus of the various models in Section 3.6, Groundwater, the primary projected climate change impact for the region is that future surface water resources in the Rio Grande will experience an overall decrease in total supply due to greater evapotranspiration from and less snowmelt runoff into the contributing basins.

With consideration of climate change effects, the impact of Copper Flat (and every other local/regional pumper of surface water) would be proportionally larger as climate change progresses, without drought management policies in place such as New Mexico's Active Water Resource Management (AWRM). An analysis has been added to the FEIS that acknowledges AWRM as a factor in determining cumulative impacts.

In January 2004 AWRM was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution makes priority of right the basis for water administration, but recent drought years have compelled the State Engineer to develop tools for AWRM that enable them to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes, thus compensating for the impacts to the aquifer and rivers.

SW-28. The water quality of the existing pit lake does not meet its current designated uses for warm water aquatic life, wildlife habitat, or livestock watering. Therefore, it is reasonable to assume that the new pit lake may also not meet current water quality standards for these designated uses because it will exceed current water quality standards for manganese, copper, selenium, lead and zinc if no control measures are taken. In addition, the current pit lake conditions seem to indicate that the pit lake would not meet all water quality standards and that ongoing maintenance would be required. Furthermore, the surface water evaporation rate currently exceeds inflows, creating a hydrologic evaporative sink that is concentrating the total dissolved solids and adversely impacting water quality.

Response: The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The water quality standard that would apply is a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality.

Therefore, the pit lake would not be subject to the State water quality standards defined in 20.6.4 NMAC. A discussion of existing pit lake water quality and expected post-mining water quality in the pit lake is provided in Sections 3.4.1.3 and 3.4.2.1 of the EIS.

The expected course of action is that the BLM would send NMCC a letter verifying that the pit is on NMCC patented mining claims. Then, NMCC will

submit a letter to the NMED Surface Water Quality Bureau (SWQB) seeking a formal determination that current and future pit lakes are not waters of the State and therefore, not subject to State water quality standards. In an October 21, 2016 letter to NMCC, the NMED SWQB stated that if NMCC limits the surface extent of the pit lake to private land the water body will meet the exception of 20.6.4.7(S)(5) and not be subject to the surface water quality standards of 20.6.4 NMAC.

Threatened, Endangered, and Special Status Species (T&E)

T&E-1. Impacts on endangered species and other protected species on the Ladder Ranch, especially the Chiricahua leopard frog are of concern. The frog might be affected by contamination in runoff of water used in dust abatement at the mine. Blasting from the Mine might adversely affect the behavior of the captive Mexican gray wolves being held at Ladder Ranch prior to their release in the wild and might also damage the burrows of the Bolson tortoise. Mine pumping might affect surface water in Las Animas Creek and potentially harm streamside habitat including the two Federally-listed birds on the creek, the southwestern willow flycatcher and the yellow-billed cuckoo. Also of concern on Ladder Ranch The commenter also notes concern about the black-tailed prairie dog, which had recently been proposed for ESA listing, and the major avian group of migratory birds which are protected by the USFWS under the Migratory Bird Treaty Act (MBTA).

Response: The BLM has formally consulted with the USFWS under the ESA and has prepared a Biological Assessment (BA) that evaluates the potential for the Copper Flat Mine project to jeopardize the Mexican gray wolf, Chiricahua leopard frog, and Bolson tortoise, as well as migratory birds, including the potential for impacts to those species at the Ladder Ranch. The consultation findings and proposed mitigation measures are described in detail in the BA and summarized in the Threatened and Endangered Species section of this Final EIS. A brief synopsis of the BA findings is as follows:

Mexican Gray Wolf: Noise and ground vibrations from blasting at the mine site were evaluated for their potential to adversely affect the Mexican gray wolf in its holding facility 3.5 miles (18,480 ft.) from the mine site. As discussed in detail in the BA, noise at the blast site would reach 130 to 140 dBP (peak pressure of impact noises like blasting) but diminish to 115 dBP within 2,344 ft. The unimpeded straight-line dBP would be diminished 6 dBP for each doubling of distance and by the time the sound reached the wolves 18,480 ft. away it would be 18 dBP less, or less than 100 dBP, which is the noise of a passing motorcycle. However, this is a straight-line calculation. In fact, the mine blasts would primarily be contained within the mine pit itself, which is in a topographic bowl surrounded by ridges, so the straight-line calculated sound levels would apply only to points directly above the mine pit. The actual sound at the wolf holding facility would be greatly attenuated by the intervening terrain.

Blasting would occur within the excavated mine pit with charges placed in the pit walls well below the ground surface level of the larger mine site area so that the

sound will project primarily horizontally into the center of the mine pit and vertically above the pit, thus containing and diminishing the highest sound levels. The mine site is located within a flat topographic bowl surrounded by higher elevation ridges including Animas Peak that would further intercept and diminish sound waves similar to the effect of roadside sound barriers on traffic noise. Wolves hear well up to a frequency of 25 kHz. Some researchers believe that the actual maximum frequency detected by wolves is much higher, perhaps up to 80 kHz (the upper auditory limit for humans is 20 kHz), Low frequency noise carries greater distances than high frequency noise from the same source. Blast overpressure generally produces low frequency air overpressure of 2 Hz. Humans detect noise in the range of 20 Hz to 20 KHz, but little is known specifically about wolves' sensitivity to low frequencies. Dogs' hearing, likely similar to wolves, is attuned to a wider, higher frequency range than that of humans (67 Hz – 45 kHz), so it is likely that the airborne noise impacts from the low-frequency blasts would not be perceived with the higher-frequency-attuned wolves.

Blasting sound may reach the wolf holding facility at a perceptible level above ambient background noise but at the 3.5-mile distance would likely not be louder than trucks and equipment used on-site at Ladder Ranch, which would be in the range of 75 to 90 dB. Blasting would occur during daylight hours only. This timing constraint and the perception that the noise is coming from a long distance away may in combination allow the wolves to habituate to the noise after a few days.

Blasting ground vibrations are likely to be imperceptible to the wolves at the 3.5-mile (18,480 ft.) distance. Ground-borne vibration effects from blasting would diminish within 1,000 ft. of the blast hole to a level that would be barely perceptible by humans, who have hearing similar to, but in a narrower range of perception than, wolves, which are attuned to higher frequencies. At 18 times that distance, the blast vibrations would likely not be perceptible to either humans or wolves. The finding for the Mexican gray wolf therefore is that the Copper Flat project may affect, but would not likely adversely affect the wolf at Ladder Ranch.

Chiricahua leopard frog: The comment expressed concern that the CLF might be adversely affected by chemicals in mine waters that are sprayed on project site roads for dust abatement because the water could run off into stream systems containing the frogs. The project site roads are in the Greenhorn Arroyo drainage which, with the Grayback Arroyo, drain a watershed entirely separate from the Las Animas, Seco, Las Palomas, and Cuchillo creeks where the Ladder Ranch has concerns about CLF populations. So, there would be no risk that water used for dust abatement reached the frog.

The findings of the consultation process and protection measures designed to mitigate impacts to the Chiricahua leopard frog are detailed in the BA and

summarized in this EIS. They will be implemented in accordance with the Record of Decision.

Bolson tortoise: The comment expressed concern that mine blasting would collapse the burrows of the Bolson tortoise. According to the comment, the Bolson tortoise burrows are located 2.5 miles (13,200 ft.) from the mine site. A recent study, cited in the BA, of the potential effects of blasting and traffic vibrations on tortoises found that an impact of 0.4 inches per second (ips) peak particle velocity (PPV) is a conservative estimate of the vibration level that could affect a tortoise burrow. A safe distance resulting from a conservative impact level of 0.4 inches per second Peak Particle Velocity (PPV) would protect the burrow from damage. Analysis in the BA shows that ground-vibration effects from the mine blasts would radiate outward from the blast hole but would diminish to a level of 0.12 Peak Particle Velocity (PPV) at a distance of 792 ft. away, and to a level ten times lower than the 0.4 PPV conservative impact level (0.04 PPV) at a distance of 1,573 ft. Because the Bolson tortoise burrows are located more than 8 times farther from the mine site than the distance at which the vibrations would be ten times lower than the conservative impact level, the BA concluded that there would be no effect on the Bolson tortoise burrows at Ladder Ranch. There is little known about noise impacts to reptiles, though “dune-buggy” noise had an adverse effect on hearing of the fringe-toed lizard (*Uma scoparia*) at durations of 500 seconds or longer (95 dBA). Blast events at the mine would be 1 to 2 seconds in duration. Therefore, airborne sounds from very short-duration blasting at 2.5 miles (13,200 ft.) away with intervening terrain would be substantially lower than 100 dBA. It would possibly be perceptible to the tortoises but, not likely to cause adverse impacts because of the short noise duration, substantial distance and intervening terrain which would reduce airborne sound impacts to below 100 dB. The analysis which concluded that there would be no effect of the mining project on the Bolson tortoise is detailed in the BA and summarized in the Threatened and Endangered Wildlife section of this Final EIS.

Southwestern willow flycatcher and Yellow-billed cuckoo: The comment states that Ladder Ranch is extremely concerned about the reduction in stream flows in Las Animas Creek and Cave Creek from mine operations and how this will impact Ladder Ranch wildlife restoration projects and ecotourism programs. The commenter notes an estimate that roughly 80 percent of all the wildlife on Ladder Ranch depend on these creeks for survival. The commenter states that these creeks are important migration corridors for birds, as well as nesting grounds for willow flycatchers and yellow-billed cuckoos on Las Animas Creek.

The Biological Assessment evaluated the potential effects of the Copper Flat mine project on the southwestern willow flycatcher and the yellow-billed cuckoo. Available data for Las Animas and Percha creeks riparian areas do not indicate historic or current presence of the southwestern willow flycatcher. The dense riparian habitat required for its nesting is not present in the project area on the

creeks although it is present along the Rio Grande. The New Mexico Department of Game and Fish reports the yellow-billed cuckoo as a summer resident of the riparian sycamore portions of Las Animas Creek. The NMDGF Southwest New Mexico Birding Trail Brochure for Site 33, Las Animas Creek, describes the creek as hosting Arizona sycamores, creating an ideal environment for... southwestern riparian species such as yellow-billed cuckoo.

The hydrologic analysis of the effects of pumping groundwater for mining operations conducted for the EIS indicated that the surface waters of Las Animas Creek supporting the Arizona sycamores and other streamside vegetation would not be affected by any loss or reduction in the flow of surface waters that sustain creek-side vegetation. Therefore, the riparian habitat that supports the yellow-billed cuckoo and other birds along Las Animas Creek would not be affected. The two species could be affected by groundwater drawdown from mine project pumping that would reduce subsurface flows and therefore reservoir water levels in the Caballo Reservoir. However, that reduced level would be offset by inflow of water from Elephant Butte Reservoir. This compensatory water flow would be provided through the project's purchase of water rights in the watershed of the Rio Grande north of Caballo Reservoir. Therefore, the two bird species would not be affected on Ladder Ranch. Pumping drawdown of the deep aquifer in the lower reach of Las Animas Creek may affect but would not likely adversely affect the two species on the periphery of Caballo Reservoir.

Black-tailed prairie dogs: The comment states that Ladder Ranch has been restoring black-tailed prairie dog colonies within two miles (10,560 ft.) of the mine. The comment notes concerns that blasting and other mining operations could cause the collapse of burrows and alter behavior patterns. Similar to the discussion above for the Bolson tortoise, at a distance of two miles, blasting vibration effects would have diminished to be barely perceptible, so no impacts to their burrows or behavior from such distant blast vibrations are expected to occur to Ladder Ranch prairie dogs.

Migratory Birds: BLM and NMCC are committed to mitigating pit lake water contamination after mine operations are completed and the pit lake has once again filled with water, to ensure that the water quality is similar to water quality of the existing pit lake that remains after mining ceased in the 1980s. The baseline data report for the project identified four species of birds using the pit lake habitat and also identified riparian vegetation in the fringes of the pit lake consisting of a small cattail marsh (<0.1 ac) and intermittent saltcedar, an invasive species. A 2014 survey of the pit lake concluded that there are no fish, zooplankton, or macroinvertebrates in the pit lake.

In the absence of EPA water quality criteria for selenium applicable to aquatic dependent wildlife and the scarcity of quality food sources (fish, aquatic vegetation, zooplankton, and macroinvertebrates) that would biomagnify higher levels of selenium, the BLM observes that the potential for bioaccumulation of

selenium and selenium poisoning, selenosis, is very low. The presence of insect-eating birds at the existing pit lake at a point in time 35 years after the lake began refilling and establishing the water quality baseline for the lake suggests that existing water quality levels in the pit lake are not exclusionary for these species. The pit lake is likely a resting or transitory area for these species rather than a feeding area. The EIS (affected environment section and wildlife impacts section) has been revised to better describe the pit lake with respect to wildlife and habitat.

T&E-2. Impacts to the river, reservoir and other riparian habitat from groundwater depletion could impact T&E species habitat in the reservoir and these impacts have not been fully evaluated.

Response: The BLM is in consultation with the USFWS concerning potential impacts to federally-listed species in the project area, including species that could potentially be affected by reduced flows to the Caballo Reservoir. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

Wildlife including any listed species at, or surrounding Caballo Lake that are a result of lake water level are also a function of Upper Rio Grande River water that is available in any given year, the amount allocated to agricultural irrigation and legal obligations to Texas and Mexico. The wet offsets ensure the overall amount of water delivered to Caballo is not diminished by the mine water drawdown. Water level fluctuation in the lake will continue to be the result of river water availability and demand downstream. Wildlife and wildlife habitat present as a function of water fluctuation in Caballo Lake would not change.

T&E-3. If wells are dewatered permanently by the mine pit cone of water depression, sensitive bat species will be negatively impacted. NMCC has not studied bat species on the Hillsboro Pitchfork Ranch LLC adjacent to and upstream of the mine pit in the Grayback Arroyo System.

Response: The hydrologic modeling analysis performed for the EIS indicates that wells on the Hillsboro Pitchfork Ranch LLC adjacent to and upstream of the mine pit in the Grayback Arroyo System would not be affected by mine operation pumping; thus, bat species would not be affected by mine operations.

T&E-4. Incomplete or no baseline data for biological resources. Most recent Baseline Data Addendum from NMCC is not included, and impacts to Threatened and Endangered Species are not fully assessed and mitigation measures are not identified. The addendum submitted was determined to be incomplete by MMD and NMDG&F. The DEIS does not contain final determination because USFWS consultation results were not included.

Response: The BLM is in consultation with the USFWS concerning impacts to federally-listed species found in the project area. A separate BA has been prepared and submitted to the USFWS Albuquerque Office. The BA is supported by baseline data collected for this EIS and additional data from other sources about the species in Sierra County and the Lower Rio Grande region. The specific analysis for listed species and all protective and mitigation actions derived via the consultation process with USFWS are included in the Biological Assessment as part of the EIS analysis process. Protective and mitigation actions for listed other wildlife species will be provided in the Record of Decision.

T&E-5. The BLM must ensure that this project, established under the General Mining Law of 1872, complies with the ESA before allowing mining activities to proceed. The Bureau of Land Management should reinitiate informal consultation with the U.S. Fish and Wildlife Service to determine what effect the project may have on the Southwestern Willow Flycatcher in the Caballo reach, the Caballo Delta North and the Rio Grande below the Caballo Dam and determine the need to enter into formal consultation. [Same as REG-21]

Response: The BLM has entered into consultation with the USFWS concerning impacts to federally-listed species found in the project area. Protection measures would be implemented in any instance where the project may adversely affect these species. These measures have been identified in the ROD. NMCC would offset reduced flows to the Caballo Reservoir and subsequent losses to Elephant Butte needed to compensate by acquiring water rights in the Rio Grande watershed upriver. Wildlife including any listed species at, or surrounding Caballo Lake that are sensitive to lake water level are also a function of Upper Rio Grande River water that is available in any given year, the amount allocated to agricultural irrigation and legal obligations to Texas and Mexico. The wet offsets ensure the overall amount of water delivered to Caballo is not diminished by the mine water drawdown. Water level fluctuation in the lake will continue to be the result of river water availability and demand downstream.

Wildlife and wildlife habitat present as a function of water fluctuation in Caballo Lake would not change.

T&E-6. Contrary to Table 3-31, there is data that supports the conclusion that the flycatcher uses the Rio Grande corridor, including Caballo Reach, the Caballo Reservoir and downstream of Caballo Reservoir, for breeding both in Sierra County and Dona Ana County. In 2014, flycatcher breeding territories were detected in Caballo Reach, the Caballo Reservoir delta north and downstream of the Caballo dam in Hatch. See Attachment (2013 Southwestern Willow Flycatcher Study Results: Selected Sites with the Rio Grande Basin from Elephant Butte Dam, NM to El Paso, TX., U.S. Department of Interior, Bureau of Reclamation, Fisheries and Wildlife Resources, Denver Colorado March 2015.)

Response: The species is present in habitats on the Rio Grande, including along Caballo Reservoir. The flycatcher is documented throughout the Rio Grande Canalization Project (RGCP), including in the Sunland Park area, but most birds are concentrated between Leasburg Dam upstream to Percha Dam. The EIS has been revised to reflect this change.

T&E-7. The predicted surface water depletion rates will have a greater cumulative environmental impact on surface flows and riparian habitat in the Caballo Reservoir and downstream of Caballo dam in times of drought and under climate change.

Response: Any reduction in flows to Caballo Reservoir caused by pumping of the deep aquifer would be compensated for releases from Elephant Butte Reservoir which in turn would be offset by NMCC purchase of equivalent water rights in the Upper Rio Grande River Basin. In January 2004, Active Water Resource Management (AWRM) was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution makes priority of right the basis for water administration, but recent years have compelled the State Engineer to develop tools for AWRM that will enable them to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes. Wildlife including any listed species at, or surrounding Caballo Lake that are a result of lake water level are also a function of Upper Rio Grande River water that is available in any given year, the amount allocated to agricultural irrigation and legal obligations to Texas and Mexico. The wet offsets ensure the overall amount of water delivered to Caballo is not diminished by the mine water drawdown. Water level fluctuation in the lake will continue to be the result of river water availability and demand downstream. Wildlife and wildlife habitat present as a function of water fluctuation in Caballo Lake would not change.

Transportation and Traffic (TR)

TR-1. The project will reduce the longevity of NM-152 and increase maintenance costs for the county associated with road repair and infrastructure; this is not adequately addressed in the

transportation, socioeconomics, or utilities and infrastructure sections. Because NM 152 is a chip seal route not designed for specific load carrying capacity, a steady stream of 43-ton trucks would destroy the road and should not be allowed unless the roadway is rebuilt from Mile Marker 55 east to the Interstate. Furthermore, because it's more likely that a large number of employees would come from Silver City rather than Hillsboro and Truth or Consequences, more users of the road would accelerate deterioration of the Highway 152 surface from its beginning at Highway 180 east to the mine. [Same as SE-12]

Response: The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with the New Mexico Department of Transportation (NMDOT) to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:

- a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.
- b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.
- c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.
- d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.

NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.

TR-2. Concerned with public safety issues due to the additional traffic on Route 152. [Same as HH&PS-3]

Response: The anticipated traffic increase would occur primarily during shift change for the mine. This increase in the worse condition considered would be a LOS rating of C, which by definition is a stable flow, and therefore would be less than a significant impact. With this increase in traffic, there would be a minor increase in the potential for accidents. Along with roadway enhancements, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.

TR-3. Concerned with additional traffic on Route 152 which provides access to Gila National Forest and Gila Wilderness. [Same as SE-10 and REC-3]

Response: The project would not close roads needed to access the Gila National Forest and Gila Wilderness. As discussed in Section 3.22.2.1. 6 of the EIS, the extent to which an active mine would deter tourists or recreationists from travelling NM-152 is difficult to quantify. However, it is likely that during the 1-2 year construction period, some may avoid the portion of NM-152 (from Hillsboro east to the junction of NM-152 and Highway 85), where the Geronimo Trail Scenic Byway and the Lake Valley Backcountry Byway overlap, due to the perception of increased traffic and air emissions hindering their experience. Visitation at the Gila National Forest in the western edge of Sierra County may decrease during this time since the Black Range Ranger District (including the Gila Wilderness) is most easily accessed via NM-152. Additionally, the portion of the Geronimo Trail Scenic Byway that follows NM-152 is located in a former mining area, which promotes tourism through sightseeing tours of abandoned mines and ghost towns. While some tourists may be deterred due to the perception of increased traffic and air quality or the degradation of visual quality, some may instead be drawn to the area. The Copper Flat mine project could create or renew interest in nearby ghost mining towns, the mining process, and the evolution of mining in the area and thereby benefit tourism. Other potential impacts to these areas are discussed in Sections 3.16 and 3.22 of the EIS.

TR-4. Concerned that the project may cut off the roads that the public use to access BLM recreational areas. [Same as REC-3]

Response: Roads accessing the proposed Copper Flat mine (NM 152 and Gold Dust Road) would not be cut off during construction, operation, or reclamation. As stated in the Traffic and Transportation section of the EIS (Section 3.20), there would be an increase in traffic and the LOS would be adversely impacted but would not significantly affect use of the roads and would not cut off any roads accessing recreation areas. Other potential impacts to these areas are discussed in Sections 3.16 and 3.22 of the EIS.

TR-5. The FEIS should clarify how the transportation and traffic impacts will be addressed and identify any committed mitigation because it is not included in the DEIS.

Response: The FEIS does in fact address transportation and traffic impacts for the Proposed Action and each of the alternatives in Section 3.20, Transportation and Traffic. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:

- a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.
- b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.
- c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.
- d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.

In discussions, NMDOT has not requested or stated a need for paved shoulders on NM 152. NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.

Additionally, NMCC would maintain Gold Dust Road during mining operations as necessary to keep it in good condition. While there is no formal agreement in place with Sierra County, it is expected that after mine closure, Gold Dust Road would revert to County maintenance as it stands today.

The FEIS has been amended to include the above discussion

TR-6. Traffic impact on Highway 152 just from concentrator hauling is not accurately calculated in the DEIS. The actual hauling traffic would be higher (424 tons/day) for an estimated 350 days/year of production rather than 350 tons/day.

Response: The hauling described in the FEIS is consistent with what would be required by the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:

- a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.
- b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.
- c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.
- d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.

NMDOT has not identified a requirement for road improvements beyond the pavement overlay, however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.

TR-7. A study needs to be made regarding the cumulative impact of a greatly increased maintenance cost of highway 152. Could New Mexico State allocate funds to meet this need? [Same as CI-15]

Response: The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) of the EIS for the Proposed Action and each of the alternatives. Increased revenues provided by NMCC from the mine should be more than adequate to address any increased maintenance costs for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:

- a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.
- b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.
- c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.
- d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.

NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.

TR-8. The anticipated 77% increase in traffic due to full mine operation would render the ten miles from Mile Marker 55 east to the Interstate a dangerously congested route for every driver, and subsequently, vehicle accidents on Highway 152 would greatly increase. Furthermore, what entity, when, and at what cost would the mitigation associated with this increase be carried out?

Response: The anticipated traffic increase would occur primarily during shift change for the mine. This increase in the worse condition considered would result in a LOS rating of C, which by definition is a stable flow, and therefore would be less than a significant impact. With this increase in traffic, there would

be a minor increase in the potential for accidents but that level would be insignificant. Increased revenues provided by NMCC from the mine should be more than adequate to address any increased safety costs along the route for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:

- a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.
- b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.
- c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.
- d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.

NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.

TR-9. The DEIS does not evaluate the scenic environmental impact, and infrastructure damage impact of the mine and the truck traffic on the Lake Valley Backcountry Byway and Geronimo Trail Scenic Byway (receiving national status in 2005) and the Southern coast to coast cross country route. While the DEIS states that the Byways promote tourism in the area, there is no analysis provided that demonstrates the potential impacts to Byways-related tourism from the Proposed Action or alternatives. Additionally, the negative impacts to recreation and tourism on the Ladder Ranch have not been assessed. Associated mitigation measures for these impacts are also not discussed. [Same as REC-10]

Response: The scenic environmental impact of the proposed project on the scenic and backcountry byways is analyzed in Section 3.22.2.1.6 of the EIS. This analysis does demonstrate the potential impacts to Byways-related tourism. The cumulative contribution of the mine on recreational/scenic driving along scenic byways was found to be negligible to minor.

The FEIS addresses the scenic environmental impact of the Proposed Action and alternatives in Section 3.16, Recreation and Section 3.17, Special Management Areas. Additionally, "infrastructure damage impact of the mine and the truck traffic" is addressed in Section 3.20, Transportation and Traffic.

If adverse impacts to recreation and tourism on the Ladder Ranch were to occur as a result of mining operations, impacts are anticipated to be minor. Where noise from the project is concerned, truck operations on site were included in the noise model discussed in Section 3.21.2.1.1 of the EIS. Section 3.20.2.1 indicates that operations in years 1-5 would require 10-14 truckloads per day to and from the site. This is approximately one truck per hour. Due to the limited number of trucks and the small number of nearby residences, the effects of truck noise would be negligible. As stated in Section 3.21.2.1, the Proposed Action would not contribute to a violation of any State, Federal, or local noise or vibration regulation.

Noise at the blast site would reach 130 to 140 dBP (peak pressure of impact noises like blasting) but diminish to 115 dBP within 2,344 ft. The unimpeded straight-line dBP would be diminished 6 dBP for each doubling of distance. However, this is a straight-line calculation. In fact, the noise of mine blasts would primarily be contained within the mine pit itself, which is in a topographic bowl surrounded by ridges, so the straight-line calculated sound levels would apply only to points directly above the mine pit. The actual sound for most recreationists and tourists would be greatly attenuated by the intervening terrain.

Blasting would occur within the excavated mine pit with charges placed in the pit walls well below the ground surface level of the larger mine site area so that the sound will project primarily horizontally into the center of the mine pit and vertically above the pit, thus containing and diminishing the highest sound levels. The mine site is located within a flat topographic bowl surrounded by higher elevation ridges including Animas Peak that would further intercept and diminish sound waves similar to the effect of roadside sound barriers on traffic noise.

Low frequency noise carries greater distances than high frequency noise from the same source. Blast overpressure generally produces low frequency air overpressure of 2 Hz. Humans detect noise in the range of 20 Hz to 20 KHz, so it is likely that the airborne noise impacts from the low-frequency blasts would not be perceived within the frequency range of humans.

Blasting sound may reach the Ladder Ranch at a perceptible level above ambient background noise but it would likely not be louder than trucks and equipment used on-site at Ladder Ranch, which would be in the range of 75 to 90 dB. Blasting would occur during daylight hours only. This timing constraint and the perception that the noise is coming from a long distance away may in combination allow the receptors to habituate to the noise after a few days. The level of concern and complaints associated with individual acoustical events would be moderate within this area. Depending on meteorological conditions, blasting activities may be heard as much as several miles from the site. However, these events would best be characterized as "audible but distant" and would not be appreciably intrusive.

Where traffic from the project is concerned, the traffic increase would occur primarily during shift change for the mine. This increase in the worse condition considered would be a LOS rating of C, which by definition is a stable flow, and therefore would be less than a significant impact.

TR-10. The correct name of “Gold Mine Road” referred to on page 3-221 is “Gold Dust Road.”

Response: The text has been corrected.

TR-11. The DEIS states that “[n]o mitigation measures for transportation and traffic beyond regulatory requirements described in the Proposed Action have been identified for any alternative.” (§ 3.20.2.3, at 3-224) NMCC would maintain Gold Dust Road through mutually agreeable mitigation agreements with Sierra County to ensure that impacts to the level of service for Gold Dust Road, if any, will be neither major nor significant. The FEIS should clarify this accordingly.

Response: The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:

- a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.
- b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.
- c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.
- d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.

NMDOT has not identified a requirement for road improvements beyond the pavement overlay, however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.

Additionally, NMCC would maintain Gold Dust Road during mining operations as necessary to keep it in good condition. While there is no formal agreement in place with Sierra County, it is expected that after mine closure, Gold Dust Road would revert to County maintenance as it stands today.

TR-12. The costs for roadway repair could be significant for low-income communities. Because the public sector pays the costs of road repair, already stressed local and state budgets often can't handle the cost of increased maintenance from mine truck traffic.

Response: Increased tax revenues provided by NMCC from the operation of the mine should be more than adequate to address any increased roadway maintenance costs for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:

- a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.
- b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.
- c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.
- d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.

NMDOT has not identified a requirement for road improvements beyond the pavement overlay, however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.

Additionally, NMCC would maintain Gold Dust Road during mining operations as necessary to keep it in good condition. While there is no formal agreement in place with Sierra County, it is expected that after mine closure, Gold Dust Road would revert to County maintenance as it stands today.

Utilities and Infrastructure (U&I)

U&I-1. The plant electrical load requirements referenced in section 2.3.6 Electrical Power (Alternative 2) are assumed to be average and not peak loads. [Same as ALT-5]

Response: The values shown in Section 2.3.6 are average loads. A complete analysis of electrical power requirements for the alternatives evaluated is provided in Section 3.25 of the FEIS. More specific analysis would be required when NMCC would build the electrical substation on site. Peak loads would be a consideration with this analysis.

U&I-2. The project will provide funds and resources to allow development of infrastructure and industries (including demand for electricity - provided by the Copper Flat Mine itself) that will support the mine.

Response: Thank you for your comment. The NEPA process seeks to identify both positive and adverse effects of the project.

U&I-3. The actual facilities to be constructed and any additional transmission system facility upgrades required would and should be defined in a completed System Impact Study (SIS) and Facility Study (FS) performed by the transmission owner of the Springerville – Macho Springs 345 kV line (El Paso Electric). The statement in Section 3.25.2.1.1 “The power demands of the mine are not anticipated to approach the capacity of power suppliers under any operation condition” should be modified to read “The power demands of the mine are not anticipated to approach the capacity of power suppliers under operational conditions studied.”

Response: NMCC is confident that Tri-State and the Sierra Electric Co-op have sufficient capacity to meet the electrical demands of proposed mine operation based on discussions with the utility companies. The System Impact Study and Facility Study mentioned above would be completed during detailed engineering for the mine prior to construction.

U&I-4. Statements in the EIS that involve facilities owned by other transmission facilities, specifically El Paso Electric, cannot be confirmed without an approved SIS and FS performed by the transmission owner or transmission provider. Tri-State would defer any specific project scope definition of the electric transmission infrastructure until the appropriate studies have been performed that confirm the initial analysis.

Response: NMCC is confident that Tri-State and the Sierra Electric Co-op have sufficient capacity to meet the electrical demands of proposed mine operation based on discussions with the utility companies. The System Impact Study and Facility Study mentioned above would be completed during detailed engineering for the mine prior to construction.

U&I-5. The proposed project would have a massive impact upon County infrastructure (roads, bridges, electric power sources and lines, emergency workers) from the sudden introduction of a thousand new workers and their families for mine construction and operations.

Response: Impacts to infrastructure, including those mentioned in the comment, are identified in Chapters 3 and 4 of the EIS.

U&I-6. Tri-State is not familiar with the M3 2012 and THEMAC 2013 references in Section 3.25.1.1: “Power.” Please clarify or describe (e.g., cross-reference with actual reference).

Response: The references are cited in the references section as follows:

M3 2012. M3 Engineering and Technology Corporation. 2012. Copper Flat Project. Form 43-101F1 Technical Report. Prefeasibility Study. August 2012.

THEMAC 2013. THEMAC Resources – New Mexico Copper Corporation. Copper Flat Mine Alternative 2 -- Summary Plan of Operations. October 10, 2013.

U&I-7. The mine would increase demand for electricity within Sierra County as the price for retail electricity is greatly impacted by the volume of sales, providing rate stabilization for all of SEC's members during the operational life of the mine.

Response: Thank you for your comment.

Vegetation (VEG)

VEG-1. General concerns over groundwater drawdown (even of only ten feet) and reduction of flows to the Percha Box or in Animas Creek from the project and subsequent impacts to and potential to kill off the sycamore trees that line Animas Creek, destroy the creek itself, and impact marginal wells that support a number of tree farms and other agriculture in the area (e.g. pecan trees). [Same as GW-7]

Response: Evidence from well monitoring and the results of groundwater modeling indicate that pumping deep aquifers for mine operations would have no impact on the unconnected surface water flows in the areas of Las Animas Creek supporting the Las Animas Creek sycamores and no impact to areas of Percha Creek that currently support riparian vegetation. Neither creek is at risk of being destroyed or altered adversely by mine operations.

Irrigation ponds used for agricultural purposes in the lower portion of the Las Animas Creek corridor are fed by an artesian system that would be affected by pumping water for mine operations. The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment". In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the Office of the State Engineer, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or drilling of a new one if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law to assure continued viability of the farming operation in sustaining tree growth.

VEG-2. Storage in Caballo Reservoir could change enough, due to the groundwater pumping for the mine, that the vegetation around the reservoir could be impacted. [Same as SW-6]

Response: Water would be provided through the NMCC purchase of wet offsets to compensate for any potential depletions caused by mine operation pumping. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease. Vegetation surrounding Caballo Lake that is a result of lake water level is also a function of Upper Rio Grande River water that is available in any given year, the amount allocated to agricultural irrigation and legal obligations to Texas and, Mexico other users. The wet offsets ensure the overall amount of water delivered to Caballo is not diminished by the mine water drawdown. Water level fluctuation in the lake will continue to be the result of river water availability and demand downstream. Vegetation present as a function of water fluctuation in Caballo Lake would not change.

VEG-3. As the DEIS notes, pumping of production wells will not adversely impact Las Animas Creek or Percha Creek flows or vegetation along these streams.

Response: The commenter is correct. Evidence from well monitoring and the results of groundwater modeling indicate that mine operations would have no impact on surface water flows in the areas of Las Animas Creek and negligible impact to areas of Percha Creek that currently support riparian vegetation including the Las Animas Creek sycamores. Neither creek is at risk of being destroyed or altered adversely by mine operations.

VEG-4. Need to consider that using pit water for dust suppression will result in the deterioration of soil fertility. Need to analyze the extent to which soil and vegetation would be harmed by mine dust and pit water. [Same as SOI-1]

Response: The NMED is currently processing the discharge permit application so there is no current regulatory requirement regarding the use of pit water for dust suppression. Pursuant to the NMED Supplemental Permitting Requirements for Copper Mine Facilities (20.6.7 NMAC), during operations groundwater standards do not apply within the “area of open pit hydrologic containment” (20.6.7.24.D). Therefore, the discharge permit would not put limitations on the quality of water used for dust suppression within the area of open pit hydrologic containment. Outside of that area the discharge permit would likely include limitations on the quality of water that could be used for dust suppression. Any surface runoff from dust suppression would need to be contained such that it did not impact surface waters, but that would not be a component of a groundwater discharge permit, more likely part of a SWPPP.

For application of *impacted* water for dust suppression *inside* the hydrologic containment area (pit lake area), pit water can be applied as dust suppression without treatment so long as this water is applied inside the hydrologic containment area. If the impacted water adversely affected the soils to a condition that could not support vegetation, then MMD would likely require the application of 36 inches of growth media at feasible reclamation areas (24 inches over foundations or concrete). MMD would look to their Closeout Plan Guidelines to determine whether soil was adversely affected by metals or other contaminants from applying impacted pit water.

VEG-5. NMED requests to remain involved in the process of noxious weed control and eradication.

Response: The BLM will set forth in the Terms and Conditions imposed in the ROD that NMED is to continue to receive notification about the project and in particular details of any measures employed to address noxious weeds. As a regulatory agency, NMED will continue to be involved in any changes to the MPO as appropriate.

VEG-6. The impacts analysis of the Greenhorn Arroyo Basin is incomplete. Need to collect information upstream to the west of the pit mine, quantify the amount of surface or groundwater that would be lost (as is done for Las Animas Creek and Percha drainage basins), and consider effects to vegetation (including riparian areas) as well as livestock and wildlife. A complete analysis of affects to riparian areas, to include the negative effect to wildlife habitat and livestock grazing from mine pit dewatering/cone of depression within the Grayback Arroyo system must be conducted and published for public review, and complete prior to the issuance of a FEIS and Letter of Declaration. [Same as SW-25 and WL-11]

Response: As discussed in Section 3.5.1.1 of the EIS, the Greenhorn Arroyo drainage basin is drained by ephemeral washes that flow in direct response to high-intensity rainfall events, which generally occur during the summer months. The deep groundwater aquifers in these areas are not connected to the surface

waters and therefore drawdown would not influence the availability of surface waters for vegetation, including in any riparian areas, west of the mine site. A modeling analysis indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water in the Greenhorn Arroyo basin. As described in Section 3.5.2.1 of the EIS, “except for springs located in the immediate vicinity of the open pit, impacts to springs located west of the Animas Uplift (e.g., Warm Springs) are not expected based on predicted drawdown of the groundwater flow model. Some of the bedrock seeps and springs in the immediate vicinity of and at the open pit could be impacted, possibly going dry during mining operations as the open pit is dewatered; however, bedrock seeps at the open pit that only flow in response to precipitation events are not expected to be impacted by mining operations. Stormwater management at the mine is not expected to have a substantial effect on surface water quantities in the Grayback and Greenhorn Arroyos. Proposed mining operations and the expansion of the open pit would not alter the existing Grayback diversion channel; stormwater flows captured in the Grayback Arroyo upgradient of mine facilities would continue to be diverted around the mine. In addition, to the extent practical, stormwater would be directed away from mine-impacted areas and allowed to follow natural drainage paths.”

VEG-7. Figures 3-9 and 3-13a do not include the riparian area west of the mine area in Grayback Arroyo or its tributaries, Warm Springs, and Cold Springs canyons. Detailed information on flow rates are not included for major springs (i.e., Warm Springs and Cold Springs). The cone of depression associated with the mine pit dewatering and mine pit lake will permanently damage or destroy these riparian areas, because the alluvial materials present in these areas is close to the riparian root zone. [Same as GW-29]

Response: See response to comment VEG-6. Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water or riparian vegetation in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The riparian vegetation along Grayback is typical of ephemeral floodplains. There is no phreatophytic vegetation which depends on groundwater because the water depth is far below rooting depth. The BLM has determined that there is no reasonable basis to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.

VEG-8. The area immediately west of the mine site in the Grayback Arroyo System is an area of critical Mule Deer Fawning habitat as per NMG&F biologists. The area upstream of the mine pit in the Animas Uplift is an important Mule Deer fawning area (wildlife biologists from NMF&G confirmed Hillsboro Pitchfork Ranch LLC surveys). The EIS does not mention Mountain Mahogany (*Cercocarpus*), a common vegetative species found adjacent the mine pit and a primary forage for Mule Deer. A complete analysis of the affects to wildlife habitat within this area must be completed prior to the issuance of a Final EIS and Letter of Declaration. [Same as WL-16]

Response: Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water in the Grayback Arroyo system and therefore would not affect any vegetation, including any mountain mahogany growing in this area. Groundwater pumping (including that for pit dewatering) would not affect this habitat because existing water depths are far below the rooting depth of vegetation.

VEG-9. No vegetative surveys were conducted in the Animas Uplift to the west of the mine pit, in the Grayback Arroyo System or in the area of the cluster of springs located on private lands of the Hillsboro Pitchfork Ranch LLC located within the Warm Springs Valley. Thus, no baseline vegetative data has been compiled for these areas. [Same as REF-14]

Response: Modeling analysis for the EIS representing the regional hydrology indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water in the Grayback Arroyo or the area of springs on Hillsboro Pitchfork Ranch in Warm Springs Valley.

VEG-10. Riparian areas in figures throughout the EIS are shown inconsistently or are omitted from the figure. For example, Figure 3-26 depicts an almost continuous Arroyo Riparian zone through the proposed mine area. Other figures in the Draft EIS omit or do not show this riparian area. Figures 3-9, 3-13a, 3-16a, as well as other figures in the Draft EIS depict different riparian areas. It is impossible from the Draft EIS for the public to gain a comprehensive understanding of the riparian areas affected by the down effect of the mine well field and mine pit dewatering/cone of depression. [Same as REF-15]

Response: Figure 3-26 depicts the features of the mine site only. It does not show any riparian or other relevant features outside the mine site boundary because the discussion that it supports focuses on direct effects to the features at the mine site from re-opening the mine and dewatering the pit. Figures 3-9, 3-13a, and 3-16a depict the much larger project area that was evaluated for potential indirect impacts from the drawdown of the deep aquifer as a result of pumping. The riparian area in Figure 3-26 depicts the extent of vegetation in the arroyo riparian zone that transects the mine site with rerouting south of the pit area. Figures 3-9, 3-13a, and 3-16a depict the riparian zones along Percha and Las Animas Creeks, which were evaluated for potential drawdown effects.

VEG-11. Need to clarify the use of term wetlands in this section with the term riparian area used in other sections of the EIS.

Response: Definitions for wetland areas and riparian areas as stated in (EPA 2005) have been added to the glossary in the FEIS.

VEG-12. Need to revise the impacts analysis to reflect effects from mine development for both the area within the Mine Area Boundary area as depicted in Figure 3.26 and the greater area that would be impacted permanently by mine pit dewatering/cone of depression. Is the mine area boundary as depicted in Figure 3.26? Or is the area as discussed in the text of the section. As

currently written, it is impossible to determine the potential effects to the Grayback Arroyo system upstream of the mine pit, and whether they would occur inside or outside the Mine Area Boundary.

Response: The hydrology model developed for the EIS covers the entire project area as depicted in Figures 3-9, 3-13a, and 3-16a of the EIS. It extends from the Rio Grande to beyond the Animas Range – there is a finer grid used at the mine pit but no boundary as such. The modeling analysis indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water or vegetation anywhere in the Grayback Arroyo system.

VEG-13. Comment moved to Wildlife category.

VEG-14. Paragraph 5, page 3-147 discusses treatment of creosote bush (*Larrea tridentata*) within the Copper Flat Allotment No. 160.79, but does not discuss the partnership between the National Resource Conservation Service and the NMG&F, with the Hillsboro Pitchfork Ranch LLC to improve habitat conditions upstream of the mine pit in the Grayback Arroyo System (on private land).

Response: The EIS has been expanded to acknowledge this partnership.

VEG-15. The geology of the Grayback Arroyo system upstream of the mine area within the Animas Uplift is different from the geologies of Las Animas and Percha Creeks. As such, calculations and assumptions related to groundwater drawdown on pages 3-149 and 3-150 are not valid for the Grayback Arroyo system west of the mine pit. Need to conduct a complete analysis of effects of groundwater drawdown and publish for public review prior the issuance of a FEIS and Letter of Declaration. [Same as MG-1]

Response: Please refer to previous responses to comments VEG-6, 7, 8, 9, and 12 that address the Grayback Arroyo.

VEG-16. Mitigation measures on page 3-151 and 3-152 are specific to sites directly associated with mining operations. A comprehensive set of mitigation measures need to be identified and published prior to issuance of a FEIS and Letter of Declaration.

Response: A comprehensive set of mitigation measures has been published in the FEIS.

VEG-17. Disagree that “implementing the Proposed Action would contribute minor adverse cumulative impacts on vegetation,” as stated on page 4-10. The Proposed Action would have major, permanent cumulative effects to vegetation outside the mine site. [Same as CI-26]

Response: Based on the analysis performed for the EIS, any major impacts to vegetation would be confined to the mine site. Areas outside the mine site would not experience any major impacts to vegetation caused by the proposed mine operation.

VEG-18. Why is the reclamation plan using less than one-tenth the amount of seed needed to re-establish vegetation? Why does the reclamation plan not require successful re-establishment of grass and forbs, not just put down a tiny amount of seed and leave the sight bare to wind and water erosion?

Response: It is unclear why the commenter concludes that the amount of seed is one-tenth of what is needed to reestablish vegetation. The Mine Operations and Reclamation Plan (MORP) is subject to approval by the State of New Mexico before a mining permit is issued. Section 3.2.2, Seed Mixtures, in the MORP contains the following description of seed mixtures, including tables of seed mixes:

The species selected for the reclamation seed mixtures have been successfully used in mine reclamation and range improvement projects in many parts of New Mexico and are readily available from seed suppliers. The seed mix is selected to provide early establishment of ground cover, erosion control and productivity while providing diversity in growth forms.

The seed mixes are designed for application prior to the summer rains and the seeding will be completed in early- to mid-June. The ratio of cool season to warm season grasses may be adjusted if the seeding is conducted after the summer rains. The overall target seed rate for final seeding is expected to vary, but will range from about 40 to 60 seeds per square foot. Interim seedings for growth media stockpiles and other temporary stabilization seedings target a seed density of 30 seeds per square foot. All seed mixes shall be certified as weed free.

The BLM finds the seed mix planning responsive for EIS purposes and defers to the permit application review by the State of New Mexico to determine the ultimate adequacy of the reclamation planning.

Visual Resources (VIS)

VIS-1. The proposed mine will have similar long-term visual resources impacts as other mines in the state.

Response: Thank you for your comment.

VIS-2. Because the mine is relatively remotely located and generally out of sight to residents and visitors, it minimizes negative socioeconomic impacts.

Response: Thank you for your comment.

VIS-3. The FEIS should clarify how impacts to visual resources will be addressed and identify any committed mitigation because Section 3.14.3 is inadequate.

Response: Section 3.14.2 addresses how impacts to visual resources will be addressed with the statements: “Effects to the APE (viewshed) are determined by the degree of agreement with the VRM Class Objectives...In order to assess the degree of visual contrast that would result from implementation of the Proposed Action, key observation points (KOPs) were selected at which changes to the characteristic landscape could be analyzed.” The APE and KOPs were identified for this resource and VRM Class Objectives are defined.

The degree of contrast was determined to be in the weak to moderate range. To minimize contrast, buildings and facilities would be painted in neutral colors to blend in with the surrounding landscape. The proposed mine buildings would comply with the objective for the Class III and IV areas within the mine area. Further mitigation was determined not to be necessary.

VIS-4. The Mine will have significant impacts on the night sky and astronomy interests at Ladder Ranch and in Sierra County, yet the DEIS fails to identify and adequately analyze this impact.

Response: A summary of New Mexico’s Night Sky Protection Act (1978) has been added to Section 3.14.1 of the FEIS. All lighting associated with mining is listed under the Act as an exemption. The nearest Dark Sky area designated by the International Dark Sky Places program is over 150 miles away from the mine. This information is summarized in Section 3.14.2 of the FEIS. Further analysis on night skies is not required.

Water Quality (WQ)

WQ-1. Fugitive air emissions of heavy metals from mining operations could impact surface and groundwater resources in the area. Dust-abatement (especially with any chemicals) caused by the Mine will likely have a major impact on water quality, in turn affecting Ladder's Chiricahua Leopard Frog (CLF) breeding facility and refugia tanks.

Response: Section 3.4.2.1.2 provides a technical explanation of why the effects of using the water from the pit for dust suppression are considered insignificant. The application and evaporation of applied water would likely result in the deposition of certain constituents on the surface of roadways; however, the runoff from the roadways would be controlled by the surface runoff features.

In addition, and pursuant to the NMED Supplemental Permitting Requirements for Copper Mine Facilities (20.6.7 NMAC), during operations groundwater standards do not apply within the “area of open pit hydrologic containment” (20.6.7.24.D). Therefore, the discharge permit would not put limitations on the quality of water used for dust suppression within the area of open pit hydrologic containment. Outside of that area, the discharge permit would likely include

limitations on the quality of water that could be used for dust suppression. Any surface runoff from dust suppression would need to be contained such that it does not impact surface waters, but that would not be a component of a groundwater discharge permit, more likely part of a stormwater pollution prevention plan (SWPPP).

For application of *impacted* water for dust suppression *inside* the hydrologic containment area (pit lake area), pit water can be applied as dust suppression without treatment so long as this water is applied inside the hydrologic containment area. If the impacted water adversely affected the soils to a condition that could not support vegetation, then MMD would likely require the application of 36 inches of growth media at feasible reclamation areas (24 inches over foundations or concrete). MMD would look to their Closeout Plan Guidelines to determine whether soil has been adversely affected by metals or other contaminants from applying impacted pit water.

WQ-2. The document does not sufficiently evaluate and present a discussion of cumulative impacts for a number of resource categories and impacts from previous mining operations, as required by NEPA. The watersheds for mining operations and for the TSF area are not assessed at a level that required permits could be attained from the Dam Safety Office of the OSE. The environmental impacts on water quality of the areas that are not included in the TSF watershed could be quite severe on the Grayback Creek. [Same as CI-6]

Response: The impact from previous mining operations on water quality is addressed in Section 3.4.2.1.2, which refers to the existing plume of groundwater with elevated TDS that resulted from past operations. This section further explains that the TSF liner and underdrain system will prevent a similar occurrence and over time will promote the natural attenuation of the existing plume. With respect to impacts to water quality outside the TSF area, Section 3.4.2 provides a description of the environmental effects on water quality in the pit area, the TSF area, and the entire mining site. These effects include water quality effects from both point and non-point sources within the Grayback Arroyo watershed. As noted in Section 2.1.3.4, a permit for the proposed dam in the TSF will be required from the Dam Safety Office of the OSE. The requisite data and evaluations will have to be provided in order to obtain the permit.

WQ-3. The DEIS fails to adequately evaluate and discuss the existence of brownfields at the site and the cumulative effect of the Draft EIS over the existing brownfield. The Draft EIS fails to describe the interaction among past operations (e.g., Quintana Mining) and future plans; concentrating exclusively on future plans. How would this project prevent similar contamination (that resulted in the area becoming a brownfield) from occurring, to a greater extent, by implementation of the identical technologies used as in past mining operations? [Same as PA-12]

Response: Analysis of the extent of the existing groundwater plume is being done under the auspices of a Stage 1 Abatement Plan approved by the NMED

Groundwater Quality Bureau. Work on the Abatement Plan will be conducted regardless of the proposed mining activities.

Section 3.4.2.1.2 refers to the existing plume of groundwater with elevated TDS that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume.

WQ-4. The DEIS discusses that Pit Lake contamination has increased over time as a result of no action in the area. Subsequently, contamination has been leaching into the surface and groundwater over time. The FEIS should incorporate a discussion of the unnamed drainage/ arroyo located north of the existing pit lake and Animas Peak because it is a tributary to Grayback Arroyo and joins with it to the east of the TSF and because the existing Waste Rock Disposal Facilities (WRDFs) are located within this drainage. The document lacks a discussion of possible migration routes and the potential environmental impact of these migration events. Three potential migration routes for the copper in the TSF that can have considerable impact upon the waters of the Rio Grande.

Response: Discussion has been added to Section 3.5.1.1 of the EIS describing the unnamed arroyo located to the north of the existing pit lake and Animas Peak. Stormwater runoff from mine facilities, including the WRDFs, would be captured and potentially used as process water. Discussion has also been added to Section 2.1.15.7 of the EIS explaining that the final details of the placement and use of the cover materials for WRDFs would be approved by the State and the BLM following analysis of the results of a test-plot program that would be conducted during the mining operation.

The water quality of the existing pit lake is summarized in Section 3.4.1. Section 3.4.2 explains that the proposed MPO would require a preliminary pit lake water quality management plan that describes reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period.

WQ-5. Concerns of the extensive use of groundwater from the proposed mine and the uncertainties/end result of the contamination/recharge and return to the aquifer, Caballo Reservoir, the Rio Grande, and that multiple downstream parties rely on. [Same as GW-10]

Response: Discussion of the potential impacts to groundwater quality is provided in Section 3.6.2; also refer to Table 3-20a. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the

NOI to comply with the MSGP is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation.

WQ-6. The mine will be open pit in an area of extremely low permeability bedrock, and is a hydrologic sink – subsequently, it minimizes potential groundwater quality impacts.

Response: Thank you for your comment.

WQ-7. The draft SWPPP should be provided to the NM Environment Department's Ground Water Protection Bureau for review and comment so that they can consider impacts to ground and surface water from stormwater pollution. In addition, there is no discussion of how stormwaters above, below and/or immediately adjacent to the mining operation are expected to be managed. This includes how stormwater will be managed after the mine has been exhausted.

Response: Section 3.4.2.1 of the EIS addresses the requirement for NMCC to obtain an NPDES permit for stormwater discharges. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the NOI to comply with the MSGP is submitted to the EPA. The MSGP requires that SWPPPs be available to the public when the NOI is submitted. The SWPPP must address how stormwater that is impacted by the industrial site would be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation.

WQ-8. Section 2.1.15.6 of the FEIS should include a discussion of the long-term maintenance required for storm water runoff diversions around the waste rock disposal facilities.

Response: Section 3.4.2.1.2 of the EIS specifically calls out the need for inspection and maintenance of stormwater diversions throughout the post-closure period as a mitigation measure. The effects on stormwater after mine reclamation are briefly addressed in Section 2.1.15.6 under the “Suspended Solids” bullet. However, Section 3.5.2.1.2 describes the stormwater controls after reclamation in greater detail.

WQ-9. The amount of pyrite present in waste rock material as well as tailings is lower than what might be observed elsewhere; acid generation will be relatively small. The potential to release low pH runoff and for mobilizing metals during oxidation is reduced.

Response: Thank you for your comment.

WQ-10. The mine is in an arid environment with high rates of evaporation and no perennial surface-water resources within close proximity, and therefore minimizes potential surface water quality impacts.

Response: Thank you for your comment.

WQ-11. Applying water from the pit lake, which could be of questionable chemical and mineral composition, for dust suppression on roads in the area where exposure to stormwater flows and subsequent transport of sediment inherent to soil erosion from earthen roads can be expected is a concern that must be adequately addressed (p. 3-57). [Same as AQ-5]

Response: Section 3.4.2.1.2 provides a technical explanation of why the effects of using the water from the pit for dust suppression are considered insignificant. The application and evaporation of applied water would likely result in the deposition of certain constituents on the surface of roadways; however, the runoff from the roadways would be controlled by the surface runoff features.

The NMED is currently processing the discharge permit application and there is no current regulatory requirement regarding the use of pit water for dust suppression. Pursuant to the NMED Supplemental Permitting Requirements for Copper Mine Facilities (20.6.7 NMAC), during operations groundwater standards do not apply within the “area of open pit hydrologic containment” (20.6.7.24.D). Therefore, the discharge permit would not put limitations on the quality of water used for dust suppression within the area of open pit hydrologic containment. Outside of that area, the discharge permit would likely include limitations on the quality of water that could be used for dust suppression. Any surface runoff from dust suppression would need to be contained such that it does not impact surface waters, but that would not be a component of a groundwater discharge permit, more likely part of a SWPPP.

For application of *impacted* water for dust suppression *inside* the hydrologic containment area (pit lake area), pit water can be applied as dust suppression without treatment so long as this water is applied inside the hydrologic containment area. If the impacted water adversely affected the soils to a condition that could not support vegetation, then MMD would likely require the application of 36” of growth media at feasible reclamation areas (24 inches over foundations or concrete). MMD would look to their Closeout Plan Guidelines to determine whether soil was adversely affected by metals or other contaminants from applying impacted pit water.

WQ-12. The DEIS does not present an adequate assessment of the surface hydraulics and hydrology associated with the TSF for the upper watershed above the new mine facility (shown approximately in red in Figure 2) and the lower watershed at the TSF itself (shown approximately in blue in Figure 2). There are also concerns that a failure to maintain the proper perimeter embankment elevation of the TSF will place the safety of the dam at risk. Copper laden sediments could, under this and other scenarios, be transported to Caballo Dam under the probable maximum precipitation (PMP) event. In addition, the hydrograph for a PMP storm event and an inundation plan should also be presented in the EIS to clarify this potential catastrophic event. [Same as SW-20]

Response: Section 2.1.3.4 addresses the TSF, including its conceptual design and process. Based on rules and regulations of the OSE, the TSF would be classified as a large dam having significant hazard potential, therefore, all considerations regarding dam design of the TSF would require approval under an OSE Dam Safety Bureau permit. With that, OSE regulations ensure the continued safe operation, maintenance, site security, and emergency preparedness for existing non-Federal jurisdictional dams.

The surface drainage hydraulics and hydrology would be analyzed and presented in greater detail and verified during the engineering design phase of the project. This includes any applicable infrastructure and control measures associated with the hydraulics and hydrology of the TSF. The analysis and design related to these items would be developed in accordance with current regulatory requirements and design criteria.

WQ-13. Recommend the FEIS incorporate a discussion of the additional impacts of how the proposed mine expansion will impact current water quality as well as the additional impact from increased mining and associated increased waste material. The DEIS discusses that NMED requires monitoring in the area of the mine pit primarily for purposes of water quality abatement, and the Office of the State Engineer (OSE) provides 10 periodic measurements of water levels in scattered wells for the Las Animas Creek Area – but does not provide a discussion as noted above.

Response: The FEIS incorporates a detailed description of the potential impact on water quality of the proposed mining activities and mitigations under the Proposed Action that is presented in Section 3.4.2.1 of the EIS. Similarly, potential water quality impacts and mitigations under Alternatives 1 and 2 are described in the FEIS in Sections 3.4.2.2 and 3.4.2.3, respectively.

WQ-14. A sulfate plume contaminating the site already exists, and can be expected to increase substantially with a substantially increased accumulation of tailings that is unavoidable if NMCC's Proposed Action or either of the operational alternatives is adopted. This is further exacerbated by the fact that a chemical solute transport pathway exists in the hydrologic characterization of the present pit lake, and how deep the contamination will penetrate into the rock is entirely unknown.

Response: Analysis of the extent of the existing groundwater plume is being done under the auspices of a Stage 1 Abatement Plan approved by the NMED Groundwater Quality Bureau. Work on the Abatement Plan will be conducted regardless of the proposed mining activities.

Section 3.4.2.1.2 refers to the existing plume of groundwater with elevated TDS that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume.

WQ-15. [Duplicate comment removed]

WQ-16. Will there be any specific TSF monitoring locations established before flows enter the Rio Grande or Caballo Reservoir pool based on state and federal rules? Is there a long-term monitoring plan capable of detecting any contaminants after the mine is closed before reaching the river/reservoir? The EIS should include the post closure monitoring requirements set by BLM and OSE and NMED, and the proposed plan to meet those requirements. Furthermore, there should be description of the contingency plan for responding to various monitoring results, including identification of action levels for each monitored component and parameter.

Response: After mine closure, the TSF would be reclaimed with a cover of soil and vegetation which would serve to keep the tailings in place. Seepage from the TSF is expected to continue after mine closure and would have to be managed and monitored. Section 3.4.2.1.2 includes a list of mitigations for managing seepage from the TSF after closure. The mitigations include: detailed chemical analyses of the water and an assessment of potential effects to vegetation or soils; obtain all necessary environmental permits from the State of New Mexico and the EPA; modify the MPO to include a post-closure TSF seepage monitoring and management plan; and a post-closure trust fund (or other long-term funding mechanism) to pay for post-closure monitoring and management.

Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements.

WQ-17. The FEIS should incorporate a discussion in Section 2.1.3.4 on the results of the testing done on the tailing waste material present, including pyrite and carbonate material content, in the existing Tailing Storage Facility (TSF) operated by Quintana Minerals and whether such material is acid generating.

Response: Analysis of the extent of the existing groundwater plume is being done under the auspices of a Stage 1 Abatement Plan approved by the NMED Groundwater Quality Bureau. Section 3.4.2.1.2 explains that the TSF liner and underdrain system for the proposed project will prevent a similar occurrence and over time will promote the natural attenuation of the existing plume. The FEIS will incorporate a brief discussion of the proposed TSF reclamation activities and mitigations for the existing TSF in Sections 2.1.3.4 of the DEIS.

WQ-18. Recommend that an analysis and additional details of the proposed liner's long-term effectiveness and long-term compatibility with the tailings material be provided in the FEIS. The lifetime and durability of the liner are concerning. In addition, there is no documentation within the DEIS that shows the scientific testing proving the adequacy of these two critical elements of the liner (i.e. the minimum 6-inch thick layer of liner bedding fill and the 60-mil geomembrane with the impoundment interior).

Response: Selected liner material, suitability, and respective design for the tailing impoundments would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria.

WQ-19. The FEIS should include a discussion in Section 2.1.15.6 and 2.1.3.4 of how the TSF would be hydrologically isolated during reclamation and how isolation of flow would be achieved, as well as what potential impacts there would be. A materials characterization and handling plan is not provided to understand in more detail the potential for acid generation and how groundwater will be protected. The DEIS should provide a water quality management plan that outlines more specifically how water quality will be managed in the pit lake and for how long.

Response: The FEIS incorporates discussion of the proposed TSF reclamation activities and mitigations under the Proposed Action in Sections 2.1.3.4 and 2.1.15.6. Similarly, activities and mitigations under Alternatives 1 and 2 have been described in the FEIS in Sections 2.2 and 2.3, respectively. Section 2.1.15.7 describes the actions that would be taken to monitor groundwater quality. Section 2.1.15.16 describes the actions that would be taken to minimize and manage acid rock drainage. Additionally, a Geochemical Characterization Report was developed for the Copper Flat mine that is the basis for ARD mitigation measures.

The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The water quality standard that would apply is a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality.

Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC. In addition, per NMAC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period.

The water quality of the existing pit lake is summarized in Section 3.4.1 of the FEIS. Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period.

WQ-20. A Construction Quality Assurance Plan for any HDPE geomembrane liners needs to be included in the NMCC Mining Plan of Operation and the DEIS to protect the water and all aspects of the environment with the highest quality. The DEIS contains no specifics about exactly which resin will be used, nor any detailed information about testing of the geomembrane

rolls for defects, nor manufacturing/installation requirements, nor qualifications of the company hired to do the manufacturing/installation. There are also no detailed plans for ground preparation, and the plan needs to discuss impacts to the quality of the laying out and seaming for the geomembrane during times of high wind conditions that are so prevalent and continuous during certain seasons in Sierra County.

Response: Selected liner material, suitability, and respective design would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria. A Construction Quality Assurance Plan for the liner would be provided during the engineering design phase.

WQ-21. The 12 and 30-year time period for post-mining monitoring is inadequate for a number of reasons (stipulated in the comment) and recommends that BLM require the Mine Plan of Operations (MPO) to include post-mining monitoring and implementation of the pit lake water quality management plan for a minimum of 100 years – at which time the need for additional or continued monitoring may be required. BLM should consider the small costs to NMCC as opposed to the large cost to the public. BLM needs to consider that in addition to the water usage, flooding and leaving a pit lake leads to the possibility of perpetual management of the pit lake water to meet water quality standards in the pit lake, protect groundwater in the vicinity of the open pit and prevent the pit lake from creating a threat to wildlife. [Same as PA-23]

Response: The length of post-mining monitoring of the material resources would be determined by the State of New Mexico in association with the permits issued to the Copper Flat mine.

Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements. Backfilling the lake was considered as an alternative, but was determined to be economically infeasible. The backfilling alternative has been added to Section 2.5, Alternatives Considered but Eliminated in the FEIS.

In addition, Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period.

The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The water quality standard that would apply is a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality.

Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC. In addition, per NMAC 19.10.6.602 D. (15), a

MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period.

WQ-22. Need additional detail about how the controlled drainage would limit the generation of acid and leachable metals when precipitation comes into contact with the exposed rock of the pit walls. [Same as PA-19]

Response: Sections 2.1.15.6 and 2.1.15.16 describe the actions that would be taken to minimize and manage acid rock drainage. In addition, the surface drainage hydraulics and hydrology of the site would be analyzed and presented in greater detail and verified during the engineering design phase of the project. This includes any applicable infrastructure and control measures associated with the hydraulics and hydrology of the TSF. The analysis and design related to these items would be developed in accordance with current regulatory requirements and design criteria.

WQ-23. The superscripts of 1 and 2 are not explained in the notes at the bottom of Table 3-9 on page 2-25.

Response: Table 3-9 has been revised to clearly relate the superscripts in the table to the notes below the table.

WQ-24. The "Copper Rule" (20.6.7 NMAC) promulgated by the New Mexico Environment Department ("NMED") currently exempts groundwater beneath existing and future copper mines from compliance with New Mexico's "3103" water quality standards. The Copper Rule allows the open pits, waste rock piles, leach piles, tailings, and other mine units at copper mines to release hazardous contaminants directly into the environment and to pollute groundwater above 3103 Standards. The DEIS makes no mention of this rule and its application to this Mine.

Response: Section 2.1.7.2 describes the use of the pit water for dust control. This use would require a groundwater Discharge Permit from the NMED Ground Water Quality Bureau and would be subject to the applicable groundwater standards under 20.6.2.3103 NMAC. Under NMAC 20.6.7.21 (A)(1), waste rock piles shall be evaluated for their potential to generate acid and release water contaminants at levels more than the 3103 water quality standards. A Geochemical Characterization Report has been developed to aid in determining the applicability of the 3103 standards.

In addition, stormwater run-on would be diverted or contained to minimize contact with waste rock stockpiles. Leach piles and tailings are not mentioned in the "Copper Rule" as being subject to 3103 standards.

WQ-25. The DEIS describes the waste rock only in general terms, acknowledging that some will have the potential to generate acid mine drainage ("AMD"). DEIS Table 3-12. The DEIS states that both waste rock and low-grade ore have the potential to generate "deleterious leachate

if sufficient percolation of water through the rock piles occurs." DEIS 3- 41. However, it fails to disclose the amount of transitional or sulfide waste rock or ore. This is problematic because some ore could be temporarily stored on the ground surface prior to processing. The DEIS also implies that the Mine will rely on the dry climate to prevent AMD from reaching ground or surface water, (DEIS 3-39), and fails to disclose how NMCC will accomplish cover requirements.

Response: The waste rock disposal areas would be regraded and contoured to reduce infiltration of water and provide positive drainage to sediment collection points. The majority of the rock excavated would be sulfide waste rock and ore, and kinetic laboratory tests show that it takes decades to centuries for sulfide to oxidize sufficiently to produce ARD. As stated in Section 3.4.2.1.1, ARD has multiple factors. The factor of climate (i.e., precipitation to evaporation ratio) reduces the concern of an adverse water quality affect in the short-term despite the large volume of rock to be produced. A 5:1 ratio of evaporation to precipitation leads to the expectation that most precipitation will evaporate, leaving a small fraction to percolate into rock piles. Cover for reclamation and closure of the waste rock areas are described in Section 2.1.15.9.

WQ-26. The DEIS downplays the importance of detailed water quality predictions for the pit lake because of "pertinent uncertainties." DEIS 3-31. The DEIS relies on both a predictive model and the existing pit lake only to inform its discussion of future pit lake water quality. The DEIS fails to present groundwater modeling results to determine what would happen if the pit lake is pumped full prior to groundwater recovery. BLM must either revise or supplement the DEIS to include a "use attainability analysis" and data regarding pit lake water migration.

Response: Section 3.4.2.1 of the EIS addresses existing pit lake quality, geochemical modeling for the proposed pit lake, mitigation of anticipated water quality effects of mining by rapid filling of the pit lake when mining ends, and possible conditioning of the pit lake water. For predictions of pit lake water quality, geochemical modeling is the appropriate tool for assessment because it combines groundwater modeling results with water-rock interactions. Based on the water quality uncertainties described in Section 3.4.2.1, a pit lake water quality management plan and obtaining funding to implement that plan are included as mitigations.

WQ-27. The DEIS errs by not discussing the plans for LAD. The DEIS neither discloses where the LAD site would be, nor presents data regarding the ability of the soils to accept the excess tailings water.

Response: Land application of wastewater that contains pollutants in concentrations above groundwater quality standards in 20.6.2.3103 NMAC must be in compliance with a groundwater discharge permit issued by the NMED. Section 2.1.7.2 of the EIS states that the mine will have a discharge permit.

WQ-28. The mitigation analysis for the Mine's impacts to water quality is inadequate or incomplete.

Response: The mitigation measures for water quality are described in detail within the subsections of Section 3.4.2 for the Proposed Action and each alternative. The BLM believes these measures are adequate and comply with the requirements of NEPA.

Water Rights (WR)

WR-1. There are discrepancies, concerns, and misrepresentations related to water use rights, permits, and new water use appropriations regarding water rights as determined by the Office of the State Engineer, the copper company, and what the courts will eventually rule regarding surface and groundwater resources. Any shortfall in meeting water use recycling goals will have to be made up with fresh water and will fundamentally affect surface and ground water supplies and be included in the Proposed Action. [Same as P&N-1]

Response: With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project.

In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to

have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

WR-2. The statement “[s]tate water law requires that the applicant publish the application in a newspaper and provide anyone with a legitimate objection the chance to protest the application,” while generally accurate, is misleading to the reader.

Response: As stated in the EIS, it is the responsibility of the OSE to administer state water resources, including evaluating applications for new appropriations or to change the place or purpose of use of an existing water right. It is unclear why the commenter believes the statement from the EIS is misleading, but the BLM believes the statement to be accurate and clear based upon governing OSE rules and regulations (see reference OSE 2006 in the EIS).

WR-3. The project will have little impact on water resources in the area and the use of water for the mine is properly administered through the New Mexico Office of the State Engineer.

Response: Thank you for your comment. The commenter is correct that the OSE administers the application of water rights.

WR-4. Water rights are in place for the proposed diversions for the project.

Response: With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project.

WR-5. The DEIS fails to provide any discussion of lawsuits filed by the State of Texas and the United States against New Mexico in the United States Supreme Court related and fails to address this litigation in an analysis of impacts arising from the Mine's proposed groundwater use. Clearly, the potential for Texas to make additional allegations of damages arising from a completely new depletion in the Project is a significant matter that should be disclosed to the public. [Same as CI-13]

Response: The outcomes of the referenced lawsuits are speculative and should not be used as a factor to determine the impacts of the Proposed Action and alternatives. Instead, it is within the authority of the OSE and not the BLM to apply relevant findings of these lawsuits in its consideration of a water use permit for the project.

Further, in a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

WR-6. Concerned about vague or insufficient reclamation and/or closure plans, especially as they relate to the cumulative impacts on groundwater and surface water. Some of these (such as the impairment of senior water rights) are expected to persist essentially indefinitely. [Same as CI-7]

Response: Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809).

Additionally, NMCC has prepared a MORP for the MMD that details closure plans. At the end of mine operation, NMCC expects that most reclamation work would be conducted in the first few years after closure and monitoring would continue until regulatory agencies agree that closure and reclamation are complete, at which time the Financial Assurance would be released and the land would be available for the designated post mining land uses.

WR-7. Pages 3-73 through 3-89 of the DEIS discuss the reduction of flows of waters and that in order to adequately offset the surface water impacts in the Rio Grande the Copper Flat Mine would have to acquire consumptive-use water rights which would dry up such a large amount of acreage and would have social, economic and environmental impacts that are not addressed in

the DEIS such as the lack of future potential development as a result of lack of water. The fact that economic growth is limited because of water rights and availability is a fundamental fact not mentioned in the socioeconomic study. [Same as SE-17]

Response: With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project.

In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

WR-8. The concept of ROI is not addressed in the water rights sections of this report. Diminishment of the water flow from the Percha and Animas drainages adversely affects all downstream users of water in the Rio Grande. This diminishment will have direct, and perhaps a very substantial negative effect, on the livelihood of those individuals – this issue was not addressed in the DEIS.

Response: With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS that does not preempt or pre-judge the outcome of this final determination. Instead, it describes options to be

implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project, and that discussion in the EIS of such topics as an ROI would be premature.

In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

WR-9. The watersheds for mining operations and for the TSF area are not assessed at a level that required permits could be obtained from the Dam Safety Office of the OSE.

Response: As noted in Section 2.1.3.4, a permit for the proposed dam in the TSF would be required from the Dam Safety Office of the OSE. The requisite data and evaluations would have to be provided in order to obtain the permit.

WR-10. There is no indication whatsoever that NMCC is committed to the long-term maintenance of impacts from the proposed mining activity, some of which (such as the impairment of senior water rights) are expected to persist essentially indefinitely. [Same as PA-18]

Response: NMCC's commitment to the long-term maintenance of the mine environs is in evidence by their compliance with the requirement that a financial

guarantee be provided for cleanup and reclamation in the event of the company defaulting on this issue in the future.

FEIS Section 2.1.15.16, Facility Specific Reclamation, states that a reclamation bond is required by the BLM and State of New Mexico to guarantee completion of project reclamation (43 CFR 3809.500-3809.599).

Additionally, Section 3.22, Socioeconomics states “A reclamation bond is required by the BLM and State of New Mexico to guarantee the completion of Project reclamation. Following regulatory review of the proposed plan of operations and reclamation techniques presented herein, NMCC would prepare, at a time specified by the BLM [43 CFR 3809.401(d)], a detailed estimate of the cost to fully reclaim the operations as required by 43 CFR 3809.552. This reclamation plan would be administered by the NMEMNRD MMD and the NMED -- Mining Environmental Compliance Section. Financing would include a mix of equity and debt, but the ratio would depend on market conditions, interest rates, and other factors that would continue to vary over the course of project development. In negotiating specific arrangements for the proposed project, factors such as the operator’s financial condition, track record, and management systems would likely affect the terms of financial assurance the government would require to give it a feeling of reasonable certainty (ICMM 2005). While dependent on the resulting amount and terms of financial assurance, mitigation measures are proposed to ensure funding would be available to completely cover reclamation costs.”

WR-11. The DEIS does not discuss the fact that Sierra County and the NMCC, and all other claimants are in competition for the rights to the new geological source of water called Palomas Graben. This is a major omission.

Response: With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project.

In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15

years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

WR-12. The DEIS does not provide a detailed analysis of the limitation on water rights and alternative contingencies. The DEIS discusses three options if NMCC's application is not approved, including leasing of groundwater and purchase and transfer of water rights. The DEIS does not disclose where that water would come from, how much water would need to be leased or purchased, or the impacts to surface and groundwater supplies, springs/streams, wildlife and threatened and endangered species from these alternative water sources.

Response: With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project.

In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts

on the Rio Grande, including years beyond year 29 with actual water, “wet offsets,” to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.

Wildlife (WL)

WL-1. Reclamation may improve habitats for wildlife and migratory birds compared to existing conditions due to more stringent standards.

Response: It is not clear in the comment what standards are more stringent. The Copper Flat project site would be reclaimed to achieve a self-sustaining ecosystem appropriate for the climate, environment, and land uses of the area. Because reclamation includes the entire mine area and 52 percent of the area consists of previously disturbed land, conversion to natural habitat would have long-term minor and beneficial impacts to wildlife and migratory birds due to the increase in potential habitat and habitat connectivity. These beneficial impacts would not occur until after the completion of reclamation, but would be long-term starting at that point. Common species are expected to return to the mining area in the long term after reclamation occurs.

WL-2. The wildlife section lacks an in-depth assessment of historic habitat conditions and projections of habitat potential. It also does not take into consideration the cumulative effect of the displacement of both birds and mammals. Because breeding and nesting locations are not adequately identified in surveys, the EIS has not acquired a good baseline upon which the long-lasting effects can be predicted. [Same as CI-12]

Response: See the response to comment WL-1. In response to this comment, the BLM has reviewed baseline wildlife surveys and found them to be sufficient for producing a satisfactory assessment in the EIS. Terrestrial habitat conditions would not be affected outside the immediate perimeter of the mine site. Because reclamation includes the entire mine area and 52 percent of the area consists of previously disturbed land, conversion to natural habitat would have long-term minor and beneficial impacts to wildlife and migratory birds due to the increase in potential habitat and habitat connectivity. These beneficial impacts would not occur until after the completion of reclamation, but would be long-term starting at that point. Common species are expected to return to the mining area in the long-term after reclamation occurs.

WL-3. Wildlife surveys and appendices lack basic ecological and behavioral components necessary for evaluations of impacts to wildlife and do not capture a complete picture of the area, including the cumulative impacts of past land use. Furthermore, the surveys used to evaluate

impacts to cactus wrens are more than five years old and there is no mention of additional surveys that would be conducted to update the analysis. The analysis is inadequate.

Response: In response to this comment, the BLM has reviewed baseline wildlife surveys and found them to be sufficient for producing a satisfactory assessment in the EIS. As noted in EIS Section 2.1.16, land clearing and surface disturbance would be timed to prevent destruction of active bird nests or birds' young during the avian breeding season (March 1 to August 31) to comply with the Migratory Bird Treaty Act. If surface disturbing activities are unavoidable during the avian breeding and nesting season, NMCC would have a qualified biologist survey areas proposed for disturbance for the presence of active nests immediately prior to the disturbance. If active nests are located, or if other evidence of nesting is observed (mating pairs, territorial defense, carrying nesting material, transporting of food), NMCC would work with the biologist and the BLM to develop a work plan to allow construction activities to continue without impacting the identified nesting area during the nesting and breeding season.

WL-4. The DEIS provides sufficient details to infer the potential impacts to the ecology of the area.

Response: Thank you for your comment.

WL-5. No concurrences are provided for any conclusion reached in the DEIS; the FEIS should incorporate concurrence from the USFWS and New Mexico Department of Game and Fish (NMDGF) on impacts of the proposed project to wildlife and migratory birds, and a commitment for mitigation. [Same as REG-8]

Response: BLM and NMCC are committed to mitigating impacts to species in or downstream of the project area that are listed under the Endangered Species Act (ESA) and that may be affected by mining activities. Those Federally-listed species were identified and evaluated in a Biological Assessment written in parallel with the preparation of this EIS and mitigation measures developed in consultation with the USFWS Southwestern Regional Office. The specific analysis for listed species and all protective and mitigation actions derived via the consultation process with USFWS are included in the Biological Assessment. Protective and mitigation actions for listed species as well as other wildlife species will be included in the Record of Decision.

Species in the project area that are not listed under ESA, but that are considered at risk in Southwest New Mexico and therefore listed as special status species by the New Mexico Department of Game and Fish (NMDGF), were evaluated in this EIS and mitigation was developed based on correspondence with NMDGF.

The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The water quality standard that would apply is

a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality.

As described in the EIS, water in the existing pit is high in cadmium, copper, manganese, and selenium. Table 3-8 of the EIS shows the relevant surface water standards for these four contaminants in waters of the State. Selenium is the only one of these four contaminants with a wildlife standard – less than 5 micrograms per liter or 5 parts per billion (<5 ug/L or 5 ppb). The measured level of selenium in the existing pit lake is 35 ug/L or 35 ppb. At the species level, the USEPA has set water quality criteria for aquatic life, but has yet to set criteria for aquatic dependent species such as birds and bats.

The baseline data report for the project, prepared in 2011, identified four species of birds in the pit lake habitat, several species of bats, and riparian vegetation in the fringes of the pit lake consisting of a small cattail marsh (<0.1 ac) and intermittent saltcedar, an invasive species. A 2014 survey of the pit lake concluded that there are no fish, zooplankton, or macroinvertebrates in the existing pit lake.

In the absence of USEPA water quality criteria for selenium applicable to aquatic dependent wildlife and the scarcity of quality food sources (fish, aquatic vegetation, zooplankton, and macroinvertebrates) that would biomagnify to higher levels of selenium, the BLM finds that the potential for bioaccumulation of selenium and selenium poisoning, selenosis, is very low. The presence of insect-eating birds and a relative abundance of bats at the existing pit lake at a point in time 35 years after the lake began refilling and establishing the water quality baseline for the lake, suggests that existing water quality levels in the pit lake are not exclusionary for these species. The pit lake is likely a resting or transitory area for these species rather than a feeding area. The EIS (affected environment section and wildlife impacts section) has been revised to better describe the pit lake with respect to wildlife and habitat.

WL-6. Section 2.1.15.6 of the FEIS should include a discussion of the long-term maintenance required for the fences and barricades to restrict access to the site for protection of wildlife.

Response: The FEIS has been revised to provide a more detailed description of post-closure fence and barricade maintenance.

WL-7. Concerned with the implications of the statement "there exists a vast amount of undeveloped nearby land," which implies that the land in the mining operation area is not suitable for either foraging or breeding for the species displaced by the construction or operation at the mine. If species are displaced into this already occupied territory, both breeding and foraging competition could result in population and species reduction – this should be addressed in the DEIS.

Response: As described in EIS Section 3.10.2.1.2, Mine Closure/Reclamation, direct and long-term adverse impacts from habitat conversion would occur during project activities, as brush would be cleared along existing access roads. Impacts during the lifespan of the Proposed Action would mostly occur on previously disturbed land. Losses of mammals, birds, or wildlife in general are not expected to be significant as a result of the project. Proposed project activities may cause minor disruptions to foraging, migratory movement, or breeding behavior of some species. A few animals may be killed during these activities because they are driven out of their foraging territories and are made more susceptible to predation, but these losses would not be expected to impact the species as a whole. There is currently a vast amount of undeveloped land in nearby areas where wildlife can temporarily relocate for cover and foraging.

Contemporaneous reclamation of disturbed surface areas would be an integral part of the mining operation. Both public and private land would be reclaimed. At the completion of mining activities, the site would be restored to conditions and standards that meet approved post-mining land uses. These uses would include native plant communities similar to surrounding undisturbed areas for wildlife habitat, and grazing land potentially suitable for livestock. Once reclamation is successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels. Also, as noted in EIS Section 2.7, Best Management Practices, in the subsection entitled Threatened and Endangered Species and Special Status Species, ground clearing and other mine development activities would be avoided during breeding and nesting season (generally March 1 through August 31) until the area is surveyed by a qualified biologist to confirm the absence of nests (on the ground and in burrows and vegetation) and nesting activity to avoid impacting migratory birds.

WL-8. Concerned about vague or insufficient reclamation and/or closure plans, especially as they relate to wildlife habitat and the potential cumulative impacts. Locations downstream of Percha and Caballo State Parks, both designated as Audubon Important Bird Areas, could also be adversely affected by the displacement of the birds in the mining area. [Same as CI-5; PA-8]

Response: Please refer to the response to comment WL-7 above. Specifically, at the completion of mining activities, the site would be restored to conditions and standards that meet approved post-mining land uses. These uses would include native plant communities similar to surrounding undisturbed areas for wildlife habitat, and grazing land potentially suitable for livestock. Once reclamation is successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels. Also, as noted in EIS Section 2.7, Best Management Practices, in the subsection entitled Threatened and Endangered Species and Special Status Species, ground clearing and other mine development activities would be avoided during breeding and nesting season (generally March 1 through August 31) until the area is surveyed by a qualified biologist to confirm the absence of nests (on the ground and in burrows and vegetation) and nesting activity to avoid impacting migratory birds.

Therefore, the numbers of birds displaced during mining operations would be limited and the site would be restored to as good or better conditions for birds than pre-mining conditions. Thus, any long-term impacts to Audubon Important Bird Areas would be negligible.

WL-9. Need to evaluate if pollution contamination from mining dust and pit water will affect wildlife and livestock [Same as R&L-1]

Response: During construction and operation of the mine, adverse effects to local off-site vegetation may occur as a result of fugitive dust emissions from construction machinery and worker traffic along unpaved roads. Dust emission could reduce photosynthesis by reducing the amount of light penetrating through the leaves. Dust emissions could also increase the growth of plant fungal disease (NZME 2001). Dust from construction-related activities would be short-term, and after construction, local off-site vegetation would be expected to recover in a reasonable amount of time. The post-closure monitoring period includes the final abandonment of monitoring wells and reclamation of access roads used for power and water utilities. Reclamation and revegetation would stabilize exposed soil and control fugitive dust emissions.

Access by livestock and large terrestrial wildlife to pit water would be extremely limited after mine operations cease. At closure, stable pit walls would be left in place, and unstable pit walls would be stabilized by blasting or other safe methods. In those areas where pit benches could be safely accessed with the appropriate equipment, alluvial material would be placed on the benches above the projected water level and the benches would be graded and seeded to limit erosion. Roads would be ripped and water barred to control surface water runoff. Disturbed areas around and adjacent to the pit would be covered with alluvial material and revegetated. The ramp would be graded or ramps placed at different locations to allow escape routes for wildlife. The pit area and high walls would be appropriately barricaded with physical barriers or fences to prevent humans and livestock from reaching the pit lake.

The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The water quality standard that would apply is a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality.

As described in the EIS, water in the existing pit is high in cadmium, copper, manganese, and selenium. Table 3-8 of the EIS shows the relevant surface water standards for these four contaminants in waters of the State. Selenium is the only one of these four contaminants with a wildlife standard (<5 ug/L or 5 ppb). The measured level of selenium in the existing pit lake is 35 ug/L or 35 ppb. At the species level, the USEPA has set water quality criteria for aquatic

life, but has yet to set criteria for aquatic dependent species such as birds and bats.

The baseline data report for the project, prepared in 2011, identified four species of birds in the pit lake habitat, several species of bats, and riparian vegetation in the fringes of the pit lake consisting of a small cattail marsh (<0.1 ac) and intermittent saltcedar, an invasive species. A 2014 survey of the pit lake concluded that there are no fish, zooplankton, or macroinvertebrates in the existing pit lake.

In the absence of USEPA water quality criteria for selenium applicable to aquatic dependent wildlife and the scarcity of quality food sources (fish, aquatic vegetation, zooplankton, and macroinvertebrates) that would biomagnify to higher levels of selenium, the BLM finds that the potential for bioaccumulation of selenium and selenium poisoning, selenosis, is very low. The presence of insect-eating birds and a relative abundance of bats at the existing pit lake at a point in time 35 years after the lake began refilling and establishing the water quality baseline for the lake, suggests that existing water quality levels in the pit lake are not exclusionary for these species. The pit lake is likely a resting or transitory area for these species rather than a feeding area. The EIS (affected environment section and wildlife impacts section) has been revised to better describe the pit lake with respect to wildlife and habitat.

WL-10. Bendire's Thrasher (as identified in Table 3-25 on page 3-128) does not have a dot indicating that it is either a recorded species or a species likely to occur in proper habitat. This should be reviewed and included.

Response: Bendire's Thrasher was not detected during the Baseline Data Characterization Report (BDR) field survey but per a discussion with a local bird expert, the species inhabits the region spring-fall but rarely winter. The EIS has been revised to reflect the most recent information on wildlife and habitats based on the Addendum to the New Mexico Copper Corporation, Copper Flat BDR, Section 5: Wildlife Survey Results, July 2013. The species information presented in Table 3-25 presents that updated information.

WL-11. The impacts analysis of the Greenhorn Arroyo Basin is incomplete. Need to collect information upstream to the west of the pit mine, quantify the amount of surface or groundwater that would be lost (as is done for Las Animas Creek and Percha drainage basins), and consider effects to vegetation (including riparian areas) as well as livestock and wildlife. A complete analysis of effects to riparian areas, including to wildlife habitat and livestock grazing from mine pit dewatering/cone of depression within the Grayback Arroyo system must be conducted and published for public review, and complete prior to the issuance of a FEIS and Letter of Declaration. [Same as VEG-6 and SW-25]

Response: The hydrology modeling analysis of the effects of pumping for mine operations indicated that there would be no impacts to any surface features in

the Greenhorn Arroyo basin. This is because the affected aquifer is deep below the surface and does not influence the presence or level of water or presence of vegetation at the surface, including riparian vegetation.

WL-12. The Parametrix 2011 Report "Biological Resources Survey Report Copper Flat Pipeline and Well Sites Sierra County, New Mexico" is specific to the short-term effects to wildlife associated with well field and associated infrastructure. It is limited in scope and does not address long-term effects to wildlife and migratory birds within the Animas Uplift or the Warm Springs Valley. The Draft EIS must include a detailed analysis of the affect to wildlife by the permanent loss of water due to the mine pit dewatering.

Response: The hydrology modeling analysis of the effects of pumping for mine operations indicated that there would be no impacts to any surface features in the Animas Uplift or Warm Springs Valley. This is because the affected aquifer is deep below the surface and does not influence the presence or level of water or presence of vegetation at the surface, including riparian vegetation.

WL-13. The Parametrix 2011 Report "Biological Resources Survey Report Copper Flat Pipeline and Well Sites Sierra County, New Mexico" and Chapter 5 of NMCC' s Baseline Data Report (Intera 2012) both state "off-site reference areas" were included in the Wildlife and Migratory Birds survey, but no maps or figures are included. The maps or figures must be made available to the public for review and comment prior to the Draft EIS being finalized.

Response: Wildlife surveys conducted to support the Copper Flat BDR were designed to characterize wildlife diversity and abundance in and around the permit area. The study included multiple survey elements:

1. Bird survey transects
2. Reptile survey transects
3. Bat monitoring (via acoustic technology)
4. Small mammal trapping webs
5. Large mammal pellet count transects

Off-site reference areas were established near the proposed permit area and monitored during the BDR surveys. Natural Resources Conservation Service (NRCS) mapping of the mine site included two ecological site descriptions (ESD) – Gravelly and Hills. The NRCS mapping was used as an initial basis for stratifying the various biological surveys on the mine site. ESDs differentiate distinctive physical site characteristics (soils, climate, and water availability), vegetation communities, and ecological dynamics; and the ESD boundary delineations were found to be highly predictive of vegetation community characteristics and differing wildlife habitat zones in and around the permit area.

Vegetation surveys completed for the Copper Flat BDR found that the Hills ESD area contained a Chihuahuan desert grassland community while a desert shrubland community inhabited the Gravelly ESD. The NRCS ESD boundaries also continued to accurately differentiate distinct vegetation community

assemblages outside the mine site and into the reference areas. Thus, off-site reference areas were placed in both the Gravelly (desert shrubland) and Hills ESD (desert grassland) types adjacent to the permit area. During the survey, field biologists confirmed that the selected reference areas were composed of similar vegetation communities, habitat characteristics, and identical soil map units to the mine site. Portions of Grayback arroyo outside the permit area were also surveyed as an off-site reference for arroyo portions of the permit boundary.

Acoustic bat detection instruments were also monitored at large stock tanks on the Ladder Ranch approximately 1.75 miles outside the permit boundary. The stock tanks were the most similar off-site analog to the pit lake that field biologists could locate near the mine site.

Maps and photos of the mine permit and corresponding reference survey areas have been added to the Wildlife Affected Environment section of the Final EIS.

WL-14. Contradictory to what is stated on page 3-124, owners of the Hillsboro Pitchfork Ranch LLC have no recollection of, or documentation of any party associated with NMCC asking for permission to conduct a qualitative wildlife habitat assessment on ranch lands. A complete analysis of effects to wildlife habitat within the Warm Springs Valley must be conducted and published. This process must be completed prior to the issuance of a FEIS and Letter of Declaration.

Response: Operation of the mine, including pumping of the deep aquifer, would not affect wildlife habitats in the Warm Springs Valley because the aquifer is deep below the surface and not connected with surface waters or any vegetation at the surface.

WL-15. Table 3-25 does not include the Grayback Arroyo system or the Warm Springs Valley as specific areas studied. The Scaled Quail, Gambel's Quail, and Montezuma Quail use these habitats during all seasons of the year. A complete analysis of the affects to wildlife habitat within this area must be completed prior to the issuance of a FEIS and Letter of Declaration.

Response: The hydrology modeling analysis of the effects of pumping for mine operations indicated that there would be no impacts to any surface features in the Grayback Arroyo system or the Warm Springs Valley. This is because the affected aquifer is deep below the surface and does not influence the presence or level of water or presence of vegetation at the surface, including riparian vegetation.

WL-16. The area immediately to the west of the mine site in the area of the Grayback Arroyo System is identified as an area of critical Mule Deer Fawning habitat by NMF&G Biologists. The area upstream of the mine pit in the Animas Uplift is an important Mule Deer fawning area (wildlife biologists from NMF&G confirmed Hillsboro Pitchfork Ranch LLC surveys). The EIS does not mention Mountain Mahogany (*Cercocarpus*), a common vegetative species found adjacent the mine pit and a primary forage for Mule Deer. A complete analysis of the affects to

wildlife habitat within this area must be completed prior to the issuance of a FEIS and Letter of Declaration. [Same as VEG-8]

Response: The hydrology modeling analysis of the effects of pumping for mine operations indicated that there would be no impacts to any surface features in the Grayback Arroyo system. This is because the affected aquifer is deep below the surface and does not influence the presence or level of water or presence of vegetation at the surface, including riparian vegetation.

WL-17. There is no quantitative analysis of affects to wildlife habitat. Statements such as "It is probable that small to large medium- and long-term minor adverse effects" have no meaning or quantitative value to understanding the negative effects to wildlife from the mining operation.

Response: The description of environmental effect has been revised and expanded in the Wildlife and Migratory Birds section of the Final EIS to be more descriptive of the particular kinds of impacts, their intensity and duration.

WL-18. The scope of the wildlife impacts analysis is limited. Statements such as "Common species are expected to return to the mining area in the long-term after reclamation occurs" do not address the larger area affected by the mine pit dewatering and associated adverse effect to wildlife habitat. Given the permanent reduction in the water table associated with the mine pit dewatering cone of depression, wildlife populations will not and cannot return to existing levels within the Animas Uplift.

Response: The hydrology modeling analysis of the effects of pumping for mine operations indicated that there would be no impacts to any surface features in the Animas Uplift. This is because the affected aquifer is deep below the surface and does not influence the presence or level of water or presence of vegetation at the surface, including riparian vegetation.

WL-19. Page 138, paragraph 4 implies that adjacent landowners should shoulder the responsibility for the negative consequences on wildlife from mining operations. Need to develop mitigation measures to address this concern.

Response: Impacts to wildlife would include displacement from the disturbed portions of the mine site and increased competition for food and breeding habitats. Consideration would be given to neighbors regarding their land use requirements including cattle grazing, alternate energy generation such as wind and solar, and reestablishment and enhancement of original botanical and zoological species inhabitants. At the completion of mining activities, the Copper Flat project site would be reclaimed to achieve a self-sustaining ecosystem appropriate for the climate, environment, and land uses of the area. Because reclamation includes the entire mine area and 52 percent of the area consists of previously disturbed land, conversion to natural habitat would have long-term minor and beneficial impacts to wildlife and migratory birds due to the increase in potential habitat and habitat connectivity. These beneficial impacts would not

occur until after the completion of reclamation, but would be long-term starting at that point. Common species are expected to return to the mining area in the long term after reclamation occurs. Once reclamation was successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels.

WL-20. The Draft EIS is flawed in that it does not account for the cumulative effects to wildlife. The cumulative effects of mine development to wildlife are permanent within the Animas Uplift and the Warm Springs Valley. [Same as CI-19]

Response: Common wildlife populations in the area of the mine site would be adversely affected by site disturbance, including vegetation removal that eliminates occupied wildlife habitat, noise from vehicles, equipment and blasting, increased incidence of vehicular mortality on mine roads, and the general disturbance of increased human presence. Impacts on wildlife from vegetation loss would add some minimal portion to other effects on wildlife both in and adjacent to the mine area including livestock grazing and climate effects. The cumulative impacts of all these factors would continue to adversely affect those wildlife species already depleted because of habitat loss or deterioration in Sierra County. Federally protected T&E species that have become increasingly rare in southwestern New Mexico because of some of these factors were evaluated in a biological assessment. Separate measures to limit mining effects were developed in consultation with the USFWS. For general wildlife populations, mine site restoration using native plants would provide a long-term benefit to vegetation that would offset a portion of the overall cumulative effects.

WL-21. Need to conduct surveys of evapotranspiration on the Animas Uplift, and quantify impacts to Range and Livestock and wildlife. [Same as R&L-7]

Response: Range vegetation and the livestock that graze on it would not be affected in the Animas Uplift because the deep aquifer that would be drawn down for mine operations is not directly connected to the surface water in the Animas Uplift.

WL-22. Other than correction of negative effects from prior attempts at copper production in the Copper Flat Area site, there are no other long-term improvements to habitats (as stated on page 4-10). [Same as CI-24]

Response: Mine site restoration using native plants would provide a long-term benefit to vegetation and habitats that would offset a minimal portion of the overall cumulative effects. Beneficial impacts to habitats would occur after restoration of the project site and from the Rio Grande improvements, Nonnative Phreatophyte/Watershed Management Plan, the NMED Watershed Restoration Action Strategy, and any nearby mine reclamation, in addition to activities based on wildlife and land management planning efforts that are currently underway.

WL-23. The following statement of bat activity may be misconstrued: "[a] thorough survey of shafts was not conducted for bat activity" (§ 3.10.1.3, at 3-131) to indicate that the shafts have not been studied for bat activity, which is not accurate. Surveys of bat activity in shafts and audits were conducted as part of the 2013 Baseline Data Report Addendum; the FEIS should clarify this accordingly.

Response: The FEIS has been revised to reflect the information from the 2013 BDR Addendum.

WL-24. The DEIS does not discuss impacts to a resident population (already in decline over the past several decades) and important breeding grounds for mule deer located immediately to the west of the Copper Flat Mine. Because Mule deer rely upon multiple springs in the area and could be in jeopardy, depending on the final extent of the pit's cone of depression.

Response: As noted in responses to previous wildlife comments, the area west of the mine site would not be affected by mine operations, including springs in the area.

WL-25. The post-closure pit lake water quality is estimated to exceed water quality standards for wildlife, yet the post-mining land use under the Mining Act is "a water reservoir for wildlife habitat." The pit lake post-mining land use of wildlife habitat cannot be approved under the Mining Act, since the mine operator hasn't demonstrated how water quality standards for wildlife will be met in the pit lake.

Response: The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The water quality standard that would apply is a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality.

As described in the EIS, water in the existing pit is high in cadmium, copper, manganese, and selenium. Table 3-8 of the EIS shows the relevant surface water standards for these four contaminants in waters of the State. Selenium is the only one of these four contaminants with a wildlife standard (<5 ug/L or 5 ppb). The measured level of selenium in the existing pit lake is 35 ug/L or 35 ppb. At the species level, the USEPA has set water quality criteria for aquatic life, but has yet to set criteria for aquatic dependent species such as birds and bats.

The baseline data report for the project, prepared in 2011, identified four species of birds in the pit lake habitat, several species of bats, and riparian vegetation in the fringes of the pit lake consisting of a small cattail marsh (<0.1 ac) and intermittent saltcedar, an invasive species. A 2014 survey of the pit lake concluded that there are no fish, zooplankton, or macroinvertebrates in the existing pit lake.

In the absence of USEPA water quality criteria for selenium applicable to aquatic dependent wildlife and the scarcity of quality food sources (fish, aquatic vegetation, zooplankton, and macroinvertebrates) that would biomagnify to higher levels of selenium, the BLM finds that the potential for bioaccumulation of selenium and selenium poisoning, selenosis, is very low. The presence of insect-eating birds and a relative abundance of bats at the existing pit lake at a point in time 35 years after the lake began refilling and establishing the water quality baseline for the lake, suggests that existing water quality levels in the pit lake are not exclusionary for these species. The pit lake is likely a resting or transitory area for these species rather than a feeding area. The EIS (affected environment section and wildlife impacts section) has been revised to better describe the pit lake with respect to wildlife and habitat.

WL-26. Paragraph 2 on page 3-136 states: “However, both direct and indirect impacts to wildlife species are expected to result from minerals development, construction activities, and from traffic changes on the coal haul transportation route...” This statement was cut and pasted from a prior coal mine assessment. This section is flawed.

Response: The cumulative impacts analysis addresses the potential for the actions of others outside the development of the Copper Flat mine to cumulatively affect wildlife species in the area.

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/ Resource Area	Response	File Name
A1	12/28/2015	Jon Barela	New Mexico Economic Development Department (NMEDD)	NMEEED supports Alternative 2 - the most economical manner in which to operate the mine. Alternative 2 would limit the environmental impact and promote the positive economic impact as a result.	ALT-1	Alternatives	Thank you for your comment.	A1_NMEDD
A2	12/28/2015	Terence Foreback	New Mexico Bureau of Mine Safety (NMBMS)	Assertion that Copper Flat is not a "green field project;" rather, it has been disturbed by ranching and mining. Improvement of the area will be accomplished by the mining process.	CI-1; LU-4	Cumulative Impacts; Land Ownership and Land Use	Thank you for your comment. Previous mining activities at the site were included in the cumulative impacts analysis as discussed in Chapter 4 of the EIS.	A2_NMBMS
A2	12/28/2015	Terence Foreback	New Mexico Bureau of Mine Safety (NMBMS)	Sierra County poverty level (11-24%) vs. Grant County (3-10%) points to positive economic forces and excellent wages and disproves the "boom and bust" mining cycles and associated socioeconomic impacts.	SE-1	Socioeconomics	Thank you for your comment.	A2_NMBMS
A3	2/5/2016	Jim Dines	State of New Mexico House of Representatives	Support NMCC's plan to re-open the mine due to the creation of employment and jobs to the county and state.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	A3_NM House of Reps
A3	2/5/2016	Jim Dines	State of New Mexico House of Representatives	The US needs responsible domestic production of natural resources and the mine will produce copper and other valuable metals in NM.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	A3_NM House of Reps
A3	2/5/2016	Jim Dines	State of New Mexico House of Representatives	Proper Federal and State regulations will ensure protection of the workers and the environment.	HH&PS-4; REG-4	Human Health and Public Safety; Regulatory Compliance	Thank you for your comment. The mining proponent would employ modern mining techniques in compliance with MSHA.	A3_NM House of Reps
A3	2/5/2016	Jim Dines	State of New Mexico House of Representatives	Request that BLM work through the EIS process efficiently and without delay.	NEPA-8	NEPA Process	Thank you for your comment.	A3_NM House of Reps
A4	2/19/2016	Jeff Witte	New Mexico Department of Agriculture	Concerned about the effects of removing such large amounts of water from the aquifer and the impacts of these reductions on other water users. The DEIS is not specific enough in addressing those impacts to other groundwater stakeholders such as community, stock watering, and irrigation water users.	GW-5	Groundwater Resources	The DEIS provides details on the effects of the mining project on water resources and indicates that the primary effect that has the potential to impact other water users would be depletion of flows in the Rio Grande. These effects would be subject to mitigation in accordance with obligations imposed by the OSE and by voluntary actions applied by NMCC. NMCC has committed to provide such mitigation for the duration of the impacts from the project. To the extent the OSE determines NMCC has a vested right to deplete surface flows below the dam without providing an additional offset, and absent the voluntary mitigation, there could be an adverse effect on users of surface water in the Lower Rio Grande Basin and/or Texas that would exist for decades. However, because NMCC would provide mitigation in the form of offsets from upstream, this impact is predicted to not occur. Groundwater levels would decline near the NMCC wellfield during operations, and then gradually recover. The OSE would determine whether this causes impairment of any existing wells and, if so, would require mitigation; as of mid-2017, no analysis had indicated that such impairment would occur, i.e. there is not expected to be any loss of ability to produce water from existing livestock, domestic, or community supply wells. Some increase in pumping costs may occur, which is an acceptable effect under New Mexico water law. No impacts to Hatch Valley or thermal water sources would reasonably be expected. The continuous clay layer and the presence of perched water beneath portions of Las Animas Creek are demonstrated by water level measurements and geologic logs, and by the hydrologic reality that sustained flows in the Creek can only occur if the shallow hydrology is isolated from the deeper water table that is characteristic of the regional hydrology. Impacts from pit dewatering could impair nearby wells; if this occurs, mitigation will be required.	A4_Dept. of Agriculture
A4	2/19/2016	Jeff Witte	New Mexico Department of Agriculture	DEIS notes on p. 3-73 that "the effects of possible irrigation replacement pumping are discussed separately." Where are the effects discussed separately? There are several analyses missing from the discussion on impacts to irrigated lands; to complete a robust EIS, a full analysis to natural resources must be conducted.	NEPA-9; GW-6	NEPA Process; Groundwater Resources	Project impacts to irrigated lands are predicted to occur only in the lower part of Las Animas Creek where farms are supplied from wells that produce from an artesian aquifer, and to occur only if well owners choose not to offset decreased aquifer pressures by increasing pumping rates. Drawdown impacts in this area are discussed in Section 3.6 and are shown on DEIS Figures 3-13c, 3-16c, and 3-19c.	A4_Dept. of Agriculture
A4	2/19/2016	Jeff Witte	New Mexico Department of Agriculture	Draft EIS should analyze the impacts a drop in the water table will have on livestock, domestic, and community supply groundwater wells in addition to the lost irrigation supply.	GW-5	Groundwater Resources	The DEIS provides details on the effects of the mining project on water resources and indicates that the primary effect that has the potential to impact other water users would be depletion of flows in the Rio Grande. These effects would be subject to mitigation in accordance with obligations imposed by the OSE and by voluntary actions applied by NMCC. NMCC has committed to provide such mitigation for the duration of the impacts from the project. To the extent the OSE determines NMCC has a vested right to deplete surface flows below the dam without providing an additional offset, and absent the voluntary mitigation, there could be an adverse effect on users of surface water in the Lower Rio Grande Basin and/or Texas that would exist for decades. However, because NMCC would provide mitigation in the form of offsets from upstream, this impact is predicted to not occur. Groundwater levels would decline near the NMCC wellfield during operations, and then gradually recover. The OSE would determine whether this causes impairment of any existing wells and, if so, would require mitigation; as of mid-2017, no analysis had indicated that such impairment would occur, i.e. there is not expected to be any loss of ability to produce water from existing livestock, domestic, or community supply wells. Some increase in pumping costs may occur, which is an acceptable effect under New Mexico water law. No impacts to Hatch Valley or thermal water sources would reasonably be expected. The continuous clay layer and the presence of perched water beneath portions of Las Animas Creek are demonstrated by water level measurements and geologic logs, and by the hydrologic reality that sustained flows in the Creek can only occur if the shallow hydrology is isolated from the deeper water table that is characteristic of the regional hydrology. Impacts from pit dewatering could impair nearby wells; if this occurs, mitigation will be required.	A4_Dept. of Agriculture

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
A4	2/19/2016	Jeff Witte	New Mexico Department of Agriculture	Need to analyze the full economic impacts associated with the cost of replacing all reductions in water flow. Impacts on nearby private groundwater wells can include additional electricity costs from pumping at deeper levels and even the necessity of having to drill deeper wells to access water.	GW-18; SE-28	Groundwater Resources; Socioeconomics	The performance of any well west of the mine pit is not known to an extent that would allow an accurate determination of impact on the well and water supply. If pre-mining well performance baselines are established, and impacts to these wells from pit dewatering are demonstrated and documented to the OSE as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with New Mexico law.	A4_Dept. of Agriculture
A4	2/19/2016	Jeff Witte	New Mexico Department of Agriculture	Need to analyze the impacts a drop in the water table will have on livestock, domestic, and community supply groundwater wells in addition to the lost irrigation supply.	GW-5	Groundwater Resources	The DEIS provides details on the effects of the mining project on water resources and indicates that the primary effect that has the potential to impact other water users would be depletion of flows in the Rio Grande. These effects would be subject to mitigation in accordance with obligations imposed by the OSE and by voluntary actions applied by NMCC. NMCC has committed to provide such mitigation for the duration of the impacts from the project. To the extent the OSE determines NMCC has a vested right to deplete surface flows below the dam without providing an additional offset, and absent the voluntary mitigation, there could be an adverse effect on users of surface water in the Lower Rio Grande Basin and/or Texas that would exist for decades. However, because NMCC would provide mitigation in the form of offsets from upstream, this impact is predicted to not occur. Groundwater levels would decline near the NMCC wellfield during operations, and then gradually recover. The OSE would determine whether this causes impairment of any existing wells and, if so, would require mitigation; as of mid-2017, no analysis had indicated that such impairment would occur, i.e. there is not expected to be any loss of ability to produce water from existing livestock, domestic, or community supply wells. Some increase in pumping costs may occur, which is an acceptable effect under New Mexico water law. No impacts to Hatch Valley or thermal water sources would reasonably be expected. The continuous clay layer and the presence of perched water beneath portions of Las Animas Creek are demonstrated by water level measurements and geologic logs, and by the hydrologic reality that sustained flows in the Creek can only occur if the shallow hydrology is isolated from the deeper water table that is characteristic of the regional hydrology. Impacts from pit dewatering could impair nearby wells; if this occurs, mitigation will be required.	A4_Dept. of Agriculture
A4	2/19/2016	Jeff Witte	New Mexico Department of Agriculture	Request that BLM further analyze how impacts of potential drawdowns will impair existing water sources as well as the mitigation measures that may be required prior to making any decision.	GW-12	Groundwater Resources	The focus of this comment is understood to relate to mitigation of effects from drawdowns that impair or affect existing surface waters as to uses, seasonal flows, vegetation, and wildlife habitat. The BLM understands that a particular concern is the seasonal flow that occurs along the perched reach of Las Animas Creek and which supports irrigation, vegetation, and habitat. No impact to the highly valued resource in this reach is expected to result from the project. This conclusion results from the fact that the shallow groundwater in the reach is not hydrologically connected to the regional aquifer which is the source of water to the wells that would supply the project. Indeed, the perched water table would not exist if there were a connection to the main regional aquifer, which at present lies at substantial depth below the river. Extensive monitoring is proposed to validate ongoing hydrologic conditions. NMCC has access to a multi-purpose groundwater monitoring and instrumentation network along Animas Creek and Percha Creek to facilitate monitoring of water levels in the shallow, deep, and artesian aquifers to meet requirements of various agencies, including the OSE as part of the NMCC water pumping permit. NMCC staff would conduct regular monitoring of groundwater and surface water along Animas and Percha Creeks. In addition to regular monitoring, monitoring of flood events along the creeks as they occur is also planned to gather information about surface flows throughout the year. NMCC staff would compile an annual report of the multi-purposed groundwater and surface water monitoring network for internal use and outside reporting. Groundwater elevations observed would be compared to model predictions to track the relative accuracy of the model. NMCC would work with OSE to offset surface water effects, and no reduction in irrigation supply would be permitted. See also the response to GW-2 regarding impacts of groundwater pumping on the aquifer and on stream flows.	A4_Dept. of Agriculture
A4	2/19/2016	Jeff Witte	New Mexico Department of Agriculture	Deterioration of soil fertility as a result of dust suppression by using pit water could greatly harm the affected environment and reduce local ranchers; ability to produce livestock. Need to analyze the extent to which soil and vegetation would be harmed by mine dust and pit water.	SOI-1; VEG-4	Soils; Vegetation	The NMED is currently processing NMCC's discharge permit application, so there is no current regulatory requirement regarding the use of pit water for dust suppression. Pursuant to the NMED Supplemental Permitting Requirements for Copper Mine Facilities (20.6.7 NMAC), during operations groundwater standards do not apply within the "area of open pit hydrologic containment" (20.6.7.24.D). Therefore, the discharge permit would not put limitations on the quality of water used for dust suppression within the area of open pit hydrologic containment. Outside of that area, the discharge permit would likely include limitations on the quality of water that could be used for dust suppression. Any surface runoff from dust suppression would need to be contained such that it would not impact surface waters, but that would not be a component of a groundwater discharge permit, more likely part of a SWPPP. For application of impacted water for dust suppression inside the hydrologic containment area (pit lake area), pit water can be applied as dust suppression without treatment as long as this water is applied inside the hydrologic containment area. If the impacted water adversely affected the soils to a condition that could not support vegetation, then MMD would likely require the application of 36" of growth media at feasible reclamation areas (24 inches over foundations or concrete). MMD would look to their Closeout Plan Guidelines to determine whether soil was adversely affected by metals or other contaminants from applying impacted pit water.	A4_Dept. of Agriculture

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
A4	2/19/2016	Jeff Witte	New Mexico Department of Agriculture	Need to analyze if pollution contamination from mining dust and pit water will have any effect on livestock and wildlife health.	R&L-1; WL-9	Range & Livestock; Wildlife	<p>During construction and operation of the mine, adverse effects to local off-site vegetation may occur as a result of fugitive dust emissions from construction machinery and worker traffic along unpaved roads. Dust emission could reduce photosynthesis by reducing the amount of light penetrating through the leaves. Dust emissions could also increase the growth of plant fungal disease (NZME 2001). Dust from construction-related activities would be short-term, and after construction, local off-site vegetation would be expected to recover in a reasonable amount of time. The post-closure monitoring period includes the final abandonment of monitoring wells and reclamation of access roads used for power and water utilities. Reclamation and revegetation would stabilize exposed soil and control fugitive dust emissions.</p> <p>Access by livestock and large terrestrial wildlife to pit water would be extremely limited after mine operations cease. At closure, stable pit walls would be left in place, and unstable pit walls would be stabilized by blasting or other safe methods. In those areas where pit benches could be safely accessed with the appropriate equipment, alluvial material would be placed on the benches above the projected water level and the benches would be graded and seeded to limit erosion. Roads would be ripped and water barred to control surface water runoff. Disturbed areas around and adjacent to the pit would be covered with alluvial material and revegetated. The ramp would be graded or ramps placed at different locations to allow escape routes for wildlife. The pit area and high walls would be appropriately barricaded with physical barriers or fences to prevent humans and livestock from reaching the pit lake. Currently in consultation with USFWS to address concerns about migratory bird and bat use of pit lake.</p> <p>The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The water quality standard that would apply is a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality.</p> <p>As described in the EIS, water in the existing pit is high in cadmium, copper, manganese, and selenium. Table 3-8 of the EIS shows the relevant surface water standards for these four contaminants in waters of the State. Selenium is the only one of these four contaminants with a wildlife standard (<5 ug/L or 5 ppb). The measured level of selenium in the existing pit lake is 35 ug/L or 35 ppb. At the species level, the USEPA has set water quality criteria for aquatic life, but has yet to set criteria for aquatic dependent species such as birds and bats.</p> <p>The baseline data report for the project, prepared in 2011, identified four species of birds in the pit lake habitat, several species of bats, and riparian vegetation in the fringes of the pit lake consisting of a small cattail marsh (<0.1 ac) and intermittent saltcedar, an invasive species. A 2014 survey of the pit lake concluded that there are no fish, zooplankton, or macroinvertebrates in the existing pit lake.</p> <p>In the absence of USEPA water quality criteria for selenium applicable to aquatic dependent wildlife and the scarcity of quality food sources (fish, aquatic vegetation, zooplankton, and macroinvertebrates) that would biomagnify to higher levels of selenium, the BLM finds that the potential for bioaccumulation of selenium and selenium poisoning, selenosis, is very low. The presence of insect-eating birds and a relative abundance of bats at the existing pit lake at a point in time 35 years after the lake began refilling and establishing the water quality baseline for the lake, suggests that existing water quality levels in the pit lake are not exclusionary for these species. The pit lake is likely a resting or transitory area for these species rather than a feeding area. The EIS (affected environment section and wildlife impacts section) has been revised to better describe the pit lake with respect to wildlife and habitat.</p>	A4_Dept. of Agriculture
A4	2/19/2016	Jeff Witte	New Mexico Department of Agriculture	Disagree that impacts to range are of a "small (limited) extent" because "surface disturbance associated with mineral development and forage use by livestock would result in cumulative effects over a larger area than is analyzed in this document (p. 4-10)." Any reduction in forage has the potential to cause the allotment permittee to reduce the number of animals on the allotment or change their grazing plan.	R&L-2	Range & Livestock	<p>Section 3.19.2.1 describes that 384 acres of new surface disturbance would occur on BLM land within the Copper Flat allotment. As shown in Table 3-35, approximately 58 percent of the forage within the Copper Flat Ranch allotment is derived from BLM land. The reduction of 384 acres would be less than a 3 percent loss of forage derived from BLM land (assuming forage is available evenly across the Copper Flat Ranch allotment). Applying the significance criteria for range and livestock impacts established for this analysis (see Appendix A), this amount of forage loss derived from BLM land within an allotment is defined as small (limited) in extent. No adjustment (reduction) to permitted animal unit months (AUMs) because of new surface disturbance of 384 acres for the Copper Flat mine and 20 acres for utility infrastructure and a millsite within the Copper Flat allotment is anticipated.</p> <p>See also response to R&L-6 regarding mining impacts to surface and groundwater sources that could affect livestock water and forage.</p>	A4_Dept. of Agriculture
A4	2/19/2016	Jeff Witte	New Mexico Department of Agriculture	Request clarification on two contradicting statements in the DEIS on pages 3-213 and 3-214. "The BLM has determined that this further reduction in surface acres does not warrant a decrease in permitted use and "an adjustment (reduction" to permitted AUMs for this allotment may be necessary. Unclear whether a reduction in permitted use will be necessary.	R&L-3	Range & Livestock	<p>The text has been revised to, "As a result of rangeland monitoring studies and a Proposed Decision issued August 23, 1982, livestock numbers permitted on the Copper Flat Allotment No. 16079 were adjusted from 151 to 133 Animal Units. Monitoring studies continued and supported the Proposed Decision and a Rangeland Agreement was signed September 10, 1987. Since the BLM had previously reduced the number of animal units to account for the development of the Quintana Minerals Mine, no adjustment (reduction) to permitted AUMs because of new surface disturbance of 384 acres for the Copper Flat mine and 20 acres for utility infrastructure and a millsite within the Copper Flat allotment is proposed."</p>	A4_Dept. of Agriculture
A4	2/19/2016	Jeff Witte	New Mexico Department of Agriculture	Because their has already been a reduction of 18 animal units as a result of the 1999 Copper Flat EIS to account for the development of Quintana Mine, there should be some type of mitigation and/or compensation measures to the affected ranching operations that bear a disproportionate burden of the impacts.	R&L-4	Range & Livestock	<p>The adjustment to livestock numbers permitted on the Copper Flat Allotment No. 16079 from 151 Animal Units to 133 Animal Units was the result of rangeland monitoring studies that were completed and the Proposed Decision issued August 23, 1982. Monitoring studies continued and supported the decision, and a Rangeland Agreement was signed in September 10, 1987. No adjustment (reduction) to permitted AUMs because of new surface disturbance for mine development and operation on BLM land within the Copper Flat allotment is proposed. Measures to minimize adverse impacts to range and livestock are described in Section 3.19.3. Any changes made to livestock grazing numbers would be in accordance with BLM Grazing Regulations 43 CFR Part 4100.</p>	A4_Dept. of Agriculture

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A4	2/19/2016	Jeff Witte	New Mexico Department of Agriculture	Request to remain involved in the process of noxious weed control and eradication.	VEG-5	Vegetation	The BLM will set forth in the Terms and Conditions imposed in the ROD that NMED is to continue to receive notification about the project and in particular details of any measures employed to address noxious weeds. As a regulatory agency, NMED will continue to be involved in any changes to the MPO as appropriate.	A4_Dept. of Agriculture
A5	2/26/2016	Deborah Dixon	New Mexico Interstate Stream Commission	BLM did not adequately examine all the environmental consequences of the proposed action required to make a fully-informed and well-considered decision. Some of the items not covered by the Draft EIS, or addressed inadequately, are substantial and it is doubtful that, if challenged, the Draft EIS would stand up to the "hard look" standard set forth in NEPA jurisprudence.	NEPA-29	NEPA Process	The comment did not provide basis or specifics for items not covered by the EIS, or addressed inadequately, but in response to this comment and in consideration of other comments received, the BLM has reviewed the thoroughness of its examination of environmental consequences for the Proposed Action and alternatives and found them to be compliant with NEPA. The BLM is not aware of BLM surface water management regulations that have not been complied with in completing this EIS.	A5_NM Interstate Stream Commission
A5	2/26/2016	Deborah Dixon	New Mexico Interstate Stream Commission	DEIS fails to address impacts to the administration of the Rio Grande Compact (the "Compact") and to the Compact states of NM, CO, TX. Alleged groundwater withdrawal impacts on the surface water in the Lower Rio Grande basin of New Mexico are already the basis for interstate litigation involving the Compact.	REG-10	Regulatory Compliance	The FEIS acknowledges that the proposed project is expected to have a long-term, large-extent, and probable cumulative effect on these surface water resources. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	A5_NM Interstate Stream Commission
A5	2/26/2016	Deborah Dixon	New Mexico Interstate Stream Commission	The impact of groundwater pumping on the Rio Grande and Caballo Reservoir, if not offset on a real-time basis, will have an impact on the amount of water in the Reservoir, thereby reducing Usable Water in Project Storage. This will impact the Compact in a number of ways.	GW-5; WR-7; SW-15	Groundwater Resources; Water Rights; Surface Water Resources	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	A5_NM Interstate Stream Commission
A5	2/26/2016	Deborah Dixon	New Mexico Interstate Stream Commission	The proposed action and alternatives could have adverse impacts on the timing of Article VII of the compact storage restrictions for both New Mexico and Colorado, limiting both states' ability to store water upstream of Elephant Butte. For New Mexico, any reduction in water stored in Caballo Reservoir would have significant impact on the ability of the Middle Rio Grande Valley to store water in El Vado Reservoir. This storage limitation affects agricultural and municipal uses in the most populous part of the State.	GW-2; REG-10	Groundwater Resources; Regulatory Compliance	The DEIS provides details on the effects of the mining project on water resources and indicates that the primary effect that has the potential to impact other water users would be depletion of flows in the Rio Grande. These effects would be subject to mitigation in accordance with obligations imposed by the OSE and by voluntary actions applied by NMCC. NMCC has committed to provide such mitigation for the duration of the impacts from the project. To the extent the OSE determines NMCC has a vested right to deplete surface flows below the dam without providing an additional offset, and absent the voluntary mitigation, there could be an adverse effect on users of surface water in the Lower Rio Grande Basin and/or Texas that would exist for decades. However, because NMCC would provide mitigation in the form of offsets from upstream, this impact is predicted to not occur. Groundwater levels would decline near the NMCC wellfield during operations, and then gradually recover. The OSE would determine whether this causes impairment of any existing wells and, if so, would require mitigation; as of mid-2017, no analysis had indicated that such impairment would occur, i.e. there is not expected to be any loss of ability to produce water from existing livestock, domestic, or community supply wells. Some increase in pumping costs may occur, which is an acceptable effect under New Mexico water law. No impacts to Hatch Valley or thermal water sources would reasonably be expected. The continuous clay layer and the presence of perched water beneath portions of Las Animas Creek are demonstrated by water level measurements and geologic logs, and by the hydrologic reality that sustained flows in the Creek can only occur if the shallow hydrology is isolated from the deeper water table that is characteristic of the regional hydrology.	A5_NM Interstate Stream Commission

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AS	2/26/2016	Deborah Dixon	New Mexico Interstate Stream Commission	Any reduction to the amount of water stored in Caballo Reservoir will reduce the amount of Usable Water in Project Storage. Accordingly, such a reduction would have an impact on this upstream debit water release and, consequently, on the amount of water available for use above Elephant Butte.	GW-5; WR-7; SW-15	Groundwater Resources; Water Rights; Surface Water Resources	The DEIS provides details on the effects of the mining project on water resources and indicates that the primary effect that has the potential to impact other water users would be depletion of flows in the Rio Grande. These effects would be subject to mitigation in accordance with obligations imposed by the OSE and by voluntary actions applied by NMCC. NMCC has committed to provide such mitigation for the duration of the impacts from the project. To the extent the OSE determines NMCC has a vested right to deplete surface flows below the dam without providing an additional offset, and absent the voluntary mitigation, there could be an adverse effect on users of surface water in the Lower Rio Grande Basin and/or Texas that would exist for decades. However, because NMCC would provide mitigation in the form of offsets from upstream, this impact is predicted to not occur. Groundwater levels would decline near the NMCC wellfield during operations, and then gradually recover. The OSE would determine whether this causes impairment of any existing wells and, if so, would require mitigation; as of mid-2017, no analysis had indicated that such impairment would occur, i.e. there is not expected to be any loss of ability to produce water from existing livestock, domestic, or community supply wells. Some increase in pumping costs may occur, which is an acceptable effect under New Mexico water law. No impacts to Hatch Valley or thermal water sources would reasonably be expected. The continuous clay layer and the presence of perched water beneath portions of Las Animas Creek are demonstrated by water level measurements and geologic logs, and by the hydrologic reality that sustained flows in the Creek can only occur if the shallow hydrology is isolated from the deeper water table that is characteristic of the regional hydrology.	AS_NM Interstate Stream Commission
AS	2/26/2016	Deborah Dixon	New Mexico Interstate Stream Commission	The proposed action may also impact actual or hypothetical spill as defined in Article I of the Compact and could also have adverse impacts on Actual Release from Project Storage.	REG-10	Regulatory Compliance	The FEIS acknowledges that the proposed project is expected to have a long-term, large-extent, and probable cumulative effect on surface water resources. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	AS_NM Interstate Stream Commission
AS	2/26/2016	Deborah Dixon	New Mexico Interstate Stream Commission	The Model Minimizes the Impacts of Groundwater Withdrawals on the Surface Waters of the Rio Grande and Caballo Reservoir and the ISC is concerned about the groundwater flow model used in the Draft EIS. Specifically, the impact on the surface and ground water supplies in the mine area is evaluated using a groundwater flow model that utilizes assumptions not supported by field data, in particular reservoir elevations, and contains conceptual misrepresentations.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	AS_NM Interstate Stream Commission
AS	2/26/2016	Deborah Dixon	New Mexico Interstate Stream Commission	It is unclear why the Draft EIS used the fixed elevation of 4200 feet for all time periods: pre-mining, during the mining operations, and post mining. The US BOR has historical data showing end of month levels of the Reservoir since the date of construction. That data should be used in the model at least up to 2015, and then an estimated annual fluctuation could be used to simulate lake elevation during the mining operations and post-mine time periods.	SW-18	Surface Water Resources	The Caballo Reservoir is simulated as a head-dependent boundary with the elevation specified at 4,200 feet above mean sea level. Although high, the use of this elevation for the Caballo Reservoir does not preclude the use of the model for the prediction of impacts. The determination of impacts is not greatly impacted by such an issue because the impacts are based on a comparative analysis of different simulated conditions. The impact predictions are based on a modeled comparison of conditions with and without mining, rather than on a match between modeled and observed data.	AS_NM Interstate Stream Commission
AS	2/26/2016	Deborah Dixon	New Mexico Interstate Stream Commission	The model assumes all water in the alluvium (model layer 1) is isolated from the Upper Santa Fe group by a confining bed in the entire model area. Furthermore, the model conceptually assumes that there is no horizontal interaction between the Upper Santa Fe group and neighboring alluvium; it only allows vertical interaction through a very low vertical conductance. The DEIS model needs to be tested using site specific hydrogeologic data and a sensitivity analysis.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	AS_NM Interstate Stream Commission

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A5	2/26/2016	Deborah Dixon	New Mexico Interstate Stream Commission	The groundwater model assumes that there is a Paleo-channel that results in an additional source of water to the model area from north to south. However, the predominant groundwater flow direction is from west to east toward the Rio Grande and Caballo Reservoir. This assumed boundary in the model adds additional water to the system that may not exist. Recommend examining this sensitivity analysis again to determine how to better handle this assumption in the model.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	A5_NM Interstate Stream Commission
A5	2/26/2016	Deborah Dixon	New Mexico Interstate Stream Commission	The model top layer elevations contain a very steep elevation change in the middle of the model that is not supported by the United States Geological Survey Digital Elevation Model map. The model elevations need to be corrected after review of the map.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	A5_NM Interstate Stream Commission
A5	2/26/2016	Deborah Dixon	New Mexico Interstate Stream Commission	The routing of water in Percha Creek is not modeled correctly; it is represented by two reaches while it should have been represented by three reaches. The model flow routing in Percha Creek should be corrected.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	A5_NM Interstate Stream Commission
A5	2/26/2016	Deborah Dixon	New Mexico Interstate Stream Commission	Certain Elements of the Mine's Water Budget and Associated Supply are unclear. The initial source of the recycling water needed for the proposed action and proposed alternatives is not clearly stated in the DEIS (9,096 acre-feet, Table 2-10, Figure 2-6). SLM should clearly state the source of this water and include any additional water needed in the modeling for the DEIS.	GW-41	Groundwater Resources	The groundwater model has been revised to incorporate startup water and the results are shown in the FEIS.	A5_NM Interstate Stream Commission
A6	3/3/2016	Hector Garcia	Bureau of Reclamation	Concerned with the location of the mine - about 15 miles to the west of Caballo Reservoir.	SW-1; GW-4	Groundwater Resources; Surface Water Resources	Anticipated effects on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis on which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary mitigations applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the DEIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.	A6_Bureau of Reclamation
A6	3/3/2016	Hector Garcia	Bureau of Reclamation	Will there be any specific TSF monitoring locations established before flows enter the Rio Grande or Caballo Reservoir pool based on state and federal rules? Is there a long term monitoring plan capable of detecting any contaminants after the mine is closed before reaching the river/reservoir?	WQ-16	Water Quality	After mine closure, the TSF would be reclaimed with a cover of soil and vegetation which would serve to keep the tailings in place. Seepage from the TSF is expected to continue after mine closure and would have to be managed and monitored. Section 3.4.2.1.2 includes a list of mitigations for managing seepage from the TSF after closure. The mitigations include: detailed chemical analyses of the water and an assessment of potential effects to vegetation or soils; obtain all necessary environmental permits from the State of New Mexico and the EPA; modify the MPO to include a post-closure TSF seepage monitoring and management plan; and a post-closure trust fund (or other long-term funding mechanism) to pay for post-closure monitoring and management. Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements.	A6_Bureau of Reclamation

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
A6	3/3/2016	Hector Garcia	Bureau of Reclamation	The difference between the 7,376 acre feet vs. the OSE's allowed 888.783 acre feet should be evaluated in the DEIS. If NMCC can obtain the water they need for mining to offset depletions via additional or different ways, these need to be included as part of the proposed action for the DEIS.	WR-1; P&N-1	Water Rights; Purpose and Need	<p>With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	A6_Bureau of Reclamation
A6	3/3/2016	Hector Garcia	Bureau of Reclamation	Agencies like OSE/ISC, MMD, NMED, NMDGF, Rio Grande Compact Commission, Reclamation, irrigation districts, and others (federal, state, local agencies), as appropriate, should be coordinated with when the NMCC finalizes their water supplies under their three options listed.	REG-7	Regulatory Compliance	Coordination and required actions with listed agencies and entities have been or will be performed as required by laws and regulations.	A6_Bureau of Reclamation
A6	3/3/2016	Hector Garcia	Bureau of Reclamation	How are the depletions of the ground and surface water supplies calculated such as those discussed in Tables 3-15 and 3-16 related to surface water depletion upstream and downstream of Caballo Dam, and Table 2-11 re: yearly use of 13,370 acre feet with 3,802 acre feet from groundwater wells, and page 2-83, alternative 2 which identified that 22,210 acre feet with 6,105 acre feet coming from groundwater will be needed?	GW-23; SW-15	Groundwater Resources; Surface Water Resources	As described in Section 3.5, surface water depletions are calculated from the results of predictive groundwater flow modeling. Tables 3-15 and 3-16 summarize expected surface water depletions due to predicted reductions in groundwater discharge to Las Animas and Percha Creeks, Caballo Reservoir, and the Rio Grande below Caballo Dam. Reductions in groundwater discharge are estimated by comparing groundwater modeling simulation results for the Proposed Action and two mining alternatives to simulation results without mining. The simulation without mining is intended to represent background conditions. Of the 13,370 AFY of water that would be used at the mine, 3,802 acre-feet would be supplied by groundwater pumped from the mine's well field. The majority of the water used by the mine would be recycled. The predictive groundwater modeling simulation for the Proposed Action includes the 3,802 AFY of groundwater pumping. Results of this simulation are compared to the simulation without mining to determine the depletions presented in Tables 3-15 and 3-16. Similar approaches are used to estimate the depletions associated with the two alternatives; these depletions are also provided in Tables 3-15 and 3-16. While the surface water depletions due to mining would not vary, the impact of Copper Flat (and all other local/regional uses of surface and groundwater) would be proportionally larger during drought conditions, as surface water supplies would decline and the use of groundwater to offset the drop in surface water supplies may increase. However, NMCC is providing full offsets to these effects that would be equally effective in drought and non-drought conditions such that there would be no net impact on the regional water supply from the project, including Elephant Butte and Caballo reservoirs.	A6_Bureau of Reclamation
A6	3/3/2016	Hector Garcia	Bureau of Reclamation	Pages 3-55 and 3-56 make broad assertions of impacts from reductions in groundwater discharge on the Rio Grande and other surface water resources, and should be followed by an assessment of impacts to the Rio Grande and Caballo Reservoir including what is meant by notable effect.	GW-4; SW-1	Groundwater Resources; Surface Water Resources	Anticipated effects on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis on which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary mitigations applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the DEIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.	A6_Bureau of Reclamation

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
A6	3/3/2016	Hector Garcia	Bureau of Reclamation	Impacts to the river and the reservoir from groundwater depletion could impact T&E species habitat in the reservoir.	T&E-2	Threatened, Endangered, and Special Status Species	The BLM is in consultation with USFWS concerning potential impacts to federally-listed species in the project area, including species that could potentially be affected by reduced flows to the Caballo Reservoir. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease. Wildlife including any listed species at or surrounding Caballo Lake that are a result of lake water level are also a function of Upper Rio Grande River water that is available in any given year, the amount allocated to agricultural irrigation and legal obligations to Texas and Mexico. The wet offsets ensure the overall amount of water delivered to Caballo is not diminished by the mine water drawdown. Water level fluctuation in the lake will continue to be the result of river water availability and demand downstream. Wildlife and wildlife habitat present as a function of water fluctuation in Caballo Lake would not change.	A6_Bureau of Reclamation
A6	3/3/2016	Hector Garcia	Bureau of Reclamation	What are the impacts to the river, the reservoir, and to the farmers below the dam from this change in storage and flow under the alternatives for the critical timeframes of the first ten years, and the additional 100 years as presented in Table 3-8?	GW-5	Groundwater Resources	<p>The DEIS provides details on the effects of the mining project on water resources and indicates that the primary effect that has the potential to impact other water users would be depletion of flows in the Rio Grande. These effects would be subject to mitigation in accordance with obligations imposed by the OSE and by voluntary actions applied by NMCC. NMCC has committed to provide such mitigation for the duration of the impacts from the project. To the extent the OSE determines NMCC has a vested right to deplete surface flows below the dam without providing an additional offset, and absent the voluntary mitigation, there could be an adverse effect on users of surface water in the Lower Rio Grande Basin and/or Texas that would exist for decades. However, because NMCC would provide mitigation in the form of offsets from upstream, this impact is predicted to not occur.</p> <p>Groundwater levels would decline near the NMCC wellfield during operations, and then gradually recover. The OSE would determine whether this causes impairment of any existing wells and, if so, would require mitigation; as of mid-2017, no analysis had indicated that such impairment would occur, i.e. there is not expected to be any loss of ability to produce water from existing livestock, domestic, or community supply wells. Some increase in pumping costs may occur, which is an acceptable effect under New Mexico water law. No impacts to Hatch Valley or thermal water sources would reasonably be expected.</p> <p>The continuous clay layer and the presence of perched water beneath portions of Las Animas Creek are demonstrated by water level measurements and geologic logs, and by the hydrologic reality that sustained flows in the Creek can only occur if the shallow hydrology is isolated from the deeper water table that is characteristic of the regional hydrology.</p>	A6_Bureau of Reclamation
A6	3/3/2016	Hector Garcia	Bureau of Reclamation	Groundwater depletion impacts could occur to the irrigation storage/delivery during summer and/or winter, or in these drought periods, groundwater pumping could add to losses from the reservoir. In time of drought, when the entire Rio Grande supply is low and Elephant Butte and Caballo Reservoirs are at their lowest elevations, these proposed groundwater depletions from the mine pumping need to be assessed.	GW-23; SW-15	Groundwater Resources; Surface Water Resources	<p>With consideration of drought effects, the impact of Copper Flat (and every other local/regional pumper of surface water) would be proportionally larger as climate change progresses, without drought management policies in place such as New Mexico's Active Water Resource Management (AWRM). An analysis has been added to the FEIS that acknowledges AWRM as a factor in determining cumulative impacts.</p> <p>In January 2004 AWRM was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution makes priority of right the basis for water administration, but recent drought years have compelled the State Engineer to develop tools for AWRM that enable them to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes, thus compensating for the impacts to the aquifer and rivers.</p>	A6_Bureau of Reclamation

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
A6	3/3/2016	Hector Garcia	Bureau of Reclamation	Will the storage in Caballo Reservoir change enough, due to the groundwater pumping for the mine, that the vegetation around the reservoir will be impacted?	VEG-2; SW-6	Vegetation; Surface Water Resources	In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease. Vegetation surrounding Caballo Lake that is a result of lake water level is also a function of Upper Rio Grande River water that is available in any given year, the among allocated to agricultural irrigation and legal obligations to Texas and Mexico. The wet offsets ensure the overall amount of water delivered to Caballo is not diminished by the mine water drawdown. Water level fluctuation in the lake will continue to be the result of river water availability and demand downstream. Vegetation present as a function of water fluctuation in Caballo Lake would not change.	A6_Bureau of Reclamation
A6	3/3/2016	Hector Garcia	Bureau of Reclamation	Page 3-95, figure 3-21b, depicts groundwater discharge to the Rio Grande above and below Caballo changing from 2015 to 2040 by up to about 2,000 acre feet per year which is not analyzed in the EIS, and it needs to be analyzed as part of the proposed action.	GW-23; SW-15	Groundwater Resources; Surface Water Resources	As described in Section 3.5, surface water depletions are calculated from the results of predictive groundwater flow modeling. Tables 3-15 and 3-16 summarize expected surface water depletions due to predicted reductions in groundwater discharge to Las Animas and Percha Creeks, Caballo Reservoir, and the Rio Grande below Caballo Dam. Reductions in groundwater discharge are estimated by comparing groundwater modeling simulation results for the Proposed Action and two mining alternatives to simulation results without mining. The simulation without mining is intended to represent background conditions. Of the 13,370 AFY of water that would be used at the mine, 3,802 acre-feet would be supplied by groundwater pumped from the mine's well field. The majority of the water used by the mine would be recycled. The predictive groundwater modeling simulation for the Proposed Action includes the 3,802 AFY of groundwater pumping. Results of this simulation are compared to the simulation without mining to determine the depletions presented in Tables 3-15 and 3-16. Similar approaches are used to estimate the depletions associated with the two alternatives; these depletions are also provided in Tables 3-15 and 3-16. While the surface water depletions due to mining would not vary, the impact of Copper Flat (and all other local/regional uses of surface and groundwater) would be proportionally larger during drought conditions, as surface water supplies would decline and the use of groundwater to offset the drop in surface water supplies may increase. However, NMCC is providing full offsets to these effects that would be equally effective in drought and non-drought conditions such that there would be no net impact on the regional water supply from the project, including Elephant Butte and Caballo reservoirs.	A6_Bureau of Reclamation
A6	3/3/2016	Hector Garcia	Bureau of Reclamation	The analysis in the EIS and in the environmental surveys focused on the mine area, not on surrounding areas about 15 to 20 miles from the mine. As presented in the EIS, the groundwater east of the mine is at this time the only source described and is the key component to the mining process.	GW-24	Groundwater Resources	Thank you for your comment.	A6_Bureau of Reclamation
A6	3/3/2016	Hector Garcia	Bureau of Reclamation	If the tailings left at the mine may cause some contamination towards the east then those areas along drainages or subsurface need to be monitored long term under section 2.1.15.7. The EIS should include the post closure monitoring requirements set by BLM and OSE and NMED, and the proposed plan to meet those requirements.	WQ-16	Water Quality	After mine closure, the TSF would be reclaimed with a cover of soil and vegetation which would serve to keep the tailings in place. Seepage from the TSF is expected to continue after mine closure and would have to be managed and monitored. Section 3.4.2.1.2 includes a list of mitigations for managing seepage from the TSF after closure. The mitigations include: detailed chemical analyses of the water and an assessment of potential effects to vegetation or soils; obtain all necessary environmental permits from the State of New Mexico and the EPA; modify the MPO to include a post-closure TSF seepage monitoring and management plan; and a post-closure trust fund (or other long-term funding mechanism) to pay for post-closure monitoring and management. Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements.	A6_Bureau of Reclamation

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A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Based on the Environmental Justice Section and Table ES-3, EPA recommends that BLM's methodology to determine local environmental justice community and populations should not utilize averaging. The FEIS should identify each environmental justice communities within, near, and adjacent to the proposed project boundaries, pursuant to Executive Order 12898.	EJ-2	Environmental Justice	The methodology to determine local environmental justice communities and populations in the FEIS does not utilize averaging. Assuming the comment is in reference to Table 3-85, Minority Percentages and Populations by Census Tract, and Table 3-87, Population Below Poverty Level by Census Tract, the tables provide the total population of each census tract (CT) surrounding CT 9624.02 (the proposed mine is located in CT 9624.02), and an estimate of the minority and low-income population by census tract, respectively. The "aggregate of surrounding CTs" in Tables 3-85 and 3-87 is the sum of the minority and low-income populations divided by the sum of the total populations of the CTs surrounding CT 9624.02. Had the section utilized averaging in its methodology, the "aggregate of surrounding CTs" would have divided the sum of the minority and low-income populations by nine, or the number of CTs surrounding CT 9624.02. This averaging methodology would have – as pointed out by the commenter – inaccurately illustrated environmental justice (EJ) communities and populations within, near, and adjacent to the proposed project. However, an averaging methodology was not utilized; an aggregating methodology was utilized. As such, EJ communities and populations within, near, and adjacent to the proposed project are not inaccurately illustrated. The FEIS identifies environmental justice communities within, near, and adjacent to the proposed project, pursuant to Executive Order 12898. The affected environment first considers minority and low-income populations in Truth or Consequences and Sierra County, and compares them to minority and low-income populations in the state. Pursuant to CEQ's guidance and due to the site-specific nature of the proposed mine, CT data is then used to identify high concentration "pockets" of minority and low-income populations and describe the distribution of these populations, (respectively) in the vicinity of the proposed mine. Sierra County, including Truth or Consequences, is identified as an environmental justice population due to high poverty levels coupled with low median household income levels (See Table 3-86, 3-87, and Figure 3-50). The environmental consequences section (3.23.2) analyzes potential impacts to this environmental justice population in terms of employment opportunities, potential health impacts as related to air and water quality, recreation, transportation and traffic; and supports conclusions made in Table ES-3.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 3.23.3 identified potential environmental justice mitigations measures, but does not clearly delineate what mitigation measures are committed to or those that will be implemented.	EJ-3	Environmental Justice	NMCC plans to have on-the-job training for specific skills needed at the mine and would likely include administrative skills, professional development, mechanical, and technical skills. NMCC would offer competitive benefits packages per mining industry standards which would include a health insurance package (medical, dental, vision insurance), paid time off, short-term disability, education assistance program, substance abuse prevention, and a retirement savings plan that would encourage employee saving and conform with applicable laws. The Water Quality (3.4.2) and Air Quality (3.2.2) sections of the EIS include affirmations that BMPs would be employed to protect water and air during the operation of Copper Flat. The FEIS includes language clarifying that NMCC has committed to the mitigation measures discussed in Section 3.23.3.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 3.23.3 identified potential environmental justice mitigations measures, but does not clearly delineate what mitigation measures are committed to or those that will be implemented.	EJ-3	Environmental Justice	NMCC plans to have on-the-job training for specific skills needed at the mine and would likely include administrative skills, professional development, mechanical, and technical skills. NMCC would offer competitive benefits packages per mining industry standards which would include a health insurance package (medical, dental, vision insurance), paid time off, short-term disability, education assistance program, substance abuse prevention, and a retirement savings plan that would encourage employee saving and conform with applicable laws. The Water Quality (3.4.2) and Air Quality (3.2.2) sections of the EIS include affirmations that BMPs would be employed to protect water and air during the operation of Copper Flat. The FEIS includes language clarifying that NMCC has committed to the mitigation measures discussed in Section 3.23.3.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 2.1.15 does not appear to disclose financial assurance information that are likely to be Required, and the availability or adequate resources to ensure effective reclamation, closure, and post-closure management is a critical factor in determining the significance of the proposed project's potential impacts. Subsequently, the FEIS should incorporate a discussion of financial assurance.	SE-14	Socioeconomics	Bonding is not within the scope of the FEIS. The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party. The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMAC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMAC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMAC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Recommend the FEIS estimate the GHG emissions associated with the proposal and its alternatives using tools for estimating and quantifying GHG emissions found on CEQ's NEPA.gov website – these emissions levels can serve as a basis for comparison of the alternatives with respect to GHG impacts. (website referenced in individual comment).	CC-3; AQ-11	Climate Change and Sustainability; Air Quality	Quantitative data on anticipated greenhouse gas (GHG) emissions from the Proposed Action and alternatives (followed by a discussion of impacts) has been added to Section 3.3.2.1.1 of the FEIS. GHG emissions modeling data contained within the air permit document for the Copper Flat site have been analyzed and interpreted for the FEIS.	A7_USEPA

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A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Recommend the DEIS describe measures to reduce GHG emissions associated with the project, including reasonable alternatives or other practicable mitigation opportunities and disclose the estimated GHG reductions associated with such measures. (Examples provided in comment).	CC-3; AQ-11	Climate Change and Sustainability; Air Quality	Quantitative data on anticipated GHG emissions from the Proposed Action and alternatives (followed by a discussion of impacts) has been added to Section 3.3.2.1.1. GHG emissions modeling data contained within the air permit document for the Copper Flat site have been analyzed and interpreted for the EIS. CEQ's Final Guidance on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews (August 2016), which directed agencies to commit to implementation of reasonable mitigation measures to reduce or eliminate project-related GHG emissions, has been withdrawn for further consideration, (March 2017). Operators are required to reduce emissions of hazardous and criteria pollutants including volatile organic compounds (VOCs) as well as methane in accordance with Federal, State, and local rules and regulations. Because the controls to reduce VOCs can also reduce methane, mitigation for methane as a GHG would be in accordance with current federal rules and regulations. Although there are no active regulations that would require GHG mitigations for the proposed project, NMCC has identified in its air permit an array of monitoring and compliance measures that would be taken, which do involve measures related to the minimization of GHG emissions.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Recommends that the FEIS and ROD commit to implementation or reasonable mitigation measures that would reduce or eliminate project-related GHG emissions.	CC-4; AQ-12	Climate Change and Sustainability; Air Quality	CEQ's Final Guidance on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews (August 2016), which directed agencies to commit to implementation of reasonable mitigation measures to reduce or eliminate project-related GHG emissions, has been withdrawn for further consideration, (March 2017). Operators are required to reduce emissions of hazardous and criteria pollutants including volatile organic compounds (VOCs) as well as methane in accordance with Federal, State, and local rules and regulations. Because the controls to reduce VOCs can also reduce methane, mitigation for methane as a GHG would be in accordance with current federal rules and regulations. Although there are no active regulations that would require GHG mitigations for the proposed project, NMCC has identified in its air permit an array of monitoring and compliance measures that would be taken, which do involve measures related to the minimization of GHG emissions.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Recommend considering climate adaptation measures based on how future climate scenarios may impact the project in the FEIS. Using NCA or other peer reviewed climate scenarios to inform alternatives analysis and possible changes to the proposal can improve resilience and preparedness for climate change.	CC-5	Climate Change and Sustainability	Quantitative data on anticipated GHG emissions from the Proposed Action and alternatives (followed by a discussion of impacts) has been added to Section 3.3.2.1.1. GHG emissions modeling data contained within the air permit document for the Copper Flat site have been analyzed and interpreted for the EIS.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Because there are no concurrences provided for any conclusion reached in the FEIS, the Final EIS should incorporate concurrence from the USFWS and New Mexico Department of Game and Fish (NMDGF) on impacts of the proposed project to wildlife and migratory birds, and a commitment for mitigation.	REG-8; WL-5	Regulatory Compliance; Wildlife	The specific analysis for listed species and all protective and mitigation actions derived via the consultation process with USFWS are included in the Biological Assessment as part of the EIS analysis process. Protective and mitigation actions for listed as well as other wildlife species will be included in the Record of Decision. The New Mexico Department of Game and Fish (NMDGF) is a designated cooperating state agency that is closely coordinating on project development and the EIS process. An independent concurrence is not required.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	The FEIS should clarify how the transportation and traffic impacts will be addressed and identify any committed mitigation because the FEIS states that no mitigation measures for transportation and traffic beyond regulatory requirements described in the Proposed Action have been identified for any alternative. Thus, it is unclear how the transportation and traffic impacts will be addressed.	TR-5	Transportation and Traffic	The FEIS does in fact address transportation and traffic impacts for the Proposed Action and each of the alternatives in Section 3.20, Transportation and Traffic. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following: a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine. b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point. c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards. d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT. In discussions, NMDOT has not requested or stated a need for paved shoulders on NM 152. NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS. Additionally, NMCC would maintain Gold Dust Road during mining operations as necessary to keep it in good condition. While there is no formal agreement in place with Sierra County, it is expected that after mine closure, Gold Dust Road would revert to County maintenance as it stands today. The FEIS has been amended to include the above discussion	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	The FEIS should clarify how impacts to visual resources will be addressed and identify any committed mitigation because Section 3.14.3 Mitigation Measures, states that no mitigation measures for visual resources beyond regulatory requirements described in the Proposed Action have been identified for any alternative. Thus, it is unclear how impacts to visual resources will be addressed.	VIS-3	Visual Resources	Section 3.14.2 addresses how impacts to visual resources will be addressed with the statements: "Effects to the APE (viewshed) are determined by the degree of agreement with the VRM Class Objectives...In order to assess the degree of visual contrast that would result from implementation of the Proposed Action, key observation points (KOPS) were selected at which changes to the characteristic landscape could be analyzed." The APE and KOPS were identified for this resource and VRM Class Objectives are defined. The degree of contrast was determined to be in the weak to moderate range. To minimize contrast, buildings and facilities would be painted in neutral colors to blend in with the surrounding landscape. The proposed mine buildings would comply with the objective for the Class III and IV areas within the mine area. Further mitigation was determined not to be necessary.	A7_USEPA

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A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	The FEIS should incorporate any issues raised by, and concurrence from, the ACHP, SHPO, Tribes, NMCC, and the PA showing how the significant impacts will be addressed and mitigated because the DEIS states that BLM would develop measures to avoid, minimize, or mitigate the adverse effects to historic properties in a Programmatic Agreement (PA) during the Section 106 consultation process.	CR-2; REG-9	Cultural Resources; Regulatory Compliance	A brief description of issues raised by the ACHP and the Section 106 consulting parties has been added to the FEIS. The FEIS includes a copy of the fully-signed PA to resolve the adverse effects to historic properties. A summary of mitigation measures to be implemented has been added to the FEIS.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 2.1.1 - Mine Operation - Open Pit, page 2-9: EPA recommends including a pit lake conceptual model as a figure in this section like the one shown in the comment on page 8.	PA-16	Proposed Action	The pit lake conceptual model has been run and graphics related to this model have been included in the FEIS.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 2.1.3.4 - Tailing Storage Facility, page 2-18: The FEIS should incorporate a discussion in this Section on the results of the testing done on the tailing waste material present, including pyrite and carbonate material content, in the existing Tailing Storage Facility (TSF) operated by Quintana Minerals and whether such material is acid generating.	WQ-16	Water Quality	The quality of the existing tailing waste material and its suitability for future use is a regulatory issue that is being addressed through the State mine permitting process.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Recommend that an analysis of the proposed liner's long-term effectiveness and long-term compatibility with the tailings material be provided in the FEIS.	WQ-18	Water Quality	Selected liner material, suitability, and respective design for the tailing impoundments would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Recommend incorporating a description of the contingency plan for responding to various monitoring results, including identification of action levels for each monitored component and parameter (i.e., the level that will trigger further monitoring or some type of other action, including corrective action) be provided in the FEIS.	WQ-16	Water Quality	After mine closure, the TSF would be reclaimed with a cover of soil and vegetation which would serve to keep the tailings in place. Seepage from the TSF is expected to continue after mine closure and would have to be managed and monitored. Section 3.4.2.1.2 includes a list of mitigations for managing seepage from the TSF after closure. The mitigations include: detailed chemical analyses of the water and an assessment of potential effects to vegetation or soils; obtain all necessary environmental permits from the State of New Mexico and the EPA; modify the MPO to include a post-closure TSF seepage monitoring and management plan; and a post-closure trust fund (or other long-term funding mechanism) to pay for post-closure monitoring and management. Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	The FEIS should include a discussion of the long-term maintenance required for the fences and barricades to restrict access to the site for protection of the public and wildlife. In addition, storm water runoff diversions around the waste rock disposal facilities will also need to be maintained as well.	HH&PS-5; WL-6	Human Health and Public Safety; Wildlife	The FEIS has been revised in Section 2.1.11 to state that fencing and exclusionary devices would be sufficiently maintained to achieve their intended purpose throughout the project, including during the reclamation stage. The mine reclamation plan describes provisions for the long-term stability of diversions as well as other slopes and ground surfaces on the mine site.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Storm water runoff diversions around the waste rock disposal facilities will also need to be maintained as well.	WQ-8	Water Quality	Section 3.4.2.1.2 of the EIS specifically calls out the need for inspection and maintenance of stormwater diversions throughout the post-closure period as a mitigation measure. The effects on stormwater after mine reclamation are briefly addressed in Section 2.1.15.6 under the "Suspended Solids" bullet. However, Section 3.5.2.1.2 describes the stormwater controls after reclamation in greater detail.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Discuss how the TSF would be hydrologically isolated during reclamation, how isolation of flow would be achieved, and what potential impacts would occur.	WQ-19	Water Quality	The FEIS incorporates discussion of the proposed TSF reclamation activities and mitigations under the Proposed Action in Sections 2.1.3.4 and 2.1.15.6. Similarly, activities and mitigations under Alternatives 1 and 2 have been described in the FEIS in Sections 2.2 and 2.3, respectively. Section 2.1.15.7 describes the actions that would be taken to monitor groundwater quality. Section 2.1.15.16 describes the actions that would be taken to minimize and manage acid rock drainage. Additionally, a Geochemical Characterization Report was developed for the Copper Flat mine that is the basis for ARD mitigation measures.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 2.1.15.16 - Facility-Specific Reclamation, page 2-44: it is recommended that an illustration be provided in the FEIS showing in the plan view what NMCC is proposing and the area of the pit wall that would be affected by such reclamation.	PA-17	Proposed Action	A description and plan for open pit reclamation at the level of detail requested by the commenter may be found in Appendix E of the Mine Operations and Restoration Plan (MORP)(NMCC2017a). The information is too detailed for inclusion in the EIS, so in this section the reader is referred to the MORP, Appendix E, for more information.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Need additional detail about how controlled drainage would limit the generation of acid and leachable metals when precipitation comes into contact with the exposed rock of the pit walls.	WQ-22; PA-18	Water Quality; Proposed Action	Sections 2.1.15.6 and 2.1.15.16 describe the actions that would be taken to minimize and manage acid rock drainage. In addition, the surface drainage hydraulics and hydrology of the site would be analyzed and presented in greater detail and verified during the engineering design phase of the project. This includes any applicable infrastructure and control measures associated with the hydraulics and hydrology of the TSF. The analysis and design related to these items would be developed in accordance with current regulatory requirements and design criteria.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 3.3.2.1.1: Mine Development and Operation, page 3-15: Suggest that a description of the significance of the total direct and indirect emissions that would occur during mine operational activities be provided in this section of the FEIS, as similarly completed in the sections discussing construction of facilities and mine development activities.	AQ-4	Air Quality	A description of the significance of the total direct and indirect emissions that would occur during mine operational activities is provided in section 3.3.2.1. Short- and medium-term minor adverse effects to climate would be expected under the Proposed Action. Short-term effects would be due to heavy vehicle emissions and the construction of facilities during site preparation, while medium-term effects would be due to heavy vehicle emissions and operation of facilities during mine operation and reclamation.	A7_USEPA

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A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 3.4.1.1.3 - Description of Affected Environment, Surface Water in Grayback Arroyo, page 3-23: The FEIS should incorporate a discussion of the unnamed drainage/arroyo located north or the existing pit lake and Animas Peak because it is a tributary to Grayback Arroyo and joins with it to the east of the TSF and because the existing Waste Rock Disposal Facilities (WRDFs) are located within this drainage. Acid rock drainage from waste rock within the WRDFs, if not adequately controlled by the cover systems proposed, will likely contribute acidity and leachable metals to this portion of the watershed.	SW-4; WQ-4	Surface Water Resources; Water Quality	Discussion has been added to Section 3.5.1.1 of the EIS describing the unnamed arroyo located to the north of the existing pit lake and Animas Peak. Stormwater runoff from mine facilities, including the WRDFs, would be captured and potentially used as process water. Discussion has also been added to Section 2.1.15.7 of the EIS explaining that the final details of the placement and use of the cover materials for WRDFs would be approved by the State and the BLM following analysis of the results of a test-plot program that would be conducted during the mining operation. The water quality of the existing pit lake is summarized in Section 3.4.1. Section 3.4.2 explains that the proposed MPO would require a preliminary pit lake water quality management plan that describes reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 3.4.2.1 - Pit Lake Water Quality, page 3-34: The 30-year time period is inadequate for a number of reasons (stipulated in the comment) and recommends that BLM require the Mine Plan of Operations (MPO) to include post-mining monitoring and implementation of the pit lake water quality management plan for a minimum of 100 years – at which time the need for additional or continued monitoring may be required.	WQ-21	Water Quality	The length of post-mining monitoring of the material resources would be determined by the State of New Mexico in association with the permits issued to the Copper Flat mine. Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements. Backfilling the lake was considered as an alternative, but was determined to be economically infeasible. The backfilling alternative has been added to Section 2.5, Alternatives Considered but Eliminated in the FEIS. In addition, Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period. It is anticipated that pit lake water quality standards would be established by the MMD. The standards would be set to be similar to existing conditions. Because the pit lake would be located entirely on private property owned by NMCC in the form of patented mining claims, it would not be considered a water of the State. The pit lake would not combine with other surface waters of the State. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC. In addition, per NMAC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 3.4.2. 1.2 Mine Closure/Reclamation, page 3-40: It appears there is a missing step of the proposed reclamation plan for the waste rock dumps that discusses the placement of cover material on top of the regraded waste rock. If appropriate, please revise the FEIS.	PA-20	Proposed Action	As stated in Section 2.1.1 of the FEIS: "Because the deposit cannot be mined sequentially, there is no plan to backfill the pit although some benign waste rock would be used for pad preparation, plant site development, and in connection with the reclamation of disturbed areas." Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809). Section 2.1.15.6, Environmental Considerations for Reclamation, states "Acid Rock Drainage (ARD): Partially oxidized transitional waste rock would be managed and reclaimed to alleviate potential ARD. The transitional waste rock may be segregated and placed in the west and north waste rock disposal areas. The exact method of disposal and possible segregation would be determined through the current geochemical testing program and the development of a material handling plan." This material handling plan will be developed and in place, in accordance with all Federal and State laws and regulations, prior to the reclamation of the mine. To forecast these requirements 10+ years in the future would not be realistic. The BLM will require the development of this plan and the FEIS and ROD will stipulate its development.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Regarding Section 3.4.2. 1.2 (Non-point Source Pollution from Disturbed Areas on the Mine Site) on page 3-46: Recommend that the draft SWPPP be provided to the NM Environment Department's Ground Water Protection Bureau for review and comment so that they can consider impacts to ground and surface water from stormwater pollution.	WQ-7	Water Quality	Section 3.4.2.1 of the EIS addresses the requirement for NMCC to obtain an NPDES permit for stormwater discharges. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the NOI to comply with the MSGP is submitted to the EPA. The MSGP requires that SWPPPs be available to the public when the NOI is submitted. The SWPPP must address how stormwater that is impacted by the industrial site would be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 3.6.1.2 - 1 Hydrogeology of the Mine Pit Area, page 3-62: Recommend that key maps and cross-sections be provided in the FEIS to support hydrogeology discussions in the section. A map showing the position of the cross-section in the plan view should also be included in the FEIS.	GW-38	Groundwater Resources	Relevant groundwater modeling reports have been added as an appendix to the FEIS. The existing sulfate and metal contamination near the TSF is an independent State cleanup issue. The prescribed treatment process is not known and its effectiveness cannot be prejudged in the NEPA process except that it would be resolved in a way that is protective of the environment; it is not a decision factor for the EIS.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 3.6.1.3 - Hydrogeology of the TSF, page 3-62: Recommend the key maps and cross-sections be provided in the FEIS to support discussions on hydrology in this section. The map should show the location of east-west and north-south cross sections, and monitoring wells. The isoconcentration contour maps need to be provided for sulfate and at least one metal that exceed NM ground water quality standards in the area of the TSF.	GW-38	Groundwater Resources	Relevant groundwater modeling reports have been added as an appendix to the FEIS. The existing sulfate and metal contamination near the TSF is an independent State cleanup issue. The prescribed treatment process is not known and its effectiveness cannot be prejudged in the NEPA process except that it would be resolved in a way that is protective of the environment; it is not a decision factor for the EIS.	A7_USEPA

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A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 3.6.1.4 - Hydrogeology of the Palomas Basin in the Vicinity of the Supply Well Field, page 3-63: This section briefly mentions the existence of a graben and paleo-channel. Figures 3-10 and 3-9 should include graben and paleo-channel locations along with the cross sections. In addition, the relationship of the supply wells for these two features is not shown on Figure 3-9. Recommend revising Figure 3-9 for the FEIS showing their relationship, as well as all monitoring and private water wells in the area. These features are depicted on other maps in the geology section of the DEIS, but it would be helpful if they are shown on the figures presented in this section. Additionally, it would be helpful if a map was included in the FEIS showing the location of Cross-Section C-C on Figure 3-10.	REF-5	References	Comment noted; the BLM believes that the graphics in the FEIS effectively portray the necessary information.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	The presence of the shallow clay layer depicted on Cross-Section C-C contradicts with the statements in this section that the clay layer serves as a perching horizon that would isolate flows from Las Animas Creek from the effects of pumping the mine supply wells. Recommend additional documentation that includes geologic boring logs for all the wells with the clay layer, supporting aquifer test results, and an isopach map of the clay layer be included in the FEIS to show its aerial extent and relationship to Las Animas Creek.	REF 7; GW-5	References; Groundwater Resources	The DEIS provides details on the effects of the mining project on water resources and indicates that the primary effect that has the potential to impact other water users would be depletion of flows in the Rio Grande. These effects would be subject to mitigation in accordance with obligations imposed by the OSE and by voluntary actions applied by NMCC. NMCC has committed to provide such mitigation for the duration of the impacts from the project. To the extent the OSE determines NMCC has a vested right to deplete surface flows below the dam without providing an additional offset, and absent the voluntary mitigation, there could be an adverse effect on users of surface water in the Lower Rio Grande Basin and/or Texas that would exist for decades. However, because NMCC would provide mitigation in the form of offsets from upstream, this impact is predicted to not occur. Groundwater levels would decline near the NMCC wellfield during operations, and then gradually recover. The OSE would determine whether this causes impairment of any existing wells and, if so, would require mitigation; as of mid 2017, no analysis had indicated that such impairment would occur, i.e. there is not expected to be any loss of ability to produce water from existing livestock, domestic, or community supply wells. Some increase in pumping costs may occur, which is an acceptable effect under New Mexico water law. No impacts to Hatch Valley or thermal water sources would reasonably be expected. The continuous clay layer and the presence of perched water beneath portions of Las Animas Creek are demonstrated by water level measurements and geologic logs, and by the hydrologic reality that sustained flows in the Creek can only occur if the shallow hydrology is isolated from the deeper water table that is characteristic of the regional hydrology.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 2.1.15.2 Post-Mining Land Use: The DEIS discusses post-mining use of the pit would include a water reservoir for wildlife habitat and that it would be partially filled with water from subsurface groundwater flow and surface water runoff resulting in a permanent TSF following closure. Recommend the FEIS incorporate a discussion of the specific parameters which, if met, would allow use of the pit as a reservoir for wildlife habitat because post-mining use may be incompatible with an undetermined length of post-closure care, discussions of fencing requirements to prohibit wildlife during use, the nature of the pit walls having over 700 feet of relief, and the unknown impacts of disposal piles and treatment facilities on pit water quality.	PA-13	Proposed Action	FEIS Section 2.1.15.2, Post-Mining Land Use, states: "Following closure, the mine area would continue to support mineral development, grazing, wildlife habitat, watershed, and recreation. Following closure, the pit would rapidly refill with water from subsurface groundwater flow and surface water runoff resulting in a permanent water body. The purpose of the rapid refill is to minimize water quality degradation in the pit lake, making it more suitable as wildlife habitat. The only post-closure use of the pit is a water reservoir for wildlife habitat."	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 3.6.2 Environmental Impacts, page 3-67: Recommend the FEIS include the JSAI report (2014) which describes the modelling developed for NMCC upon which the DEIS is based.	REF-6	References	All four JSAI modeling reports are currently listed in the References section.	A7_USEPA
A7	3/10/2016	William K. Hayden	United States Environmental Protection Agency	Section 3.6.3 Mitigation Measures, page 3-97: Recommend the FEIS incorporate a discussion of the additional impacts of how the proposed mine expansion will impact current water quality as well as the additional impact from increased mining and associated increased waste material. The DEIS discusses that NMED requires monitoring in the area of the mine pit primarily for purposes of water quality abatement, and the Office of the State Engineer (OSE) provides 10 periodic measurements of water levels in scattered wells for the Las Animas Creek Area – but does not provide a discussion as noted above.	WQ-13	Water Quality	The FEIS incorporates a detailed description of the potential impact on water quality of the proposed mining activities and mitigations under the Proposed Action that is presented in Section 3.4.2.1 of the EIS. Similarly, potential water quality impacts and mitigations under Alternatives 1 and 2 are described in the FEIS in Sections 3.4.2.2 and 3.4.2.3, respectively.	A7_USEPA

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A8	3/3/2016	John Cao	Holloman Air Force Base	The impact on the seismic environment in the Advanced Inertial Test Laboratory (AITL), building 1256, from mining activities such as blasting and ore processing is unknown. The created seismic disturbances generated at the mine will be naturally attenuated by the 83 miles of soil and rock between the mine and AITL. AITL requests that a line of communication be established with mine management to enable correlation of seismic data recording with the blasting effects. Advanced scheduling of disturbance producing activities would provide opportunities to schedule low noise characterization testing around the mining activities.	NOI-2	Noise and Vibrations	Thank you for your comment. Your request has been relayed to the mine personnel.	A8_Holloman AFB
A9	3/4/2016	Holland Shepherd	EMNRD	Section 2.1.4.1 Reclamation Material: this section seems out of place as a heading under Waste Rock Disposal Facility. This section would seem better located under Section 2.1.8 Growth Media, Section 2.1.9 Borrow Areas or 2.1.15.9 Plant Growth Media and Cover Materials.	REF-7	References	Section 2.1.4.1, Reclamation Material, is consistent with how it is placed within the MPO. It was kept in the section to maintain consistency between documents.	A9_ENMRD
A9	3/4/2016	Holland Shepherd	EMNRD	Table 2-5 on page 2-23 should include a reference/citation of where this data was obtained because this table shows a substantial increase in the available reclamation material compared to the estimates provided in the report by Stetson Engineers, Inc. entitled "Order 1 Soil Survey of Permit Area" dated September 14, 2011 (provided by THEMAC as appendix 6-A to the Baseline Data Report).	REF-8	References	Table 2-5 in Section 2.1.4.1 was embedded in the source document used for the Proposed Action, the MPO. Since the table was taken from the MPO directly, it was more appropriate citing that document as the source.	A9_ENMRD
A9	3/4/2016	Holland Shepherd	EMNRD	Table 2-7 on page 2-24 appears to contain inaccurate information. Because the estimated number of employees needed in year 1 of the Proposed Action is the same as Table 2-18 for year 1 of Alternative 1. It seems likely that the estimated number of employees needed for Alternative 1 (an accelerated rate of mining) would require additional employees compared to the Proposed Action.	SE-30	Socioeconomics	Thank you for your comment. The information presented in Table 2-7 and 2-18 has been confirmed to be accurate.	A9_ENMRD
A9	3/4/2016	Holland Shepherd	EMNRD	Table 2-12 on page 2-40 states the volume of top dressing cover needed, but Table 2-5 and Section 2.1.15.9 don't provide enough information to determine if the volume of required top dressing is available on site. It also does not provide the assumed thickness of top dressing required. Page 2-37 under the heading of Acid Rock Drainage, provides a total thickness of up to 36" of cover materials, but Table 2-12 doesn't describe what portion of the 36" is top dressing. The table should present this information rather than making the reader back-calculate this value.	PA-21	Proposed Action	Tables 2-5 and 2-12 have been adjusted to provide clarification on this issue. Table 2-31 has been added to show reclamation cover requirements for Alternative 2.	A9_ENMRD
A9	3/4/2016	Holland Shepherd	EMNRD	"MMD" should be substituted for NMED in the last sentence on page 2-87, Section 2. NMED does not typically regulate exploration disturbance, but the New Mexico Mining and Minerals Division does.	REG-13	Regulatory Compliance	The substitution has been made in the FEIS, as requested by the commenter.	A9_ENMRD
A9	3/4/2016	Holland Shepherd	EMNRD	The superscripts of 1 and 2 and not explained in the notes at the bottom of Table 3-9 on page 2-25.	REF-9; WQ-23	References; Water Quality	Table 3-9 has been revised to clearly relate the superscripts in the table to the notes below the table.	A9_ENMRD
A9	3/4/2016	Holland Shepherd	EMNRD	Since natural infilling is so slow (as referenced in pp. 3-34 through 3-36), and rapid infilling with fresh water from the production wells is anticipated to take 6 months to a year (page 3-34, 3rd paragraph), it seems likely that the water placed in the pit will leak back into the surrounding andesite aquifer; the pit water level will have a higher head than the water level in the andesite aquifer. It seems likely that the water level in the pit will therefore progressively go down due to evapotranspiration and until equilibrium with the surrounding static water level is reached. This scenario isn't described in the DEIS nor whether NMCC will continue to introduce water to the pit until static water level equilibrium is reached. The DEIS isn't clear as to whether the use of this "make-up" water is accounted for in the DEIS alternatives.	GW-16	Groundwater Resources	The primary purpose of rapidly refilling the pit is to reduce or avoid adverse water quality impacts. It is correct that this would lead to seepage from the lake into the surrounding bedrock until the bedrock water table rises to the level of the pit lake. After that the net flow direction should be from the bedrock to the lake because lake water would be lost to evaporation; however, following large rainfall events, the flow direction may be reversed for some period. The rates of water exchange from pit to bedrock or bedrock to pit would be small compared to other water budget effects of the project and are not considered significant. The permanent pit lake evaporation would be a small but irretrievable loss of resources. These impacts are described in the DEIS.	A9_ENMRD

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A9	3/4/2016	Holland Shepherd	EMNRD	Bendire's Thrasher (as identified in Table 3-25 on page 3-128) does not have a dot indicating that it is either a recorded species or a species likely to occur in proper habitat. This should be reviewed and included.	WL-10	Wildlife	Bendire's Thrasher was not detected during the Baseline Data Characterization Report (BDR) field survey but, per a discussion with a local bird expert, the species inhabits the region spring-fall but rarely winter. The EIS has been revised to reflect the most recent information on wildlife and habitats based on the Addendum to the New Mexico Copper Corporation, Copper Flat BDR, Section 5: Wildlife Survey Results, July 2013. The species information presented in Table 3-25 presents that updated information.	A9_ENMRD
A9	3/4/2016	Holland Shepherd	EMNRD	Figure 3-29, View of Mine from Main Road Exit on page 3-180 appears to be fragmented and it looks like two images partially superimposed on each other. In addition, Figures 3-30, 3-31, and 3-32 on page 3-180 through 3-182 are pixelated and should be clear on the FEIS.	REF-10	References	Figure 3-29 has been replaced in the FEIS. The other figures have been reformatted to address pixilation issues.	A9_ENMRD
A10	4/4/2016	Brad Reid	Mining Environmental Compliance Section; Groundwater Quality Bureau New Mexico Environmental Department	On page 2-22, 2.1.4, Statements made in this section seem to indicate that the WRDFs will be placed in locations previously used by operators. Clarification may be needed with respect to the primary WRDF ENE of Animas Peak which will predominantly be placed on undisturbed ground.	PA-36	Proposed Action	Section 2.1.4 states that waste rock disposal facilities (WRDFs) would be located adjacent to the open pit in areas used for waste rock disposal by the previous operator. These disposal areas would be expanded to cover approximately 260 acres. For the primary WRDF east-northeast of Animas Peak, which would predominantly be placed on undisturbed ground, reclamation materials (including suitable growth media and "topsoil") would be removed and stockpiled for future use in reclamation. Language has been added clarifying that WRDFs would be located in areas disturbed by the previous operator as well as undisturbed areas	A10_NMED
A10	4/4/2016	Brad Reid	Mining Environmental Compliance Section; Groundwater Quality Bureau New Mexico Environmental Department	On page 2-22, 2.1.4, It is stated that suitable growth media or "top soil" will be removed prior to placement of waste rock. Is it known whether the growth media will be scrapped down to the bedrock contact or will just the top 1-2 feet be salvaged?	PA-37	Proposed Action	It is anticipated that 1-2 feet of growth media would be scrapped, but at no time would this exceed bedrock contact. The FEIS has been changed to state this.	A10_NMED
A10	4/4/2016	Brad Reid	Mining Environmental Compliance Section; Groundwater Quality Bureau New Mexico Environmental Department	On page 3-26, 3.4.1.3, Please note that JSAI has provided a more recent report on the Stage 1 Abatement Plan titled: "Results from the First Year of Stage 1 Abatement Investigation at the Copper Flat Mine Site Near Hillsboro, New Mexico" (May 2014).	REF-6	References	Thank you for this information. The JSAI report (2014) has been included as an Appendix to the FEIS.	A10_NMED
A10	4/4/2016	Brad Reid	Mining Environmental Compliance Section; Groundwater Quality Bureau New Mexico Environmental Department	On page 3-44, 3.4.2.1.2, Please note that the JSAI 2014 report referenced above also show both sulfate and TDS exceedances in a small subset of MWs downgradient of the TSF.	REF-6	References	Thank you for this information. The JSAI report (2014) has been included as an Appendix to the FEIS.	A10_NMED
A11	4/4/2016	Ronald Kellermueller	Mining and Energy Habitat Specialist; Ecological and Environmental Planning Division; New Mexico Department of Game and Fish	The Department's primary concern throughout the permitting process continues to be the potential for adverse impacts to surface aquatic and riparian habitat resources in Las Animas Creek. These resources could be impaired by the groundwater cone of depression that will be generated by the production wells in the Santa Fe Group aquifer. Hydraulic modeling for the proposed action predicts a groundwater drawdown of at least 20 feet below Las Animas Creek (page 3-77, Fig. 3-13b), and drawdowns up to 40 feet for the preferred Alternative 2 (page 3-92, Fig. 3-19b).	GW-1; GW-26	Groundwater Resources	The groundwater resources section was developed with the close cooperation of groundwater experts from the EIS contractor, the BLM, the OSE, and NMCC's hydrogeologist. The groundwater model developed for NMCC by JSAI was carefully evaluated and validated by the other parties, resulting in a thorough assessment of groundwater impacts. This model is described in Section 3.6.3 of the DEIS. The groundwater resources section was developed with the close cooperation of groundwater experts from the EIS contractor, the BLM, the OSE, and NMCC's hydrogeologist. BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	A11_NMDGF
A11	4/4/2016	Ronald Kellermueller	Mining and Energy Habitat Specialist; Ecological and Environmental Planning Division; New Mexico Department of Game and Fish	Given that Las Animas Creek is only about one mile north of the mine production well field, the Department has significant concerns regarding the effectiveness of the clay layer (as presented in the modeling results) in isolating the perched alluvial groundwater once mining operations begin. Potential deviations from the hydrologic modeling projections would not be known until after operations are in place and opportunities to mitigate impacts to surface flows no longer exist.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	A11_NMDGF

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
A11	4/4/2016	Ronald Kellermueller	Mining and Energy Habitat Specialist; Ecological and Environmental Planning Division; New Mexico Department of Game and Fish	The Department recommends that water levels be closely monitored along Las Animas Creek, and that mitigation measures are in place in the event that impacts to Las Animas Creek and its associated riparian vegetation are greater than predicted. This monitoring should consider not only modifications to long-term average flows, but also finer-scale changes in seasonal flows that may be important for sustaining the vegetation and wildlife habitat in the area.	GW-12	Groundwater Resources	The focus of this comment is understood to relate to mitigation of effects from drawdowns that impair or affect existing surface waters as to uses, seasonal flows, vegetation, and wildlife habitat. The BLM understands that a particular concern is the seasonal flow that occurs along the perched reach of Las Animas Creek and which supports irrigation, vegetation, and habitat. No impact to the highly valued resource in this reach is expected to result from the project. This conclusion results from the fact that the shallow groundwater in the reach is not hydrologically connected to the regional aquifer which is the source of water to the wells that would supply the project. Indeed, the perched water table would not exist if there were a connection to the main regional aquifer, which at present lies at substantial depth below the river. Extensive monitoring is proposed to validate ongoing hydrologic conditions. NMCC has access to a multi-purpose groundwater monitoring and instrumentation network along Animas Creek and Percha Creek to facilitate monitoring of water levels in the shallow, deep, and artesian aquifers to meet requirements of various agencies, including the OSE as part of the NMCC water pumping permit. NMCC staff would conduct regular monitoring of groundwater and surface water along Animas and Percha Creeks. In addition to regular monitoring, monitoring of flood events along the creeks as they occur is also planned to gather information about surface flows throughout the year. NMCC staff would compile an annual report of the multi-purposed groundwater and surface water monitoring network for internal use and outside reporting. Groundwater elevations observed would be compared to model predictions to track the relative accuracy of the model. NMCC would work with OSE to offset surface water effects, and no reduction in irrigation supply would be permitted. See also the response to GW-2 regarding impacts of groundwater pumping on the aquifer and on stream flows.	A11_NMDGF
A11	4/4/2016	Ronald Kellermueller	Mining and Energy Habitat Specialist; Ecological and Environmental Planning Division; New Mexico Department of Game and Fish	The Department recommends that the components of the alternatives consuming the largest amounts of water not be pursued.	ALT-10	Alternatives	Thank you for your comment.	A11_NMDGF
A11	4/4/2016	Ronald Kellermueller	Mining and Energy Habitat Specialist; Ecological and Environmental Planning Division; New Mexico Department of Game and Fish	The water quality of the existing pit lake does not meet its current designated uses for warm water aquatic life, wildlife habitat, or livestock watering. Therefore, it is reasonable to assume that the new pit lake may also not meet current water quality standards for these designated uses because it will exceed current water quality standards for manganese, copper, selenium, lead and zinc if no control measures are taken. The current pit lake exceeded surface water quality standards for manganese, copper, cadmium and selenium during all of the baseline surface water quality sampling tests.	SW-28	Surface Water Resources	It is anticipated that pit lake water quality standards will be established by the MMD. The standards would be set to be similar to existing water quality conditions. The pit lake would not be considered a water of the State because it would not combine with other surface waters of the State and because it would be located entirely on private property owned by NMCC in the form of patented mining claims. Therefore, the pit lake would not be subject to the State water quality standards defined in 20.6.4 NMCC. A discussion of existing pit lake water quality and expected post-mining water quality in the pit lake is provided in Sections 3.4.1.3 and 3.4.2.1 of the EIS. The expected course of action is that the BLM would send NMCC a letter verifying that the pit is on NMCC patented mining claims. Then, NMCC will submit a letter to the NMED Surface Water Quality Bureau (SWQB) seeking a formal determination that current and future pit lakes are not waters of the State and therefore, not subject to State water quality standards. In an October 21, 2016 letter to NMCC, the NMED SWQB stated that if NMCC limits the surface extent of the pit lake to private land the water body will meet the exception of 20.6.4.7(S)(5) and not be subject to the surface water quality standards of 20.6.4 NMCC.	A11_NMDGF
A11	4/4/2016	Ronald Kellermueller	Mining and Energy Habitat Specialist; Ecological and Environmental Planning Division; New Mexico Department of Game and Fish	Current pit lake conditions seem to indicate that the pit lake would not meet all water quality standards and that ongoing maintenance would be required because the current surface area of 5 acres is a significant decrease from a maximum of 14 acres (JSAI 2013). It appears that surface water evaporation currently exceeds inflows, creating a hydrologic evaporative sink that is concentrating the total dissolved solids and adversely impacting water quality.	SW-28	Surface Water Resources	It is anticipated that pit lake water quality standards will be established by the MMD. The standards would be set to be similar to existing water quality conditions. The pit lake would not be considered a water of the State because it would not combine with other surface waters of the State and because it would be located entirely on private property owned by NMCC in the form of patented mining claims. Therefore, the pit lake would not be subject to the State water quality standards defined in 20.6.4 NMCC. A discussion of existing pit lake water quality and expected post-mining water quality in the pit lake is provided in Sections 3.4.1.3 and 3.4.2.1 of the EIS. The expected course of action is that the BLM would send NMCC a letter verifying that the pit is on NMCC patented mining claims. Then, NMCC will submit a letter to the NMED Surface Water Quality Bureau (SWQB) seeking a formal determination that current and future pit lakes are not waters of the State and therefore, not subject to State water quality standards. In an October 21, 2016 letter to NMCC, the NMED SWQB stated that if NMCC limits the surface extent of the pit lake to private land the water body will meet the exception of 20.6.4.7(S)(5) and not be subject to the surface water quality standards of 20.6.4 NMCC.	A11_NMDGF
A11	4/4/2016	Ronald Kellermueller	Mining and Energy Habitat Specialist; Ecological and Environmental Planning Division; New Mexico Department of Game and Fish	Future climate change could result in a regionally warmer and drier climate, increasing the potential for evaporative sink conditions.	CC-5	Climate Change and Sustainability	Global climate change effects are discussed in Section 3.3.1.2 of the FEIS.	A11_NMDGF

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A11	4/4/2016	Ronald Kellermueller	Mining and Energy Habitat Specialist; Ecological and Environmental Planning Division; New Mexico Department of Game and Fish	The Department believes there is a high probability that pit lake water will not meet water quality standards over the long-term, and that a funding mechanism must be in place for implementation of a water quality long-term management plan. The DEIS states that the water quality management plan should be funded for at least 30 years. This minimum duration seems insufficient for effectively addressing a problem that could continue in perpetuity without additional mitigation measures.	PA-23; WQ-21	Proposed Action; Water Quality	<p>The length of post-mining monitoring of the material resources would be determined by the State of New Mexico in association with the permits issued to the Copper Flat mine.</p> <p>Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements. Backfilling the lake was considered as an alternative, but was determined to be economically infeasible. The backfilling alternative has been added to Section 2.5, Alternatives Considered but Eliminated in the FEIS.</p> <p>In addition, Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period. It is anticipated that pit lake water quality standards would be established by the MMD. The standards would be set to be similar to existing conditions. Because the pit lake would be located entirely on private property owned by NMCC in the form of patented mining claims, it would not be considered a water of the State. The pit lake would not combine with other surface waters of the State. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC. In addition, per NMAC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period.</p>	A11_NMDGF
A11	4/4/2016	Ronald Kellermueller	Mining and Energy Habitat Specialist; Ecological and Environmental Planning Division; New Mexico Department of Game and Fish	The conclusion that because the hydraulic conductivity of the andesite bedrock is low, and that the areal extent of the drawdown impact will be limited, and the effects would not reach Hillsboro or the Percha Creek Box is flawed because it assumes that low hydraulic conductivity will contain the impacts of drawdown, the extent of which will only fully be known after the enlarged pit has been completely excavated, and impacts have become permanent.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	A11_NMDGF
A11	4/4/2016	Ronald Kellermueller	Mining and Energy Habitat Specialist; Ecological and Environmental Planning Division; New Mexico Department of Game and Fish	The Department is concerned about impacts to a resident population (already in decline over the past several decades) and important breeding grounds for mule deer located immediately to the west of the Copper Flat Mine. Mule deer rely upon multiple springs in the area and could be in jeopardy, depending on the final extent of the pit's cone of depression.	WL-24	Wildlife	As noted in responses to previous wildlife comments, the area west of the mine site would not be affected by mine operations, including springs in the area.	A11_NMDGF

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NGO1	2/19/2016	Carla Sonntag	New Mexico Business Coalition	Draft EIS demonstrates that the proposed mine development would operate within strict environmental regulations to protect human health and the environment; bring good job opportunities and tax revenue to NM, and result in the reclamation of a former mine site.	NEPA-6; NEPA-7	NEPA Process	Thank you for your comment.	NGO1_NM Business Coalition
NGO1	2/19/2016	Carla Sonntag	New Mexico Business Coalition	Urge the BLM to move forward without delay in issuing the final EIS and select NMCC's preferred alternative.	ALT-3; NEPA-8	Alternatives; NEPA Process	Thank you for your comment. The final determination for the Copper Flat mine will be described in detail with the publication of the Record of Decision (ROD) following the publication of the Final Environmental Impact Statement (FEIS).	NGO1_NM Business Coalition
NGO1	2/19/2016	Carla Sonntag	New Mexico Business Coalition	Mine would employ a number of best management practices to limit the amount of water needed and operate the mine on over 70 percent recycled water. The design includes a number of steps to protect water quality and guard against accidental spills.	PA-6	Proposed Action	Thank you for your comment.	NGO1_NM Business Coalition
NGO1	2/19/2016	Carla Sonntag	New Mexico Business Coalition	As the DEIS notes, pumping of production wells will not adversely impact the wells in Hillsboro or any identified wells along Animas Creek or near production wells, nor will it negatively impact Las Animas Creek or Percha Creek flows or vegetation along these streams.	GW-11; VEG-3	Groundwater Resources; Vegetation	The commenter is correct. Evidence from well monitoring and the results of groundwater modeling indicate that mine operations would have no impact on surface water flows in the areas of Las Animas Creek and negligible impact to areas of Percha Creek that currently support riparian vegetation including the Las Animas Creek sycamores. Neither creek is at risk of being destroyed or altered adversely by mine operations.	NGO1_NM Business Coalition
NGO1	2/19/2016	Carla Sonntag	New Mexico Business Coalition	Project will provide income and stability for workers and their families; boost local spending; provide additional revenues from Copper Ad Valorem Tax, Severance Tax, Processor's Tax; boost income tax, property tax, gross receipts tax which can alleviate budget shortfalls and improve services and infrastructure in NM.	SE-1	Socioeconomics	Thank you for your comment.	NGO1_NM Business Coalition
NGO1	2/19/2016	Carla Sonntag	New Mexico Business Coalition	The DEIS notes that jobs and income are strongly associated with a number of beneficial health outcomes; the operation of the mine will help citizens and their families out of poverty.	EJ-1	Environmental Justice	Thank you for your comment.	NGO1_NM Business Coalition
NGO1	2/19/2016	Carla Sonntag	New Mexico Business Coalition	Note that the Copper Flat mine will not significantly impact recreation.	REC-8	Recreation	Thank you for your comment.	NGO1_NM Business Coalition
NGO1	2/19/2016	Carla Sonntag	New Mexico Business Coalition	Reclamation will leave the area in better condition than it is now and provide habitat for wildlife including bats, reptiles, small and large mammals and many birds including raptors.	PA-6; PA-15	Proposed Action	Thank you for your comment.	NGO1_NM Business Coalition
NGO1	2/19/2016	Carla Sonntag	New Mexico Business Coalition	Since New Mexico Copper Corporation will post a financial assurance bond (expected to be over \$45 million) that will be calculated to cover the cost of reclamation in the event that the company fails, tax payers won't get stuck with the "cost of cleanup" at the end of mine operations.	SE-27	Socioeconomics	Thank you for your comment.	NGO1_NM Business Coalition
NGO1	2/19/2016	Carla Sonntag	New Mexico Business Coalition	Support the safe and environmental sound mining of valuable metals in the US.	SCOPE-1	Scope of the DEIS	This comments is outside the scope of the FEIS.	NGO1_NM Business Coalition
NGO1	2/19/2016	Carla Sonntag	New Mexico Business Coalition	Assessments in Draft EIS are clear and relevant to the proposed mining operation; well supported with significant and sufficient data with relevant expert studies on lands, air, waters, wildlife, and communities.	NEPA-7	NEPA Process	Thank you for your comment.	NGO1_NM Business Coalition
NGO1	2/19/2016	Carla Sonntag	New Mexico Business Coalition	The DEIS demonstrates the Copper Flat would be operated in a manner that prevents unnecessary degradation of public lands and fits within BLM's multi-use mandate for the management of public lands.	BLM-1	Bureau of Land Management	Thank you for your comment. The BLM evaluated the project's compatibility with multiple use policies and compliance with the Federal Land Policy and Management Act (FLPMA).	NGO1_NM Business Coalition
NGO1	2/19/2016	Carla Sonntag	New Mexico Business Coalition	Request that proceed without delay to complete Final EIS and issue a ROD.	NEPA-8	NEPA Process	Thank you for your comment.	NGO1_NM Business Coalition

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	NMMPG members have grave and valid concerns regarding the mine's groundwater pumping impacts and suggest the document inadequately addresses the impacts of the mine's proposed groundwater pumping on the overall water supply in the LRG.	GW-5	Groundwater Resources	<p>The DEIS provides details on the effects of the mining project on water resources and indicates that the primary effect that has the potential to impact other water users would be depletion of flows in the Rio Grande. These effects would be subject to mitigation in accordance with obligations imposed by the OSE and by voluntary actions applied by NMCC. NMCC has committed to provide such mitigation for the duration of the impacts from the project. To the extent the OSE determines NMCC has a vested right to deplete surface flows below the dam without providing an additional offset, and absent the voluntary mitigation, there could be an adverse effect on users of surface water in the Lower Rio Grande Basin and/or Texas that would exist for decades. However, because NMCC would provide mitigation in the form of offsets from upstream, this impact is predicted to not occur.</p> <p>Groundwater levels would decline near the NMCC wellfield during operations, and then gradually recover. The OSE would determine whether this causes impairment of any existing wells and, if so, would require mitigation; as of mid-2017, no analysis had indicated that such impairment would occur, i.e. there is not expected to be any loss of ability to produce water from existing livestock, domestic, or community supply wells. Some increase in pumping costs may occur, which is an acceptable effect under New Mexico water law. No impacts to Hatch Valley or thermal water sources would reasonably be expected.</p> <p>The continuous clay layer and the presence of perched water beneath portions of Las Animas Creek are demonstrated by water level measurements and geologic logs, and by the hydrologic reality that sustained flows in the Creek can only occur if the shallow hydrology is isolated from the deeper water table that is characteristic of the regional hydrology.</p>	NGO2_Pecan Growers
NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	The DEIS contains misrepresentations of fact and law that mislead the reader into believing that the public has been, or will be, provided opportunity to participate in a determination of the effects of the Mine's groundwater use on LRG water supply. The document is flawed in its evaluation of water uses, permitting requirements for its uses, and impacts of these uses. Inaccurate and incomplete information presents an unjustifiable and imbalanced analysis of the effects of water use at the Mine in violation of NEPA's requirement for a full and transparent disclosure of issues and impacts.	GW-4; NEPA-9; SW-1	Groundwater Resources; NEPA Process; Surface Water Resources	<p>The NEPA process for the EIS has utilized input from public review of the DEIS to systematically proceed to the FEIS document. Anticipated effects on water resources are described in the DEIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis on which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary mitigations applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed its commitment to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the DEIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.</p>	NGO2_Pecan Growers
NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	There are various discrepancies, concerns, and misrepresentations of water use rights, permits, and new water use appropriations.	WR-1	Water Rights	<p>With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	NGO2_Pecan Growers
NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	The statement "[s]tate water law requires that the applicant publish the application in a newspaper and provide anyone with a legitimate objection the chance to protest the application," while generally accurate, is misleading to the reader.	WR-2	Water Rights	<p>As stated in the EIS, it is the responsibility of the OSE to administer state water resources, including evaluating applications for new appropriations or to change the place or purpose of use of an existing water right. It is unclear why the commenter believes the statement from the EIS is misleading, but the BLM believes the statement to be accurate and clear based upon governing OSE rules and regulations (see reference OSE 2006 in the EIS).</p>	NGO2_Pecan Growers

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NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	When the Mine applied to the State Engineer for a permit to deepen and repair its wells, the Mine did not publish notice of its application during the application process with the State Engineer for a permit to deepen and repair its wells, and NMPG's members had no opportunity to protest the granting of the application.	REG-5	Regulatory Compliance	The permit application process is a parallel activity to the EIS evaluation, but the notice referred to in the comment is not a requirement of EIS preparation and is not under the authority of the BLM.	NGO2_Pecan Growers
NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	Page 4-8 of the DEIS acknowledges that the potential impacts to surface water supplies in the Rio Grande would be "long-term" and of a "large extent" worthy of complex analysis, but concludes that "impacts from the Proposed Action and alternatives may be offset to a degree by watershed management practices and riparian habitat improvements." This is an insufficient and incomplete description of the potential impacts and the known and existing methods by which such impacts may be offset.	SW-2	Surface Water Resources	Section 3.5 of the EIS provides a detailed discussion of the predicted impacts to surface water resources due to the groundwater pumping that is needed to support the mine's water use. The section also includes a description of the mitigation measures to be applied to offset the predicted impacts. The impact of groundwater pumping on the Rio Grande and Caballo Reservoir will be mitigated in accordance with obligations imposed by the OSE and by voluntary actions applied by NMCC. NMCC has committed to provide mitigation in the form of offsets from upstream to avoid impairment to other water users and the Rio Grande, including the Caballo Reservoir.	NGO2_Pecan Growers
NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	Concerned that in order to adequately offset the surface water impacts in the Rio Grande, the Mine would have to acquire consumptive-use water rights which would dry up a large amount of acreage and would have social, economic and environmental impacts that are not addressed in the DEIS.	WR-7	Water Rights	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	NGO2_Pecan Growers
NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	NMPG does not accept as true the DEIS's projected estimates of impacts to the water supplies in the Lower Rio Grande (in reference to the indicated pumping ranges from 2,718 acre feet to 3,785 acre feet under the Proposed Action and Alternatives Nos. 1 and 2.)	GW-13	Groundwater Resources	The effects of Alternatives 1 and 2 on water resources are described in the DEIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and additional mitigation commitments made by NMCC. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but is not aware of any comments or inputs that would contradict the findings of the DEIS.	NGO2_Pecan Growers
NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	The failure to address the impacts of an existing regulatory requirement of the Office of the State Engineer violates NEPA's requirement that impacts be disclosed to the public.	NEPA-10	NEPA Process	The comment refers to potential mitigations for surface water depletions to the Caballo Reservoir and Lower Rio Grande system. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	NGO2_Pecan Growers
NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	DEIS skirts the issue of the methods by which the Mine may be required to mitigate impacts to Rio Grande water supply by deferring to the need of a "comprehensive study" in the future.	CI-9	Cumulative Impacts	The DEIS acknowledges that the proposed project is expected to have a long-term, large-extent, and probable cumulative effect on surface water resources. This effect would be compensated for through voluntary mitigation offsets and mitigation requirements of the OSE without the need for the referenced comprehensive study	NGO2_Pecan Growers

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	The document completely fails to identify the economic impacts and legal implications of a significantly large, new depletion of surface water in the Rio Grande Project.	SE-18; SW-8	Socioeconomics; Surface Water Resources	The predicted impacts are adverse and significant, but will be compensated for through mitigation requirements of OSE. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	NGO2_Pecan Growers
NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	The DEIS fails to provide any discussion of lawsuits filed by the State of Texas and the United States against New Mexico in the United States Supreme Court. Further, the DEIS fails to address the litigation associated with the mine's proposed groundwater use in the impacts analysis. The potential for Texas to make additional allegations of damages arising from a completely new depletion in the Project is a significant matter that should be disclosed to the public.	CI-13; WR-5	Cumulative Impacts; Water Rights	The outcomes of the referenced lawsuits are speculative and should not be used as a factor to determine the impacts of the Proposed Action and alternatives. Instead, it is within the authority of the OSE and not the BLM to apply relevant findings of these lawsuits in its consideration of a water use permit for the project. Further, in a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	NGO2_Pecan Growers
NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	Active Water Resource Management ("AWRM") regulations adopted by the State Engineer (as confirmed by the New Mexico Supreme Court) will undoubtedly result in more active water management in the Lower Rio Grande, especially in light of the pending interstate litigation. These issues are "Reasonably Foreseeable Actions" that should have been included in the DEIS.	CI-10; REG-6	Cumulative Impacts; Regulatory Compliance	An analysis has been added to the FEIS that acknowledges AWRM as a factor in determining cumulative impacts. In January 2004, Active Water Resource Management (AWRM) was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution makes priority of right the basis for water administration, but recent drought years have compelled the State Engineer to develop tools for AWRM that enable them to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes.	NGO2_Pecan Growers
NGO2	3/2/2016	Greg Daviet	New Mexico Pecan Growers	The DEIS violates the fundamental purpose of an EIS: to disclose prospective impacts sufficient for the public to understand them. To meet NEPA's legal requirements, NMMPG requests that the BLM submit a revised DEIS that addresses these deficiencies for the public's review and not proceed to issue a FEIS until after the public has had adequate opportunity to submit comments to the revised draft.	NEPA-11	NEPA Process	The FEIS was objectively prepared, maximizing the use of available information. As provided by NEPA, the process has utilized input from public review of the DEIS to systematically proceed to the FEIS document.	NGO2_Pecan Growers

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NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The New Mexico Copper Corporation's proposal to resurrect the Copper Flat is of concern because they simply do not have water rights in quantities anywhere close to sufficient to move forward.	WR-1; P&N-1	Water Rights; Purpose & Need	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The EBID is keenly aware of and appreciates the importance of creating, and perhaps more importantly maintaining in perpetuity good-paying jobs in NM and the associated tax benefits that our local and state economy certainly needs, especially as such benefits may help more rural parts of our great state that have been suffering for many years. The EBID further supports the notion of job creation as a result of private investment, rather than local, state or federal tax dollars being committed to expanding government bureaucracies at virtually every level.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The market for copper and precious metals in the Copper Flat area is somewhat whimsical and it will not last (mining is a non-sustainable resource). The history of the mine ownership tells us that the site has not been able to produce a substantive, staying stimulus to the area economy and the EBID does not feel that this operation would produce a result that is different from past history.	SE-7; SCOPE-1	Scope of the DEIS; Socioeconomics	See Section 3.22.2 of the EIS for a detailed discussion of economic activity from the proposed mine. The purpose of the FEIS is not to discern the viability of the mine or copper mining generally but to evaluate the potential impacts from the alternatives.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The potential for the mine to potentially contaminate (with copper and associated sulfate by products) a major water supply (e.g. Caballo Reservoir) that multiple downstream parties rely on (e.g. the Rio Grande Project and El Paso County Water Improvement District) far outweigh the economic benefits.	WQ-5	Water Quality	Discussion of the potential impacts to groundwater quality is provided in Section 3.6.2; also refer to Table 3-20a. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the NOI to comply with the MSGP is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The document is very deficient in technical details. For example, the maps associated with the surface features of the area do not present critical elevation information (contour lines or cross sections) required to truly assess the impact of terrain on surface hydraulics or hydrology on water quality, flood control, air pollutant transport, etc., as described later in this report. There is, therefore, inadequate and incomplete data for the EBID to make accurate conclusions on much of the results presented in the draft EIS.	GW-38	Groundwater Resources	It is true that the analysis of the No Action alternative under NEPA involves more than a static snapshot of the present conditions. It does require an evidence-based projection of future conditions given other actions and plans insofar as they can be reasonably predicted. There are an infinite number of possible future scenarios for a given locale for a given timeframe, and the No Action alternative can only address the most reasonable of these. The purpose of doing this in a NEPA analysis is fundamentally to provide the context against which the net effects due to the action alternatives can be assessed. The FEIS has been modified as necessary to achieve that purpose.	NGO3_Elephant Butte Irrigation District

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NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	There is a major disparity between NMCC's groundwater right claim and what the NM Office of the State Engineer (OSE) has determined for administrative permitting purposes, which represents ample evidence that tremendous uncertainty exists regarding whether or not and when NMCC will have sufficient rights to water to proceed with the mining proposal at any operational scale.	WR-1; P&N-1	Water Rights; Purpose & Need	<p>With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	Neither the proposed action nor operational alternatives can even be considered unless and until NMCC secures valid water rights in sufficient quantities as evidenced by an appropriate permit from the OSE and/or a court order. The current draft EIS does not represent, either, that the BLM has adequately addressed these issues.	WR-1; P&N-1	Water Rights; Purpose & Need	<p>With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The noted efforts on page 2-83 of Chapter 2.3.7.1 to recycle as much water as possible are noble (also a cost-saving measure for NMCC), but are not explained in sufficient detail to reasonably conclude that 70% of the suggested average annual water use of 22,210 acre-feet as inferred from Table 2-28 as recycled water is correct, or even close to correct. A margin of error certainly exists in these projections, however the draft EIS does not address what such a margin of error might be. If these projections are not accurate, a new permit for additional water use would be required and no such permit exists or even proper application before the OSE for the same, and indeed new appropriations of water cannot be legally adjudicated in the absence of due process of law. The existing OSE repair and deepen wells permit that does exist in this matter is of course grossly insufficient in the amount of 888.783 acre feet per year.	WR-1; P&N-1	Water Rights; Purpose & Need	<p>Supporting information for the recycling process has been added to the FEIS. With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	NGO3_Elephant Butte Irrigation District

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The predicted surface water depletion rates reveal that depletions of senior Rio Grande Project surface water rights are expected to persist for some time over 100 years following the closure of the mine. These depletions to the Rio Grande Project directly impair the senior water rights of the EBID members in NM, El Paso Water Improvement District no. 1 members in Texas, and also flows of the Rio Grande obligated to the Republic of Mexico as per international treaty. The DEIS does not lay out a plan for how these depletions and resultant impairment of senior water rights are going to be made whole at any time, let alone assured for the next 100 years and beyond.	WR-1; GW-5; REG-10	Groundwater Resources; Water Rights; Regulatory Compliance	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	Leasing of additional surface water would require a review under the USBR 1920 Miscellaneous Purposes Act be observed because NMCC would in this instance be seeking a change in the purpose of use of Rio Grande Project surface water rights that are otherwise authorized for the single purpose of irrigation. The 1920 Act would also invoke NEPA, and therefore NMCC and the BLM may very well be subject to yet another EIS.	NEPA-13; REG-11	NEPA Process; Regulatory Compliance	The 1920 Miscellaneous Purposes Act authorizes BOR to enter contracts to supply water from any irrigation system project for purposes other than irrigation. While buying or leasing surface water irrigation rights for the purpose of mining may require additional NEPA, the BLM would not be the lead agency for that action as the BLM does not authorize or administer the sale, lease or transfer of water rights or changes of beneficial use.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	There is no indication whatsoever that NMCC is committed to the long-term maintenance of impacts from the proposed mining activity, some of which (such as the impairment of senior water rights) are expected to persist essentially indefinitely.	CI-7; WR-6	Cumulative Impacts; Water Rights	Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809). Additionally, NMCC has prepared a MORP for the MMD that details closure plans. At the end of mine operation, NMCC expects that most reclamation work would be conducted in the first few years after closure and monitoring would continue until regulatory agencies agree that closure and reclamation are complete, at which time the Financial Assurance would be released and the land would be available for the designated post mining land uses. The predicted water use impacts are adverse and significant, but will be compensated for through mitigation requirements of OSE. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The predicted cumulative surface depletion volumes offered in Table 3-16 relative to the predicted depletion rates identified in Table 3-15 do not make sense. The accounting in this instance does not mass balance and therefore casts doubt on the accuracy of the data generated here, and perhaps elsewhere throughout the DEIS.	SW-15	Surface Water Resources	As described in Section 3.5 of the EIS, surface water depletions are calculated from the results of predictive groundwater flow modeling. Tables 3-15 and 3-16 summarize expected surface water depletions due to predicted reductions in groundwater discharge to Las Animas and Percha Creeks, Caballo Reservoir, and the Rio Grande below Caballo Dam. Table 3-15 provides predicted surface water depletion rates at the end of mining and 100 years after closure, while Table 3-16 provides predicted cumulative surface water depletion volumes. The predicted surface water depletion rates are also shown in Figures 3-6, 3-7, and 3-8. As illustrated in these figures, the surface water depletion rates vary with time and are greatest at the end of mining.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	DEIS does not present or discuss stormwater quality, a major concern of the EBID and perhaps other beneficiaries of the Rio Grande Project because the Grayback and Greenhorn Arroyos ultimately discharge into Caballo Reservoir. There is no discussion of how storm waters above, below and/or immediately adjacent to the mining operation are expected to be managed. This includes how stormwater will be managed after the mine has been exhausted and what happens when the mountain of tailings left at the site when (not if) the proposed liner for the TSF deteriorates.	CI-7; WQ-18; WQ-7	Cumulative Impacts; Water Quality	Section 3.4.2.1 of the EIS addresses the requirement for NMCC to obtain an NPDES permit for stormwater discharges. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the MSGP compliance NOI is submitted to the EPA. The MSGP requires that SWPPPs be available to the public when the NOI is submitted. The SWPPP must address how stormwater that is impacted by the industrial site would be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation. Selected liner material, suitability, and respective design for the tailing impoundments would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria.	NGO3_Elephant Butte Irrigation District

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	Table 3-17 of the DEIS is moot, because NMCC does not have the water rights in sufficient quantity in the form of the permit from ISE, or a water rights adjudication, or a reasonable plan for how such water rights will be secured or when. Until such water rights are secured, the only alternative the DEIS can support is the No Action Alternative.	WR-1; P&N-1; ALT-9	Water Rights; Purpose & Need; Alternatives	<p>With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	Concerned with applying water (of questionable chemical and mineral composition) from the pit lake for dust suppression on roads in the area. Exposure to stormwater flows and subsequent transport of sediment inherent to soil erosion from earthen roads can be expected and must be adequately addressed (p. 3-57).	AQ-5; WQ-11	Air Quality; Water Quality	<p>Section 3.4.2.1.2 provides a technical explanation of why the effects of using the water from the pit for dust suppression are considered insignificant. The application and evaporation of applied water would likely result in the deposition of certain constituents on the surface of roadways; however, the runoff from the roadways would be controlled by the surface runoff features.</p> <p>The NMED is currently processing the discharge permit application and there is no current regulatory requirement regarding the use of pit water for dust suppression. Pursuant to the NMED Supplemental Permitting Requirements for Copper Mine Facilities (20.6.7 NMAC), during operations groundwater standards do not apply within the "area of open pit hydrologic containment" (20.6.7.24.D). Therefore, the discharge permit would not put limitations on the quality of water used for dust suppression within the area of open pit hydrologic containment. Outside of that area, the discharge permit would likely include limitations on the quality of water that could be used for dust suppression. Any surface runoff from dust suppression would need to be contained such that it does not impact surface waters, but that would not be a component of a groundwater discharge permit, more likely part of a SWPPP.</p> <p>For application of impacted water for dust suppression inside the hydrologic containment area (pit lake area), pit water can be applied as dust suppression without treatment so long as this water is applied inside the hydrologic containment area. If the impacted water adversely affected the soils to a condition that could not support vegetation, then MMD would likely require the application of 36" of growth media at feasible reclamation areas (24 inches over foundations or concrete). MMD would look to their Closeout Plan Guidelines to determine whether soil was adversely affected by metals or other contaminants from applying impacted pit water.</p>	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	A sulfate plume contaminating the site already exists, and can be expected to increase substantially with a substantially increased accumulation of tailings that is unavoidable if NMCC's Proposed Action or either of the operational alternatives are adopted.	WQ-14	Water Quality	Analysis of the extent of the existing groundwater plume is being done under the auspices of a Stage 1 Abatement Plan approved by the NMED Groundwater Quality Bureau. Work on the Abatement Plan will be conducted regardless of the proposed mining activities.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	There are concerns that production well pumping will certainly expand an existing eastward hydraulic gradient, and the existing sulfate plume (that is highly likely to become exponentially larger as consequence of NMCC's proposed activities) will most likely continue to migrate eastward and continue to disrupt groundwater contamination patterns. Furthermore, the DEIS must fully and completely discuss how potential contaminants will not eventually make their way into the major water supply of Caballo Reservoir.	GW-5; GW-26; WQ-5	Groundwater Resources; Water Quality	Discussion of the potential impacts to groundwater quality is provided in Section 3.4.2. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the MSGP compliance NOI is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater and the waters of Caballo Reservoir. After mine closure, stormwater would be managed as a part of site reclamation.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The groundwater model contains a number of discrepancies and is based on incomplete and inadequate data. It is basically a model of a model, and therefore necessarily a guess (albeit educated) at what the impacts of the mine on water resources might really be. Importantly, this is a groundwater flow model, not a contaminant transport model. It does not state a plan to expand on the data used to create it (i.e. field measurements), such as additional exploratory wells and/or nested piezometers at appropriate depths, to refine and more appropriately calibrate the model on the regional basis by which the model platform and grid are intended.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO3_Elephant Butte Irrigation District

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NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	Air quality modeling (p 8-10) was done using AERMOD assuming "flat terrain sources" and the EBID assumes this to mean that terrain elevations and other topographical features were ignored in the modeling process. The EBID strongly disagrees with this modeling strategy since this computer model can be used for both, simple and complex terrain (USEPA, 2006). EBID questions the values presented on pp 8-14 and 8-15 and the corresponding interpretation of results on pp 3-3 through 3-10 of the proposed EIS report. In fact, EBID believes that once topographic features are included in the model, the model would change considerably and concentration of contaminants would be higher.	AQ-6	Air Quality	Topography was included in the dispersion modeling. The modeling inputs and results were reviewed by the NMED in the air permitting process to ensure that best modeling practices were used. As outlined in Section 3.2.2.3, if Alternative 2 were ultimately selected, an air permit revision, including an updating dispersion modeling analysis, would be required. As outlined in sections 3.2.2.2 and 3.2.2.3, the Proposed Action would have minor (i.e. less than significant effects) as it would not exceed major source thresholds outlined in the PSD regulations, generate emissions that would exceed the National Ambient Air Quality Standards (NAAQS) or New Mexico Ambient Air Quality Standards (NMAAQS) at any nearby location, or contribute to a violation of any State, Federal, or local air regulation.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The EBID does not believe that once the modeling is expanded to include the use of AERMAP and AERMET the proposed air quality plan would pass the scrutiny of the air pollutant permitting process for either Alternative 1 or 2.	AQ-6	Air Quality	The modeling inputs and results were reviewed by the NMED in the air permitting process to ensure that best modeling practices were used. As outlined in Section 3.2.2.3, if Alternative 2 were ultimately selected, an air permit revision, including an updating dispersion modeling analysis, would be required. As outlined in sections 3.2.2.2 and 3.2.2.3, the Proposed Action would have minor (i.e. less than significant effects) as it would not exceed major source thresholds outlined in the PSD regulations, generate emissions that would exceed the National Ambient Air Quality Standards (NAAQS) or New Mexico Ambient Air Quality Standards (NMAAQS) at any nearby location, or contribute to a violation of any State, Federal, or local air regulation.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The DEIS does not present an adequate assessment of the surface hydraulics and hydrology associated with the TSF for the upper watershed above the new mine facility (shown approximately in red in Figure 2) and the lower watershed at the TSF itself (shown approximately in blue in Figure 2). It appears that the upper watershed has not been a consideration because an arroyo is located below the new plant facilities site and north of the proposed new TSF. Concerned that future developments at the new plant facilities may fill the arroyo and allow high flows from the upper watershed generated by a probable maximum precipitation event (PMP) to flood the new TSF, jeopardizing its integrity. Concerned that a failure to maintain the proper perimeter embankment elevation of the TSF will place the safety of the dam at risk. Under this and other scenarios, copper laden sediments could be transported to Caballo Dam under the PMP.	SW-20; WQ-12	Surface Water Resources; Water Quality	Section 2.1.3.4 addresses the TSF, including its conceptual design and process. Based on rules and regulations of the OSE, the TSF would be classified as a large dam having significant hazard potential, therefore, all considerations regarding dam design of the TSF would require approval under an OSE Dam Safety Bureau permit. With that, OSE regulations ensure the continued safe operation, maintenance, site security, and emergency preparedness for existing non-Federal jurisdictional dams. The surface drainage hydraulics and hydrology would be analyzed and presented in greater detail and verified during the engineering design phase of the project. This includes any applicable infrastructure and control measures associated with the hydraulics and hydrology of the TSF. The analysis and design related to these items would be developed in accordance with current regulatory requirements and design criteria.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The information provided in the draft EIS is inadequate to formulate a hydrograph resulting from a PMP storm event in the upper watershed. Substantially more information on watershed basin topography, soils and vegetation is required to generate a hydrograph for a PMP storm event.	SW-20	Surface Water Resources	The existing Grayback diversion channel would be maintained and used to manage stormwater flows. Stormwater flows captured in the Grayback Arroyo upgradient of mine facilities would continue to be diverted around the mine, including the tailings storage facility (TSF). The TSF will be designed to contain inflows and direct precipitation associated with the 72-hour probable maximum precipitation (PMP) event, which is 26 inches for the site.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	An inundation plan should be presented in the EIS to clarify this potential catastrophic event. An evacuation plan must be prepared in consultation with the corresponding Emergency Management Agency in Sierra County using the inundation plan developed in this section of the application. The DEIS fails to provide any of these logical requirements for approval by the OSE Dam Safety Office.	HH&PS-6; PA-14	Human Health and Public Safety; Proposed Action	Plans such as those described in the comment would be completed as requirements of the regulatory permitting process. They are not required as part of the EIS evaluation process performed in advance of the permit processing. Section 2.1.15.6, Environmental Considerations for Reclamation states "Diversion and Overland Flow: The surface drainage of the mine area was designed to contain or control the 100-year/24-hour storm event."	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The BLM is very explicit in establishing that an EIS must comply with cumulative effects analysis. The analysis is different from the BLM guidance.	BLM-2; CI-17	Bureau of Land Management; Cumulative Impacts	Cumulative Impacts of the Proposed Action and alternatives are discussed in Section 4.0, Cumulative Impacts, and were written in compliance with BLM guidance.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	Cannot determine the quality of the air modeling results because were unable to establish from Appendix B the magnitude of the area (i.e. airshed) used to model air pollutant concentrations.	CI-2; AQ-8; AQ-9	Cumulative Impacts; Air Quality	The area included was sufficient to outline the extent of the distance to the SILs for each pollutant. The modeling inputs and results were reviewed by the state regulatory agency in the air permitting process to insure that best modeling practices were used.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The DEIS reports that if Alternative 2 were ultimately selected, an air permit revision, including an updated dispersion modeling analysis, would be required. The DEIS mentions that "no mitigation measures for air resources beyond BMPs and regulatory requirements described in the Proposed Action have been identified for any alternative." How would the use of BMPs prevent violations to the Clean Air Act for Alternative 2?	AQ-10	Air Quality	The dispersion modeling was performed to include all receptors within the area of effect. Contours of equal concentration are shown for each pollutant. No receptors were identified that would have concentrations greater than the ambient air quality standards. A discussion of BMPs and reductions by design is presented in Section 3.2.2.1.1.	NGO3_Elephant Butte Irrigation District

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NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The predicted air contaminant values ignore present concentrations of contaminants (mainly particulate matter) which is a violation of the NEPA as it relates to cumulative effects. Consider the natural air opacity created by natural particulate air pollutants and the cumulative effects of the former Quintana Mining operations on ambient air quality.	AQ-13; CI-2; NEPA-30	Air Quality; Cumulative Impacts; NEPA Process	The air quality assessment included background air pollutant concentrations with air impacts from past and present activities. A discussion of cumulative effects on air quality is provided in Chapter 4 of the EIS. The BLM believes that the cumulative impacts assessment for all resource categories is either sufficient as presented in the DEIS or has been made so in the FEIS with specific input from the public comment process.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The Grayback Arroyo is a sub-basin of Hydrologic Unit Code, HUC, 13030101 (USGS, 2016), therefore a water quality model must include the whole Grayback Arroyo watershed, from its heading (at the mine site) to Caballo Dam since the impact of the mining activities on water quality of the Rio Grande could be quite severe.	CI-6; WQ-2	Cumulative Impacts; Water Quality	The impact to water quality of the Rio Grande is managed through the permitting process. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the MSGP compliance NOI is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation. The impact from previous mining operations on water quality is addressed in Section 3.4.2.1.2, which refers to the existing plume of groundwater with elevated total dissolved solids (TDS) that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume. With respect to impacts to water quality outside the TSF area, Section 3.4.2 provides a description of the environmental effects on water quality in the pit area, the TSF area, and the entire mining site. These effects include water quality effects from both point and non-point sources within the Grayback Arroyo watershed. As noted in Section 2.1.3.4, a permit for the proposed dam in the TSF would be required from the Dam Safety Office of the OSE. The requisite data and evaluations will have to be provided in order to obtain the permit.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The document does not sufficiently evaluate and present a discussion of cumulative impacts for a number of resource categories including air quality, and impacts from previous mining operations, as required by NEPA. It fails to consider that prior mining operations by Quintana Mining and their corresponding measures to control its runoff are unaddressed in this EIS proposal. The watersheds for mining operations and for the TSF area are not assessed at a level that required permits could be attained from the Dam Safety Office of the OSE. The environmental impacts on water quality of the areas that are not included in the TSF watershed could be quite severe on the Greyback Creek.	CI-6; WQ-2	Cumulative Impacts; Water Quality	The impact from previous mining operations on water quality is addressed in Section 3.4.2.1.2, which refers to the existing plume of groundwater with elevated total dissolved solids (TDS) that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume. With respect to impacts to water quality outside the TSF area, Section 3.4.2 provides a description of the environmental effects on water quality in the pit area, the TSF area, and the entire mining site. These effects include water quality effects from both point and non-point sources within the Grayback Arroyo watershed. As noted in Section 2.1.3.4, a permit for the proposed dam in the TSF would be required from the Dam Safety Office of the OSE. The requisite data and evaluations will have to be provided in order to obtain the permit.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The DEIS fails to adequately evaluate and discuss the existence of such brownfield at the site and the cumulative effect of the proposed EIS over the existing brownfield. Furthermore, the proposed EIS fails to describe the interaction among past operations (Quintana Mining) and future plans. In fact, the report concentrates exclusively on the future aspects of the proposed mining operation and ignores the effects of past activities.	CI-11	Cumulative Impacts	The Proposed Action for the Copper Flat mine is the original Quintana operation with some adjustments in size and processing rate. All the impacts associated with the Quintana mine operation are embedded in the analysis for the Proposed Action. The past, present, and future actions associated with the Proposed Action and the alternatives are presented in Section 4.0, Cumulative Impacts.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The DEIS does not address the contradiction that if Quintana Mining created a hazardous waste site (which is now considered a brownfield) what new methodology would be presented in the EIS to prevent the same outcome from occurring, to a greater extent, by implementation of the identical technologies?	PA-12	Proposed Action	Section 3.4.2.1.2 refers to the existing plume of groundwater with elevated TDS that resulted from past operations. The section explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume. Additionally, current mine reclamation requirements are more stringent and restrictive than reclamation standards in place at the closure of the Copper Flat mine in the early 1980s. Under these stricter standards, the condition of reclaimed lands would be noticeably more acceptable and beneficial than what was in place following the previous mine closure.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The BLM proposes a 12-year period for post-closure monitoring, care and maintenance (EIS, p 2-59). EBID considers the proposed 12-year period for post-closure monitoring, care, and maintenance to be inadequate for post-closure operations. A period of at least 100 years would be more adequate for this facility than the proposed short term duration, particularly given that depletions of surface water resources in the neighboring area are expected for over 100 years as a consequence of NMCC's proposed production well pumping.	WQ-21	Water Quality	The length of post-mining monitoring of the material resources would be determined by the State of New Mexico in association with the permits issued to the Copper Flat mine.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The proposed flood control dam is not clearly discussed in the EIS and subsequently, it is assumed that the EIS refers to a perimeter dam around the TSF facilities. Regardless, the BLM draft EIS presents an oversimplified panorama on flood control dam approval by the OSE Dam Safety Office. Engineering either dam may take several years and would require multiple resources that are not discussed in the draft EIS.	SW-5	Surface Water Resources	The perimeter dam referred to in the comment is associated with the TSF that would be used for the placement and management of tailings during mining operations. The dam's purpose is not flood control. A permit would be obtained from the OSE for dam construction and operation.	NGO3_Elephant Butte Irrigation District

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NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	Concerned with the durability of the HDPE liner proposed for the flood control dam. This material has proven to have limited life, which in essence is much shorter than the infinite life of the TSF metals. Rupture of this liner could result in irreparable damage to underlying groundwater and surface waters, including the waters from Caballo Reservoir and lower portions of the Rio Grande. The DEIS does not consider that the geomembrane will ever fail (EIS p.2-64), in spite of technical literature to the contrary (Koerner and Hsuan, 2003, Koerner et al., 2011, Peggs 2010).	WQ-18	Water Quality	Selected liner material, suitability, and respective design for the tailing impoundments would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The EBID finds the draft EIS to be deficient in the lack of explanations on possible migration routes and environmental impact of these migration events. EBID has identified three potential migration routes for the copper in the TSF that can have considerable impact upon the waters of the Rio Grande - surface water migration into Caballo Dam, groundwater contamination, and fugitive air emissions of heavy metals from mining operations.	AQ-7; WQ-4	Air Quality; Water Quality	The potential migration routes for copper contamination in runoff and groundwater are controlled through the permitting process. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the MSGP compliance NOI is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation. Section 3.4.2.1.2 provides a technical explanation of why the effects of using water from the pit for dust suppression are considered insignificant. The application and evaporation of applied water would likely result in the deposition of certain constituents on the surface of roadways; however, the runoff from the roadways would be controlled by the surface runoff features. The water quality of the existing pit lake is summarized in Section 3.4.1. Section 3.4.2 explains that the proposed MPO would require a preliminary pit lake water quality management plan that describes reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The proposed EIS does not provide sufficient information to make a determination of how contaminant migration would occur such that it is likely to produce deleterious effects upon the water quality of the Rio Grande at Caballo Reservoir. EBID anticipates that mining activities would result in contamination of Caballo Reservoir, rendering the waters unsuitable for human consumption and crop irrigation, even after relatively minor precipitation events. Catastrophic collapse of the flood control dam would have much greater impact upon the water quality at the reservoir. Thus, EBID opposes approval of the EIS, which in EBID's opinion has failed to clearly demonstrate the potential impact of the proposed mining activities upon the waters of the Rio Grande.	WQ-4; SW-5	Water Quality; Surface Water Resources	The potential migration routes for contamination in runoff and groundwater is controlled through the permitting process. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the MSGP compliance NOI is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation. The perimeter dam referred to in the comment is associated with the TSF that would be used for the placement and management of tailings during mining operations. The dam's purpose is not flood control. A permit would be obtained from the OSE for dam construction and operation.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The DEIS notes that only 7 cactus wren nests were observed but the reader is not told whether the nests are active/inactive. It is also unclear whether the surveys were done to identify species and not to observe or locate possible active nest sites. Also, the report from Parametrix 2011 that was used in the EIS is now 5+ years old and work has not started on the site. The logical question is: are there any provisions to collect additional data in the affected area – it is important to note that breeding and nesting patterns are not static but dynamic due to climatic changes (mainly moisture) in the area.	WL-3	Wildlife	In response to this comment, the BLM has reviewed baseline wildlife surveys and found them to be sufficient for producing a satisfactory assessment in the EIS. As noted in Section 2.1.16, land clearing and surface disturbance would be timed to prevent destruction of active bird nests or birds' young during the avian breeding season (March 1 to August 31) to comply with the Migratory Bird Treaty Act. If surface disturbing activities are unavoidable during the avian breeding and nesting season, NMCC would have a qualified biologist survey areas proposed for disturbance for the presence of active nests immediately prior to the disturbance. If active nests are located, or if other evidence of nesting is observed (mating pairs, territorial defense, carrying nesting material, transporting of food), NMCC would work with the biologist and the BLM to develop a work plan to allow construction activities to continue without impacting the identified nesting area during the nesting and breeding season.	NGO3_Elephant Butte Irrigation District

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NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	EBID is concerned by the implications of the statement that "there exists a vast amount of undeveloped nearby land" which implies that the land in the mining operation area is not suitable for either foraging or breeding for the species displaced by the construction or operation at the mine. If surrounding areas are indeed useful for supporting displaced wildlife they should already have similar, or identical species occupying the territory. If species are displaced into this an already occupied territory, both breeding and foraging competition could result in population and species reduction.	WL-7	Wildlife	As described in EIS Section 3.10.2.1.2, Mine Closure/Reclamation, direct and long-term adverse impacts from habitat conversion would occur during project activities, as brush would be cleared along existing access roads. Impacts during the lifespan of the Proposed Action would mostly occur on previously disturbed land. Losses of mammals, birds, or wildlife in general are not expected to be significant as a result of the project. Proposed project activities may cause minor disruptions to foraging, migratory movement, or breeding behavior of some species. A few animals may be killed during these activities because they are driven out of their foraging territories and are made more susceptible to predation, but these losses would not be expected to impact the species as a whole. There is currently a vast amount of undeveloped land in nearby areas where wildlife can temporarily relocate for cover and foraging. Contemporaneous reclamation of disturbed surface areas would be an integral part of the mining operation. Both public and private land would be reclaimed. At the completion of mining activities, the site would be restored to conditions and standards that meet approved post-mining land uses. These uses would include native plant communities similar to surrounding undisturbed areas for wildlife habitat, and grazing land potentially suitable for livestock. Once reclamation is successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels. Also, as noted in EIS Section 2.7, Best Management Practices, in the subsection entitled Threatened and Endangered Species and Special Status Species, ground clearing and other mine development activities would be avoided during breeding and nesting season (generally March 1 through August 31) until the area is surveyed by a qualified biologist to confirm the absence of nests (on the ground and in burrows and vegetation) and nesting activity to avoid impacting migratory birds.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The EBID does not believe that this draft EIS takes into consideration the cumulative effect of the displacement of both birds and mammals. By not doing a better job of identifying breeding and nesting locations on their surveys, the EIS has not acquired a good baseline upon which the long lasting effects can be predicted.	CI-12; WL-2	Cumulative Impacts; Wildlife	See the response to comment WL-1. In response to this comment, the BLM has reviewed baseline wildlife surveys and found them to be sufficient for producing a satisfactory assessment in the EIS. Terrestrial habitat conditions would not be affected outside the immediate perimeter of the mine site. Because reclamation includes the entire mine area and 52 percent of the area consists of previously disturbed land, conversion to natural habitat would have long-term minor and beneficial impacts to wildlife and migratory birds due to the increase in potential habitat and habitat connectivity. These beneficial impacts would not occur until after the completion of reclamation, but would be long-term starting at that point. Common species are expected to return to the mining area in the long-term after reclamation occurs.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The EBID does not believe that this draft EIS takes into consideration the cumulative effect of the displacement of both birds and mammals. By not doing a better job of identifying breeding and nesting locations on their surveys, the EIS has not acquired a good baseline upon which the long lasting effects can be predicted.	CI-12; WL-2	Cumulative Impacts; Wildlife	See the response to comment WL-1. In response to this comment, the BLM has reviewed baseline wildlife surveys and found them to be sufficient for producing a satisfactory assessment in the EIS. Terrestrial habitat conditions would not be affected outside the immediate perimeter of the mine site. Because reclamation includes the entire mine area and 52 percent of the area consists of previously disturbed land, conversion to natural habitat would have long-term minor and beneficial impacts to wildlife and migratory birds due to the increase in potential habitat and habitat connectivity. These beneficial impacts would not occur until after the completion of reclamation, but would be long-term starting at that point. Common species are expected to return to the mining area in the long-term after reclamation occurs.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The time frame, 10-16 years of mine operation, plus construction and an unspecified time for reclamation of the land is not temporary or short term for most bird species. Further, the location downstream of Percha and Caballo State Parks, both designated as Audubon Important Bird Areas, could also be adversely affected by the displacement of the birds in the mining area. This area along with the Animas Creek corridor are unique to Southern NM and provide both a biological and economic resource to the area. Any disturbance from the mine operation would have long range effect, lasting far longer than the mine lifespan.	CI-5; WL-8	Cumulative Impacts; Wildlife	At the completion of mining activities, the site would be restored to conditions and standards that meet approved post-mining land uses. These uses would include native plant communities similar to surrounding undisturbed areas for wildlife habitat, and grazing land potentially suitable for livestock. Once reclamation is successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels. Also, as noted in EIS Section 2.7, Best Management Practices, in the subsection entitled "Threatened and Endangered Species and Special Status Species", ground clearing and other mine development activities would be avoided during breeding and nesting season (generally March 1 through August 31) until the area is surveyed by a qualified biologist to confirm the absence of nests (on the ground and in burrows and vegetation) and nesting activity to avoid impacting migratory birds. Therefore, the numbers of birds displaced during mining operations would be limited and the site would be restored to as good or better conditions for birds than pre-mining conditions. Thus, any long-term impacts to Audubon Important Bird Areas would be negligible.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The reclamation plan does not describe in enough detail how the disturbed landscape will be converted back to suitable habitat (EIS, p. 2-36 to 2-42). This shows a lack of overall planning for successful return of normal species to the reclaimed area.	CI-7; WR-6; WL-8	Cumulative Impacts; Water Rights; Wildlife	At the completion of mining activities, the site would be restored to conditions and standards that meet approved post-mining land uses. These uses would include native plant communities similar to surrounding undisturbed areas for wildlife habitat, and grazing land potentially suitable for livestock. Once reclamation is successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels. Also, as noted in EIS Section 2.7, Best Management Practices, in the subsection entitled "Threatened and Endangered Species and Special Status Species", ground clearing and other mine development activities would be avoided during breeding and nesting season (generally March 1 through August 31) until the area is surveyed by a qualified biologist to confirm the absence of nests (on the ground and in burrows and vegetation) and nesting activity to avoid impacting migratory birds. Therefore, the numbers of birds displaced during mining operations would be limited and the site would be restored to as good or better conditions for birds than pre-mining conditions. Thus, any long-term impacts to Audubon Important Bird Areas would be negligible.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The proposed flood control dam is not clearly discussed in the EIS and subsequently, it is assumed that the EIS refers to a perimeter dam around the TSF facilities. Regardless, the BLM draft EIS presents an oversimplified panorama on flood control dam approval by the OSE Dam Safety Office. Engineering either dam may take several years and would require multiple resources not discussed in the DEIS.	SW-5	Surface Water Resources	The perimeter dam referred to in the comment is associated with the TSF that would be used for the placement and management of tailings during mining operations. The dam's purpose is not flood control. A permit would be obtained from the OSE for dam construction and operation.	NGO3_Elephant Butte Irrigation District

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NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	EBID cannot find in the EIS where a larger dam, capable of controlling PMP flows for the whole mine watershed could be placed. Construction of such dam would be very onerous and complex but would result in more adequate flood control and would limit sediment transport downstream to Caballo Dam.	SW-5	Surface Water Resources	The existing Grayback diversion channel would be maintained and used to manage stormwater flows. Stormwater flows captured in the Grayback Arroyo upgradient of mine facilities would continue to be diverted around the mine. The purpose of the perimeter dam associated with the TSF is not flood control. The TSF would be used for the placement and management of tailings during mining operations.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	NMCC does not have the water rights to proceed with the project. The only defensive alternative at this time is the No Action.	WR-1; P&N-1; ALT-9	Water Rights; Purpose & Need; Alternatives	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The maps and figures are deficient in technical information and need to be cross-referenced correctly with corresponding sections.	REF-4	References	The BLM believes that the graphics are presented with sufficient detail to convey the essential conclusions of the analysis. Any incorrect cross-references have been corrected.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The proposed flood control dam is not clearly discussed in the EIS and subsequently, it is assumed that the EIS refers to a perimeter dam around the TSF facilities. Regardless, the BLM draft EIS presents an oversimplified panorama on flood control dam approval by the OSE Dam Safety Office. Engineering either dam may take several years and would require multiple resources not discussed in the DEIS.	SW-5	Surface Water Resources	The perimeter dam referred to in the comment is associated with the TSF that would be used for the placement and management of tailings during mining operations. The dam's purpose is not flood control. A permit would be obtained from the OSE for dam construction and operation.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	A larger dam, capable of controlling PMP flows for the whole mine watershed, would result in more adequate flood control and limit sediment transport downstream to Caballo Dam. EBID questions the much smaller flood control dam to be built immediately below the TSF because uncontrolled flood waters may carry contaminated water to Caballo Dam; it is not clear where this flood control dam would be located; and the location of the emergency spillway and the nature of the waters that may be carried to Caballo Dam.	SW-10; WQ-12	Surface Water Resources; Water Quality	Section 2.1.3.4 addresses the TSF, including its conceptual design and process. Based on rules and regulations of the OSE, the TSF would be classified as a large dam having significant hazard potential, therefore, all considerations regarding dam design of the TSF would require approval under an OSE Dam Safety Bureau permit. With that, OSE regulations ensure the continued safe operation, maintenance, site security, and emergency preparedness for existing non-Federal jurisdictional dams. The surface drainage hydraulics and hydrology would be analyzed and presented in greater detail and verified during the engineering design phase of the project. This includes any applicable infrastructure and control measures associated with the hydraulics and hydrology of the TSF. The analysis and design related to these items would be developed in accordance with current regulatory requirements and design criteria.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	The 12-year post-closure period is insufficient to properly maintain the remaining facilities. Propose at least 100 years for adequate post-closure maintenance, care, and monitoring.	WQ-21; PA-23	Water Quality; Proposed Action	The length of post-mining monitoring of the material resources would be determined by the State of New Mexico in association with the permits issued to the Copper Flat mine. Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements. Backfilling the lake was considered as an alternative, but was determined to be economically infeasible. The backfilling alternative has been added to Section 2.5, Alternatives Considered but Eliminated in the FEIS. In addition, Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period. It is anticipated that pit lake water quality standards would be established by the MMD. The standards would be set to be similar to existing conditions. Because the pit lake would be located entirely on private property owned by NMCC in the form of patented mining claims, it would not be considered a water of the State. The pit lake would not combine with other surface waters of the State. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC. In addition, per NMAC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period.	NGO3_Elephant Butte Irrigation District

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NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	Oppose the construction of a flood control dam using TSF materials or other non-cohesive and non-impervious rock or sandy materials because they are likely to breach (most likely by piping) during or after the post-closure period. Use of a liner, as proposed in the DEIS, should be effective for the first few years after building the dam but considering that elastomeric materials have a lifetime, this engineering approach may lead to failure after the liner has worn out.	WQ-18; SW-5	Water Quality; Surface Water Resources	Selected liner material, suitability, and respective design for the tailing impoundments would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria. The purpose of the perimeter dam associated with the TSF is not flood control. The TSF would be used for the placement and management of tailings during mining operations.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	Concerned with the durability of the HDPE liner proposed for the flood control dam. This material has proven to have limited life, which in essence is much shorter than the infinite life of the TSF metals. Rupture of this liner could result in irreparable damage to underlying groundwater and surface waters, including the waters from Caballo Reservoir and lower portions of the Rio Grande.	WQ-18	Water Quality	Selected liner material, suitability, and respective design for the tailing impoundments would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	Mining activities would result in contamination of Caballo Reservoir, rendering the waters unsuitable for human consumption and crop irrigation, even after relatively minor precipitation events. Catastrophic collapse of the flood control dam would have much greater impact upon the water quality at the reservoir. Thus, EBD opposes approval of the EIS, which has failed to clearly demonstrate the potential impact of the proposed mining activities upon the waters of the Rio Grande.	WQ-4; SW-5	Water Rights; Surface Water Resources	Stormwater runoff from mine facilities, including the WRDFs, would be captured and potentially used as process water. Discussion has also been added to Section 2.1.15.7 of the EIS explaining that the final details of the placement and use of the cover materials for WRDFs would be approved by the State and the BLM following analysis of the results of a test-plot program that would be conducted during the mining operation. Contamination in runoff and groundwater is controlled through the permitting process. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the MSGP compliance NOI is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation. The purpose of the perimeter dam associated with the TSF is not flood control. The TSF would be used for the placement and management of tailings during mining operations.	NGO3_Elephant Butte Irrigation District
NGO3	3/4/2016	Erek Fuchs	Elephant Butte Irrigation District	DEIS does not take into consideration the cumulative effects of prior mining operations on air pollutant modelling, hydraulics, hazardous pollutants, water quality in HUC 13030101 and lower watersheds and wildlife. Lack of cumulative effects assessment makes the document non-compliant with the mandates and intent of NEPA. EBD strongly opposes approval of this DEIS.	CI-6; WQ-2; CI-2; AQ-8	Cumulative Impacts; Water Quality; Air Quality	The impact from previous mining operations on water quality is addressed in Section 3.4.2.1.2, which refers to the existing plume of groundwater with elevated total dissolved solids (TDS) that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume. The air quality assessment included background air pollutant concentrations with air impacts from past and present activities. A discussion of cumulative effects on air quality is provided in Chapter 4 of the EIS. The BLM believes that the cumulative impacts assessment for other resource categories is either sufficient as presented in the DEIS or has been made so in the FEIS with specific input from the subsequent public comment process.	NGO3_Elephant Butte Irrigation District
NGO4	3/2/2016	Jimmy W. Capps	Sierra Electric Cooperative	While the description of the required 345/115-kV substation and transmission interconnection between the El Paso Electric 345-kV transmission line and Tri-State's 115-kV transmission line seems reasonable for this type of project, the final design will be contingent upon the completion of a System Impact Study and Facility Study conducted by El Paso Electric (EPE).	U&I-3	Utilities and Infrastructure	NMCC is confident that Tri-State and the Sierra Electric Co-op have sufficient capacity to meet the electrical demands of proposed mine operation based on discussions with the utility companies. The System Impact Study and Facility Study mentioned above would be completed during detailed engineering for the mine prior to construction.	NGO4_Sierra Electric Coop
NGO4	3/2/2016	Jimmy W. Capps	Sierra Electric Cooperative	The plant electrical load requirements referenced in section 2.3.6 Electrical Power (Alternative 2) are assumed to be average and not peak loads.	ALT-5; U&I-1	Alternatives; Utilities and I	The values shown in Section 2.3.6 are average loads. A complete analysis of electrical power requirements for the alternatives evaluated is provided in Section 3.25 of the FEIS. More specific analysis would be required when NMCC would build the electrical substation on site. Peak loads would be a consideration with this analysis.	NGO4_Sierra Electric Coop
NGO4	3/2/2016	Jimmy W. Capps	Sierra Electric Cooperative	Tri-State is not familiar with the M3 2012 and THEMAC 2013 references in Section 3.25.1.1: "Power." Please clarify or describe.	U&I-6	Utilities and Infrastructure	The references are cited in the references section as follows: M3 2012. M3 Engineering and Technology Corporation. 2012. Copper Flat Project. Form 43-101F1 Technical Report. Prefeasibility Study. August 2012. THEMAC 2013. THEMAC Resources – New Mexico Copper Corporation. Copper Flat Mine Alternative 2 – Summary Plan of Operations. October 10, 2013.	NGO4_Sierra Electric Coop
NGO4	3/2/2016	Jimmy W. Capps	Sierra Electric Cooperative	While Tri-State has confirmed available generating capacity for the CFM to SEC, the available transmission capacity of the 345-kV transmission line will need to be confirmed with EPE.	U&I-3	Utilities and Infrastructure	NMCC is confident that Tri-State and the Sierra Electric Co-op have sufficient capacity to meet the electrical demands of proposed mine operation based on discussions with the utility companies. The System Impact Study and Facility Study mentioned above would be completed during detailed engineering for the mine prior to construction.	NGO4_Sierra Electric Coop
NGO4	3/2/2016	Jimmy W. Capps	Sierra Electric Cooperative	In section 3.25.2.2: "Alternative 1: Accelerated Operations-25,000 Tons per Day Power," the reference to daily demand of 5559.25MWh should be corrected to 559.25MWh.	ALT-6	Alternatives	The text regarding daily demand has been corrected.	NGO4_Sierra Electric Coop

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NGO4	3/2/2016	Jimmy W. Capps	Sierra Electric Cooperative	In section 3.25.2.3: "Alternative 2: Accelerated Operations-30,000 Tons per Day Power: the commenter referenced comments made on section 3.2.6 and 3.25.2.1.1 related to the assumption that these statements are referencing elements other than transmission related facilities.	ALT-7	Alternatives	These discrepancies have been corrected in the FEIS.	NGO4_Sierra Electric Coop
NGO4	3/2/2016	Jimmy W. Capps	Sierra Electric Cooperative	The results of the transmission system assessment performed in 2012 that evaluated the capabilities of Tri-State owned facilities remain consistent with recent Tri-State studies as related to Tri-State owned facilities and are accurately reflected in the EIS. Statements in the EIS that involve facilities owned by other transmission facilities, specifically El Paso Electric, cannot be confirmed without an approved SIS and FS performed by the transmission owner or transmission provider. Tri-State would defer any specific project scope definition of the electric transmission infrastructure until the appropriate studies have been performed that confirm the initial analysis.	U&I-4	Utilities and Infrastructure	NMCC is confident that Tri-State and the Sierra Electric Co-op have sufficient capacity to meet the electrical demands of proposed mine operation based on discussions with the utility companies. The System Impact Study and Facility Study mentioned above would be completed during detailed engineering for the mine prior to construction.	NGO4_Sierra Electric Coop
NGO4	3/2/2016	Jimmy W. Capps	Sierra Electric Cooperative	If the mine is not permitted, Sierra County will continue to decline and there is no economic "silver bullet" to save it from continued decline. Approval of the mine would provide funds and resources to allow development of infrastructure and industries that would provide opportunity for existing and future business and economic sustainability in Sierra County.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	NGO4_Sierra Electric Coop
NGO4	3/2/2016	Jimmy W. Capps	Sierra Electric Cooperative	On a "benefit per acre foot of water" basis, the mine would provide greater economic benefit as a source of direct and indirect jobs and increased revenues and taxes rather than the current unsustainable use and benefit of water resources.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	NGO4_Sierra Electric Coop
NGO4	3/2/2016	Jimmy W. Capps	Sierra Electric Cooperative	The Copper Flat Mine would provide a unique opportunity for an economic boost to Sierra County. Without it, the existing economy is unsustainable and is likely to continue to degrade. Sierra County is a "bust" and without the Copper Flat Mine, there will be no "boom" or economic opportunity to allow development for a sustainable future. The mine would improve employment rates, stimulate population growth and improve the quality of life for all residents of Sierra County.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	NGO4_Sierra Electric Coop
NGO4	3/2/2016	Jimmy W. Capps	Sierra Electric Cooperative	Resolution adopted on February 19, 2016 by the SEC Board of Trustees in support of the Copper Flat Mine Project.	ALT-16	Alternatives	Thank you for your comment.	NGO4_Sierra Electric Coop
NGO4	3/2/2016	Jimmy W. Capps	Sierra Electric Cooperative	The mine would increase demand for electricity within Sierra County as the price for retail electricity is greatly impacted by the volume of sales, providing rate stabilization for all of SEC's members during the operational life of the mine.	U&I-7	Utilities and Infrastructure	Thank you for your comment.	NGO4_Sierra Electric Coop
NGO5	4/4/2016	Beth Bardwell	Audubon New Mexico	The BLM must ensure that this project, established under the General Mining Law of 1872, complies with the ESA before allowing mining activities to proceed.	REG-21; T&E-5	Regulatory Compliance; Threatened, Endangered, and Special Status Species	The BLM has consulted with the USFWS concerning impacts to federally-listed species found in the project area. Protection measures would be implemented in any instance where the project may adversely affect these species. These measures have been identified in the ROD. NMCC would offset reduced flows to the Caballo Reservoir and subsequent losses to Elephant Butte needed to compensate by acquiring water rights in the Rio Grande watershed upriver. Wildlife including any listed species at, or surrounding Caballo Lake that are sensitive to lake water level are also a function of Upper Rio Grande River water that is available in any given year, the amount allocated to agricultural irrigation and legal obligations to Texas and Mexico. The wet offsets ensure the overall amount of water delivered to Caballo is not diminished by the mine water drawdown. Water level fluctuation in the lake will continue to be the result of river water availability and demand downstream. Wildlife and wildlife habitat present as a function of water fluctuation in Caballo Lake would not change.	NGO5_Audubon NM
NGO5	4/4/2016	Beth Bardwell	Audubon New Mexico	Contrary to Table 3-31, there is data that supports the conclusion that the flycatcher uses the Rio Grande corridor, including Caballo Reach, the Caballo Reservoir and downstream of Caballo Reservoir, for breeding both in Sierra County and Dona Ana County. In 2014, flycatcher breeding territories were detected in Caballo Reach, the Caballo Reservoir delta north and downstream of the Caballo dam in Hatch. See Attachment A. 2013 Southwestern Willow Flycatcher Study Results: Selected Sites with the Rio Grande Basin from Elephant Butte Dam, NM to El Paso, TX., U.S. Department of Interior, Bureau of Reclamation, Fisheries and Wildlife Resources, Denver Colorado March 2015.	T&E-6	Threatened, Endangered, and Special Status Species	The species is present in habitats on the Rio Grande, including along Caballo Reservoir. The flycatcher is documented throughout the Rio Grande Canalization Project (RGCP), including in the Sunland Park area, but most birds are concentrated between Leasburg Dam upstream to Percha Dam. The EIS has been revised to reflect this change.	NGO5_Audubon NM

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NGO5	4/4/2016	Beth Bardwell	Audubon New Mexico	As illustrated in the excerpts from Attachment A, hydrologic conditions are an integral component of suitable flycatcher breeding habitat. Under the proposed action and alternatives, impacts to surface water use are significant. Groundwater pumping associated with the proposed operation of the Copper Flat mine will impact groundwater discharge to Las Animas Creek, Percha Creek, Caballo Reservoir, and Rio Grande below Caballo Dam, decreasing the amount of water available for surface water flow and plant evapotranspiration. The predicted surface water depletion rates will have a greater cumulative environmental impact on surface flows and riparian habitat in the Caballo Reservoir and downstream of Caballo dam in times of drought and under climate change.	T&E-7	Threatened, Endangered, and Special Status Species	Any reduction in flows to Caballo Reservoir caused by pumping of the deep aquifer would be compensated for by releases from Elephant Butte Reservoir which in turn would be offset by NMCC purchase of equivalent water rights in the Upper Rio Grande River Basin. In January 2004, Active Water Resource Management (AWRM) was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution make priority of right the basis for water administration, but recent years have compelled the State Engineer to develop tools for AWRM that will enable them to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes. Wildlife including any listed species at or surrounding Caballo Lake that are a result of lake water level are also a function of Upper Rio Grande River water that is available in any given year and the amount allocated to agricultural irrigation and legal obligations to Texas and Mexico. The wet offsets ensure the overall amount of water delivered to Caballo is not diminished by the mine water drawdown. Water level fluctuation in the lake will continue to be the result of river water availability and demand downstream. Wildlife and wildlife habitat present as a function of water fluctuation in Caballo Lake would not change.	NGO5_Audubon NM
NGO5	4/4/2016	Beth Bardwell	Audubon New Mexico	The Draft EIS recognizes that severe droughts have occurred in the area as recently as 2007 and 2012. The Draft EIS recognizes drought as a cumulative impact but analysis is minimal, but is silent on the cumulative impacts of climate change on surface water use by the project. Commenter provides a list of implications of projected hydrologic impacts. See West-Wide Climate Risk Assessment: Upper Rio Grande Impact Assessment, Department of Interior, Bureau of Reclamation, Upper Colorado Region, Albuquerque Area Office, Executive Summary, S-iv and v, December 2013.	CC-6, SW-27	Climate Change and Sustainability, Surface Water Resources	A discussion on climate change has been added to the cumulative impact section of the FEIS. Based on the consensus of the various models described in EIS Section 3.6, Groundwater Resources, the primary projected climate change impact for the project region is that the future surface water resources in the Rio Grande will experience an overall decrease in total supply due to a higher rate of evapotranspiration in the contributing basins, and a seasonal shift from less spring runoff (less snowmelt) to more summer runoff (more thunderstorm precipitation). With consideration of climate change effects, the impact of Copper Flat (and every other local/regional pumper of surface water) would be proportionally larger as climate change progresses, without drought management policies in place such as New Mexico's Active Water Resource Management (AWRM). An analysis has been added to the FEIS that acknowledges AWRM as a factor in determining cumulative impacts. In January 2004 AWRM was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution makes priority of right the basis for water administration, but recent drought years have compelled the State Engineer to develop tools for AWRM that enable them to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes, thus compensating for impacts to the aquifer and rivers.	NGO5_Audubon NM
NGO5	4/4/2016	Beth Bardwell	Audubon New Mexico	For all the reasons stated above, the Bureau of Land Management should reinstitute informal consultation with the U.S. Fish and Wildlife Service to determine what effect the project may have on the Southwestern Willow Flycatcher in the Caballo reach, the Caballo Delta North and the Rio Grande below the Caballo Dam and determine the need to enter into formal consultation.	T&E-5; REG-21	Threatened, Endangered, and Special Status Species; Regulatory Compliance	The BLM has consulted with the USFWS concerning impacts to federally-listed species found in the project area. Protection measures would be implemented in any instance where the project may adversely affect these species. These measures have been identified in the ROD. NMCC would offset reduced flows to the Caballo Reservoir and subsequent losses to Elephant Butte needed to compensate by acquiring water rights in the Rio Grande watershed upriver. Wildlife including any listed species at, or surrounding Caballo Lake that are sensitive to lake water level are also a function of Upper Rio Grande River water that is available in any given year, the amount allocated to agricultural irrigation and legal obligations to Texas and Mexico. The wet offsets ensure the overall amount of water delivered to Caballo is not diminished by the mine water drawdown. Water level fluctuation in the lake will continue to be the result of river water availability and demand downstream. Wildlife and wildlife habitat present as a function of water fluctuation in Caballo Lake would not change.	NGO5_Audubon NM
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The Draft EIS does not provide adequate and accurate information for the public to fully evaluate the proposed action and alternatives as required by the National Environmental Policy Act 40 CFR 1500.1(b). We therefore recommend that the BLM amend the DEIS to ensure that the Agency can make a decision that is based on a complete understanding of the environmental consequences of the proposed action and alternatives and facilitate taking actions that protect, restore, and enhance the environment.	NEPA-11	NEPA Process	The FEIS was objectively prepared, maximizing the use of available information. As provided by NEPA, the process has utilized input from public review of the DEIS to systematically proceed to the FEIS document.	NGO6_GRIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Additionally, the proposed action and alternatives do not "prevent unnecessary or undue degradation of public lands by operations authorized by the mining laws" as required under 43 CFR Subpart 3809: Surface Management. Because this proposed action does not comply with state law, the Bureau of Land Management cannot approve this action as it will cause unnecessary or undue degradation of public lands.	NEPA-28	NEPA Process	In response to this comment, the BLM has reviewed its NEPA process for this EIS and found that the process is in compliance with 43 CFR Subpart 3809 requirements.	NGO6_GRIP

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NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The DEIS does not comply with the requirements of 43 CFR Subpart 3809.401 and therefore the BLM cannot approve this action. The DEIS does not include a number of plans and information required under this subpart, including water management plans, quality assurance plans, monitoring plans, post-closure management plan, interim management plan, and reclamation cost estimate. BLM must disapprove the plan of operation as it does not meet the applicable content requirements of §3809.401.	NEPA-23	NEPA Process	The listed items are outlined in the 43 CFR 3809 regulations and are not considered to fall within the scope of the EIS as they are regulatory compliance issues and not environmental impacts.	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The Proposed action and alternatives are inadequately identified and assessed. The proposed action and alternatives evaluated in the DEIS are based solely on copper production levels and do not consider the range of management scenarios and reclamation alternatives that should be fully assessed. Management options include monitoring plans, water quality management plans, and financial assurance. Reclamation alternatives discussed in the DEIS include different options for backfilling the open pit, use of liners to protect groundwater from acid mine drainage released from waste rock piles and low-grade ore stockpiles, and alternative cover systems to minimize infiltration of precipitation into waste rock and stock piles to protect surface and groundwater quality. This is a huge omission of information critical to evaluating the environmental consequences of the proposed action and alternatives and the range of technical options available for mitigating adverse impacts to the environment.	ALT-4; PA-10	Alternatives; Proposed Action	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ).	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Current limitation on water rights and alternative contingencies have not been analyzed. The DEIS discusses three options if NMCC's application is not approved, including leasing of groundwater and purchase and transfer of water rights. The DEIS does not disclose where that water would come from, how much water would need to be leased or purchased, or the impacts to surface and groundwater supplies, springs/streams, wildlife and threatened and endangered species from these alternative water sources.	WR-12	Water Rights	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Impacts to surface and groundwater quantity have not been adequately evaluated. As outlined in the Interstate Stream Commission's public comments, the DEIS does not evaluate the impacts of water use for the proposed action and alternatives on the Rio Grande Compact and does not discuss where water supply would come from in the Mine's initial years of operation before sufficient process water is produced to achieve a 75% recycling rate.	REG-10	Regulatory Compliance	The FEIS acknowledges that "This impact is expected to have a long-term, large-extent, and probable cumulative effect on these surface water resources." In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	NGO6_G RIP

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NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	There are no mitigation measures identified for the adverse impacts to surface and groundwater resources in accordance with NEPA. The DEIS does not identify any measures for mitigating surface and groundwater depletion and water quality impacts. This is a major deficiency of the DEIS under NEPA requirements.	GW-12; REG-15; SW-24	Regulatory Compliance; Surface Water Resources; Groundwater Resources	Predicted impacts to surface water are adverse and significant, but would be compensated for through mitigation requirements of OSE. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande".	NGO6_GRIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	It is unclear if evaporation from the pit lake after closure is estimated and included in the DEIS analysis. Water rights need to be in place to cover this consumptive use. The total evaporative losses should be estimated in perpetuity, including cumulative impacts to groundwater and reduced discharge to the Rio Grande and Caballo Lake.	CI-18; SW-21; SW-23	Cumulative Impacts; Surface Water Resources	The 100 AFY described in Section 3.5.2.1.2 is the estimated maximum evaporation loss from the pit lake at closure, when groundwater inflow and stormwater runoff from within the perimeter of the pit would begin to form a pit lake. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	NGO6_GRIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Water quality impacts of the proposed action and alternatives have not been adequately assessed. Water quality impacts were identified as a key issue during Scoping and yet the DEIS fails to provide adequate quantitative information on the magnitude, extent and timing of potential surface and groundwater quality impacts and how these impacts will be mitigated.	GW-1; GW-4; SW-1; SW-21; WQ-4	Groundwater Resources; Surface Water Resources; Water Quality	The potential migration routes for copper contamination in runoff and groundwater is controlled through the permitting process. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the MSGP compliance NOI is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation. Section 3.4.2.1.2 provides a technical explanation of why the effects of using water from the pit for dust suppression are considered insignificant. The application and evaporation of applied water would likely result in the deposition of certain constituents on the surface of roadways; however, the runoff from the roadways would be controlled by the surface runoff features. The water quality of the existing pit lake is summarized in Section 3.4.1. Section 3.4.2 explains that the proposed MPO would require a preliminary pit lake water quality management plan that describes reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period.	NGO6_GRIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Although the DEIS acknowledges the potential for water quality impacts from waste rock piles, low-grade stockpiles, and the pit lake, a materials characterization and handling plan is not provided to understand in more detail the potential for acid generation and how groundwater will be protected. The DEIS does not provide a water quality management plan that outlines more specifically how water quality will be managed in the pit lake.	WQ-19	Water Quality	The FEIS incorporates discussion of the proposed TSF reclamation activities and mitigations under the Proposed Action in Sections 2.1.3.4 and 2.1.15.6. Similarly, activities and mitigations under Alternatives 1 and 2 have been described in the FEIS in Sections 2.2 and 2.3, respectively. Section 2.1.15.7 describes the actions that would be taken to monitor groundwater quality. Section 2.1.15.16 describes the actions that would be taken to minimize and manage acid rock drainage. Additionally, a Geochemical Characterization Report was developed for the Copper Flat mine that is the basis for ARD mitigation measures. It is anticipated that pit lake water quality standards would be established by the MMD. The standards would be set to be similar to existing water quality conditions. Because the pit lake would be located entirely on private property owned by NMCC in the form of patented mining claims, it would not be considered a water of the State. The pit lake would not combine with other surface waters of the State. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC. In addition, per NMAC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period. The water quality of the existing pit lake is summarized in Section 3.4.1 of the FEIS. Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period.	NGO6_GRIP

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NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Lining of waste rock piles and low-grade ore stockpiles is not considered as an alternative to mitigate potential impacts to groundwater quality. Pit lake water quality is predicted to exceed some standards post-closure, yet no consideration of alternatives for mitigating these impacts is discussed, such as partial or full backfilling of the pit.	ALT-17	Alternatives	<p>As stated in the MPO, "NMCC does not propose to backfill the pit. Backfilling operation would not allow sequential mining of the deposit, may cover future mineral resources, and would be economically unfeasible following closure of the operation." This statement has been added to the FEIS.</p> <p>Lining waste rock piles and ore stockpiles is not required by BLM regulation nor under the Copper Rule; this is not a standard industry practice. All waste rock piles and ore stockpiles would be designed to either prevent acid rock drainage (ARD) through encapsulation with non-acid generating material or would be within the pit hydrological containment. Pursuant to the NMED Supplemental Permitting Requirements for Copper Mine Facilities (20.6.7 NMAC), during operations groundwater standards do not apply within the "area of open pit hydrologic containment" (20.6.7.24.D).</p> <p>In addition, it is anticipated that pit lake water quality standards would be established by the MMD. The standards would be set to be similar to existing water quality conditions. Because the pit lake would be located entirely on private property owned by NMCC in the form of patented mining claims, it would not be considered a water of the State. The pit lake would not combine with other surface waters of the State. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC.</p>	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Air quality impacts and applicable federal and state laws have been improperly assessed. A misreading of the Clean Air Act New Source Review Prevention of Significant Deterioration (PSD) requirements results in the DEIS finding of "not significant" for Alternative 2 (Preferred Alternative). However, the Copper Flat mine would be considered a major source rather than a minor source under Alternative 2 given that its emissions of PM10 and carbon monoxide are predicted to be above thresholds. PSD policy is if a source is "a major source for one, it is major for all."	AQ-10	Air Quality	The dispersion modeling was performed to include all receptors within the area of effect. Contours of equal concentration are shown for each pollutant. No receptors were identified that would have concentrations greater than the ambient air quality standards. A discussion of BMPs and reductions by design is presented in Section 3.2.2.1.1.	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	In regards to Air Quality, it is unclear if Alternative 2 was actually modeled or if emissions estimates were just "pro-rated" based on the proposed action and Alternative 1. Given that Alternative 2 is the preferred alternative, air quality impacts for this alternative should be modeled. Additionally, there is no discussion of why air quality impacts are considered "not significant."	AQ-6	Air Quality	The modeling inputs and results were reviewed by the NMED in the air permitting process to ensure that best modeling practices were used. As outlined in Section 3.2.2.3, if Alternative 2 were ultimately selected, an air permit revision, including an updating dispersion modeling analysis, would be required. As outlined in sections 3.2.2.2 and 3.2.2.3, the Proposed Action would have minor (i.e. less than significant effects) as it would not exceed major source thresholds outlined in the PSD regulations, generate emissions that would exceed the National Ambient Air Quality Standards (NAAQS) or New Mexico Ambient Air Quality Standards (NMAAQs) at any nearby location, or contribute to a violation of any State, Federal, or local air regulation.	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	For the preferred alternative, the Copper Flat Mine would be a new major source in a "clean" air shed with localized air quality and visibility impairment from fugitive dust that could impact transportation and recreation and tourism on the Byways and Ladder Ranch. Mitigation measures have not been identified.	AQ-13; REC-14	Air Quality; Recreation	Section 3.2.2 of the EIS addresses the impacts of air pollution and dust from the Proposed Action and alternatives. The air dispersion modeling performed for the air permit demonstrated compliance with all applicable ambient air quality standards. Therefore, adverse effects to nearby areas or individuals are not expected. The dispersion modeling included worst case meteorological conditions as a basis for this determination.	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Climate change impacts were not quantitatively analyzed. No quantitative information is provided in the DEIS for greenhouse gas emissions for the proposed action and alternatives. The DEIS analysis appears to be using criteria air pollutant emissions as a surrogate for greenhouse gas emissions without explicitly stating this.	AQ-16; CC-7	Air Quality; Climate Change and Sustainability	Quantitative data on anticipated GHG emissions from the Proposed Action and alternatives (followed by a discussion of impacts) has been added to Section 3.3.2.1.1. GHG emissions modeling data contained within the air permit document for the Copper Flat site have been analyzed and interpreted for the EIS.	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Impacts to Threatened and Endangered Species are not fully assessed and mitigation measures are not identified. The DEIS does not disclose the results of consultation with the US Fish and Wildlife Service in compliance with Section 7 of the Endangered Species Act or any mitigation measures to prevent impacts to T&E species.	T&E-4	Threatened, Endangered, and Special Status Species	The BLM is in consultation with the USFWS concerning impacts to federally-listed species found in the project area. A separate BA has been prepared and submitted to the USFWS Albuquerque Office. The BA is supported by baseline data collected for this EIS and additional data from other sources about the species in Sierra County and the Lower Rio Grande region. The specific analysis for listed species and all protective and mitigation actions derived via the consultation process with USFWS are included in the Biological Assessment as part of the EIS analysis process. Protective and mitigation actions for listed other wildlife species will be provided in the Record of Decision.	NGO6_G RIP

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NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Because it is not disclosed where all of the water will come from to operate the mine (see second bullet above), the impacts to riparian areas from groundwater pumping and any associated impacts to T&E species have not been fully evaluated.	T&E-2	Threatened, Endangered, and Special Status Species	The BLM is in consultation with the USFWS concerning potential impacts to federally-listed species in the project area, including species that could potentially be affected by reduced flows to the Caballo Reservoir. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease. Wildlife including any listed species at or surrounding Caballo Lake that are a result of lake water level are also a function of Upper Rio Grande water that is available in any given year and the amount allocated to Texas and Mexico. The wet offsets ensure the overall amount of water delivered to Caballo is not diminished by the mine water drawdown. Water level fluctuation in the lake will continue to be the result of river water availability and demand downstream. Wildlife and wildlife habitat present as a function of water fluctuation in Caballo Lake would not change.	NGO6_GRIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Measures to mitigate significant impacts to cultural resources are not provided. The DEIS states that the proposed action would cause significant impact to historic properties. It is unclear if any consultations with federal and state agencies under the National Historic Preservation Act have taken place. No specific mitigation measures have been outlined, despite the significance of adverse impacts.	CR-2; REG-9	Cultural Resources; Regulatory Compliance	The BLM has completed its NHPA Section 106 compliance process, as demonstrated by the fully-signed PA now appended to the FEIS, which included all required consultation with agencies and interested parties. A summary of mitigation measures to address the adverse effects to historic properties has been added to the FEIS text.	NGO6_GRIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Recreation impacts are not fully assessed. The Lake Valley Backcountry Byway and the Geronimo National Scenic Byway are within the Area of Potential Effect of the proposed action. The DEIS states that the Byways promote tourism in the area, yet there is no analysis provided that demonstrates the potential impacts to Byways-related tourism from the proposed action or alternatives. Additionally, the negative impacts to recreation and tourism on the Ladder Ranch have not been assessed. Associated mitigation measures for these impacts are also not discussed.	REC-10; TR-9	Recreation; Traffic and Transportation	The scenic environmental impact of the proposed project on the scenic and backcountry byways is analyzed in Section 3.22.2.1.6 of the EIS. This analysis does demonstrate the potential impacts to Byways-related tourism. The cumulative contribution of the mine on recreational/scenic driving along scenic byways was found to be negligible to minor. The FEIS addresses the scenic environmental impact of the Proposed Action and alternatives in Section 3.16, Recreation and Section 3.17, Special Management Areas. Additionally, "infrastructure damage impact of the mine and the truck traffic" is addressed in Section 3.20, Transportation and Traffic. If adverse impacts to recreation and tourism on the Ladder Ranch were to occur as a result of mining operations, impacts are anticipated to be minor. Where noise from the project is concerned, truck operations on site were included in the noise model discussed in Section 3.21.2.1.1 of the EIS. Section 3.20.2.1 indicates that operations in years 1-5 would require 10-14 truckloads per day to and from the site. This is approximately one truck per hour. Due to the limited number of trucks and the small number of nearby noise receptors, the effects of truck noise would be negligible. As stated in Section 3.21.2.1, the Proposed Action would not contribute to a violation of any State, Federal, or local noise or vibration regulation. As also stated in this section of the EIS, during each blasting event that would occur at the mine, which occur only during daylight hours, the 130-dBP peak noise levels would extend 556 feet from the point of detonation. This area of high concern and complaint would remain entirely within the mine area, and no nearby noise sensitive areas would be exposed to these levels of noise. The 115-dBP peak noise levels would extend 2,344 feet from the point of detonation. The level of concern and complaints associated with individual acoustical events would be moderate within this area. Depending on meteorological conditions, blasting activities may be heard as much as several miles from the site. However, these events would best be characterized as "audible but distant" and would not be appreciably intrusive. Where traffic from the project is concerned, the traffic increase would occur primarily during shift change for the mine. This increase in the worse condition considered would be a LOS rating of C, which by definition is a stable flow, and therefore would be less than a significant impact.	NGO6_GRIP

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NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Transportation impacts are not fully evaluated and mitigation measures not identified. The DEIS states that the reduction in life expectancy of road pavement due to increased truck traffic on NM-152 is 53% – 70% for the proposed action and alternatives. Additionally, the Sierra County Road Superintendent states that the level of heavy traffic on Gold Mine Road for the proposed action and alternatives “would destroy the roadway.” There is no assessment of the increased maintenance requirements for these roadways, the associated costs, and who is responsible for these costs. The DEIS appears to be supportive of pushing these costs onto the public sector, since no mitigation measures for this adverse impact have been identified.	TR-1; TR-5; TR-7	Transportation and Traffic	<p>The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with the New Mexico Department of Transportation (NMDOT) to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:</p> <p>a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.</p> <p>b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.</p> <p>c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.</p> <p>d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.</p> <p>NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS in 2017.</p>	NGO6_GRIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The costs for roadway repair could be significant for low-income communities. Maintenance of roads has been an ongoing issue in Mining District communities adjacent to the Chino mine in Grant County. Heavy use of roadways by mining trucks cause rapid deterioration of pavement. It has been a continual point of conflict between communities, Freeport-McMoRan and state and local road and highway authorities to repair these roads in a timely manner. Because the public sector pays the costs of road repair, already stressed local and state budgets often can't handle the cost of increased maintenance from mine truck traffic.	EJ-5; TR-12	Environmental Justice; Traffic and Transportation	<p>Section 3.22.2.1.3 (Public Finance) describes additional state and local tax revenue from the Copper Ad Valorem and processors tax, as well as the shared distribution of severance taxes between the state and counties/municipalities. NMCC estimates direct tax liabilities of over \$18 million during the construction, operation and reclamation phases under the Proposed Action; over \$18.5 million under Alternative 1; and over \$22 million under Alternative 2 (summarized in Tables 3-77, 3-80, and 3-83, respectively). In addition, NMCC has met with the NMDOT to discuss the project and NM 152. In discussions, NMDOT and NMCC have agreed that NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine; proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point; the roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards; all roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT. While no formal agreement has been made between NMDOT and NMCC at this time, NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS. Given the additional tax revenue as well as the pending MOU, it is unlikely that increased road maintenance costs from mine truck traffic would disproportionately impact low-income communities.</p>	NGO6_GRIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Negative economic impacts of reduction in water supplies under the Rio Grande Compact have not been evaluated.	SE-18; SE-20	Socioeconomics	<p>The predicted impacts on water supplies are adverse and significant, but will be compensated for through mitigation requirements of OSE. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, “wet offsets,” to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p> <p>The project is not predicted to have significant, adverse effects on water supplies that would have adverse economic impacts, including on real estate values. As discussed in the FEIS, revenue from property taxes would increase because of the Proposed Action during the construction phase; and tax revenue would be greater under all action alternatives compared to the No Action Alternative. The potential out-migration of residents has been added to the discussion in the FEIS.</p>	NGO6_GRIP

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NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The increased costs in road and highway maintenance from heavy truck traffic that state and local governments will have to bear are not assessed or included in the economic analysis.	CI-15; TR-7	Cumulative Impacts; Traffic and Transportation	<p>The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) of the EIS for the Proposed Action and each of the alternatives. Increased revenues provided by NMCC from the mine should be more than adequate to address any increased maintenance costs for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:</p> <p>a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.</p> <p>b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.</p> <p>c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.</p> <p>d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.</p> <p>NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS in 2017.</p>	NGO6_GRIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Similarly, the negative impacts to recreation and tourism have not been quantified and factored into the economic impact analysis.	REC-2; SE-31	Recreation; Socioeconomics	<p>Annual visitation and revenue at State parks and national forests in Sierra County are presented in Table 3-70 in Section 3.22.1.6.2. As discussed in Section 3.22.2.1.6 of the EIS, the extent to which an active mine would deter tourists or recreationists is difficult to quantify. However, the potential impacts have been factored into the impacts analysis. It is likely that during the 1-2 year construction period, some may avoid the portion of NM-152 (from Hillsboro east to the junction of NM-152 and Highway 85), where the Geronimo Trail Scenic Byway and the Lake Valley Backcountry Byway overlap, due to the perception of increased traffic and air emissions hindering their experience. Visitation at the Gila National Forest in the western edge of Sierra County may decrease during this time since the Black Range Ranger District (including the Gila Wilderness) is most easily accessed via NM-152. NM-152 is one of three routes providing access to the Wilderness Ranger District; and one of six to the Silver City Ranger District. Economic benefits derived from direct spending on food, gas, lodging, etc., as well as GRTs generated from visitor spending would also be affected.</p> <p>Additionally, the portion of the Geronimo Trail Scenic Byway that follows NM-152 is located in a former mining area, which promotes tourism through sightseeing tours of abandoned mines and ghost towns. While some tourists may be deterred due to the perception of increased traffic and air quality or the degradation of visual quality, some may instead be drawn to the area. The Copper Flat mine project could create or renew interest in nearby ghost mining towns, the mining process, and the evolution of mining in the area and thereby benefit tourism. Other potential impacts to recreation and tourism are discussed throughout Section 3.16 (Recreation) and Section 3.22 (Socioeconomics); including the potential impacts to quality of life and recreational values which are also discussed in Section 3.22.2.1.6.</p>	NGO6_GRIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The Proposed action could cause huge financial liability for public. The BLM financial assurance requirements, cited in the DEIS and found at 43 CFR 3809.552(c) as well as New Mexico Mining Act financial assurance requirements found at 19.10.12.120 NMAC are inadequate to protect the public from the massive financial liability posed by the proposed action. These financial assurance mechanisms assume that the site will not become a Superfund site, yet history shows that a vast majority of hard rock mines in the U.S. eventually do become Superfund sites.	NEPA-25	NEPA Process	<p>The 3809 regulations do not require information regarding reclamation cost estimates (RCEs) and Long-Term Trusts (LTTs) for the plan of operations to be considered complete for NEPA review. Therefore, BLM does not and will not require such information from the operator, or generate it, for NEPA review unless the 3809 regulations are changed. The reason the BLM regulations do not include RCEs/LTTs in the NEPA process is that NEPA requires the agency to analyze potential environmental impacts from a proposed major federal action. The RCEs/LTT estimates are a financial back-up if the operator fails to comply with the reclamation requirements. Those estimates are not part of the environmental impact analysis.</p>	NGO6_GRIP

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NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The reclamation costs and associated financial assurance required by BLM and the state of New Mexico are not discussed in the DEIS. Therefore it is impossible to evaluate the environmental and financial risks to the public for environmental liabilities created by the proposed action.	NEPA-25; SE-14	NEPA Process; Socioeconomics	<p>The 3809 regulations do not require information regarding reclamation cost estimates (RCEs) and Long-Term Trusts (LTTs) for the plan of operations to be considered complete for NEPA review. Therefore, BLM does not and will not require such information from the operator, or generate it, for NEPA review unless the 3809 regulations are changed. The reason the BLM regulations do not include RCEs/LTTs in the NEPA process is that NEPA requires the agency to analyze potential environmental impacts from a proposed major federal action. The RCEs/LTT estimates are a financial back-up if the operator fails to comply with the reclamation requirements. Those estimates are not part of the environmental impact analysis.</p> <p>The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party.</p> <p>The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMAC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMAC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMAC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.</p>	NGO6_GRIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Socio-economic impact mitigation measures identified in the DEIS will increase negative impacts to the public sector. The DEIS proposes as mitigation less liquid forms of financial assurance that increase the risk to the public sector and reduce it for the mining company. This has the potential to create a large financial liability on the public sector. The rationale for these mitigation measures is lacking.	SE-43	Socioeconomics	Financial Guarantee is a method to ensure compliance with the terms and conditions of a mining permit. This is not a mitigation measure and has been removed from the EIS.	NGO6_GRIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Cumulative impacts of mine water use on discharge to the Rio Grande need to be evaluated in more detail. The comprehensive mid-basin study of Caballo Reservoir and the Rio Grande (as noted in the DEIS) should be conducted along with the evaluation of these cumulative impacts on the Rio Grande Compact. This is a significant adverse impact with the potential for major negative economic impacts that has been overlooked.	CI-28; GW-37	Cumulative Impacts; Groundwater Resources	The OSE has statutory authority and responsibility to protect water resources throughout New Mexico, including the area of the proposed mine and wellfield. The BLM has coordinated with the OSE, a designated cooperating agency on the Copper Flat project, and is confident that the State understands the issues raised in this comment and will address them such that existing uses of water are protected annually and cumulatively in a manner consistent with New Mexico law. Mitigations established by the OSE through the regulatory permitting process will make a mid-basin study of the Rio Grande unnecessary.	NGO6_GRIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The reclamation plan associated with the proposed action and alternatives, as described in the DEIS, does not meet all performance and reclamation standards and requirements of the NM Mining Act and constitutes an "unnecessary or undue degradation of public lands" under 43 CFR §3809.5. There is no material handling plan for waste rock piles and low-grade ore stockpiles that describes how non-point source surface releases of acid or other toxic substances will be contained within the permit area, and that all other surface flows from the disturbed area are treated to meet all applicable state and federal regulations.	PA-20	Proposed Action	<p>As stated in Section 2.1.1 of the FEIS: "Because the deposit cannot be mined sequentially, there is no plan to backfill the pit although some benign waste rock would be used for pad preparation, plant site development, and in connection with the reclamation of disturbed areas." Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809).</p> <p>Section 2.1.15.6, Environmental Considerations for Reclamation, states "Acid Rock Drainage (ARD): Partially oxidized transitional waste rock would be managed and reclaimed to alleviate potential ARD. The transitional waste rock may be segregated and placed in the west and north waste rock disposal areas. The exact method of disposal and possible segregation would be determined through the current geochemical testing program and the development of a material handling plan." This material handling plan will be developed and in place, in accordance with all Federal and State laws and regulations, prior to the reclamation of the mine. To forecast these requirements 10+ years in the future would not be realistic. The BLM will require the development of this plan and the FEIS and ROD will stipulate its development.</p>	NGO6_GRIP

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NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	There is no water quality management plan that describes how pit lake water quality will be managed.	WQ-19	Water Quality	<p>The FEIS incorporates discussion of the proposed TSF reclamation activities and mitigations under the Proposed Action in Sections 2.1.3.4 and 2.1.15.6. Similarly, activities and mitigations under Alternatives 1 and 2 have been described in the FEIS in Sections 2.2 and 2.3, respectively. Section 2.1.15.7 describes the actions that would be taken to monitor groundwater quality. Section 2.1.15.16 describes the actions that would be taken to minimize and manage acid rock drainage. Additionally, a Geochemical Characterization Report was developed for the Copper Flat mine that is the basis for ARD mitigation measures.</p> <p>It is anticipated that pit lake water quality standards would be established by the MMD. The standards would be set to be similar to existing conditions. Because the pit lake would be located entirely on private property owned by NMCC in the form of patented mining claims, it would not be considered a water of the State. The pit lake would not combine with other surface waters of the State. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC. In addition, per NMAC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period.</p> <p>The water quality of the existing pit lake is summarized in Section 3.4.1 of the FEIS. Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period.</p>	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	A new mine cannot be permitted under the Mining Act if it will require "perpetual care" to meet applicable state and federal environmental requirements following closure. The DEIS acknowledges that standards will likely be exceeded in the pit lake after closure, but yet the DEIS does not discuss what measures will be implemented to meet water quality standards and what water quality management measures will be required and for how long.	PA-23; WQ-19; WQ-21	Proposed Action; Water Quality	<p>Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Additionally, reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809). The length of post-mining monitoring of the material resources would be determined by the State of New Mexico in association with the permits issued to the Copper Flat mine.</p>	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	In order to meet water quality standards in the pit lake, protect groundwater in the vicinity of the open pit and prevent the pit lake from creating a threat to wildlife, it is highly probable that water quality management in perpetuity will be required to meet surface and groundwater standards. The DEIS does not discuss any options for backfilling at closure that could reduce or eliminate the need for perpetual care. Given the high likelihood of the need for perpetual care, the state Mining and Minerals Division will be unable to approve the Copper Flat Mining Act permit given the requirements of 69-36-12 B(4). The DEIS lacks discussion of this very important permitting requirement.	PA-23; WQ-21	Proposed Action; Water Quality	<p>Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Additionally, reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809). The length of post-mining monitoring of the material resources would be determined by the State of New Mexico in association with the permits issued to the Copper Flat mine. Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period. It is anticipated that pit lake water quality standards would be established by the MMD. The standards would be set to be similar to existing conditions. Because the pit lake would be located entirely on private property owned by NMCC in the form of patented mining claims, it would not be considered a water of the State. The pit lake would not combine with other surface waters of the State. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC. In addition, per NMAC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period.</p>	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Wildlife protection is not assured post-closure as required in the Mining Act.	CI-5; PA-8; WL-8	Cumulative Impacts; Proposed Action; Wildlife	<p>At the completion of mining activities, the site would be restored to conditions and standards that meet approved post-mining land uses. These uses would include native plant communities similar to surrounding undisturbed areas for wildlife habitat, and grazing land potentially suitable for livestock. Once reclamation is successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels. Also, as noted in EIS Section 2.7, Best Management Practices, in the subsection entitled "Threatened and Endangered Species and Special Status Species", ground clearing and other mine development activities would be avoided during breeding and nesting season (generally March 1 through August 31) until the area is surveyed by a qualified biologist to confirm the absence of nests (on the ground and in burrows and vegetation) and nesting activity to avoid impacting migratory birds. Therefore, the numbers of birds displaced during mining operations would be limited and the site would be restored to as good or better conditions for birds than pre-mining conditions. Thus, any long-term impacts to Audubon Important Bird Areas would be negligible.</p>	NGO6_G RIP

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The post-closure pit lake water quality is estimated to exceed water quality standards for wildlife, yet the post-mining land use under the Mining Act is "a water reservoir for wildlife habitat." The pit lake post-mining land use of wildlife habitat cannot be approved under the Mining Act, since the mine operator hasn't demonstrated how water quality standards for wildlife will be met in the pit lake.	WL-25	Wildlife	<p>Currently in consultation with USFWS to address concerns about migratory bird and bat use of pit lake. The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The water quality standard that would apply is a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality.</p> <p>As described in the EIS, water in the existing pit is high in cadmium, copper, manganese, and selenium. Table 3-8 of the EIS shows the relevant surface water standards for these four contaminants in waters of the State. Selenium is the only one of these four contaminants with a wildlife standard (<5 ug/L or 5 ppb). The measured level of selenium in the existing pit lake is 35 ug/L or 35 ppb. At the species level, the USEPA has set water quality criteria for aquatic life, but has yet to set criteria for aquatic dependent species such as birds and bats.</p> <p>The baseline data report for the project, prepared in 2011, identified four species of birds in the pit lake habitat, several species of bats, and riparian vegetation in the fringes of the pit lake consisting of a small cattail marsh (<0.1 ac) and intermittent salt cedar, an invasive species. A 2014 survey of the pit lake concluded that there are no fish, zooplankton, or macroinvertebrates in the existing pit lake.</p> <p>In the absence of USEPA water quality criteria for selenium applicable to aquatic dependent wildlife and the scarcity of quality food sources (fish, aquatic vegetation, zooplankton, and macroinvertebrates) that would biomagnify to higher levels of selenium, the BLM finds that the potential for bioaccumulation of selenium and selenium poisoning, selenosis, is very low. The presence of insect-eating birds and a relative abundance of bats at the existing pit lake at a point in time 35 years after the lake began refilling and establishing the water quality baseline for the lake, suggests that existing water quality levels in the pit lake are not exclusionary for these species. The pit lake is likely a resting or transitory area for these species rather than a feeding area. The EIS (affected environment section and wildlife impacts section) has been revised to better describe the pit lake with respect to wildlife and habitat.</p>	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The DEIS does not include a Water Management Plan. Because a water management plan is not provided, the decision maker and the public have no way to determine how surface and groundwater quality will be managed during mine operation for the proposed action and alternatives.	WQ-19	Water Quality	<p>The FEIS incorporates discussion of the proposed TSF reclamation activities and mitigations under the Proposed Action in Sections 2.1.3.4 and 2.1.15.6. Similarly, activities and mitigations under Alternatives 1 and 2 have been described in the FEIS in Sections 2.2 and 2.3, respectively. Section 2.1.15.7 describes the actions that would be taken to monitor groundwater quality. Section 2.1.15.16 describes the actions that would be taken to minimize and manage acid rock drainage. Additionally, a Geochemical Characterization Report was developed for the Copper Flat mine that is the basis for ARD mitigation measures.</p> <p>It is anticipated that pit lake water quality standards would be established by the MMD. The standards would be set to be similar to existing water quality conditions. Because the pit lake would be located entirely on private property owned by NMCC in the form of patented mining claims, it would not be considered a water of the State. The pit lake would not combine with other surface waters of the State. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC. In addition, per NMAC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period.</p> <p>The water quality of the existing pit lake is summarized in Section 3.4.1 of the FEIS. Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period.</p>	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The DEIS does not include a Quality Assurance Plan. BLM and the public have no way to evaluate how the mine operator will guarantee information quality associated with mine operations without the Quality Assurance Plan.	NEPA-28; WQ-20	NEPA Process; Water Quality	The BLM is unaware of a NEPA requirement to provide a Quality Assurance Plan.	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The DEIS does not contain a Rock Characterization and Handling Plan. BLM and the public are not able to understand the potential for acid generation from waste rock piles and low-grade ore stockpiles and how surface and groundwater quality will be protected without the Rock Characterization and Handling Plan.	PA-20	Proposed Action	As stated in Section 2.1.1 of the FEIS: "Because the deposit cannot be mined sequentially, there is no plan to backfill the pit although some benign waste rock would be used for pad preparation, plant site development, and in connection with the reclamation of disturbed areas." Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809). Section 2.1.15.6, Environmental Considerations for Reclamation, states "Acid Rock Drainage (ARD): Partially oxidized transitional waste rock would be managed and reclaimed to alleviate potential ARD. The transitional waste rock may be segregated and placed in the west and north waste rock disposal areas. The exact method of disposal and possible segregation would be determined through the current geochemical testing program and the development of a material handling plan." This material handling plan will be developed and in place, in accordance with all Federal and State laws and regulations, prior to the reclamation of the mine. To forecast these requirements 10+ years in the future would not be realistic. The BLM will require the development of this plan and the FEIS and ROD will stipulate its development	NGO6_G RIP

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NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The DEIS does not contain a plan for Mine reclamation, including information on the feasibility of pit backfilling that details economic, environmental, and safety factors. As discussed above, the DEIS does not provide any information on backfilling options. These feasibility assessments are required not only under BLM's surface management requirements, but also under the state Mining Act. The DEIS discussion of the mine reclamation plan does not adequately address how surface and groundwater quality will be protected.	PA-8; PA-20	Proposed Action	Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Additionally, reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809). The length of post-mining monitoring of the material resources would be determined by the State of New Mexico in association with the permits issued to the Copper Flat mine. Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period. It is anticipated that pit lake water quality standards would be established by the MMD. The standards would be set to be similar to existing conditions. Because the pit lake would be located entirely on private property owned by NMCC in the form of patented mining claims, it would not be considered a water of the State. The pit lake would not combine with other surface waters of the State. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC. In addition, per NMAC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period. Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements. Backfilling the lake was considered as an alternative, but was determined to be economically infeasible. The backfilling alternative has been added to Section 2.5, Alternatives Considered but Eliminated in the FEIS.	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The DEIS does not contain a plan for Post-closure management. The DEIS states that BLM and state agencies would define post-closure monitoring requirements at closure. This information should be provided in the closure/closeout plan and should be included in the DEIS, as well as a description of what measures would be taken should monitoring indicate that there are problems with surface or groundwater quality, erosion, revegetation, wildlife protection, among other factors.	WQ-16	Water Quality	After mine closure, the TSF would be reclaimed with a cover of soil and vegetation which would serve to keep the tailings in place. Seepage from the TSF is expected to continue after mine closure and would have to be managed and monitored. Section 3.4.2.1.2 includes a list of mitigations for managing seepage from the TSF after closure. The mitigations include: detailed chemical analyses of the water and an assessment of potential effects to vegetation or soils; obtain all necessary environmental permits from the State of New Mexico and the EPA; modify the MPO to include a post-closure TSF seepage monitoring and management plan; and a post-closure trust fund (or other long-term funding mechanism) to pay for post-closure monitoring and management. Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements.	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The Monitoring plan in the DEIS is lacking for a range of environmental indicators for mine operation and post-closure, including surface and groundwater quality, wildlife, revegetation, erosion, and air quality. For example, there is no information provided on the frequency of surface and groundwater quality monitoring post-closure and for the time period beyond closure that monitoring will be required. This is important information, especially given that water management in perpetuity of the pit lake may be needed.	PA-23; WQ-19; WQ-21	Proposed Action; Water Quality	Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Additionally, reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809). The length of post-mining monitoring of the material resources would be determined by the State of New Mexico in association with the permits issued to the Copper Flat mine.	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The DEIS does not provide details of the Interim Management Plan. The existing discussion appears to be a placeholder only and provides no detail on how the project area would be managed during periods of temporary closure to prevent unnecessary or undue degradation.	PA-35	Proposed Action	Section 2.1.15.10 provides an overview of the Interim Management Plan. The FEIS clarifies that this section is only an overview of the actual plan.	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The DEIS does not provide Reclamation cost estimates for the proposed action and alternatives. This required information is critical to determining the amount and types of financial assurance that will be required by BLM. Given that the Copper Flat mine will cause significant negative impacts to surface and groundwater quality and the environment along with negative economic impacts, it is necessary that the public understand the magnitude of clean-up costs and the financial instruments that will be used to guarantee that the mine site can be reclaimed should NM Copper Corporation go bankrupt.	SE-14; NEPA-25	Socioeconomics; NEPA Process	Information regarding reclamation cost estimates (RCEs) and Long-Term Trusts (LTTs) for the plan of operations are not required to be complete for NEPA review. NEPA requires the agency to analyze potential environmental impacts from a proposed major federal action. The RCEs/LTT estimates are a financial back-up if the operator fails to comply with the reclamation requirements. Those estimates are not part of the environmental impact analysis. The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party. The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMAC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMAC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMAC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.	NGO6_G RIP

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NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	The Reclamation cost estimate is also critical for evaluating the long-term risks to the public for the environmental liabilities created by the proposed action. Given that a vast majority of hard rock mines eventually become Superfund sites given the inadequacy of state and federal laws, reclamation cost estimates and financial assurance requirements are important for the public's and decision maker's assessment of the proposed action and alternatives.	NEPA-25	NEPA Process	The 3809 regulations do not require information regarding reclamation cost estimates (RCEs) and Long-Term Trusts (LTTs) for the plan of operations to be considered complete for NEPA review. Therefore, BLM does not and will not require such information from the operator, or generate it, for NEPA review unless the 3809 regulations are changed. The reason the BLM regulations do not include RCEs/LTTs in the NEPA process is that NEPA requires the agency to analyze potential environmental impacts from a proposed major federal action. The RCEs/LTT estimates are a financial back-up if the operator fails to comply with the reclamation requirements. Those estimates are not part of the environmental impact analysis.	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	BLM must also disapprove the plan of operation as it does not meet the applicable requirements of 43 CFR §3809.420(b)(11)(i). Liners under waste rock piles and low-grade ore stockpiles are not planned to be used to minimize uncontrolled migration of leachate even though the DEIS states that there is moderate to high potential for generation of acid rock drainage or other deleterious leachate with sufficient percolation.	NEPA-28	NEPA Process	In response to this comment, the BLM has reviewed its NEPA process for this EIS and found that the process is in compliance with 43 CFR Subpart 3809 requirements. Additionally, the BLM has concluded that liners are not necessary under waste rock piles and low-grade ore stockpiles. Lining waste rock piles and ore stockpiles is not required by BLM regulation nor under the Copper Rule; this is not a standard industry practice.	NGO6_G RIP
NGO6	4/4/2016	Allyson Siwik	Gila Resources Information Project	Additionally, there is an inadequate demonstration of how pit lake water quality will be managed in order to prevent exceedances of water quality standards post closure.	CI-7; WR-6	Cumulative Impacts; Water Rights	Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period. It is anticipated that pit lake water quality standards would be established by the MMD. The standards would be set to be similar to existing conditions. Because the pit lake would be located entirely on private property owned by NMCC in the form of patented mining claims, it would not be considered a water of the State. The pit lake would not combine with other surface waters of the State. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMCC. In addition, per NMCC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period. Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements.	NGO6_G RIP
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Throughout the DEIS it fails to contain the required detailed analysis of all baseline conditions, and also fails to disclose that information is incomplete or unavailable.	NEPA-22	NEPA Process	A review of baseline conditions was performed in response to this comment and was found to be satisfactory for the analyses performed and in compliance with NEPA.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to contain complete hydrologic baseline data because it does not contain data pertaining to fractures and other hydrogeologic characteristics of andesite rock in the Mine pit area deeper than 400 feet, although the pit will be at least 900 feet deep.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to contain complete hydrologic baseline data because it does not contain data for predicted rates of seepage and future contaminant plumes from waste rock.	WQ-3	Water Quality	Analysis of the extent of the existing groundwater plume is being done under the auspices of a Stage 1 Abatement Plan approved by the NMED Groundwater Quality Bureau. Work on the Abatement Plan will be conducted regardless of the proposed mining activities. Section 3.4.2.1.2 refers to the existing plume of groundwater with elevated TDS that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to contain complete hydrologic baseline data because it does not contain data fully characterizing the existing sulphate plume.	WQ-3	Water Quality	Analysis of the extent of the existing groundwater plume is being done under the auspices of a Stage 1 Abatement Plan approved by the NMED Groundwater Quality Bureau. Work on the Abatement Plan will be conducted regardless of the proposed mining activities. Section 3.4.2.1.2 refers to the existing plume of groundwater with elevated TDS that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to contain complete hydrologic baseline data because it does not contain information regarding the location for land application disposal ("LAD") of excess water from tailings, and soil sampling data.	WQ-3	Water Quality	Analysis of the extent of the existing groundwater plume is being done under the auspices of a Stage 1 Abatement Plan approved by the NMED Groundwater Quality Bureau. Work on the Abatement Plan will be conducted regardless of the proposed mining activities. Section 3.4.2.1.2 refers to the existing plume of groundwater with elevated TDS that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to contain complete hydrologic baseline data because it does not contain groundwater level observations on the Ladder.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to contain complete hydrologic baseline data because it does not contain adequate stream flow measurements for Las Animas Creek.	SW-26	Surface Water Resources	Baseline characterization data for the project were collected in accordance with NMCC 19.10.6, are presented in a Baseline Characterization report prepared by Intera and dated February 2012, and are summarized in Section 3.5.1.2 of the EIS.	NGO7_Environm ental Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to contain complete hydrologic baseline data because it does not contain data pertaining to impairment of existing wells from the Mine.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Surface water flow data should be collected, at a minimum, monthly for two years. The measurements should be correlated to a nearby gage station for record extension purposes.	SW-26	Surface Water Resources	Baseline characterization data for the project were collected in accordance with NMAC 19.10.6, are presented in a Baseline Characterization report prepared by Intera and dated February 2012, and are summarized in Section 3.5.1.2 of the EIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Additional flow data should be collected to supplement the Greenhorn Arroyo water quality data. A seepage study should be performed to determine the source of any surface water.	WQ-3	Water Quality	Analysis of the extent of the existing groundwater plume is being done under the auspices of a Stage 1 Abatement Plan approved by the NMED Groundwater Quality Bureau. Work on the Abatement Plan will be conducted regardless of the proposed mining activities. Section 3.4.2.1.2 refers to the existing plume of groundwater with elevated TDS that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Near-pit monitoring wells should be placed at least to the maximum depth of the pit.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Complete a water balance of the Santa Fe aquifer, including flow to the wells and flow to the river, to estimate the recharge. If the estimated recharge is unrealistically high, [INTERA?] should identify areas further upstream that would be necessary to provide the recharge.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Complete a groundwater balance for the Palomas graben ("graben") and Animas uplift areas to assess whether springs are a significant part of the water balance.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Consider geochemistry and isotopes in the springs in Las Animas Creek to determine whether flow actually diverts in a west-to-east gradient.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Estimate hydrologic properties for a regional-scale; small-scale estimates yield conductivity values that are much too low for regional flow analysis.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Fully characterize the existing sulphate plume at the Mine's tailings to determine whether the plume extends beyond a fault.	WQ-3	Water Quality	Analysis of the extent of the existing groundwater plume is being done under the auspices of a Stage 1 Abatement Plan approved by the NMED Groundwater Quality Bureau. Work on the Abatement Plan will be conducted regardless of the proposed mining activities. Section 3.4.2.1.2 refers to the existing plume of groundwater with elevated TDS that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Additionally, though the DEIS states that all action alternatives will "reduce groundwater discharge to Caballo Reservoir and the Rio Grande, decreasing surface water quantities there," (DEIS 4-8), baseline data has not been gathered and an analysis has not been conducted. The DEIS provides that the "cumulative magnitude of the effect can only be determined through a comprehensive mid-basin study of Caballo Reservoir and the Rio Grande."	GW-26, SW-26	Groundwater Resources; Surface Water Resources	The OSE has statutory authority and responsibility to protect water resources throughout New Mexico, including the area of the proposed mine and wellfield. The BLM has coordinated with the OSE, a designated cooperating agency on the Copper Flat project, and is confident that the State understands the issues raised in this comment and will address them such that existing uses of water are protected annually and cumulatively in a manner consistent with New Mexico law. Mitigations established by the OSE through the regulatory permitting process and those offered voluntarily by NMCC will make a mid-basin study of the Rio Grande unnecessary.	NGO7_Environment Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to account for startup water necessary for the Mine's operations under all action alternatives.	GW-41	Groundwater Resources	The groundwater model has been revised to incorporate startup water and the results are shown in the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS relies upon incomplete or no baseline data for biological resources at and near the Mine site. DEIS does not contain a final determination on the environmental consequences of the alternatives to wildlife and Federally listed species, and that the "U.S. Fish and Wildlife Service (USFWS) and New Mexico Department of Game and Fish (NMDGF) were contacted for consultation, but there is no concurrence from USFWS and NMDGF on any conclusion reached in the DEIS."	T&E-4; WL-2	Threatened, Endangered, and Special Status Species; Wildlife	The BLM is in consultation with the USFWS concerning impacts to federally-listed species found in the project area. A separate BA has been prepared and submitted to the USFWS Albuquerque Office. The BA is supported by baseline data collected for this EIS and additional data from other sources about the species in Sierra County and the Lower Rio Grande region. The specific analysis for listed species and all protective and mitigation actions derived via the consultation process with USFWS are included in the Biological Assessment as part of the EIS analysis process. Protective and mitigation actions for listed other wildlife species will be provided in the Record of Decision.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are errors in the Conceptual Flow Model which cause it to underestimate the amount of water the Mine will consume and how that consumption will affect water resources, including that it does not consider the source of water drawn to the pumping wells from the north. This water is probably an additional loss to the Rio Grande.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are errors in the Conceptual Flow Model which cause it to underestimate the amount of water the Mine will consume and how that consumption will affect water resources, including that it describes the graben incorrectly, with inappropriate values for transmissivity, vertical anisotropy, and fault conductance.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are errors in the Conceptual Flow Model which cause it to underestimate the amount of water the Mine will consume and how that consumption will affect water resources, including that the recharge rates and location for distributed recharge are not well supported. The CFM ignores distributed recharge into the Santa Fe formation east of the Mine.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are errors in the Conceptual Flow Model which cause it to underestimate the amount of water the Mine will consume and how that consumption will affect water resources, in that it does not include an estimate for discharge to the Rio Grande, to Las Animas Creek or Percha Creek, to the flowing wells, or to evapotranspiration ("ET") along the streams.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are errors in the Conceptual Flow Model which cause it to underestimate the amount of water the Mine will consume and how that consumption will affect water resources, including that the transmissivity of the andesite near the pit is not justified to be as low as calibrated. This inappropriately prevents the pit dewatering drawdown from extending northward to Ladder.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are errors in the Conceptual Flow Model which cause it to underestimate the amount of water the Mine will consume and how that consumption will affect water resources. The CFM should include an estimate of steady state discharge to the streams, to the Rio Grande, and to evapotranspiration. The CFM should then set recharge equal to discharge. Using estimated parameters of the geology and soils in the Mine's watersheds, the CFM should establish in general the locations for distributed recharge in the watershed. If the geology is too impervious for all of the recharge, there will be runoff to stream bottoms and the CFM should estimate recharge through the stream bottoms. These estimates must be supplemented with streamflow measurements to identify recharging reaches.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are serious conceptual errors in the description of the graben from which the Mine's production wells withdraw water. There can be no confidence in the CFM without data describing the conductance of the faults, the transmissivity of the aquifer within the graben, or the source of water in the graben. There is also no data to support the CFM's suggestion that clay layers prevent the pumping from drawing water from Las Animas Creek.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The numerical model leads to erroneous impact predictions for the following reasons: 1) it implements the substantially flawed CFM; 2) it utilizes methods which decrease the accuracy of simulations; 3) its inaccurate model structure minimizes the Mine's impacts; and 4) its calibration relies on baseline data insufficient to accurately calibrate the model in a steady state mode.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are many biases in the numerical model which minimize the Mine's impacts, including the failure to adequately identify the regional hydrogeologic properties of the andesite, where the Mine pit is located. This causes the model to underestimate the drawdown effects in the area, particularly on Ladder.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are many biases in the numerical model which minimize the Mine's impacts, including that the production wells are located in the Palomas graben, a north-south trending feature between two faults, for which the model assumes the transmissivity as being unjustifiably high and the western fault conductivity unjustifiably low.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are many biases in the numerical model which minimize the Mine's impacts, including the use of an inappropriate boundary condition which adds water to the north end of the graben in a way that will provide much of the production pumping water.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are many biases in the numerical model which minimize the Mine's impacts, including the failure to consider vertical gradients over large aquifer thicknesses due to inadequate vertical discretization of the model, especially in layer 2, the uppermost layer. This results in failing to consider flow losses to evapotranspiration or to the streams (Las Animas Creek, Percha Creek).	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are many biases in the numerical model which minimize the Mine's impacts, including that vertical discretization near the pit is nonexistent, with a 1000-foot layer of thickness. This renders the calculations of dewatering inaccurate and makes it impossible to estimate the source of groundwater flowing into the pit. Any pit lake modeling based on this would be inaccurate and would also most likely underestimate the toxicity of the pit lake.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are many biases in the numerical model which minimize the Mine's impacts, including that the vertical anisotropy as specified by Jones et al. (2014, Table 6.1) is highly suspect and likely biases model results.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are many biases in the numerical model which minimize the Mine's impacts, including that the model sets vertical conductivity in the Santa Fe Group much too high, minimizing the effects of pumping on nearby artesian wells.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are many biases in the numerical model which minimize the Mine's impacts, including the simulation of faults as flow barriers when there is no data to support they are barriers. This minimizes the Mine's impacts to Las Animas Creek and other surface waters.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	There are many biases in the numerical model which minimize the Mine's impacts, including the failure to consider recharge in the Santa Fe Group. This skews the model calibration toward estimating higher conductivity values because water would have further to flow from the recharge source to a discharge point. This also causes the model to minimize the Mine's impacts Las Animas Creek and other surface waters.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The result of these biases is that the model erroneously predicts that most of the production pumping drawdown would extend eastward toward the Rio Grande, hence the Mine's predicted impacts are in that direction.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Changes to the numeric model are needed that include Layer 2 should be split into at least three layers. Except in the streams, layer 2 is the uppermost layer and simulates the Santa Fe aquifer. Additional layers would allow better simulation of vertical flow and gradient, changing conductivity with depth, and provide a better match to screened intervals for the monitoring wells. Unfortunately, the new layers 3 and 4 would have no wells for calibration in the graben and near the pit, hence additional monitoring wells are needed in conjunction with this.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Changes to the numeric model are needed that include horizontal discretization should be improved around the production wells to improve the calculation of well drawdown. Discretization at the wells should be the same as at the pit.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Changes to the numeric model are needed that include, if justified in the CFM, the general head boundary allowing flow north to south through the model domain should be widened to include all of the northern and southern boundaries of the model. The current location, which is only in the graben, biases the model results by providing water to the portion of the model from which pumping occurs.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Changes to the numeric model are needed that include the boundary for the Rio Grande River should be in all layers that intersect the depth of the reservoir, rather than in only layer 1 (which forces water upward into the river).	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Changes to the numeric model are needed that include stream recharge should be simulated in a transient, not a steady state mode, because recharge will occur as slugs, not as a long-term steady state flow.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Changes to the numeric model are needed that include The recommended data collection for parameterizing the faults and transmissivity of the graben must be collected and implemented to obtain improved modeling of the pumping from the graben.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Changes to the numeric model are needed that include vertical anisotropy should be better simulated with values of 0.01 to 0.001 rather than the values used in the model, including in the graben (which based on well logs should be 0.1 to 0.01).	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Changes to the numeric model are needed that include existing tailings seepage should be better estimated by calibrating with the wells near the impoundment. The seepage includes both meteoric water draining through the facility and drain down.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	In sum, the groundwater models upon which the DEIS relies to evaluate water impacts make every assumption designed to minimize impacts from the Mine, and exclude any assumption that would more realistically reflect the Mine's actual water impacts. NEPA specifically prohibits an agency from disclosing and considering only the impacts from a project that favor the project's applicant.	NEPA-2	NEPA Process	Chapter 2 of the EIS describes the Proposed Action and all reasonable alternatives. The EIS has been prepared to: 1) analyze the environmental impacts of alternatives that would meet the proposed purpose and need; and 2) assist the BLM in deciding whether to approve a preferred alternative. That preferred alternative may be the Proposed Action, an identified alternative, or a combination of analyzed elements of the Proposed Action or alternatives. The EIS was prepared in accordance with NEPA requirements for the BLM and a ROD will be signed. If the preferred alternative identified in the ROD differs from the MPO, the MPO must be revised by NMCC and approved by the BLM prior to commencing mining operations.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to fully review reasonable alternatives to the activities at the Mine, and related milling and transportation activities. It inadequately represents NMCC's Proposed Action. In 2013, NMCC conducted a Definitive Feasibility Study ("DFS") based upon a 30,000 tpd production rate. NMCC failed to amend its mining plan of operations ("MPO") to reflect this new increased throughput, and the DEIS fails to present a Proposed Action consistent with NMCC's DFS and permit applications submitted to the New Mexico Environment Department ("NMED") and the New Mexico Mining and Minerals Division ("MMD").	ALT-4	Alternatives	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ).	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to fully review reasonable alternatives to the activities at the Mine, and related milling and transportation activities. NMCC's Proposed Action relies on economic data that is unreasonable and unjustified. NMCC's DFS is based upon a "long-term" copper price of \$3.00 per pound and a daily production rate of 30,000 tpd, with an expected 20 percent internal rate of return. At current copper prices of \$2.01 - \$2.28 per pound it is likely that the NMCC's Proposed Action will result in a very low or negative rate of return. Given the nature of metals prices, an internal rate of return of 40 percent might be considered as the required rate of return to attract knowledgeable investors. The copper price trend overall has continued a significant downtrend from almost \$4.50 per pound in 2011 to current prices of approximately 50 percent that value. The economic analysis relied upon in the DEIS fails to take into consideration such information, therefore the analysis is unreasonable.	ALT-4; SE-7	Alternatives; Socioeconomics	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. See Section 3.22.2 of the EIS for a detailed discussion of economic activity from the proposed mine. The purpose of the FEIS is not to discern the viability of the mine or copper mining generally but to evaluate the potential impacts from the alternatives.	NGO7_Environment Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to fully review reasonable alternatives to the activities at the Mine, and related milling and transportation activities. Additionally, the DEIS fails to consider an action alternative with increased waste rock storage and zero processing of low-grade ore. The DEIS description of the Mine's ore and waste production (DEIS 3-37) indicates that the DEIS fails to address alternatives involving a lower than expected copper price and a higher than expected waste to ore ratio. The DEIS states that "Low-grade copper ore would likely be processed at the end of the mine life." (DEIS 2-6), yet provides no supporting documentation for this statement. Significantly lower copper prices (such as the current price of copper) results in an increase in waste rock storage area requirements and no processing of low-grade ore. Based on the history of copper mines in New Mexico and elsewhere, it is more likely that low-grade copper ore will not be processed except during times of exceptionally high copper prices or as an adjunct process to other processing operations. There is no assurance that the low-grade ore will be processed at any time during or at the end of the Mine's life. For the DEIS to consider it "likely" is unreasonable and unwarranted. Therefore, BLM must either revise or supplement the DEIS with an adequate ore and waste production alternatives analysis.	ALT-4	Alternatives	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ).	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to consider a reasonable action alternative that utilizes mitigation measures such as the use of a pit sump pump to prevent a pit lake.	ALT-4	Alternatives	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ).	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to consider a reasonable action alternative that utilizes mitigation measures such as partial or complete pit backfilling of the pit to prevent long-term pit lake water quality issues.	ALT-4	Alternatives	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ).	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to consider a reasonable action alternative that utilizes mitigation measures such as alternative tailings facility locations and methods, such as dry stack tailings (also known as filtered tailings) disposal and the depyritization method to reduce tailings acid generation.	ALT-4	Alternatives	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ).	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to consider a reasonable action alternative that utilizes mitigation measures such as alternative waste rock dump locations and configurations, and waste rock liners to collect any seepage.	ALT-4	Alternatives	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ).	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to consider a reasonable action alternative that utilizes mitigation measures such as alternative reclamation and closure measures that utilize more advanced designs to address acid generation potential and metals leaching, such as engineered covers for waste rock and tailings.	ALT-4	Alternatives	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ).	NGO7_Environment Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	NEPA requires that BLM include the alternative of "No Action." 40 C.F.R. Part § 502.14(d). The DEIS "No Action" alternative analysis is woefully inadequate. The analysis is predicated on the premise that the "No Action" alternative requires no real analysis, and consists of repeated statements that "nothing will happen" were the "No Action" alternative to be selected.	ALT-2	Alternatives	The No Action alternative section in Chapter 2 has been modified to more adequately describe the situation. Chapter 3 includes an analysis of the No Action alternative for each resource considered.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The "No Action" alternative does not consist of a baseline suspending all change in Sierra County and Southwestern New Mexico for the duration of the Mine. To realistically project conditions in the affected area under the "No Action" alternative requires BLM to evaluate the aggregate of local government plans, policies, population projections, capital improvement programs, and conservation programs, along with other plans for other relevant federal, state and local agencies.	ALT-2	Alternatives	The BLM has considered this comment and finds that the EIS is sufficient in analyzing the No Action alternative to determine the impacts due to the absence of action itself without also considering the impacts of external factors. The analysis of the No Action alternative within each resource area sufficiently addresses outcomes, as specifically related to the absence of action for that resource area.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS incorrectly states, "No additional mining, mitigation of existing water quality issues, or reclamation of the mine would occur." In fact, NMCC has submitted to the New Mexico Environment Department ("NMED") a Stage 1 Abatement Plan ("Plan"), under the New Mexico Water Quality Act ("WQA"), to address current water contamination at the Mine. The Plan went into effect early 2012. Significant cleanup of the sulphate plumes under and adjacent to the tailings storage facility has occurred under this Plan. Therefore, the DEIS errs in asserting that the only way reclamation of the Mine's current contamination will occur is to permit the Mine to resume operations. This assertion is another example of how BLM is making unreasonable and unfounded assumptions that favor NMCC and the Preferred Alternative, in violation of NEPA, 40 C.F.R. Part § 1502.2(f)(g).	ALT-2; NEPA-2	Alternatives; NEPA Process	NMCC's plan is to construct and operate the Copper Flat mine as a zero-discharge facility. The proposed operation of Copper Flat will control stormwater, dewater the pit, and replace the Quintana TSF with a lined TSF. In the event that the No Action Alternative is selected, legacy groundwater quality concerns would be addressed with State regulatory oversight; however, the abatement plan in that scenario has not yet been finalized. It is anticipated that the water quality at Copper Flat would ultimately be approximately the same under the Proposed Action, other action alternatives, and the No Action Alternative, although the timing and methods for abatement may be different. The FEIS clarifies the water quality outcomes for the Proposed Action and alternatives. The EIS was prepared in accordance with NEPA requirements for the BLM and a ROD will be signed. If the preferred alternative identified in the ROD differs from the MPO, the MPO must be revised by NMCC and approved by the BLM prior to commencing mining operations.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	NMCC, as the owner and operator of the Mine, currently has reclamation obligations under the WQA. These obligations do not disappear if the Mine is not approved by BLM. BLM must either revise or supplement the DEIS with an analysis which acknowledges that reclamation must occur at the Mine in any event, and to describe what that reclamation would be.	ALT-2	Alternatives	New Mexico Copper Corporation (NMCC) has an obligation to cleanup/reclaim following activities such as exploration (drilling) but the New Mexico Environment Department (NMED) has no basis to require NMCC to upgrade facilities that were previously reclaimed unless there was a potential or actual impact to water quality from the existing condition. That could potentially come out of the abatement process in the event the No Action Alternative was selected. One place where this could possibly occur would be the tailing impoundment, where the synthetic liner at the base of the new impoundment was to provide a source control measure on top of the existing tailings. Similar conditions may exist for rock piles. Additionally, the site does not meet Mining and Minerals Division's (MMD) definition for an "existing mining operation" (19.10.1.7.E(2) NMAC) because the mining performed by Quintana did not produce a marketable mineral for a total of at least 2 years between January 1, 1970 and June 18, 1993. Because the mine does not qualify as an existing mining operation per the definition, MMD would not have any jurisdiction to require Quintana or NMCC to reclaim the slopes, waste rock facilities, pit, tailings impoundment, roads, etc. that are currently at the site. The mining performed by Quintana in the 1980s and the mining conducted by smaller entities prior to Quintana are considered to be "pre-New Mexico Mining Act" disturbances that are not able to be regulated by MMD based on the Act and Rules. As such, if the No Action Alternative was selected during the EIS process, the disturbances and reclamation previously performed by Quintana in the 1980s would be allowed by MMD to remain as-is. However, if old disturbance is re-disturbed by the new NMCC mining operation, those areas that become re-disturbed would fall under the requirements for new mining operations. For example, if NMCC reuses an old waste rock pile, then they would have to meet New Mine Operation and Performance Standards.	NGO7_Environment Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	BLM fails to identify the regulatory environment under different management scenarios as an issue for analysis, in violation of NEPA. 40 CFR Part § 1501.7. The environmental effects of unplanned occurrences, such as acid mine drainage, accidental leaks and spills, and failure of design features, can be greatly reduced if there is a monitoring program in place to detect and respond to these situations earlier rather than later. As such, the DEIS should compare the following factors under different management scenarios: number of agency inspections, the thoroughness of these inspections, the ability to review the adequacy of the reclamation bond and adjust it as needed, the frequency of bonding review, bonding amounts, the past history of bonding increases, the past history of calculating the correct bond, the amount of potential fines for violations, and the ability to require and manage a fund for long term water treatment. The frequency and duration of monitoring and number of annual agency inspections have real impacts on detection and response. The level of monitoring and inspection should increase for all action alternatives. Unannounced site visits should be offered to the public upon request. Such site visits are extremely helpful in informing the public about actual conditions on site.	REG-17; NEPA-23	Regulatory Compliance; NEPA Process	It is not the responsibility of the BLM through the EIS process to evaluate the adequacy of the external agency inspections, bonding requirements, or determination of fines. The above listed items are outlined in the 43 CFR 3809 regulations and are not considered to fall within the scope of the EIS as they are regulatory compliance issues and not environmental impacts.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	In the event of a temporary, short-term halt to mining or suspension of production, "care and maintenance" procedures need to be detailed for each action alternative. As such, the DEIS needs to describe how water balance will be affected; how capture, treatment and disposal of water will be affected; how the formation of a pit lake will be mitigated; and what level of work force is needed to assist in site management.	ALT-13	Alternatives	Section 2.1.15.10, Interim Management Plan, provides an overview of NMCC's plan for any temporary shutdown of the mine.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze air quality impacts. General statements such as, "The overall air quality in the vicinity of the mine is good," and, "A review of the results of recent NATA [National Air Toxics Assessment] documents show that cancer, neurological, and respiratory risks in the mine area are well below national levels," are made without citation to any supporting documents. On December 17, 2015, EPA released the most recent update to the National Air Toxics Assessment (NATA). ³⁴ The DEIS was released to the public on November 23, 2015. It clearly did not review "the results of recent NATA documents."	AQ-15	Air Quality	The statements cited from the EIS are in Section 3.2.1, which describes the affected environment. The environmental effects on air quality are outlined in Section 3.2.2 of the EIS. The 2011 NATA was the best available information on the existing air toxics conditions in the area during the preparation of the DEIS (USEPA 2011: https://www.epa.gov/national-air-toxics-assessment) and still is. As confirmation, the site was accessed again in September 2016 and January 2018. The 2016 assessment is still being prepared for full public release. No substantial changes to existing air toxics conditions in the area are anticipated with this release.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS states that NMCC "operated an ambient particulate monitoring program...at the mine." DEIS 3-3. Two particulate samplers were used at the Mine, and "collected 58 samples between October 1, 2010 and September 30, 2011." The DEIS fails to cite with particularity information in this study. Also, this study is not included in the appendices of the DEIS, nor is it listed under the "References" section; therefore, the data relied upon is not readily available to the public, in violation of NEPA. 40 C.F.R. Parts §§ 1502. 18, -21 and -24.	AQ-15	Air Quality	The document containing the ambient particulate monitoring program data was added as a reference to Section 3.2.1.1. This document was also added to Appendix B: Air Supporting Documentation.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS states that, "A detailed breakdown of mine operational emissions is in Appendix B." DEIS 3-6. Appendix B documents pertain to emissions for mining operations with a 25,000 tpd production rate, which is Alternative 1. Tables B-1 and B-2 are templates prepared by NMED, which provide estimates of emissions for mining operations. These tables do not represent actual emissions of the Mine.	AQ-15	Air Quality	Table B-1 and B-2 outline the estimated total controlled and uncontrolled emissions from the operation of the mine using the 25,000 tpd operating scenario. The text in Section 3.2.2.1.1 was revised to clearly state that the values presented in Table 3-4 and Appendix B are estimated air emissions from mine operation and not actual emissions.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS refers to a dispersion model report, stating that, "Modeling was completed using as many receptor locations to ensure that the maximum estimated impacts are identified." DEIS 8-1 9. However, this report fails to identify the "many receptor locations." It is unclear whether the dispersion model identifies Ladder Ranch as a receptor location for the Mine's air quality impacts.	AQ-15	Air Quality	The dispersion modeling was performed to include all receptors within the area of effect. As described in Section 3.2, under each alternative, it is estimated that emissions would rapidly decrease to background levels and the impacts to air quality would be less than significant.	NGO7_Environment Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS provides a brief discussion of climate change and states that the Mine's climate change impacts would be "short-term to medium-term minor adverse effects" (DEIS 3-15 through 3-17), but it fails to provide any supporting documentation or to adequately analyze such impacts, in violation of NEPA, 40 C.F.R. Parts §§ 1502.16 and .23.	CC-5	Climate Change and Sustainability	Quantitative data on anticipated GHG emissions from the Proposed Action and alternatives (followed by a discussion of impacts) has been added to Section 3.3.2.1.1. GHG emissions modeling data contained within the air permit document for the Copper Flat site have been analyzed and interpreted for the EIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The "Regulatory Requirements Related to Climate Change and Sustainability" section fails to identify and take into consideration the Executive Order issued by President Obama on March 19, 2015 (Executive Order Planning for Federal Sustainability in the Next Decade). DEIS 3-15. This Executive Order commits federal agencies to cutting greenhouse gas (GHG) emissions forty (40) percent over the next decade from 2008 levels and increase the share of electricity the Federal Government consumes from renewable sources to thirty (30) percent. No analysis of the Mine's greenhouse gas ("GHG") emissions has been completed. BLM should estimate the Mine's GHG emissions under all alternatives with the tools provided by CEQ for estimating and quantifying GHG emissions.	CC-5	Climate Change and Sustainability	CEQ's Final Guidance on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews (August 2016), which directed agencies to commit to implementation of reasonable mitigation measures to reduce or eliminate project-related GHG emissions, has been withdrawn for further consideration, (March 2017). Operators are required to reduce emissions of hazardous and criteria pollutants including volatile organic compounds (VOCs) as well as methane in accordance with Federal, State, and local rules and regulations. Because the controls to reduce VOCs can also reduce methane, mitigation for methane as a GHG would be in accordance with current federal rules and regulations. Although there are no active regulations that would require GHG mitigations for the proposed project, NMCC has identified in its air permit an array of monitoring and compliance measures that would be taken, which do involve measures related to the minimization of GHG emissions.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to analyze emissions from off-site operations of the Mine. For example, under NMCC's Proposed Action: Copper concentrate would be hauled by 25-ton capacity highway trucks towing 10-ton trailers to I-25 and then to a nearby railroad in southern New Mexico, and then transported by rail to a smelter in North America or to port facilities for shipping to Asia or Europe. Molybdenum concentrate and any other mineral would be filtered, dried, and packaged on-site and then transported to an off-site refinery by truck.	CC-5; AQ-15	Climate Change and Sustainability, Air Quality	As discussed in Chapter 2 of the EIS, copper concentrate would be shipped via truck from the Copper Flat mine to a concentrate storage shed in Rincon, New Mexico. A discussion about the potential impacts from constructing and operating the storage shed was added to Sections 3.2 and 3.3 as well as all other appropriate sections of the EIS. The air emissions generated by haul trucks were not evaluated because the NMED does not require air permits for mobile sources of air emissions.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to provide any information regarding off-site facilities that the copper and molybdenum concentrates may be transported to. Table 3-4 does not specifically identify the Mine's indirect emissions from copper and molybdenum concentrates being transported off-site by truck, rail, and ship to ports in Mexico and Europe. The DEIS also fails to analyze environmental impacts of an off-site substation that will be constructed on a "30-acre State Trust land south of NM-152 and east of the production wells" to supply additional power needed under an accelerated production rate. DEIS 2-8 1. There is no analysis of the effects (direct, indirect and cumulative) from using energy generated off-site, in violation of NEPA, 40 C.F.R. Part § 1502.16. Under Alternative 2, the Project's total power demand will be 241.49 gigawatt hours a year ("GWh/year"). DEIS 2-82. Such a huge energy demand will tax and possibly exceed the current regional electrical generating capacity, resulting in the likely need to go farther afield to acquire operating energy.	CC-5; AQ-15; U&I-4	Climate Change and Sustainability, Air Quality, Utilities & Infrastructure	As discussed in Chapter 2 of the EIS, copper concentrate would be shipped via truck from the Copper Flat mine to a concentrate storage shed in Rincon, New Mexico and an off-site substation would be constructed to the east. A discussion about the potential impacts from constructing and operating the storage shed was added to Sections 3.2 and 3.3 as well as all other appropriate sections of the EIS. The air emissions generated by haul trucks were not evaluated because the NMED does not require air permits for mobile sources of air emissions. Furthermore, the air emissions generated by off-site electricity providers was not included because the emissions are already accounted for in their NMED air permits.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Until the climate dynamics of mega droughts are fully understood, plans involving water management should be designed to accommodate a fifty (50) year mega drought.	CC-5	Climate Change and Sustainability	The BLM believes that considerations of reasonably foreseeable drought are included in enough depth in the EIS to comply with NEPA.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	If biases in the DEIS model are removed, then simulated production pumping drawdown of at least one foot would extend west and north of the Mine, affecting Las Animas Creek further upstream (on Ladder property) than currently predicted. This would affect springs along the stream course and decrease the perennial flows. Drawdown would also reach Seco Creek on Ladder. Simulated production pumping drawdown would exceed twenty (20) feet at Ladder's southern boundary.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environment Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze the Mine's direct impacts to the Rio Grande and Caballo Reservoir due to the Mine's production pumping wells. The DEIS admits that the "cumulative magnitude of the effect [from the Mine's production pumping wells] can only be determined through a comprehensive mid-basin study of Caballo Reservoir and the Rio Grande." DEIS 4-8. This study has not yet been conducted, therefore the public is unable to comment on the findings of such a study. However, the estimated depletions to the Rio Grande provided in the DEIS are considerable. Under NMCC's Proposed Action, 17% of the flow from the project area watersheds to the Rio Grande would be lost. Under Alternative 2, BLM's Preferred Alternative, that loss increases to 25%. The impact from these losses to groundwater discharge would be alarmingly apparent during periods of drought. Surface water depletions to the Rio Grande would have serious consequences for Sierra County and New Mexico.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Using the DEIS model, the Mine's direct impacts to Ladder due to mine dewatering and pit lake formation include drawdown of up to one foot in the John Cross Well on Ladder and drawdown of ten (10) feet at Ladder's property line just north of the Mine.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	If the DEIS model is properly simulated with more fractures and higher conductivity of the andesite at the Mine pit, the drawdown would extend further into Ladder (and possibly for at least another mile beyond Ladder). It is very likely that the drawdown would be up to fifty (50) feet at Ladder's southern boundary.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	At the end of Mining operations a pit lake will form. It will most likely take a century or more to reach its full size. Drawdown around the pit lake will continue to expand even longer, reaching Las Animas Creek on Ladder after a few decades. Drawdown from the pit would cause Las Animas Creek, Warm Spring, and Myers Animas Spring to lose much or all of their flow.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The mine's dewatering wells and the pit itself would have serious long-term effects on water availability in the regional aquifer and in surface water. The DEIS fails to adequately address whether the Mine's production pumping will "impair existing wells." DEIS 3-76. It simply states that the New Mexico Office of the State Engineer ("OSE") will determine such impairment. This is a clear violation of NEPA, 40 C.F.R. Part § 1501.6. BLM must either revise or supplement the DEIS with the required impairment analysis.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	After the Mine ceases to operate a small pit lake will form and evaporate water in perpetuity. Though the DEIS discloses the total evaporation of the pit lake under the Proposed Action, it fails to disclose the total evaporation under the Preferred Alternative. This is significant because pit lake evaporation is a permanent loss of flow to the Rio Grande. Pit lake evaporation will be a permanent loss of approximately 100 af/y from the water budget of the Mine-area watershed's drainage to the Rio Grande.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS concludes that drawdown of groundwater levels at wells near the Mine pit would be over 200 feet after 100 years. Continued drawdown at the Mine pit would be much greater. Water levels would recover very slowly to a point where the evaporation from the pit lake equals the inflowing groundwater, precipitation and runoff and the drawdown cone would continue to expand. However, the DEIS fails to adequately analyze the ultimate extent of the pit's cone of depression. BLM must either revise or supplement the DEIS to adequately estimate this impact. This can be done by running the numerical model with the pit lake simulated in steady state, as recommended above for estimating the steady state pit lake evaporation rate.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to disclose all affected springs within the predicted one foot drawdown (of groundwater levels) from the Mine pit. It avoids doing so by claiming that springs along the alluvial valley will not be affected, because they are "perched discharges." DEIS 3-82. The DEIS offers no evidence to support this assertion.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The most substantial impact on the Rio Grande and Caballo Reservoir would be the loss of water due to the Mine's production wells and to evaporation from the permanent pit lake. However, the zone of influence of the pit dewatering wells and the Mine pit after mining ceases can contribute to robbing groundwater flow from the Rio Grande and Caballo Reservoir.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	BLM must also assure itself that NMCC has sufficient water rights to operate this Mine, given the massive quantities of water involved for both operations and mitigation.	WR-1	Water Rights	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The "Copper Rule" (20.6.7 NMAC) promulgated by the New Mexico Environment Department ("NMED") currently exempts groundwater beneath existing and future copper mines from compliance with New Mexico's "3103" water quality standards. The Copper Rule allows the open pits, waste rock piles, leach piles, tailings, and other mine units at copper mines to release hazardous contaminants directly into the environment and to pollute groundwater above 3103 Standards. The DEIS makes no mention of this rule and its application to this Mine.	WQ-24	Water Quality	Section 2.1.7.2 describes the use of the pit water for dust control. This use would require a groundwater Discharge Permit from the NMED Ground Water Quality Bureau and would be subject to the applicable groundwater standards under 20.6.2.3103 NMAC. Under NMAC 20.6.7.21 (A)(1), waste rock piles shall be evaluated for their potential to generate acid and release water contaminants at levels more than the 3103 water quality standards. A Geochemical Characterization Report has been developed to aid in determining the applicability of the 3103 standards. In addition, stormwater run-on would be diverted or contained to minimize contact with waste rock stockpiles. Leach piles and tailings are not mentioned in the "Copper Rule" as being subject to 3103 standards.	NGO7_Environmenta l Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS describes the waste rock only in general terms, acknowledging that some will have the potential to generate acid mine drainage ("AMD"). DEIS Table 3-12. The DEIS states that both waste rock and low-grade ore have the potential to generate "deleterious leachate if sufficient percolation of water through the rock piles occurs." DEIS 3-41. However, it fails to disclose the amount of transitional or sulfide waste rock or ore. This is problematic because some ore could be temporarily stored on the ground surface prior to processing. The DEIS also implies that the Mine will rely on the dry climate to prevent AMD from reaching ground or surface water, (DEIS 3-39), and fails to disclose how NMCC will accomplish cover requirements.	WQ-25	Water Quality	The waste rock disposal areas would be regraded and contoured to reduce infiltration of water and provide positive drainage to sediment collection points. The majority of the rock excavated would be sulfide waste rock and ore, and kinetic laboratory tests show that it takes decades to centuries for sulfide to oxidize sufficiently to produce ARD. As stated in Section 3.4.2.1.1, ARD has multiple factors. The factor of climate (i.e., precipitation to evaporation ratio) reduces the concern of an adverse water quality affect in the short-term despite the large volume of rock to be produced. A 5:1 ratio of evaporation to precipitation leads to the expectation that most precipitation will evaporate, leaving a small fraction to percolate into rock piles. Cover for reclamation and closure of the waste rock areas are described in Section 2.1.15.9.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	DEIS claims that all action alternatives will " result in an improvement of water quality as compared to the No Action alternative" ignores the fact that NMCC has been implementing an abatement plan since 2012, remediating existing groundwater. It also fails to acknowledge that if BLM does not permit the Mine, NMCC will be required to undertake reclamation activities under NMMA, including tailings remediation. It is extremely inappropriate for the DEIS to suggest that an action alternative is necessary to remediate an existing sulfate/TDS plume, and demonstrates BLM's bias for the Preferred Alternative in violation of NEPA.	ALT-18	Alternatives	NMCC's plan is to construct and operate the Copper Flat mine as a zero-discharge facility. The proposed operation of Copper Flat will control stormwater, dewater the pit, and replace the Quintana TSF with a lined TSF. In the event that the No Action Alternative is selected, legacy groundwater quality concerns would be addressed with State regulatory oversight; however, the abatement plan in that scenario has not yet been finalized. It is anticipated that the water quality at Copper Flat would ultimately be approximately the same under the Proposed Action, other action alternatives, and the No Action Alternative, although the timing and methods for abatement may be different. The FEIS clarifies the water quality outcomes for the Proposed Action and alternatives.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS downplays the importance of detailed water quality predictions for the pit lake because of "pertinent uncertainties." DEIS 3-31. The DEIS relies on both a predictive model and the existing pit lake only to inform its discussion of future pit lake water quality. A "predictive geochemical model is useful to understand the general water quality that may be present decades or centuries in the future, but the model predictions are only estimates and the level of uncertainty in the model predictions cannot be fully quantified." DEIS 3-32. The DEIS notes the modeling predicts future water quality would be near-neutral pH, high TDS, calcium sulfate water, with exceedances of the current water quality standards for copper, lead, manganese, selenium, and zinc. The DEIS also discusses that future water quality standards for the pit lake may be different than at present, either by changing the designated use through a "use attainability analysis" (DEIS 3-33), or by completing site-specific standards, which appears to simply set standards based on what can live in the future poor quality water. The DEIS fails to present groundwater modeling results to determine what would happen if the pit lake is pumped full prior to groundwater recovery. BLM must either revise or supplement the DEIS to include a "use attainability analysis" and data regarding pit lake water migration.	WQ-26	Water Quality	Section 3.4.2.1 of the EIS addresses existing pit lake quality, geochemical modeling for the proposed pit lake, mitigation of anticipated water quality effects of mining by rapid filling of the pit lake when mining ends, and possible conditioning of the pit lake water. For predictions of pit lake water quality, geochemical modeling is the appropriate tool for assessment because it combines groundwater modeling results with water-rock interactions. Based on the water quality uncertainties described in Section 3.4.2.1, a pit lake water quality management plan and obtaining funding to implement that plan are included as mitigations.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The continued diversity of the riparian vegetation communities on Ladder is dependent on management practices that favor natural flooding, reliable stream flows on or near the surface, and protection of the uplands from erosion. Many wildlife species are totally dependent on these riparian communities, which serve as wildlife sanctuaries within an arid landscape. The DEIS admits that due to pumping of the Mine's production wells and dewatering of the Mine's pit significant impacts will occur to local streams, springs, and seeps. These impacts will result in significant degradation to, and maybe even elimination of, wildlife and riparian habitat dependent upon these and other waters.	WL-11; VEG-1	Wildlife; Vegetation	The hydrology modeling analysis of the effects of pumping for mine operations indicated that there would be no impacts to any surface features in the Greenhorn Arroyo basin. This is because the affected aquifer is deep below the surface and does not influence the presence or level of water or presence of vegetation at the surface, including riparian vegetation.	NGO7_Environmenta l Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Ladder Ranch has been a partner with USFWS in endangered Mexican grey wolf restoration efforts since 1997. Since then, over 100 wolves have been housed in the Ladder Ranch Wolf Management Facility ("LRWMF"). Blasting from the Mine could adversely affect the behavior of the captive wolves being held prior to their release in the wild.	T&E-1; NOI-4	Threatened, Endangered, and Special Status Species; Noise and Vibrations	<p>See the full response to T&E-1 in the Comment Categories and Responses (CCR) document that is too long to be displayed in this CRM cell. The BLM has formally consulted with the USFWS under the ESA and has prepared a Biological Assessment (BA) that evaluates the potential for the Copper Flat Mine project to jeopardize the Mexican gray wolf, Chiricahua leopard frog, and Bolson tortoise, as well as migratory birds, including the potential for impacts to those species at the Ladder Ranch. The consultation findings and proposed mitigation measures are described in detail in the BA and summarized in the Threatened and Endangered Species section of this Final EIS. A brief synopsis of the BA findings is as follows:</p> <p>Mexican Gray Wolf: Noise and ground vibrations from blasting at the mine site were evaluated for their potential to adversely affect the Mexican gray wolf in its holding facility 3.5 miles (18,480 ft.) from the mine site. As discussed in detail in the BA, noise at the blast site would reach 130 to 140 dBP (peak pressure of impact noises like blasting) but diminish to 115 dBP within 2,344 ft. The unimpeded straight-line dBP would be diminished 6 dBP for each doubling of distance and by the time the sound reached the wolves 18,480 ft. away it would be 18 dBP less, or less than 100 dBP, which is the noise of a passing motorcycle. However, this is a straight-line calculation. In fact, the mine blasts would primarily be contained within the mine pit itself, which is in a topographic bowl surrounded by ridges, so the straight-line calculated sound levels would apply only to points directly above the mine pit. The actual sound at the wolf holding facility would be greatly attenuated by the intervening terrain.</p> <p>Blasting would occur within the excavated mine pit with charges placed in the pit walls well below the ground surface level of the larger mine site area so that the sound will project primarily horizontally into the center of the mine pit and vertically above the pit, thus containing and diminishing the highest sound levels. The mine site is located within a flat topographic bowl surrounded by higher elevation ridges including Animas Peak that would further intercept and diminish sound waves similar to the effect of roadside sound barriers on traffic noise. Wolves hear well up to a frequency of 25 kHz. Some researchers believe that the actual maximum frequency detected by wolves is much higher, perhaps up to 80 kHz (the upper auditory limit for humans is 20 kHz). Low frequency noise carries greater distances than high frequency noise from the same source. Blast overpressure generally produces low frequency air overpressure of 2 Hz. Humans detect noise in the range of 20 Hz to 20 kHz, but little is known specifically about wolves' sensitivity to low frequencies. Dogs' hearing, likely similar to wolves, is attuned to a wider, higher frequency range than that of humans (67 Hz – 45 kHz), so it is likely that the airborne noise impacts from the low-frequency blasts would not be perceived with the higher-frequency-attuned wolves.</p>	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Dust-abatement (especially with any chemicals) caused by the Mine will likely have a major impact on water quality, in turn affecting Ladder's Chiricahua Leopard Frog (CLF) breeding facility and refugia tanks. The Mine's extraction of ground water may reduce the extent or permanence of nearby surface waters, thereby eliminating habitat for any frogs present, resulting in forced dispersal, increased exposure to predators, or desiccation. A reduction in permanency will also result in changes to other components, such as aquatic vegetation and invertebrates, leading to a reduction in food resources to larval and adult frogs. The Mine's noise may disrupt male vocalizations in some manner, and thus may affect aspects of mating and reproduction. The Mine's activities that degrade riparian zones are likely to have significant impacts to water permanency in lotic systems and their associated backwater pools. The removal of upland vegetative ground cover may also induce erosion and sedimentation reaching aquatic sites. The deposition of sediments may fill in Ladder's pools and tanks, thus reducing the permanence of those sites and their use for breeding. Increased turbidity and accumulated fine particulates may reduce primary productivity of vegetated sites, resulting in altered availability of foods for larva and adults. Sedimentation may also alter aquatic or semi-aquatic vegetation in and around aquatic sites, thus reducing feeding and cover (e.g., egg-laying, escape) habitats for CLFs. Pulses of sediments may also smother eggs.	T&E-1; NOI-4; VEG-1; WQ-1	Threatened, Endangered, and Special Status Species; Noise and Vibrations; Vegetation; Water Quality	<p>Section 3.4.2.1.2 provides a technical explanation of why the effects of using the water from the pit for dust suppression are considered insignificant. The application and evaporation of applied water would likely result in the deposition of certain constituents on the surface of roadways; however, the runoff from the roadways would be controlled by the surface runoff features.</p> <p>In addition, and pursuant to the NMED Supplemental Permitting Requirements for Copper Mine Facilities (20.6.7 NMAC), during operations groundwater standards do not apply within the "area of open pit hydrologic containment" (20.6.7.24.D). Therefore, the discharge permit would not put limitations on the quality of water used for dust suppression within the area of open pit hydrologic containment. Outside of that area, the discharge permit would likely include limitations on the quality of water that could be used for dust suppression. Any surface runoff from dust suppression would need to be contained such that it does not impact surface waters, but that would not be a component of a groundwater discharge permit, more likely part of a stormwater pollution prevention plan (SWPPP).</p> <p>For application of impacted water for dust suppression inside the hydrologic containment area (pit lake area), pit water can be applied as dust suppression without treatment so long as this water is applied inside the hydrologic containment area. If the impacted water adversely affected the soils to a condition that could not support vegetation, then MMD would likely require the application of 36 inches of growth media at feasible reclamation areas (24 inches over foundations or concrete). MMD would look to their Closeout Plan Guidelines to determine whether soil has been adversely affected by metals or other contaminants from applying impacted pit water.</p> <p>Evidence from well monitoring and the results of groundwater modeling indicate that pumping deep aquifers for mine operations would have no impact on the unconnected surface water flows in the areas that currently support riparian vegetation. No riparian area is at risk of being destroyed or altered adversely by mine operations.</p>	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Effects of mining activity, particularly vibrations from blasting, are unknown, but could cause the collapse of burrows and alter behavior patterns of Ladder Ranch's Bolson Tortoise population.	T&E-1; NOI-4	Threatened, Endangered, and Special Status Species; Noise and Vibrations	<p>See the full response to T&E-1 in the Comment Categories and Responses (CCR) document that is too long to be displayed in this CRM cell. The BLM has formally consulted with the USFWS under the ESA and has prepared a Biological Assessment (BA) that evaluates the potential for the Copper Flat Mine project to jeopardize the Mexican gray wolf, Chiricahua leopard frog, black-tailed prairie dog, and Bolson tortoise, as well as migratory birds, including the potential for impacts to those species at the Ladder Ranch. The consultation findings and proposed mitigation measures are described in detail in the BA and summarized in the Threatened and Endangered Species section of the Final EIS. A brief synopsis of the BA findings is included in response to T&E-1 in the CCR document.</p>	NGO7_Environment Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Effects on black-tailed prairie dog colonies on Ladder Ranch from blasting and other mining operations are unknown, but could cause the collapse of burrows and alter behavior patterns.	T&E-1; NOI-4	Threatened, Endangered, and Special Status Species; Noise and Vibrations	See the full response to T&E-1 in the Comment Categories and Responses (CCR) document that is too long to be displayed in this CRM cell. The BLM has formally consulted with the USFWS under the ESA and has prepared a Biological Assessment (BA) that evaluates the potential for the Copper Flat Mine project to jeopardize the Mexican gray wolf, Chiricahua leopard frog, black-tailed prairie dog, and Bolson tortoise, as well as migratory birds, including the potential for impacts to those species at the Ladder Ranch. The consultation findings and proposed mitigation measures are described in detail in the BA and summarized in the Threatened and Endangered Species section of the Final EIS. A brief synopsis of the BA findings is included in response to T&E-1 in the CCR document.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS I) fails to identify Ladder Ranch, Caballo Lake State Park and Percha Dam State Park as key recreational sites in Sierra County (DEIS 3-194); 2) fails to adequately analyze the Mine's impacts on water levels at Caballo Reservoir and Elephant Butte Lake; and 3) fails to adequately analyze streamflow reduction impacts to Las Animas and Cave creeks.	REC-1; SW-26	Recreation; Surface Water Resources	1) Recreation sites at Ladder Ranch, Caballo Lake State Park, and Percha Dam State Park are now identified in the FEIS. Section 3.16.2.1.1 of the EIS states that though there are no designated trails within the project footprint, if recreational users are accustomed to hiking through the outer limits of the project footprint, impacts due to restricted use could be minor and long-term. However, due to the presence of existing mining-related structures, the open pit mine and tailings pond, and existing fencing around parts of the mine area, which already restricts access for human health and safety reasons, recreational activities in this area are not prevalent. Thus, impacts to hikers are anticipated to be minor. 2) In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande system, including Caballo and Elephant Butte Reservoirs, resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water. "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease. 3) Evidence from well monitoring and the results of groundwater modeling indicate that mine operations would have a negligible impact on surface water flows in the areas of Las Animas Creek, Cave Creek, and Percha Creek that currently support riparian vegetation including the Las Animas Creek sycamores. None of these creeks are at risk of being destroyed or altered adversely by mine operations. Streamflow reduction impacts that would result from the Proposed Action and alternatives are discussed in detail in Section 3.6.2.2.1 of the Groundwater Resources section of the EIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to cite to any supporting documents that the Proposed Action...is predicted to slightly reduce stream flows in both Las Animas Creek and Percha Creek and recreational impacts in Caballo Reservoir and the Rio Grande are expected to be minor and temporary to medium term. A 700-900 foot deep pit and associated pit dewatering, will cause a cone of depression that could devastate portions of these creeks forever.	REC-1; GW-26	Recreation; Groundwater Resources	In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the DEIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The Mine will further lower water levels at Caballo Lake State Park, and thus potentially interfere with recreational activities at these sites. Any reduction of capacity at Caballo can in turn result in the forced release of water from Elephant Butte Lake upstream, which will result in further negative impacts on recreational activities conducted there. Taken together, this reduction of flow caused by the Mine will have more than a "minor" adverse impact on Sierra County.	REC-1; GW-26	Recreation; Groundwater Resources	In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the DEIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze the benefits to recreation under the "No Action" alternative. The DEIS states that, "Local employment and economic revenue would not increase as a result of this [no action] alternative. Existing uses such as grazing and recreation would continue at current levels," (DEIS 2-87) without any citation to supporting documents. The DEIS must state what the current level for recreation is and acknowledge that New Mexico is currently experiencing substantial growth in recreation and tourism.	REC-1; ALT-2	Recreation; Alternatives	The absence of adverse impacts (that may occur under Alternatives 1 and 2) does not imply a beneficial impact to recreation. Although New Mexico is experiencing growth in recreation and tourism, not re-opening the Copper Flat mine would neither impede nor beneficially impact these resources. The current recreation and tourism environment are discussed in detail in Section 3.16.1.	NGO7_Environment Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS's transportation impacts analysis is inadequate for four reasons. First, the DEIS fails to evaluate the current capacity of NM-152 and I-25 to serve the Mine's traffic demand and volume. Second, the analysis is erroneously based on assumptions and not actual baseline data. DEIS 3-218. Third, the DEIS fails to identify and evaluate the impacts to wildlife and Federally listed species, the impacts to the scenic byways and other recreational and cultural resources, and the impacts to Ladder and other land uses along NM-152, such as reduced property values. Fourth, the DEIS fails to identify studies conducted and relied upon in support of its assertion that transportation impacts to recreation along the two scenic byways would be "minor" and "would occasionally reduce the standard pace of scenic driving along the overlap of the byways." This statement contradicts Table ES-3 "Summary of Impacts," in which the DEIS concludes that the Mine's impacts to transportation and traffic will be "significant" under all three action alternatives. DEIS ES -9.	TR-6	Transportation and Traffic	The hauling described in the FEIS is consistent with what would be required by the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following: a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine. b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point. c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards. d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT. NMDOT has not identified a requirement for road improvements beyond the pavement overlay, however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS in 2017.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS only identifies the federal Noise Control Act of 1972 as governing law regarding noise and vibrations and claims that "Neither the State of New Mexico nor Sierra County have noise ordinances." DEIS 3-225. This is incorrect, and for this reason alone the BLM must either revise or supplement the DEIS with a noise and vibrations impacts analysis governed by all applicable federal and state laws and guidance policies.	NOI-13	Noise and Vibrations	As there are no applicable noise ordinances, the noise assessment and the determination of the level of effects was based on the modeled sound levels - both overall DNL and peak level during blasting. This approach is comprehensive, conservative, and is a standard practice in determining the level of effects under NEPA. The overall noise environment is expected to be completely compatible with nearby residential areas. Individual blasting events would be audible but distant. These effects would be less than significant.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS claims that, "There are no nearby noise-sensitive receptors (churches, schools, hospitals, or residences) in the immediate vicinity of the proposed Copper Flat Copper project." DEIS 3-226. This is inaccurate. Ladder Ranch is within the immediate vicinity of the Mine. Ladder is not only a residence for the ownership representatives and staff of the Ranch, it is a commercial bison operation, ecotourism destination, and site of numerous endangered and threatened species restoration projects. Additionally, Ladder Headquarters is comprised of historic buildings constructed in the early 1900s from rock and mortar. Several miles of water pipelines, five wells and four cement base steel rimmed water storage units are also located within two to three miles of the Mine. All of these structures will be subjected to noise and continuous vibrations from blasting on a daily basis, suffering unknown damage to structural integrity.	NOI-14	Noise and Vibrations	Table 3-50 in the EIS shows structural damage thresholds relative to the condition of the structure and the distance from various sources of vibration. Structures beyond 792 feet from a blasting event, including Ladder Ranch, would not suffer any damage from airborne or ground-transmitted vibrations.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	It is unclear what factors are considered in the study relied upon by the DEIS and what the study's spatial and temporal parameters are. It is necessary for BLM to include the following factors in its analysis: Evaluation of Sound Characteristics (Ambient noise level, Future noise level, Increase in Sound Pressure Level ("SPL"), Sharp and Startling Noise, Frequency and Tone, Percentile of Sound Levels, and Expression of Overall Sound), Receptor Locations (Ladder Ranch, Scenic Byways); and Thresholds for Significant SPL Increase.	NOI-15	Noise and Vibrations	The noise assessment is based on the modeled sound levels - both overall DNL and peak level during blasting. This approach is comprehensive, conservative, and is a standard practice in determining the level of effects under NEPA. Section 3.21.2.1.1 of the EIS describes the data and assumptions outlines the basic factors included in the noise modeling.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	It is necessary for BLM to conduct noise monitoring at a currently active open-pit copper mine to establish complete baseline data.	NOI-15	Noise and Vibrations	The baseline noise levels are absent of any activity at the current mine, and were included in Section 3.21.1.2 of the EIS.	NGO7_Environment Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS states that under all action alternatives the proposed Mine will operate 24 hours a day, 365 days a year. DEIS 2-6. This indicates that the Mine will utilize extensive artificial lighting. The Mine will have significant impacts on the night sky and astronomy interests at Ladder and in Sierra County, yet the DEIS fails to identify and adequately analyze this impact. In 1999, New Mexico enacted the Night Sky Protection Act. The purpose of this Act is to "regulate outdoor night lighting fixtures to preserve and enhance the state's dark sky while promoting safety, conserving energy and preserving the environment for astronomy." One of the first of its kind in the United States, the Night Sky Protection Act makes dark skies a priority in New Mexico for the health of its people, wildlife, and economy. The DEIS briefly discusses artificial night lighting in the context of environmental effects on wildlife (DEIS 3-137), however, it fails to discuss impacts on threatened and endangered species, people, and the night sky.	VIS-4; REC-5	Visual Resources; Recreation	A summary of New Mexico's Night Sky Protection Act (1978) has been added to Section 3.14.1 of the FEIS. All lighting associated with mining is listed under the Act as an exemption. The nearest Dark Sky area designated by the International Dark Sky Places program is over 150 miles away from the mine. This information is summarized in Section 3.14.2 of the FEIS. Further analysis on night skies is not required.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to rely on a quantitative analysis of public (socioeconomic) costs, and fails to take a "hard look" at the instability of the Mine's production, employment and payroll.	SE-3; SE-7	Socioeconomics	See Section 3.22.2 of the EIS for a detailed, quantitative analysis of economic impacts from the proposed mine. Table 2-7 shows the mine workforce for Year One. These are some of the inputs to the IMPLAN input-output model (the other main input is annual project costs). Table 3-74 shows the number of direct, indirect, and induced jobs that would be created during years 3 and 4 – or the construction phase of the proposed project. Table 3-75 shows the direct, indirect, and induced jobs that would be created starting in year 5 to year 21 – or the operations phase of the proposed project. The IMPLAN input-output model estimates the effects of spending for development activities and consumption spending of new residents and construction workers; the indirect effects of local vendors providing goods and services to the primary firms; and the induced impacts of employees of these firms spending a portion of their earnings in the local economy. Economic impacts are measured in terms of income and employment generated (or lost) due to the Proposed Action. Commodities are indeed responsive to factors such as China's demand, worldwide oil prices, and advances in mining and processing technologies that may affect the stability or instability of the mine's production. However, these factors are outside the scope of the EIS. The purpose of the FEIS is not to discern the stability of the mine or copper mining generally but to evaluate the potential adverse and beneficial impacts from the alternatives.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to rely on a quantitative analysis of public (socioeconomic) costs, such as the impact of ongoing labor-displacing technological change that constantly reduces the workforce required for any level of Mine production.	SE-44	Socioeconomics	While commodities are responsive to advances in mining and processing technologies that may affect the mine's workforce, it is impossible to predict these advances and therefore this is outside the scope of the EIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to take a "hard look" at the fact that Mine employees are very mobile, commuting long distance to work while maintaining their residences outside of the area immediately impacted by the mining and milling. This causes a significant amount of the Mine's payroll to "leak" out of the region immediately around the Mine.	SE-45	Socioeconomics	Section 3.22.2.1.4 considers that a portion of mine workers would commute to the mine and would not relocate to Sierra County. As stated in the DEIS, "NMCC anticipates hiring over 70 percent of the workforce from communities within a 75-mile radius of the mine; some employees would commute from counties adjacent Sierra County. With a total population of 11,988, a labor force of 5,923, and an unemployment rate of 6.2 percent in 2010, Sierra County would only fill a portion of mining jobs needed for all phases of the proposed project...Construction workers are expected to commute to the project area from their residences rather than relocate, and typically commute up to 2 hours one way for a job, or an average of 73 miles and maximum of 115 miles one way (Gilmore et al. 1982)." Section 3.2.2.1 explains that the economic model captures "leakage" from the economic study region spent on purchases outside the defined area. As stated in the DEIS, "the IMPLAN input-output model estimates the effects of spending for development activities and consumption spending of new residents and construction workers; the indirect effects of local vendors providing goods and services to the primary firms; and the induced impacts of employees of these firms spending a portion of their earnings in the local economy. Economic impacts are measured in terms of income and employment generated (or lost) due to the Proposed Action...Each of these steps (direct, indirect, and induced) recognizes an important "leakage" from the economic study region spent on purchases outside of the defined area. "Leakage" is the non-consumptive use of income, including savings, taxes, and imports that "leak" out of the main flow between output, factor payments, national income, and consumption. Eventually these leakages would stop the cycle (MIG 2012)."	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to take a "hard look" at the fact that mines always deplete their economically viable ore deposits and shut down. The average life of a metal mine has declined significantly in recent decades. The Copper Flat Project is an example of this reduced mine life. The DEIS states the life of the project ranges from 11-16 years.	SE-46; SCOPE-1	Socioeconomics; Scope of the DEIS	The duration of the Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The purpose of the FEIS is to evaluate the potential impacts from the alternatives, and evaluating the potential impacts from unknown variations of the alternatives is outside the scope of the EIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to take a "hard look" at the fact that mining is land intensive and as a result can have nearly permanent impacts on the natural environment. Environmental degradation can significantly reduce the attractiveness of a mining area as a place to live, work, and raise a family.	SE-2; SE-35	Socioeconomics	Potential impacts related to quality of life, including increased noise and traffic, are discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life). Section 3.22.1.5.3.1 (Schools) describes total enrollment, functional capacity, number of classrooms, and student-to-teacher ratio for the schools in the Truth or Consequences School District. Section 3.22.1.5.2 (Health Services) describes the type, size, and capacity of the Sierra Vista Hospital as well as other healthcare facilities in Sierra County.	NGO7_Environment Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to take a "hard look" at the costs to state infrastructure and resources. The DEIS fails to analyze the costs of road, bridge and other infrastructure maintenance and repair associated with this increase in truck traffic.	SE-12	Socioeconomics	<p>The increased rate of roadway deterioration is described in the Traffic and Transportation Section (3.20) for the Proposed Action and each of the alternatives. NMCC has consulted with NMDOT to discuss the project and NM 152. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine. Turn lanes and acceleration lanes would be added to facilitate traffic flow and provide enhanced safety for the traffic around the heavy trucks within 12 months of the beginning of the mine construction and prior to the full operation of the mine. After these enhancements are completed, the state would resume normal maintenance of NM-152. While no formal agreement has been made between NMDOT and NMCC at this time, NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.</p> <p>Section 3.22.2.1.3 (Public Finance) describes additional state and local tax revenue from the Copper Ad Valorem and processors tax, as well as the shared distribution of severance taxes between the state and counties/municipalities. NMCC estimates direct tax liabilities of over \$18 million during the construction, operation, and reclamation phases under the Proposed Action; over \$18.5 million under Alternative 1; and over \$22 million under Alternative 2 (summarized in tables 3-77, 3-80 and 3-83 of the DEIS, respectively and tables 3-85, 3-88, and 3-91 of the FEIS, respectively). The additional tax revenue would allow the county and state to address any increased maintenance costs associated with road repair and infrastructure following the initial enhancements.</p> <p>Given the pending MOU between NMCC and NMDOT as well as the additional tax revenue from the project, potential impacts from increased road maintenance costs would be negligible; and this information has been added to the discussion in the FEIS.</p>	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to take a "hard look" at the costs associated with the damage to water resources. In an arid state where water is likely to become even scarcer due to the effects of global climate change, the economic value of water will increase, both in terms of its value as a commodity and its value as an economic driver. The DEIS fails entirely to quantify and analyze the costs associated with the Mine's water use.	SE-3; SE-18; SE-20; SE-47	Socioeconomics	<p>The predicted impacts on water supplies are adverse and significant, but will be compensated for through mitigation requirements of OSE. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p> <p>The project's effects on water supplies are not predicted to have direct, adverse economic impacts. The IMPLAN input-output model estimates the effects of spending for development activities and consumption spending of new residents and construction workers; the indirect effects of local vendors providing goods and services to the primary firms; and the induced impacts of employees of these firms spending a portion of their earnings in the local economy. Economic impacts are measured in terms of income and employment generated (or lost) due to the Proposed Action. The FEIS quantifies and analyzes the costs and benefits associated with the proposed mining activities, and considers its impact on economic drivers that could be impacted - like recreation and tourism, quality of life, and recreational values (See Section 3.22.2.1.6). However, just as the EIS does not present impacts in terms of the value of wildlife or clean air or cultural resources as commodities and their values as economic drivers. This type of analysis - known as an ecosystem services valuation - is neither common nor required in a socioeconomics impacts analysis under NEPA.</p>	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to take a "hard look" at the economic impacts and legal implications of a new source of surface water depletion to the Rio Grande Project. The United States and Texas have initiated litigation against New Mexico in the U.S. Supreme Court, alleging that New Mexico is permitting illegal and excessive groundwater pumping that is affecting the water supply of the Rio Grande Project. Texas is claiming that New Mexico has been under-delivering surface water to Texas, in violation of the Rio Grande Compact. Texas is claiming damages in excess of \$1 billion dollars.	WR-5; CI-13	Water Rights; Cumulative Impacts	<p>The outcomes of the referenced lawsuits are speculative and should not be used as a factor to determine the impacts of the Proposed Action and alternatives. Instead, it is within the authority of the OSE and not the BLM to apply relevant findings of these lawsuits in its consideration of a water use permit for the project.</p> <p>Further, in a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	NGO7_Environment Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to take a "hard look" at the social impacts of increased crime, drug abuse, prostitution, infectious diseases, including sexually transmitted diseases, and domestic violence associated with boom and bust extractive economies. These impacts will certainly impose increased costs on local law enforcement, jails, court systems and medical care facilities.	SE-21; SE-35	Socioeconomics	<p>Potential social impacts of a "boom and bust" economy are discussed in the "Community Cohesion" portion of Section 3.22.2.1.6 (Community Cohesion and Quality of Life). The introduction of a transient workforce population into an established community often changes the social functioning of that community, resulting in increases in the consumption of alcohol, illegal drugs, and misuse of prescription drugs. Subsequently, there may be increases in violence, crime, injury, chronic disease, and mental well-being associated with alcohol and substance misuse. The increases in alcohol and drug use arise from a combination of factors that include increased disposable income, changing family roles, and increased stress among local residents (Mucha 1978). If jobs and income increase social or economic disparity in a region, this could have adverse health impacts across the entire population. Impacts associated with boom and bust mining economies are further detailed in Section 3.23 (Environmental Justice).</p> <p>Section 3.22.1.5.3.1 (Schools) describes total enrollment, functional capacity, number of classrooms, and student-to-teacher ratio for the schools in the Truth or Consequences School District. The "Schools" portion of Section 3.22.2.1.5 (Community Services) evaluates potential impacts to schools based on the number of children enrolled under the age of 5 years and a projected increase in enrollment at a rate of 2.4 percent per year on average. It is noted that the Truth or Consequences Elementary School is expected to be over capacity starting in the sixth year of operation of the proposed project, and that other elementary schools could accommodate the projected increase in enrollment.</p> <p>Section 3.22.1.5.2 (Health Services) describes the type, size, and capacity of the Sierra Vista Hospital as well as other healthcare facilities in Sierra County. The Health Services portion of Section 3.22.2.1.5 (Community Services) evaluates the potential impacts to medical services, the staffed bed-to-person ratio, and access in an emergency situation – concluding that "given that Sierra County is a health professional shortage area, any increase in population would further strain the existing medical services. Increased tax revenues could facilitate existing staff and hiring new staff at publicly funded medical facilities."</p> <p>The potential impacts to law enforcement, health services, and schools are discussed in Section 3.22.1.5 (Community Services).</p>	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS is fundamentally biased toward the mine by ignoring the economic role that the landscape amenities of Sierra County and Southwestern New Mexico play in supporting local economic wellbeing and vitality.	SE-42	Socioeconomics	<p>Section 3.22.1.6.2 (Recreation and Tourism), 3.22.1.6.3 (Quality of Life and Recreational Amenities), and 3.22.2.1.6 (Community Cohesion and Quality of Life/Recreation and Tourism and Quality of Life and Recreational Values) consider the economic role that landscape amenities in Sierra County and southwestern New Mexico play in supporting local economic wellbeing and vitality.</p>	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS is fundamentally biased toward the mine by treating landscape amenities and their degradation as primarily cultural, social or aesthetic problems with no significant economic implications.	SE-42; SE-47	Socioeconomics	<p>The FEIS quantifies and analyzes the costs and benefits associated with the proposed mining activities, and considers its impact on economic drivers that could be impacted – like recreation and tourism, quality of life, and recreational values (See Section 3.22.2.1.6). Section 3.22.1.6.2 (Recreation and Tourism), 3.22.1.6.3 (Quality of Life and Recreational Amenities), and 3.22.2.1.6 (Community Cohesion and Quality of Life/Recreation and Tourism and Quality of Life and Recreational Values) consider the economic implications to landscape amenities.</p> <p>However, the EIS does not quantify the economic impacts to landscape amenities because this type of analysis – known as an ecosystem services valuation – is neither common nor required in a socioeconomics impacts analysis under NEPA.</p>	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS is fundamentally biased toward the mine by relying uncritically on economic impact modeling funded by NMCC.	SE-4; SE-48	Socioeconomics	<p>NMCC did commission an economic report from the Arrowhead Center (NM State University) in 2012, however, neither the model nor the results of this report were used in the EIS. The economic impact modeling in the EIS was conducted independently and objectively by the EIS preparer under the technical direction of BLM. The assumptions, inputs, and design of the model were different than those of the Arrowhead Center's economic model; overall the model used in the EIS resulted in lower economic benefits. An appendix has been included in the EIS to explain the inputs and outputs of the economic model.</p>	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS is fundamentally biased toward the mine. It exaggerates local economic impacts of the construction phase of the Mine for Sierra County by assuming that most of the supplies needed to operate the Mine will be produced by and purchased from local business firms.	SE-49	Socioeconomics	<p>The DEIS does not assume that most of the supplies needed to operate the mine will be produced by and purchased from local business firms. As stated in the DEIS, "Equipment and materials would be procured locally to the extent possible, but specialized equipment and materials required for copper mining are not available locally. Such items would be shipped from other areas. The economic analysis completed by NMCC and tax consultants for the feasibility study indicates that approximately 15 percent of construction phase costs, or approximately \$55 million, would be spent in Sierra County (NMCC 2014c). The IMPLAN model is adjusted to capture costs that would be spent in Sierra County during the construction phase."</p>	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS is fundamentally biased toward the mine by stating that closure of the Mine is not anticipated. The DEIS fails to consider one of the primary economic costs associated with metal mining – the instability and disruption it brings to local employment and payroll. The net result is to exaggerate the local economic benefits by assuming they will be more stable than can reasonably be expected.	SCOPE-1; SE-46	Scope of the DEIS; Socioeconomics	<p>The duration of the Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The purpose of the FEIS is to evaluate the potential impacts from the alternatives, and evaluating the potential impacts from unknown variations of the alternatives is outside the scope of the EIS.</p>	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS is fundamentally biased toward the mine. The DEIS grossly understates the size of the visitor economy that can be negatively impacted by the Mine.	SE-50	Socioeconomics	<p>Annual visitation and revenue at State parks and national forests in Sierra County are presented in Table 3-70 in Section 3.22.1.6.2. This data was provided by the agency that manages the state parks or national forests in Sierra County, or New Mexico Energy, Minerals, and Natural Resources Department and the United States Forest Service (respectively). The size of the visitor economy is based on the best available data, and the commenter does not provide supporting documentation or evidence that indicates otherwise.</p>	NGO7_Environmenta l Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS is fundamentally biased toward the mine, such as that the DEIS confidently predicts the level of copper production and its impacts on employment and payroll 11-16 years into the future in its positive economic impacts analysis. The BLM is willing to speculate on the positive impacts of the Mine, but dismisses the potential negative impacts because they might be speculative or difficult to predict or quantify. This clearly represents a bias that emphasizes positive economic impacts while dismissing negative economic impacts.	SE-46	Socioeconomics	The duration of the Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The purpose of the FEIS is to evaluate the potential impacts from the alternatives, and evaluating the potential impacts from unknown variations of the alternatives is outside the scope of the EIS.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to provide meaningful consideration of the Mine's environmental justice impacts on the people of Sierra County, a recognized environmental justice community. Though Table ES-3 "Summary of Impacts" identifies environmental justice impacts as significant under Alternatives 1 and 2, "it does not appear that BLM took the necessary measures to identify each EJ community nor identify the impact totality as required by Executive Order 12898." The DEIS has failed to provide the public with any supporting documentation that adequately supports its environmental justice analysis.	EJ-4; EJ-2	Environmental Justice	The FEIS identifies environmental justice communities within, near, and adjacent to the proposed project, pursuant to Executive Order 12898. The affected environment first considers minority and low-income populations in Truth or Consequences and Sierra County, and compares them to minority and low-income populations in the state (see Table 3-84, Summary of Minorities and Minority Population Groups and Table 3-86, Summary of Economic Characteristics). Pursuant to CEQ's guidance and due to the site-specific nature of the proposed mine, CT data is then used to identify high concentration "pockets" of minority and low-income populations and describe the distribution of these populations (respectively) in the vicinity of the proposed mine. Table 3-85, Minority Percentages and Populations by Census Tract, and Table 3-87, Population Below Poverty Level by Census Tract, provide the total population of each census tract (CT) surrounding CT 9624.02 (the proposed mine is located in CT 9624.02), and an estimate of the minority and low-income population by census tract, respectively. The "aggregate of surrounding CTs" in Tables 3-85 and 3-87 is the sum of the minority and low-income populations divided by the sum of the total populations of the CTs surrounding CT 9624.02. Sierra County, including Truth or Consequences, is identified as an environmental justice population due to high poverty levels coupled with low median household income levels (see Tables 3-86 and 3-87 and Figure 3-50). The environmental consequences section (3.23) analyzes potential impacts to this environmental justice population in terms of employment opportunities, potential health impacts as related to air and water quality, recreation, transportation and traffic; and supports conclusions made in Table ES-3. Short-term, beneficial impacts that would be felt most by local workers in search of a job as well as adverse impacts commonly associated with "boom" periods are described in the "Employment Opportunities" portion of the Mine Development/Operation phase (Section 3.23.2.1.2). This portion of the analysis also addresses how the boom and bust cycle can more heavily impact low-income populations that have become dependent on the mining boom economy and that find it difficult to maintain the same standard of living and quality of life after the boom ends. All research to support this analysis is referenced in-text.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	BLM fails to adequately analyze cumulative impacts (including related and consequential actions) throughout the DEIS. First, the DEIS fails to identify all projects in the region and to reasonably discuss the actual impacts from these projects. The DEIS merely lists some nearby projects, notes that they will result in cumulative impacts along with the Mine to various resources, and provides a cursory mention of impacts. Second, the DEIS fails to provide the "quantified assessment" of the impacts from these activities, as required by NEPA.	CI-6	Cumulative impacts	Cumulative Impacts of the Proposed Action and alternatives are discussed in Section 4.0, Cumulative Impacts, and were written in compliance with BLM guidance. The BLM believes that the cumulative impacts assessment for all resource categories is either sufficient as presented in the DEIS or has been made so in the FEIS with specific input from the public comment process.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	BLM must either revise or supplement the DEIS with an analysis addressing the Mine's cumulative impacts to the administration of the Rio Grande Compact, the Mine's need for new high voltage lines to be brought up from Caballo dam to meet its energy needs; and the Mine's immediate and long-term impacts upon existing public road infrastructure (secondary roads, primary roads and interstate highways) already in need of repairs, maintenance and upgrading.	CI-6	Cumulative impacts	Cumulative Impacts of the Proposed Action and alternatives are discussed in Section 4.0, Cumulative Impacts, and were written in compliance with BLM guidance. The BLM believes that the cumulative impacts assessment for other resource categories is either sufficient as presented in the DEIS or has been made so in the FEIS with specific input from the public comment process.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze mitigation measures for the Mine's impacts, such as the Mine's impacts to air quality on Ladder and surrounding areas. For an adequate analysis to occur, Ladder must be identified as a receptor location for a dispersion model relied upon by the DEIS. BLM must either revise or supplement the DEIS to include an adequate analysis of mitigation measures and their effectiveness for impacts to air quality on Ladder Ranch.	AQ-10	Air Quality	The dispersion modeling was performed to include all receptors within the area of effect. Contours of equal concentration are shown for each pollutant. No receptors were identified that would have concentrations greater than the ambient air quality standards. A discussion of BMPs and reductions by design is presented in Section 3.2.2.1.1.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze mitigation measures for the Mine's climate change impacts. Page 2-25 of the DEIS states, "NMCC is analyzing the viability of solar power generation to partially offset the mine's energy demand along with other energy and water conservation measures," indicating that this study has yet to be completed. The BLM must either revise or supplement the DEIS with this analysis.	CC-4	Climate Change and Sustainability	This statement has been removed from the FEIS.	NGO7_Environment Law Center

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze mitigation measures for the Mine's climate change impacts, including to use conveyors rather than haul trucks where possible, e.g., for transporting ore to processing areas.	CC-4	Climate Change and Sustainability	CEQ's Final Guidance on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews (August 2016), which directed agencies to commit to implementation of reasonable mitigation measures to reduce or eliminate project-related GHG emissions, has been withdrawn for further consideration, (March 2017). Operators are required to reduce emissions of hazardous and criteria pollutants including volatile organic compounds (VOCs) as well as methane in accordance with Federal, State, and local rules and regulations. Because the controls to reduce VOCs can also reduce methane, mitigation for methane as a GHG would be in accordance with current federal rules and regulations. Although there are no active regulations that would require GHG mitigations for the proposed project, NMCC has identified in its air permit an array of monitoring and compliance measures that would be taken, which do involve measures related to the minimization of GHG emissions.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze mitigation measures for the Mine's climate change impacts, including to incorporate alternative energy components into the project such as on-site distributed generation systems, solar thermal hot water heating, etc.	CC-4	Climate Change and Sustainability	CEQ's Final Guidance on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews (August 2016), which directed agencies to commit to implementation of reasonable mitigation measures to reduce or eliminate project-related GHG emissions, has been withdrawn for further consideration, (March 2017). Operators are required to reduce emissions of hazardous and criteria pollutants including volatile organic compounds (VOCs) as well as methane in accordance with Federal, State, and local rules and regulations. Because the controls to reduce VOCs can also reduce methane, mitigation for methane as a GHG would be in accordance with current federal rules and regulations. Although there are no active regulations that would require GHG mitigations for the proposed project, NMCC has identified in its air permit an array of monitoring and compliance measures that would be taken, which do involve measures related to the minimization of GHG emissions.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze mitigation measures for the Mine's climate change impacts.	CC-4	Climate Change and Sustainability	CEQ's Final Guidance on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews (August 2016), which directed agencies to commit to implementation of reasonable mitigation measures to reduce or eliminate project-related GHG emissions, has been withdrawn for further consideration, (March 2017). Operators are required to reduce emissions of hazardous and criteria pollutants including volatile organic compounds (VOCs) as well as methane in accordance with Federal, State, and local rules and regulations. Because the controls to reduce VOCs can also reduce methane, mitigation for methane as a GHG would be in accordance with current federal rules and regulations. Although there are no active regulations that would require GHG mitigations for the proposed project, NMCC has identified in its air permit an array of monitoring and compliance measures that would be taken, which do involve measures related to the minimization of GHG emissions.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze mitigation measures for the Mine's climate change impacts, including to incorporate recovery and reuse, leak detection, pollution control devices, maintenance of equipment, product substitution and reduction in quantity used or generated.	CC-4	Climate Change and Sustainability	CEQ's Final Guidance on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews (August 2016), which directed agencies to commit to implementation of reasonable mitigation measures to reduce or eliminate project-related GHG emissions, has been withdrawn for further consideration, (March 2017). Operators are required to reduce emissions of hazardous and criteria pollutants including volatile organic compounds (VOCs) as well as methane in accordance with Federal, State, and local rules and regulations. Because the controls to reduce VOCs can also reduce methane, mitigation for methane as a GHG would be in accordance with current federal rules and regulations. Although there are no active regulations that would require GHG mitigations for the proposed project, NMCC has identified in its air permit an array of monitoring and compliance measures that would be taken, which do involve measures related to the minimization of GHG emissions.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze mitigation measures for the Mine's climate change impacts, including the use of alternative transportation fuels, electric vehicles, etc., during construction and operation if applicable.	CC-4	Climate Change and Sustainability	CEQ's Final Guidance on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews (August 2016), which directed agencies to commit to implementation of reasonable mitigation measures to reduce or eliminate project-related GHG emissions, has been withdrawn for further consideration, (March 2017). Operators are required to reduce emissions of hazardous and criteria pollutants including volatile organic compounds (VOCs) as well as methane in accordance with Federal, State, and local rules and regulations. Because the controls to reduce VOCs can also reduce methane, mitigation for methane as a GHG would be in accordance with current federal rules and regulations. Although there are no active regulations that would require GHG mitigations for the proposed project, NMCC has identified in its air permit an array of monitoring and compliance measures that would be taken, which do involve measures related to the minimization of GHG emissions.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze mitigation measures for the Mine's climate change impacts, including to commit to using high efficiency diesel particulate filters on new and existing diesel engines to provide nearly 99.9% reductions of black carbon emissions.	CC-4	Climate Change and Sustainability	CEQ's Final Guidance on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews (August 2016), which directed agencies to commit to implementation of reasonable mitigation measures to reduce or eliminate project-related GHG emissions, has been withdrawn for further consideration, (March 2017). Operators are required to reduce emissions of hazardous and criteria pollutants including volatile organic compounds (VOCs) as well as methane in accordance with Federal, State, and local rules and regulations. Because the controls to reduce VOCs can also reduce methane, mitigation for methane as a GHG would be in accordance with current federal rules and regulations. Although there are no active regulations that would require GHG mitigations for the proposed project, NMCC has identified in its air permit an array of monitoring and compliance measures that would be taken, which do involve measures related to the minimization of GHG emissions.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze mitigation measures for the impacts of waste rock dumps. Consider mitigation measures for alternative cover designs, such as an engineered cover with geomembrane and capillary break resulting in zero infiltration.	GW-12	Groundwater Resources	Section 2.1.15.6, Environmental Considerations for Reclamation, states "Acid Rock Drainage (ARD): Partially oxidized transitional waste rock would be managed and reclaimed to alleviate potential ARD. The transitional waste rock may be segregated and placed in the west and north waste rock disposal areas. The exact method of disposal and possible segregation would be determined through the current geochemical testing program and the development of a material handling plan." This material handling plan will be developed and in place, in accordance with all Federal and State laws and regulations, prior to the reclamation of the mine. The BLM will require the development of this plan and the FEIS and ROD will stipulate its development.	NGO7_Environm ental Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze mitigation measures for the impacts of waste rock dumps. It merely states that the dry climate would prevent acid mine drainage from reaching ground or surface water. DEIS 3-39. Consider mitigation measures to limit infiltration of water and oxygen based on results at other similar mine sites in New Mexico, such as the Chino and Tyrone Mines.	GW-12	Groundwater Resources	Section 2.1.15.6, Environmental Considerations for Reclamation, states "Acid Rock Drainage (ARD): Partially oxidized transitional waste rock would be managed and reclaimed to alleviate potential ARD. The transitional waste rock may be segregated and placed in the west and north waste rock disposal areas. The exact method of disposal and possible segregation would be determined through the current geochemical testing program and the development of a material handling plan." This material handling plan will be developed and in place, in accordance with all Federal and State laws and regulations, prior to the reclamation of the mine. The BLM will require the development of this plan and the FEIS and ROD will stipulate its development.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze mitigation measures for the impacts of waste rock dumps. It merely states that the dry climate would prevent acid mine drainage from reaching ground or surface water. DEIS 3-39. Consider mitigation measures to include a geomembrane liner or similar system to collect and manage seepage under the waste rock.	GW-12	Groundwater Resources	Section 2.1.15.6, Environmental Considerations for Reclamation, states "Acid Rock Drainage (ARD): Partially oxidized transitional waste rock would be managed and reclaimed to alleviate potential ARD. The transitional waste rock may be segregated and placed in the west and north waste rock disposal areas. The exact method of disposal and possible segregation would be determined through the current geochemical testing program and the development of a material handling plan." This material handling plan will be developed and in place, in accordance with all Federal and State laws and regulations, prior to the reclamation of the mine. The BLM will require the development of this plan and the FEIS and ROD will stipulate its development.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS errs by not discussing the plans for LAD. The DEIS neither discloses where the LAD site would be, nor presents data regarding the ability of the soils to accept the excess tailings water.	WQ-27	Water Quality	Land application of wastewater that contains pollutants in concentrations above groundwater quality standards in 20.6.2.3103 NMAC must be in compliance with a groundwater discharge permit issued by the NMED. Section 2.1.7.2 of the EIS states that the mine will have a discharge permit.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	An analysis of the proposed [TSF] liner's long-term effectiveness and long-term compatibility with the tailings material be provided. A revised or supplemental DEIS should include information on how the proposed liner design will conform with New Mexico law (20.6.7.22(4) NMAC) and address why the proposed liner was chosen over a less leak-prone design, such as a double liner with a leak collection and recovery system.	WQ-28	Water Quality	The mitigation measures for water quality are described in detail within the subsections of Section 3.4.2 for the Proposed Action and each alternative. The BLM believes these measures are adequate and comply with the requirements of NEPA.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to discuss the most current standards relative to reduction of catastrophic risks from TSF dam collapse, which have been summarized in the findings of the Mt. Polley Mine Expert Panel, to include a probabilistic and deterministic seismic evaluation for the area.	SW-5	Surface Water Resources	A permit would be obtained from the OSE for the construction and operation of the TSF dam. The dam would be constructed in accordance with OSE permitting requirements and standard practices. All considerations regarding dam design would require approval by the OSE Dam Safety Bureau.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to discuss the most current standards relative to reduction of catastrophic risks from TSF dam collapse, which have been summarized in the findings of the Mt. Polley Mine Expert Panel, to include a dam breach analysis, a failure modes and effects analysis or other appropriate detailed risk assessment, and an observational method plan addressing residual risk.	SW-5	Surface Water Resources	A permit would be obtained from the OSE for the construction and operation of the TSF dam. The dam would be constructed in accordance with OSE permitting requirements and standard practices. All considerations regarding dam design would require approval by the OSE Dam Safety Bureau.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to discuss the most current standards relative to reduction of catastrophic risks from TSF dam collapse, which have been summarized in the findings of the Mt. Polley Mine Expert Panel, to include a description of the chemical and physical properties of the materials and process solutions to be stored in the TSF.	SW-5	Surface Water Resources	A permit would be obtained from the OSE for the construction and operation of the TSF dam. The dam would be constructed in accordance with OSE permitting requirements and standard practices. All considerations regarding dam design would require approval by the OSE Dam Safety Bureau.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to discuss the most current standards relative to reduction of catastrophic risks from TSF dam collapse, which have been summarized in the findings of the Mt. Polley Mine Expert Panel, to include a list of the assumptions used during the analysis and design of the facility and a description justifying the validity of each assumption.	SW-5	Surface Water Resources	A permit would be obtained from the OSE for the construction and operation of the TSF dam. The dam would be constructed in accordance with OSE permitting requirements and standard practices. All considerations regarding dam design would require approval by the OSE Dam Safety Bureau.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to discuss the most current standards relative to reduction of catastrophic risks from TSF dam collapse, which have been summarized in the findings of the Mt. Polley Mine Expert Panel, to include a description of proposed risk management measures for each facility life-cycle stage, including construction, operation and closure.	SW-5	Surface Water Resources	A permit would be obtained from the OSE for the construction and operation of the TSF dam. The dam would be constructed in accordance with OSE permitting requirements and standard practices. All considerations regarding dam design would require approval by the OSE Dam Safety Bureau.	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to discuss the most current standards relative to reduction of catastrophic risks from TSF dam collapse, which have been summarized in the findings of the Mt. Polley Mine Expert Panel, to include a detailed description of how water, seepage, and process solutions are to be routed or managed during construction, operation and closure.	SW-5	Surface Water Resources	A permit would be obtained from the OSE for the construction and operation of the TSF dam. The dam would be constructed in accordance with OSE permitting requirements and standard practices. All considerations regarding dam design would require approval by the OSE Dam Safety Bureau.	NGO7_Environm ental Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to discuss the most current standards relative to reduction of catastrophic risks from TSF dam collapse, which have been summarized in the findings of the Mt. Polley Mine Expert Panel, to include a detailed description of storm water controls, including diversions, storage, freeboard, and how extreme storm events will be managed.	SW-5	Surface Water Resources	A permit would be obtained from the OSE for the construction and operation of the TSF dam. The dam would be constructed in accordance with OSE permitting requirements and standard practices. All considerations regarding dam design would require approval by the OSE Dam Safety Bureau.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to discuss the most current standards relative to reduction of catastrophic risks from TSF dam collapse, which have been summarized in the findings of the Mt. Polley Mine Expert Panel, to include a flood event design criterion less than the probable maximum flood but greater than the 1-in-500 year, 24-hour event.	SW-5	Surface Water Resources	A permit would be obtained from the OSE for the construction and operation of the TSF dam. The dam would be constructed in accordance with OSE permitting requirements and standard practices. All considerations regarding dam design would require approval by the OSE Dam Safety Bureau.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to discuss the most current standards relative to reduction of catastrophic risks from TSF dam collapse, which have been summarized in the findings of the Mt. Polley Mine Expert Panel, to include utilization of an Independent Review Panel to ensure the TSF design plans satisfy best available technology ("BAT").	SW-5	Surface Water Resources	A permit would be obtained from the OSE for the construction and operation of the TSF dam. The dam would be constructed in accordance with OSE permitting requirements and standard practices. All considerations regarding dam design would require approval by the OSE Dam Safety Bureau.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	BLM is essentially allowing NMCC to develop mitigation measures for pit lake water quality just one year before closure (avoiding public review). Regardless of the uncertainties inherent with pit lake water quality predictions, BLM must require plans and bonding for mitigation before approving any mining at the site.	WQ-28	Water Quality	The mitigation measures for water quality are described in detail within the subsections of Section 3.4.2 for the Proposed Action and each alternative. The BLM believes these measures are adequate and comply with the requirements of NEPA.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS is incorrect in stating that rapidly pumping the pit lake full would create a steady state hydraulic sink. DEIS 3-34. The lake will initially be higher than surrounding groundwater, which will cause pit lake water to flow from the pit into the surrounding groundwater. Seepage discharge from the rapidly formed pit lake can degrade the surrounding groundwater. The DEIS fails to present groundwater modeling results to estimate the potential for pit lake water to enter the groundwater.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The groundwater model assumes a 1000-ft thick model layer near the pit, which does not allow predictions of inflow from areas with different reactivity. BLM must acknowledge that any such prediction is highly dependent on near-pit conductivity and recharge estimates, and can be quite inaccurate.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Backfilling the pit is the only mitigation that will prevent long term pit lake water quality problems and allow the drawdown cone around the pit to recover. However, the DEIS fails to disclose backfilling's obvious advantages. DEIS Chapter 2 mentions twice there is no plan to backfill the pit, and fails to consider it under any of the action alternatives. Backfilling would cost more, but the environmental benefits could make the plan worthwhile.	WQ-28	Water Quality	The mitigation measures for water quality are described in detail within the subsections of Section 3.4.2 for the Proposed Action and each alternative. The BLM believes these measures are adequate and comply with the requirements of NEPA.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The 30-year time period for postmining compliance with water quality standards for the pit lake and for the funding mechanism for implementation of the pit lake water quality management plan is inadequate. BLM should require the MPO to include post-mining monitoring and implementation of the pit lake water quality management plan for a minimum of 100 years.	WQ-28	Water Quality	The mitigation measures for water quality are described in detail within the subsections of Section 3.4.2 for the Proposed Action and each alternative. The BLM believes these measures are adequate and comply with the requirements of NEPA.	NGO7_Environmenta l Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	In addressing the Mine's impacts to migratory birds, the DEIS merely provides that "NMCC would investigate and utilize other mitigation actions, such as exclusionary devices. These devices include, but are not necessarily limited to, bird balls and netting to minimize the potential for avian wildlife contacting process pond waters that contain elevated chemical constituents in excess of ecological risk levels." DEIS 3- 139. There is no discussion of the Migratory Bird Treaty Act ("MBTA"), or how these mitigation measures will be implemented and how effective these measures will be.	WL-5; T&E-1	Wildlife; Threatened, Endangered, and Special Status Species	<p>The BLM has formally consulted with the USFWS under the ESA and has prepared a Biological Assessment (BA) that evaluates the potential for the Copper Flat Mine project to jeopardize migratory birds. The consultation findings and proposed mitigation measures are described in detail in the BA. BLM and NMCC are committed to mitigating pit lake water contamination after mine operations are completed and the pit lake has once again filled with water, to ensure that the water quality is similar to water quality of the existing pit lake that remains after mining ceased in the 1980s. The baseline data report for the project identified four species of birds using the pit lake habitat and also identified riparian vegetation in the fringes of the pit lake consisting of a small cattail marsh (<0.1 ac) and intermittent salt cedar, an invasive species. A 2014 survey of the pit lake concluded that there are no fish, zooplankton, or macroinvertebrates in the pit lake.</p> <p>In the absence of EPA water quality criteria for selenium applicable to aquatic dependent wildlife and the scarcity of quality food sources (fish, aquatic vegetation, zooplankton, and macroinvertebrates) that would biomagnify higher levels of selenium, the BLM observes that the potential for bioaccumulation of selenium and selenium poisoning, selenosis, is very low. The presence of insect-eating birds at the existing pit lake at a point in time 35 years after the lake began refilling and establishing the water quality baseline for the lake suggests that existing water quality levels in the pit lake are not exclusionary for these species. The pit lake is likely a resting or transitory area for these species rather than a feeding area. The EIS (affected environment section and wildlife impacts section) has been revised to better describe the pit lake with respect to wildlife and habitat.</p>	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	NMCC has admitted that it anticipates or foresees migratory birds contacting "process pond waters that contain elevated chemical constituents in excess of ecological risk levels" (DEIS 3-1 39), which is likely to result in a "taking" under the MBTA if adequate mitigation measures are not conducted by NMCC.	WL-5; T&E-1	Wildlife; Threatened, Endangered, and Special Status Species	<p>The BLM has formally consulted with the USFWS under the ESA and has prepared a Biological Assessment (BA) that evaluates the potential for the Copper Flat Mine project to jeopardize migratory birds. The consultation findings and proposed mitigation measures are described in detail in the BA. BLM and NMCC are committed to mitigating pit lake water contamination after mine operations are completed and the pit lake has once again filled with water, to ensure that the water quality is similar to water quality of the existing pit lake that remains after mining ceased in the 1980s. The baseline data report for the project identified four species of birds using the pit lake habitat and also identified riparian vegetation in the fringes of the pit lake consisting of a small cattail marsh (<0.1 ac) and intermittent salt cedar, an invasive species. A 2014 survey of the pit lake concluded that there are no fish, zooplankton, or macroinvertebrates in the pit lake.</p> <p>In the absence of EPA water quality criteria for selenium applicable to aquatic dependent wildlife and the scarcity of quality food sources (fish, aquatic vegetation, zooplankton, and macroinvertebrates) that would biomagnify higher levels of selenium, the BLM observes that the potential for bioaccumulation of selenium and selenium poisoning, selenosis, is very low. The presence of insect-eating birds at the existing pit lake at a point in time 35 years after the lake began refilling and establishing the water quality baseline for the lake suggests that existing water quality levels in the pit lake are not exclusionary for these species. The pit lake is likely a resting or transitory area for these species rather than a feeding area. The EIS (affected environment section and wildlife impacts section) has been revised to better describe the pit lake with respect to wildlife and habitat.</p>	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to identify mitigation measures for the Mine's impacts on the night sky, particularly measures pertaining to migratory birds relying on dark skies for navigation.	WL-5; T&E-1	Wildlife; Threatened, Endangered, and Special Status Species	A summary of New Mexico's Night Sky Protection Act (1978) has been added to Section 3.14.1 of the FEIS. All lighting associated with mining is listed under the Act as an exemption. The nearest Dark Sky area designated by the International Dark Sky Places program is over 150 miles away from the mine. This information is summarized in Section 3.14.2 of the FEIS. Further analysis on night skies is not required.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	In addressing the Mine's impacts to livestock, the DEIS simply states that, "NMCC would construct ELM-approved wire fencing to prevent livestock from entering the pit, WRDFs, and TSF. Fences of appropriate height would be constructed around water and solution ponds to keep out larger wildlife such as deer and antelope." DEIS 2-32 (emphasis added). This fails to address preventing bison from entering the pit, WRDFs, and TSF. As previously stated, Ladder is engaged in bison production and sales, which is the Ranch's primary source of income.	WL-5; T&E-1	Wildlife; Threatened, Endangered, and Special Status Species	Provisions for preventing bison from entering the pit, WRDFs, and TSF have been added to the FEIS.	NGO7_Environment Law Center

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS admits that a mitigation measures analysis for impacts to federally-listed (threatened or endangered) species has not yet been completed. DEIS 3-160. This is a clear violation of NEPA's requirements. 40 C.F.R. Part § 1502.25. BLM may not complete this analysis after the issuance of a DEIS.	WL-5; T&E-1	Wildlife; Threatened, Endangered, and Special Status Species	<p>See the full response to T&E-1 in the Comment Categories and Responses (CCR) document that is too long to be displayed in this CRM cell. The BLM has formally consulted with the USFWS under the ESA and has prepared a Biological Assessment (BA) that evaluates the potential for the Copper Flat Mine project to jeopardize the Mexican gray wolf, Chiricahua leopard frog, and Bolson tortoise, as well as migratory birds, including the potential for impacts to those species at the Ladder Ranch. The consultation findings and proposed mitigation measures are described in detail in the BA and summarized in the Threatened and Endangered Species section of this Final EIS. A brief synopsis of the BA findings is as follows:</p> <p>Mexican Gray Wolf: Noise and ground vibrations from blasting at the mine site were evaluated for their potential to adversely affect the Mexican gray wolf in its holding facility 3.5 miles (18,480 ft.) from the mine site. As discussed in detail in the BA, noise at the blast site would reach 130 to 140 dBP (peak pressure of impact noises like blasting) but diminish to 115 dBP within 2,344 ft. The unimpeded straight-line dBP would be diminished 6 dBP for each doubling of distance and by the time the sound reached the wolves 18,480 ft. away it would be 18 dBP less, or less than 100 dBP, which is the noise of a passing motorcycle. However, this is a straight-line calculation. In fact, the mine blasts would primarily be contained within the mine pit itself, which is in a topographic bowl surrounded by ridges, so the straight-line calculated sound levels would apply only to points directly above the mine pit. The actual sound at the wolf holding facility would be greatly attenuated by the intervening terrain.</p> <p>Blasting would occur within the excavated mine pit with charges placed in the pit walls well below the ground surface level of the larger mine site area so that the sound will project primarily horizontally into the center of the mine pit and vertically above the pit, thus containing and diminishing the highest sound levels. The mine site is located within a flat topographic bowl surrounded by higher elevation ridges including Animas Peak that would further intercept and diminish sound waves similar to the effect of roadside sound barriers on traffic noise. Wolves hear well up to a frequency of 25 kHz. Some researchers believe that the actual maximum frequency detected by wolves is much higher, perhaps up to 80 kHz (the upper auditory limit for humans is 20 kHz). Low frequency noise carries greater distances than high frequency noise from the same source. Blast overpressure generally produces low frequency air overpressure of 2 Hz. Humans detect noise in the range of 20 Hz to 20 kHz, but little is known specifically about wolves' sensitivity to low frequencies. Dogs' hearing, likely similar to wolves, is attuned to a wider, higher frequency range than that of humans (67 Hz – 45 kHz), so it is likely that the airborne noise impacts from the low-frequency blasts would not be perceived with the higher-frequency-attuned wolves.</p>	NGO7_Environm ental Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to analyze water use, noise and vibrations, transportation and night sky impacts to recreational users and wildlife - all of which impact recreation. Without an adequate analysis of the Mine's direct and indirect recreation impacts there cannot be an adequate mitigation measures analysis.	REC-5	Recreation	<p>As described in Section 3.16.2.1.1, impacts to recreation due to increased noise caused by drilling associated with mine construction and operation along this route are anticipated to be minor and long-term. Noise from the mine equipment would comply with and would be regulated under MSHA regulations. Mufflers and other noise abatement equipment would be installed where applicable at the mine. However, even with implementation of these measures, the level of noise within the project footprint would increase under the Proposed Action. This would impact recreationists' experience during use of the public land within and immediately adjacent to the project footprint (such as on Ladder Ranch) by hikers and backpackers on non-designated trails or those utilizing Ladder Ranch's ecotourism program. Impacts from noise associated with construction and operation of the mine is discussed in greater detail in Section 3.21, Noise and Vibrations. A summary of New Mexico's Night Sky Protection Act (1978) has been added to Section 3.14.1 of the FEIS. All lighting associated with mining is listed under the Act as an exemption. The nearest Dark Sky area designated by the International Dark Sky Places program is over 1500 miles away from the mine. This information is summarized in Section 3.14.2 of the FEIS. Further analysis on night skies is not required. Where traffic from the project is concerned, the traffic increase would primarily be during shift change for the mine. This increase in the worse condition considered would be a LOS rating of C which by definition is a stable flow, and therefore would be less than a significant impact.</p> <p>Regarding water use impacts on recreation, in a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease. Thus, water use would not impact the experience of recreational users of water bodies in the general project vicinity.</p>	NGO7_Environm ental Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS clearly fails to adequately identify and analyze mitigation measures for the Mine's transportation impacts. The DEIS fails to discuss NMCC's obligations or ability to finance such mitigation. NMCC should be required to pay for all transportation mitigation measures required by NMDOT in connection with NM-152, as well as mitigation measures for other Sierra County and New Mexico state roads. Clarification is needed for "how the transportation and traffic impacts will be addressed" and to "identify any committed mitigation."	TR-5	Transportation and Traffic	<p>The DEIS addresses transportation and traffic impacts for the Proposed Action and each of the alternatives in Section 3.20, Transportation and Traffic. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:</p> <p>a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.</p> <p>b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.</p> <p>c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.</p> <p>d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.</p> <p>In discussions, NMDOT has not requested or stated a need for paved shoulders on NM 152. NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.</p> <p>Additionally, NMCC would maintain Gold Dust Road during mining operations as necessary to keep it in good condition. While there is no formal agreement in place with Sierra County, it is expected that after mine closure, Gold Dust Road would revert to County maintenance as it stands today.</p> <p><u>The FEIS has been amended to include the above discussion</u></p>	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to identify mitigation measures for noise from vehicles and mining equipment and operations not involving explosive devices, to reduce noise frequency and impulse noise at the source of generation, reduce noise duration, and reduce noise sound pressure levels.	NOI-12	Noise and Vibrations	The level of effects from noise would be minor - and no mitigation measures would be required. All equipment would be maintained in good working order with factory installed mufflers. All blasting would be confined to daytime hours.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to identify and analyze mitigation measures for the Mine's impacts to the night sky. BLM should include in its analysis the following necessary mitigation measure: employ 21st century light sources (light emitting diodes or LED, induction, organic LED, and plasma) and on-demand lighting and adaptive lighting.	REC-5, VIS-4	Recreation; Visual Resources	A summary of New Mexico's Night Sky Protection Act (1978) has been added to Section 3.14.1 of the FEIS. All lighting associated with mining is listed under the Act as an exemption. The nearest Dark Sky area designated by the International Dark Sky Places program is over 150 miles away from the mine. This information is summarized in Section 3.14.2 of the FEIS. Further analysis on night skies is not required.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to identify and analyze mitigation measures for the Mine's impacts to the night sky. BLM should include in its analysis the following necessary mitigation measure: Employ very well shielded and aimed light sources.	REC-5, VIS-4	Recreation; Visual Resources	A summary of New Mexico's Night Sky Protection Act (1978) has been added to Section 3.14.1 of the FEIS. All lighting associated with mining is listed under the Act as an exemption. The nearest Dark Sky area designated by the International Dark Sky Places program is over 150 miles away from the mine. This information is summarized in Section 3.14.2 of the FEIS. Further analysis on night skies is not required.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to identify and analyze mitigation measures for the Mine's impacts to the night sky. BLM should include in its analysis the following necessary mitigation measure: Employ spectral control eliminating aqua, blue and violet emissions to preserve conditions that are more favorable to astronomical observations.	REC-5, VIS-4	Recreation; Visual Resources	A summary of New Mexico's Night Sky Protection Act (1978) has been added to Section 3.14.1 of the FEIS. All lighting associated with mining is listed under the Act as an exemption. The nearest Dark Sky area designated by the International Dark Sky Places program is over 150 miles away from the mine. This information is summarized in Section 3.14.2 of the FEIS. Further analysis on night skies is not required.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to identify and analyze mitigation measures for the Mine's impacts to the night sky. BLM should include in its analysis the following necessary mitigation measure: Use the smallest necessary light source ("lumen package").	REC-5, VIS-4	Recreation; Visual Resources	A summary of New Mexico's Night Sky Protection Act (1978) has been added to Section 3.14.1 of the FEIS. All lighting associated with mining is listed under the Act as an exemption. The nearest Dark Sky area designated by the International Dark Sky Places program is over 150 miles away from the mine. This information is summarized in Section 3.14.2 of the FEIS. Further analysis on night skies is not required.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to identify and analyze mitigation measures for the Mine's impacts to the night sky. BLM should include in its analysis the following necessary mitigation measure: Address the environmental concerns of native flora and fauna.	REC-5, VIS-4	Recreation; Visual Resources	A summary of New Mexico's Night Sky Protection Act (1978) has been added to Section 3.14.1 of the FEIS. All lighting associated with mining is listed under the Act as an exemption. The nearest Dark Sky area designated by the International Dark Sky Places program is over 150 miles away from the mine. This information is summarized in Section 3.14.2 of the FEIS. Further analysis on night skies is not required.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to identify and analyze mitigation measures for the Mine's impacts to the night sky. BLM should include in its analysis the following necessary mitigation measure: Use solid-state lighting for vehicular-mounted task lighting.	REC-5, VIS-4	Recreation; Visual Resources	A summary of New Mexico's Night Sky Protection Act (1978) has been added to Section 3.14.1 of the FEIS. All lighting associated with mining is listed under the Act as an exemption. The nearest Dark Sky area designated by the International Dark Sky Places program is over 150 miles away from the mine. This information is summarized in Section 3.14.2 of the FEIS. Further analysis on night skies is not required.	NGO7_Environment Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to adequately analyze mitigation measures for the Mine's socioeconomic impacts. The DEIS fails to address the economic impacts from the Mine's reduction of the overall surface water supply available to Ladder and Sierra County residents and recreationists. It also fails to address the Mine's economic impacts to nearby irrigated lands. Such lands will dry up as the Mine attempts to provide replacement water to offset its impacts to area water resources, resulting in substantial economic losses. The DEIS also fails to address the economic impacts to New Mexico and its obligations under the Rio Grande Compact with Texas.	SE-18; SE-20	Socioeconomics	The predicted impacts on water supply are adverse and significant, but will be compensated for through mitigation requirements of OSE. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease. The project is not predicted to have effects on water supplies that would have adverse economic impacts. As such, the DEIS does not provide measures to mitigate an impact that would not occur.	NGO7_Environmentallawcenter
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to provide information required under BLM § 3809 regulations: The reclamation plan must include all reclamation, closure, and post-reclamation requirements needed to meet the performance standards described at 43 CFR 3809.420. (BLM § 3809 Handbook, p. 3-7)	PA-8; BLM-1; REG-18	Proposed Action; Bureau of Land Management; Regulatory Compliance	The BLM has reviewed the FEIS document and supporting documents, many of which were prepared for State mine permitting requirements, for compliance with FLPMA and BLM § 3809 regulations and has concluded that they are in compliance.	NGO7_Environmentallawcenter
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to provide information required under BLM § 3809 regulations: Detailed plans for water treatment that will be conducted during mine operations, or will continue post-reclamation, must be provided. This includes information on treatment methods, system design, outfalls, rates, treatment threshold, and the expected duration of treatment. Other Federal or state permits that may be needed for the operation of the treatment system must be identified.	PA-8; BLM-1; REG-18	Proposed Action; Bureau of Land Management; Regulatory Compliance	The BLM has reviewed the FEIS document and supporting documents, many of which were prepared for State mine permitting requirements, for compliance with FLPMA and BLM § 3809 regulations and has concluded that they are in compliance.	NGO7_Environmentallawcenter
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to provide information required under BLM § 3809 regulations: Post-Closure Management Plans ... Sometimes reclamation-related activities must continue long after the majority of reclamation work has been completed. Fencing may need to be maintained, signs replaced, water treatment systems operated or maintained, reclaimed slopes repaired, etc. The duration of such activity may be months, years, decades, or in the case of water treatment, the end date may be indefinite. The reclamation plan must clearly identify these postclosure activities and the operator's commitment to performing the required work over the necessary time period.	PA-8; BLM-1; REG-18	Proposed Action; Bureau of Land Management; Regulatory Compliance	The BLM has reviewed the FEIS document and supporting documents, many of which were prepared for State mine permitting requirements, for compliance with FLPMA and BLM § 3809 regulations and has concluded that they are in compliance.	NGO7_Environmentallawcenter
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to provide information required under BLM § 3809 regulations: Evaluate the Plan of Operations and any alternatives on their inherent merits assuming full implementation, including all operation, mitigation, monitoring, reclamation, closure, and post-reclamation actions.	PA-8; BLM-1; REG-18	Proposed Action; Bureau of Land Management; Regulatory Compliance	The BLM has reviewed the FEIS document and supporting documents, many of which were prepared for State mine permitting requirements, for compliance with FLPMA and BLM § 3809 regulations and has concluded that they are in compliance.	NGO7_Environmentallawcenter
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to provide information required under BLM § 3809 regulations: Post-reclamation runoff or run-on control structures must be incorporated by the operator into the overall reclamation plan and built to accommodate flows from the design storm event. Inadequate consideration of the runoff area(s), control designs, or improper runoff management procedures, can cause cascading downgradient reclamation failures that may seriously affect the overall reclamation success.	PA-8; BLM-1; REG-18	Proposed Action; Bureau of Land Management; Regulatory Compliance	The BLM has reviewed the FEIS document and supporting documents, many of which were prepared for State mine permitting requirements, for compliance with FLPMA and BLM § 3809 regulations and has concluded that they are in compliance.	NGO7_Environmentallawcenter

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to provide information required under BLM § 3809 regulations: Reclamation Plan. Any post-reclamation obligations covered by the long-term funding mechanism must be described in the approved Plan of Operations. If the District/Field Manager determines the operator is responsible for post-reclamation obligations not described in the original reclamation plan, the manager will direct the operator to submit a modification to the Plan of Operations covering those obligations. The manager must review and approve the Plan of Operations to ensure all reclamation and closure obligations and corrective actions are adequately addressed.	PA-8; BLM-1; REG-18	Proposed Action; Bureau of Land Management; Regulatory Compliance	A revised Mine Operations and Reclamation Plan (MORP) has been developed since the DEIS was published that is in conformance with BLM § 3809 and State regulations, including the Copper Rule. The post-closure monitoring period has been chosen to meet State mining regulations.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The post-closure monitoring period of 12 years (for all three action alternatives; See DEIS 2-5, 2-59, and 2-73) should be lengthened. Twelve years may be appropriate for revegetation activities, but it is not appropriate or consistent with either BLM or New Mexico's Copper Rule for post-closure monitoring. BLM should require [NMCC's] MPO to include post-mining monitoring and implementation of the pit lake water quality management plan for a minimum of 100 years.	PA-8; BLM-1; REG-18	Proposed Action; Bureau of Land Management; Regulatory Compliance	A revised Mine Operations and Reclamation Plan (MORP) has been developed since the DEIS was published that is in conformance with State regulations, including the Copper Rule. The post-closure monitoring period has been chosen to meet State mining regulations.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS states, "The project is designed to meet, without perpetual care, all applicable Federal and State environmental requirements following closure." DEIS 2-34. This statement contradicts not only the experience at other major mines in New Mexico and elsewhere, but also contradicts BLM's experience and subsequent guidance developed in geographic areas such as Nevada (where modern mining is more common and the effects more well established). For example, management of mine-influenced water associated with the existing Chino, Tyrone, Cobre, and Little Rock copper mines in New Mexico is predicted to require perpetual care.	PA-8; BLM-1; REG-18	Proposed Action; Bureau of Land Management; Regulatory Compliance	The BLM has evaluated this statement from the DEIS and confirms that this is the project's intent and obligation under 19.10.6.603.h NMAC requiring that the operation be designed to meet environmental obligations without requiring perpetual care..	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Though the DEIS states that NMCC will utilize liners for tailings seepages instead of using seepage containment wells, there is currently no legal requirement for NMCC to do so. New Mexico's Copper Rule does not require the use of liners for tailings within the Mine's boundaries. In the event that NMCC revises its MPO, stating it will not utilize liners for tailings seepages but will use seepage containment wells, then BLM must supplement the DEIS with this new closure plan.	PA-8; BLM-1; REG-18	Proposed Action; Bureau of Land Management; Regulatory Compliance	The BLM is willing to evaluate the need for an SEIS if there are substantial changes in the levels of environmental protection from those which were prescribed in the DEIS.	NGO7_Environmenta l Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	In exercising its authority under 43 C.F.R. §3809.500, BLM must also comply with its NEPA mandate by disclosing and analyzing the amount, scope and form of financial assurance to make certain that such a critical issue is subjected to public review and comment. Such disclosure is consistent with CEQ guidance, which states that all relevant, reasonable mitigation measures that could improve the project are to be identified in an EIS; and, to ensure that environmental effects of a proposed action are fairly assessed, the probability of the mitigation measures being implemented should also be discussed. More recent CEQ guidance concerning mitigation views a discussion of funding as critical to ensuring informed decision making, and suggests that agencies should not commit to mitigation measures if it is not reasonable to foresee the availability of sufficient resources to ensure the performance of the mitigation. The DEIS is grossly inadequate because it does not disclose any detail about how BLM will ensure that funds will be available as long as they are needed to implement NMCC's closure and post-closure obligations. We are in agreement with the EPA's comment that, "The availability of adequate resources to ensure effective reclamation, closure and post-closure management is a critical factor in determining the significance of [the Mine's] potential impacts."	SE-14; NEPA-25	Socioeconomics; NEPA Process	The 3809 regulations do not require information regarding reclamation cost estimates (RCEs) and Long-Term Trusts (LTTs) for the plan of operations to be considered complete for NEPA review. Therefore, BLM does not and will not require such information from the operator, or generate it, for NEPA review unless the 3809 regulations are changed. The reason the BLM regulations do not include RCEs/LTTs in the NEPA process is that NEPA requires the agency to analyze potential environmental impacts from a proposed major federal action. The RCEs/LTT estimates are a financial back-up if the operator fails to comply with the reclamation requirements. Those estimates are not part of the environmental impact analysis. The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party. The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMAC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMAC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMAC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.	NGO7_Environmenta l Law Center

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NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	BLM has failed to publicly disclose that Mangi Environmental Group, Inc. were preparers of the DEIS. BLM also failed to procure the required disclosure statement from Solv. The public is therefore unable to determine whether there exists a conflict of interest between Solv and NMCC. BLM must either revise or supplement the DEIS with this information and identify which work product of Mangi Environmental Group, Inc. was incorporated into the DEIS.	NEPA-26	NEPA Process	Mangi Environmental Group, Inc. (Mangi) was awarded a contract in November 2011, via a third-party contract arrangement with NMCC, to assist the BLM in the preparation of the EIS. As part of the proposal for this contract, Mangi provided a Disclosure Statement certifying that there was no conflict of interest between Mangi, NMCC, and the work on the Copper Flat EIS. Effective December 31, 2013, Mangi Environmental Group changed its name to Solv LLC. The company federal employer identification number (FEIN) and DUNS number remain the same. The BLM has determined that the disclosure statement originally submitted by Mangi is binding on Solv LLC because they are the same entity.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	Throughout the body of the DEIS there are various reports and papers referenced as supporting documents, but the DEIS fails to provide citations to specific text or information. There is also a "References" section, consisting of documents not cited to in the body of the DEIS. It is unclear what information in these documents is relied upon. The DEIS must explain to the public precisely what information is being "incorporated by reference," 40 C.F.R. § 1502.21, and must accurately list supporting documents relied upon in the references section.	REF-1	References	All sources utilized to inform the NEPA evaluation are listed in proper format in the References section of the EIS so that the reader may locate any source desired.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to provide verification that all of NMCC's mining claims are valid claims. It is unclear what evidence BLM is relying upon and whether BLM conducted such an inquiry. The DEIS's review, and the BLM's selection of Alternative 2 as its "Preferred Alternative," are based on the overriding assumption that NMCC has statutory rights to use all of the public lands at the Mine site under the 1872 Mining Law. However, where Project lands have not been verified to contain, or do not contain, such rights, BLM's more discretionary multiple-use authorities apply. BLM's Preferred Alternative violates provisions of FLPMA and the Multiple Use Sustained Yield Act, laws mandating that agencies manage, or at least consider managing, these lands for non-mineral uses - something which the BLM fails to do or consider.	BLM-1; REG-19	BLM; Regulatory Compliance	The BLM evaluated the project's compatibility with multiple use policies and compliance with the Federal Land Policy and Management Act (FLPMA). On public lands where NMCC controls unpatented mining claims, they have the right under the General Mining Law of 1872 as amended to use the claims for mining related purposes. The BLM is not obligated by any law to perform validity on mining claims before approving a mine plan on lands open to location. Until the lands are determined by the BLM not to be valid the claims are assumed to be valid. The commenter is referred to Department of the Interior Solicitor Opinion M-37012 for more details on legal requirements for determining mining claim validity before approving a mining plan of operations.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	FLPMA requires BLM to "take any action necessary to prevent unnecessary or undue degradation of the lands." 43 U.S.C. § 1732(b). This is known as the "prevent UUD" standard. This duty to "prevent undue degradation" is the "heart of FLPMA [that] amends and supersedes the Mining Law." Mineral Policy Center v. Norton, 292 F.Supp. 2d 30, 42 (U.S. Dist. D. C. 2003). BLM cannot approve a mining project that will cause UUD. 43 C.F.R. § 3809.411 (d)(3)(iii). "FLPMA's requirement that the Secretary prevent UUD supplements requirements imposed by other federal laws and by state law." Center for Biological Diversity v. Dept. of Interior, 623 F.3d 633, 644 (9th Cir. 2010).	BLM-1; REG-18	BLM; Regulatory Compliance	The BLM has reviewed the FEIS document and supporting documents, many of which were prepared for State mine permitting requirements, for compliance with FLPMA and BLM § 3809 regulations and has concluded that they are in compliance.	NGO7_Environment Law Center
NGO7	4/4/2016	Jaimie Park	New Mexico Environmental Law Center	The DEIS fails to ensure that all requirements of the federal Clean Water Act have been met. The Mine's pit lake is predicted to violate federal and state water quality standards (with no mitigation proposed or required). The DEIS fails to adequately analyze the Mine's impacts to water resources at the Mine site and surrounding areas. It also fails to adequately analyze mitigation measures for such impacts. The DEIS merely states that there is uncertainty regarding federal jurisdiction over pit lake water quality. DEIS 3-33. Under NEPA, jurisdiction is irrelevant to identifying reasonable action alternatives and considering impacts. 40 C.F.R. Part 1502.14(c).	REG-19	Regulatory Compliance	The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The water quality standard that would apply is a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality.	NGO7_Environment Law Center

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P1	12/12/2015	Bruce Kennedy		Project would be an economic boon to a part of the state struggling with employment opportunities.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P1_Bruce Kennedy
P1	12/12/2015	Bruce Kennedy		General support of the proposed mining project and assertion that with modern mining techniques, operation can be performed with minimal present and future impacts.	PA-6	Proposed Action	Thank you for your comment.	P1_Bruce Kennedy
P1	12/12/2015	Bruce Kennedy		Mining project represents re-opening of a previously disturbed site and commenter urges BLM to consider that the area has been previously mined.	CI-3	Cumulative Impacts	Thank you for your comment. Previous mining activities at the site are included in the cumulative impacts analysis in Chapter 4 of the EIS.	P1_Bruce Kennedy
P2	12/14/2015	Brad Cofield	Wagner Equipment	Support for Copper Flat mine because of economic benefits such as job creation, supplier growth.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P2_Brad Cofield
P2	12/14/2015	Brad Cofield	Wagner Equipment	Support for Copper Flat mine because smart and safe mining techniques will be employed.	HH&PS-1	Human Health and Public Safety	Thank you for your comment. The mining proponent would employ modern mining techniques in compliance with the Mine Safety and Health Act (MSHA).	P2_Brad Cofield
P3	12/14/2015	Frank Cappelli		Project would create numerous jobs in an area known for its high unemployment rate; project would support the local and state tax systems.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P3_Frank Cappelli
P3	12/14/2015	Frank Cappelli		Project would be prepared in accordance with necessary environmental requirements and minimize impacts by reusing various parts of the original processing and mining features; the project will be under constant monitoring by Federal and State agencies.	PA-6	Proposed Action	Thank you for your comment.	P3_Frank Cappelli
P4	12/14/2015	Susan Selbin		Opposes extraction of ore and minerals from public lands and because of lack of groundwater regulations on private lands, opposed ore and mineral extraction on private lands.	LU-1	Land Ownership and Land Use	Under Section 302(b) of FLPMA (43 USC 1732[b] and 603[c]; 43 CFR 3802 and 43 CFR 3809), the BLM is charged with allowing mining to occur as one of the multi-purpose uses of the public lands that it oversees, provided that an EA or EIS is completed prior to the start of proposed mining. This EIS allows the BLM decision makers to incorporate a determination of environmental impacts to both private and public lands into its decision-making process.	P4_Susan Selbin
P5	12/15/2015	Cody Eldridge	Wagner Equipment	Support for the project because of the economic benefits it would create regarding jobs, tax revenue, and other miscellaneous benefits.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P5_Cody Eldridge
P6	12/15/2015	Kurt Ehlert	Wagner Equipment	Support for the project because of the economic benefits it would create regarding jobs, tax revenue, and improve Wagner Equipment Co.'s ability to provide high-quality employment.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P6_Kurt Ehlert
P7	12/16/2015	Paul Prange	Wagner Equipment	Support for the project based on economic benefits it would create regarding jobs and tax revenue.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P7_Paul Prange
P8	12/16/2015	Rick Frechette		The Proposed Action is based on sound geotechnical design and appropriate protection of the environment.	PA-1	Proposed Action	Thank you for your comment.	P8_Rick Frechette
P9	12/16/2015	Robert Barnes		NEPA, its implementing regulations, and various agency guidelines and procedures are designed to assure the availability of the best information possible in the decision making process. The document fails in that regard.	NEPA-1	NEPA Process	The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts.	P9_Robert Barnes
P9	12/16/2015	Robert Barnes		Analysis presented in the groundwater resources section is categorically deficient and groundwater recharge is miscalculated because of fundamental flaws in the basic assumptions.	GW-1	Groundwater Resources	The groundwater resources section was developed with the close cooperation of groundwater experts from the EIS contractor, the BLM, the OSE, and NMCC's hydrogeologist. The groundwater model developed for NMCC by JSAI was carefully evaluated and validated by the other parties, resulting in a thorough assessment of groundwater impacts. This model is described in Section 3.6.2 of the FEIS. The average water used to process 1 ton of material has been recalculated with a new baseline and the revised figure appears in the FEIS.	P9_Robert Barnes
P9	12/16/2015	Robert Barnes		The region of influence in the socioeconomics section is inappropriately determined because the report fails to consider that copper prices and copper production function as standard commodities, meaning that Sierra County's gain is Grant county's loss. And it is not clear that their tax revenue for New Mexico will be enhanced in any way by mining operations at Copper Flat.	SE-5; SE-25	Socioeconomics	Rationale for the region of influence (ROI) defined as Sierra County is provided in the second paragraph of 3.22.1 (Affected Environment). Surrounding counties of Grant and Luna are excluded from the ROI for consideration of direct impacts, but indirect impacts for these counties are considered. Potential impacts on state revenues from mining are discussed in Section 3.22.2.1.3 (Public Finance). The commenter does not elaborate why tax revenue would not be enhanced by mining operations at Copper Flat.	P9_Robert Barnes
P9	12/16/2015	Robert Barnes		There are a number of problems, not the least of which is that the proposed action which is the basic basis of much of the analysis in this report is not what THEMAC describes as its project on its website.	PA-2	Proposed Action	The Proposed Action in the FEIS was developed to match the MPO submitted to the BLM by NMCC. Since the MPO was first submitted to the BLM, there have been engineering studies and further development of information that have opened up the potential to successfully implement other courses of mine action. The BLM decided that it was reasonable to introduce other alternatives that incorporate some of the evolving information. NMCC prefers the higher ore production rate of Alternative 2 even though this differs from what is presented in the Proposed Action that is derived from the original MPO. The MPO will be revised to reflect any changes required to match what is adopted as the preferred alternative in the ROD.	P9_Robert Barnes
P10	12/16/2015	Deborah Peacock		Discussion providing background. The Mining Safety Board for the State of New Mexico wants to ensure that the mine is operated in a safe manner. and to ensure the community that the project will be conducted in the safest and most environmentally conscious manner.	HH&PS-2; REG-3	Human Health and Public Safety; Regulatory Compliance	Thank you for your comment. Early coordination with mine safety agencies is critical to safe and compliant operations once the mining activity has begun.	P10_Deborah Peacock

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P11	12/16/2015	Gretchen Kerr		The DEIS is biased towards the proposed action being the preferred alternative.	NEPA-2	NEPA Process	Chapter 2 of the EIS describes the Proposed Action and all reasonable alternatives. The EIS has been prepared to: 1) analyze the environmental impacts of alternatives that would meet the proposed purpose and need; and 2) assist the BLM in deciding whether to approve a preferred alternative. That preferred alternative may be the Proposed Action, an identified alternative, or a combination of analyzed elements of the Proposed Action or alternatives. The EIS was prepared in accordance with NEPA requirements for the BLM and a ROD will be signed. If the preferred alternative identified in the ROD differs from the MPO, the MPO must be revised by NMCC and approved by the BLM prior to commencing mining operations.	P11_Gretchen Kerr
P11	12/16/2015	Gretchen Kerr		Analysis is the socioeconomic section of the document contains inadequacies and deficiencies, and does not generally contain a sufficient level of analysis. For example, page 2-24 and page 3-259 show orders of magnitude difference in number of jobs created.	SE-3	Socioeconomics	Table 2-7 on page 2-24 of the DEIS shows the mine workforce for Year One. These are some of the inputs to the IMPLAN input-output model (the other main input is annual project costs). Table 3-74 on page 3-259 of the DEIS shows the number of direct, indirect, and induced jobs that would be created during years 3 and 4 – or the construction phase of the proposed project. Table 3-75 on page 3-259 shows the direct, indirect, and induced jobs that would be created starting in year 5 to year 21 – or the operations phase of the proposed project. As such, Table 2-7 is not inconsistent with Tables 3-74 and 3-75; these tables simply present different information. The IMPLAN input-output model estimates the effects of spending for development activities and consumption spending of new residents and construction workers; the indirect effects of local vendors providing goods and services to the primary firms; and the induced impacts of employees of these firms spending a portion of their earnings in the local economy. Economic impacts are measured in terms of income and employment generated (or lost) due to the Proposed Action.	P11_Gretchen Kerr
P11	12/16/2015	Gretchen Kerr		Recommend adding an appendix to explain the inputs and the outputs of the socioeconomic model used in the analysis.	SE-4	Socioeconomics	An appendix has been added to the EIS to explain the inputs and outputs of the socioeconomic model.	P11_Gretchen Kerr
P11	12/16/2015	Gretchen Kerr		In section 3.28 "Irreversible and Irrecoverable Commitment of Resources," references to water and groundwater are not consistent with the discussion on groundwater in Section 4, "Cumulative Impacts." It says there will be a permanent decrease, whereas it is not mentioned as a permanent decrease in the irretrievable recovery of resources.	CI-4; I&I-1; GW-9	Cumulative Impacts; Irreversible & Irrecoverable Commitment of Resources; Groundwater Resources	The permanent reduction of the groundwater level at the pit has been included in Chapter 4, Cumulative Impacts and Section 3.28 of the EIS, Irreversible and Irrecoverable Commitment of Resources.	P11_Gretchen Kerr
P11	12/16/2015	Gretchen Kerr		The fact that the project will reduce the longevity of NM-152 which would subsequently increase maintenance costs for the county associated with road repair and infrastructure are not adequately addressed in the transportation, socioeconomic, or utilities and infrastructure sections.	TR-1; SE-12	Transportation and Traffic; Socioeconomics	The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with the New Mexico Department of Transportation (NMDOT) to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following: a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine. b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point. c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards. d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT. NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.	P11_Gretchen Kerr
P11	12/16/2015	Gretchen Kerr		The region of influence is not properly determined or evaluated - the document does not discuss the over 600 residents who would be disenfranchised. The town itself is not the region of influence - there are other ranchers, etc. that would be affected.	SE-5	Socioeconomics	The region of influence (ROI) does include the CDP in Sierra County, but the ROI is defined as Sierra County (as noted in the second paragraph of 3.22.1 (Affected Environment)). As such, homes, businesses, and citizens located in the proximity of the mine are not excluded from the analysis. Surrounding counties of Grant and Luna are excluded from the ROI for consideration of direct impacts, but indirect impacts for these counties are considered.	P11_Gretchen Kerr
P12	12/16/2015	Inga McCord		Table 3-68 indicates that the percent of persons over 25 with a college degree is 0%, and the commenter has a college degree (along with her husband) and they have owned a home in Hillsboro since 1992.	SE-6	Socioeconomics	The information contained in Table 3-68 was obtained using U.S. Census Bureau data, 2006-2010. Based on feedback from the public, the information has proven to be inaccurate. More accurate information is not available. This information was removed from Table 3-68 of the DEIS (Table 3-76 of the FEIS).	P12_Inga McCord
P13	12/16/2015	Bruce Swingle		Summary of the county manager's support to the mine because of the socioeconomic benefits regarding job creation and tax revenues resulting in an increased "stability" of the population in the region.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P13_Bruce Swingle
P13	12/16/2015	Bruce Swingle		Proposed mine would improve key industries in the area, two of them being recreation and tourism.	REC-2; SE-31	Recreation; Socioeconomics	Thank you for your comment.	P13_Bruce Swingle
P13a	4/5/2012	Bruce Swingle	Sierra County Board of Commissioners	Support for the proposed mining project because of the desire to protect the economic base of Sierra County's natural resources, offset poor economic times, create jobs, and provide tax base for it's citizens.	SE-1; PA-5	Socioeconomics; Proposed Action	Thank you for your comment.	P13_Bruce Swingle

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P13a	4/5/2012	Bruce Swingle	Sierra County Board of Commissioners	Renewable energy needs of the County are dependent upon a continued supply of copper.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P13_Bruce Swingle
P13a	4/5/2012	Bruce Swingle	Sierra County Board of Commissioners	Support for technologies that provide community safeguards and balance environmental stewardship with copper and other natural resources production.	SE-1; PA-5; HH&PS-4	Socioeconomics; Proposed Action; Human Health & Public Safety	Thank you for your comment. The mining proponent would employ modern mining techniques to protect the environment.	P13_Bruce Swingle
P14	12/16/2015	Stretch Luna		Commenter disagrees with some of the models presented in the DEIS. Not in favor of this project getting into operation.	PA-3	Proposed Action	Thank you for your comment.	P14_Stretch Luna
P15	12/16/2015	Dan Lorimier		There are discrepancies regarding water rights as determined by the office of the state engineer, the copper company, and what the courts will eventually rule regarding water resources.	WR-1; P&N-1	Water Rights; Purpose & Need	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	P15_Dan Lorimier
P15	12/16/2015	Dan Lorimier		Uncertainties and instability in the copper market, along with the investment the county will have to make to support they influx of jobs makes the project likely not to be viable.	SE-7; SCOPE-1	Socioeconomics; Scope of the DEIS	See Section 3.22.2 of the EIS for a detailed discussion of economic activity from the proposed mine. The purpose of the FEIS is not to discern the viability of the mine or copper mining generally but to evaluate the potential impacts from the alternatives.	P15_Dan Lorimier
P16	12/16/2015	Max Yeh		Other companies have tried to re-start the mine in the past, and in fact, the mine has only been in operation for three months in the last 40 years.	CI-3	Cumulative Impacts	Thank you for your comment. Previous mining activities at the site are included in the cumulative impacts analysis in Chapter 4 of the EIS.	P16_Max Yeh
P16	12/16/2015	Max Yeh		Personal story of septic tank installation gone bad - not relevant to the EIS.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P16_Max Yeh
P17	12/16/2015	Velma Boone		The proposed mine will have similar long-term visual resources impacts as other mines in the state.	VIS-1	Visual Resources	Thank you for your comment.	P17_Velma Boone
P17	12/16/2015	Velma Boone		Mine would take away groundwater and diminish water in rivers and creeks in the region, which will in turn have a negative impact on the plants and people that depend on that water to survive.	GW-3	Groundwater Resources	A detailed discussion of impacts to groundwater resources is included in Section 3.6 of the EIS. The DEIS indicates that the primary effect would be on flows in the Rio Grande, which would be subject to mitigation in accordance with obligations imposed by the OSE or agreed to by NMCC. With the possible exception of effects on habitat for the Chiricahua Leopard Frog that may use farm ponds in lower Las Animas Creek, the best information now available indicates there would be minimal effects on the human and biological environment, and no effect on the existing high-quality riparian corridors. The project will cause an increase in pumping lifts in area wells.	P17_Velma Boone
P17	12/16/2015	Velma Boone		The potential for hiring of workers for the mine that would not be local (rather they will be professionals from somewhere else) discredits the notion that the local population will benefit from the increase in jobs as presented in the DEIS.	SE-8	Socioeconomics	Section 2.1.5 of the FEIS indicates that NMCC would provide employment opportunities to individuals living in the immediate area of the mine. It is likely that personnel from outside the local area would be required to meet the full staffing needs of the mine; however, the southwestern United States provides a large base of experienced personnel to complete the employee roster (NMCC 2014a).	P17_Velma Boone
P18	12/16/2015	Bill Bussman		The mine has moved from investor to investor and company to company and all have gone bankrupt, left town, and have had no success recovering materials in an economically viable way.	SCOPE-1	Scope of DEIS	This comment is outside the scope of the FEIS.	P18_Bill Bussman
P19	12/16/2015	Lloyd Barr		The DEIS "cherry picks" data and was developed with an end already in sight rather than going through the appropriate process to determine if a project should move forward.	NEPA-3	NEPA Process	The EIS has been prepared to: 1) analyze the environmental impacts of alternatives that would meet the proposed purpose and need; and 2) assist the BLM in deciding whether to approve a Preferred Alternative that may be the Proposed Action, an identified alternative, or a combination of analyzed elements of the Proposed Action or alternatives. The EIS has been prepared in accordance with NEPA requirements for the BLM. An informed decision based on the EIS will be made and a ROD will be signed. If the Preferred Alternative identified in the ROD differs from the MPO, the MPO must be revised by NMCC and approved by the BLM prior to commencing mining operations.	P19_Lloyd Barr
P19	12/16/2015	Lloyd Barr		Census data associated with Table 3-68 is inaccurate because there are a number of highly educated and prominent citizens in the Hillsboro area.	SE-6	Socioeconomics	The information contained in Table 3-68 was obtained using U.S. Census Bureau data, 2006-2010. Based on feedback from the public, the information has proven to be inaccurate. More accurate information is not available. This information was removed from Table 3-68 of the DEIS (Table 3-76 of the FEIS).	P19_Lloyd Barr

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P19	12/16/2015	Lloyd Barr		Information in the socioeconomic section as it relates to housing costs and relative affluence/poverty of the area does not include or take into account that there are homes that average between \$500K and \$1M. This presents an inaccurate picture of the need for economic incentives to the area, such as the proposed project.	SE-9	Socioeconomics	Table 3-63 in the FEIS, "Value of Owner-Occupied Housing Units, 2010" has been added to present the value of homes by Block Groups in Sierra County, Hillsboro CDP, Truth or Consequences, Sierra County, and New Mexico; as well as the median value of owner-occupied housing units. Table 3-57 in the DEIS (Table 3-62 in the FEIS), "Housing Characteristics" was also updated to present total housing units, occupied housing units, and the homeownership rate by Block Groups in Sierra County.	P19_Lloyd Barr
P19	12/16/2015	Lloyd Barr		General concern related to impacts to water.	SW-1; GW-4	Surface Water Resources; Groundwater Resources	Anticipated effects on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis on which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary mitigations applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the DEIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.	P19_Lloyd Barr
P19	12/16/2015	Lloyd Barr		The project is a gamble and would be destructive.	PA-3	Proposed Action	Thank you for your comment.	P19_Lloyd Barr
P20	12/16/2015	Allyson Siwik	Executive Director; Gila Resources Information Project	Support for the extension of the public review comment period and recommends BLM host more public meetings because of complexity of issues.	NEPA-4	NEPA Process	The comment period was extended to give the public additional time and opportunity to review the DEIS. The BLM decided that additional public meetings were not necessary.	P20_Allyson Siwik
P20	12/16/2015	Allyson Siwik	Executive Director; Gila Resources Information Project	Consider additional public meetings.	NEPA-4	NEPA Process	The comment period was extended to give the public additional time and opportunity to review the DEIS. The BLM decided that additional public meetings were not necessary.	P20_Allyson Siwik
P20	12/16/2015	Allyson Siwik	Executive Director; Gila Resources Information Project	Concerned about the mine's water use and potential impacts to groundwater and surface water.	SW-2; GW-5; WQ-5	Surface Water Resources; Groundwater Resources; Water Quality	Discussion of the potential impacts to groundwater quality is provided in Section 3.6.2; also refer to Table 3-20a. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the NOI to comply with the MSGP is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation.	P20_Allyson Siwik
P20	12/16/2015	Allyson Siwik	Executive Director; Gila Resources Information Project	Route 152 is a main road and important to the tourism-based economy, as it provides access to the Gila National Forest and the Gila Wilderness. Recommend taking a closer look.	REC-3; SE-10; TR-3	Recreation; Socioeconomics; Transportation and Traffic	The project would not close roads needed to access the Gila National Forest and Gila Wilderness. As discussed in Section 3.22.2.1.6 of the EIS, the extent to which an active mine would deter tourists or recreationists from travelling Route 152 is difficult to quantify. However, it is likely that during the 1- to 2-year construction period, some may avoid the portion of NM-152 (from Hillsboro east to the junction of NM-152 and Highway 85), where the Geronimo Trail Scenic Byway and the Lake Valley Backcountry Byway overlap, due to the perception of increased traffic and air emissions hindering their experience. Visitation at the Gila National Forest in the western edge of Sierra County may decrease during this time since the Black Range Ranger Districts (including the Gila Wilderness) is most easily accessed via NM-152. Additionally, the portion of the Geronimo Trail Scenic Byway that follows NM-152 is located in a former mining area, which promotes tourism through sightseeing tours of abandoned mines and ghost towns. While some tourists may be deterred due to the perception of increased traffic and air quality or the degradation of visual quality, some may instead be drawn to the area. The Copper Flat mine project could create or renew interest in nearby ghost mining towns, the mining process, and the evolution of mining in the area benefiting tourism.	P20_Allyson Siwik
P20	12/16/2015	Allyson Siwik	Executive Director; Gila Resources Information Project	Impacts on endangered species, especially the Chiricahua leopard frog are of concern.	T&E-1	Threatened, Endangered, and Special Status Species	See the full response to T&E-1 in the Comment Categories and Responses (CCR) document that is too long to be displayed in this CRM cell. The BLM has formally consulted with the USFWS under the ESA and has prepared a Biological Assessment (BA) that evaluates the potential for the Copper Flat Mine project to jeopardize the Mexican gray wolf, Chiricahua leopard frog, black-tailed prairie dog, and Bolson tortoise, as well as migratory birds, including the potential for impacts to those species at the Ladder Ranch. The consultation findings and proposed mitigation measures are described in detail in the BA and summarized in the Threatened and Endangered Species section of the Final EIS. A brief synopsis of the BA findings is included in response to T&E-1 in the CCR document.	P20_Allyson Siwik
P20	12/16/2015	Allyson Siwik	Executive Director; Gila Resources Information Project	Concern over cumulative impacts to Grant County from introducing another mine in the region.	CI-14	Cumulative Impacts	Cumulative impacts of the Proposed Action and alternatives, including discussion of past, present, and future activities in other counties are discussed in Section 4.0 of the EIS, Cumulative Impacts.	P20_Allyson Siwik

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P21	12/16/2015	Leroy Henderson		Disagreement that the no action alternative would have no impact to the community. Subsequent discussion that if the no action alternative is selected, THEMAC will have to clean up the area.	ALT-2	Alternatives	The description of the No Action Alternative has been modified for the FEIS. New Mexico Copper Corporation (NMCC) has an obligation to cleanup/reclaim following activities such as exploration (drilling) but the New Mexico Environment Department (NMED) has no basis to require NMCC to upgrade facilities that were previously reclaimed unless there was a potential or actual impact to water quality from the existing condition. That could potentially come out of the abatement process in the event the No Action Alternative was selected. One place where this could possibly occur would be the tailing impoundment, where the synthetic liner at the base of the new impoundment was to provide a source control measure on top of the existing tailings. Similar conditions may exist for rock piles. Additionally, the site does not meet Mining and Minerals Division's (MMD) definition for an "existing mining operation" (19.10.1.7.E(2) NMCC) because the mining performed by Quintana did not produce a marketable mineral for a total of at least 2 years between January 1, 1970 and June 18, 1993. Because the mine does not qualify as an existing mining operation per the definition, MMD would not have any jurisdiction to require Quintana or NMCC to reclaim the slopes, waste rock facilities, pit, tailings impoundment, roads, etc. that are currently at the site. The mining performed by Quintana in the 1980s and the mining conducted by smaller entities prior to Quintana are considered to be "pre-New Mexico Mining Act" disturbances that are not able to be regulated by MMD based on the Act and Rules. As such, if the No Action Alternative was selected during the EIS process, the disturbances and reclamation previously performed by Quintana in the 1980s would be allowed by MMD to remain as-is. However, if old disturbance is re-disturbed by the new NMCC mining operation, those areas that become re-disturbed would fall under the requirements for new mining operations. For example, if NMCC reuses an old waste rock pile, then they would have to meet New Mine Operation and Performance Standards.	P21_Leroy Henderson
P21	12/16/2015	Leroy Henderson		The no action alternative for clean-up and reclamation of the site would provide jobs and tax revenue.	SE-11	Socioeconomics	Thank you for your comment. A discussion of socioeconomic impacts due to jobs and tax revenue under the No Action Alternative has been added to Section 3.22.2.4.	P21_Leroy Henderson
P21	12/16/2015	Leroy Henderson		The DEIS discusses that Pit Lake contamination has increased over time as a result of no action in the area. Subsequently, contamination has been leaching into the surface and groundwater over time.	WQ-4	Water Quality	Discussion has been added to Section 3.5.1.1 of the EIS describing the unnamed arroyo located to the north of the existing pit lake and Animas Peak. Stormwater runoff from mine facilities, including the WRDFs, would be captured and potentially used as process water. Discussion has also been added to Section 2.1.15.7 of the EIS explaining that the final details of the placement and use of the cover materials for WRDFs would be approved by the State and the BLM following analysis of the results of a test-plot program that would be conducted during the mining operation. The water quality of the existing pit lake is summarized in Section 3.4.1. Section 3.4.2 explains that the proposed MPO would require a preliminary pit lake water quality management plan that describes reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period.	P21_Leroy Henderson
P21	12/16/2015	Leroy Henderson		Large quantities of ore originally scheduled for milling have oxidized and would be difficult to mill.	SCOPE-1;	Scope of the DEIS	This comment is outside the scope of the FEIS.	P21_Leroy Henderson
P21	12/16/2015	Leroy Henderson		THEMAC/NMCC does not have the money to mill oxidized ore or the reclamation that is required.	SCOPE-1; SE-14	Scope of the DEIS; Socioeconomics	Bonding is not within the scope of the FEIS. The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party. The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMCC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMCC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMCC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.	P21_Leroy Henderson
P21	12/16/2015	Leroy Henderson		The area is producing radiation to the surrounding areas.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P21_Leroy Henderson
P21	12/16/2015	Leroy Henderson		THEMAC/New Mexico Copper Corporation (NMCC) is applying to open up the mine again so they don't have to reclaim the area.	PA-4	Proposed Action	Thank you for your comment.	P21_Leroy Henderson
P22	12/17/2015	Harvey Chatfield		Groundwater drawdown from the project would kill off the sycamore trees that line Animas Creek.	VEG-1; GW-7	Vegetation; Groundwater Resources	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P22_Harvey Chatfield
P22	12/17/2015	Harvey Chatfield		Although the project would not impact the upper aquifer in the region, it could impact the lower aquifer in the region.	GW-8	Groundwater Resources	Effects to the lower aquifer are thoroughly described in Section 3.6 of the EIS, Groundwater Resources.	P22_Harvey Chatfield

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P22	12/17/2015	Harvey Chatfield		Support for the project because it is the poorest county in NM, it would help the community, and the region needs the jobs that would be associated with the mine.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P22_Harvey Chatfield
P23	12/17/2015	Mike Bowen	Executive Director, New Mexico Mining Association (NMMA)	The New Mexico Copper Corporation (NMCC) is committed to completing the project in an environmentally safe manner.	REG-3	Regulatory Compliance	Thank you for your comment. Early coordination with mine safety agencies is critical to having safe and compliant operations once the mining activity has begun.	P23_Mike Bowen
P23	12/17/2015	Mike Bowen	Executive Director, New Mexico Mining Association (NMMA)	Assertion that NMCC is going through a rigorous permitting process and providing the appropriate information in an upfront manner.	REG-1	Regulatory Compliance	Thank you for your comment. NMCC has been cooperative and forthcoming in the evaluation of potential impacts.	P23_Mike Bowen
P23	12/17/2015	Mike Bowen	Executive Director, New Mexico Mining Association (NMMA)	Urge support for the project because it will be an economic boon to the area, contribute jobs, and increase the tax base.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P23_Mike Bowen
P24	12/17/2015	Bruce Swingle		The Sierra County Commission has and continues to support the Copper Flat Mine. It would provide an economic boost to the State of New Mexico and Sierra County through job creation, tax revenues, tax revenues. It would stimulate population growth; improve employment rates, increase earnings per capita, improve the quality of life of the area residents and positively affect key industries such as tourism and recreation.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P24_Bruce Swingle
P25	12/17/2015	Deborah Peacock		It is important that we engage in education, and New Mexico Tech has started to engage K-12, community colleges, and universities.	SE-13	Socioeconomics	Thank you for your comment.	P25_Deborah Peacock
P25	12/17/2015	Deborah Peacock		The Mining Safety Board for the State of New Mexico has already started working with the State Mining Inspector to make sure the mine is in compliance.	HH&PS-2; REG-3	Human Health and Public Safety; Regulatory Compliance	Thank you for your comment. Early coordination with mine safety agencies is critical to safe and compliant operations once the mining activity has begun.	P25_Deborah Peacock
P25	12/17/2015	Deborah Peacock		NMCC wants to be a good community partner, and is committed to discussing and meeting community needs.	SE-13	Socioeconomics	Thank you for your comment.	P25_Deborah Peacock
P26	12/17/2015	James Snow		Opposed to the mine. We have to consider effects to the environment; groundwater; surface water. We have an obligation to ourselves and to our grandchildren.	PA-3	Proposed Action	Thank you for your comment.	P26_James Snow
P26	12/17/2015	James Snow		The walls of tailing ponds from old mines between Hillsboro and Silver City are ugly.	VIS-1	Visual Resources	Thank you for your comment.	P26_James Snow
P26	12/17/2015	James Snow		Consider impacts other than the jobs the mine would create.	PA-3	Proposed Action	Thank you for your comment.	P26_James Snow
P27	12/17/2015	Terrance Foreback		Copper Flat is not a Greenfield project. This area has been disturbed by other activities, including ranching and mining. The long-term improvement of the area can be accomplished by the mining process.	CI-1; LU-4	Cumulative Impacts; Land Ownership and Land Use	Thank you for your comment. Previous mining activities at the site were included in the cumulative impacts analysis as discussed in Chapter 4 of the EIS.	P27_Terrance Foreback
P27	12/17/2015	Terrance Foreback		Need to consider the long-term beneficial impacts from boom and bust. Grant County has developed at a higher rate than Sierra County, and this is directly attributable to the history of mining and higher wages.	SE-15	Socioeconomics	Thank you for your comment. Potential long-term positive effects of boom and bust from mining have been added to the discussion in the FEIS.	P27_Terrance Foreback
P27	12/17/2015	Terrance Foreback		Our country, our national economy and security is dependent on mining.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P27_Terrance Foreback
P28	12/17/2015	Wade Jackson		The New Mexico Economic Development Department is very supportive of the project.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P28_Wade Jackson
P29	12/17/2015	John Bokich		The mine would create opportunities for young people; mining towns are vibrant, people invest in their families, have good schools and hospitals.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P29_John Bokich
P30	12/17/2015	Klaus Wittern		We need to increase economic activity.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P30_Klaus Wittern
P31	12/17/2015	Donna Stevens		Thank you for extending the comment period. It would be helpful to have more public meetings.	NEPA-4	NEPA Process	The comment period was extended to give the public additional time and opportunity to review the DEIS. The BLM decided that additional public meetings were not necessary.	P31_Donna Stevens
P31	12/17/2015	Donna Stevens		Concerned with public safety on Highway 52, which is not designed for the additional truck traffic that would occur as a result of the proposed project.	HH&PS-3; TR-2	Human Health and Public Safety; Transportation and Traffic	The anticipated traffic increase would occur primarily during shift change for the mine. This increase in the worse condition considered would be a Level of Service (LOS) rating of C, which by definition is a stable flow, and therefore would be less than a significant impact. With this increase in traffic, there would be a minor increase in the potential for accidents. In order to account for this, NMCC has a verbal agreement that turn lanes and acceleration lanes would be built to safely accommodate transition from NM-152 and Gold Dust Road and vice versa. This verbal agreement will be formalized into a Memorandum of Understanding prior to the publication of the FEIS.	P31_Donna Stevens
P31	12/17/2015	Donna Stevens		Concerned about quality of life issues: increased traffic, noise, etc.	SE-2	Socioeconomics	Thank you for your comment. Potential impacts related to quality of life, including increased noise and traffic, are discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life).	P31_Donna Stevens
P31	12/17/2015	Donna Stevens		Concerned about water quality. How will nearby streams, springs, and wells be affected?	SW-2	Surface Water Resources	A detailed discussion of surface water use is included in Section 3.5 of the EIS and a discussion of surface water quality is included in Section 3.4.	P31_Donna Stevens
P31	12/17/2015	Donna Stevens		What plans are in place for the inevitable accidental spills that will affect groundwater and drinking water?	PA-7	Proposed Action	The FEIS addresses this issue by showing the EPA requirement for a Spill Prevention and Countermeasures Plan in Table 1.1. Additionally, a Spill Contingency Plan is discussed in Section 2.1.16.	P31_Donna Stevens

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P31	12/17/2015	Donna Stevens		Are there closure plans to protect surface water and groundwater after the mine is closed? Who will be burdened with the cost of protecting groundwater or surface water resources?	PA-8; SE-14	Proposed Action; Socioeconomics	The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party. The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMAC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMAC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMAC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.	P31_Donna Stevens
P32	12/17/2015	Rebecca Dow		If all the involved agencies are saying the proposed Copper Flat Mine is environmentally sound, would support the proposed project because it is an opportunity for a better quality of life in Sierra County and to turn the curve on poverty and the negative statistics that come with it.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P32_Rebecca Dow
P33	12/17/2015	Steve Henke		This project is consistent with BLM's multiple use mandate; Federal Land Policy and Management Act; and NEPA.	BLM-1; NEPA-6	Bureau of Land Management; NEPA Process	Thank you for your comment. The BLM evaluated the project's compatibility with multiple use policies and compliance with the Federal Land Policy and Management Act (FLPMA).	P33_Steve Henke
P33	12/17/2015	Steve Henke		Support domestic commodity production, including food, fiber, energy, timber, materials, etc. that support our quality of life.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P33_Steve Henke
P33	12/17/2015	Steve Henke		The majority of the project area is on private property that has been previously disturbed.	LU-3	Land Ownership and Land Use	Thank you for your comment. Previous mining activities at the site are included in the cumulative impacts analysis as discussed in Chapter 4 of the FEIS.	P33_Steve Henke
P33	12/17/2015	Steve Henke		The majority of the project area is on private property, and under the 1872 Mining Law they are patented mining claims that are a property right and therefore the environmental process is different.	LU-2	Land Ownership and Land Use	The NEPA process is implemented in response to potential effects on BLM lands that require the BLM to approve a MPO. Effects on private lands are analyzed as connected actions to the approval of the MPO. This process will proceed in a manner that is compliant with the 1872 Mining Law, other applicable mining laws, and Federal land management policies.	P33_Steve Henke
P33	12/17/2015	Steve Henke		The New Mexico Oil and Gas Association supports Alternative 2.	ALT-1	Alternatives	Thank you for your comment.	P33_Steve Henke
P34	12/17/2015	Carl Teston	Testons Chevron	This is the opportunity to help boost the economy in Sierra County and provide financial stability to the area.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P34_Carl Teston
P35	12/17/2015	Richard Daves		Support the mine opening.	PA-5	Proposed Action	Thank you for your comment.	P35_Richard Daves
P36	12/17/2015	Kierran Maher	New Mexico Institute of Mining and Technology	The ore is generally lower in sulfide than typical ore; the amount of pyrite present in waste rock and tailings would be lower than what might be observed elsewhere. Processed rock containing calcite will be less likely to release low pH runoff. The processed rock containing calcite will be less likely to release low pH runoff. Though sulfate may be elevated, the potential for mobilizing metals during oxidation is reduced.	WQ-9	Water Quality	Thank you for your comment.	P36_Kierran Maher
P36	12/17/2015	Kierran Maher	New Mexico Institute of Mining and Technology	Does the long-term impact to the regional water supply (as discussed in groundwater) outweigh the economic benefits of the mine?	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P36_Kierran Maher
P36	12/17/2015	Kierran Maher	New Mexico Institute of Mining and Technology	NMCC is clearly trying to follow industry best practice; and would be able to successfully mitigate/minimize to acceptable levels the risk of potential releases of contaminants into the environment.	REG-2	Regulatory Compliance	Thank you for your comment. NMCC has been cooperative and forthcoming in the evaluation of potential impacts.	P36_Kierran Maher

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P36	12/17/2015	Kierran Maher	New Mexico Institute of Mining and Technology	Ensure that the operation is bonded in such a way that reclamation is guaranteed at the conclusion of the operation.	SE-14; SCOPE-1	Socioeconomics	Bonding is not within the scope of the FEIS. The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party. The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMAC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMAC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMAC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.	P36_Kierran Maher
P36	12/17/2015	Kierran Maher	New Mexico Institute of Mining and Technology	The mine would provide high paying employment opportunities to individuals from surrounding communities, which otherwise would not exist. There would also be indirect benefits through service contracts; Copper Flat Mine would provide a significant economic benefit to the regional community.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P36_Kierran Maher
P36	12/17/2015	Kierran Maher	New Mexico Institute of Mining and Technology	Considering the setting of the Copper Flat Project, the engineering plan proposed by NMCC, and the nature and scope of permits required for the operation, the risk for an substantial deleterious environmental event at Copper Flat is very low.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P36_Kierran Maher
P37	12/17/2015	Mike Johnston		Does not support approval of copper mine. The water use and waste disposal plans are not adequate.	PA-3	Proposed Action	Thank you for your comment.	P37_Mike Johnston
P38	12/18/2015	Ted Kuzdrowski		THEMAC has taken the time to have meetings to update and educate the public and explain what they are doing.	SE-13	Socioeconomics	Thank you for your comment.	P38_Ted Kuzdrowski
P38	12/18/2015	Ted Kuzdrowski		From an environmental and maintenance standpoint I believe they are taking precautions to the best of today's regulations.	REG-2	Regulatory Compliance	Thank you for your comment.	P38_Ted Kuzdrowski
P38	12/18/2015	Ted Kuzdrowski		The time has come to grant THEMAC the permits to proceed.	PA-6	Proposed Action	Thank you for your comment.	P38_Ted Kuzdrowski
P38	12/18/2015	Ted Kuzdrowski		Opening this mine will help Sierra County economically and help our youth learn skills.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P38_Ted Kuzdrowski
P39	12/28/2015	Robert Byrd		The shortage of decent jobs is the number one issue facing New Mexico - the Spaceport is no safe bet and those buying up land do not provide jobs. Extractive industries and modern mining generate good jobs and growth in New Mexico.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P39_Robert Byrd
P40	12/21/2015	Michael Fields Sr	Wagner Equipment Co.	New Mexico and local communities living in close proximity to proposed mining project have the potential to benefit from jobs, infrastructure, tax revenues, and community investment.	PA-5, SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P40_Michael Fields
P41	1/8/2016	Mark Shipley	Talon homes and construction LLC	We are in full support of the mine opening, and look forward to the growth of Sierra County and New Mexico. Please allow this to happen and help create a future for our families and their families.	PA-5, SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P41_Mark Shipley
P42	1/11/2016	Linda Douglas		Are serious issues regarding water quality and water use and the potential impacts for humans and wildlife, in the immediate area but as far away as Caballo Lake and the Rio Grande.	GW-4; SW-1	Groundwater Resources; Surface Water Resources	Anticipated effects on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis on which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary mitigations applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the DEIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.	P42_Linda Douglas

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P42	1/11/2016	Linda Douglas		Commenter does not trust the state Environment Department or Game Commission, because of the political weight of business and industry on those agencies.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P42_Linda Douglas
P42	1/11/2016	Linda Douglas		Concerned with the impacts the mine would have to the recreational experience (e.g., hiking).	REC-1	Recreation	Section 3.16.2.1.1 of the EIS states that though there are no designated trails within the project footprint, if recreational users are accustomed to hiking through the outer limits of the project footprint, impacts due to restricted use could be minor and long-term. However, due to the presence of existing mining-related structures, the open pit mine and tailings pond, and existing fencing around parts of the mine area, which already restricts access for human health and safety reasons, recreational activities in this area are not prevalent. Thus, impacts to hikers are anticipated to be minor.	P42_Linda Douglas
P42	1/11/2016	Linda Douglas		Concerned about mining companies' poor track record regarding clean-up and reclamation, especially when businesses lose interest they tend to evade responsibility.	CI-16	Cumulative Impacts	The EIS addresses this issue by requiring that a financial guarantee be provided by NMCC for cleanup and reclamation in the event of the company defaulting on this issue in the future. Section 2.1.15.16, Facility Specific Reclamation, states that a reclamation bond is required by the BLM and State of New Mexico to guarantee completion of project reclamation (43 CFR 3809.500-3809.599). Additionally, Section 3.2.2, Socioeconomics states "A reclamation bond is required by the BLM and State of New Mexico to guarantee the completion of Project reclamation. Following regulatory review of the proposed plan of operations and reclamation techniques presented herein, NMCC will prepare, at a time specified by the BLM [43 CFR 3809.401(d)], a detailed estimate of the cost to fully reclaim the operations as required by 43 CFR 3809.552. This reclamation plan would be administered by the NMENMRD MMD and the NMED Mining Environmental Compliance Section. Financing would include a mix of equity and debt, but the ratio would depend on market conditions, interest rates, and other factors that would continue to vary over the course of project development. In negotiating specific arrangements for the proposed project, factors such as the operator's financial condition, track record, and management systems would likely affect the terms of financial assurance the government would require to give it a feeling of reasonable certainty (ICMM 2005). While dependent on the resulting amount and terms of financial assurance, mitigation measures are proposed to ensure funding would be available to completely cover reclamation costs."	P42_Linda Douglas
P43	1/12/2016	Don Steinnerd		The financial benefits to the community are more than offset by any temporary and/or minimal permanent disturbances to the surrounding area.	SE-1; SCOPE-1	Socioeconomics; Scope of the DEIS	Thank you for your comment.	P41_Don Steinnerd
P43	1/12/2016	Don Steinnerd		Ultimate approval of this project is a "no-brainer." The mine is in reality a resumption of mining activities that were previously approved.	PA-6; CI-3	Proposed Action; Cumulative Impacts	Thank you for your comment.	P41_Don Steinnerd
P44	1/16/2016	Alan Wilder		The development of project alternatives prepared in accordance with NEPA; review of environmental effects indicated no violation of federal, state, local regulations associated with emissions, climate, or sustainability.	NEPA-6	NEPA Process	Thank you for your comment.	P42_Alan Wilder
P44	1/16/2016	Alan Wilder		Air quality may improve in the immediate area due to reduced grazing and any reduction of methane gas generator (i.e., cows).	AQ-1; CC-1	Air Quality; Climate Change and Sustainability	Thank you for your comment.	P42_Alan Wilder
P44	1/16/2016	Alan Wilder		Reclamation may improve habitats for wildlife and migratory birds compared to existing conditions due to more stringent standards.	WL-1	Wildlife	It is not clear in the comment what standards are more stringent. The Copper Flat project site would be reclaimed to achieve a self-sustaining ecosystem appropriate for the climate, environment, and land uses of the area. Because reclamation includes the entire mine area and 52 percent of the area consists of previously disturbed land, conversion to natural habitat would have long-term minor and beneficial impacts to wildlife and migratory birds due to the increase in potential habitat and habitat connectivity. These beneficial impacts would not occur until after the completion of reclamation, but would be long-term starting at that point. Common species are expected to return to the mining area in the long term after reclamation occurs.	P42_Alan Wilder
P44	1/16/2016	Alan Wilder		The open pit mine operation; selected flotation process for the plant; reagents listed for use in the process plant; tailings disposal design all appear to be typical of other approved mine operations.	PA-1	Proposed Action	Thank you for your comment.	P42_Alan Wilder
P44	1/16/2016	Alan Wilder		Support the project due to locally filled direct and indirect jobs.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P42_Alan Wilder
P44	1/16/2016	Alan Wilder		It would be interesting to see a comparison of the number of jobs provided by the mine on a per acre basis with some of the adjoining ranches.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P42_Alan Wilder
P44	1/16/2016	Alan Wilder		Support the project due to tax contribution to the state and county.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P42_Alan Wilder
P44	1/16/2016	Alan Wilder		It would be interesting to see a tax revenue comparison on a "per acre" basis for the mine construction and operation compared with some of the adjoining ranches and other commercial activities.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P42_Alan Wilder
P44	1/16/2016	Alan Wilder		The development of the Copper Flat Mine supports BLM's mission statement - to sustain the productivity of public land.	BLM-1	Bureau of Land Management	Thank you for your comment. The BLM evaluated the project's compatibility with multiple use policies and compliance with the Federal Land Policy and Management Act (FLPMA).	P42_Alan Wilder

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P44	1/16/2016	Alan Wilder		Support the project due to significant positive impact on the social and economic environment of the region.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P42_Alan Wilder
P45	1/26/2016	Sherry Fletcher		Thank you for being so prompt in sending the DEIS.	NEPA-5	NEPA Process	Thank you for your comment. One goal of the NEPA process is to facilitate public input to projects that may affect the public and the human and natural environment.	P43_Sherry Fletcher
P46	1/26/2016	Mark Shipley		Support opening of mine in Sierra County.	PA-5	Proposed Action	Thank you for your comment.	P44_Mark Shipley
P47	12/23/2015	Harley Shaw		The DEIS is difficult to evaluate and does not provide adequate scientific basis for evaluation as a decision maker. Improper and or inappropriate non-primary citations raise issues with poor science and suspicions of intentionally vague disclosure.	NEPA-1; REF-1	NEPA Process; References	The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts.	P47_Harley Shaw
P47	12/23/2015	Harley Shaw		THEMAC, 2015 is cited several times in the wildlife sections but does not appear in the list of references at the end of the DEIS.	REF-2	References	This source has been added to the list of references in the EIS.	P47_Harley Shaw
P47	12/23/2015	Harley Shaw		Wildlife surveys have weaknesses and do not take into account a complete picture of the area, including the cumulative impacts of past land use (e.g. degradation by earlier mining and grazing). Therefore, the wildlife evaluation reflects cumulative impacts of past land use.	WL-2; CI-3	Wildlife; Cumulative Impacts	See the response to comment WL-1. In response to this comment, the BLM has reviewed baseline wildlife surveys and found them to be sufficient for producing a satisfactory assessment in the EIS. Terrestrial habitat conditions would not be affected outside the immediate perimeter of the mine site. Because reclamation includes the entire mine area and 52 percent of the area consists of previously disturbed land, conversion to natural habitat would have long-term minor and beneficial impacts to wildlife and migratory birds due to the increase in potential habitat and habitat connectivity. These beneficial impacts would not occur until after the completion of reclamation, but would be long-term starting at that point. Common species are expected to return to the mining area in the long-term after reclamation occurs.	P47_Harley Shaw
P47	12/23/2015	Harley Shaw		Wildlife section lacks an in-depth assessment of historic habitat conditions and projections of habitat potential. Several studies (Whitford, 2002; Havstad et al., 2006, many others) are missing in list of references or as support documents.	REF-1; WL-2	Wildlife; References	See the response to comment WL-1. In response to this comment, the BLM has reviewed baseline wildlife surveys and found them to be sufficient for producing a satisfactory assessment in the EIS. Terrestrial habitat conditions would not be affected outside the immediate perimeter of the mine site. Because reclamation includes the entire mine area and 52 percent of the area consists of previously disturbed land, conversion to natural habitat would have long-term minor and beneficial impacts to wildlife and migratory birds due to the increase in potential habitat and habitat connectivity. These beneficial impacts would not occur until after the completion of reclamation, but would be long-term starting at that point. Common species are expected to return to the mining area in the long-term after reclamation occurs.	P47_Harley Shaw
P47	12/23/2015	Harley Shaw		Appendix G (e.g. page G11) ignores certain basic ecological and behavioral components necessary for evaluations of impacts to wildlife, and subsequently, the analysis is inadequate.	WL-3	Wildlife	In response to this comment, the BLM has reviewed baseline wildlife surveys and found them to be sufficient for producing a satisfactory assessment in the EIS. As noted in EIS Section 2.1.16, land clearing and surface disturbance would be timed to prevent destruction of active bird nests or birds' young during the avian breeding season (March 1 to August 31) to comply with the Migratory Bird Treaty Act. If surface disturbing activities are unavoidable during the avian breeding and nesting season, NMCC would have a qualified biologist survey areas proposed for disturbance for the presence of active nests immediately prior to the disturbance. If active nests are located, or if other evidence of nesting is observed (mating pairs, territorial defense, carrying nesting material, transporting of food), NMCC would work with the biologist and the BLM to develop a work plan to allow construction activities to continue without impacting the identified nesting area during the nesting and breeding season.	P47_Harley Shaw
P47	12/23/2015	Harley Shaw		The DEIS speaks of a reclamation plan (Section 3.10.2.1.2, paragraph 1), but not such plan is presented in the DEIS or supporting documentation. For example, the document discussed re-vegetation of disturbed areas with a diverse mixture of appropriate plant species to achieve approved post-mining land use.	REF-1; PA-8	References; Proposed Action	The post-mining reclamation activities would adhere to all current laws and regulations regarding this aspect of the process. At the completion of mining activities, the site would be restored to conditions and standards that meet approved post-mining land uses. These uses would include native plant communities like surrounding undisturbed areas for wildlife habitat, and grazing land potentially suitable for livestock. Once reclamation is successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels. Also, as noted in EIS Section 2.7, Best Management Practices, in the subsection entitled Threatened and Endangered Species and Special Status Species, ground clearing and other mine development activities would be avoided during breeding and nesting season (generally March 1 through August 31) until the area is surveyed by a qualified biologist to confirm the absence of nests (on the ground and in burrows and vegetation) and nesting activity to avoid impacting migratory birds. Therefore, the numbers of birds displaced during mining operations would be limited and the site would be restored to as good or better conditions for birds than pre-mining conditions. Thus, any long-term impacts to Audubon Important Bird Areas would be negligible.	P47_Harley Shaw
P47	12/23/2015	Harley Shaw		The DEIS commits only to minimal efforts to restore the landscape to its currently degraded condition which yields cumulative impacts that reflect reclamation efforts guided by a poor standard.	CI-2; PA-8	Cumulative Impacts; Proposed Action	The post-mining reclamation activities would adhere to all current laws and regulations regarding this aspect of the process. At the completion of mining activities, the site would be restored to conditions and standards that meet approved post-mining land uses. These uses would include native plant communities like surrounding undisturbed areas for wildlife habitat, and grazing land potentially suitable for livestock. Once reclamation is successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels. Also, as noted in EIS Section 2.7, Best Management Practices, in the subsection entitled Threatened and Endangered Species and Special Status Species, ground clearing and other mine development activities would be avoided during breeding and nesting season (generally March 1 through August 31) until the area is surveyed by a qualified biologist to confirm the absence of nests (on the ground and in burrows and vegetation) and nesting activity to avoid impacting migratory birds. Therefore, the numbers of birds displaced during mining operations would be limited and the site would be restored to as good or better conditions for birds than pre-mining conditions. Thus, any long-term impacts to Audubon Important Bird Areas would be negligible.	P47_Harley Shaw

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P48	2/9/2016	W.J. (Bill) Loomis		Initial planning and work to reach the current stage of development for the site (including spent energy and overburden removal) provides a good reason not to go elsewhere and start over to reach an ore body.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P48_William Loomis
P48	2/9/2016	W.J. (Bill) Loomis		The mine will have a major positive economic impact on Southern New Mexico by providing much needed quality jobs, area commercial support, severance taxes, gross receipt taxes, educational support, and local well being for our communities. The mine needs a chance to prove its economic worth.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P48_William Loomis
P48	2/9/2016	W.J. (Bill) Loomis		New science has been developed in extraction methods and procedures which reduces blasting and shifting of overburden; the mine will operate under more modern environmentally friendly regulations.	SCOPE-1; REG-4	Scope of the DEIS; Regulatory Compliance	Thank you for your comment. The mining proponent would employ modern mining techniques to protect the environment.	P48_William Loomis
P48	2/9/2016	W.J. (Bill) Loomis		The extraction will hopefully provide a large man-made lake or reservoir and recreational area.	REC-6	Recreation	As described in Section 3.6, Groundwater, the water quality in the pit lake after mining will not be suitable for water contact recreation.	P48_William Loomis
P49	2/11/2016	Ed Fidler		High quality assessments for air quality, water quality, surface water use, groundwater resources, cultural resources, social economics, wildlife, and migratory birds - accurate clear, straightforward, and relevant to the proposed actions identified in the draft EIS.	NEPA-7	NEPA Process	Thank you for your comment.	P49_Ed Fidler
P49	2/11/2016	Ed Fidler		Continues to be a need for sources of copper used in the building of infrastructure, necessary to sustain the improvements in the standard of living throughout the world.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P49_Ed Fidler
P49	2/11/2016	Ed Fidler		Support for project because continues to be need for copper (building infrastructure); will provide over 2,000 well-paying jobs with good benefits in an area where jobs and job growth are scarce; job training programs will occur as a result.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P49_Ed Fidler
P49	2/11/2016	Ed Fidler		Post mining reclamation will be to higher standards; overall impact will be positive due to mitigation strategies and best management practices.	PA-15	Proposed Action	The post-mining reclamation activities would adhere to all current laws and regulations regarding this aspect of the process. Thank you for your comment.	P49_Ed Fidler
P49	2/11/2016	Ed Fidler		The BLM in conjunction with other cooperating agencies should adopt this Draft EIS and move to the FEIS.	NEPA-8	NEPA Process	The BLM believes that the socioeconomic analysis in the FEIS, supplemented with additional information and analysis as a result of information obtained during the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of the National Environmental Policy Act (NEPA). The complete analysis is presented in the FEIS.	P49_Ed Fidler
P50	2/11/2016	Scott Graham	Layne Mineral Services	The Copper Flat mine would positively impact the community creating jobs, new businesses that generate revenue for the state and local community.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P50_Scott Graham
P50	2/11/2016	Scott Graham	Layne Mineral Services	The new mine would open up new opportunities for his employees in Silver City to work and allow them to stay in the state rather than having to move out to find employment opportunities.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P50_Scott Graham
P50	2/11/2016	Scott Graham	Layne Mineral Services	Complete the EIS process without delay.	NEPA-8	NEPA Process	Thank you for your comment.	P50_Scott Graham
P51	2/16/2016	Jim Frederick		The mine is located in a remote, non residential area that has already been used by mining industries for over 100 years.	LU-3; CI-3	Land Ownership and Land Use; Cumulative Impacts	Thank you for your comment. Previous mining activities at the site are included in the cumulative impacts analysis as discussed in Chapter 4 of the FEIS.	P51_Jim Frederick
P51	2/16/2016	Jim Frederick		The mine will provide good paying jobs for local people and revenue for the state.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P51_Jim Frederick
P52	2/16/2016	Marko Wikstrom		Support for the proposed re-activation of the mine because it will bring jobs to NM.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P52_Marko Wikstrom
P52	2/16/2016	Marko Wikstrom		The mine will allow Americans to depend on their own natural resources and not push resource extraction overseas where extraction can result in terrible environmental conditions. The mine will ensure natural resources used by Americans are extracted in a responsible way.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P52_Marko Wikstrom
P53	2/17/2016	Roger Peery	John Shomaker and Associates, LLC.	Support for the proposed mine because of the substantial economic benefits to the State of New Mexico including job creation. The mine will employ a relatively large number of local workers thereby bringing a long-term boost to the local economy.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P53_Roger Peery
P53	2/17/2016	Roger Peery	John Shomaker and Associates, LLC.	The project will have little impact on water resources in the area and the use of water for the mine is properly administered through the New Mexico Office of the State Engineer.	WR-3	Water Rights	Thank you for your comment. The commenter is correct that the OSE administers the application of water rights.	P53_Roger Peery

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P53	2/17/2016	Roger Peery	John Shomaker and Associates, LLC.	Water rights are in place for the proposed diversions for the project.	WR-4	Water Rights	<p>With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	P53_Roger Peery
P53	2/17/2016	Roger Peery	John Shomaker and Associates, LLC.	The project will provide positive impacts from a social justice standpoint in that high paying jobs will be available to local families thereby increasing their quality of life.	SE-1	Socioeconomics	Thank you for your comment.	P53_Roger Peery
P54	2/17/2016	Joel Schneyer	Headwaters MB	The US needs responsible domestic production of natural resources and the mine will produce copper and other valuable metals in NM.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P54_Joel Schneyer
P54	2/17/2016	Joel Schneyer	Headwaters MB	Proper Federal and State regulations will ensure protection of the workers and the environment.	HH&PS-4; REG-4	Human Health and Public Safety; Regulatory Compliance	Thank you for your comment. The mining proponent would employ modern mining techniques in compliance with MSHA.	P54_Joel Schneyer
P54	2/17/2016	Joel Schneyer	Headwaters MB	This project constitutes a brownfield redevelopment of a former copper mine - there is nothing "pristine" about the area.	CI-8	Cumulative Impacts	Thank you for your comment.	P54_Joel Schneyer
P55	2/19/2016	Barrett Sleeman		Proceed with the permitting process without delay so that workers can be hired and show industry that New Mexico is open for business and potential businesses can operate in a fair playing field in the State of New Mexico without unreasonable delays.	NEPA-8; SE-1	NEPA Process; Socioeconomics	Thank you for your comment.	P55_Barrett Sleeman
P55	2/19/2016	Barrett Sleeman		Support for the proposed mine because it will provide much needed direct employment in Sierra County and it will bring work to many supporting sectors that will be a positive impact throughout the state.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P55_Barrett Sleeman
P56	2/20/2016	Timothy Norris		The project will provide much needed employment and bring work to many supporting sectors that will have a positive impact throughout the state. It will keep jobs associated with mining from moving overseas.	SE-1	Socioeconomics	Thank you for your comment.	P56_Timothy Norris
P56	2/20/2016	Timothy Norris		The US needs responsible domestic production of natural resources and the mine will produce copper and other valuable metals in NM.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P56_Timothy Norris
P56	2/20/2016	Timothy Norris		The Draft EIS does a good job analyzing the project from an environmental perspective, clearly identifies the issues, and properly lays the groundwork for necessary environmental protection measures.	NEPA-7	NEPA Process	Thank you for your comment.	P56_Timothy Norris
P56	2/20/2016	Timothy Norris		I appreciate the fact that BLM has been thorough with their work and provided time for the public review process. Request that BLM work through the EIS process efficiently and without delay.	NEPA-8	NEPA Process	Thank you for your comment.	P56_Timothy Norris
P56	2/20/2016	Timothy Norris		Proper Federal and State regulations will ensure protection of the workers and the environment.	HH&PS-4; REG-4	Human Health & Public Safety; Regulatory Compliance	Thank you for your comment. The mining proponent would employ modern mining techniques in compliance with MSHA.	P56_Timothy Norris
P57	2/20/2016	Linda Dowless		Support for the proposed project because it will bring jobs and revenue the State of New Mexico that needs both.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P57_Linda Dowless

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P58	2/22/2016	Patty Rivera		We need jobs in Sierra County. I say let the jobs begin.	SE-1	Socioeconomics	Thank you for your comment.	P58_Patty Rivera
P58	2/22/2016	Patty Rivera		I think the mine should open, but should be held accountable for anything that should happen, I'm sure the government will be involved.	PA-6	Proposed Action	Thank you for your comment.	P58_Patty Rivera
P58	2/22/2016	Patty Rivera		Our environment needs to be protected.	REG-4	Regulatory Compliance	Thank you for your comment. The mining proponent would employ modern mining techniques to protect the environment.	P58_Patty Rivera
P59	2/22/2016	Trish Starr		The mine would be a boost to the local economy of an area where a boost in the economy is needed as fuel prices drop and many are losing their jobs. The mine would bring jobs to the area rather than having people look and re-locate elsewhere to better themselves. There is nothing here to offer them in the way of jobs, and the mine would offer jobs and help the growth of the community.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P59_Trish Starr
P59	2/22/2016	Trish Starr		T&C is a great place to raise a family because of the recreational opportunities available such as fishing, boating, skiing, laking, hunting, and hiking.	REC-4	Recreation	Thank you for your comment.	P59_Trish Starr
P60	2/22/2016	Bruce Cospser	Black Range Construction	Support for the project because small business in Sierra County needs the growth that the mine can help provide.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P60_Bruce Cospser
P61	2/23/2016	Katy		Concerns of the extensive use of groundwater from the proposed mine and the uncertainties/end result of the contamination/recharge and return to the aquifer.	GW-10; WQ-5	Groundwater Resources; Water Quality	Discussion of the potential impacts to groundwater quality is provided in Section 3.6.2; also refer to Table 3-20a. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the NOI to comply with the MSGP is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation.	P61_Katy
P61	2/23/2016	Katy		Concerns that the project may cut off the roads that the public use to access BLM recreational areas.	REC-3; TR-3; SE-10	Recreation; Transportation and Traffic; Socioeconomics	The project would not close roads needed to access the Gila National Forest and Gila Wilderness. As discussed under "Recreation and Tourism" in Section 3.22.2.1.6 of the EIS, the extent to which an active mine would deter tourists or recreationists from travelling Route 152 is difficult to quantify. However, it is likely that during the 1- to 2-year construction period, some may avoid the portion of NM-152 (from Hillsboro east to the junction of NM-152 and Highway 85), where the Geronimo Trail Scenic Byway and the Lake Valley Backcountry Byway overlap, due to the perception of increased traffic and air emissions hindering their experience. Visitation at the Gila National Forest in the western edge of Sierra County may decrease during this time since the Black Range Ranger Districts (including the Gila Wilderness) is most easily accessed via NM-152. Additionally, the portion of the Geronimo Trail Scenic Byway that follows NM-152 is located in a former mining area, which promotes tourism through sightseeing tours of abandoned mines and ghost towns. While some tourists may be deterred due to the perception of increased traffic and air quality or the degradation of visual quality, some may instead be drawn to the area. The Copper Flat mine project could create or renew interest in nearby ghost mining towns, the mining process, and the evolution of mining in the area benefiting tourism.	P61_Katy
P62	2/23/2016	Barbara Pearlman	Truth or Consequences Municipal Schools	The project is a boon dongle, the stock is worthless.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P62_Barbara Pearlman
P62	2/23/2016	Barbara Pearlman	Truth or Consequences Municipal Schools	The mine would potentially use an exorbitant amount of water.	GW-4; SW-1	Groundwater Resources; Surface Water Resources	Anticipated effects on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis on which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary mitigations applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the DEIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.	P62_Barbara Pearlman
P62	2/23/2016	Barbara Pearlman	Truth or Consequences Municipal Schools	The project would leave a toxic pit.	HM&SW-1	Hazardous Materials and Solid Waste/Solid Waste Disposal	There is already an existing pit that would be expanded as part of the Proposed Action. The water quality would be monitored and managed as discussed in Section 3.4 of the EIS.	P62_Barbara Pearlman

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P62	2/23/2016	Barbara Pearlman	Truth or Consequences Municipal Schools	The project would pollute the air.	AQ-2	Air Quality	Section 3.2.2. addresses the impacts of air pollution and dust. The modeling performed for the air permit demonstrated compliance with all applicable ambient air quality standards. Adverse effects to nearby areas or individuals are not expected.	P62_Barbara Pearlman
P62	2/23/2016	Barbara Pearlman	Truth or Consequences Municipal Schools	The company does not have the money to assure there would be a way to clean up the site after they are gone.	SCOPE-1; SE-14	Scope of DEIS; Socioeconomics	Bonding is not within the scope of the EIS. The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party. The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMAC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMAC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMAC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.	P62_Barbara Pearlman
P62	2/23/2016	Barbara Pearlman	Truth or Consequences Municipal Schools	The project would not create the amount of jobs and wages paid as discussed, and the top jobs will be given to out of state employees, leaving the lowest paid workers to do the grunt work.	SE-8	Socioeconomics	Section 2.1.5 of the FEIS indicates that NMCC would provide employment opportunities to individuals living in the immediate area of the mine. It is likely that personnel from outside the local area would be required to meet the full staffing needs of the mine; however, the southwestern United States provides a large base of experienced personnel to complete the employee roster (NMCC 2014a).	P62_Barbara Pearlman
P62	2/23/2016	Barbara Pearlman	Truth or Consequences Municipal Schools	The noise and traffic would negatively affect the lives of those in Animas, Caballo, and Hillsboro.	SE-2	Socioeconomics	Thank you for your comment. Potential impacts related to quality of life, including increased noise and traffic, are discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life).	P62_Barbara Pearlman
P62	2/23/2016	Barbara Pearlman	Truth or Consequences Municipal Schools	When the company can show that their stock is worth more than a penny, you can take them seriously. The price of copper does not warrant the investment.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P62_Barbara Pearlman
P62	2/23/2016	Barbara Pearlman	Truth or Consequences Municipal Schools	Commenter questions all of the figures provided by the company and urges BLM to investigate whether or not they are truly viable.	NEPA-14	NEPA Process	It is often true that the proponent of the action has some of the most relevant information that describes implementation of the project. The BLM has independently validated information and figures provided by the proponent to promote impartiality of the impact evaluation process.	P62_Barbara Pearlman
P63	2/24/2016	Annie McCoy	John Shomaker and Associates, LLC.	There are going to be impacts any time and any place natural resources are extracted. The goal should be to mine these resources in a responsible manner by mitigating impacts and mining in a location where site characteristics minimize potential impacts.	REG-2	Regulatory Compliance	Thank you for your comment.	P63_Annie McCoy
P63	2/24/2016	Annie McCoy	John Shomaker and Associates, LLC.	The project proposes responsible construction and maintenance of facilities, operations, and reclamation to mitigate impacts.	REG-2	Regulatory Compliance	Thank you for your comment.	P63_Annie McCoy
P63	2/24/2016	Annie McCoy	John Shomaker and Associates, LLC.	Because the mine is relatively remotely locate and generally out of sight to residents and visitors, it minimizes negative socioeconomic impacts.	VIS-2	Visual Resources	Thank you for your comment.	P63_Annie McCoy
P63	2/24/2016	Annie McCoy	John Shomaker and Associates, LLC.	Because the mine is in an arid environment with high rates of evaporation and no perennial surface-water resources within close proximity, it minimizes potential surface water quality impacts.	WQ-10	Water Quality	Thank you for your comment.	P63_Annie McCoy
P63	2/24/2016	Annie McCoy	John Shomaker and Associates, LLC.	Because the mine will be open pit in an area of extremely low permeability bedrock, and is a hydrologic sink, it minimizes potential groundwater quality impacts.	WQ-6	Water Quality	Thank you for your comment.	P63_Annie McCoy
P63	2/24/2016	Annie McCoy	John Shomaker and Associates, LLC.	The area where the mine would be located has been previously impacted by mining for many decades and offers an opportunity to improve the conditions of the area.	CI-1	Cumulative Impacts	Thank you for your comment. Previous mining activities at the site were included in the cumulative impacts analysis as discussed in Chapter 4 of the EIS.	P63_Annie McCoy
P64	2/25/2016	Mary Cullum	Truth or Consequences Municipal Schools	Support for the mine because the community needs the income and the opportunities for students to stay and work in Sierra County. Dissatisfaction for those stopping growth and keeping the county in the top ten of lowest incomes in the state.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P64_Mary Cullum
P65	2/25/2016	Joseph and Sandra Ficklin		Page 3-35 of the DEIS: NMCC does not have the water for rapid filling of the pit at the cessation of mining as proposed because they do not have the adjudicated water rights. This would result in the pit lake eventually becoming a toxic cesspool of ever increasing toxic metals. It would have to be fenced off forever.	PA-22	Proposed Action	As stated in Section 2.1.15.16, Facility Specific Reclamation: "NMCC does not propose to backfill the pit. Groundwater inflow formed a lake in the former pit. The current water level is at about 5,439 feet; therefore, pit dewatering would be necessary during operations. Following cessation of dewatering activities, a lake would again form in the pit. The post-closure pit water elevation is estimated to be approximately 4,900 feet. The depth of the lake would fluctuate a few feet depending on precipitation and the evaporation rate. If natural refilling were to be selected, this would proceed over a number of years." The paragraph continues "rapid filling, proposed as mitigation, would occur much more quickly. This would occur under conditions of water right approval to quickly submerge mineralized wallrock and limit mineral oxidation and formation of soluble mineral residue."	P65_Joseph and Sandra Ficklin

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P65	2/25/2016	Joseph and Sandra Ficklin		Conclusions related to surface water resources (e.g. Page 3-53; Las Animas Creek does not contribute perennial surface water flow to the Rio Grande) and field data used to develop those sections are inadequate.	SW-13	Surface Water Resources	Baseline characterization data for the project were collected in accordance with NMAC 19.10.6. Percha and Las Animas Creeks do not contribute perennial flow to the Rio Grande. Perennial reaches exist in both Percha and Las Animas Creeks; however, these reaches are separated from the Rio Grande by ephemeral reaches.	P65_Joseph and Sandra Ficklin
P65	2/25/2016	Joseph and Sandra Ficklin		The noise from ore trucks hauling on Highway 152 is of concern to the commenter and the DEIS (e.g. page 3-229 stating that because of the remote location, the effects of noise would be negligible) does not adequately evaluate these impacts.	NOI-1	Noise and Vibrations	Truck operation on site were included in the noise model outlined in Section 3.21.2.1.1. Section 3.20.2.1 indicates in years 1-5, would require 10-14 truckloads per day to and from the site. This is approximately one truck per hour. Due to the limited amount of truck and the limited amount of nearby residences these effects would be negligible.	P65_Joseph and Sandra Ficklin
P66	2/29/2016	David Gratson		Support for the mine because the well written, detailed, and transparent DEIS thoroughly describes the proposed action, and provides the required alternative actions in accordance with the National Environmental Policy Act (NEPA).	NEPA-6	NEPA Process	Thank you for your comment.	P66_David Gratson
P66	2/29/2016	David Gratson		The DEIS provides sufficient details to infer the potential impacts to the ecology of the area, cultural resources, visual resources, air quality, surface water and groundwater resources.	AQ-3, CR-1, GW-14, SW-9, WL-4	Air Quality; Cultural Resources; Groundwater Resources; Surface Water Resources; Wildlife	Thank you for your comment.	P66_David Gratson
P66	2/29/2016	David Gratson		The DEIS provides explicit details as to how impacts will be mitigated by NMCC.	NEPA-6	NEPA Process	Thank you for your comment.	P66_David Gratson
P66	2/29/2016	David Gratson		The New Mexico Copper Corporation has achieved the required elements in NEPA with this DEIS and the public scoping and information meetings.	NEPA-5	NEPA Process	Thank you for your comment. One goal of the NEPA process is to facilitate public input to projects that may affect the public and the human and natural environment.	P66_David Gratson
P67	3/1/2016	Robert Barnes		The subject DEIS fails to establish credible proposed actions and alternatives for analysis as required by Statute and Enabling Regulations. The requirement to comply with other Federal Laws was not identified as a need in the DEIS. Even at the summary level, the Proposed Action does not "reflect the largest possible impact of the mining footprint at Copper Flat" - at the detail level, this discrepancy is even more obvious.	PA-9; NEPA-15	Proposed Action; NEPA Process	The selection of alternatives was systematically conducted using input from the scoping process at an alternatives-selection session at which the BLM and State cooperating agencies considered alternatives that reflected the substance of the scoping comments. The Purpose and Need Statement in the FEIS and Section 1.1 Purpose and Need describe the BLM's obligation for taking action on the project. Compliance with Federal laws that are relevant to the BLM's need for taking action on the project is discussed in Section 1.1. The Proposed Action has a larger disturbance footprint than the two action alternatives, reflecting improved, more efficient mining operations used in the alternatives.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The impacts are described only at a high level of summary: either Significant or Not Significant. The impacts are described for the Resources Areas identified in the report. The report does not provide data or analysis which would lead to the conclusions identified in this summary for most of the Resource Areas. The "No Action" Alternative is not summarized in the table on ES-9 of the DEIS because BLM asserts that leaving the mine site as is has no impact in any of the Resource Areas.	ALT-2	Alternatives	The EIS has been prepared to: 1) analyze the environmental impacts of alternatives that would meet the proposed purpose and need; and 2) assist the BLM in deciding whether to approve a Preferred Alternative that may be the Proposed Action, an identified alternative, or a combination of analyzed elements of the Proposed Action or alternatives. The EIS has been prepared in accordance with NEPA requirements for the BLM. An informed decision based on the EIS will be made and a ROD will be signed. If the Preferred Alternative identified in the ROD differs from the MPO, the MPO must be revised by NMCC and approved by the BLM prior to commencing mining operations. New Mexico Copper Corporation (NMCC) has an obligation to cleanup/reclaim following activities such as exploration (drilling) but the New Mexico Environment Department (NMED) has no basis to require NMCC to upgrade facilities that were previously reclaimed unless there was a potential or actual impact to water quality from the existing condition. That could potentially come out of the abatement process in the event the No Action Alternative was selected. One place where this could possibly occur would be the tailing impoundment, where the synthetic liner at the base of the new impoundment was to provide a source control measure on top of the existing tailings. Similar conditions may exist for rock piles. Additionally, the site does not meet Mining and Minerals Division's (MMD) definition for an "existing mining operation" (19.10.1.7.E(2) NMAC) because the mining performed by Quintana did not produce a marketable mineral for a total of at least 2 years between January 1, 1970 and June 18, 1993. Because the mine does not qualify as an existing mining operation per the definition, MMD would not have any jurisdiction to require Quintana or NMCC to reclaim the slopes, waste rock facilities, pit, tailings impoundment, roads, etc. that are currently at the site. The mining performed by Quintana in the 1980s and the mining conducted by smaller entities prior to Quintana are considered to be "pre-New Mexico Mining Act" disturbances that are not able to be regulated by MMD based on the Act and Rules. As such, if the No Action Alternative was selected during the EIS process, the disturbances and reclamation previously performed by Quintana in the 1980s would be allowed by MMD to remain as-is. However, if old disturbance is re-disturbed by the new NMCC mining operation, those areas that become re-disturbed would fall under the requirements for new mining operations. For example, if NMCC reuses an old waste rock pile, then they would have to meet New Mine Operation and Performance Standards.	P67_Robert Barnes

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P67	3/1/2016	Robert Barnes		Very general statements about the impacts on various Resource Areas are made in Chapter 2, and in a number of instances these summary descriptions do not comport with findings elsewhere in the DEIS, are misleading, and/or suffer from errors of commission and omission. The No Action Alternative is not evaluated or even referenced.	ALT-2	Alternatives	<p>The EIS has been prepared to: 1) analyze the environmental impacts of alternatives that would meet the proposed purpose and need; and 2) assist the BLM in deciding whether to approve a Preferred Alternative that may be the Proposed Action, an identified alternative, or a combination of analyzed elements of the Proposed Action or alternatives.</p> <p>The EIS has been prepared in accordance with NEPA requirements for the BLM. An informed decision based on the EIS will be made and a ROD will be signed. If the Preferred Alternative identified in the ROD differs from the MPO, the MPO must be revised by NMCC and approved by the BLM prior to commencing mining operations.</p> <p>New Mexico Copper Corporation (NMCC) has an obligation to cleanup/reclaim following activities such as exploration (drilling) but the New Mexico Environment Department (NMED) has no basis to require NMCC to upgrade facilities that were previously reclaimed unless there was a potential or actual impact to water quality from the existing condition. That could potentially come out of the abatement process in the event the No Action Alternative was selected. One place where this could possibly occur would be the tailing impoundment, where the synthetic liner at the base of the new impoundment was to provide a source control measure on top of the existing tailings. Similar conditions may exist for rock piles.</p> <p>Additionally, the site does not meet Mining and Minerals Division's (MMD) definition for an "existing mining operation" (19.10.1.7.E(2) NMAC) because the mining performed by Quintana did not produce a marketable mineral for a total of at least 2 years between January 1, 1970 and June 18, 1993. Because the mine does not qualify as an existing mining operation per the definition, MMD would not have any jurisdiction to require Quintana or NMCC to reclaim the slopes, waste rock facilities, pit, tailings impoundment, roads, etc. that are currently at the site. The mining performed by Quintana in the 1980s and the mining conducted by smaller entities prior to Quintana are considered to be "pre-New Mexico Mining Act" disturbances that are not able to be regulated by MMD based on the Act and Rules. As such, if the No Action Alternative was selected during the EIS process, the disturbances and reclamation previously performed by Quintana in the 1980s would be allowed by MMD to remain as-is. However, if old disturbance is re-disturbed by the new NMCC mining operation, those areas that become re-disturbed would fall under the requirements for new mining operations. For example, if NMCC reuses an old waste rock pile, then they would have to meet New Mine Operation and Performance Standards.</p>	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The bulk of the analysis which BLM performed in each of the Resource Areas was premised on the Proposed Action. Their description of the differences between the analysis of the Proposed Action and the two Alternative Actions is limited to a paragraph or so. No assessment is made of the No Action Alternative.	ALT-2	Alternatives	<p>New Mexico Copper Corporation (NMCC) has an obligation to cleanup/reclaim following activities such as exploration (drilling) but the New Mexico Environment Department (NMED) has no basis to require NMCC to upgrade facilities that were previously reclaimed unless there was a potential or actual impact to water quality from the existing condition. That could potentially come out of the abatement process in the event the No Action Alternative was selected. One place where this could possibly occur would be the tailing impoundment, where the synthetic liner at the base of the new impoundment was to provide a source control measure on top of the existing tailings. Similar conditions may exist for rock piles.</p> <p>Additionally, the site does not meet Mining and Minerals Division's (MMD) definition for an "existing mining operation" (19.10.1.7.E(2) NMAC) because the mining performed by Quintana did not produce a marketable mineral for a total of at least 2 years between January 1, 1970 and June 18, 1993. Because the mine does not qualify as an existing mining operation per the definition, MMD would not have any jurisdiction to require Quintana or NMCC to reclaim the slopes, waste rock facilities, pit, tailings impoundment, roads, etc. that are currently at the site. The mining performed by Quintana in the 1980s and the mining conducted by smaller entities prior to Quintana are considered to be "pre-New Mexico Mining Act" disturbances that are not able to be regulated by MMD based on the Act and Rules. As such, if the No Action Alternative was selected during the EIS process, the disturbances and reclamation previously performed by Quintana in the 1980s would be allowed by MMD to remain as-is. However, if old disturbance is re-disturbed by the new NMCC mining operation, those areas that become re-disturbed would fall under the requirements for new mining operations. For example, if NMCC reuses an old waste rock pile, then they would have to meet New Mine Operation and Performance Standards.</p>	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		BLM does not properly identify the proposed action and the Alternatives and proposed actions do not reflect a logical or likely set of options - this results in a report which is deliberately skewed. If the correct proposed action would have been selected, the analysis would have been performed using a different set of data and it would have delivered a different set of conclusions, across the board. Because the preferred alternative was not selected as the proposed action, the analysis is inadequate.	ALT-4; PA-10	Alternatives; Proposed Action	<p>The Proposed Action reflects the MPO submitted to the BLM by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration.</p>	P67_Robert Barnes

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P67	3/1/2016	Robert Barnes		The report does not accurately or adequately present the amount of water that will ultimately be used for the proposed mining operation, and the discussion of where water will come from (e.g. recycling water from the tailings storage facility) and how is fundamentally unproven. Any shortfall in meeting these recycling goals will have to be made up with fresh water and will fundamentally effect surface and ground water supplies.	P&N-1; WR-1	Water Rights; Purpose & Need	<p>With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		It is unclear what the duration of mining operations are under the BLM proposal since it is variously reported as 11 years and 12 years (p. 2 - 72). The effects of using 22.9 billion gallons of water are not adequately accessed because of the Fundamental flaw in methodology employed by BLM in its analysis (it is the lower amount of usage which received the "definitive" assessment and is discussed in the main body of the report).	GW-11; PA-11	Groundwater Resources; Proposed Action	<p>The mine life for Alternative 2 is 12 years. All references to mine life have been made consistent in the FEIS.</p> <p>The groundwater resources section was developed with the close cooperation of groundwater experts from the EIS contractor, the BLM, the OSE, and NMCC's hydrogeologist. The assessment was made on the basis of actual projected water use for the Proposed Action and each alternative. The groundwater model developed for NMCC by JSAI was carefully evaluated and validated by the other parties, resulting in a thorough assessment of groundwater impacts. This model is described in Section 3.6.2 of the FEIS. The average water used to process 1 ton of material has been recalculated with a new baseline and the revised figure appears in the FEIS.</p>	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The assertion in the draft EIS that the aquifers will recharge in a fairly short period of time is of significant importance. The effects of climate changes, especially given the mining activities proposed by THEMAC, on a broad spectrum of EIS evaluation criteria may be extreme.	CC-2; GW-19; SW-11	Climate Change and Sustainability; Groundwater Resources; Surface Water Resources	<p>Additional description of possible specific climate change impacts has been added to Sections 3.3.1.2 and 3.3.2.1.1 of the FEIS. Groundwater responds rapidly to local stresses or inputs (e.g. pumping of wells) but slowly to regional climate changes. Moreover, natural climate is variable and any imprint from global change is very difficult to determine from that variability on a local scale.</p> <p>The primary projected climate change impact for this area is that the future surface water resources in the Rio Grande will experience an overall decrease in total supply due to a higher rate of evapotranspiration in the contributing basins, and a seasonal shift from less spring runoff (less snowmelt) to more summer runoff (more thunderstorm precipitation).</p> <p>With consideration of climate change effects, the impact of Copper Flat (and every other local/regional pumper of surface water) would be proportionally larger as climate change progresses, without drought management policies in place such as New Mexico's Active Water Resource Management (AWRM). An analysis has been added to the FEIS that acknowledges AWRM as a factor in determining cumulative impacts.</p> <p>In January 2004 AWRM was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution makes priority of right the basis for water administration, but recent drought years have compelled the State Engineer to develop tools for AWRM that enable them to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes, thus compensating for the impacts to the aquifer and rivers.</p>	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The recharge of the aquifers projected in the EIS is based on recent historical (straight-line) averages. If a more scientifically accurate assessment methodology were used (such as those presented in the comment), the negative impacts of mining operations on surface water and ground water would be significantly greater because the potential for recharge is so much less than that projected in the DEIS.	GW-20	Groundwater Resources	<p>The recharge estimates were based on evaluations of the regional water budget and on comparisons to published values for similar basins in the region. In the area impacted by the well field, the estimated recharge was zero, and thus with respect to recharge the impacts predicted are already at the maximum. To the extent recharge does occur in that area, the expectation would be less drawdown and faster recovery than described in the EIS.</p>	P67_Robert Barnes

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P67	3/1/2016	Robert Barnes		Groundwater impacts will aggravate the negative economic impacts of the mine (something which the DEIS glosses over), namely the potential reduction of property values (because water supplies become more problematic), reduced revenue from property taxes for the county, and out-migration of the more affluent members of the population (because they can).	GW-21; SE-20	Groundwater Resources; Socioeconomics	The project is not predicted to have effects on water supplies that would have direct, adverse economic impacts or direct, adverse impacts on real estate values in Sierra County overall. Revenue from property taxes would increase during the construction phase; and tax revenue would be greater under all action alternatives compared to the No Action Alternative. The potential out-migration of residents has been added to the discussion in the FEIS. Section 3.22.1.6.3 discusses factors that can positively affect property values (e.g., availability of and proximity to public land like forests, lakes, and mountains) and negatively affect property values (e.g., noise, light, air pollution). A discussion of other important factors affecting property values (e.g., quality of public education, access to public transit and recreational opportunities, the age and condition of the home itself) have been added to Section 3.22.1.1.2 and 3.22.2.1.4. A discussion of how the introduction of a copper mine could adversely impact the property values of adjacent landowners specifically has been added to the 3.22.2.1.4, though it is difficult to quantify how much property values would be impacted.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The commenter refers to a number of climate-change related discussion sources to present potential impacts due to climate change (e.g. reduced snowpack), none of which are impacts noted in the DEIS, and suggests that all of these impacts would effect both the runoff and recharge of the aquifer.	CC-2; GW-19; SW-11	Climate Change and Sustainability; Groundwater Resources; Surface Water Resources	Additional description of possible specific climate change impacts has been added to Sections 3.3.1.2 and 3.3.2.1.1 of the FEIS. Groundwater responds rapidly to local stresses or inputs (e.g. pumping of wells) but slowly to regional climate changes. Moreover, natural climate is variable and any imprint from global change is very difficult to determine from that variability on a local scale. The primary projected climate change impact for this area is that the future surface water resources in the Rio Grande will experience an overall decrease in total supply due to a higher rate of evapotranspiration in the contributing basins, and a seasonal shift from less spring runoff (less snowmelt) to more summer runoff (more thunderstorm precipitation). With consideration of climate change effects, the impact of Copper Flat (and every other local/regional pumper of surface water) would be proportionally larger as climate change progresses, without drought management policies in place such as New Mexico's Active Water Resource Management (AWRM). An analysis has been added to the FEIS that acknowledges AWRM as a factor in determining cumulative impacts. In January 2004 AWRM was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution makes priority of right the basis for water administration, but recent drought years have compelled the State Engineer to develop tools for AWRM that enable them to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes, thus compensating for the impacts to the aquifer and rivers.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		When using a bell shaped curve to identify the most likely scenario that aquifer recharge will be problematic in the future, certainly "irretrievable" and perhaps "irreversible" is found at the top of the bell curve. The DEIS has chosen a scenario that is out on the long legs of the probability curve, drawn from the least likely set of scenarios, as the anticipated outcome of mining operations at Copper Flat. This is reckless, capricious, and arbitrary.	GW-22; I&I-2	Irretrievable Commitment of Resources; Groundwater Resources	The BLM did not identify any aspect of the FEIS that corresponds with the statements made in this comment.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The project proposes lowering of the water table significantly. It is quite likely the projects groundwater depletion actions will kill the trees, especially those in the Animas.	VEG-1; GW-7	Vegetation; Groundwater Resources	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		BLM estimates of drawdown (in both the proposed action and the alternate actions involving mining) is extremely conservative because of flaws in the methodology used to calculate the damage. The analysis is not rigorous, not as definitive as it claims to be in many places, and requires substantial testing to correct errors created by the obvious bias.	GW-20	Groundwater Resources	The recharge estimates were based on evaluations of the regional water budget and on comparisons to published values for similar basins in the region. In the area impacted by the well field, the estimated recharge was zero, and thus with respect to recharge the impacts predicted are already at the maximum. To the extent recharge does occur in that area, the expectation would be less drawdown and faster recovery than described in the EIS.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		Commenter does not want BLM to impose a short-term boom and bust economy over a period of twelve years followed by an economy which is less robust and stable than it is presently.	SE-21	Socioeconomics	Thank you for your comment. Potential impacts of a "boom and bust" economy are discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life).	P67_Robert Barnes

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P67	3/1/2016	Robert Barnes		After documenting the increase in per capita income the BLM then makes a series of "interesting" determinations and reaches even more "interesting" conclusions. The socioeconomic conclusions do not stand up to any kind of scrutiny, and the document does not demonstrate that at least some of their wild assertions are factual.	SE-37	Socioeconomics	The BLM believes that the socioeconomic analysis in the FEIS, supplemented with additional information and analysis because of the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of NEPA. The complete analysis is presented in the FEIS.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The DEIS does not adequately address the economic drivers associated with a large stable inflow of wealth into the county from the growing retirement community – both of which bring money into the county through spending and increased property taxes. This change in county economic demographics is completely ignored by the BLM in its assessment, creating a data base which is significantly incomplete (references to changing demographics are outlined in a paragraph that follows).	SE-22	Socioeconomics	The potential to deter retirees (as well as tourists and recreationists) is discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life), and the potential out-migration of residents has been added to the discussion for the FEIS.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The median value of owner-occupied housing units in the Hillsboro area is listed as "n/a" in p. 3 - 238, Table 3-57 "Housing Characteristics" even though the information is readily available from the Sierra County Tax Office.	SE-23	Socioeconomics	The median value of owner-occupied housing units in the Hillsboro Census Designated Place (CDP) has been added to Table 3-57 in the DEIS (Table 3-63 of the FEIS).	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The use of narrowly defined CDP's (Census Designated Place) data in the report to exclude homes, businesses, and citizens who are located in the proximity of the mine (i.e., the 88042 zip code) from the analysis. The effective disenfranchisement (a term used by presenters from the public) of these people and their economic activities supports an analysis favorable to BLM's preferred Alternative.	SE-5	Socioeconomics	The region of influence (ROI) does include the CDP in Sierra County, but the ROI is defined as Sierra County (as noted in the second paragraph of 3.22.1 (Affected Environment)). As such, homes, businesses, and citizens located in the proximity of the mine are not excluded from the analysis. Surrounding counties of Grant and Luna are excluded from the ROI for consideration of direct impacts, but indirect impacts for these counties are considered.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The DEIS uses the SpacePort America project as an example for how similar projects have provided economic benefits, jobs, whereas it has not realized and delivered on the promised of economic improvements identified in the FEIS. This as an example as to how the analysis presented in the DEIS is sloppy and does not use appropriate scientific rationale.	SE-24	Socioeconomics	The SpacePort America project is not used as an example of how similar projects have provided economic benefits or jobs; it is included in the discussion of the affected environment for socioeconomic (Section 3.22.1 of the EIS) because it helps describe the current conditions of the local economy. Further, the data included in Section 3.22.1 of the EIS regarding jobs created was provided by the CEO of Spaceport America, and reflects actual jobs created during the construction and development of the spaceport.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The negative impacts of the mining operations on the environmental attributes that the retirement community cherish will destabilize this economic stability and viability and will have long lasting economic consequences.	SE-22	Socioeconomics	The potential to deter retirees (as well as tourists and recreationists) is discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life), and the potential out-migration of residents has been added to the discussion for the FEIS.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		DEIS analysis of tax revenue from the mine is erroneous, because it argues that the mine will be subject to the processors tax but exempt from the resources tax because the ore would be processed in New Mexico. However, in the Hillsboro meeting on December 16, 2015, it was acknowledged that the ore will probably be processed outside of New Mexico.	SE-25	Socioeconomics	The statement that the mine will be subject to the processors tax but exempt from the resources tax because the ore would be processed in New Mexico has been updated to reflect that the ore will likely be processed outside of New Mexico. While this error has been corrected in the Affected Environment, no associated change is needed in Environmental Consequences. Section 3.22.2.1.3 (Public Finance) describes additional state and local tax revenue from the Copper Ad Valorem and processors tax, as well as the shared distribution of severance taxes between the state and counties/municipalities.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		On page 3-245 the taxable value of copper production is listed, not the actual taxes paid, giving an erroneous impression of benefit.	SE-25	Socioeconomics	The taxable value of copper production in Section 3.22.1.4.4 is included as part of the Affected Environment discussion to provide a framework for the discussion of potential tax revenue in Environmental Consequences. Text was added to clarify the implications of the ad valorem tax. The net taxable value for property tax purposes; county property tax obligation, and the property tax obligation per person in Sierra County was added and explained for Sierra County. In addition, figures for Grant County are used to provide an example of property tax obligations for a county that is subject to the copper ad valorem tax (and Grant County was the only county in New Mexico to produce copper in 2009).	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The discussion of tax revenues from the proposed mine are treated as additive – which does not represent an adequate evaluation of how tax revenues from commodities work. Because increases in production can cause the price of copper to decrease, the per unit revenue generated by copper production can decrease as well. It is unclear what impacts this would have on state revenues from mining – this phenomenon is not discussed in the EA.	SE-25	Socioeconomics	Potential impacts on state revenues from mining are discussed in Section 3.22.2.1.3 (Public Finance). NMCC estimates of direct tax liabilities for the Proposed Action, Alternative 1, and Alternative 2 are summarized in Tables 3-77, 3-80 and 3-83, respectively – most of these taxes are levied by the state. As explained in the section, "tax estimates assume metal prices of \$3.00/lb. for copper; \$9.50/lb. for molybdenum; \$1,350/oz. for gold; and \$22/oz. for silver. Ultimately, State and local tax revenue would be proportional to copper, molybdenum, gold, and silver prices for that year." Tax revenue is treated as additive in the EIS because it is outside the scope of the FEIS to predict the global price of copper out 17.5, 21, or 24 years (depending on the alternative) and adjust state revenues accordingly. As stated by the commenter, commodities are very responsive to supply and demand curves. But commodities are not responsive to the point of decreasing the per unit revenue generated by copper production (at the Copper Flat mine) and causing the global price of copper to drop. Commodities are, however, responsive to China's demand, worldwide oil prices, and advances in mining and processing technologies. As such, it is unlikely that an increase in copper production (from the Copper Flat mine) would cause state revenues to remain the same or even diminish.	P67_Robert Barnes

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P67	3/1/2016	Robert Barnes		Failure to address the negative impacts and failure to include the surrounding counties of Grant and Luna in the Region of Influence effectively disenfranchises the citizens of those counties from commenting on the DEIS. In addition, because the economic effects of the three mines are integrated, the economic analysis of the Copper Flat mine operations is fundamentally flawed.	SE-5; SE-37	Socioeconomics	The region of influence (ROI) does include the CDP in Sierra County, but the ROI is defined as Sierra County (as noted in the second paragraph of 3.22.1 (Affected Environment). As such, homes, businesses, and citizens located in the proximity of the mine are not excluded from the analysis. Surrounding counties of Grant and Luna are excluded from the ROI for consideration of direct impacts, but indirect impacts for these counties are considered. The BLM believes that the socioeconomic analysis in the FEIS, supplemented with additional information and analysis because of the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of NEPA. The complete analysis is presented in the FEIS.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The concept of ROI is not addressed in the water rights sections of this report. Diminishment of the water flow from the Percha and Animas drainages adversely affects all downstream users of water in the Rio Grande. This diminishment will have direct, and perhaps a very substantial negative effect, on the livelihood of those individuals – this issue was not addressed in the DEIS.	WR-8	Water Rights	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project, and that discussion in the EIS of such topics as an ROI would be premature. To the extent the OSE determines NMCC has a vested right to deplete surface flows below the dam without providing an additional offset, and absent the voluntary mitigation, there could be an adverse effect on users of surface water in the Lower Rio Grande Basin and/or Texas that would exist for decades. However, because NMCC would provide mitigation in the form of offsets from upstream, this impact is predicted to not occur.	P67_Robert Barnes
P67	3/1/2016	Robert Barnes		The Proposed Plan should have reflected the known operating plan of the mine and the analysis should have been completed on the real plan of operations since that is the most extreme case. Subsequently, the base analysis and the evaluation of alternatives should have been conducted on the actual plan of operations so the mining operations could be appropriately reviewed. None of this was done.	ALT-4; PA-10	Alternatives; Proposed Action	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ).	P67_Robert Barnes
P68	3/1/2016	John Bokich	Duran Bokich Enterprises, LLC	The DEIS has been managed appropriately and is complete and addresses all of the requirements of the NEPA process.	NEPA-6	NEPA Process	Thank you for your comment.	P68_John Bokich
P68	3/1/2016	John Bokich	Duran Bokich Enterprises, LLC	Economic conditions of Sierra County, without the implementation of the Copper Flat Mine Project, will continue to decline, and the population will continue to decrease as it has since 2000. The mine will provide jobs, tax revenue, and business benefits and prevent further "boom and bust" of the county.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P68_John Bokich
P68	3/1/2016	John Bokich	Duran Bokich Enterprises, LLC	The project will provide funds and resources to allow development of infrastructure and industries (including demand for electricity - provided by the Copper Flat Mine itself) that will support the mine and can be developed to provide opportunity for future business and economic sustainability that no other foreseeable opportunity currently provides.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P68_John Bokich
P68	3/1/2016	John Bokich	Duran Bokich Enterprises, LLC	The proposed project will not have a measurable effect on other water users, but will have significant and unique positive effects to all of the county in increased economic revenues and sustainability through proper community investment and management for the future.	GW-11; SE-1; SW-3	Groundwater Resources; Socioeconomics; Surface Water Resources	Thank you for your comment	P68_John Bokich
P68	3/1/2016	John Bokich	Duran Bokich Enterprises, LLC	Water currently stored in Elephant Butte and Caballo largely is released for economic benefit downstream of Sierra County, and the County receives little benefit other than seasonal recreational use. Water use within the County has not been able to provide sustainable employment or economic resources to allow the County to be economically sustainable.	REC-7; SE-19; SW-12; GW-17	Recreation; Socioeconomics; Surface Water Resources; Groundwater Resources	Thank you for your comment.	P68_John Bokich
P68	3/1/2016	John Bokich	Duran Bokich Enterprises, LLC	Existing use of ground and surface water in Sierra County is not sustaining the economy of the county.	GW-17; SW-12; SE-19	Groundwater; Surface Water Resources; Socioeconomics	Thank you for your comment	P68_John Bokich
P68	3/1/2016	John Bokich	Duran Bokich Enterprises, LLC	Technology today, as identified and described in the Copper Flat Mine Draft Environmental Impact Statement by the experts enlisted by New Mexico Copper to objectively identify potential effects and to develop measure to mitigate those effects, is capable of minimizing potential negative effects and maximizing potential positive effects.	NEPA-12	NEPA Process	Thank you for your comment. One goal of the NEPA process is to identify potential effects and mitigate them as necessary to reduce predicted significant effects.	P68_John Bokich

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P69	3/1/2016	James and Theresa Harthun		Opposition for the project because both parties wells were not tested as part of the DEIS testing of groundwater wells - during testing the commenters water got hot and the pressure dropped.	GW-18	Groundwater Resources	The performance of any well west of the mine pit is not known to an extent that would allow an accurate determination of impact on the well and water supply. If pre-mining well performance baselines are established, and impacts to these wells from pit dewatering are demonstrated and documented to the OSE as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with New Mexico law.	P69_James and Theresa Harthun
P69	3/1/2016	James and Theresa Harthun		Opposition for the project because groundwater drawdown of even 10 feet would destroy Animas Creek.	GW-7; VEG-1	Groundwater Resources; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P69_James and Theresa Harthun
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The Draft EIS has significant flaws. Recommend it be withdrawn; flaws be corrected; and reissued for public review.	NEPA-1	NEPA Process	The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	In Appendix A, the significance criteria (duration, extent, likelihood) are difficult if not impossible for the public to understand.	NEPA-16	NEPA Process	The commenter was not specific about which criteria are difficult to understand. The terms used in this section are commonly used in NEPA analysis, and for purposes of consistency continue to be used. However, the criteria have been further explained through additions to the glossary.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	In Appendix A, the Duration parameter must include the level "permanent" to differentiate from "long-term." Effects on cultural resources are listed as permanent, and effects to many other resource topics are also permanent but are listed as long-term.	NEPA-17	NEPA Process	For purposes of determining the significance of a potential effect, there is little or no difference that separates the characterization of long-term and permanent effects.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	In Appendix A, on page 3.55, 3.5.2.1: Distinguish between permanent and long-term impacts, see 3.55, 3.5.2.1 paragraph 1.	SW-14; NEPA-17	Surface Water Resources; NEPA Process	For purposes of determining the significance of a potential effect, there is little or no difference that separates the characterization of long-term and permanent effects.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The level definitions for Extent must be consistent within the DEIS; level definitions for various resource topics are substantially different.	NEPA-18	NEPA Process	The characteristics of analyzed resources vary and it is reasonable that the descriptions of extent vary also for these resources. Resource analysts have chosen descriptions of extent that are based on available science and professional judgement for their analysis and a review performed for the response to this comment found that the descriptions of extent are neither inaccurate nor inconsistent, and are presented in a manner that appears understandable to the public.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Extent parameter on page A-5 differs from groundwater - one uses specific geographic area and the other square miles. These should be consistent.	SW-16; GW-27	Surface Water Resources; Groundwater Resources	Different extent definitions are used in the EIS to describe the surface water and groundwater impacts. They are different water resources and are hydraulically separated except for some areas where drainages are perennial and along the Rio Grande. In addition, groundwater impacts generally extend radial from pumping wells and regions, and are best defined in terms of impacted area, whereas impacts to surface water features can affect entire drainage reaches, which tend to be long and linear. Square miles are used for groundwater because the primary groundwater impacts are due to pit dewatering and well field pumping. It therefore makes sense to define extent based on the area of impacts from these pumping regions. On the other hand, the extent of surface water impacts are based on predicted impacts to surface water features (i.e. drainages) and their proximity to the mine.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Significance criteria differs from language contained in DEIS. For example, on p. 3-96 and 3-97, the words significant, certain, and permanent are not defined or used in the Significance Criteria, but are used in the body of the text.	NEPA-16; GW-25	NEPA Process; Groundwater Resources	The commenter was not specific about which criteria are difficult to understand. The terms used in this section are commonly used in NEPA analysis, and for purposes of consistency continue to be used. However, the criteria have been further explained through additions to the glossary.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	On page A-5, the definition of Extent and Likelihood level definitions are the same. How can the definition be the same, when Extent is used to denote a geographic area, and Likelihood the probability of an impact occurring?	NEPA-16; SW-17	NEPA Process; Surface Water Resources	There was an error in the definitions provided for "Likelihood" presented on the Surface Water Use table in Appendix A of the DEIS. The definitions have been corrected in the FEIS.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The significance criteria is flawed to the degree that it is difficult, if not possible, for the public to understand. The significance criteria must be revised; reflected in the body of the DEIS; and reissued for public review.	NEPA-1; NEPA-16	NEPA Process	The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	In Section 3.5.1.1 Greenhorn Arroyo Basin was identified as a Drainage Basin but it is omitted in tables 3-15, 3-16, and 3-55. Information needs to be collected on the mine effect to the Grayback Arroyo upstream to the West of the mine pit. Without specific information on the impacts to surface water within the Greenhorn Arroyo Basin the draft EIS is incomplete.	SW-25	Surface Water Resources	As discussed in Section 3.5.1.1 of the EIS, the Greenhorn Arroyo drainage basin is drained by ephemeral washes that flow in direct response to high-intensity rainfall events, which generally occur during the summer months. The proposed mining operation is not expected to substantially impact surface water resources within, and vegetation associated with, these ephemeral drainages, including those located west of the mine site. The ephemeral washes are hydrologically disconnected from the bedrock aquifer, and therefore would not be impacted by open pit dewatering. The existing Grayback diversion channel would continue to be used to capture stormwater flows in the Grayback Arroyo upgradient (west) of mine facilities and divert them around the mine.	P70_Kathy McKinney and Bob Cunningham

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P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The analysis on page 3-55, paragraph 1 is incomplete. There is no discussion as to the reductions in surface and groundwater within the Greenhorn Arroyo Basin or any information provided to the effects upon vegetation, to include riparian areas, as well as livestock and wildlife within the Grayback Arroyo upstream to the west of the pit mine.	SW-25; VEG-6; WL-11	Surface Water Resources; Vegetation; Wildlife	As discussed in Section 3.5.1.1 of the EIS, the Greenhorn Arroyo drainage basin is drained by ephemeral washes that flow in direct response to high-intensity rainfall events, which generally occur during the summer months. The proposed mining operation is not expected to substantially impact surface water resources within, and vegetation associated with, these ephemeral drainages, including those located west of the mine site. The ephemeral washes are hydrologically disconnected from the bedrock aquifer, and therefore would not be impacted by open pit dewatering. The existing Grayback diversion channel would continue to be used to capture stormwater flows in the Grayback Arroyo upgradient (west) of mine facilities and divert them around the mine.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Locations of springs impacted by mine development and operations on page 3-56, paragraph 2 is poorly described. What does the term "except for springs located in the immediate vicinity of the open " mean in an EIS? Does the term mean within the mine pit area, within 1,000 yards of the mine pit area, within two miles of the mine pit area?	SW-19	Surface Water Resources	The phrase was intended to refer to the bedrock seeps and springs at the open pit. The phrase has been removed from the FEIS to eliminate confusion. In addition, the paragraph containing the removed phrase has been rewritten to add clarity. Some of the bedrock seeps and springs at the open pit could be impacted, but based on baseline characterization data the majority of the seeps and springs appear to flow only in response to direct precipitation and would therefore not be impacted by pit dewatering.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The analysis on page 3-56, paragraph 6 and page 3-57 is incomplete, in that it does not identify the amount of surface or groundwater that would be lost in Grayback Arroyo upstream, to the west of the mine pit site.	SW-25	Surface Water Resources	As discussed in Section 3.5.1.1 of the EIS, the Greenhorn Arroyo drainage basin is drained by ephemeral washes that flow in direct response to high-intensity rainfall events, which generally occur during the summer months. The proposed mining operation is not expected to substantially impact surface water resources within, and vegetation associated with, these ephemeral drainages, including those located west of the mine site. The ephemeral washes are hydrologically disconnected from the bedrock aquifer, and therefore would not be impacted by open pit dewatering. The existing Grayback diversion channel would continue to be used to capture stormwater flows in the Grayback Arroyo upgradient (west) of mine facilities and divert them around the mine.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The analysis on page 3-57, paragraph 1 through 5, is incomplete in that it does not address the effect of groundwater pumping in Grayback Arroyo upstream to the west of the mine pit location. The cumulative effects of the loss of surface and groundwater with the two mile radius to the environment and private landowners is not addressed.	SW-21; CI-18	Surface Water Resources; Cumulative Impacts	The analysis presented in the EIS includes the Greenhorn Arroyo Drainage Basin. Impacts to the Greenhorn Arroyo Drainage Basin drainages from groundwater pumping are not expected, as the drainages are ephemeral and hydraulically separated from groundwater.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	There is no reference to the existing riparian area in Grayback Arroyo, upstream to the west of the mine pit lake. In addition, the phrase "attempt to maintain the existing riparian area" is vague and does not seem appropriate in an EIS.	SW-22	Surface Water Resources	Pit dewatering would not impact riparian areas located west of the open pit and within the Greenhorn Arroyo Drainage Basin. Surface water features west of the open pit that help to support riparian vegetation are ephemeral and hydrologically disconnected from the bedrock aquifer. These surface water features, including the spring BG shown in Figure 3-5 of the EIS, flow in direct response to precipitation events. The riparian area east of the mine area is believed to have been created during the previous mining operation through the collection of stormwater and alterations to surface water drainage patterns. NMCC would work to restore the stormwater collection pond that is believed to have created the riparian area; however, the exact configuration that led to the creation of the riparian area is not known and complete restoration may not be possible. Additional text has been added to Section 3.5.2.1.2 in response to this comment.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Figure 3-6 does not include any information on the Greenhorn Arroyo Basin. The DEIS must include surface and groundwater impacts to the Greenhorn Arroyo Basin and specifically Grayback Arroyo.	SW-25	Surface Water Resources	Section 3.5.1.1 of the EIS describes the Greenhorn Arroyo drainage basin. This basin is drained by ephemeral washes that flow in direct response to high-intensity rainfall events, which generally occur during the summer months. The proposed mining operation is not expected to substantially impact surface water resources within, and vegetation associated with, these ephemeral drainages. The ephemeral washes are hydrologically disconnected from the bedrock aquifer, and therefore would not be impacted by open pit dewatering. For this reason, the Greenhorn and Grayback Arroyos are not listed in Table 3-29.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	In table 3-17 page 56, pit dewatering is shown to be 39 AFY; on page 3-58; paragraph 3 the mine pit lake water loss is described to be 100 AFY - a 61 AFY discrepancy. Either mine pit dewatering calculations are not accurate, or water loss from the mine pit lake after mine closure is not accurate. The EIS need accurately describe the amount of water that will flow into the mine pit lake from surface and groundwater sources and what will ultimately happen to that water.	SW-23	Surface Water Resources	Table 3-17 in Section 3.5.2.1 summarizes sources of water and their associated quantities to support mining operations. Pit dewatering quantities reported in this table represent pumping of the open pit during mining operations, not losses due to evaporation. On the other hand, the 100 AFY described in Section 3.5.2.1.2 is the estimated maximum evaporation loss from the pit lake at closure, when groundwater inflow and stormwater runoff from within the perimeter of the pit would begin to form a pit lake.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Given the significant impact to the environment and public and private land, mitigation measures for potential surface water depletions must be identified.	SW-24	Surface Water Resources	Predicted impacts to surface water are adverse and significant, but would be compensated for through mitigation requirements of OSE. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". In a subsequent letter to the BLM (dated June 29, 2017), NMCC confirmed that an offset would be obtained through a surface water lease executed with the Jicarilla Apache Nation for a period of 15 years. The 15-year period would start when the crushing of ore would begin. After 15 years, the lease would be extended or another water source secured. In an August 24, 2017 letter to the BLM, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29. NMCC would accomplish this by taking one or more of the following actions: (1) extending the Jicarilla Apache Nation surface water lease, (2) securing another lease; or (3) securing and permanently retiring water rights that physically affect the river today.	P70_Kathy McKinney and Bob Cunningham

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P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Figure 3-9 does not include the riparian area west of the mine area in Grayback Arroyo or its tributary arroyos, which are on both BLM and private land; in addition to Warm Springs and Cold Springs. Note that the alluvial materials present in these areas is close enough to the riparian root zone so as to negatively impact vegetative growth if water levels decrease.	GW-29; VEG-7	Groundwater Resources; Vegetation	Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water or riparian vegetation in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The riparian vegetation along Grayback is typical of ephemeral floodplains. There is no phreatophytic vegetation, which depends on groundwater, because the water depth is far below rooting depth. The BLM has determined that there is no reasonable basis on which to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The effects on groundwater will have an impact on federal and state public lands as well as private landowners (such as Hillsboro Pitchfork Ranch LLC).	GW-30	Groundwater Resources	Due to the cited sparsity of information, the model was subjected to multiple sensitivity analyses to determine if results would be impacted by variations in data input. Model and impact interpretations were found to be not sensitive to the potential errors in the NMCC water table map.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	On page 3-65, paragraph 1: Given the amount of data provided by NMCC regarding the negative effects to water quality, and surface and groundwater quality, the word "potentially" should be deleted.	GW-1	Groundwater Resources	The groundwater resources section was developed with the close cooperation of groundwater experts from the EIS contractor, the BLM, the OSE, and NMCC's hydrogeologist. The groundwater model developed for NMCC by JSAI was carefully evaluated and validated by the other parties, resulting in a thorough assessment of groundwater impacts. This model is described in Section 3.6.2 of the FEIS. The average water used to process 1 ton of material has been recalculated with a new baseline and the revised figure appears in the FEIS.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	On page 3-65, paragraph 1: No discussion regarding Grayback and Greenhorn Arroyos concerning the riparian root zone, or the negative effect to riparian area vegetation if the mine pit lake reduces shallow groundwater flow, or the negative impact to riparian area vegetation to the west of the mine pit lake location. The negative impact would be on BLM public lands and private lands owned by the Hillsboro Pitchfork Ranch LLC, and will impact grazing and wildlife forage.	GW-29; VEG-7	Groundwater Resources; Vegetation	Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water or riparian vegetation in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The riparian vegetation along Grayback is typical of ephemeral floodplains. There is no phreatophytic vegetation, which depends on groundwater, because the water depth is far below rooting depth. The BLM has determined that there is no reasonable basis on which to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.	P70_Kathy McKinney and Bob Cunningham
P70	3/3/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	No detailed information on flow rates identified for major springs (i.e., warm springs and cold springs) on the Hillsboro Pitchfork Ranch LLC within the warm springs valley.	GW-29; VEG-7	Groundwater Resources; Vegetation	Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water or riparian vegetation in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The riparian vegetation along Grayback is typical of ephemeral floodplains. The BLM has determined that there is no reasonable basis to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Reference should be made to the private landowner that would be most impacted by dewatering of the mine pit/cone of depression, the Hillsboro Pitchfork Ranch LLC.	LU-5	Land Ownership and Land Use	A modeling analysis indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water in the Grayback Arroyo system and therefore would not affect any vegetation growing in this area. Groundwater pumping (including that for pit dewatering) would not affect habitat because existing water depths are far below the rooting depth of vegetation. Thus, impacts from the cone of depression are not anticipated to impact adjacent landowners.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Riparian corridors in Grayback Arroyo that would be impacted by dewatering of the mine pit lake/cone of depression should be identified on appropriate maps or figures and addressed.	SW-22	Surface Water Resources	Pit dewatering would not impact riparian areas within the Greenhorn Arroyo Drainage Basin. Surface water features that help to support riparian vegetation are ephemeral and hydrologically disconnected from the bedrock aquifer. The surface water features flow in direct response to precipitation events.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Figure 3.11 appears to combine the shallow alluvium along lower tributaries and in the Rio Grande Valley, bedrock in the uplifts and the Santa Fe Group aquifer, and mine-related pumping. Each layer in this graphic should be represented separately in order to fully understand the model and the corresponding impact to groundwater.	REF-11; GW-32	References; Groundwater Resources	The BLM assumes that the comment addresses Figure 3-11 (instead of 3.11), which is a map of the grid that covers the entire model area. Figure 3-12 provides details for Layer 2, which is where all pumping and all significant impacts would occur. The Final Groundwater Model Report is attached to the FEIS as an appendix.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The model does not provide detailed ground and surface water depletion data related to the dewatering/cone of depression. In particular, the model construction does not have adequate data related to the Warm Springs Valley and associated springs. Little if any measurements have been made by NMCC on wells or springs on private lands (i.e. Hillsboro Pitchfork Ranch LLC), therefore question the statement in Appendix F-10: "The change resulted in too-low simulated water levels north of Percha Creek, as much as 200 feet below the measured levels."	GW-31	Groundwater Resources	The groundwater model was prepared by an established consulting firm located in New Mexico and was thoroughly reviewed by the EIS consultant and the BLM's in-house hydrologist. This review confirmed that the model is suitable for making useful and valid predictions of the impacts to be expected if the project is implemented. The BLM considered it unnecessary for NMCC to acquire additional data or conduct detailed evaluations that would not be essential for such impact predictions.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Recommend that groundwater modeling, water budgets and all associated information to include tables and figures be separated into two categories: (1) groundwater effects associated with mine pit dewatering cone of depression and (2) groundwater effects associated with the mine well field. The information can then be recombined to provide an overview. The information as presented in its current format is confusing, inconsistent, and misleading in that it does not address the full effects of mine pit dewatering/cone of depression in perpetuity.	GW-33	Groundwater Resources	The BLM believes that as published, the DEIS is clear in distinguishing impacts that would occur near the mine from those that would occur near the well field. Combining the projected drawdowns on a single map, as is done in Figure 3-11 of the DEIS, provides a more complete disclosure of project consequences.	P70_Kathy McKinney and Bob Cunningham

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The data provided by NMCC in Table 3-19 does not account for the permanent reduction in up gradient groundwater caused by mine pit dewatering/cone of depression.	GW-31	Groundwater Resources	The groundwater model was prepared by an established consulting firm located in New Mexico and was thoroughly reviewed by the EIS consultant and the BLM's in-house hydrologist. This review confirmed that the model is suitable for making useful and valid predictions of the impacts to be expected if the project is implemented. The BLM considered it unnecessary for NMCC to acquire additional data or conduct detailed evaluations that would not be essential for such impact predictions.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The calculations using what data is available in Table 3-19 show an impact of 42.6 AFY. This is in conflict with the statement at the bottom of page 3-73 which states: "Table 3-20a does not include the flow resulting from put deepening and dewatering cone of depression. That impact is modeled at 21 AFY at the end of mining.	REF-9	References	The BLM believes that the statement on p. 3-73 correctly summarizes the model results.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Need to include drawdown graphs for Roger Mill, Ladder Mill, and Wicks Mill wells as they are located in the area that will be impacted by mine pit dewatering/cone of depression. Also, it is unclear how the existing drawdown graphs depict drawdown; need to include a description of how projected well water levels are derived.	GW-34; REF-12	Groundwater Resources; References	Appendix E of the EIS contains drawdown graphs for individual wells in the area where drawdown impacts may be experienced and provides a sound basis for evaluation of effects from the Project. The BLM believes that these graphs, in combination with the maps in Section 3.6, are appropriate for presentation of predicted impacts.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Although the aquifer may recover from the mine well field pumping, the aquifer would not ever recover from the dewatering and cone of depression associated with the mine pit. Statements made on pages 3-73 and 3-74 (drawn from Table 3-20a) are incorrect.	GW-40	Groundwater Resources	Pit depletions shown in Table 3-20a are clearly stated as the quantity that would occur 100 years after mining. The fact that these depletions would be permanent is clearly stated in Section 3.6.2.1.1. The last paragraph of Section 3.6.2.3.3 contains the following statement: "Impacts to water levels caused by the pit would also be significant. These effects would be large in magnitude, permanent, and certain, but small in areal extent". The cone of depression would gradually expand over time.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The effect of the mine to groundwater needs to be broken down into two categories: (1) groundwater effects associated with mine pit dewatering cone of depression and (2) groundwater effects associated with the mine well field.	GW-33	Groundwater Resources	The BLM believes that as published, the DEIS is clear in distinguishing impacts that would occur near the mine from those that would occur near the well field. Combining the projected drawdowns on a single map, as is done in Figure 3-11 of the DEIS, provides a more complete disclosure of project consequences.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Need to include riparian vegetation in Grayback Arroyo and its tributaries in Figure 3-13a, because the cone of depression associated with the mine pit dewatering and mine pit lake will permanently damage or destroy these riparian areas.	GW-29; VEG-7	Groundwater Resources; Vegetation	Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water or riparian vegetation in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The riparian vegetation along Grayback is typical of ephemeral floodplains. There is no phreatophytic vegetation, which depends on groundwater, because the water depth is far below rooting depth. The BLM has determined that there is no reasonable basis on which to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Need to include a separate and detailed analysis of the groundwater depletion effect of the mine pit. The permanent and ever-expanding effects stated on page 3-75/76 would be felt most on private lands (Hillsboro Pitchfork Ranch LLC) and BLM public lands upstream to the west of the pit.	GW-31	Groundwater Resources	The groundwater model was prepared by an established consulting firm located in New Mexico and was thoroughly reviewed by the EIS consultant and the BLM's in-house hydrologist. This review confirmed that the model is suitable for making useful and valid predictions of the impacts to be expected if the project is implemented. The BLM considered it unnecessary for NMCC to acquire additional data or conduct detailed evaluations that would not be essential for such impact predictions.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Need a more detailed analysis of the mine pit cone of depression and its associated impacts. If the smaller cone of depression referred to on page 3-75/76 does exist then there will be a greater impact to the Grayback Arroyo system located to the west of the pit on private and public lands.	GW-31	Groundwater Resources	The groundwater model was prepared by an established consulting firm located in New Mexico and was thoroughly reviewed by the EIS consultant and the BLM's in-house hydrologist. This review confirmed that the model is suitable for making useful and valid predictions of the impacts to be expected if the project is implemented. The BLM considered it unnecessary for NMCC to acquire additional data or conduct detailed evaluations that would not be essential for such impact predictions.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	There is no mention of the drawdown to wells on lands to the west and south of the cone of depression associated with the mine pit, which are either private or BLM public lands. NMOSE should determine the drawdown on these wells.	REG-14; GW-39	Groundwater Resources; Regulatory Compliance	Drawdowns on lands to the west and south of the mine pit are shown in FEIS Figures 3-13b (Proposed Action), 3-16b (Alternative 1), and 3-19b (Alternative 2).	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Figure 3-14a is not a useful map, it is difficult to understand the area and the depth of groundwater drawdown associated with the mine pit dewatering. Figure 3-13b does not show the Rodgers windmill or have any projected water level graphs developed to show the effects of the mine pit cone of depression. Recommend producing maps for each well within the area of the drawdown, show a vertical slice from each affected well to the center of the mine pit. The map should depict current ground water elevation at each well and at the pit center (existing conditions), conditions at the end of mining, and conditions 100 years after the mine is closed.	GW-34; REF-12	Groundwater Resources; References	Appendix F of the EIS contains drawdown graphs for individual wells in the area where drawdown impacts may be experienced and provides a sound basis for evaluation of effects from the Project. The BLM believes that these graphs, in combination with the maps in Section 3.6, are appropriate for presentation of predicted impacts.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The effects of the mine pit cone of depression are poorly understood and poorly documented. A separate analysis of the effect to groundwater needs to be conducted on the mine pit.	GW-31	Groundwater Resources	The groundwater model was prepared by an established consulting firm located in New Mexico and was thoroughly reviewed by the EIS consultant and the BLM's in-house hydrologist. This review confirmed that the model is suitable for making useful and valid predictions of the impacts to be expected if the project is implemented. The BLM considered it unnecessary for NMCC to acquire additional data or conduct detailed evaluations that would not be essential for such impact predictions.	P70_Kathy McKinney and Bob Cunningham

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P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The paragraph in section a indicated wells in the Santa Fe Group aquifer would be impacted; paragraph 1 on page 3-80 says no such wells have been identified. The Hillsboro Pitchfork Ranch LLC has five wells within the Santa Fe Group of the Animas Uplift that would be impacted by mine pit dewatering. Need to address the impact to wells from the mine pit dewatering cone of depression.	GW-31	Groundwater Resources	The groundwater model was prepared by an established consulting firm located in New Mexico and was thoroughly reviewed by the EIS consultant and the BLM's in-house hydrologist. This review confirmed that the model is suitable for making useful and valid predictions of the impacts to be expected if the project is implemented. The BLM considered it unnecessary for NMCC to acquire additional data or conduct detailed evaluations that would not be essential for such impact predictions.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The cumulative impact of the reduction of 20 AFY in Grayback Arroyo is not well documented in the EIS. For example, Figure 3.15b hides the impact of this reduction in flow.	GW-31	Groundwater Resources	The groundwater model was prepared by an established consulting firm located in New Mexico and was thoroughly reviewed by the EIS consultant and the BLM's in-house hydrologist. This review confirmed that the model is suitable for making useful and valid predictions of the impacts to be expected if the project is implemented. The BLM considered it unnecessary for NMCC to acquire additional data or conduct detailed evaluations that would not be essential for such impact predictions.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Riparian vegetation in the Grayback Arroyo system of drainage from the mine pit is not depicted on any of the maps in the EIS; neither are riparian areas in the North Percha drainage adjacent to and upstream from Hillsboro.	GW-29	Groundwater Resources	Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water or riparian vegetation in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The riparian vegetation along Grayback is typical of ephemeral floodplains. There is no phreatophytic vegetation, which depends on groundwater, because the water depth is far below rooting depth. The BLM has determined that there is no reasonable basis on which to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The model should simulate existing spring discharge or potential impacts to spring(s) discharge, and the EIS must quantify existing flow from springs potentially impacted by mine pit dewatering and document short, long-term, and permanent effects to the spring flows and dependent ecosystems.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The DEIS is incomplete in that it does not adequately describe the permanent reduction in the groundwater table associated with the mine pit dewatering.	GW-31	Groundwater Resources	The groundwater model was prepared by an established consulting firm located in New Mexico and was thoroughly reviewed by the EIS consultant and the BLM's in-house hydrologist. This review confirmed that the model is suitable for making useful and valid predictions of the impacts to be expected if the project is implemented. The BLM considered it unnecessary for NMCC to acquire additional data or conduct detailed evaluations that would not be essential for such impact predictions.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The data in the DEIS comingles the effects of the mine pit dewatering and mine well field, to the degree that it is impossible to understand the effect of the mine pit dewatering. The final EIS need break out the two sources of water depletion and quantify the amount and effects for each of these two sources.	GW-33	Groundwater Resources	As discussed in the FEIS, NMCC has obtained water rights sufficient to fully offset its projected impacts to the Rio Grande. With this acquisition, no issues related to the Compact have been identified.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The groundwater effects have not been studied or described in the DEIS. Disagree that the effects would be small in areal extent; effects would large or over 7,500 acres and occur on BLM public land and private land of Hillsboro Pitchfork Ranch LLC.	GW-1	Groundwater Resources	The groundwater resources section was developed with the close cooperation of groundwater experts from the EIS contractor, the BLM, the OSE, and NMCC's hydrogeologist. The groundwater model developed for NMCC by JSAI was carefully evaluated and validated by the other parties, resulting in a thorough assessment of groundwater impacts. This model is described in Section 3.6.2 of the FEIS. The average water used to process 1 ton of material has been recalculated with a new baseline and the revised figure appears in the FEIS.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	A well monitoring program for public and private lands potentially impacted by mine pit dewatering must be implemented and a minimum of five years of data collected before a final EIS is published.	GW-35	Groundwater Resources	Section 3.6.3 has been updated to reference implementation of a well monitoring program.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	A mitigation program must be designed by the NMOSE and agreed to by public and private landowners affected by mine pit dewatering; and be completed prior the issuance of a final EIS.	REG-15	Regulatory Compliance	The BLM, with assistance from the OSE and other state cooperating agencies, as well as contributions received through the public and agency comment process, has developed mitigation measures to minimize impacts to resources where practical and appropriate. These measures have been discussed in relevant resource sections throughout the EIS.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	DEIS does not contain a Figure 3-13, but does contain a Figure 3-13a and 3-12b (which do not show any wetland areas). Need to clarify the use of terms riparian and wetlands.	REF-13; SOI-2	References; Soils	Definitions for wetland areas and riparian areas as stated in EPA (2005) have been added to the glossary in the FEIS. The project area contains a small amount of wetlands. A small cattail wetland adjacent to the pit lake would be removed since pumping of the pit lake would be necessary prior to mining and continuously throughout the life of the mine with bedrock water drawdown in this area greater than 100 feet. This small wetland would be mined out when the pit is deepened to 900' below the current surface, so no surface soils would remain. The second wetland area, near the main mine entrance, would not be affected by drawdown associated with the Proposed Action because it would be outside of the drawdown area. A more extensive acreage of riparian vegetation occurs along Las Animas and Percha Creeks. The EIS text has been expanded to include these definitions and explanations. The style convention used in the EIS is that where figures have two parts they are listed as Figure Xa and Figure Xb, with no Figure X that stands alone.	P70_Kathy McKinney and Bob Cunningham

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P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Paragraphs 5 and 6 on page 3-111 and paragraph 1 on page 3-112 do not reference or discuss the effect to hydric soils in the Warm Springs Valley area, specifically those associated with Warm and Cold Springs located on the Hillsboro Pitchfork Ranch LLC. Include an analysis to these springs from mine pit dewatering in FEIS.	SOI-3	Soils	Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not affect hydric soils, surface water, or riparian vegetation in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The riparian vegetation and associated hydric soils along Grayback is typical of ephemeral floodplains. There is no phreatophytic vegetation, which depends on groundwater, because the water depth is far below rooting depth. The BLM has determined that there is no reasonable basis to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Paragraphs 5 and 6 on page 3-111 and paragraph 1 on page 3-112 comingle the effects of mine pit dewatering and mine well field to the degree that it is impossible to understand the effect of the mine pit dewatering. The FEIS must break out the two sources of water and quantify the amount and effects from each of those sources.	GW-33	Groundwater Resources	The BLM believes that as published, the DEIS is clear in distinguishing impacts that would occur near the mine from those that would occur near the well field. Combining the projected drawdowns on a single map, as is done in Figure 3-11 of the DEIS, provides a more complete disclosure of project consequences.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Since NMCC acquired the mine property, it is assumed they also acquired the responsibility to reclaim the environmental that was damaged by Quintana Corporation. The DEIS does not discuss reclamation during their open pit mining operations, more specifically mitigation measures to reclaim the diversion structure located west and south of the current pit location and to surface and groundwater resources. The EIS should specify the responsibility of NMCC to mitigate the damages caused by prior open pit mining operations at the Copper Flat site.	PA-24	Proposed Action	New Mexico Copper Corporation (NMCC) has an obligation to cleanup/reclaim following activities such as exploration (drilling) but the New Mexico Environment Department (NMED) has no basis to require NMCC to upgrade facilities that were previously reclaimed unless there was a potential or actual impact to water quality from the existing condition. A plan for mitigation could potentially result from the abatement process in the event the No Action Alternative was selected. One place where this could possibly occur would be the tailing impoundment, where the synthetic liner at the base of the new impoundment was to provide a source control measure on top of the existing tailings. Similar conditions may exist for rock piles. Additionally, the site does not meet Mining and Minerals Division's (MMD) definition for an "existing mining operation" (19.10.1.7.E(2) NMCC) because the mining performed by Quintana did not produce a marketable mineral for a total of at least 2 years between January 1, 1970 and June 18, 1993. Because the mine does not qualify as an existing mining operation per the definition, MMD would not have any jurisdiction to require Quintana or NMCC to reclaim the slopes, waste rock facilities, pit, tailings impoundment, roads, etc. that are currently at the site. The mining performed by Quintana in the 1980s and the mining conducted by smaller entities prior to Quintana are considered to be "pre-New Mexico Mining Act" disturbances that are not able to be regulated by MMD based on the Act and Rules. As such, if the No Action Alternative was selected during the EIS process, the disturbances and reclamation previously performed by Quintana in the 1980s would be allowed by MMD to remain as-is. However, if old disturbance is re-disturbed by the new NMCC mining operation, those areas that become re-disturbed would fall under the requirements for new mining operations. For example, if NMCC reuses an old waste rock pile, then they would have to meet New Mine Operation and Performance Standards	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The section is incomplete and inaccurate in its analysis of the mine impact to wildlife. Additional studies need by conducted and public comments considered prior to publishing a FEIS and ROD.	WL-3	Wildlife	In response to this comment, the BLM has reviewed baseline wildlife surveys and found them to be sufficient for producing a satisfactory assessment in the EIS. As noted in EIS Section 2.1.16, land clearing and surface disturbance would be timed to prevent destruction of active bird nests or birds' young during the avian breeding season (March 1 to August 31) to comply with the Migratory Bird Treaty Act. If surface disturbing activities are unavoidable during the avian breeding and nesting season, NMCC would have a qualified biologist survey areas proposed for disturbance for the presence of active nests immediately prior to the disturbance. If active nests are located, or if other evidence of nesting is observed (mating pairs, territorial defense, carrying nesting material, transporting of food), NMCC would work with the biologist and the BLM to develop a work plan to allow construction activities to continue without impacting the identified nesting area during the nesting and breeding season.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The Parametrix 2011 Report "Biological Resources Survey Report Copper Flat Pipeline and Well Sites Sierra County, New Mexico" is specific to the short-term effects to wildlife associated with well field and associated infrastructure. It is limited in scope and does not address long-term effects to wildlife and migratory birds within the Animas Uplift or the Warm Springs Valley. The Draft EIS must include a detailed analysis of the affect to wildlife by the permanent loss of water due to the mine pit dewatering.	WL-12	Wildlife	The hydrology modeling analysis of the effects of pumping for mine operations indicated that there would be no impacts to any surface features in the Animas Uplift or Warm Springs Valley. This is because the affected aquifer is deep below the surface and does not influence the presence or level of water or presence of vegetation at the surface, including riparian vegetation.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The Parametrix 2011 Report "Biological Resources Survey Report Copper Flat Pipeline and Well Sites Sierra County, New Mexico" and Chapter 5 of NMCC's Baseline Data Report (Intera 2012) both state "off-site reference areas" were included in the Wildlife and Migratory Birds survey, but no maps or figures are included. The maps or figures must be made available to the public for review and comment prior to the Draft EIS being finalized.	WL-13; REF-13	Wildlife; References	Information regarding the off-site reference areas has been added to the FEIS.	P70_Kathy McKinney and Bob Cunningham

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	There is no assessment of the riparian areas and associated wildlife and migratory birds to the west of the mine pit in the Grayback Arroyo ecosystem and upstream of the Grayback Arroyo ecosystem. The ecosystem within the Warm Springs valley is unique and contains riparian areas and wetlands with hydric soils.	WL-11; VEG-6; SW-25	Wildlife; Vegetation; Surface Water Resources	Section 3.5.1.1 of the EIS describes the Greenhorn Arroyo drainage basin. This basin is drained by ephemeral washes that flow in direct response to high-intensity rainfall events, which generally occur during the summer months. The proposed mining operation is not expected to substantially impact surface water resources within, and vegetation associated with, these ephemeral drainages, including those located west of the mine site. The ephemeral washes are hydrologically disconnected from the bedrock aquifer, and therefore would not be impacted by open pit dewatering. The existing Grayback diversion channel would continue to be used to capture stormwater flows in the Grayback Arroyo upgradient (west) of mine facilities and divert them around the mine.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Contradictory to what is stated on page 3-124, owners of the Hillsboro Pitchfork Ranch LLC have no recollection of, or documentation of any party associated with NMCC asking for permission to conduct a qualitative wildlife habitat assessment on ranch lands. A complete analysis of effects to wildlife habitat within the Warm Springs Valley must be conducted and published. This process must be completed prior to the issuance of a final EIS and Letter of Declaration.	WL-14	Wildlife	Operation of the mine, including pumping of the deep aquifer, would not affect wildlife habitats in the Warm Springs Valley because the aquifer is deep below the surface and not connected with surface waters or any vegetation at the surface.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Table 3-25 does not include the Grayback Arroyo system or the Warm Springs Valley as specific areas studied. The Scaled Quail, Gambel's Quail, and Montezuma Quail use these habitats during all seasons of the year. A complete analysis of the affects to wildlife habitat within this area must be completed prior to the issuance of a Final EIS and Letter of Declaration.	WL-15	Wildlife	The hydrology modeling analysis of the effects of pumping for mine operations indicated that there would be no impacts to any surface features in the Grayback Arroyo system or the Warm Springs Valley. This is because the affected aquifer is deep below the surface and does not influence the presence or level of water or presence of vegetation at the surface, including riparian vegetation.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The area immediately to the west of the mine site in the area of the Grayback Arroyo System is identified as an area of critical Mule Deer Fawning habitat by NMF&G Biologists. The area upstream of the mine pit in the Animas Uplift is an important Mule Deer fawning area (wildlife biologists from NMF&G confirmed Hillsboro Pitchfork Ranch LLC surveys). The EIS does not mention Mountain Mahogany (Cercocarpus), a common vegetative species found adjacent the mine pit and a primary forage for Mule Deer. A complete analysis of the affects to wildlife habitat within this area must be completed prior to the issuance of a Final EIS and Letter of Declaration.	WL-16; VEG-8	Wildlife; Vegetation	Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water in the Grayback Arroyo system and therefore would not affect any vegetation, including any mountain mahogany growing in this area. Groundwater pumping (including that for pit dewatering) would not affect this habitat because existing water depths are far below the rooting depth of vegetation.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The negative effects of mine pit dewatering/cone of depression in perpetuity to surface and groundwater within Animas Update are not specifically addressed. The negative effect of direct surface damage caused by mine activities is insignificant compared to the permanent affect to wildlife habitat. A complete analysis of effects to wildlife habitat, including from mine pit dewatering/cone of depression within the Grayback Arroyo system and the Warm Springs Valley must be conducted and published for public review prior to issuance of a final EIS and Letter of Declaration.	WL-11; VEG-6; SW-25; WL-3	Wildlife; Vegetation; Surface Water Resources	Section 3.5.1.1 of the EIS describes the Greenhorn Arroyo drainage basin. This basin is drained by ephemeral washes that flow in direct response to high-intensity rainfall events, which generally occur during the summer months. The proposed mining operation is not expected to substantially impact surface water resources within, and vegetation associated with, these ephemeral drainages, including those located west of the mine site. The ephemeral washes are hydrologically disconnected from the bedrock aquifer, and therefore would not be impacted by open pit dewatering. The existing Grayback diversion channel would continue to be used to capture stormwater flows in the Grayback Arroyo upgradient (west) of mine facilities and divert them around the mine.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Paragraph 2 on page 3-136 states: "However, both direct and indirect impacts to wildlife species are expected to result from minerals development, construction activities, and from traffic changes on the coal haul transportation route..." This statement was cut and pasted from a prior coal mine assessment. This section is flawed.	VEG-13	Vegetation	The word "coal" has been removed from the DEIS. The cumulative impacts analysis addresses the potential for the actions of others outside the development of the Copper Flat mine to cumulatively affect wildlife species in the area.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Inadequate assessment of negative wildlife habitat impacts to the mine pit dewatering; no quantitative analysis of wildlife habitat impacts. Statements such as "It is probable that small to large medium- and long-term minor adverse effects" have no meaning or quantitative value to understanding the negative effects to wildlife from the mining operation.	WL-17	Wildlife	The description of environmental effect has been revised and expanded in the Wildlife and Migratory Birds section of Final EIS to be more descriptive of the particular kinds of impacts, their intensity and duration.	P70_Kathy McKinney and Bob Cunningham

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P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Statements such as "Common species are expected to return to the mining area in the long term after reclamation occurs" on page 3-136, paragraph 1 do not address the larger area affected by the mine pit dewatering and associated adverse effect to wildlife habitat. Given the permanent reduction in the water table associated with the mine pit dewatering cone of depression, wildlife populations will not and cannot return to existing levels within the Animas Uplift.	WL-18	Wildlife	The hydrology modeling analysis of the effects of pumping for mine operations indicated that there would be no impacts to any surface features in the Animas Uplift. This is because the affected aquifer is deep below the surface and does not influence the presence or level of water or presence of vegetation at the surface, including riparian vegetation.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The statement "there is currently a vast amount of undeveloped land in nearby areas where wildlife can temporarily relocate for cover and foraging" does not take into account the loss of wildlife habitat due to the permanent loss of water associated with the mine pit dewatering/cone of depression." The NMCC is suggesting that adjacent public and private landowners shoulder the responsibility for negative consequences to wildlife. Mitigation measures need to be identified.	WL-19	Wildlife	Impacts to wildlife would include displacement from the disturbed portions of the mine site and increased competition for food and breeding habitats. Consideration would be given to neighbors regarding their land use requirements including cattle grazing, alternate energy generation such as wind and solar, and reestablishment and enhancement of original botanical and zoological species inhabitants. At the completion of mining activities, the Copper Flat project site would be reclaimed to achieve a self-sustaining ecosystem appropriate for the climate, environment, and land uses of the area. Because reclamation includes the entire mine area and 52 percent of the area consists of previously disturbed land, conversion to natural habitat would have long-term minor and beneficial impacts to wildlife and migratory birds due to the increase in potential habitat and habitat connectivity. These beneficial impacts would not occur until after the completion of reclamation, but would be long-term starting at that point. Common species are expected to return to the mining area in the long term after reclamation occurs. Once reclamation was successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The Draft EIS is flawed in that it does not account for the cumulative effects to wildlife. The cumulative effects of mine development to wildlife are permanent within the Animas Uplift and the Warm Springs Valley.	WL-20; CI-19	Wildlife; Cumulative Impacts	Cumulative wildlife impacts of the Proposed Action and alternatives are discussed in Section 4.0, Cumulative Impacts.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	A complete analysis of effects to wildlife habitat, including to wildlife habitat from mine pit dewatering/cone of depression within Grayback Arroyo system and the Warm Springs Valley must be conducted and published for review before issuance of the FEIS and Letter of Declaration.	WL-11; VEG-6; SW-25	Wildlife; Vegetation; Surface Water Resources	Section 3.5.1.1 of the EIS describes the Greenhorn Arroyo drainage basin. This basin is drained by ephemeral washes that flow in direct response to high-intensity rainfall events, which generally occur during the summer months. The proposed mining operation is not expected to substantially impact surface water resources within, and vegetation associated with, these ephemeral drainages, including those located west of the mine site. The ephemeral washes are hydrologically disconnected from the bedrock aquifer, and therefore would not be impacted by open pit dewatering. The existing Grayback diversion channel would continue to be used to capture stormwater flows in the Grayback Arroyo upgradient (west) of mine facilities and divert them around the mine.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	No vegetative surveys were conducted in the Animas Uplift, to the west of the mine in the Grayback Arroyo System or the cluster of springs in the Warm Springs Valley; thus no baseline vegetative data has been compiled for these areas. A complete analysis of effects to vegetation, including the negative effect to wildlife habitat and livestock grazing from mine pit dewatering/cone of depression within the Grayback Arroyo system must be conducted and published for public review, and complete prior to the issuance of a FEIS and Letter of Declaration.	WL-11; VEG-6; SW-25	Wildlife; Vegetation; Surface Water Resources	Section 3.5.1.1 of the EIS describes the Greenhorn Arroyo drainage basin. This basin is drained by ephemeral washes that flow in direct response to high-intensity rainfall events, which generally occur during the summer months. The proposed mining operation is not expected to substantially impact surface water resources within, and vegetation associated with, these ephemeral drainages, including those located west of the mine site. The ephemeral washes are hydrologically disconnected from the bedrock aquifer, and therefore would not be impacted by open pit dewatering. The existing Grayback diversion channel would continue to be used to capture stormwater flows in the Grayback Arroyo upgradient (west) of mine facilities and divert them around the mine.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Figure 3-26 depicts an almost continuous Arroyo Riparian zone through the proposed mine area. Other figures in the DEIS omit or do not show this riparian area. Figures 3-9, 3-13a, 3-16a, as well as others depict different riparian areas. It is impossible from the Draft EIS for the public to gain a comprehensive understanding of the riparian areas affected by the down effect of the mine well field and mine pit dewatering/cone of depression.	REF-15; VEG-10	References; Vegetation	Figure 3-26 depicts the features of the mine site only. It does not show any riparian or other relevant features outside the mine site boundary because the discussion that it supports focuses on direct effects to the features at the mine site from re-opening the mine and dewatering the pit. Figures 3-9, 3-13a, and 3-16a depict the much larger project area which was evaluated for potential indirect impacts from the drawdown of the deep aquifer as a result of pumping. The riparian area in Figure 3-26 depicts the extent of vegetation in the arroyo riparian zone that transects the mine site with rerouting south of the pit area. Figures 3-9, 3-13a, and 3-16a depict the riparian zones along Percha and Las Animas Creeks, which were evaluated for potential drawdown effects.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	A complete analysis of effects to riparian areas, including to wildlife habitat and livestock grazing from mine pit dewatering/cone of depression within Grayback Arroyo system must be conducted and published for review before issuance of the FEIS	WL-11; VEG-6; SW-25	Wildlife; Vegetation; Surface Water Resources	The proposed mining operation is not expected to substantially impact surface water resources and riparian areas within the Greenhorn Arroyo drainage basin. The ephemeral washes and riparian areas are hydrologically disconnected from the bedrock aquifers, and therefore would not be impacted by open pit dewatering.	P70_Kathy McKinney and Bob Cunningham

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Need to provide a definition of the terms riparian and wetlands.	REF-13; VEG-11; SOI-2	References; Vegetation; Soils	<p>Definitions for wetland areas and riparian areas as stated in EPA (2005) have been added to the glossary in the FEIS.</p> <p>The project area contains a small amount of wetlands. A small cattail wetland adjacent to the pit lake would be removed since pumping of the pit lake would be necessary prior to mining and continuously throughout the life of the mine with bedrock water drawdown in this area greater than 100 feet. This small wetland would be mined out when the pit is deepened to 900' below the current surface, so no surface soils would remain. The second wetland area, near the main mine entrance, would not be affected by drawdown associated with the Proposed Action because it would be outside of the drawdown area. A more extensive acreage of riparian vegetation occurs along Las Animas and Percha Creeks. The EIS text has been expanded to include these definitions and explanations.</p> <p>The style convention used in the EIS is that where figures have two parts they are listed as Figure Xa and Figure Xb, with no Figure X that stands alone.</p>	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Section 3.11.1.1 is convoluted. Is the mine area boundary as depicted in Figure 3.26? Or is the area as discussed in the text of the section. Recommend re-titling the section to "Land Area Affected by Mine Development"	VEG-12	Vegetation	The hydrology model developed for the EIS covers the entire project area as depicted in Figures 3-9, 3-13a, and 3-16a of the EIS. It extends from the Rio Grande to beyond the Animas Range – there is a finer grid used at the mine pit but no boundary as such. The modeling analysis indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water or vegetation anywhere in the Grayback Arroyo system.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Section 3.11.1.1 discusses Las Animas Creek and Percha Creek but does not discuss the riparian area upstream to the west of the mine pit within the Grayback Arroyo System of the Animas Uplift.	VEG-6; SW-25; WL-11	Vegetation; Surface Water Resources; Wildlife	Section 3.5.1.1 of the EIS describes the Greenhorn Arroyo drainage basin. This basin is drained by ephemeral washes that flow in direct response to high-intensity rainfall events, which generally occur during the summer months. The proposed mining operation is not expected to substantially impact surface water resources within, and vegetation associated with, these ephemeral drainages, including those located west of the mine site. The ephemeral washes are hydrologically disconnected from the bedrock aquifer, and therefore would not be impacted by open pit dewatering.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Paragraph 5 on page 3-147 discusses treatment of creosote bush (<i>Larrea tridentata</i>) within the Copper Flat Allotment No. 160.79, but does not discuss partnership between the National Resource Conservation Service and NMG&F with Hillsboro Pitchfork Ranch LLC to improve habitat conditions upstream of the mine pit in the Grayback Arroyo system on private land.	VEG-13	Vegetation	The EIS has been expanded to acknowledge this partnership.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Revise impacts analysis on page 3-147 to reflect the potential environmental effects from mine development for the area within the mine area boundary area shown in Figure 3.26 and the greater area that would be impacted permanently by mine pit dewatering/cone of depression. As currently written, it is impossible to discern whether the effects would occur inside or outside the mine boundary.	VEG-12	Vegetation	The hydrology model developed for the EIS covers the entire project area as depicted in Figures 3-9, 3-13a, and 3-16a of the EIS. It extends from the Rio Grande to beyond the Animas Range – there is a finer grid used at the mine pit but no boundary as such. The modeling analysis indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water or vegetation anywhere in the Grayback Arroyo system.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Table 3-29 does not contain water drawdown information for the Greenhorn Basin, specifically the Grayback Arroyo system within the Animas Uplift.	VEG-6; SW-25	Vegetation; Surface Water Resources	The proposed mining operation is not expected to substantially impact surface water resources within, and vegetation associated with, the ephemeral drainages within the Greenhorn Arroyo drainage basin. The ephemeral washes are hydrologically disconnected from the bedrock aquifer, and therefore would not be impacted by open pit dewatering. For this reason, the Grayback Arroyo is not listed in Table 3-29.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The geology of the Grayback Arroyo system upstream of the mine area within the Animas Uplift is different from the geologies of Las Animas and Percha Creeks. As such, calculations and assumptions related to groundwater drawdown on pages 3-149 and 3-150 are not valid for the Grayback Arroyo system west of the mine pit. Need to conduct a complete analysis of effects of groundwater drawdown and publish for public review prior the issuance of a FEIS and Letter of Declaration.	VEG-15; MG-1	Vegetation; Mineral and Geologic Resources	Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water or riparian vegetation in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The riparian vegetation along Grayback is typical of ephemeral floodplains. There is no phreatophytic vegetation, which depends on groundwater, because the water depth is far below rooting depth. The BLM has determined that there is no reasonable basis on which to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Mitigation measures on page 3-151 and 3-152 are specific to sites directly associated with mining operations. A comprehensive set of mitigation measures need to be identified and published prior to issuance of a FEIS and Letter of Declaration.	VEG-16	Vegetation	A comprehensive set of mitigation measures has been published in the FEIS.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	If wells are dewatered permanently by the mine pit cone of water depression, sensitive bat species will be negatively impacted. NMCC has not studied bat species on the Hillsboro Pitchfork Ranch LLC adjacent to and upstream of the mine pit in the Grayback Arroyo System.	T&E-3	Threatened, Endangered, and Special Status Species	The hydrologic modeling analysis performed for the EIS indicates that wells on the Hillsboro Pitchfork Ranch LLC adjacent to and upstream of the mine pit in the Grayback Arroyo System would not be affected by mine operation pumping; thus, bat species would not be affected by mine operations.	P70_Kathy McKinney and Bob Cunningham

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P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	A wooden windmill tower known locally as the Rodgers Windmill located 0.25 miles west of the existing mine pit in the Grayback Arroyo System (on private land of the Hillsboro Pitchfork Ranch LLC) was constructed in approximately 1910, is in working condition, and supplies water to livestock and wildlife. Mine activities would harm the historic structure from vibration and loss of groundwater; making the windmill nonfunctional. A survey of this historic structure has not been conducted (is not included in Appendix H). An analysis of effects to the windmill must be conducted and included.	CR-6	Cultural Resources	<p>Vibrations: The Rogers windmill is located approximately 480 meters away from proposed locations of blasting and mine vehicle use. This distance is almost twice the critical distance calculated for possible vibration effects to extremely fragile historic buildings, ruins, and ancient monuments. Because there is no potential effect to this windmill from vibrations, it is not included in the Area of Potential Effects. Therefore, no analysis of effects to the windmill will be conducted for the EIS.</p> <p>Loss of Groundwater: The BLM has evaluated information from the Pitchfork Ranch well closest to the mine site, identified in the DEIS as GWQ-4 and known otherwise as the Rodgers windmill. Analyzing the information reveals that water is drawn down in the well approximately 70 feet within the 150-foot deep well as a result of pit dewatering. So, a water column remains at the well but from this finding alone, the BLM cannot assume there will be no impact to well yield. It remains possible that the small amount of bedrock aquifer thickness available after dewatering will not supply enough water to keep the stock tank full. Without more information, the BLM cannot conclude whether there would be adverse impacts. The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment." In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the Office of the State Engineer, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or drilling of a new one if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the Pitchfork wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law. The Section 106 Programmatic Agreement (PA) allows for the future consideration of unanticipated effects to historic properties. At this time, no Section 106 effect to this windmill is anticipated and thus it is not included in the Area of Potential Effect. If an impact is identified in the future from groundwater drawdown, the BLM would implement the provisions in the PA to evaluate the windmill for National Register eligibility, and if found eligible, determine if the effect is adverse and implement appropriate mitigative actions to resolve any adverse effect.</p>	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Photographs on pages 3-180, 3-181, and 3-182 were taken in 2012 after NMCC had actively excavated the site and are misleading. Replace with photographs of the site prior to excavation.	CR-7	Cultural Resources	Photos of the site prior to excavation were not available and the photos were not found to be misleading by the BLM.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The APE delineation is so limited it provides a superficial analysis limited only to the proposed mine site without considering ownership of adjacent, immediate areas. The affected environment should be expanded to include adjacent property owners (including private landowners), it is much greater than currently described.	LU-7	Land Ownership and Land Use	Adjacent land ownership (including privately owned land) is analyzed and is listed in Table 3-33 within the Affected Environment section of the Land Ownership and Land Use section of the FEIS. As stated in Section 3.15.2 of the EIS, it is unlikely that any proposed project activities would conflict with BLM or other Federal land uses, plans, or agreements. Several State permits would be required for the proposed project. (See Table 1-1.) These permits would ensure compliance with existing land uses, plans, or agreements.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The APE as currently defined is in conflict with the EIS significance criteria for parameter and extent (see page A-16).	LU-8	Land Ownership and Land Use	<p>This comment does not provide evidence to support these statements.</p> <ol style="list-style-type: none"> The duration of the project does not impact the APE. Regarding parameter (or magnitude) as stated in the Land Use section of the EIS, it is unlikely that any proposed project activities would conflict with BLM or other Federal land uses, plans, or agreements. Several State permits would be required for the proposed project. These permits would ensure compliance with existing land uses, plans, or agreements. Unincorporated land in Sierra County has no written zoning ordinance or permitting requirements. The EIS significance criteria define small extent as occupying an area less than five percent of the planning area jurisdiction. Large extent is defined as occupying an area greater than five percent of the planning area jurisdiction. The proposed project does not occupy an area greater than five percent of the planning area jurisdiction, which is considered to be Sierra County. <p>The APE as defined in the land use section does not conflict with stated EIS significance criteria.</p>	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Private land adjacent to the selected perimeter in the APE is not discussed/analyzed/considered, though it was mentioned that land use near the mine may be sensitive to changes in the land use. A detailed analysis should be provided on the historical decrease in land value due to proximity to the proposed mine site.	LU-7	Land Ownership and Land Use	Please see the response to comment SE-41 for a discussion of land value due to proximity to the proposed mine site.	P70_Kathy McKinney and Bob Cunningham

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P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Need to include effects analysis to wildlife habitat and wildlife recreation on both private and public lands in the Grayback Arroyo system within the Animas Uplift, adjacent upgradient of the mine site.	LU-9	Land Ownership and Land Use	An analysis of the impacts of the proposed project and alternatives on wildlife habitat on both private and public lands in the Grayback Arroyo system is included in Section 3.10.2 of the EIS. Though there are no designated trails within the project footprint, if recreational users are accustomed to hiking, backpacking, bird watching, or riding off-highway vehicles (OHVs) through the outer limits of the project footprint, impacts due to restricted use could be minor and long-term. However, due to the presence of existing mining-related structures, the open pit mine and tailings pond, and existing fencing around parts of the mine area, which already restricts access for human health and safety reasons, recreational activities in this area are not prevalent. Thus, impacts to on-foot recreationists and OHV riders are anticipated to be minor. Impacts to wildlife based recreation on lands within the Grayback Arroyo further from the project site are anticipated to be minor as well. The further away recreation occurs from the project site, the lesser the impacts are anticipated to be.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Paragraph 7 on page 3-190 states that the Sierra County's Assessor Office designated land surrounding the mine as "miscellaneous," the code for raw land not currently used. Lands on the Hillsboro Pitchfork Ranch LLC are Agricultural Lands; need to correct in the DEIS.	LU-10	Land Ownership and Land Use	The text in the EIS has been revised to reflect that Hillsboro Pitchfork Ranch LLC is designated as Agricultural Lands.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The DEIS does not keep with the Interim Land Use Policy of Sierra County of 1991 as environmental effects to the Warm Springs Canyon, Cold Springs Canyon, Grayback Arroyo and Animas Uplift are omitted. Withdraw the DEIS and address these concerns.	LU-11; REG-16	Land Ownership and Land Use; Regulatory Compliance	Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not have environmental effects in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The BLM has determined that there is no reasonable basis to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Disagree with statements on page 3-191 that impacts would occur "for a time." There is ample evidence presented in preceding sections of the DEIS that impacts to groundwater and surface water would be permanent from the mine pit water/cone of depression. Need to revise this section to reflect the permanent effects associated with mine development and operations.	LU-12	Land Ownership and Land Use	The effects of the proposed project and alternatives on water resources are described in the EIS, and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts would be expected to differ to some degree from those predicted, there is no basis upon which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but is not aware of any comments or inputs that would contradict the findings of the FEIS.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The APE is so limited it provides a superficial analysis limited only to the proposed mine site without considering the immediate area to include adjacent land ownership. Expand APE to include adjacent property owners, including private landowners.	LU-7	Land Ownership and Land Use	Adjacent land ownership (including privately owned land) is analyzed and is listed in Table 3-33 within the Affected Environment section of the Land Ownership and Land Use section of the FEIS. As stated in Section 3.15.2 of the EIS, it is unlikely that any proposed project activities would conflict with BLM or other Federal land uses, plans, or agreements. Several State permits would be required for the proposed project. (See Table 1-1.) These permits would ensure compliance with existing land uses, plans, or agreements.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The above referenced paragraph would indicate changes in soil or water conditions would not prevent planned land uses or permitting within or nearby the APE. Page 3-190 Interim Land Use Policy of Sierra County of 1991 states the intent of Sierra County Land use planning is "to protect the custom and culture" ranching "of County Citizens through protection of private property rights, the facilitation of a free market economy, and the establishment of a process to ensure self-determination by local communities and individuals."	LU-11; REG-16	Land Ownership and Land Use; Regulatory Compliance	Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not have environmental effects in the Grayback Arroyo or its tributaries, Warm Springs, or Cold Springs canyons. The BLM has determined that there is no reasonable basis upon which to expect impacts on Warm Springs, Cold Springs, or the canyons fed by these springs.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Paragraph 1 on page 3-192 states that any changes to soil or water conditions are unlikely to impact the mining area to the point where potential land use would conflict with land management plans by preventing planned land uses or permitting within or nearby the APE. Draining of water sources in perpetuity would likely conflict with land management plans, and should be prohibited in the Mine Development/Operation plan.	LU-12; PA-31	Land Ownership and Land Use; Proposed Action	The effects of the proposed project and alternatives on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but is not aware of any comments or inputs that would contradict the findings of the FEIS.	P70_Kathy McKinney and Bob Cunningham

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P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Pages 3-192 and 3-193 need to be rewritten to reflect NMCC's responsibility to mitigate negative effects or delete sentences with phrases such as "careful consideration."	PA-24; LU-13	Land Ownership and Land Use; Proposed Action	New Mexico Copper Corporation (NMCC) has an obligation to cleanup/reclaim following activities such as exploration (drilling) but the New Mexico Environment Department (NMED) has no basis to require NMCC to upgrade facilities that were previously reclaimed unless there was a potential or actual impact to water quality from the existing condition. A plan for mitigation could potentially result the abatement process in the event the No Action Alternative was selected. One place where this could possibly occur would be the tailing impoundment, where the synthetic liner at the base of the new impoundment was to provide a source control measure on top of the existing tailings. Similar conditions may exist for rock piles. Additionally, the site does not meet Mining and Minerals Division's (MMD) definition for an "existing mining operation" (19.10.1.7.E(2) NMAC) because the mining performed by Quintana did not produce a marketable mineral for a total of at least 2 years between January 1, 1970 and June 18, 1993. Because the mine does not qualify as an existing mining operation per the definition, MMD would not have any jurisdiction to require Quintana or NMCC to reclaim the slopes, waste rock facilities, pit, tailings impoundment, roads, etc. that are currently at the site. The mining performed by Quintana in the 1980s and the mining conducted by smaller entities prior to Quintana are considered to be "pre-New Mexico Mining Act" disturbances that are not able to be regulated by MMD based on the Act and Rules. As such, if the No Action Alternative was selected during the EIS process, the disturbances and reclamation previously performed by Quintana in the 1980s would be allowed by MMD to remain as-is. However, if old disturbance is re-disturbed by the new NMCC mining operation, those areas that become re-disturbed would fall under the requirements for new mining operations. For example, if NMCC reuses an old waste rock pile, then they would have to meet New Mine Operation and Performance Standards.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	There is no discussion of reclamation/mitigation on lands in the vicinity of the project site. How are lands in the vicinity of the project site to made whole again given the potential negative impacts from mine development and operations?	PA-8	Proposed Action	At the completion of mining activities, the site would be restored to conditions and standards that meet approved post-mining land uses. These uses would include native plant communities like surrounding undisturbed areas for wildlife habitat, and grazing land potentially suitable for livestock. Once reclamation is successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels. Also, as noted in EIS Section 2.7, Best Management Practices, in the subsection entitled Threatened and Endangered Species and Special Status Species, ground clearing and other mine development activities would be avoided during breeding and nesting season (generally March 1 through August 31) until the area is surveyed by a qualified biologist to confirm the absence of nests (on the ground and in burrows and vegetation) and nesting activity to avoid impacting migratory birds. Therefore, the numbers of birds displaced during mining operations would be limited and the site would be restored to as good or better conditions for birds than pre-mining conditions. Thus, any long-term impacts to Audubon Important Bird Areas would be negligible.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Disagree with impacts analysis on pages 3-192 and 3-193. For example, land uses in and around the mining area will be changed during development and operation of the mine, not after reclamation is complete. Do not believe that nearby areas will return to their original condition after the mine is closed, because of the mine pit water cone of depression; therefore impacts would be permanent and not short- and medium term.	LU-14	Land Ownership and Land Use	The impacts analysis in Section 3.15.2 does acknowledge changes in land use that would occur during development and operation of the mine, as well as after reclamation is complete. For example, "limit land use options during mining" and "loss of appeal of area from change in character" are listed as impacts. These impacts would occur during development and operation. Impacts related to groundwater drawdown and consequent surface water depletions (i.e., the mine pit water cone of depression) are quantified in the FEIS using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis upon which to expect those differences to change the overall FEIS impact analysis, which states that any changes to soil or water conditions are unlikely to impact the mining area to the point where potential land use would conflict with land management plans by preventing planned land uses or permitting within or nearby the APE. These predicted impacts would be adverse and significant, but would be compensated for through mitigation requirements of the OSE. The BLM appreciates that there is considerable public concern over these impacts, and the methods used to evaluate them, but is not aware of any comments or inputs that would contradict the findings of the FEIS.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Meaningful, measurable mitigation measures must be identified and published for public review prior to a FEIS being published.	LU-13	Land Ownership and Land Use	Permitting requirements would assure compliance with existing land use regulations. Because the land use category would not change and land use regulations would be followed, impacts would be expected to be short- and medium-term, less than minor, and adverse during the life of the mine and reclamation activities under the Proposed Action. All post-closure land uses would be in conformance with BLM 1985 White Sands Resource Management Plan (RMP) and the Sierra County Comprehensive Land Use Plan, or their successor plans. Section 2.1.15 details the goals of the Reclamation Plan for the mine. The BLM has determined that no further mitigation measures are necessary.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Figure 3-38 on page 3-197 does not address the adjacent private property to the west with a common fence line. The configuration of the APE is misleading; the APE should be revised to include those areas of 21B.	REC-11	Recreation	The BLM has determined that there is no reasonable basis to adjust the boundaries of the APE delineated in the Recreation section of the EIS to include Game Management Unit (GMU) 21B. All recreation areas to be directly or indirectly impacted by the Proposed Action and alternatives have been analyzed.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	An analysis should be conducted of the history of both in-state and out of state hunting licenses for all categories in area 21B. Analysis to include deer inventories, projection of future deer inventories, revenue streams derived to the State of New Mexico and surrounding area, as well as potential loss in such revenue streams as a result of loss in big game, varmints and upland birds as it relates to proposed project.	REC-12	Recreation	Analysis requested is outside the scope of this NEPA document. Significant loss of big game, varmints, and upland birds are not anticipated as a result of the proposed project. Section 3.10.2.1.2 states: " Losses of mammals, birds, or wildlife in general are not expected to be significant as a result of the project. Proposed project activities may cause minor disruptions to foraging, migratory movement, or breeding behavior of some species. A few animals may be killed during these activities because they are driven out of their foraging territories and are made more susceptible to predation, but these losses would not be expected to impact the species as a whole. There is currently a vast amount of undeveloped land in nearby areas where wildlife can temporarily relocate for cover and foraging."	P70_Kathy McKinney and Bob Cunningham

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P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The APE delineation is so limited it provides a superficial analysis limited only to the proposed mine site without considering ownership of adjacent, immediate areas.	LR-1	Lands and Realty	Adjacent land ownership (including privately owned land) is analyzed and is listed in Table 3-33 within the Affected Environment subsection of the Land Ownership and Land Use section. As stated in Section 3.15.2 of the EIS, it is unlikely that any proposed project activities would conflict with BLM or other Federal land uses, plans, or agreements. Several State permits would be required for the proposed project (see Table 1-1). These permits would ensure compliance with existing land uses, plans, or agreements.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	No roads are depicted within Figure 3-43 or Table 3-34 which show any easements through the mine site.	LR-2	Lands and Realty	NMCC recognizes and acknowledges that Pitchfork Ranch currently has access through Copper Flat. During mine operation, NMCC expects to continue to provide Pitchfork Ranch this access through the property but would need to follow agreed upon procedures to ensure safe access. NMCC is prepared to work with Pitchfork Ranch to develop procedures to allow continued access in a safe manner.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Need affirmation of an ingress/egress road easement access to adjacent private land through the mine site.	LR-3	Lands and Realty	NMCC recognizes and acknowledges that Pitchfork Ranch currently has access through Copper Flat. During mine operation, NMCC expects to continue to provide Pitchfork Ranch this access through the property but would need to follow agreed upon procedures to ensure safe access. NMCC is prepared to work with Pitchfork Ranch to develop procedures to allow continued access in a safe manner.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Remove statement on page 3-210 that impacts may be beneficial due to the enhancement of the area, as no evidence has been provided for this statement.	LR-4	Lands and Realty	The statement has been removed.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	A Prescriptive Easement through NMCC/Copper Flat property to the Hillsboro Pitchfork Ranch LLC that is essential for the ranch to conduct business, including access to Rodgers Windmill, cattle management activities, and wildlife habitat improvements. Need to include the existence of this Right of Way prior to issuance of the FEIS.	LR-5	Lands and Realty	NMCC recognizes and acknowledges that Pitchfork Ranch currently has access through Copper Flat. During mine operation, NMCC expects to continue to provide Pitchfork Ranch this access through the property but would need to follow agreed upon procedures to ensure safe access. NMCC is prepared to work with Pitchfork Ranch to develop procedures to allow continued access in a safe manner.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Table 3.35 misrepresents BLM Grazing Allotments on the Hillsboro Pitchfork Ranch LLC Warm Spring Ranch allotment, because it does not take into account the private land associated with the allotment. The actual number of livestock grazed within Grayback Arroyo system to the west of the mine site is much larger than indicated.	R&L-5	Range and Livestock	Table 3.35 lists the allotments that the project site (mine property, pipeline, and mill sites) would overlap, resulting in surface disturbance to these allotments. The source of the information presented in the table is from the BLM Rangeland Administration System (RAS) database. The RAS database did not list the amount of private acreage included in the Warm Springs Ranch allotment; therefore, Footnote 3 to the table acknowledged that the allotment is much larger than just the 151 acres of BLM land listed. This allotment is billed only for the small amount of public land (3 Cattle at 100% Public Land). The ranch/allotment is much larger, and capable of supporting more livestock. Due to the allotment being largely private land, the BLM only charges for the small amounts of public land. Although the project site does appear to overlap with both private and public land on Warm Springs Ranch No. 06143 in Sections 34 and 35, T. 15S, R. 7W (owned by Pitchfork Ranch LLC), the proposed project would not result in surface disturbance to this allotment and was therefore not listed in the table.	P70_Kathy McKinney and Bob Cunningham
P70	3/3/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The above statement does not take into account the cumulative effects to grazing. Effects to grazing would extend well outside the mine site, to public and private lands in the Grayback Arroyo System of the Animas Uplift. Given the above paragraph does not account for, reduction in surface water and permanent loss of ground water within the Animas Uplift, due to the cone of water depression associated with the mine pit, animal reduction numbers will be of Major magnitude and catastrophic to the Hillsboro Pitchfork Ranch L.L.C.	R&L-6	Range and Livestock	Section 3.5.1 describes the surface water features that encompass the area west and east of the mine property, and Section 3.5.2 describes the impacts to these features from pumping groundwater to develop and operate the mine. Results from the groundwater modeling indicate that the deep bedrock aquifer that would be impacted by dewatering the mine pit is not hydrologically connected to surface waters near the mine pit. Drawdown of this deep aquifer would therefore not affect surface water sources that support vegetation west of the mine property, having no significant cumulative impacts to livestock forage (vegetation). Also see responses to comments VEG-6, VEG-7, SW-25, SW-21, and CI-18. The Grayback Well is located approximately 480 meters away from proposed locations of blasting and mine vehicle use. As stated in Section 3.6, impacts to individual private wells, other than artesian wells, are not simulated in the model. Drawdowns can impact pumping costs and well yield. Measurable impacts to well yield would be expected only to wells that: a) draw their water from the Santa Fe Group aquifer; b) are close enough to the production wells that impacts to water levels might be measured in tens of feet; and c) are so shallow such drawdown would impede production (i.e., penetrate only several tens of feet into the aquifer). At this time, the BLM has identified no such wells. Also, as stated in Section 3.11, groundwater drawdown would have a minimal effect on surface water (water used for livestock forage). The BLM has evaluated information from the well closest to the mine site from the west, identified in the EIS as GWQ-4 and known otherwise as the Rodgers windmill. Analyzing the information reveals that water is drawn down approximately 70 feet within the 150-foot deep well as a result of pit dewatering. Therefore, a water column remains at the well, but from this finding alone, the BLM cannot assume there would be no impact to well yield. It remains possible that the small amount of bedrock aquifer thickness available after dewatering would not supply enough water to keep the stock tank full. Without more information, the BLM cannot conclude whether there would be adverse impacts.	P70_Kathy McKinney and Bob Cunningham

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							<p>The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment." In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations.</p> <p>The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the Animas Uplift wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law.</p>	
P70	3/4/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The reduction in allotment AUM's on the Warm Springs Ranch is primarily a function of the lost of livestock water, due to the cone of water depression associated with the mine pit. This effect is not recognized in the above paragraph. AUM reductions will be <i>Major</i> on both public and private lands of the Warm Springs Allotment, of the Hillsboro Pitchfork L.L.C. This ecological and economic effect must be recognized in the EIS process.	R&L-6	Range and Livestock	<p>Section 3.5.1 describes the surface water features that encompass the area west and east of the mine property, and Section 3.5.2 describes the impacts to these features from pumping groundwater to develop and operate the mine. Results from the groundwater modeling indicate that the deep bedrock aquifer that would be impacted by dewatering the mine pit is not hydrologically connected to surface waters near the mine pit. Drawdown of this deep aquifer would therefore not affect surface water sources that support vegetation west of the mine property, having no significant cumulative impacts to livestock forage (vegetation). Also see responses to comments VEG-6, VEG-7, SW-25, SW-21, and CI-18.</p> <p>The Grayback Well is located approximately 480 meters away from proposed locations of blasting and mine vehicle use. As stated in Section 3.6, impacts to individual private wells, other than artesian wells, are not simulated in the model. Drawdowns can impact pumping costs and well yield. Measurable impacts to well yield would be expected only to wells that: a) draw their water from the Santa Fe Group aquifer; b) are close enough to the production wells that impacts to water levels might be measured in tens of feet; and c) are so shallow such drawdown would impede production (i.e., penetrate only several tens of feet into the aquifer). At this time, the BLM has identified no such wells. Also, as stated in Section 3.11, groundwater drawdown would have a minimal effect on surface water (water used for livestock forage).</p> <p>The BLM has evaluated information from the well closest to the mine site from the west, identified in the EIS as GWQ-4 and known otherwise as the Rodgers windmill. Analyzing the information reveals that water is drawn down approximately 70 feet within the 150-foot deep well as a result of pit dewatering. Therefore, a water column remains at the well, but from this finding alone, the BLM cannot assume there would be no impact to well yield. It remains possible that the small amount of bedrock aquifer thickness available after dewatering would not supply enough water to keep the stock tank full. Without more information, the BLM cannot conclude whether there would be adverse impacts.</p>	P70_Kathy McKinney and Bob Cunningham
							<p>The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment." In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations.</p> <p>The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the Animas Uplift wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law.</p>	
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Disagree with information presented in paragraph 3 on page 3-214. The geology of the Animas Uplift is completely different from the geology of Las Animas and Percha Creek.	VEG-15; MG-1	Vegetation; Mineral and Geologic Resources	Please refer to previous responses to comments VEG-6, 7, 8, 9, and 12 in the Comment Categories and Responses (CCR) document that address the Grayback Arroyo.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The effects of evapotranspiration in the Animas Uplift have not been studied and described in this DEIS. Given that the alluvial groundwater in the Animas Uplift is much nearer the surface, there will be major negative changes to riparian and upland land plant communities in the Animas Uplift. Need to conduct surveys and an analysis of evapotranspiration on Animas Uplift. Effects to range and livestock, biological resources, and wildlife must be quantified and addressed in the DEIS.	WL-11; VEG-6; SW-25	Wildlife; Vegetation; Surface Water Resources	As discussed in Section 3.5.1.1 of the EIS, the Greenhorn Arroyo drainage basin is drained by ephemeral washes that flow in direct response to high-intensity rainfall events, which generally occur during the summer months. The deep groundwater aquifers in these areas are not connected to the surface waters and therefore drawdown would not influence the availability of surface waters for vegetation, including in any riparian areas, west of the mine site. A modeling analysis indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water in the Greenhorn Arroyo basin. As described in Section 3.5.2.1 of the EIS, "except for springs located in the immediate vicinity of the open pit, impacts to springs located west of the Animas Uplift (e.g., Warm Springs) are not expected based on predicted drawdown of the groundwater flow model. Some of the bedrock seeps and springs in the immediate vicinity of and at the open pit could be impacted, possibly going dry during mining operations as the open pit is dewatered; however, bedrock seeps at the open pit that only flow in response to precipitation events are not expected to be impacted by mining operations. Stormwater management at the mine is not expected to have a substantial effect on surface water quantities in the Grayback and Greenhorn Arroyos. Proposed mining operations and the expansion of the open pit would not alter the existing Grayback diversion channel; stormwater flows captured in the Grayback Arroyo upgradient of mine facilities would continue to be diverted around the mine. In addition, to the extent practical, stormwater would be directed away from mine-impacted areas and allowed to follow natural drainage paths."	P70_Kathy McKinney and Bob Cunningham

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P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Need to conduct surveys of evapotranspiration on the Animas Uplift, and quantify impacts to Range and Livestock and wildlife.	R&L-7; WL-21	Range and Livestock; Wildlife	Evapotranspiration (ET) occurs from vegetation and open water surfaces. As described in Section 3.5.2, results from the groundwater modeling indicate that the deep bedrock aquifer that would be impacted by dewatering the mine pit is not hydrologically connected to surface waters located in the Animas Uplift. The water in the mine pit would be an ET source; however, this water source during mine operations would not have any impact to livestock or wildlife. Other open water surfaces in the Animas Uplift would not be affected by mine operations and would therefore not justify additional analysis of ET rates.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The mitigation measures proposed in paragraph 1, page 3-215 are inadequate. Need to identify mitigation measures for the impacts described in this section.	R&L-8	Range and Livestock	The BLM believes that the mitigation measures listed would be adequate to minimize the adverse impacts to range and livestock from proposed development and operation of the mine.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Paragraph 1 on page 3-226 overlooks effects to wildlife from noise sensitivity. Human activity can impact habitat suitability in three ways: displacing wildlife through habitat occupation, reducing habitat suitability by altering physical characteristics of habitat; or displacing wildlife by altering wildlife perception of the suitability of the habitat through other than physical alteration (e.g., noise, activity).	NOI-4	Noise and Vibrations	The effects of noise and human activity on wildlife are addressed in the Biological Resources section of the EIS. BLM has been in consultation with the US Fish and Wildlife Service concerning potential impacts to federally-listed species in the project area, including the species at the Ladder Ranch. The product of the Section 7 Consultation process will include protective and mitigation actions for all listed species that may be affected by the project. The specific analysis for listed species and all protective and mitigation actions derived via the consultation process with USFWS are included in the Biological Assessment as part of the EIS analysis. Protective and mitigation actions for listed as well as other wildlife species will be included in the Record of Decision.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The area immediately to the west of the mine site in the area of the Grayback Arroyo System is identified as an area of critical Mule Deer Fawning habitat by NMF&G Biologists.	VEG-8	Vegetation	Modeling analysis for the EIS indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water in the Grayback Arroyo system and therefore would not affect any vegetation, including any mountain mahogany growing in this area. Groundwater pumping (including that for pit dewatering) would not affect this habitat because existing water depths are far below the rooting depth of vegetation.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Disagree with extent (limited), duration (short to medium-term), and magnitude of effects (minor), as well as overall impact conclusion (not significant). Adverse effects would be long-term in duration, 15 to 20 years for the preferred alternative. The magnitude of effects would be moderate, as noise levels will effect wildlife and therefore create an incompatible land use in undeveloped and agricultural areas. The extent would be large, given that noise would be audible for several miles. Table ES-3 Summary of Impacts Paper ES-9 should be changed to from not significant to significant.	NOI-5	Noise and Vibrations	The effects of noise on wildlife are addressed in the Biological Resources section (Section 3.10) of the EIS. As stated in Section 3.10, the noise generated by construction and operation activities (including blasting) at the proposed mine could impact nearby wildlife by startling individuals or masking natural sounds that animals are generating or hearing. The noise impacts could result in displacement of wildlife species in and around the proposed mine site. Overall, the noise impacts to wildlife are expected to be minor, long-term, and adverse. However, as shown in Table 3-1, the overall impact would remain insignificant. Table ES-3 and Section 3.21 were reviewed and revised to accurately reflect these impacts.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Need to clarify in contour lines in Figure 3-46 "Estimated Noise from the Proposed Action" is cumulative to all mining equipment that is likely to be in operation at any time? Or do the contour lines represent one piece of mine equipment activity at a time.	NOI-6	Noise and Vibrations	The noise contours are cumulative to all mining equipment that is likely to be in operation at any time - with a 10 dB penalty for any equipment operating between the hours of 10:00 p.m. and 7:00 a.m.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	In paragraph 2 on page 3-228, the following statement does not make sense: "For example, for a surface mining operation at which several hundred charges are detonated each year, peak pressure levels can exceed 140 dB in areas where annual DNL values indicate that noise is recommended for residential use." Is the author stating that a level of 140dB is recommended for residential land use areas?	NOI-7	Noise and Vibrations	The general statement is included to indicate that in some situations, a few very loud events may solicit concern and complaints from individuals, although the average levels of noise are completely compatible with residential land use. For example, for a surface mining operation at which several hundred charges are detonated each year, peak pressure levels can exceed 140 dB in areas that otherwise have annual day-night average sound level (DNL) values indicating the noise level is acceptable for residential use. Section 3.21.2.1.1 indicates that "blasting activities may be heard by residences and others as much as several miles from the site. However, these events would be characterized as "audible but distant" and would not be appreciably intrusive." This is because the peak levels would be below 115 dBp.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	In paragraph 1 on page 3-22, the statement: "Although not a good descriptor of the overall noise environment like the DNL, peak levels relate well to the level of concern and possibility of complaints among people living nearby after an individual blast event." does not address effects to wildlife in the Animas Lift.	NOI-8	Noise and Vibrations	The effects of noise on wildlife are addressed in the Biological Resources section of the EIS (Section 3.10). As stated in Section 3.10, the noise generated by construction and operation activities (including blasting) at the proposed mine could impact nearby wildlife by startling individuals or masking natural sounds that animals are generating or hearing. The noise impacts could result in displacement of wildlife species in and around the proposed mine site. Overall, the noise impacts to wildlife are expected to be minor, long-term, and adverse. However, according to Table 3-1, the overall impact would remain insignificant. Table ES-3 and Section 3.21 were revised to accurately reflect these impacts.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Paragraph 1 on page 3-22 does not state how many blasting events are expected to be conducted within a given timeframe. Without an approximate frequency of blasting events, it is impossible for the public to quantify the effects of blasting.	NOI-9	Noise and Vibrations	As outlined in Section 3.21.2.1.1, and based on the noise modeling for proposed mine operations (Figure 3-46 of the FEIS), the average levels of noise would be completely compatible with residential land use. To address individual blasting events, Section 3.21.2.1.1 of the EIS indicates that "blasting activities may be heard by residences and others as much as several miles from the site. These events would best be characterized as "audible but distant" and would not be appreciably intrusive." The number and frequency of blasting events have been added to the FEIS.	P70_Kathy McKinney and Bob Cunningham

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P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Table 3-47, Figure 3-46, and Table 3-49 each infer a somewhat different effect from noise associated with mine operations. The cumulative effects from noise operations are not described or depicted. Recommend analyzing the effects of noise to include effects to wildlife, and use a graphic showing existing sound levels (dBA) as shown in Table 3-47 against the proposed mine action sound level in a manner similar to Figure 3.46. This will allow the public to fully understand the noise effects of mine operations, weighted against existing conditions.	NOI-10	Noise and Vibrations	Figure 3-46 presents the estimated noise from operation activities (e.g., operation of heavy machinery and trucks) under the Proposed Action; however, it does not include the potential noise impacts from blasting. Table 3-49 does not present the impacts of blasting under the Proposed Action, it presents the guidelines used to estimate the noise impacts from blasting activities at the proposed mine site. The estimated impacts from blasting activities is discussed under "Noise from Blasting" in Section 3.21.2.1. However, the figures and tables in Section 3.21 were revised for consistency. Figures 3-46 and 3-47 present the noise impacts under the Proposed Action and Alternatives 1 and 2, respectively. The combined noise effects were not analyzed because only one alternative would be selected and implemented (i.e., they are mutually exclusive). The effects of noise on wildlife are addressed in the Biological Resources section of the EIS (Section 3.10). As stated in Section 3.10, the noise generated by construction and operation activities (including blasting) at the proposed mine could impact nearby wildlife by startling individuals or masking natural sounds that animals are generating or hearing. The noise impacts could result in displacement of wildlife species in and around the proposed mine site. Overall, the noise impacts to wildlife are expected to be minor, long-term, and adverse. However, according to Table 3-1, the overall impact would remain insignificant. Table ES-3 and Section 3.21 were revised to accurately reflect these impacts.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The analysis on page 3-230 overlook the effects to wildlife. Table 3-50 does not identify wildlife as a response or condition that can be effected by vibrations associated with mine activities. Wildlife should be included in the analysis of vibration produced by mine activities; until such analysis is completed the DEIS is incomplete and inadequate.	NOI-4	Noise and Vibrations	The effects of noise and human activity on wildlife are addressed in the Biological Resources section of the EIS. BLM has been in consultation with the US Fish and Wildlife Service concerning potential impacts to federally-listed species in the project area, including the species at the Ladder Ranch. The product of the Section 7 Consultation process will include protective and mitigation actions for all listed species that may be affected by the project. The specific analysis for listed species and all protective and mitigation actions derived via the consultation process with USFWS are included in the Biological Assessment as part of the EIS analysis. Protective and mitigation actions for listed as well as other wildlife species will be included in the Record of Decision.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	There is no discussion of the Rodgers Windmill, a historic structure located 0.25 miles west of the existing mine pit. Mine activities would harm the historic structure from vibration and loss of groundwater, and have not been studied. An analysis of effects to the windmill must be conducted and included.	CR-6; NOI-11	Cultural Resources; Noise and Vibrations	Vibrations: The Rodgers windmill is located approximately 480 meters away from proposed locations of blasting and mine vehicle use. This distance is almost twice the critical distance calculated for possible vibration effects to extremely fragile historic buildings, ruins, and ancient monuments. Because there is no potential effect to this windmill from vibrations, it is not included in the APE. Therefore, no analysis of effects to the windmill will be conducted for the EIS. Loss of Groundwater: The BLM has evaluated information from the Pitchfork Ranch well closest to the mine site, identified in the FEIS as GWQ-4 and known otherwise as the Rodgers windmill. This analysis revealed that water is drawn down in the well approximately 70 feet within the 150-foot deep well as a result of pit dewatering. So, a water column remains at the well but from this finding alone, the BLM cannot assume there would be no impact to well yield. It remains possible that the small amount of bedrock aquifer thickness available after dewatering would not supply enough water to keep the stock tank full. Without more information, the BLM cannot conclude whether there would be adverse impacts. The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment". In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or drilling of a new one if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the Pitchfork wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law. The Section 106 PA allows for the future consideration of unanticipated effects to historic properties. At this time, no Section 106 effect to this windmill is anticipated and thus it is not included in the APE. If an impact is identified in the future from groundwater drawdown, the BLM would implement the provisions in the PA to evaluate the windmill for National Register eligibility, and if found eligible, determine if the effect is adverse and implement appropriate mitigation measures to resolve any adverse effect.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The mitigation measures on page 3-230 are inadequate and incomplete. No reference or weight is given to wildlife impacts. BMPs are a poorly defined practice with no clear or concise definition. Mitigations to Noise and Vibration must be identified by and agreed to by NMCC prior to issuance of a FEIS.	NOI-12	Noise and Vibrations	The level of effects from noise would be minor and no mitigation measures would be required. All equipment would be maintained in good working order with factory installed mufflers. All blasting would be confined to daytime hours. The effects of noise on wildlife are discussed in the Biological Resources section of the EIS.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The negative socioeconomic effects of mine development would be permanent in duration, given that depletion of surface and groundwater in the Grayback Arroyo System within the Animas Uplift would be permanent.	SE-40	Socioeconomics	The minimal permanent effects anticipated are described in the FEIS. The BLM finds the analysis of these effects sufficient to support relevant findings in the FEIS.	P70_Kathy McKinney and Bob Cunningham

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P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The socioeconomic section does not discuss the negative economic effects from mine construction and operations. Groundwater impacts caused by the mine pit water cone of depression associated with the deepening of the mine pit will be permanent in duration.	SE-2; SE-20; SE-21; SE-35	Socioeconomics	The project is not predicted to have effects on water supplies that would have direct, adverse economic impacts. The potential out-migration of residents has been added to the discussion in the FEIS. Adverse and beneficial socioeconomic impacts are discussed throughout the section. Potentially adverse impacts associated with boom and bust mining economies and potential impacts to quality of life (including to recreational values, property values, and recreation and tourism) are discussed in Section 3.22.2.1.6. Potentially adverse impacts to schools and health services are discussed in Sections 3.22.1.5.3.1 and 3.22.1.5.2, respectively.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	In response to the first paragraph on page 3-304: The effects of mine construction would permanently harm the long-term productivity of lands surrounding the mine site. This permanent effect would be a direct consequence of the mine pit water cone of depression caused by mine pit dewatering, and then the continuing flow of groundwater into the pit/cone of depression once mining operations have ended.	STULTP-1	Short-Term Use and Long-Term Productivity	The permanent groundwater drawdown at the mine pit has been identified and discussed in the FEIS along with any associated impacts, but has also been specifically addressed in the section on Short-term Use and Long-term Productivity.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The area of influence for mine effects is described as the Copper Flat mine area. What is the definition of the area of potential effect by mine construction and operation in the DEIS? This is inconsistent in the document; sometimes it is defined as the mine site and well fields, utility sites and rights of ways and other times referred to (vaguely) as the Copper Flat mine area.	STULTP-2	Short-Term Use and Long-Term Productivity	The affected area varies in size according to the resource being analyzed. For example, visual resources have a much greater area of potential effect due to potentially lengthy lines of sight than would generally be true of a resource such as soils, which are typically affected only in disturbed areas.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Disagree with the statement on page 3-304: "No significant impacts to long-term productivity are expected to occur from the proposed project." There will be significant permanent negative impacts from mine construction and operations that would extend well beyond the mine site and would negatively effect both public lands and private lands on the Hillsboro Pitchfork Ranch LLC.	STULTP-3	Short-Term Use and Long-Term Productivity	It is unclear which specific permanent negative impacts to which the commenter refers. The BLM has reviewed this comment and is satisfied that any potentially significant permanent negative impacts have been identified and are addressed.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Given the inaccurate way in which impacted areas are described in the DEIS and that impacts would be significant and permanent in nature, the DEIS should be withdrawn. Once complete and accurate studies of the effects of mine construction and operations are documented then the DEIS should be reissued for public comment.	NEPA-11	NEPA Process	The FEIS was objectively prepared, maximizing the use of available information. As provided by NEPA, the process has utilized input from public review of the DEIS to systematically proceed to the FEIS document.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Paragraph 5 on page 3-305 is misleading: "Some water used for processing and smaller mining-related uses, although extensively recycled, is not renewable and represents an irreversible use of resources. Recovery in the bedrock near the mine pit would be limited. Recovery in the Santa Fe Group would eventually (over decades) be essentially complete." It is not clear that water recovery in the bedrock near the mine put would not recover as water will continue to flow into the mine pit lake forever.	I&I-4	Irreversible & Irretrievable Commitment of Resources	Groundwater modeling for the EIS predicts that the groundwater drawdown in areas immediately adjacent to the proposed pit would be permanent with limited recovery due to groundwater flow characteristics of the andesite bedrock.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Paragraph 7 on page 3-305 is misleading: "The small amount of terrestrial wildlife habitat would be lost long-term due to the expansion of the pit area. Waterfowl would use the expanded pit lake area, but a small amount of terrestrial habitat at the rim of the current pit area would be excavated with the pit expansion. It does not account for ground and surface water loss in perpetuity due to water continuing to flow in the mine pit lake after mine closure. Based on page 3-21, the existing pit lake does not meet the water quality standards for the designated uses of warm water aquatic, life, livestock watering, or wildlife habitat.	I&I-5	Irreversible & Irretrievable Commitment of Resources	The statement from paragraph 7 of Section 3.28 is correct, and paragraph 5 of the same section acknowledges the long-term loss of groundwater resources in the mine pit area. Paragraph 7 has been revised with regard to wildlife to better articulate the existing condition of the pit lake and the expected condition post-mining. The paragraph now states: "A small amount of terrestrial wildlife habitat would be lost long term due to the expansion of the pit area. Waterfowl would use the expanded pit lake area, but a small amount of terrestrial habitat at the rim of the current pit area would be excavated with the pit expansion." The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The only standard that would apply is a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality.	P70_Kathy McKinney and Bob Cunningham

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P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Natural boundaries are not used in several sections of the DEIS to describe the geographical extent of negative impacts. In many cases the draft uses the area of the mining pit area and ancillary facilities to describe the affected environment, including 3.4 Surface water, 3.6 Groundwater, 3.10 Wildlife and Migratory Birds, 3.19 Range and Stock and 3.21 Noise and Vibrations. The studies conducted and conclusions reached are specific to the mine site. The Grayback Arroyo System within the Animas Uplift is poorly studied and conclusions reached regarding the impact from mining operations are broad-brush or non-existent.	CI-21	Cumulative Impacts	The boundaries described in the FEIS extend to the limit of impacts from the Proposed Action and the alternatives, natural or otherwise. The Grayback Arroyo has three surface water quality monitoring stations as stated in Section 3.4, Water Quality. To supplement the historical information provided by the sampling stations, NMCC took baseline samples from these sites during 2010 and 2011. The results of these samples are shown in Figure 3-2 of the FEIS.	P70_Kathy McKinney and Bob Cunningham
P70	3/3/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The Draft EIS in many respects speaks only to negative environment impact through mine closure. In conflict to the second sentence in the above paragraph.	NEPA-24; CI-22	NEPA Process; Cumulative Impacts	NEPA requires that an EIS evaluate cumulative impacts of past, present, and reasonably foreseeable future actions. The comment has not been specific about actions occurring after mine closure that should also be analyzed, but many future actions are speculative rather than reasonably foreseeable.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	The first paragraph on page 4-8 is an admission that the study of impacts on surface water is incomplete. Recommend studying the effects on surface water and evapotranspiration within the Grayback Arroyo system of the Greenhorn Basin; the geology of the Grayback Arroyo system upstream of the mine site is different from areas studied in Las Animas and Percha Creeks.	SW-21; CI-18	Surface Water Resources; Cumulative Impacts	A detailed discussion of the cumulative effects related to surface water and groundwater are included in related sections within Chapter 4 of the EIS. The information presented in the EIS addresses Grayback Arroyo to the limited extent that it is impacted by the Proposed Action and alternatives.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Section 4-2 does not take into account the current and continued existence of the Hillsboro Pitchfork Ranch LLC, which has five wells that will be permanently dewatered by mine activities. The development of additional wildlife and livestock watering facilities on BLM and private lands within the Grayback Arroyo System of the Animas Uplift would be precluded if it is permanently dewatered.	CI-23	Cumulative Impacts	The BLM has evaluated information from the Pitchfork Ranch well closest to the mine site, identified in the EIS as GWQ-4 and known otherwise as the Rodgers windmill. Analyzing the information reveals that water is drawn down in the well approximately 70 feet within the 150-foot deep well as a result of pit dewatering. So, a water column remains at the well but from this finding alone, the BLM cannot assume there would be no impact to well yield. It remains possible that the small amount of bedrock aquifer thickness available after dewatering would not supply enough water to keep the stock tank full. Without more information, the BLM cannot conclude whether there would be adverse impacts. The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment." In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the Pitchfork wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law. The Section 106 PA allows for the future consideration of unanticipated effects to historic properties. At this time, no Section 106 effect to this windmill is anticipated and thus it is not included in the APE. If an impact is identified in the future from groundwater drawdown, the BLM would implement the provisions in the PA to evaluate the windmill for National Register eligibility, and if found eligible, determine if the effect is adverse and implement appropriate mitigation measures to resolve any adverse effect.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Other than correction of negative effects from prior attempts at copper production in the Copper Flat Area site, there are no other long-term improvements to habitats (as stated on page 4-10). Note the mine site accounts for less than one percent of one percent of the land area that would be impacted by proposed mining operations.	CI-24; WL-22	Cumulative Impacts; Wildlife	Mine site restoration using native plants would provide a long-term benefit to vegetation and habitats that would offset a minimal portion of the overall cumulative effects. Beneficial impacts to habitats would occur after mine restoration of the project site, the Nonnative Phreatophyte/Watershed Management Plan, NMED Watershed Restoration Action Strategy, and any nearby mine reclamation, in addition to activities based on wildlife and land management planning efforts that are currently underway.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Cumulative impacts analysis ignores the impact on wildlife from surface water and groundwater depletion.	CI-25; WL-23	Cumulative Impacts; Wildlife	Cumulative impacts of the Proposed Action and alternatives are discussed in Section 4.0, Cumulative Impacts, and were written in compliance with BLM guidance. The BLM believes that the cumulative impacts assessment for other resource categories is either sufficient as presented in the DEIS or has been made so in the FEIS with specific input from the public comment process. The FEIS has been revised to reflect the information from the 2013 Baseline Data Report (BDR) Addendum.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Disagree that "implementing the Proposed Action would contribute minor adverse cumulative impacts on vegetation," as stated on page 4-10. The Proposed Action would have major, permanent cumulative effects to vegetation outside the mine site.	CI-26; VEG-17	Cumulative Impacts; Vegetation	Based on the analysis performed for the EIS, any major impacts to vegetation would be confined to the mine site. Areas outside the mine site would not experience any major impacts to vegetation caused by the proposed mine operation.	P70_Kathy McKinney and Bob Cunningham

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P70	3/3/2016	Kathy McKinney and Bob Cunningham		No significant studies have been conducted regarding negative effects within the Grayback Arroyo System, within the Animas Uplift, to the west up gradient of the mine pit, regarding impact to vegetation. Again effects to riparian vegetation have been studied in Las Animas and Percha Creeks, but no studies have been conducted in an area that contains significantly different geology.	VEG-6; VEG-9	Vegetation	As discussed in Section 3.5.1.1 of the EIS, the Greenhorn Arroyo drainage basin is drained by ephemeral washes that flow in direct response to high-intensity rainfall events, which generally occur during the summer months. The deep groundwater aquifers in these areas are not connected to the surface waters and therefore drawdown would not influence the availability of surface waters for vegetation, including in any riparian areas, west of the mine site. A modeling analysis indicated that pumping of the aquifer for dewatering for mine operations would not affect surface water in the Greenhorn Arroyo basin. As described in Section 3.5.2.1 of the EIS, "except for springs located in the immediate vicinity of the open pit, impacts to springs located west of the Animas Uplift (e.g., Warm Springs) are not expected based on predicted drawdown of the groundwater flow model. Some of the bedrock seeps and springs in the immediate vicinity of and at the open pit could be impacted, possibly going dry during mining operations as the open pit is dewatered; however, bedrock seeps at the open pit that only flow in response to precipitation events are not expected to be impacted by mining operations. Stormwater management at the mine is not expected to have a substantial effect on surface water quantities in the Grayback and Greenhorn Arroyos. Proposed mining operations and the expansion of the open pit would not alter the existing Grayback diversion channel; stormwater flows captured in the Grayback Arroyo upgradient of mine facilities would continue to be diverted around the mine. In addition, to the extent practical, stormwater would be directed away from mine-impacted areas and allowed to follow natural drainage paths."	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Significant cumulative impacts to livestock on public and private lands would occur within the Animas Uplift to the west of the mine pit. Without water livestock cannot exist. No groundwater will exist within this area and surface water will be significantly reduced. Effects to forage are not analyzed or quantified within the DEIS, but the assumed reduction in available surface water would negatively impact livestock forage.	CI-27; R&L-2	Cumulative Impacts; Range & Livestock	As described in Section 3.19.2.1, mine development would impact a total of 745 acres of BLM land within the proposed mine area (725 acres on the Copper Flat Ranch allotment and 20 acres on the Warm Springs Ranch allotment). Of the 745 acres, 361 acres have been previously disturbed and 384 acres would be new disturbance. The 384 acres of new surface disturbance would occur on BLM land within the Copper Flat allotment. As shown in Table 3-35, approximately 58 percent of the forage within the Copper Flat Ranch allotment is derived from BLM land. The reduction of 384 surface acres would result in an approximately 5 percent loss of forage derived from BLM land (assuming forage is available evenly across the Copper Flat Ranch allotment). Applying the significance criteria for range and livestock impacts established for this analysis (see Appendix A), this amount of forage loss is defined as small (limited) in extent. Therefore, no adjustment (reduction) to permitted AUMs is anticipated. As stated in Section 3.6, impacts to individual private wells, other than artesian wells, are not simulated in the model. Drawdowns can impact pumping costs and well yield. Measurable impacts to well yield would be expected only to wells that: a) draw their water from the Santa Fe Group aquifer; b) are close enough to the production wells that impacts to water levels might be measured in tens of feet; and c) are so shallow such drawdown would impede production (i.e., penetrate only several tens of feet into the aquifer). At this time, the BLM has identified no such wells. Also, as stated in Section 3.11, groundwater drawdown would have a minimal effect on surface water (water used for livestock forage). See also response to comment R&L-6 of the Comment Categories and Responses (CCR) document regarding mining impacts to surface and groundwater sources, specifically the Grayback Well, that could affect livestock water and forage.	P70_Kathy McKinney and Bob Cunningham
P70	3/2/2016	Kathy McKinney and Bob Cunningham	Hillsboro Pitchfork Ranch LLC	Wildlife is an important component of the affected environment. Effects of noise associated with the mine development and operations are not fully described in the DEIS. In particular, noise associated with mining activities are isolated to the mine site location. The DEIS is lacking its analysts and description of noise associated with mine development and operations and therefore effects to wildlife are not accurate.	NOI-4	Noise and Vibrations	The effects of noise and human activity on wildlife are addressed in the Biological Resources section of the EIS. BLM has been in consultation with the US Fish and Wildlife Service concerning potential impacts to federally-listed species both within and outside of the project area (e.g., species at the Ladder Ranch). The product of the Section 7 Consultation process will include protective and mitigation actions for all listed species that may be affected by the project. The specific analysis for listed species and all protective and mitigation actions derived via the consultation process with USFWS are included in the Biological Assessment as part of the EIS analysis. Protective and mitigation actions for listed as well as other wildlife species will be included in the Record of Decision.	P70_Kathy McKinney and Bob Cunningham
P71	3/2/2016	Frank Ruvolo		Support for the proposed mine because it will provide much needed employment in Sierra County and also bring work to many supporting sectors for a positive impact throughout the state.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P71_Frank Ruvolo
P71	3/2/2016	Frank Ruvolo		The US needs responsible domestic production of natural resources and the mine will produce copper and other valuable metals in NM.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P71_Frank Ruvolo
P71	3/2/2016	Frank Ruvolo		Proper Federal and State regulations will ensure protection of the workers and the environment and would operate within strict environmental regulations.	HH&PS-4; REG-4	Human Health & Public Safety; Regulatory Compliance	Thank you for your comment. The mining proponent would employ modern mining techniques in compliance with MSHA.	P71_Frank Ruvolo
P71	3/2/2016	Frank Ruvolo		The BLM has been thorough with their work and provided time for the public review process. Request that BLM work through the EIS process efficiently and without delay so that we can welcome responsible industry in Sierra County.	NEPA-8; SE-1	NEPA Process; Socioeconomics	Thank you for your comment.	P71_Frank Ruvolo
P72	3/2/2016	Reta King		Support for the proposed mine because it will provide much needed employment in Sierra County and also bring work to many supporting sectors for a positive impact throughout the state.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P72_Reta King
P72	3/2/2016	Reta King		The US needs responsible domestic production of natural resources and the mine will produce copper and other valuable metals in NM.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P72_Reta King

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P72	3/2/2016	Reta King		Proper Federal and State regulations will ensure protection of the workers and the environment and would operate within strict environmental regulations.	HH&PS-4; REG-4	Human Health & Public Safety; Regulatory Compliance	Thank you for your comment. The mining proponent would employ modern mining techniques in compliance with MSHA.	P72_Reta King
P72	3/2/2016	Reta King		The BLM has been thorough with their work and provided time for the public review process. Request that BLM work through the EIS process efficiently and without delay so that we can welcome responsible industry in Sierra County.	NEPA-8; SE-1	NEPA Process; Socioeconomics	Thank you for your comment.	P72_Reta King
P73	3/3/2016	Margie Gibson		Commenter has indicated that the comment extension notice is missing the letter "f" in "Draft" and considers it a <u>minor annoyance</u> .	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P73_Margie Gibson
P74	3/4/2016	Danielle Holman		Support for the project because it would be great for the community and local economy - it would bring in jobs to the community that are desperately needed.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P74_Danielle Holman
P75	3/4/2016	Rose Frazier		Support for the project because it would be great for the economy and beneficial for the entire community.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P75_Rose Frazier
P76	3/4/2016	Toby Hopp		Support for the project because it would create jobs for the community and benefit the local economy.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P76_Toby Hopp
P77	3/8/2016	Sergio M. Raming Jr.		Support for the project because the community needs it.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P77_Sergio Raming Jr
P78	3/8/2016	Joseph Ficklin		Draft EIS is concerning and incomplete. Please give this more consideration before making a final decision.	NEPA-11	NEPA Process	The FEIS was objectively prepared, maximizing the use of available information. As provided by NEPA, the process has utilized input from public review of the DEIS to systematically proceed to the FEIS document.	P78_Joseph Ficklin
P79	3/8/2016	Harvey Chatfield		Support for the project because Sierra County needs the jobs the mine will bring.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P79_Harvey Chatfield
P80	3/8/2016	Sandra Ficklin		Draft EIS is concerning and incomplete. Please give this more consideration before making a final decision.	NEPA-11	NEPA Process	The FEIS was objectively prepared, maximizing the use of available information. As provided by NEPA, the process has utilized input from public review of the DEIS to systematically proceed to the FEIS document.	P80_Sandra Ficklin
P80	3/8/2016	Sandra Ficklin		Our water is too precious to waste.	GW-3	Groundwater Resources	A detailed discussion of impacts to groundwater resources is included in Section 3.6 of the EIS. The EIS indicates that the primary effect would be on flows in the Rio Grande, which would be subject to mitigation in accordance with obligations imposed by the OSE or agreed to by NMCC. With the possible exception of effects on habitat for the Chiricahua Leopard Frog that may use farm ponds in lower Las Animas Creek, the best information now available indicates there would be minimal effects on the human and biological environment, and no effect on the existing high-quality riparian corridors. The project is not likely to render any of the wells in the area inoperable.	P80_Sandra Ficklin
P81	3/8/2016	Joseph and Sandra Ficklin		Concerned with the magnitude of the volume of water to be pumped from the Palomas Basin Aquifer for the duration of the mining at the proposed NMCC copper mine.	GW-5	Groundwater Resources	The FEIS provides details on the effects of the mining project on water resources and indicates that the primary effect that has the potential to impact other water users would be depletion of flows in the Rio Grande. These effects would be subject to mitigation in accordance with obligations imposed by the OSE and by voluntary actions applied by NMCC. NMCC has committed to provide such mitigation for the duration of the impacts from the project. To the extent the OSE determines NMCC has a vested right to deplete surface flows below the dam without providing an additional offset, and absent the voluntary mitigation, there could be an adverse effect on users of surface water in the Lower Rio Grande Basin and/or Texas that would exist for decades. However, because NMCC would provide mitigation in the form of offsets from upstream, this impact is predicted to not occur. Groundwater levels would decline near the NMCC wellfield during operations, and then gradually recover. The OSE would determine whether this causes impairment of any existing wells and, if so, would require mitigation; as of mid-2017, no analysis had indicated that such impairment would occur, i.e. there is not expected to be any loss of ability to produce water from existing livestock, domestic, or community supply wells. Some increase in pumping costs may occur, which is an acceptable effect under New Mexico water law. No impacts to Hatch Valley or thermal water sources would reasonably be expected. The continuous clay layer and the presence of perched water beneath portions of Las Animas Creek are demonstrated by water level measurements and geologic logs, and by the hydrologic reality that sustained flows in the Creek can only occur if the shallow hydrology is isolated from the deeper water table that is characteristic of the regional hydrology.	P81_Joseph and Sandra Ficklin
P81	3/8/2016	Joseph and Sandra Ficklin		The DEIS does not utilize sufficient data from which to predict what catastrophic effects of the groundwater pumping. The commenter references a number of pages in the Preliminary EIS dated March 1999 to demonstrate the impacts to Animas Creek from pumping of groundwater. The commenters are concerned that additional pumping would deplete the already depleted surface flow of animas creek.	GW-7	Groundwater Resources	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P81_Joseph and Sandra Ficklin

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P81	3/8/2016	Joseph and Sandra Ficklin		Concerned that depleting flow of the Animas Creek would affect the sycamores - the only tributary where they can be found growing naturally.	GW-7; VEG-1	Groundwater Resources, Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P81_Joseph and Sandra Ficklin
P82	3/9/2016	Bill Rose		Support for the project because Truth or Consequences has been a dying city for a long time and Sierra County needs the quality and high paying jobs the mine will bring.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P82_Bill Rose
P83	3/9/2016	Michael Zimmerman		Support for the granting of Federal and State permits for the project because it would be a vital contributor to the NM economy and provide private sector employment. It will have a positive socioeconomic impact, help grow the area, and attract other industries.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P83_Michael Zimmerman
P83	3/9/2016	Michael Zimmerman		Support for the proposed mine because the mining can be done in a responsible manner and the DEIS adequately addresses all concerns.	NEPA-6	NEPA Process	Thank you for your comment.	P83_Michael Zimmerman
P84	3/9/2016	Nadia Hack		Proceed with the timely approval of the mine to show potential businesses that they can operate in a fair playing field in the state of New Mexico without unreasonable delays. The mine will bring much needed direct and indirect employment and economic benefit. Recommend to proceed with the permitting process without delay so that workers can be hired and show industry that New Mexico is open for business.	SE-1; PA-5; NEPA-8	Proposed Action; Socioeconomics; NEPA Process	Thank you for your comment.	P84_Nadia Hack
P85	3/9/2016	Abdela Rahmam El Enawy	VESCO NM LLC	The US needs responsible domestic production of natural resources and the mine will produce copper and other valuable metals in NM.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P85_Abdela Rahmam El Enawy
P85	3/9/2016	Abdela Rahmam El Enawy	VESCO NM LLC	Proper Federal and State regulations will ensure protection of the workers and the environment.	HH&PS-4; REG-4	Human Health and Public Safety; Regulatory Compliance	Thank you for your comment. The mining proponent would employ modern mining techniques in compliance with MSHA.	P85_Abdela Rahmam El Enawy
P86	3/9/2016	Clifton Montgomery		New Mexico needs all the jobs it can get, therefore in support of this project.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P86_Clifton Montgomery
P86	3/9/2016	Clifton Montgomery		Regulation will address any environmental concerns.	NEPA-6	NEPA Process	Thank you for your comment.	P86_Clifton Montgomery
P87	3/9/2016	Richard Daves		Support for the granting of Federal and State permits for the project because it would be a vital contributor to the NM economy and provide private sector employment. It will have a positive socioeconomic impact, help grow the area, and attract other industries.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P87_Richard Daves
P87	3/9/2016	Richard Daves		Support for the proposed mine because the mining can be done in a responsible manner and the DEIS adequately addresses all concerns.	NEPA-6	NEPA Process	Thank you for your comment.	P87_Richard Daves
P88	3/7/2016	Crystal Robinson		The tax revenue that will be generated by this business investment will be a boon to both the local economy and state. The mine would benefit not only Sierra County but the surrounding area as well.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P88_Crystal Robinson
P88	3/7/2016	Crystal Robinson		The EIS is very thorough and complete, do not delay the process any further.	NEPA-7; NEPA-8	NEPA Process	Thank you for your comment.	P88_Crystal Robinson
P88	3/7/2016	Crystal Robinson		If delays continue companies may not feel they are welcome to do business in New Mexico. If other companies see that it is possible to do business in New Mexico in a timely and reasonably fashion it will encourage additional economic development.	NEPA-8	NEPA Process	Thank you for your comment.	P88_Crystal Robinson
P88	3/7/2016	Crystal Robinson		Mining will also result in remediation of damage done by previous mining at the site, leaving the mine site in better condition; the addition of a lined tailings facility would be a big improvement from the current state of the site.	PA-15	Proposed Action	The post-mining reclamation activities would adhere to all current laws and regulations regarding this aspect of the process. Thank you for your comment.	P88_Crystal Robinson
P88	3/7/2016	Crystal Robinson		Significant scientific study has been conducted.	NEPA-7	NEPA Process	Thank you for your comment.	P88_Crystal Robinson

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P88	3/7/2016	Crystal Robinson		Significant scientific studies show that groundwater impacts would be minimal and would not noticeably affect the surrounding water wells that the community relies on. Pumping tests have been completed on the wells that would be used for production and the tests show no significant detriment to the local water supply.	GW-14; GW-11	Groundwater Resources	Thank you for your comment	P88_Crystal Robinson	
P88	3/7/2016	Crystal Robinson		More than 70 percent of the water used during mining would be reclaimed from the mining processes.	PA-6	Proposed Action	Thank you for your comment.	P88_Crystal Robinson	
P88	3/7/2016	Crystal Robinson		Consider the positive impacts an operating and producing copper mine would have on the surrounding community, the economy, state budget, and environment.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P88_Crystal Robinson	
P88	3/7/2016	Crystal Robinson		Please permit this project as soon as possible.	NEPA-8	NEPA Process	Thank you for your comment.	P88_Crystal Robinson	
P89	2/29/2016	Tom Matthews	New Mexico Business Coalition	Support of the Copper Flat Mine because the base industry jobs are very important to the economic well-being of our state and country. Jobs, revenue, expenses and wages paid by mining employers have a "money multiplier" effect on the economy. The money created by these jobs is spent and then spent again several times by the people receiving the money. This has an enormous positive impact on the economy.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P89_Tom Matthews	
P89	2/29/2016	Tom Matthews	New Mexico Business Coalition	Modern mining and processing technologies can work in harmony with environmental concerns.	PA-6	Proposed Action	Thank you for your comment.	P89_Tom Matthews	
P89	2/29/2016	Tom Matthews	New Mexico Business Coalition	This is a very important and proper use of our public land for the benefit of all of us.	BLM-1	Bureau of Land Management	Thank you for your comment. The BLM evaluated the project's compatibility with multiple use policies and compliance with the Federal Land Policy and Management Act (FLPMA).	P89_Tom Matthews	
P90	2/29/2016	Katie Emmer	THEMAC Resources Group	Provides attached letters of support for operation of Copper Flat Mine from New Mexico lawmakers. The attached 53 letters include a letter from John Sanchez, the Lt. Governor of New Mexico, 18 State Senators and 34 members of the State House of Representatives.	ALT-16	Alternatives	Thank you for your comment.	P90_Katie Emmer	
P90	2/29/2016	Katie Emmer	THEMAC Resources Group	Each of these New Mexico leaders respectfully request that the BLM work through the EIS process efficiently and without delay.	NEPA-8	NEPA Process	Thank you for your comment.	P90_Katie Emmer	
P91	2/29/2016	Max Yeh		At places in the DEIS there are suggestions that reclamation only needs to restore the site to a condition at which the present proposed project begins, and the DEIS does not consider reclamation necessary under a No Action Alternative. Reclamation is intended to restore the site to its natural, original condition, because otherwise, we would be in a continual state of decline as one mitigation after another falls short of complete reclamation. This is certainly what the phrase "cumulative impact" suggests.	ALT-2	Alternatives	New Mexico Copper Corporation (NMCC) has an obligation to cleanup/reclaim following activities such as exploration (drilling) but the New Mexico Environment Department (NMED) has no basis to require NMCC to upgrade facilities that were previously reclaimed unless there was a potential or actual impact to water quality from the existing condition. That could potentially come out of the abatement process in the event the No Action Alternative was selected. One place where this could possibly occur would be the tailing impoundment, where the synthetic liner at the base of the new impoundment was to provide a source control measure on top of the existing tailings. Similar conditions may exist for rock piles. Additionally, the site does not meet Mining and Minerals Division's (MMD) definition for an "existing mining operation" (19.10.1.7.E(2) NMCC) because the mining performed by Quintana did not produce a marketable mineral for a total of at least 2 years between January 1, 1970 and June 18, 1993. Because the mine does not qualify as an existing mining operation per the definition, MMD would not have any jurisdiction to require Quintana or NMCC to reclaim the slopes, waste rock facilities, pit, tailings impoundment, roads, etc. that are currently at the site. The mining performed by Quintana in the 1980s and the mining conducted by smaller entities prior to Quintana are considered to be "pre-New Mexico Mining Act" disturbances that are not able to be regulated by MMD based on the Act and Rules. As such, if the No Action Alternative was selected during the EIS process, the disturbances and reclamation previously performed by Quintana in the 1980s would be allowed by MMD to remain as-is. However, if old disturbance is re-disturbed by the new NMCC mining operation, those areas that become re-disturbed would fall under the requirements for new mining operations. For example, if NMCC reuses an old waste rock pile, then they would have to meet New Mine Operation and Performance Standards		P91_Max Yeh
P91	2/29/2016	Max Yeh		The present condition of the site is not environmentally friendly with an open and polluted pit lake, unreclaimed pit walls, and a plume of pollution entering the groundwater at the former tailings impoundment.	WQ-14	Water Quality	Analysis of the extent of the existing groundwater plume is being done under the auspices of a Stage 1 Abatement Plan approved by the NMED Groundwater Quality Bureau. Work on the Abatement Plan will be conducted regardless of the proposed mining activities. Section 3.4.2.1.2 refers to the existing plume of groundwater with elevated TDS that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume.	P91_Max Yeh	
P91	2/29/2016	Max Yeh		Although BLM does not have funds to restore the situation at Copper Flat on its own, why cannot BLM require the present land owners to restore the site, at least to end pollution, if it does not mine? Is this not the responsibility of landowners generally?	LU-6	Land Ownership & Land Use	The BLM does not have jurisdiction or authority to require private land owners to reclaim their land.	P91_Max Yeh	

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P91	2/29/2016	Max Yeh		Why is there not an alternative to the proposed action which is environmentally less damaging. BLM need not chose that alternative, but normally BLM would have to give good reason not to. In this DEIS, there is not even the option of that alternative. Why is that choice not presented to the decision makers?	ALT-10	Alternatives	The Proposed Action reflects the MPO submitted to the BLM by NMCC and presented to the public during the scoping process. The chosen alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments and the company's requirements.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The issue of cost associated with reclaiming the pit and the pit lake needs to be considered, as they are more important to NMCC than to BLM who must balance NMCC's needs with its own need to protect the land. The DEIS does not review and make sure that these costs are real and that they are really unreasonable.	SE-14	Socioeconomics	Bonding is not within the scope of the FEIS. The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party. The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMAC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMAC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMAC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.	P91_Max Yeh
P91	2/29/2016	Max Yeh		Both dry stack tailings and reclamation of the pit are reasonable demands embraced at other mines by other regulators.	PA-4	Proposed Action	The NMED indicates that they would not have a basis to require NMCC to upgrade facilities that were previously reclaimed unless there was a potential or actual impact to water quality from the existing condition. That could potentially result from the ongoing abatement process in the event the No Action Alternative was selected. One place where this could occur would be the tailing impoundment, where the synthetic liner at the base of the new impoundment was to provide a source control measure on top of the existing tailings. Similar conditions may exist for rock piles. The site does not meet MMD's definition for an "existing mining operation" (19.10.1.7.E(2) NMAC) because the mining performed by Quintana did not produce a marketable mineral for a total of at least two years between January 1, 1970 and June 18, 1993. Because the mine does not qualify as an existing mining operation per the definition, MMD would not have any jurisdiction to require Quintana or NMCC to reclaim the slopes, waste rock facilities, the pit, tailings impoundment, roads, etc. that are currently at the site. The mining performed by Quintana in the 1980s and the mining conducted by smaller entities prior to Quintana are considered "pre-New Mexico Mining Act" disturbances that are not regulated by MMD based on the Act. If the No Action Alternative was selected during the EIS process, the disturbances and reclamation previously performed by Quintana in the 1980s would be allowed by MMD to remain as-is. However, if old disturbance is re-disturbed by the new NMCC mining operation, those areas that become re-disturbed would fall under the requirements for new mining operations. If NMCC reuses an old waste rock pile, then they would have to meet New Mine Operation and Performance Standards. Current mine reclamation requirements are more stringent and restrictive than reclamation standards in place at the closure of the Copper Flat mine in the early 1980s. Under these stricter standards, the condition of reclaimed lands would be noticeably more acceptable and beneficial than what was in place following the previous mine closure. An alternative using dry stack tailings was considered and eliminated, as described in Section 2.5.1 of the EIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The BLM and we the public are simply captives of this ongoing speculation in a marginal piece of mineral rights. The current low grade ore means more intense mining, greater impact, greater use of water, smaller profit, etc. The only entities that have profited from the mine are the land owners, lawyers, hydrogeologists, etc. that support the acquisition and studies to promote mining resumption.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The whole DEIS is flawed because the study does not apply a "can and will" test on the proposed action in order to determine the proper objects of analysis for the impact study. It is a statutorily required administrative method to ensure efficient and expeditious consideration of applications so that time and money are not wasted by the state for frivolous projects that are not feasible. The EIS, a costly and time intensive process, needs to consider if the proposed mining action at Copper Flat "can and will" be carried out before it can determine the reasonably foreseeable impacts. However, the DEIS shows no indication of a "can and will" test.	PA-25	Proposed Action	43 CFR Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and the use of common sense, rather than simply those that are desirable from the standpoint of the applicant. Additionally, the EIS must identify all the direct and indirect effects that are known, and make a good faith effort to explain the effects that are not known but are "reasonably foreseeable." (43 CFR Section 1508.8(b).)	P91_Max Yeh

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P91	2/29/2016	Max Yeh		Copper Flat Mine is, at best, a marginal mine. As a result, more dirt is moved, more ore processed, resulting in a more costly operation with more use of energy and water. The impact is a much greater disturbance of the natural environment of the lands in the Copper Flat Project which comes at a greater cost of production of ore. Therefore, the operation is more sensitive to the fluctuation of copper prices.	PA-26	Proposed Action	The BLM believes that the EIS accurately portrays the potential impacts to the human environment that would be caused by the Proposed Action and alternatives.	P91_Max Yeh
P91	2/29/2016	Max Yeh		THEMAC is a marginal company. It has no assets other than Copper Flat. It has never developed a mine. It has never operated a mine. It functions entirely on loans that carry a very high interest rate (20%) at a time of generally low interest rates. It is listed on a stock market for venture stocks (TSX Venture) where it is classified as a Tier Two company, the most risky category, and its shares are hovering around \$0.01 Canadian.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		To gauge Copper Flat's dependency on copper price fluctuation the DEIS should look at Quintana's experience as an indicator showing that there has been very limited actual mining operation in the past 40 years. This subsequently showcases that the BLM's preferred Alternative 2 (12 cumulative years of mining) would take almost 600 years based on historical trends. The area has been owned by a number of companies and none have successfully been able to profitably mine the area. The 40 year period is a long enough period of time to encompass a sufficiently wide spectrum of economic situations which Themac might reasonably expect to encounter. Therefore, this rate of mining is a sufficient historical basis for reasonably estimating the likelihood of a future operational rate.	ALT-11	Alternatives	The Proposed Action reflects the MPO submitted to the BLM by NMCC and presented to the public during the scoping process. The chosen alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments and the company's requirements. These alternatives, developed as reasonably foreseeable alternatives, are the basis for the analysis contained in the EIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		For evaluating the impacts of mining the DEIS assumes operation will be continuous for 11, 12, or 16 years. This assumption is patently so improbable as to be unreal. Since much of the DEIS is formulated on that substantially improbable foundation, much of the analysis is misapplied.	ALT-11	Alternatives	The Proposed Action reflects the MPO submitted to the BLM by NMCC and presented to the public during the scoping process. The chosen alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments and the company's requirements. These alternatives, developed as reasonably foreseeable alternatives, are the basis for the analysis contained in the EIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The production water will mostly stay in the ground and be used hardly at all except during short bursts of activity. Much of the aquifer study presented in the DEIS with its prediction of water balance return in 100 years would not apply. None of the hydrographs project a reasonably probable future groundwater reality; they only show the vaguely possible maximum impact.	GW-36	Groundwater Resources	The groundwater model has been validated by the BLM and EIS contractor and was found to be sufficient for accurately assessing impacts of mining actions.	P91_Max Yeh
P91	2/29/2016	Max Yeh		Evaporation off the pit lake could be very large accumulatively.	SW-23	Surface Water Resources	Section 3.5.2.1.2 of the EIS discusses evaporation from the pit lake at closure. The estimated maximum evaporation loss from the pit lake at closure is 100 AFY.	P91_Max Yeh

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P91	2/29/2016	Max Yeh		Because THEMAC must have the appropriate water rights to begin the mine operation, the major economic consequence of mine operation is the catastrophe that there will be no development ever in Sierra County because of the lack of water rights even if the water is there in the ground. Subsequently, the entire analysis of socio-economic impact is simply wrong.	SE-17; WR-7	Socioeconomics; Water Rights	<p>With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	P91_Max Yeh
P91	2/29/2016	Max Yeh		All the IMPLAN computer modeling of the collateral economic impact on Sierra County are wrongly based on the cumulative operational time spans as if they were continuous time and thus are all highly unreliable as reasonable estimates of a foreseeable impact.	SE-32; SE-46; SCOPE-1	Socioeconomics	<p>An appendix has been included in the FEIS to clarify assumptions and methods for analysis conducted and to explain the inputs and outputs of the economic model used.</p> <p>The duration of the Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The purpose of the FEIS is to evaluate the potential impacts from the alternatives, and evaluating the potential impacts from unknown variations of the alternatives is outside the scope of the EIS.</p>	P91_Max Yeh
P91	2/29/2016	Max Yeh		The pit will continue to be in violation of water balance issues relative to groundwater.	GW-26	Groundwater Resources	<p>BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.</p>	P91_Max Yeh
P91	2/29/2016	Max Yeh		The tailings area, which is seeping pollution into the groundwater right now as we speak, will continue to do so, and the pit will continue to be a pollution problem.	WQ-14	Water Quality	<p>Analysis of the extent of the existing groundwater plume is being done under the auspices of a Stage 1 Abatement Plan approved by the NMED Groundwater Quality Bureau. Work on the Abatement Plan will be conducted regardless of the proposed mining activities.</p> <p>Section 3.4.2.1.2 refers to the existing plume of groundwater with elevated TDS that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume.</p>	P91_Max Yeh
P91	2/29/2016	Max Yeh		Soil erosion will continue in the open, unreclaimed pit area.	SOI-4	Soils	<p>Lands exposed or disturbed by mining operations would be reclaimed in accordance with a state-approved reclamation plan.</p>	P91_Max Yeh
P91	2/29/2016	Max Yeh		Wildlife habitat will continue to degrade in the pit area.	WL-8	Wildlife	<p>Please refer to the response to comment WL-7 above. Specifically, at the completion of mining activities, the site would be restored to conditions and standards that meet approved post-mining land uses. These uses would include native plant communities similar to surrounding undisturbed areas for wildlife habitat, and grazing land potentially suitable for livestock. Once reclamation is successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels. Also, as noted in EIS Section 2.7, Best Management Practices, in the subsection entitled Threatened and Endangered Species and Special Status Species, ground clearing and other mine development activities would be avoided during breeding and nesting season (generally March 1 through August 31) until the area is surveyed by a qualified biologist to confirm the absence of nests (on the ground and in burrows and vegetation) and nesting activity to avoid impacting migratory birds. Therefore, the numbers of birds displaced during mining operations would be limited and the site would be restored to as good or better conditions for birds than pre-mining conditions. Thus, any long-term impacts to Audubon Important Bird Areas would be negligible.</p>	P91_Max Yeh
P91	2/29/2016	Max Yeh		The pit area will remain barren of vegetative cover.	VEG-4	Vegetation	<p>The FEIS has been revised to address reclamation plans for the pit lake area.</p>	P91_Max Yeh

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P91	2/29/2016	Max Yeh		BLM is charged with the management of our lands, but permitting the Proposed Action or Alternatives 1 or 2, permanently prevents other uses of this land, as miners who have claims near the site and have been locked out of their claims by Themac can testify. The obstruction to true land management (by BLM) has social and economic effects which are also ignored in the socio-economic section of the DEIS, which seems to concentrate on the dollar benefits of hypothetical jobs rather than the action's costs.	LU-1; SCOPE-1; SE-2; SE-21; SE-35	Land Ownership & Land Use; Scope of the DEIS; Socioeconomics	Under Section 302(b) of FLPMA (43 USC 1732[b] and 603[c]); 43 CFR 3802 and 43 CFR 3809), the BLM is charged with allowing mining to occur as one of the multi-purpose uses of the public lands that it oversees, provided that an EA or EIS is completed prior to the start of proposed mining. This EIS allows the BLM decision makers to incorporate a determination of environmental impacts to both private and public lands into its decision-making process. Adverse and beneficial socioeconomic impacts are discussed throughout the section. Potentially adverse impacts associated with boom and bust mining economies and potential impacts to quality of life (including to recreational values, property values, and recreation and tourism) are discussed in Section 3.22.2.1.6. Potentially adverse impacts to schools and health services are discussed in Sections 3.22.1.5.3.1 and 3.22.1.5.2, respectively.	P91_Max Yeh
P91	2/29/2016	Max Yeh		Other major cumulative, consequential and collateral impacts are unexamined in the DEIS because it assumes that operation can and will be continuously sustained and then the area reclaimed. Impacts must be the effects of actual, expected (not hypothetical) mine operations, including the reasonably forewarned long periods of environmentally degrading inactivity.	CI-2	Cumulative Impacts	The Proposed Action for the Copper Flat mine is the original Quintana operation with some adjustments in size and processing rate. All the impacts associated with the Quintana mine operation are embedded in the analysis for the Proposed Action. The past, present, and future actions associated with the Proposed Action and the alternatives are presented in Section 4.0, Cumulative Impacts.	P91_Max Yeh
P91	2/29/2016	Max Yeh		Since the BLM needs to take into account the maximum impact for the various issues of Chapter 3, it needs to consider in a revised DEIS that for some issues, the maximum impacts to the mine operating are more severe because of permanent non-closure and non-reclamation (for example, the catastrophic impact of no more future economic and social development because of the lack of water rights in the county).	SE-17; WR-7	Socioeconomics; Water Rights	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The strange fact that NMCC proposed the Proposed Action and yet prefers not its own proposal but one of the other alternatives substantiates the minimal real-life difference between the choices offered the decision maker and the public.	ALT-4; PA-10	Alternatives; Proposed Action	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ).	P91_Max Yeh
P91	2/29/2016	Max Yeh		Although federal mining regulations (43 CFR 3809.424) allow BLM to enforce a closure after 5 years of inactivity, enforced abandonment and final reclamation are not a fail-safe measure which might obviate BLM's obligation to anticipate reasonably all the contingencies of the Proposed Action and its so-called Alternatives.	PA-8	Proposed Action	At the completion of mining activities, the site would be restored to conditions and standards that meet approved post-mining land uses. These uses would include native plant communities like surrounding undisturbed areas for wildlife habitat, and grazing land potentially suitable for livestock. Once reclamation is successfully completed, wildlife populations would be expected to return to existing (i.e., pre-mining operation) levels. Also, as noted in EIS Section 2.7, Best Management Practices, in the subsection entitled Threatened and Endangered Species and Special Status Species, ground clearing and other mine development activities would be avoided during breeding and nesting season (generally March 1 through August 31) until the area is surveyed by a qualified biologist to confirm the absence of nests (on the ground and in burrows and vegetation) and nesting activity to avoid impacting migratory birds. Therefore, the numbers of birds displaced during mining operations would be limited and the site would be restored to as good or better conditions for birds than pre-mining conditions. Thus, any long-term impacts to Audubon Important Bird Areas would be negligible.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The probable rate of production at Copper Flat can be calculated in a way more sophisticated way than the method, and during scoping process, a stochastic study using Fibonacci numbers was requested of BLM to estimate the probability of the project's failure. In so far as this probability study was ignored, the present DEIS violates the Council on Environmental Quality's regulations for scoping.	NEPA-19	NEPA Process	It is not the responsibility of the BLM to assess the probability of the project's failure, but rather to assess the environmental effects of implementing the project as proposed and appropriate alternatives.	P91_Max Yeh

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P91	2/29/2016	Max Yeh		It is clear that a "can and will" test is different from a mining feasibility study, the needs and aims of BLM being different from the aims and needs of a mining company, though there may be overlapping interests.	PA-26	Proposed Action	43 CFR Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and the use of common sense, rather than simply those that are desirable from the standpoint of the applicant. Additionally, the EIS must identify all the direct and indirect effects that are known, and make a good faith effort to explain the effects that are not known but are "reasonably foreseeable." (43 CFR Section 1508.8(b)).	P91_Max Yeh
P91	2/29/2016	Max Yeh		BLM has not done an adequate job of eliminating alternatives based on the fact that they are economically infeasible, or when the alternative's implementation is remote or speculative. A Proposed Action that has no expectation of fulfillment is hardly a proposal. Alternative Actions that are only figments of imagination are no alternatives. An EIS that has no basis on a reasonable projection of reality cannot be a study of environmental impacts.	ALT-4; PA-10	Alternatives; Proposed Action	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ).	P91_Max Yeh
P91	2/29/2016	Max Yeh		The DEIS's analysis of water availability and the consequences of using that water is severely constrained by self-imposed limits. The study deliberately ignores the most important impacts that could result from the mine's water use because they are defined as subjects not of concern to BLM or too large for the EIS to address. The DEIS, thus, fails to encompass the large ramifications of water use in a desert environment, which, after all, is the purpose of the EIS.	NEPA-9	NEPA Process	Anticipated effects on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis on which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary mitigations applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the DEIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.	P91_Max Yeh
P91	2/29/2016	Max Yeh		NMCC's modeling of the local aquifers gives assurance that the physical amount of water is sufficient for NMCC's needs, even under the accelerated mining Alternative 2. Yet, the DEIS says (2-84) that Alternative 2 will consume 6,105 acre feet of water every year, and it also says (1-11) that NMCC has the legal rights to only 888.783 acre feet of water a year. At this time, therefore, there is not enough legally available water to mine. This fact is a serious impediment to passing a "can and will" test which should precede the trouble and expense of an EIS.	WR-1; P&N-1	Water Rights; Purpose & Need	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	P91_Max Yeh

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P91	2/29/2016	Max Yeh		The OSE's offer of 888.783 af/a rights refers to groundwater rights. It does not cover the 304 af/a drainage water NMCC proposes to use (Table 2-11), which is surface water that NMCC does not have rights for, nor does NMCC claim to have those rights. Whether OSE will allow this extraction of public waters is debatable. The OSE cannot beforehand approve the water rights, and the BLM cannot guarantee such approval. NMCC's "ongoing process" to obtain enough water to mine is fraught with difficulties unacknowledged and unanalyzed by BLM.	WR-1; P&N-1; REG-22	Water Rights; Purpose & Need; Regulatory Compliance	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	P91_Max Yeh
P91	2/29/2016	Max Yeh		While NMCC may be able to prove physical availability of water, the modeling of the aquifer used in this DEIS shows that NMCC's water use will result in significant impairment to the Rio Grande River. For all of BLM's discussion of NMCC's conservation plans, the fact that all of NMCC's used water will be eventually evaporated into the air rather than flow into the aquifer as effluent means that all the water is not conserved but consumed totally thus violating the requirement to conserve water in the basin through adequate effluent release.	GW-23; SW-15	Groundwater Resources; Surface Water Resources	As described in Section 3.5, surface water depletions are calculated from the results of predictive groundwater flow modeling. Tables 3-15 and 3-16 summarize expected surface water depletions due to predicted reductions in groundwater discharge to Las Animas and Percha Creeks, Caballo Reservoir, and the Rio Grande below Caballo Dam. Reductions in groundwater discharge are estimated by comparing groundwater modeling simulation results for the Proposed Action and two mining alternatives to simulation results without mining. The simulation without mining is intended to represent background conditions. Predicted impacts to surface water resources are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary actions applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande."	P91_Max Yeh
P91	2/29/2016	Max Yeh		The statement (3-305) that "[s]ome water used for processing and smaller mining-related uses ... is not renewable and represents an irreversible use of resources" is completely wrong. All water used at the mine becomes, relative to the availability of water in the basin, not renewable and represents an irreversible use of resources. The removal of this much water, roughly ¼ of groundwater used yearly in the county, will certainly bring up issues of public welfare in that the water is totally displaced from its local social and economic possibilities, leaving a wasteland in its wake.	GW-9	Groundwater Resources	The permanent reduction of the groundwater level at the pit has been included in Section 3.28 of the EIS, Irreversible and Irrecoverable Commitment of Resources.	P91_Max Yeh
P91	2/29/2016	Max Yeh		There are significant concerns over whether NMCC can afford to pay for the additional water it may need to obtain for the operation of the mine. The NMCC already has a demonstrated financial shortfall of 56 million dollars. Has BLM considered this?	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The DEIS nowhere acknowledges or takes into consideration the ongoing water deficit for the entire region in its baseline for water in the county. The mine's water use, especially because the mine will produce no effluent, will increase that deficit. The loss is in perpetuity and irretrievable. Not seeing the mine's use of water in the context of regional water balance seriously jeopardizes the long term future of the area. Continuing deficit use seems unstoppable if ignored in this way, and the irretrievable impact is a slow drying out of the region and a decline of life of all kinds.	GW-4; SW-1	Groundwater Resources; Surface Water Resources	Anticipated effects on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis on which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary mitigations applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the DEIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.	P91_Max Yeh

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P91	2/29/2016	Max Yeh		The DEIS indicates that the lowering of flows in the Percha Box or in Animas Creek are said to be inconsequential, but given the water balance deficit and increased likelihood of prolonged drought, vegetation and wildlife might be seriously affected, including the Sycamore trees of Animas Creek.	GW-7; VEG-1	Groundwater Resources; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P91_Max Yeh
P91	2/29/2016	Max Yeh		BLM's analysis of water impacts seems based on average flow rates, whereas desert ecosystems depend on critical, i.e., low flow rates. The effect of new climatic understanding, the effect of global warming, the effect of a continuing and worsening overuse of water in the area—are simply not figured into the DEIS analysis of water use impacts.	CC-2; GW-19; SW-11	Climate Change and Sustainability; Groundwater Resources; Surface Water Resources	<p>Additional description of possible specific climate change impacts has been added to Sections 3.3.1.2 and 3.3.2.1.1 of the FEIS. Groundwater responds rapidly to local stresses or inputs (e.g. pumping of wells) but slowly to regional climate changes. Moreover, natural climate is variable and any imprint from global change is very difficult to determine from that variability on a local scale.</p> <p>The primary projected climate change impact for this area is that the future surface water resources in the Rio Grande will experience an overall decrease in total supply due to a higher rate of evapotranspiration in the contributing basins, and a seasonal shift from less spring runoff (less snowmelt) to more summer runoff (more thunderstorm precipitation).</p> <p>With consideration of climate change effects, the impact of Copper Flat (and every other local/regional pumper of surface water) would be proportionally larger as climate change progresses, without drought management policies in place such as New Mexico's Active Water Resource Management (AWRM). An analysis has been added to the FEIS that acknowledges AWRM as a factor in determining cumulative impacts.</p> <p>In January 2004 AWRM was created to provide tools for the State Engineer to actively manage limited water resources. In New Mexico, the state constitution makes priority of right the basis for water administration, but recent drought years have compelled the State Engineer to develop tools for AWRM that enable them to responsibly manage limited water resources. The Copper Flat project will be subject to AWRM, as determined necessary by the OSE. However, AWRM does not diminish NMCC's commitment to fully offset surface water depletions to the Rio Grande system due to water pumped for mining purposes, thus compensating for the impacts to the aquifer and rivers.</p>	P91_Max Yeh
P91	2/29/2016	Max Yeh		The DEIS indicates that BLM is proposing a major new use of water as if there were no scarcity of water, no difficulty for NMCC to acquire new water and new water rights, no dilemma for the OSE to simply add to the over-abundance of "paper" water which the Lower Rio Grande Adjudication struggles to reduce. What are the consequences of the BLM's actions on the State's efforts to manage its water problem rationally?	WR-1; P&N-1	Water Rights; Purpose & Need	<p>With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	P91_Max Yeh

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P91	2/29/2016	Max Yeh		It should be made reasonably clear in the DEIS that the proposed action and alternatives options of consuming a large amount of a limited and dwindling natural resource, that using this water is an exercise of new water rights, so that the consequence of mining is also the consequence of creating new water rights. This will result in a shifting of water distribution and overall reduction in water availability in the region. This reduction of water rights significantly affects the socioeconomic life of the region in ways that can be catastrophic, yet the subject is ignored in the DEIS.	SE-17; WR-7	Socioeconomics; Water Rights	<p>With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	P91_Max Yeh
P91	2/29/2016	Max Yeh		The water rights for this project are being decided in New Mexico's District Court at present, but even more pertinent is that these water rights are part of a case pending in the United States Supreme Court: Texas v. New Mexico and Colorado. The BLM is proposing exercising a large water right drawing hitherto unused water from the sources of the Rio Grande. Can such consequential, collateral, and cumulative impacts simply be ruled out of bounds in an EIS which is meant to be the basis of rational decision-making?	WR-1; WR-5; P&N-1	Water Rights; Purpose & Need	<p>With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	P91_Max Yeh
P91	2/29/2016	Max Yeh		NMCC intends to use BMPs to conserve this valuable resource (water), but it is not required by BLM to do so. In that respect, the whole section is understood to be NMCC's projections of water use without BLM's intervention, and this uncritical adoption of NMCC's MPO results in a fatal flaw in the discussion of water quantity.	PA-32	Proposed Action	The BMPs listed in the MPO provide the reader with details regarding NMCC standard operating procedures. These BMPs are not meant to be all-inclusive as to the action NMCC would be required to follow. These requirements would be identified as terms and conditions for the BLM's approval of the FEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The commenter challenges the claim in Table 2-9 that "[a]verage water used to process 1 ton of material" will be 633 gallons as this is the fundamental baseline for which the analysis in the water sections is based. General concerns and arguments against how the values of 633 gallons per one ton of ore are generated, the subsequent analysis and summary that the mine will use approximately 40.3 gallons of water per pound of ore show that not only is the mine of poor quality, that the water usage of the proposed mine would be similar to many older and unproductive mines that have had significant impacts to the environment in the past.	GW-1	Groundwater Resources	The groundwater resources section was developed with the close cooperation of groundwater experts from the EIS contractor, the BLM, the OSE, and NMCC's hydrogeologist. The groundwater model developed for NMCC by JSAI was carefully evaluated and validated by the other parties, resulting in a thorough assessment of groundwater impacts. This model is described in Section 3.6.2 of the FEIS. The average water used to process 1 ton of material has been recalculated with a new baseline and the revised figure appears in the FEIS.	P91_Max Yeh

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P91	2/29/2016	Max Yeh		The DEIS evaluation of water use is a fictional construct, because there is bias towards Alternative 2 which would present greater impacts to water use than the proposed action. There is no alternative presented that demonstrates or proposes less impact than the proposed action.	GW-1; NEPA-2	Groundwater Resources; NEPA Process	Chapter 2 of the EIS describes the Proposed Action and all reasonable alternatives. The EIS has been prepared to: 1) analyze the environmental impacts of alternatives that would meet the proposed purpose and need; and 2) assist the BLM in deciding whether to approve a preferred alternative. That preferred alternative may be the Proposed Action, an identified alternative, or a combination of analyzed elements of the Proposed Action or alternatives. The EIS was prepared in accordance with NEPA requirements for the BLM and a ROD will be signed. If the preferred alternative identified in the ROD differs from the MPO, the MPO must be revised by NMCC and approved by the BLM prior to commencing mining operations.	P91_Max Yeh
P91	2/29/2016	Max Yeh		In the NEPA process, the BLM's focus should rest on impacts upon the human and natural environment - in this case on the unwarranted and inefficient use of water according to the NMCC's plan of operations - rather than the maximization of profits and efficiency for NMCC.	GW-1; NEPA-2	Groundwater Resources; NEPA Process	Chapter 2 of the EIS describes the Proposed Action and all reasonable alternatives. The EIS has been prepared to: 1) analyze the environmental impacts of alternatives that would meet the proposed purpose and need; and 2) assist the BLM in deciding whether to approve a preferred alternative. That preferred alternative may be the Proposed Action, an identified alternative, or a combination of analyzed elements of the Proposed Action or alternatives. The EIS was prepared in accordance with NEPA requirements for the BLM and a ROD will be signed. If the preferred alternative identified in the ROD differs from the MPO, the MPO must be revised by NMCC and approved by the BLM prior to commencing mining operations. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The socioeconomic analysis section does not adequately recognize the fundamental social and economic value of water. It does not apply an interdisciplinary approach that brings together physical nature and human life. The Council for Environmental Quality mandates that approach under NEPA when drafting an Environmental Impact Study "EIS." Further, it substitutes a pro-mining bias for objectivity. This substitution promotes a completely inaccurate narrative of the socioeconomic situation of Sierra County.	SE-47; SE-48	Socioeconomics	The CEQ's mandates that impacts to both the natural and human environment are considered, meaning that impacts to the natural environment (e.g., wildlife, water, vegetation) and to the human environment (e.g., socioeconomic, transportation) are considered. This is accomplished in the Environmental Impact Statement. The CEQ does not mandate an interdisciplinary approach that analyses or quantifies economic impacts in terms of water, as the commenter suggests. The EIS quantifies and analyses the costs and benefits associated with the proposed mining activities, and considers its impact on economic drivers that could be impacted - like recreation and tourism, quality of life, and recreational values (See Section 3.22.2.1.6). However, just as the EIS does not present impacts in terms of the value of water as a commodity and its value as an economic driver, it does not present impacts in terms of the value of wildlife or clean air or cultural resources as commodities and their values as economic drivers. This type of analysis - known as an ecosystem services valuation - is neither common nor required in a socioeconomic impacts analysis under NEPA. The economic impact modeling in the EIS was conducted independently and objectively by the EIS preparer under the technical direction of BLM. An appendix has been included in the EIS to explain the inputs and outputs of the economic model.	P91_Max Yeh
P91	2/29/2016	Max Yeh		Section 3.22.1.5.3.2: Continuing Education uses numbers derived from U.S. Census Bureau data erroneously, negligently, and irresponsibly, and the DEIS cites these numbers in the text and in Table 3-68.	SE-6	Socioeconomics	The information contained in Table 3-68 was obtained using U.S. Census Bureau data, 2006-2010. Based on feedback from the public, the information has proven to be inaccurate. More accurate information is not available. This information was removed from Table 3-68 of the DEIS (Table 3-76 of the FEIS).	P91_Max Yeh
P91	2/29/2016	Max Yeh		For the Hillsboro CDP (Census Defined Place), the 5-year estimates are based on a very small sampling, resulting in very large Margins of Error (MOE), as can be seen in the USCB document provided by the commenter. Similarly wrong are all the numbers in Table 3-68 on the educational levels in the Hillsboro CDP, in Sierra County and in the state of New Mexico.	SE-23; SE-6	Socioeconomics	The median value of owner-occupied housing units in the Hillsboro Census Designated Place (CDP) has been added to Table 3-57 in the DEIS (Table 3-63 of the FEIS). The information contained in Table 3-68 was obtained using U.S. Census Bureau data, 2006-2010. Based on feedback from the public, the information has proven to be inaccurate. More accurate information is not available. This information was removed from Table 3-68 of the DEIS (Table 3-76 of the FEIS).	P91_Max Yeh
P91	2/29/2016	Max Yeh		Although stated in the DEIS, there is no evidence from prospective employers that the low educational levels of prospective employees prevented these potential employers from moving to Sierra County. The notion that Sierra County's poor economic status results from the low capacity of its poor residents forms the cornerstone of this study's narrative: because citizens of Sierra County are uneducated bumpkins, businesses will not come here.	SE-33	Socioeconomics	The statements in the DEIS to which the commenter refers were adapted from the 2006 Sierra County Comprehensive Plan, which made the conclusions based on a variety of sources, including the 2000 census, local documentation, and interviews with officials. The relevant statements have been removed from the FEIS.	P91_Max Yeh

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P91	2/29/2016	Max Yeh		The county does not, statistically speaking, desperately need jobs. The most probable reason companies choose not to move to the county is because there is no evidence of a local employable workforce. This is because Sierra County has been historically a retirement area for working class people. It has a high percentage of older workers preparing for retirement, retired people, and people living on other types of fixed incomes such as disability pay.	SE-34	Socioeconomics	Thank you for your comment. This information has been incorporated into the Affected Environment subsection of the Socioeconomics section of the EIS to better qualify the demographic and economic data presented for Sierra County.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The socioeconomic analysis and the DEIS hearing in Truth or Consequences (December 17, 2015) indicates and summarizes that the county is experiencing an outward migration. Within the false narrative the study proposes, that fact becomes a sign of the need for jobs and development. There is historical trend that younger people leave small towns to pursue higher education and gain employment elsewhere. The overall statistical population loss between 2000 and 2010 does not provide any evidence at all to support "outward migration" and the need for new sources of local employment in order to retain residents.	SE-34	Socioeconomics	Thank you for your comment. This information has been incorporated into the Affected Environment subsection of the Socioeconomics section of the EIS to better qualify the demographic and economic data presented for Sierra County.	P91_Max Yeh
P91	2/29/2016	Max Yeh		Rather than promoting a "boom and bust" future for Sierra County, the BLM is charged to protect the citizens of this County and the State of New Mexico from such an outcome. Approving the mine will undermine the stability of employment, economic growth and revenue for Sierra County.	SE-21; NEPA-1	Socioeconomics; NEPA Process	The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts. Potential impacts of a "boom and bust" economy are discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life).	P91_Max Yeh
P91	2/29/2016	Max Yeh		Sierra County is on a steady and sustainable growth curve that is severely threatened by the massive impact upon County infrastructure (roads, bridges, electric power sources and lines, houses, schools, hospitals, emergency workers) from the sudden introduction of a thousand new workers and their families for mine construction and operations.	U&I-5	Utilities and Infrastructure	Impacts to infrastructure, including those mentioned in the comment, are identified in Chapters 3 and 4 of the EIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The first primary impact upon the local economy from the proposed mine operation will be on housing. Any increased demand for housing in the present environment will raise costs. This inflation benefits landowners, but is detrimental to fixed income renters, who make up a large part of the population in the County.	SE-35	Socioeconomics	Section 3.22.2.1.4 (Population and Housing) discusses the increase in population due to mine workers and their families and the associated demand on housing in Sierra County. The population is projected to increase by approximately 100 individuals during the course of the construction phase and by 120-170 individuals over the course of the operation phase. Considering the almost 30 percent vacancy rate in 2010 in Sierra County (2,400 unoccupied housing units), there would be minimal demands on the local housing supply during this timeframe. Those who relocate would have ample housing options in Sierra County, and an in-migration would help offset local housing vacancies. A statement has been added to the FEIS to clarify that the increased housing demand is not expected to increase prices, and any increase in housing costs should not substantially affect fixed income renters with disabilities.	P91_Max Yeh
P91	2/29/2016	Max Yeh		In Section 3.22.2.1.4 of the DEIS is based on questionable data. The number of people needing housing is reduced drastically by accepting NMCC's "anticipation" that it can hire 70% of its workforce "locally." If NMCC succeeds in its plan, it will rely on massive "cross-overs," i.e., people who drop one job to take another. That, in fact, is yet another negative economic and social impact completely neglected in the DEIS. If NMCC does have a reasonably long-term success, the inflow to the county will be much larger than the DEIS's estimation of 120-270 individuals during operation.	SE-16	Socioeconomics	Thank you for your comment. The possibility of "cross-overs" has been added and the use of the term "local" has been clarified in the discussion in the FEIS; as will the IMPLAN terms.	P91_Max Yeh

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P91	2/29/2016	Max Yeh		The substantial increase of people into Sierra County as a result of the mine, along with the consequent increase in cash flow in the county is a red flag for inflation in cost of living. This will have a serious deleterious impact upon persons living on fixed incomes and persons whose disabilities make them permanently unemployed. These direct, consequent and cumulative socioeconomic impacts will increase homelessness, reduce the tax base that provides for schools, and increase the need for social services.	SE-35	Socioeconomics	The Socioeconomics section of the FEIS has been updated to consider fixed income renters with disabilities. However, if fixed income renters become unable to pay rent, the tax base would not be affected as the tax base is related to property taxes/owners. Section 3.22.1.5.3.1 (Schools) describes total enrollment, functional capacity, number of classrooms, and student-to-teacher ratio for the schools in the Truth or Consequences School District. The "Schools" portion of Section 3.22.2.1.5 (Community Services) evaluates potential impacts to schools based on the number of children enrolled under the age of 5 years and a projected increase in enrollment at a rate of 2.4 percent per year on average. It is noted that the Truth or Consequences Elementary School is expected to be over capacity starting in the sixth year of operation of the proposed project, and that other elementary schools could accommodate the projected increase in enrollment. Section 3.22.1.5.2 (Health Services) describes the type, size, and capacity of the Sierra Vista Hospital as well as other healthcare facilities in Sierra County. The Health Services portion of Section 3.22.2.1.5 (Community Services) evaluates the potential impacts to medical services, the staffed bed-to-person ratio, and access in an emergency situation – concluding that "given that Sierra County is a health professional shortage area, any increase in population would further strain the existing medical services. Increased tax revenues could facilitate existing staff and hiring new staff at publicly funded medical facilities."	P91_Max Yeh
P91	2/29/2016	Max Yeh		Because the economic and social conditions of Sierra County are not appropriately evaluated, the DEIS violates NEPA and, if uncorrected, would profit a foreign enterprise at the expense of the human welfare of citizens of the United States.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The way IMPLAN is described, used, and interpreted in the present DEIS is disappointing. For example, the program predicted that \$15.9 million would be spent into the local economy in 2014, etc. (3- 258). However, Themac's cash flow for the past 5 years does not indicate where this money could have come from. Did the predicted expenditures actually take place? Is there evidence in 2014 from the tax records that the county increased its economy by that amount? That is, where is the verification of this computation that would give confidence in the accuracy of the modelling?	SE-32	Socioeconomics	An appendix has been included in the FEIS to clarify assumptions and methods for analysis conducted and to explain the inputs and outputs of the economic model used.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The numbers for the projection of proposed jobs created under alternative 2 is misleading because the IMPLAN operates on a yearly basis because it uses a balanced accounting principle. Subsequently, IMPLANs "employment" counts job years not jobs. The DEIS consistently misleads by confusing these two terms.	SE-16	Socioeconomics	Text has been added to Section 3.22.2.3.3 explaining why Alternative 2 would create more direct and indirect jobs than Alternative 1. Under Alternative 1, the mining operations phase would last 11 years and cost \$1,305,412,000; and create 2,078 direct jobs and 168 indirect jobs. Under Alternative 2, the mining operations phase would last 11 years and cost \$1,525,285,000; and create 3,440 direct jobs and 273 indirect jobs. Alternative 2 would create more direct and indirect jobs because the cost for this phase is \$219,873,000 higher. Given that this alternative is the most expensive and has the highest rate of production (30,000 tons per day), more money would be allocated for more workers to be able to meet the production schedule.	P91_Max Yeh
P91	2/29/2016	Max Yeh		A further problem with the use of IMPLAN in the DEIS is the time frame used for the study. The DEIS acknowledges (3-257) that copper mining is subject to copper price variations, but it refuses to take them into consideration. Thus it inputs into IMPLAN the completely improbable time frames of the Proposed Action and the two Alternatives.	SE-46	Socioeconomics	The duration of the Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The purpose of the FEIS is to evaluate the potential impacts from the alternatives, and evaluating the potential impacts from unknown variations of the alternatives is outside the scope of the EIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The fact that IMPLAN estimates impact annually shows how distorting was BLM's decision to use a continuous time frame. Over 24 years, if you sum up job years, it shows that Sierra County's net employment will be either zero or negative.	SE-32	Socioeconomics	An appendix has been included in the FEIS to clarify assumptions and methods for analysis conducted and to explain the inputs and outputs of the economic model used.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The IMPLAN model does not adequately evaluate or recognize the significance of the "leakage" of economic value that leaves a region over time as a result of the proposed action. Because Sierra County is a consumer economy, one must assume that IMPLAN compensates for this situation in its algorithms. However, in the DEIS the BLM customized IMPLAN to fit the copper mining situation (3-259) and has used "national per-worker values for the copper mining industry." Applying these multipliers misuses the IMPLAN model.	SE-32; SE-45	Socioeconomics	An appendix has been included in the FEIS to clarify assumptions and methods for analysis conducted and to explain the inputs and outputs of the economic model used. Section 3.2.2.1 explains that the economic model captures "leakages" from the economic study region spent on purchases outside of Sierra County. As stated in the DEIS, "the IMPLAN input-output model estimates the effects of spending for development activities and consumption spending of new residents and construction workers; the indirect effects of local vendors providing goods and services to the primary firms; and the induced impacts of employees of these firms spending a portion of their earnings in the local economy. Economic impacts are measured in terms of income and employment generated (or lost) due to the Proposed Action...Each of these steps (direct, indirect, and induced) recognizes an important "leakage" from the economic study region spent on purchases outside of the defined area. "Leakage" is the non-consumptive use of income, including savings, taxes, and imports that "leak" out of the main flow between output, factor payments, national income, and consumption. Eventually these leakages would stop the cycle (MIG 2012)."	P91_Max Yeh

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P91	2/29/2016	Max Yeh		The DEIS states the error of its own methodology of applying a boundary for the IMPLAN model when discussing how money spent in Sierra County flows outside of the county: "Purchases by NMCC and its employees outside of Sierra County are not represented here" (3-260).	SE-32	Socioeconomics	An appendix has been included in the FEIS to clarify assumptions and methods for analysis conducted and to explain the inputs and outputs of the economic model used.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The erroneous assumption that 70% of the workers will live in Sierra County (3-260) is juxtaposed with by NMCC clearly stating (and BLM repeating) that 70% of the workers will commute 2 hours from 73 miles away. NMCC and BLM both say that is "local" yet refrain from saying that this is from within Sierra County, because it is not.	SE-16	Socioeconomics	Thank you for your comment. The use of the term "local" has been clarified in the discussion in the FEIS; as will the IMPLAN terms in Appendix M.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The DEIS fails to take account the larger cumulative impacts of the project by failing to address the direct, consequent and cumulative impacts of the Copper Flat Project upon areas in New Mexico outside Sierra County - and that applies to all reasonable environmental impacts, not just the socio-economic ones.	SE-37; CI-20; I&I-3	Cumulative Impacts; Socioeconomics; Irreversible & Irrecoverable Commitment of Resources	Cumulative impacts of the Proposed Action and alternatives, including discussion of past, present, and future activities in other counties are discussed in Section 4.0 of the EIS, Cumulative Impacts. The BLM believes that the socioeconomic analysis in the FEIS, supplemented with additional information gathered and analysis conducted as a result of the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of NEPA. The complete analysis is presented in the FEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The DEIS's selective application of the fundamental economic principle of circulation as it relates to the circulation of value in the larger economy is neglected or deliberately ignored. In addition, IMPLAN cannot estimate whether job transfer between Sierra County and the larger economy is socially beneficial or detrimental.	SE-32	Socioeconomics	An appendix has been included in the FEIS to clarify assumptions and methods for analysis conducted and to explain the inputs and outputs of the economic model used. The definition of direct impacts has been clarified to state that direct impacts refer to the dollar value of economic activity available to circulate through the economy; while state and county taxes, inventory, and other payments of these types do not circulate through the economy. This concept of circulation is applied throughout the section without using the exact term.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The question of environmental justice is not faced in the DEIS - mining by the Proposed Action or by either Alternative might result in an unbalanced flow of value upwards and outwards, leaving Sierra County with no natural resources, relatively small economic benefits, and many potential problems, while the money flowed out of the region and out of the country.	EJ-4	Environmental Justice	Potential environmental justice impacts to mine workers through economic pathways, including from "boom and bust" as described by the commenter, are discussed in Section 3.23 of the FEIS, Environmental Justice. Short-term beneficial impacts that would be felt most by local workers in search of a job as well as adverse impacts commonly associated with "boom" periods are described in the "Employment Opportunities" portion of the Mine Development/Operation phase (Section 3.23.2.1.1). The social and economic benefits would largely be reversed in the long-term after the mine closes and well-paying jobs cease to exist. This portion of the analysis also addresses how the boom and bust cycle can more heavily impact low-income populations that have become dependent on the mining boom economy and that find it difficult to maintain the same standard of living and quality of life after the boom ends.	P91_Max Yeh
P91	2/29/2016	Max Yeh		BLM's ambiguity on boundaries is reflected in the confusion in customizing IMPLAN to fit the chosen region of impact - Sierra County. The text acknowledges that most of NMCC's expenditures, like most its employees, will be out of County, yet these total expenditures for goods and for labor are entered into IMPLAN to be multiplied by multipliers to produce the "Indirect Effects" and the "Induced Effects." Thus, the DEIS gives the impression that the boundary condition is transgressed. The reader cannot tell if this is a confusion in using IMPLAN or a confusion in explaining IMPLAN.	SE-32	Socioeconomics	The FEIS will clarify that the input in the IMPLAN model reflects the portion of expenditures in Sierra County. An appendix has been included in the FEIS to clarify assumptions and methods for analysis conducted and to explain the inputs and outputs of the economic model used.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The definition in Table 3-72 of "indirect effects" as "[e]xpenditures within the study region on supplies, services, labor, and taxes" causes confusion. A similar confusion exists in the indirect employment numbers for the operational phases of Alternative 1 (168 job years or 15.3 jobs) and Alternative 2 (273 job years or 24.8 jobs).	SE-16; SE-32	Socioeconomics	Thank you for your comment. The possibility of "cross-overs" has been added and the use of the term "local" has been clarified in the discussion in the FEIS; as will the IMPLAN terms in Appendix M. Text has been added to Section 3.22.2.3.3 explaining why Alternative 2 would create more direct and indirect jobs than Alternative 1. Under Alternative 1, the mining operations phase would last 11 years and cost \$1,305,412,000; and create 2,078 direct jobs and 168 indirect jobs. Under Alternative 2, the mining operations phase would last 11 years and cost \$1,525,285,000; and create 3,440 direct jobs and 273 indirect jobs. Alternative 2 would create more direct and indirect jobs because the cost for this phase is \$219,873,000 higher. Given that this alternative is the most expensive and has the highest rate of production (30,000 tons per day), more money would be allocated for more workers to be able to meet the production schedule.	P91_Max Yeh
P91	2/29/2016	Max Yeh		In regards to the "employment" for "induced effect" as presented in Table 3-75 and defined as "[m]oney that is spent in the ROI as a result of spending from the indirect effect, the weaknesses in the use of the IMPLAN model are starkly highlighted: models do not produce an economy-real people acting day-to-day in the real world do. Not only are such models susceptible to GIGO ("garbage-in-garbage-out"), but the way in which such models are interpreted are also susceptible to GIGO--and that is what is happening here with the BLM's use of IMPLAN.	SE-32	Socioeconomics	An appendix has been included in the FEIS to clarify assumptions and methods for analysis conducted and to explain the inputs and outputs of the economic model used. The definition of direct impacts has been clarified to state that direct impacts refer to the dollar value of economic activity available to circulate through the economy; while state and county taxes, inventory, and other payments of these types do not circulate through the economy. This concept of circulation is applied throughout the section without using the exact term.	P91_Max Yeh

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P91	2/29/2016	Max Yeh		The very small economic region that is Sierra County coupled with the introduction of a new industry gives IMPLAN, a data driven program, very little to work with statistically. To evaluate properly the impacts of the Copper Flat Project, an alternative calculation is necessary. It must be based on the dollar value of water, that is, based on potable water having a necessary social and economic value measurable in dollars and cents.	SE-36	Socioeconomics	It is not the BLM's responsibility to decide what the water will be used for or to determine a proponent's Proposed Action. Instead, the BLM is charged with determining the potential impacts of a mining company seeking to execute an action that involves water use. Had another company proposed activities using an alternative use of water, the BLM would similarly evaluate the potential impacts of this activity (including impacts to jobs, tax revenue, and the general economy).	P91_Max Yeh
P91	2/29/2016	Max Yeh		The fact that economic growth is limited because of water rights and availability is a fundamental fact not mentioned in the socioeconomic study.	SE-17; WR-7	Socioeconomics; Water Rights	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The DEIS does not discuss the fact that Sierra County and the NMCC, and all other claimants are in competition for the rights to the new geological source called Palomas Graben - this is a major omission.	WR-11	Water Rights	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	P91_Max Yeh
P91	2/29/2016	Max Yeh		Should the county give this future economic growth to NMCC in exchange for the promise of 300 jobs paying much less and lasting only 12 years? This is the basic cumulative socioeconomic question the study on impact must address as it relates to water rights and subsequent permanent value in jobs because the impact of one is the negation of the other, yet that comparison is completely avoided in the socioeconomic study.	SE-3	Socioeconomics	The purpose of the FEIS is to present potential adverse and beneficial impacts; not to compare different costs or conduct the equivalent of a cost-benefit analysis. It is not the BLM's responsibility to decide what the water will be used for or to determine a proponent's Proposed Action. For this EIS, the BLM is charged with determining the potential impacts of a mining company seeking to execute an action that involves water use. Had a company proposed to pump groundwater and manufacture bottled water for distribution, the BLM would similarly evaluate the potential impacts of that activity.	P91_Max Yeh

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P91	2/29/2016	Max Yeh		The water used at the mine is not allowed back into the ground to refill the aquifer, unlike the water we all use. NMCC will permanently deplete the groundwater and thus harm the economic possibilities of other users, which surely is another negative impact of mining whichever alternative is chosen and, again, one not considered in this DEIS.	GW-21; SE-20	Groundwater Resources; Socioeconomics	The project is not predicted to have effects on water supplies that would lead to adverse impacts to real estate values or the economic possibilities of other users. Revenue from property taxes would increase because of the Proposed Action during the construction phase; and tax revenue would be greater under all action alternatives compared to the No Action Alternative. The potential out-migration of residents has been added to the discussion in the FEIS. Section 3.22.1.6.3 discusses factors that can positively affect property values (e.g., availability of and proximity to public land like forests, lakes, and mountains) and negatively affect property values (e.g., noise, light, air pollution). A discussion of other important factors affecting property values (e.g., quality of public education, access to public transit and recreational opportunities, the age and condition of the home itself) have been added to Section 3.22.1.1.2 and 3.22.2.1.4. A discussion of how the introduction of a copper mine could adversely impact the property values of adjacent landowners specifically has been added to Section 3.22.2.1.4, though it is difficult to quantify how much property values would be impacted.	P91_Max Yeh
P91	2/29/2016	Max Yeh		As soon as NMCC starts hiring and mining, Sierra County is doomed to perpetual economic and social stagnation because operation will indicate that NMCC has ownership of the water rights. When copper prices are not high enough to warrant mining, there will be no jobs and no water either because NMCC, not Sierra County, will have the right to use the water and have a future.	SE-17; WR-7	Socioeconomics; Water Rights	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	P91_Max Yeh
P91	2/29/2016	Max Yeh		Excellent observations about the problem of volatility of mine hiring in Section 3.22.2.1.6 are not developed into a systematic and coherent economic and social analysis. Thus, the social and economic costs of the Proposed Action and the Alternatives are never projected in numerical details and dollar values in a way comparable to the projections of dollar benefits and jobs by IMPLAN.	SE-46; SCOPE-1	Socioeconomics; Scope of the DEIS	The duration of the Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The purpose of the FEIS is to evaluate the potential impacts from the alternatives, and evaluating the potential impacts from unknown variations of the alternatives is outside the scope of the EIS. Potential impacts of a "boom and bust" economy are discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life). The purpose of the FEIS is not to discern the viability of the mine or copper mining generally but to evaluate the potential impacts from the alternatives. An appendix has been included in the FEIS to clarify assumptions and methods for analysis conducted and to explain the inputs and outputs of the economic model used.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The socioeconomics section of the DEIS does not take into consideration the types of housing that may be needed (temporary places like motels, RV parks, short-term rentals during the construction phase as opposed to more permanent housing during the operational phase); or the prices relative to the potential worker's salaries to determine if economically housing is available.	SE-35	Socioeconomics	Section 3.22.2.1.4 (Population and Housing) discusses the increase in population due to mine workers and their families and the associated demand on housing in Sierra County. The population is projected to increase by approximately 100 individuals during the course of the construction phase and by 120-170 individuals over the course of the operation phase. Considering the almost 30 percent vacancy rate in 2010 in Sierra County (2,400 unoccupied housing units), there would be minimal demands on the local housing supply during this timeframe and little or no transient housing would be required in the project area or in the communities closest to the project area. Those who relocate would have ample housing options in Sierra County, and an in-migration would help offset local housing vacancies. Furthermore, income per worker in the mining industry are higher than the average income of per worker across all industries. As such, consideration of prices relative to the potential worker's salaries to determine if economically housing is available - as suggested by the commenter - is not warranted.	P91_Max Yeh

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P91	2/29/2016	Max Yeh		Impacts on the school or health systems are not discussed.	SE-35	Socioeconomics	<p>Section 3.22.1.5.3.1 (Schools) describes total enrollment, functional capacity, number of classrooms, and student-to-teacher ratio for the schools in the Truth or Consequences School District. The "Schools" portion of Section 3.22.2.1.5 (Community Services) evaluates potential impacts to schools based on the number of children enrolled under the age of 5 years and a projected increase in enrollment at a rate of 2.4 percent per year on average. It is noted that the Truth or Consequences Elementary School is expected to be over capacity starting in the sixth year of operation of the proposed project, and that other elementary schools could accommodate the projected increase in enrollment.</p> <p>Section 3.22.1.5.2 (Health Services) describes the type, size, and capacity of the Sierra Vista Hospital as well as other healthcare facilities in Sierra County. The Health Services portion of Section 3.22.2.1.5 (Community Services) evaluates the potential impacts to medical services, the staffed bed-to-person ratio, and access in an emergency situation – concluding that "given that Sierra County is a health professional shortage area, any increase in population would further strain the existing medical services. Increased tax revenues could facilitate existing staff and hiring new staff at publicly funded medical facilities."</p>	P91_Max Yeh
P91	2/29/2016	Max Yeh		The necessary re-paving of Highway 152 is ignored as a cost to the public in the socioeconomic study.	SE-12; TR-1	Socioeconomics; Transportation and Traffic	<p>The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with the New Mexico Department of Transportation (NMDOT) to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:</p> <ul style="list-style-type: none"> a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine. b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point. c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards. d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT. <p>NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.</p>	P91_Max Yeh
P91	2/29/2016	Max Yeh		The instability of copper mining would have significant impacts to the boom and bust cycle of mining employment and socioeconomic influences in the county and the DEIS does not adequately describe these impacts. In addition, the IMPLAN model does not adequately address the cumulative, consequential, and collateral impacts for the project.	SE-7; SE-21; SE-32	Socioeconomics	<p>Potential impacts of a "boom and bust" economy are discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life). The purpose of the FEIS is not to discern the viability of the mine or copper mining generally but to evaluate the potential impacts from the alternatives. An appendix has been included in the FEIS to clarify assumptions and methods for analysis conducted and to explain the inputs and outputs of the economic model used.</p>	P91_Max Yeh
P91	2/29/2016	Max Yeh		The DEIS inadequately defines the Region of Impact and uses data and information selectively to draw conclusions that are inaccurate and do not take into account the actual impacts to surrounding areas. There are issues with where the workforce will come from, economic benefits to and out from Sierra County, etc. The study ignores all the negative impacts on Sierra County and instead applies all the supposed benefits in the larger region to Sierra County, baiting the local population with these benefits, while knowing full well that most of those hypothetical benefits will go elsewhere. This process seems simply a classic Bait and Switch confidence game. The operation of a Bait and Switch on the people of Sierra County, its officials, and administrators violates NEPA's own terms for environmental justice.	SE-5; SE-16; SE-2; SE-20; SE-21, SE-35; SE-37	Socioeconomics	<p>Rationale for the region of influence (ROI) defined as Sierra County is provided in the second and third paragraphs of 3.22.1 (Affected Environment). The ROI includes the CDP in Sierra County, but the ROI is defined as Sierra County. Surrounding counties of Grant and Luna are excluded from the ROI for consideration of direct impacts, but indirect impacts for these counties are considered. The use of the term "local" has been clarified in the discussion in the FEIS.</p> <p>Adverse and beneficial socioeconomic impacts are discussed throughout the section. Potentially adverse impacts associated with boom and bust mining economies and potential impacts to quality of life (including to recreational values, property values, and recreation and tourism) are discussed in Section 3.22.2.1.6. Potentially adverse impacts to schools and health services are discussed in Sections 3.22.1.5.3.1 and 3.22.1.5.2, respectively.</p> <p>The BLM believes that the socioeconomic analysis in the FEIS, supplemented with additional information and analysis because of the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of NEPA.</p> <p>The situation the commenter describes does not "violate NEPA's own terms for environmental justice." Environmental justice is defined and discussed in Section 3.23.</p>	P91_Max Yeh
P91	2/29/2016	Max Yeh		A Copper Flat Village (consisting of RV parks with fully provided living quarters, food service, entertainment, etc.) remains a possibility, and that possibility confounds the implications of whatever numbers a properly run IMPLAN program might estimate. Merchants, RV parks, bars, restaurants, etc. will be cut off by a new competitor in the County. Yet, IMPLAN will show a lot of economic activity taking place in the county because Copper Flat Village will, indeed, be in Sierra County.	SE-32; SE-35	Socioeconomics	<p>Section 3.22.2.1.4 (Population and Housing) discusses the increase in population due to mine workers and their families and the associated demand on housing in Sierra County. The population is projected to increase by approximately 100 individuals during the course of the construction phase and by 120-170 individuals over the course of the operation phase. Considering the almost 30 percent vacancy rate in 2010 in Sierra County (2,400 unoccupied housing units), little or no transient housing would be required in the project area or in the communities closest to the project area. Those who relocate would have ample housing options in Sierra County, and an in-migration would help offset local housing vacancies.</p> <p>An appendix has been included in the FEIS to clarify assumptions and methods for analysis conducted and to explain the inputs and outputs of the economic model used.</p>	P91_Max Yeh

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P91	2/29/2016	Max Yeh		Before an irrevocable commitment of resources is made in the project, the many faults, fallacies, and misrepresentations of the analysis must be remedied and the combined, cumulative impact on the socioeconomic life of Sierra County objectively studied.	CI-20; I&I-3; SE-37	Cumulative Impacts, Irreversible & Irrecoverable Commitment of Resources; Socioeconomics	The BLM believes that the socioeconomic analysis in the FEIS, supplemented with additional information gathered and analysis conducted as a result of the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of NEPA. The complete analysis is presented in the FEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		As part of a partial pit backfill alternative, which is the preferred reclamation under Federal mining laws, a Plan of Operation must include plans for "[m]ine reclamation, including information on the feasibility of pit backfilling that details economic, environmental, and safety factors." If the NMCC MPO does not give such details, the BLM should include such in its EIS.	PA-27	Proposed Action	As required by the BLM, it is stated in the MPO that "NMCC does not propose to backfill the pit. Backfilling during operation would not allow sequential mining of the deposit, may cover future mineral resources, and it would be economically unfeasible following closure of the operation." This statement has been added to the FEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		In considering the issues of costs, mitigation, regulations, and comparative impacts on the environment with regards to the backfilling of the pit lake, BLM should consider the small costs to NMCC as opposed to the large cost to the public. BLM needs to consider that in addition to the water usage, flooding and leaving a pit lake leads to the possibility of perpetual management of the pit lake water.	PA-23; WQ-21	Proposed Action; Water Quality	As stated in the MPO, "NMCC does not propose to backfill the pit. Backfilling operation would not allow sequential mining of the deposit, may cover future mineral resources, and would be economically unfeasible following closure of the operation." This statement has been added to the FEIS. The pit lake is not now a water of the State, nor will it be post-mining, and therefore it is not and will not be subject to surface water quality standards applicable to waters of the State. The water quality standard that would apply is a mining permit condition from MMD that post-mining pit lake water quality would be similar to pre-mining pit lake water quality. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMCC.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The use of water for partial backfilling might violate New Mexico water law (which requires conservation of water) since it does not promote general economic welfare. It is not even clear that such a use of water is within the state's understanding of "beneficial use," the defining factor in determining water rights in New Mexico.	PA-28	Proposed Action	As required by the BLM, it is stated in the MPO that "NMCC does not propose to backfill the pit. Backfilling during operation would not allow sequential mining of the deposit, may cover future mineral resources, and it would be economically unfeasible following closure of the operation." This statement has been added to the FEIS. Additionally, the FEIS has been corrected to state that all relative laws, both State and Federal, would be adhered to in regard to water rights.	P91_Max Yeh
P91	2/29/2016	Max Yeh		Backfilling has the advantage of mitigating all pit lake impacts resulting from a big open body of polluted water below groundwater level, possibly polluting the aquifer, causing a danger to man and beast and needing perpetual fencing and maintenance. The projected future pit lake has many problems, many stemming from the fact that its characteristics are based on the characteristics of the present pit lake which are themselves not certain.	WQ-21	Water Quality	The length of post-mining monitoring of the material resources would be determined by the State of New Mexico in association with the permits issued to the Copper Flat mine. Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements. Backfilling the lake was considered as an alternative, but was determined to be economically infeasible. The backfilling alternative has been added to Section 2.5, Alternatives Considered but Eliminated in the FEIS. In addition, Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period. It is anticipated that pit lake water quality standards would be established by the MMD. The standards would be set to be similar to existing conditions. Because the pit lake would be located entirely on private property owned by NMCC in the form of patented mining claims, it would not be considered a water of the State. The pit lake would not combine with other surface waters of the State. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMCC. In addition, per NMCC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period.	P91_Max Yeh
P91	2/29/2016	Max Yeh		Given the geology of the existing pit lake, the number of wells near the present pit lake (five according to Figure 3-19) seems inadequate to establish the present pit lake as an "evaporative sink," especially since the wells are located at the outer edge of the pit and not very close to the pit lake. Moreover, monitoring at these wells seems to have been done only once and that some of the conclusions are being drawn from data gathered during extreme drought, which means the precipitation and run-offs are minimal relative to evaporation.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		There is a general concern and argument about the designation of the pit lake as an evaporative sink where inflow into the lake is entirely evaporated out, so that no water is lost into the groundwater, or is entirely dependent on setting the inflow (whose quantity is entirely conjectural) to equal the evaporation minus the average precipitation and run-off.	GW-16	Groundwater Resources	The primary purpose of rapidly refilling the pit is to reduce or avoid adverse water quality impacts. It is correct that this would lead to seepage from the lake into the surrounding bedrock until the bedrock water table rises to the level of the pit lake. After that the net flow direction should be from the bedrock to the lake because lake water would be lost to evaporation; however, following large rainfall events, the flow direction may be reversed for some period. The rates of water exchange from pit to bedrock or bedrock to pit would be small compared to other water budget effects of the project and are not considered significant. The permanent pit lake evaporation would be a small but irretrievable loss of resources. These impacts are described in the DEIS.	P91_Max Yeh

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P91	2/29/2016	Max Yeh		Groundwater inflow rates of the pit lake represent an overall average and doesn't indicate the absence of bi-directional communication between groundwater and pit lake. This presents a potentially too simplistic account of what might be happening underground to imagine that pollution from the pit lake is not entering groundwater.	GW-16	Groundwater Resources	The primary purpose of rapidly refilling the pit is to reduce or avoid adverse water quality impacts. It is correct that this would lead to seepage from the lake into the surrounding bedrock until the bedrock water table rises to the level of the pit lake. After that the net flow direction should be from the bedrock to the lake because lake water would be lost to evaporation; however, following large rainfall events, the flow direction may be reversed for some period. The rates of water exchange from pit to bedrock or bedrock to pit would be small compared to other water budget effects of the project and are not considered significant. The permanent pit lake evaporation would be a small but irretrievable loss of resources. These impacts are described in the DEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		If problems related to chemical solute transport exist in the hydrologic characterization of the present pit lake, projecting the characterization onto the future pit lake whose bottom is 700 feet lower and where the geology is more uncertain, gives little that can be used to base decisions on. How deep the contamination will penetrate into the rock is entirely unknown.	GW-16	Groundwater Resources	The primary purpose of rapidly refilling the pit is to reduce or avoid adverse water quality impacts. It is correct that this would lead to seepage from the lake into the surrounding bedrock until the bedrock water table rises to the level of the pit lake. After that the net flow direction should be from the bedrock to the lake because lake water would be lost to evaporation; however, following large rainfall events, the flow direction may be reversed for some period. The rates of water exchange from pit to bedrock or bedrock to pit would be small compared to other water budget effects of the project and are not considered significant. The permanent pit lake evaporation would be a small but irretrievable loss of resources. These impacts are described in the DEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The statement in the DEIS that NMAC requires that the pit lakes in which evaporation from the surface of the open pit water body is expected to exceed the water inflow shall be considered hydrologic evaporative sinks (p. 3-22) is wrong - the new copper mining regulations do not require the designation of a pit lake under the given conditions to be an evaporative sink. Furthermore, the wells used for monitoring do not satisfy the requirements for this network of monitoring wells because they appear to be old monitoring wells installed by Quintana.	GW-16	Groundwater Resources	The primary purpose of rapidly refilling the pit is to reduce or avoid adverse water quality impacts. It is correct that this would lead to seepage from the lake into the surrounding bedrock until the bedrock water table rises to the level of the pit lake. After that the net flow direction should be from the bedrock to the lake because lake water would be lost to evaporation; however, following large rainfall events, the flow direction may be reversed for some period. The rates of water exchange from pit to bedrock or bedrock to pit would be small compared to other water budget effects of the project and are not considered significant. The permanent pit lake evaporation would be a small but irretrievable loss of resources. These impacts are described in the DEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		Should the monitoring wells network show that pollution is reaching groundwater, pumping wells surrounding the pit would pump the water back into the pit area thus achieving the effect of an evaporative sink. This artificial "evaporative sink" may violate federal Water Pollution Control Act standards, and since BLM is invoking the terms of the new copper mining rule, it should discuss the topic thoroughly, including whether an artificial evaporative sink which allows pollution of groundwater but contains that pollution is permissible under federal law.	WQ-21	Water Quality	The length of post-mining monitoring of the material resources would be determined by the State of New Mexico in association with the permits issued to the Copper Flat mine. Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements. Backfilling the lake was considered as an alternative, but was determined to be economically infeasible. The backfilling alternative has been added to Section 2.5, Alternatives Considered but Eliminated in the FEIS. In addition, Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period. It is anticipated that pit lake water quality standards would be established by the MMD. The standards would be set to be similar to existing conditions. Because the pit lake would be located entirely on private property owned by NMCC in the form of patented mining claims, it would not be considered a water of the State. The pit lake would not combine with other surface waters of the State. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC. In addition, per NMAC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period.	P91_Max Yeh
P91	2/29/2016	Max Yeh		If the future pit lake were considered an evaporative sink, it might, over time increase its acidity until the concentration will itself force a transport of contaminants into groundwater. Does that eventually mean that NMCC's reclamation will have to go on permanently, that electricity and pumps and wells would have to be on hand to pump the polluted groundwater back into the pit lake forever? A shallow marshland with the proper plantings would reduce sulfate ions and neutralize acidity through a microbial/chemical process - these and other considerations, including climate change impacts, would need to be addressed.	WQ-21	Water Quality	The length of post-mining monitoring of the material resources would be determined by the State of New Mexico in association with the permits issued to the Copper Flat mine. Section 2.1.15.7 states that the BLM and State agencies would set post-closure monitoring requirements at mine closure. The actions that would be taken in the event that post-closure monitoring indicates a release has occurred would be addressed in the post-closure monitoring requirements. Backfilling the lake was considered as an alternative, but was determined to be economically infeasible. The backfilling alternative has been added to Section 2.5, Alternatives Considered but Eliminated in the FEIS. In addition, Section 3.4.2 describes the required preliminary pit lake water quality management plan, which details the reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period. It is anticipated that pit lake water quality standards would be established by the MMD. The standards would be set to be similar to existing conditions. Because the pit lake would be located entirely on private property owned by NMCC in the form of patented mining claims, it would not be considered a water of the State. The pit lake would not combine with other surface waters of the State. Therefore, the pit lake would not be subject to State water quality standards such as those defined in 20.6.4 NMAC. In addition, per NMAC 19.10.6.602 D. (15), a MORP for the Copper Flat mine was developed and included additional information on the proposed management of the pit lake during the reclamation period.	P91_Max Yeh

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P91	2/29/2016	Max Yeh		This irretrievable and irreversible waste of water (because of the fact that the pit lake would be a permanent drain of water from both surface and groundwater) should not be condoned by the BLM and should not be allowed by the OSE, especially when there is a viable alternative.	GW-16; SW-21; I&I-1	Groundwater Resources; Surface Water Resources; Irreversible & Irretrievable Commitment of Resources	The permanent reduction of the groundwater level at the pit has been included in Section 3.28 of the EIS, Irreversible and Irretrievable Commitment of Resources, so that the BLM decision maker has this information available.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The problems with the pit lake have simply not been thoroughly studied nor has the future pit lake been properly modeled for this DEIS. Therefore, insufficient data have been gathered to consider the viability of a partial backfill alternative.	GW-16	Groundwater Resources	The primary purpose of rapidly refilling the pit is to reduce or avoid adverse water quality impacts. It is correct that this would lead to seepage from the lake into the surrounding bedrock until the bedrock water table rises to the level of the pit lake. After that the net flow direction should be from the bedrock to the lake because lake water would be lost to evaporation; however, following large rainfall events, the flow direction may be reversed for some period. The rates of water exchange from pit to bedrock or bedrock to pit would be small compared to other water budget effects of the project and are not considered significant. The permanent pit lake evaporation would be a small but irretrievable loss of resources. These impacts are described in the DEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		If, during the reclamation, the pit walls are left with slope too steep to hold vegetation, the area could be left as an erosion hazard. Therefore, the advantage of reclaiming the pit walls in the way presented by the commenter is advantageous to plant life, wildlife, and humans.	PA-13	Proposed Action	FEIS Section 2.1.15.2, Post-Mining Land Use, states: "Following closure, the mine area would continue to support mineral development, grazing, wildlife habitat, watershed, and recreation. Following closure, the pit would rapidly refill with water from subsurface groundwater flow and surface water runoff resulting in a permanent water body. The purpose of the rapid refill is to minimize water quality degradation in the pit lake, making it more suitable as wildlife habitat. The only post-closure use of the pit is a water reservoir for wildlife habitat."	P91_Max Yeh
P91	2/29/2016	Max Yeh		BLM, as manager of public lands, should not condone leaving the piles and the holes while dealing only with problems of pollution. The land should be left in a condition for alternate uses beneficial for the society.	CI-7; WR-6	Cumulative Impacts; Water Rights	Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809). Additionally, NMCC has prepared a MORP for the MMD that details closure plans. At the end of mine operation, NMCC expects most reclamation work would be conducted in the first few years after closure and monitoring would continue until regulatory agencies agree closure and reclamation are complete, at which time the Financial Assurance would be released and the land would be available for the designated post mining land uses.	P91_Max Yeh
P91	2/29/2016	Max Yeh		The pit lake is an impoundment and according to the Natural Resources and Wildlife Non-Coal Mining New Mining Operations issued by the NM Mining Commission, "When no longer required, impoundments shall be graded to achieve positive drainage..." NMCC further specifies that preferably "reclamation shall result in a hydrologic balance similar to pre-mining conditions" which might not be achievable without backfilling the pit lake.	GW-16	Groundwater Resources	The primary purpose of rapidly refilling the pit is to reduce or avoid adverse water quality impacts. It is correct that this would lead to seepage from the lake into the surrounding bedrock until the bedrock water table rises to the level of the pit lake. After that the net flow direction should be from the bedrock to the lake because lake water would be lost to evaporation; however, following large rainfall events, the flow direction may be reversed for some period. The rates of water exchange from pit to bedrock or bedrock to pit would be small compared to other water budget effects of the project and are not considered significant. The permanent pit lake evaporation would be a small but irretrievable loss of resources. These impacts are described in the DEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		Backfilling the pit lake should be seriously considered in the proposed action and in either of the alternatives because it is the preferred method of reclamation, because it is feasible, because it will lessen environmental impact, and because state regulations, which in this case are more strict than the federal rules, require it.	PA-13	Proposed Action	FEIS Section 2.1.15.2, Post-Mining Land Use, states: "Following closure, the mine area would continue to support mineral development, grazing, wildlife habitat, watershed, and recreation. Following closure, the pit would rapidly refill with water from subsurface groundwater flow and surface water runoff resulting in a permanent water body. The purpose of the rapid refill is to minimize water quality degradation in the pit lake, making it more suitable as wildlife habitat. The only post-closure use of the pit is a water reservoir for wildlife habitat."	P91_Max Yeh
P91	2/29/2016	Max Yeh		In regards to the John I. Hallett Placer Mining Heritage Site (Gold Dust, New Mexico), the physical elements of Hallett's operation are still in place, but the Proposed Action and the Alternatives all intend to bulldoze the whole area in an expansion of the tailings area. The dam and at least 3 of the wells will be destroyed. Thus, BLM is proposing to demolish the single most important historical site for placer mining in the state. Since the dam and the wells are earthworks and immovable objects, the only mitigation that would preserve these cultural resources is to change the TSF plans.	CR-4	Cultural Resources	Through the Section 106 consultation process, the BLM has developed a PA that would mitigate the effects to the heritage resources located within the Area of Potential Effect (APE), including those resources found at Gold Dust. This PA is included in the FEIS and a summary of the mitigation measures has been added to the FEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		Although the DEIS recognizes the importance of mining to the area's historical culture (3-168), its discussion and dismissal of a historical district (because the "district" encompasses an area larger than the APE and thus is beyond the requirements of the NEPA) is completely wrong. Although load mining of significance was conducted outside the APE, the John I. Hallett site is the most important placer site in New Mexico, and it is located at the very center of the APE and thus within the auspices of the FEIS.	CR-5	Cultural Resources	During the Section 106 consultation process, the BLM defined and evaluated an historic district that encompasses the APE and additional areas. The text in the FEIS has been revised to reflect this.	P91_Max Yeh

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P91	2/29/2016	Max Yeh		A federal agency must make a reasonable and good faith effort to identify, historic properties, determine whether identified properties are eligible for listing on the National Register, assess the effects of the undertaking on any eligible historic properties found, determine whether the effect will be adverse, and avoid or mitigate any adverse effects. The BLM must confer with the State Historic Preservation Officer ("SHPO") and seek the approval of the Advisory Council on Historic Preservation ("Council").	CR-2; REG-9	Cultural Resources; Regulatory Compliance	The BLM has completed its NHPA Section 106 compliance process, which includes all of the steps outlined in the comment. Completion of the process is demonstrated by the fully-signed PA, which is included in the FEIS.	P91_Max Yeh
P91	2/29/2016	Max Yeh		BLM must determine the suitability of the John I. Hallett Placer Mining Heritage Site in Gold Dust, NM for designation as a National Historical Site before irreparable and irretrievable damage is done to the site and part of the culture of New Mexico mining disappears under NMCC's tailings pond.	CR-5	Cultural Resources	During the Section 106 consultation process, the BLM defined and evaluated an historic district that encompasses the APE and additional areas. The text in the FEIS has been revised to reflect this.	P91_Max Yeh
P91	2/29/2016	Max Yeh		If the John I. Hallett Placer Mining Heritage Site is to be preserved, it must be properly reclaimed since the area is polluting groundwater from the tailings covered and left on site by Quintana in 1987. A long series of correspondence documents and details the plume of pollution at the site. Mitigation is essential as is preservation.	CR-4	Cultural Resources	Through the Section 106 consultation process, the BLM has developed a PA that would mitigate the effects to the heritage resources located within the Area of Potential Effect (APE), including those resources found at Gold Dust. This PA is included in the FEIS and a summary of the mitigation measures has been added to the FEIS.	P91_Max Yeh
P92	2/29/2016	Omar El-Emawy	THEMAC Resources Group	Believes the NMCC has developed strong ties to Sierra County over the last several years through conversations with business owners, community leaders, business and social organizations, and citizens.	NEPA-5; SE-13	NEPA Process; Socioeconomics	Thank you for your comment. One goal of the NEPA process is to facilitate public input to projects that may affect the public and the human and natural environment.	P92_Omar El-Emawy
P92	2/29/2016	Omar El-Emawy	THEMAC Resources Group	Attached Resolutions of Support from the City of Lordsburg and Elephant Butte, Village of Williamsburg, and Sierra County Commission. This accounts for most, if not all, official government bodies within Sierra County. NMCC has also collected signatures for a support petition in favor of the Copper Flat Mine. It is attached. In addition, there was an online petition (Link: http://www.ipetitions.com/petition/copperflat) where we managed to collect 101 signatures and 58 comments (attached).	ALT-16	Alternatives	Thank you for your comment.	P92_Omar El-Emawy
P93	3/1/2016	Greg Koontz	Matrix Service	The BLM needs to expedite this copper mine because when the renewable energy projects get moving again, we are going to be short on copper and all of these projects need it.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P93_Greg Koontz
P93	3/1/2016	Greg Koontz	Matrix Service	In reference to the Hillsboro BLM meeting where a comment was made that contractors would bring in outside labor rather than local workers, the commenter argues that as a contracting entity, their company prefers to hire within the community pool. While the project will require supervision that knows the company processes and safety procedures, we look to hire locals and to promote from within that pool of talent. We train our employees and once with us, they will have the opportunity to move on with the company to other projects and use what they have learned.	SE-29	Socioeconomics	Thank you for your comment.	P93_Greg Koontz
P94	3/2/2016	Richard Zimmerman		Responsible development of the Copper Flat copper-molybdenum-gold-silver deposit provides substantial benefit to the economy of southwestern New Mexico and will result in environmental enhancement from reclamation and site restoration. Redevelopment of this impacted site will provide much needed natural resources to fuel manufacturing and economic development.	PA-5; SE-1; CI-1	Proposed Action; Socioeconomics; Cumulative Impacts	Thank you for your comment.	P94_Richard Zimmerman
P94	3/2/2016	Richard Zimmerman		The folks at New Mexico Copper Corporation have proven to be attentive to environmental concerns and will do what is required to leave the project area in better condition environmentally than it is at present.	CI-1	Cumulative Impacts	Thank you for your comment.	P94_Richard Zimmerman

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P94	3/2/2016	Richard Zimmerman		Financial modeling conducted to demonstrate the economic viability of the Copper Flat project indicates that construction of the project and its projected 12 year operation will be of substantial economic benefit to southwestern New Mexico. The hundreds of construction and operations jobs created by development of the property, combined with the services and supplies that are required, will have a significant positive impact on the surrounding communities.	SE-1	Socioeconomics	Thank you for your comment.	P94_Richard Zimmerman
P94	3/2/2016	Richard Zimmerman		BLM is entrusted with management of these lands for the benefit of all citizens. The people of New Mexico deserve to accrue the benefits of nature's bounty in the form of this mineral deposit and that provides a stable environment and public land resource that can be enjoyed by all.	REC-2	Recreation	Thank you for your comment.	P94_Richard Zimmerman
P95	3/2/2016	Marjorie Powey	Village of Williamsburg	Concern about the impact the proposed mine will have on water in Sierra County. The amount of water needed to process the ore will not only impact Hillsboro but also the surrounding area ranches and homes.	GW-4; SW-1	Groundwater Resources; Surface Water Resources	Anticipated effects on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis on which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary mitigations applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the DEIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.	P95_Marjorie Powey
P95	3/2/2016	Marjorie Powey	Village of Williamsburg	The potential for contamination of the surrounding area is very real and unacceptable.	WQ-5	Water Quality	Discussion of the potential impacts to groundwater quality is provided in Section 3.6.2; also refer to Table 3-20a. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the NOI to comply with the MSGP is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation.	P95_Marjorie Powey
P95	3/2/2016	Marjorie Powey	Village of Williamsburg	The possible jobs gained will not outweigh the inevitable environmental issues including impacting the local water supply, contamination of the surrounding area and dealing with the ongoing drought and global warming.	SE-3	Socioeconomics	The purpose of the FEIS is to present potential adverse and beneficial impacts; not to compare different costs or conduct the equivalent of a cost-benefit analysis. It is not the BLM's responsibility to decide what the water will be used for or to determine a proponent's Proposed Action. For this EIS, the BLM is charged with determining the potential impacts of a mining company seeking to execute an action that involves water use. Had a company proposed to pump groundwater and manufacture bottled water for distribution, the BLM would similarly evaluate the potential impacts of that activity.	P95_Marjorie Powey
P96	3/2/2016	Mark Shipley	Talon Homes and Construction LLC	Support for the Copper Flat mine and encourage BLM to facilitate the permitting of the mine and allow mining practices to begin. The project will be good for the county and state of NM.	NEPA-8; PA-5; SE-1	NEPA Process; Proposed Action; Socioeconomics	Thank you for your comment.	P96_Mark Shipley
P97	3/2/2016	Jack Diamond		Oppose the Copper Flat mine project because of concerns about the effects of water use and loss from operating the mine and the impacts on the marginal wells that support a farm of 600 pecan trees.	GW-7; VEG-1	Groundwater Resources; Vegetation	The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment". In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the Pitchfork wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law.	P97_Jack Diamond
P98	3/2/2016	Delbert Boone	Chief Inspector	The mine has admitted they will lower and ruin the water table in the Animas Creek because as soon as they agreed to re-drill water wells if they lowered the water table they admitted it could happen. If the water table is lowered in the Animas creek all of the Sycamore trees will die.	GW-7; VEG-1	Groundwater Resources; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P98_Delbert Boone

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P98	3/2/2016	Delbert Boone	Chief Inspector	Because the DEIS does not include a discussion of the many impacts to Animas creek you have failed the public, the citizens of New Mexico, and the land owners of Animas Creek.	GW-7; VEG-1	Groundwater Resources; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P98_Delbert Boone
P98	3/2/2016	Delbert Boone	Chief Inspector	The DEIS does not prove that the water sheds for Percha creek, Green Horn, and the Animas Creek do not come from the same area of the continental divide as the water that will be used for the proposed mine. This results in an inaccurate analysis of impacts.	GW-15; SW-7	Groundwater Resources; Surface Water Resources	Descriptions of the Greenhorn, Las Animas Creek, and Percha Creek drainage basins are provided in Section 3.5.1 of the EIS. These basins are located more than five miles east of the Continental Divide, which generally separates watersheds of the Pacific Ocean from those of the Atlantic Ocean. Much of the water needed for the project will be obtained from the Santa Fe Group aquifer, also located east of the Continental Divide. The groundwater model used to assess impacts to surface water resources included surface water features of the Greenhorn, Las Animas Creek, and Percha Creek drainage basins, and thereby provides a comprehensive assessment of impacts to surface water resources.	P98_Delbert Boone
P99	3/2/2016	Luc Lemire	General Electric Mining	Support for the redevelopment of the mine and is interested in partnering with NMCC and THEMAC Resources as a strategic technology partner and in supplying a broad range of mining equipment solutions to the Copper Flat project. GE supports NMCC and THEMAC Resources in their efforts to build a safe and environmentally sound Copper Flat mine while preserving the heritage and creating employment to the great communities in southwestern New Mexico.	HH&PS-2; SE-1	Human Health and Public Safety; Socioeconomics	Thank you for your comment.	P99_Luc Lemire (GE)
P100	3/2/2016	Lee Newman	Consulting Forester	The massive pumping of groundwater proposed by the Copper Flat project is a waste of water resources and even small pumping can result in groundwater drawdown that will impact Animas Creek and the trees it supports. Groundwater drawdown will likely close the tree farm forever.	GW-7; VEG-1	Groundwater Resources; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P100_Lee Newman
P100	3/2/2016	Lee Newman	Consulting Forester	Animas creek provides the water that supports the tree nursery that produces good paying jobs and tax revenues to the state of New Mexico and approving this permit will close the tree farm, and result in extraction jobs that will leave the area scared.	GW-7; VEG-1	Groundwater Resources; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P100_Lee Newman
P101	3/2/2016	Debbie Harding		General concerns with aquifer impacts and water table drawdown as a result of the project. Since there are no guarantees that the residents in the Animas Creek Canyon area won't be affected by the mine development recommend that further research be done and proof offered that the mine won't be a detriment to the water table. Although we have registered agricultural wells, all the paperwork in the world won't help if the water table is adversely affected.	GW-7; VEG-1	Groundwater Resources; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P101_Debbie Harding
P101	3/2/2016	Debbie Harding		The Animas Creek canyon region, which has been known for many years as a very desirable, peaceful, and beautiful area that attracts bird watchers and many others in the fall to view the colors, could be impacted by the groundwater drawdown and could kill the age-old sycamore and other beautiful trees.	GW-7; VEG-1	Groundwater Resources; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P101_Debbie Harding

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P101	3/2/2016	Debbie Harding		Significant concerns that property values in the Animas Creek Canyon area will diminish because the trees will be dying.	GW-21; SE-41; GW-7; VEG-1	Groundwater Resources; Socioeconomics; Vegetation	<p>Evidence from well monitoring and the results of groundwater modeling indicate that pumping deep aquifers for mine operations would have no impact on the unconnected surface water flows in the areas of Las Animas Creek supporting the Las Animas Creek sycamores and no impact to areas of Percha Creek that currently support riparian vegetation. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek, they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area which is the focus of the comment. Neither creek is at risk of being destroyed or altered adversely by mine operations. The project is not predicted to have effects on water supplies and trees in the Animas Creek Canyon Area that would have direct, adverse impacts on real estate values.</p> <p>Section 3.22.1.1.2 (p. 3-237 and 3-238) in the Socioeconomics section includes the current (2010) median value of homes in Truth or Consequences, Sierra County, and New Mexico. Current (2010-2014 estimates) of housing characteristics and property values by Census Tract and Block Group in Sierra County have been added to Section 3.22.1.1.2 of the FEIS (See Tables 3-62 and 3-63). Housing characteristics and property values for Sierra County and New Mexico in 1970, 1980 and 1990 have also been added to Section 3.22.1.2 of the FEIS (see Tables 3-64 and 3-65). It is difficult to say whether property values increased or decreased as a result of the operation of Quintana Mine, due in part to its short-lived operation, and also because several factors can affect real estate values.</p>	P101_Debbie Harding
							<p>The location and proximity to an operation with negative externalities (noise, light, air pollution) can negatively impact property values. Section 3.22.1.6.3 notes that the proximity to environmental amenities can influence where people choose to live (in-migration) and how much people are willing to pay for housing (i.e., property values). Other important factors affecting property values include quality of public education (i.e., school district); access to public transit or recreational opportunities; the age and condition of the home itself; and history of other negative events (e.g., fire, site of a violent crime). A discussion of these other factors has been added to Section 3.22.1.1.2. Section 3.22.2.1.6 concludes: "The negative perception of mining impacts on natural amenities – especially on water quantity and water quality, wildlife, and air quality – that attract recreationists and potential residents in the first place could be a deterrent in both the short- and long-term." A discussion of how the introduction of a copper mine could adversely impact the property values of adjacent landowners specifically has been added to the 3.22.2.1.4, concluding that the Proposed Action and alternatives would likely have a negative effect on property values in Sierra County overall, and the effect would likely be greatest on properties in CT 9624.02, BG 2, or those closest to the mine area. However, it is difficult to quantify how much property values would be impacted.</p>	
P102	3/2/2016	Susan Newman		Commenter provided pictures of a tree farm with the statement "save this valley and farm deny copper flat mine permit."	GW-7; VEG-1	Groundwater Resources; Vegetation	<p>Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.</p>	P102_Susan Newman
P103	3/3/2016	Mark Shipley	Talon Septic	Support for the mine and request that BLM no longer extend this period and allow this process to happen so that permitting can take place. The mine will be a great benefit to the county, local businesses, and families.	PA-5; SE-1; NEPA-8	Proposed Action; NEPA Process; Socioeconomics	Thank you for your comment.	P103_Mark Shipley
P104	3/3/2016	Blanca Barrera		Don't issue any further delay for public comment on this matter.	NEPA-8	NEPA Process	Thank you for your comment.	P104_Blanca Barrera
P105	3/3/2016	Max Yeh		The BLM should be congratulated on extending further the comment period for the DEIS on the Copper Flat Project. The issues are complex and difficult, and we welcome BLM's understanding.	NEPA-4	NEPA Process	The comment period was extended to give the public additional time and opportunity to review the DEIS. The BLM decided that additional public meetings were not necessary.	P105_Max Yeh
P105	3/3/2016	Max Yeh		We understand that Themac is mounting a campaign to urge people to complain to the BLM of the extension. That is unseemly and anti-public minded.	NEPA-4	NEPA Process	The comment period was extended to give the public additional time and opportunity to review the DEIS. The BLM decided that additional public meetings were not necessary.	P105_Max Yeh
P106	3/3/2016	DH Hayward		Thank you for granting the additional time to study this extremely important and very complex document.	NEPA-4	NEPA Process	The comment period was extended to give the public additional time and opportunity to review the DEIS. The BLM decided that additional public meetings were not necessary.	P106_DH Hayward
P107	3/3/2016	Melody Sears		The commenter thanks the BLM for extending the public review and comment period on the Copper Flat project to April 4. The DEIS is a very complicated and weighty document, and many interested parties need the additional time to fully and correctly absorb all the information contained therein.	NEPA-4	NEPA Process	The comment period was extended to give the public additional time and opportunity to review the DEIS. The BLM decided that additional public meetings were not necessary.	P107_Melody Sears

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P108	3/3/2016	Robert Shipley		Your decision to extend the comment period one more month is in the best interests of a balanced analysis. It has taken far longer to get the relevant facts on this project than I had ever anticipated.	NEPA-4	NEPA Process	The comment period was extended to give the public additional time and opportunity to review the DEIS. The BLM decided that additional public meetings were not necessary.	P108_Robert Shipley
P109	3/3/2016	Gerald Anderson		Opposition for the copper mine because of concerns on the impacts of the mine and the water table going down on the trees in the Animas Creek canyon, the individual's pecan grove, and any other agriculture in the canyon.	GW-7; VEG-1	Groundwater Resources; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P109_Gerald Anderson
P109	3/3/2016	Gerald Anderson		The beauty of the trees and peacefulness of the area encouraged his move to the area and the commenter has concerns that his property will depreciate greatly if the trees are no longer there.	GW-21; SE-20; GW-7; VEG-1	Groundwater Resources; Socioeconomics; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are predicted to not occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area which is the focus of the comments. The project is not predicted to have effects on water supplies that would lead to direct, adverse economic impacts or direct, adverse impacts on real estate values. Adjacent land ownership (including privately owned land) is analyzed and is listed in Table 3-33 within the Affected Environment subsection of the Land Ownership and Land Use section of the FEIS. Section 3.22.1.1.2 (p. 3-237 and 3-238) in the Socioeconomics section includes the current (2010) median value of homes in Truth or Consequences, Sierra County, and New Mexico. A discussion of historical (2000) and current (2010) property values of census tracts adjacent to the mine site has been added to Section 3.22.1.1.2. The median value of homes in Truth or Consequences, Sierra County, and New Mexico all increased from 2000 to 2010 (adjusted to 2000 and 2010 dollars, respectively); and the median value of homes in census tracts adjacent to the mine site has changed. It is difficult to say whether property values increased or decreased as a result of the operation of Quintana Mine, due in part to its short-lived operation, and also because several factors can affect real estate values. The location and proximity to an operation with negative externalities (noise, light, air pollution) can negatively impact property values. Section 3.22.1.6.3 notes that the proximity to environmental amenities can influence where people choose to live (in-migration) and how much people are willing to pay for housing (i.e., property values). This subsection concludes that the negative perception of mining impacts on natural amenities – especially on water quantity and water quality, wildlife, and air quality – that attract recreationists and potential residents in the first place could be a deterrent in both the short- and long-term. Other important factors affecting property values include quality of public education (i.e., school district); access to public transit or recreational opportunities; the age and condition of the home itself; and history of other negative events (e.g., fire, site of a violent crime). A discussion of these other factors has been added to Section 3.22.1.1.2. A discussion of how the introduction of a copper mine could adversely impact the property values of adjacent landowners has been added to the 3.22.2.1.4, though it is difficult to quantify how much property values would be impacted.	P109_Gerald Anderson
P110	3/3/2016	Angela Detloff		Stop the delays in the approval of the project so as to promote job creation and restoring what was once a great state. Mining has always provided jobs for families and this will take New Mexico out of its "death spiral state" where all you see is poverty, drugs, and unemployment.	NEPA-8; SE-1	NEPA Process; Socioeconomics	Thank you for your comment.	P110_Angela Detloff
P111	3/3/2016	John Zimmerman	NM State Representative, District 39	BLM, has once again extended the comment period for the Environmental Assessment – this being the third extension beyond the normal 100 day comment period normally allotted is troublesome to myself and for good government order. Please consider making this the last extension so that Business which drives our economy can get on with what they do best; create jobs.	NEPA-8; SE-1	NEPA Process; Socioeconomics	Thank you for your comment.	P111_John Zimmerman
P112	3/3/2016	Bruce Cospser		Support for the mine because jobs are few and far between, and as a small business owner in Sierra County, the commenter cannot keep a crew working at the present time. Mining has been a part of this area since the beginning and a part of the local economy – New Mexico is blessed with a resource that can help a number of family's afford a living and have more opportunities.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P112_Bruce Cospser
P113	3/4/2016	Richard Fields		Dissatisfaction that BLM has extended the public comment period again – approve the mine without delay.	NEPA-8	NEPA Process	Thank you for your comment.	P113_Richard Fields

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P114	3/4/2016	Eunice Kent	Mayor of Elephant Butte	Disappointment with BLM's decision for a 3rd Extension of the public comment period. Please move the EIS forward without further delay.	NEPA-8	NEPA Process	Thank you for your comment.	P114_Eunice Kent
P115	3/4/2016	Karl Meyers	TriState Generation & Transmission Assoc., Inc.	The plant electrical load requirements referenced in section 2.3.6 Electrical Power (Alternative 2) are assumed to be average and not peak loads.	ALT-5; U&I-1	Alternatives; Utilities and Infrastructure	The values shown in Section 2.3.6 are average loads. A complete analysis of electrical power requirements for the alternatives evaluated is provided in Section 3.25 of the FEIS. More specific analysis would be required when NMCC would build the electrical substation on site. Peak loads would be a consideration with this analysis.	P115 Karl Meyers (TriState)
P115	3/4/2016	Karl Meyers	TriState Generation & Transmission Assoc., Inc.	Section 2.3.6: "Electrical Power" describes the electrical facilities to be constructed which may be premature. The identified facilities appear to be reasonable for the project under consideration. However, the actual facilities to be constructed and any additional transmission system facility upgrades required would be defined in a completed System Impact Study (SIS) and Facility Study (FS) performed by the transmission owner of the Springerville – Macho Springs 345 kV line (El Paso Electric).	U&I-3	Utilities and Infrastructure	NMCC is confident that Tri-State and the Sierra Electric Co-op have sufficient capacity to meet the electrical demands of proposed mine operation based on discussions with the utility companies. The System Impact Study and Facility Study mentioned above would be completed during detailed engineering for the mine prior to construction.	P115 Karl Meyers (TriState)
P115	3/4/2016	Karl Meyers	TriState Generation & Transmission Assoc., Inc.	Tri-State is not familiar with the M3 2012 and THEMAC 2013 references in Section 3.25.1.1: "Power." Please clarify or describe.	U&I-6	Utilities and Infrastructure	The references are cited in the references section as follows: M3 2012. M3 Engineering and Technology Corporation. 2012. Copper Flat Project. Form 43-101F1 Technical Report. Prefeasibility Study. August 2012. THEMAC 2013. THEMAC Resources – New Mexico Copper Corporation. Copper Flat Mine Alternative 2 -- Summary Plan of Operations. October 10, 2013.	P115 Karl Meyers (TriState)
P115	3/4/2016	Karl Meyers	TriState Generation & Transmission Assoc., Inc.	Section 3.25.2.1.1: "Mine Development/Operation" states "Tri-State Generation has stated that sufficient power generating capacity exists to meet mine needs without impacting other users". This statement is correct as applied to generating capacity. Actual available transmission capacity (ATC) for the Tri-State initial studies also indicate that available transmission capacity for the Springerville – Macho Springs 345 kV line would need to be confirmed in an SIS performed by the transmission owner (El Paso Electric). The statement "The power demands of the mine are not anticipated to approach the capacity of power suppliers under any operation condition" should be modified to read "The power demands of the mine are not anticipated to approach the capacity of power suppliers under operational conditions studied."	U&I-3	Utilities and Infrastructure	NMCC is confident that Tri-State and the Sierra Electric Co-op have sufficient capacity to meet the electrical demands of proposed mine operation based on discussions with the utility companies. The System Impact Study and Facility Study mentioned above would be completed during detailed engineering for the mine prior to construction. FEIS has been revised as suggested.	P115 Karl Meyers (TriState)
P115	3/4/2016	Karl Meyers	TriState Generation & Transmission Assoc., Inc.	In section 3.25.2.2: "Alternative 1: Accelerated Operations-25,000 Tons per Day Power," the reference to daily demand of 5559.25MWh should be corrected to 559.25MWh.	ALT-6	Alternatives	The text regarding daily demand has been corrected.	P115 Karl Meyers (TriState)
P115	3/4/2016	Karl Meyers	TriState Generation & Transmission Assoc., Inc.	In section 3.25.2.3: "Alternative 2: Accelerated Operations-30,000 Tons per Day Power: the commenter referenced comments made on section 3.2.6 and 3.25.2.1.1 related to the assumption that these statements are referencing elements other than transmission related facilities.	ALT-7	Alternatives	These discrepancies have been corrected in the FEIS.	P115 Karl Meyers (TriState)
P115	3/4/2016	Karl Meyers	TriState Generation & Transmission Assoc., Inc.	The results of the transmission system assessment performed in 2012 that evaluated the capabilities of Tri-State owned facilities remain consistent with recent Tri-State studies as related to Tri-State owned facilities and are accurately reflected in the EIS. Statements in the EIS that involve facilities owned by other transmission facilities, specifically El Paso Electric, cannot be confirmed without an approved SIS and FS performed by the transmission owner or transmission provider. Tri-State would defer any specific project scope definition of the electric transmission infrastructure until the appropriate studies have been performed that confirm the initial analysis.	U&I-4	Utilities and Infrastructure	NMCC is confident that Tri-State and the Sierra Electric Co-op have sufficient capacity to meet the electrical demands of proposed mine operation based on discussions with the utility companies. The System Impact Study and Facility Study mentioned above would be completed during detailed engineering for the mine prior to construction.	P115 Karl Meyers (TriState)

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P116	3/4/2016	Lloyd Barr		Thank you for your decision to extend the period for comments on the draft EIS. The extra time will allow improvement in the comments from many concerned citizens and groups. Building any independent analysis of the complex proposed mine operation has required searching and contacting other sources both governmental and private. Time helps the decision process. THEMAC has been working on this for years, one more month is in the best interests of a balanced analysis.	NEPA-4	NEPA Process	The comment period was extended to give the public additional time and opportunity to review the DEIS. The BLM decided that additional public meetings were not necessary.	P116_Lloyd Barr
P117	3/4/2016	Glenda Cade		No short term gain from an extractive industry such as copper mining is worth endangering the water table in the Animas drainage in Sierra County.	GW-3	Groundwater Resources	A detailed discussion of impacts to groundwater resources is included in Section 3.6 of the EIS. The DEIS indicates that the primary effect would be on flows in the Rio Grande, which would be subject to mitigation in accordance with obligations imposed by the OSE or agreed to by NMCC. With the possible exception of effects on habitat for the Chiricahua Leopard Frog that may use farm ponds in lower Las Animas Creek, the best information now available indicates there would be minimal effects on the human and biological environment, and no effect on the existing high-quality riparian corridors. The project will cause an increase in pumping lifts in area wells.	P117_Glenda Cade
P118	3/11/2016	Robert Poitras		Support for the mine because it would be a good revenue source.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P118_Robert Poitras
P119	3/12/2016	Theodore Berthelote		The project will provide much needed employment and bring work to many supporting sectors that will have a positive impact throughout the state.	SE-1	Socioeconomics	Thank you for your comment.	P119_Theodore Berthelote
P119	3/12/2016	Theodore Berthelote		The US needs responsible domestic production of natural resources and the mine will produce copper and other valuable metals in NM.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P119_Theodore Berthelote
P119	3/12/2016	Theodore Berthelote		Proper Federal and State regulations will ensure protection of the workers and the environment.	HH&PS-4; REG-4	Human Health & Public Safety; Regulatory Compliance	Thank you for your comment. The mining proponent would employ modern mining techniques in compliance with MSHA.	P119_Theodore Berthelote
P119	3/12/2016	Theodore Berthelote		The Draft EIS does a good job analyzing the project from an environmental perspective, clearly identifies the issues, and properly lays the groundwork for necessary environmental protection measures.	NEPA-7	NEPA Process	Thank you for your comment.	P119_Theodore Berthelote
P119	3/12/2016	Theodore Berthelote		I appreciate the fact that BLM has been thorough with their work and provided time for the public review process. Request that BLM work through the EIS process efficiently and without delay.	NEPA-8	NEPA Process	Thank you for your comment.	P119_Theodore Berthelote
P120	3/14/2016	LeRoy Henderson		The New Mexico Interstate Stream Commission (NMISC) Draft Regional Water Plan indicates that if about 2,000 ac-ft./yr. of flow to the Rio Grande as reported in the DEIS is stopped and not made up, it is a violation of its section 5.1, p6.	REG-12	Regulatory Compliance	The FEIS acknowledges that "this impact is expected to have a long-term, large-extent, and probable cumulative effect on these surface water resources." This effect would be compensated for through mitigation requirements of the OSE without the need for addressing the administration of the Rio Grande Compact. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	P120_Leroy Henderson
P120	3/14/2016	LeRoy Henderson		Also there is no report about the hazard found at the tailings dam as seen in the NMISC water plan at table 5.7, which was reported by the Corps of Engineers in 2014, to be a significant hazard.	SW-5	Surface Water Resources	The dam referred to in the comment is associated with the TSF that would be used for the placement and management of tailings during mining operations. A permit would be obtained from the OSE for dam construction and operation. All considerations regarding dam design would require approval by the OSE Dam Safety Bureau.	P120_Leroy Henderson

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P120	3/14/2016	LeRoy Henderson		The BLM statement that the OSE "will" give THEMAC 13,000 ac-ft. of water – which it does not have nor is provable/available within the basin, is not appropriate. If this statement is true then there has been an illegal bias from the OSE while a legal challenge is being heard.	WR-1; P&N-1	Water Rights; Purpose and Need	<p>With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	P120_Leroy Henderson
P120	3/14/2016	LeRoy Henderson		The DEIS is biased because those affected residents of Hillsboro do not have the final word on the project - they overwhelmingly reject the plan, which is not what THEMAC, dba New Mexico Copper Corporation, and Truth or Consequences "leaders" want to hear. Ironically, it appears BLM also is not on the side of the residents – that's what the DEIS says.	NEPA-2	NEPA Process	<p>Chapter 2 of the EIS describes the Proposed Action and all reasonable alternatives. The EIS has been prepared to: 1) analyze the environmental impacts of alternatives that would meet the proposed purpose and need; and 2) assist the BLM in deciding whether to approve a preferred alternative. That preferred alternative may be the Proposed Action, an identified alternative, or a combination of analyzed elements of the Proposed Action or alternatives.</p> <p>The EIS was prepared in accordance with NEPA requirements for the BLM and a ROD will be signed. If the preferred alternative identified in the ROD differs from the MPO, the MPO must be revised by NMCC and approved by the BLM prior to commencing mining operations.</p>	P120_Leroy Henderson
P120	3/14/2016	LeRoy Henderson		Ongoing contamination of ground water over the past 35 years as a result of the mine start in 1978 and failure in 1980, inadequate reclamation at its ending, Mother Nature, and inaction by BLM shows the document is biased.	PA-12; WQ-3	Proposed Action; Water Quality	<p>Section 3.4.2.1.2 refers to the existing plume of groundwater with elevated TDS that resulted from past operations. The section explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume.</p> <p>Additionally, current mine reclamation requirements are more stringent and restrictive than reclamation standards in place at the closure of the Copper Flat mine in the early 1980s. Under these stricter standards, the condition of reclaimed lands would be noticeably more acceptable and beneficial than what was in place following the previous mine closure.</p>	P120_Leroy Henderson
P120	3/14/2016	LeRoy Henderson		On page ES-7, BLM gives its "No Action Alternative" in one thin, dismissive, and contradictory paragraph and the statement that local employment and economic revenues would not increase as a result of this alternative is not true. It is estimated that reclamation would create 75 jobs, last four to five years, and cost THEMAC/NMCC \$42 million. That's quite a bit of revenue, but a huge cost with no return to already strapped THEMAC/NMCC.	ALT-8	Alternatives	The description of the No Action Alternative has been modified for the FEIS.	P120_Leroy Henderson
P120	3/14/2016	LeRoy Henderson		The statement "the mine area would be reclaimed according to BLM standards and NMED requirements..." is generally concerning because this is an old mine which has lain continuously dormant with exposed, oxidizing copper ore and uncontrolled infusion of contaminants into the ground via weather.	WQ-4	Water Quality	<p>Discussion has been added to Section 3.5.1.1 of the EIS describing the unnamed arroyo located to the north of the existing pit lake and Animas Peak. Stormwater runoff from mine facilities, including the WRDFs, would be captured and potentially used as process water. Discussion has also been added to Section 2.1.15.7 of the EIS explaining that the final details of the placement and use of the cover materials for WRDFs would be approved by the State and the BLM following analysis of the results of a test-plot program that would be conducted during the mining operation.</p> <p>The water quality of the existing pit lake is summarized in Section 3.4.1. Section 3.4.2 explains that the proposed MPO would require a preliminary pit lake water quality management plan that describes reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period.</p>	P120_Leroy Henderson
P120	3/14/2016	LeRoy Henderson		If THEMAC/NMCC were to give up their plan, build a water bottling plant at their four deep-water wells, their current 889 acre-feet of water rights at just 10 cents a gallon could make them millions, employ locals, and everybody would win.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P120_Leroy Henderson

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P120	3/14/2016	LeRoy Henderson		New Mexico is over reliant on the energy and mining industries. That restricts our ability to pay for our other feedbag: Government. The good news was that we already have an industry with greater potential which in southwestern NM is helping counter the losses in northwestern and southeastern NM's energy industry: Health Care .	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P120_Leroy Henderson
P120	3/14/2016	LeRoy Henderson		The potential for the mine to be viable due to low copper prices and historical failures is of concern. Logic would dictate reopening a low grade copper mine is a fool's venture.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P120_Leroy Henderson
P121	3/14/2016	Ella Joan		Oppose the project because it would be harmful to the environment and future non-mineral farming and grazing use of the BLM-managed public land and private property for extraction and processing of copper ore.	LU-1	Land Ownership and Land Use	Under Section 302(b) of FLPMA (43 USC 1732[b] and 603[c]); 43 CFR 3802 and 43 CFR 3809), the BLM is charged with allowing mining to occur as one of the multi-purpose uses of the public lands that it oversees, provided that an EA or EIS is completed prior to the start of proposed mining. This EIS allows the BLM decision makers to incorporate a determination of environmental impacts to both private and public lands into its decision-making process.	P121_Ella Joan
P121	3/14/2016	Ella Joan		The sacred nature of the land must be protected.	CR-3	Cultural Resources	The BLM has considered the impacts to the cultural values of the land, including historical and archaeological sites, and has consulted with Native American groups to ascertain their concerns for any religious or cultural properties. The BLM has developed measures to avoid, minimize, or mitigate impacts in consultation with interested parties. These measures are delineated in the PA, appended to the FEIS.	P121_Ella Joan
P122	3/22/2016	Robert Shipley		Highway 152 was designed and built for rural (low density) use and trucks hauling concentrate from the mine to Interstate-25 would be heavier than the combined load of 35 tons stated in the DEIS. The loaded truck/trailer will be closer to 43 tons because the tare weight of the truck and trailer was not considered. Based on 8 trips/day, gross weight on Road 152 from the mine to I-25 would be: 43 x 8 = 344 tons/day loaded; the return trip to the mine would be: 10 x 8 = 80 tons/day empty. Traffic impact on Highway 152 just from concentrator hauling would be: 344 + 80 = 424 tons/day for an estimated 350 days/year of production.	TR-6	Transportation and Traffic	The hauling described in the FEIS is consistent with what would be required by the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following: a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine. b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point. c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards. d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT. NMDOT has not identified a requirement for road improvements beyond the pavement overlay, however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.	P122_Robert Shipley
P122	3/22/2016	Robert Shipley		Since "NM 152 is a chip seal route and is not designed for a specific load carrying capacity, it does not meet minimum design specifications" to support the proposed project. Consequently a steady stream of 43-ton trucks would quickly destroy the road and should not be allowed unless the roadway is rebuilt from Mile Marker 55 east to the Interstate.	SE-12; TR-1	Socioeconomics; Transportation and Traffic	The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with the New Mexico Department of Transportation (NMDOT) to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following: a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine. b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point. c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards. d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT. NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.	P122_Robert Shipley

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P122	3/22/2016	Robert Shipley		A study needs to be made regarding the cumulative impact of a greatly increased maintenance cost of highway 152. Could New Mexico State allocate funds to meet this need? Based on a source provided by the commenter, the NM Transportation Department Budget indicates that District One, (which includes Sierra County) funds have already decreased and will continue to drop into 2017 and beyond.	CI-15; TR-7	Cumulative Impacts; Transportation and Traffic	<p>The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) of the EIS for the Proposed Action and each of the alternatives. Increased revenues provided by NMCC from the mine should be more than adequate to address any increased maintenance costs for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:</p> <p>a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.</p> <p>b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.</p> <p>c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.</p> <p>d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.</p> <p>NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.</p>	P122_Robert Shipley
P122	3/22/2016	Robert Shipley		The all-volunteer crew in the Hillsboro Fire and Rescue Department (HFRD) are not trained or will likely be trained to safely handle the hazardous materials which will be hauled to the mine (which include diesel fuel, gasoline, propane, explosives, solvents and laboratory chemicals) because expensive special HAZ-MAT truck(s) and equipment would be needed and the HFRD has neither and does not have the funds to supply either. In addition, the current Hillsboro fire station house is packed and cannot accommodate any more trucks or equipment.	HM&SW-2	Hazardous Materials and Solid Waste/Solid Waste Disposal	<p>In the event of a release, the transportation company, licensed and inspected as required by the New Mexico Department of Public Safety/Motor Transportation Division and the DOT, would be responsible for response and cleanup. Local and regional law enforcement and fire protection agencies also may be involved initially to secure the site and protect public safety. In the event of an accident involving the release of hazardous material, CFR Title 49§171.15 and §171.16 require that the carrier notify local emergency response personnel and the U.S. DOT National Response Center. Compliance with these and other regulatory requirements would be met by NMCC and their contracted carriers.</p>	P122_Robert Shipley
P122	3/22/2016	Robert Shipley		Because safely handling spilled/released hazardous material requires so much special equipment and continuous personnel training, a thorough assessment of HazMat due to mine operation needs to be addressed because any spill or release of toxic compounds along Highway 152 must be quickly controlled by trained personnel. Not being prepared for even one hazardous incident is unacceptable.	HH&PS-7; HM&SW-3	Hazardous Materials and Solid Waste/Solid Waste Disposal; Human Health and Public Safety	<p>The transport of hazardous materials and hazardous wastes on public roadways is controlled by U.S. DOT regulations. Any transport of such materials to or from the mine site must be done in compliance with these regulations to protect public safety. All hazardous materials and waste would be transported by commercial carriers contracted by the NMCC in accordance with the hazardous substances shipping requirements of CFR Title 49 and in compliance with the Federal Motor Carrier Safety Regulations of the DOT, parts 383, 390, 397, and 399. In the event of a release, the transportation company would be responsible for response and cleanup. The NMCC would specify that the contract carriers be licensed and inspected as required by the New Mexico Department of Public Safety/Motor Transportation Division and the DOT. The permits, licenses, and certificates are the responsibility of the carrier. CFR Title 49 requires that all shipments of hazardous substances be properly identified and placarded. Shipping documents must be accessible and include safety data sheets that contain information describing the hazardous substance, immediate health hazards, fire and explosion risks, immediate precautions, firefighting information, procedures for handling leaks or spills, first aid measures, and emergency response telephone numbers. Hazardous wastes would also be transported from the project site to be properly disposed of in accordance with RCRA regulations. Transportation of these waste streams would adhere to all applicable State and Federal regulations including requirements for hazardous waste manifests with shipments, labeling or using placards, and emergency information requirements.</p>	P122_Robert Shipley
P122	3/22/2016	Robert Shipley		Highway 152 has no shoulder – because the DEIS indicates that no improvements are planned or proposed for that portion of the highway east of Hillsboro, this introduces a particularly dangerous condition because the highway is regularly used by bicyclists since the road has for many years been a nationally designated cross-country touring route.	HH&PS-8	Human Health and Public Safety	<p>There are currently soft shoulders on SH152. NMCC has met with NMDOT several times and has prepared a traffic and pavement study for NMDOT. NMDOT has not expressed a need for paved shoulders and discussions have not identified a lower level of safety due to existing shoulders. There is currently a verbal agreement between NMDOT and NMCC that will evolve into a Memorandum of Understanding and would require a 2-inch overlay on the highway 12 months prior to the beginning of mining operations that would have the strength to sustain expected truck traffic.</p>	P122_Robert Shipley
P122	3/22/2016	Robert Shipley		Contrary to the assertion in the DEIS related to job creation from the proposed mine, virtually no one from Hillsboro and few would come from Truth or Consequences. Hillsboro is occupied entirely by retired personnel and most of the residents in Truth or Consequences are retired, on disability or already employed within the community.	SE-16; SE-34	Socioeconomics	<p>Thank you for your comment. This information has been incorporated into the Affected Environment subsection of the Socioeconomics section of the EIS to better qualify the demographic and economic data presented for Sierra County. The possibility of "cross-overs" has been added and the use of the term "local" has been clarified in the discussion in the FEIS.</p>	P122_Robert Shipley

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P122	3/22/2016	Robert Shipley		Because it's more likely that a large number of employees would come from Silver City, the project would significantly impact Highway 152 from its beginning at Highway 180 east to the mine because 152 climbs up to and back down from the summit at 8,200 feet. That section of 152 is subject to major travel limitations all year round. According to reports from the highway department in Sierra County, more users of the road would accelerate deterioration of the surface, especially the commuters from the Silver City area.	SE-12; TR-1	Socioeconomics; Transportation and Traffic	<p>The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with the New Mexico Department of Transportation (NMDOT) to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:</p> <p>a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.</p> <p>b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.</p> <p>c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.</p> <p>d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.</p> <p>NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.</p>	P122_Robert Shipley
P122	3/22/2016	Robert Shipley		The anticipated 77% increase in traffic due to full mine operation would render the ten miles from Mile Marker 55 east to the Interstate a dangerously congested route for every driver, and subsequently, vehicle accidents on Highway 152 would greatly increase.	TR-8	Transportation and Traffic	<p>The anticipated traffic increase would occur primarily during shift change for the mine. This increase in the worse condition considered would result in a LOS rating of C, which by definition is a stable flow, and therefore would be less than a significant impact. With this increase in traffic, there would be a minor increase in the potential for accidents but that level would be insignificant. Increased revenues provided by NMCC from the mine should be more than adequate to address any increased safety costs along the route for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:</p> <p>a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.</p> <p>b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.</p> <p>c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.</p> <p>d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.</p> <p>NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.</p>	P122_Robert Shipley
P122	3/22/2016	Robert Shipley		Because the New Mexico State Highway and Transportation Department (NMSHTD) has indicated that Highway 152, in its current state, could not withstand increased heavy truck traffic associated with the proposed Action, a careful assessment of the capability of Highway 152 needs to be addressed by the BLM without waiting for the NMSHTD to complete their review of a traffic impact study, which could take longer than the proposed start of construction.	Cl-15; TR-7	Cumulative Impacts; Transportation and Traffic	<p>The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) of the EIS for the Proposed Action and each of the alternatives. Increased revenues provided by NMCC from the mine should be more than adequate to address any increased maintenance costs for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:</p> <p>a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.</p> <p>b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.</p> <p>c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.</p> <p>d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.</p> <p>NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.</p>	P122_Robert Shipley

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P122	3/22/2016	Robert Shipley		What entity, when and at what cost would the mitigation associated with the statement in the DEIS of "the current state of disrepair of the highway further compounds the risk of a serious accident to a level that is considered significant and therefore would require mitigation" be carried out?	TR-8	Transportation and Traffic	<p>The anticipated traffic increase would occur primarily during shift change for the mine. This increase in the worse condition considered would result in a LOS rating of C, which by definition is a stable flow, and therefore would be less than a significant impact. With this increase in traffic, there would be a minor increase in the potential for accidents but that level would be insignificant. Increased revenues provided by NMCC from the mine should be more than adequate to address any increased safety costs along the route for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:</p> <p>a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.</p> <p>b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.</p> <p>c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.</p> <p>d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.</p> <p>NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.</p>	P122_Robert Shipley
P123	3/21/2016	James R. Massengill		Concerns that with the increased use, the highway will need to be maintained or improved.	TR-1	Transportation and Traffic	<p>The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with the New Mexico Department of Transportation (NMDOT) to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:</p> <p>a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.</p> <p>b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.</p> <p>c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.</p> <p>d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.</p> <p>NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.</p>	P123_James R. Massengill
P123	3/21/2016	James R. Massengill		Concerns that NMCC does not have the water rights, and subsequently, will not have enough water to operate the mine.	WR-1; P&N-1	Water Rights; Purpose & Need	<p>With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation.</p> <p>In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.</p>	P123_James R. Massengill
P124	3/22/2016	Michael Reed	Reeds Tire	Support for the proposed mining company because it will be good for the economy, the town, and the commenter's business.	PA-5; SE-1	Proposed Action; Socioeconomics	Thank you for your comment.	P124_Michael Reed

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P125	3/23/2016	Mike Ormand		The mine is safe to open and will be good for the whole area.	HH&PS-4; SE-1	Human Health & Public Safety; Socioeconomics	Thank you for your comment. The mining proponent would employ modern mining techniques in compliance with MSHA.	P125_Mike Ormand
P126	3/24/2016	Kaye Diamond		If irrigation wells and domestic wells need to be deepened who will be responsible for the cost of deepening the wells? Has the State Engineers office been notified that the deepening of the wells may penetrate the artesian basin? Will the State Engineers office consent to the deepening of agricultural and domestic, and artesian wells and the wells in the artesian basin because of loss of water due to mining?	GW-18; SE-28	Groundwater Resources; Socioeconomics	The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment". In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the Pitchfork wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law.	P126_Kaye Diamond
P126	3/24/2016	Kaye Diamond		If no consent is given to deepening the wells, who is responsible for our water loss? What is the maximum percentage reduction in discharge of the Animas community spring and reduction of the surface flow of artesian wells attributable to the project?	GW-7	Groundwater Resources	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P126_Kaye Diamond
P126	3/24/2016	Kaye Diamond		Who will be responsible for the economic loss to our farms if we lose our water?	GW-7; GW-21	Groundwater Resources	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater. Reductions in groundwater levels are not projected to lead to dewatering of wells except very near the mine where wells may need to be replaced by NMCC. Some increase in pumping costs will occur locally. The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment." In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the Pitchfork wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law.	P126_Kaye Diamond
P126	3/24/2016	Kaye Diamond		Will mitigation be determined before issuing permits for the project - if so, what mitigation requirements have been considered?	GW-12	Groundwater Resources	The focus of this comment is understood to relate to mitigation of effects from drawdowns that impair or affect existing surface waters as to uses, seasonal flows, vegetation, and wildlife habitat. The BLM understands that a particular concern is the seasonal flow that occurs along the perched reach of Las Animas Creek and which supports irrigation, vegetation, and habitat. No impact to the highly valued resource in this reach is expected to result from the project. This conclusion results from the fact that the shallow groundwater in the reach is not hydrologically connected to the regional aquifer which is the source of water to the wells that would supply the project. Indeed, the perched water table would not exist if there were a connection to the main regional aquifer, which at present lies at substantial depth below the river. Extensive monitoring is proposed to validate ongoing hydrologic conditions. NMCC has access to a multi-purpose groundwater monitoring and instrumentation network along Animas Creek and Percha Creek to facilitate monitoring of water levels in the shallow, deep, and artesian aquifers to meet requirements of various agencies, including the OSE as part of the NMCC water pumping permit. NMCC staff would conduct regular monitoring of groundwater and surface water along Animas and Percha Creeks. In addition to regular monitoring, monitoring of flood events along the creeks as they occur is also planned to gather information about surface flows throughout the year. NMCC staff would compile an annual report of the multi-purposed groundwater and surface water monitoring network for internal use and outside reporting. Groundwater elevations observed would be compared to model predictions to track the relative accuracy of the model. NMCC would work with OSE to offset surface water effects, and no reduction in irrigation supply would be permitted. See also the response to GW-2 regarding impacts of groundwater pumping on the aquifer and on streamflows.	P126_Kaye Diamond

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P127	3/25/2016	Lloyd Barr		The draft EIS does not demonstrate the necessary feasibility of the Copper Flat Copper Mine Mining Plan of Operation (MPO). The MPOs described in the draft EIS cannot be carried out, therefore the draft EIS does not predict the reality of what will happen if the NMCC is allowed to start mining operations. If the mine closes "unexpectedly" as did the last mining operation on this site, the NMCC will not be in a posture to adequately remediate any environmental impact caused by the mining operations.	PA-8; PA-24	Proposed Action	<p>The Proposed Action reflects the MPO submitted to the BLM by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration.</p> <p>The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party.</p> <p>The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMCC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMCC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMCC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.</p>	P127_Lloyd Barr
P127	3/25/2016	Lloyd Barr		While the BLM is not directly charged with determining the economic viability of a proposal, the unpredictable environmental impact of mine closure and its socio-economic effects are part of the BLM's legal concerns. The lack of financial viability is just as crippling for an MPO as a flaw in the procedures for extracting copper ore from the ground, and BLM is charged with protecting the interests of the American people.	SE-14	Socioeconomics	<p>Bonding is not within the scope of the FEIS. The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party.</p> <p>The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMCC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMCC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMCC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.</p>	P127_Lloyd Barr
P127	3/25/2016	Lloyd Barr		The proposed MPO should include a convincing description of the feasibility of the project proposed. The feasibility of large engineering projects especially commercial ones depends the strength of each project's financial backing, is THEMAC/NMCC able to execute this project? The draft EIS does not demonstrate the project's financial feasibility; it doesn't even admit an awareness of financial necessity.	SE-14; ALT-4; PA-25	Socioeconomics; Alternatives; Proposed Action	<p>Bonding is not within the scope of the FEIS. The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party.</p> <p>The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMCC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMCC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMCC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.</p>	P127_Lloyd Barr
P127	3/25/2016	Lloyd Barr		There is no assessment of the market strength of NMCC or its parents, and the company's financial staying power is called into question. Because the company is risky to begin with, any fluctuation in copper prices could put the company out of business. For example, Quintana Minerals went out of business after only 3.5 months citing a fall in copper prices when in fact there was no fall in prices.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P127_Lloyd Barr
P127	3/25/2016	Lloyd Barr		The commenter questions the methodology and purpose for planning to start a mine when the current copper prices don't support it. Subsequently, because the world reserves of copper are high, there is unlikely to be an increase in copper prices to save the mine - therefore, it is not viable.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P127_Lloyd Barr

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P127	3/25/2016	Lloyd Barr		The draft EIS reveals contradictions – for example, the executive summary states that “the Proposed Action would consist of an open pit mine, flotation mill, TSF, waste rock disposal areas, a low-grade ore stockpile, and ancillary facilities. The Proposed Action was intentionally developed to reuse the existing foundations, production wells, and water pipeline that were employed by the previous Quintana operation...” whereas the THEMAC website favors Alternative 2.	PA-2	Proposed Action	The Proposed Action in the FEIS was developed to match the MPO submitted to the BLM by NMCC. Since the MPO was first submitted to the BLM, there have been engineering studies and further development of information that have opened up the potential to successfully implement other courses of mine action. The BLM decided that it was reasonable to introduce other alternatives that incorporate some of the evolving information. NMCC prefers the higher ore production rate of Alternative 2 even though this differs from what is presented in the Proposed Action that is derived from the original MPO. The MPO will be revised to reflect any changes required to match what is adopted as the preferred alternative in the ROD.	P127_Lloyd Barr
P127	3/25/2016	Lloyd Barr		There are large quantitative differences in the extent of the two MPOs but the details in the DEIS only refer to the smaller “Proposed” MPO and, of course, THEMAC’s agent modeled that. Given the possibilities of switches in the plans of operations, the environmental effects of each alternative should have been adequately addressed. Actually a smaller EIS might result if the redundancies were eliminated even if properly reasonable analyses of the alternate MPOs were presented.	ALT-4; PA-10	Alternatives; Proposed Action	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ).	P127_Lloyd Barr
P127	3/25/2016	Lloyd Barr		The model of environmental effects in DEIS the provides a rosy prediction of the environmental effects but is misleading. The use of single parameter values with the MODFLOW modeling software contradicts the basic philosophy of this kind of modeling. The point is not to find a result which is feasible but rather to predict the range of results that the real system may produce – it should attempt to inform what dangers and benefits may accrue to different operational options, especially worse case scenarios.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC’s groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM’s overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	P127_Lloyd Barr
P127	3/25/2016	Lloyd Barr		Geological systems are very nonlinear and often exhibit what is called “stiffness” in mathematical analysis. Animas Creek is home to a unique kind of plane tree (sycamore). If the ground water level around the Animas Creek falls just a little too low, the unique plane trees will die. There are no others of western variety. Their dying would be an irreversible loss. The monocular, often single valued analyses, of the DEIS fail to demonstrate even awareness of these critical considerations.	GW-7; VEG-1	Groundwater Resources; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P127_Lloyd Barr
P127	3/25/2016	Lloyd Barr		The lack of variation in the MODFLOW modeling is so critical because it predicts the behavior of water levels in the region. The egregious lack of range of the “modeling” effort alone invalidates this DEIS as a basis for anything. The lack of independent geological justifications for geological features, e.g. grabens, clay layers, etc. that were used in modeling for their positive effect on outcome means the modeling is invalid.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC’s groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM’s overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	P127_Lloyd Barr
P127	3/25/2016	Lloyd Barr		The commenter agrees with Ms. Candi Browne in her argument that the monitoring wells were showing pollution and the THEMAC did not commit resources to address even this less than global problem.	GW-35	Groundwater Resources	Section 3.6.3 has been updated to reference implementation of a well monitoring program.	P127_Lloyd Barr

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P127	3/25/2016	Lloyd Barr		The commenter agrees with Robert Shipley's comments regarding the NM Scenic Byway that has significant tourist appeal and usage. Twenty huge ore trucks a day will degrade it.	TR-1	Transportation and Traffic	<p>The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with the New Mexico Department of Transportation (NMDOT) to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following:</p> <p>a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine.</p> <p>b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point.</p> <p>c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards.</p> <p>d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT.</p> <p>NMDOT has not identified a requirement for road improvements beyond the pavement overlay; however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.</p>	P127_Lloyd Barr
P127	3/25/2016	Lloyd Barr		The Copper Flat site and region surrounding it is supported in large part by a relatively well-off retiree population and associated development and real estate taxes which has raised the average income of Sierra County significantly. The value of these individual properties and the community as a whole is hurt by the CFCM kind of needless mining adventure and it would temper residential growth in other areas. In the coming, boomer-retiring, decades, there will be much more money and need in residential rather than mining developments. BLM would do better financially, leasing the land to developers instead of subsidizing sure failures that will sacrifice its land.	SE-20; SE-22	Socioeconomics	<p>The project is not predicted to have direct effects real estate values. Revenue from property taxes would increase because of the Proposed Action during the construction phase; and tax revenue would be greater under all action alternatives compared to the No Action Alternative.</p> <p>The potential to deter retirees (as well as tourists and recreationists) is discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life), and the potential out-migration of residents has been added to the discussion for the FEIS. It is not the BLM's responsibility to decide the proponent's Proposed Action. For this EIS, the BLM is charged with determining the potential impacts of a mining company seeking to execute an action that involves water use. Had a real estate developer proposed leasing for construction of homes, the BLM would have evaluated potential impacts from that activity instead.</p> <p>It is not the BLM's responsibility to decide the proponent's Proposed Action. For this EIS, the BLM is charged with determining the potential impacts of a mining company seeking to execute an action that involves water use. Had a real estate developer proposed leasing for construction of homes, the BLM would have evaluated potential impacts from that activity instead.</p>	P127_Lloyd Barr
P128	3/26/2016	Bill Bussman		The project will not provide the jobs stated in the DEIS, and it will not bring employment and bring work to many supporting sectors for a positive impact throughout the state.	SE-16	Socioeconomics	Thank you for your comment. The commenter does not providing supporting information as to why the project will not provide jobs and work to many supporting sectors for a positive impact throughout the state.	P128_Bill Bussman
P128	3/26/2016	Bill Bussman		The US needs responsible domestic production and the mine will not produce copper and other valuable metals in NM.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P128_Bill Bussman
P128	3/26/2016	Bill Bussman		Proper Federal and State regulations will ensure protection of the workers and the environment.	HH&PS-4; REG-4	Human Health & Public Safety; Regulatory Compliance	Thank you for your comment. The mining proponent would employ modern mining techniques in compliance with MSHA.	P128_Bill Bussman
P128	3/26/2016	Bill Bussman		The Draft EIS does not do a good job of analyzing the project from an environmental perspective, misidentifies the issues, and ignores the groundwork for necessary environmental protection measures.	NEPA-1; NEPA-11	NEPA Process	The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts.	P128_Bill Bussman
P128	3/26/2016	Bill Bussman		I appreciate the fact that BLM will be thorough with their work and provided time for the public review process. Request that BLM work through the EIS process efficiently and without delay.	NEPA-8	NEPA Process	Thank you for your comment.	P128_Bill Bussman
P129	3/27/2016	Nancy Kaminski		Opposition for the mine because sinking a groundwater well in the Animas Creek arroyo to supply the water needed for the project will destroy the creek and threaten local wells ability to deliver water to the residents of this valley.	GW-7; VEG-1	Groundwater Resources; Vegetation	Anticipated effects on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis on which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary mitigations applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the DEIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.	P129_Nancy Kaminski

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P130	3/27/2016	Judy Harmon	Healing Mother Earth Products	The mine will use up the precious resources that are vital for the land to remain healthy and for the people and animals who live there.	GW-3	Groundwater Resources	A detailed discussion of impacts to groundwater resources is included in Section 3.6 of the EIS. The DEIS indicates that the primary effect would be on flows in the Rio Grande, which would be subject to mitigation in accordance with obligations imposed by the OSE or agreed to by NMCC. With the possible exception of effects on habitat for the Chiricahua Leopard Frog that may use farm ponds in lower Las Animas Creek, the best information now available indicates there would be minimal effects on the human and biological environment, and no effect on the existing high-quality riparian corridors. The project will cause an increase in pumping lifts in area wells.	P130_Judy Harmon
P131	3/29/2016	Candace Browne		In reference to comments submitted in 2012 regarding the HDPE Geomembrane Liner, the commenter submitted a number of documents related to previous studies and reports prepared that discuss this and other similar issues related to the TSF.	WQ-18	Water Quality	Selected liner material, suitability, and respective design for the tailing impoundments would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria.	P131_Candace Browne
P131	3/29/2016	Candace Browne		The NMCC Mining Plan or Operation, the main document needed for any interested and/or concerned public to read and use to make comments is not now, nor has it ever been available to the general public neither at the Truth or Consequences Public Library nor at the Hillsboro Public Library.	PA-29	Proposed Action	The MPO has never been made available at the Truth or Consequences or Hillsboro public libraries but is readily available at the BLM Las Cruces District office.	P131_Candace Browne
P131	3/29/2016	Candace Browne		Will the Golder TSF design be adequate for the newly Proposed Alternative, Alternative 1, or Alternative 2 now delineated in the November 2015 DEIS? These new alternatives will speed up, to almost twice, the amount of the tailings production daily (tpd) from 17,500 to 30,000 tons) as the mining and milling process proceeds 24/7, 365 days a year. How will this speed up of tons per day of tailings material impact the ongoing, field construction of the liner?	ALT-12	Alternatives	The specification and operation of the tailings storage facility (TSF) is essentially the same for each of the alternatives proposed. The major difference is the speed of processing and the proposed liner is adequate for each alternative. Regarding a storm event, the planned TSF is modeled to meet the requirements of a 72-hour maximum storm event and still have the capacity required for each of the alternatives.	P131_Candace Browne
P131	3/29/2016	Candace Browne		The new alternative changes the liquid portion of the tailings to a higher content of water - will water drain through the tailings more quickly and will this put additional strain and pressure on the underdrain collection pond and other aspects of the liner system. How will this extra water affect the supernatant pool within the TSF? What will happen if there is a storm event - will there be extra capacity for the extra water taking into consideration the extra water used to mill the ore using Alternative 1 and 2?	ALT-12	Alternatives	The specification and operation of the tailings storage facility (TSF) is essentially the same for each of the alternatives proposed. The major difference is the speed of processing and the proposed liner is adequate for each alternative. Regarding a storm event, the planned TSF is modeled to meet the requirements of a 72-hour maximum storm event and still have the capacity required for each of the alternatives.	P131_Candace Browne
P131	3/29/2016	Candace Browne		Regarding the TSF liner system, is the minimum 6-inch thick layer of liner bedding fill adequate? Is the 60 mil geomembrane with the impoundment interior adequate? Is there documentation within the DEIS, showing scientific testing proving the adequacy of these two critical elements?	WQ-18	Water Quality	Selected liner material, suitability, and respective design for the tailing impoundments would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria.	P131_Candace Browne
P131	3/29/2016	Candace Browne		Regarding the details of the HDPE geomembrane liner given by GOLDER associates, this is not an adequate information to make and informed decision about the HDPE geomembrane liner design portion of the NMCC Mining Plan of Operation; therefore, the information is lacking also in the DEIS. The additional needed information and the reasons for this are included in the commenter's attachments.	WQ-18	Water Quality	Selected liner material, suitability, and respective design for the tailing impoundments would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria.	P131_Candace Browne
P131	3/29/2016	Candace Browne		The DEIS contains no specifics about exactly which resin will be used, nor any detailed information about testing of the geomembrane rolls for defects, nor manufacturing/installation requirements, nor qualifications of the Company hired to do the manufacturing/installation. There are also no detailed plans for ground preparation, no detailed plan for installation over the gradual increase of the footprint of the TSF over the years the mine is producing tailings.	WQ-20	Water Quality	Selected liner material, suitability, and respective design would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria. A Construction Quality Assurance Plan for the liner would be provided during the engineering design phase.	P131_Candace Browne
P131	3/29/2016	Candace Browne		The commenter references a number of sources and summarizes by stating that the information above alerts BLM, other government agencies & the public to the problems at the Copper Flat mine site concerning any future tailings storage facility. Any conceptual and technical plans and construction quality assurance for a new TSF and HDPE geomembrane liner need to be scrutinized with great care.	WQ-20	Water Quality	Selected liner material, suitability, and respective design would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria. A Construction Quality Assurance Plan for the liner would be provided during the engineering design phase.	P131_Candace Browne

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P131	3/29/2016	Candace Browne		A Construction Quality Assurance Plan for any HDPE geomembrane liners needs to be included in the NMCC Mining Plan of Operation and the DEIS to protect the water and all aspects of the environment with the highest quality.	WQ-20	Water Quality	Selected liner material, suitability, and respective design would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria. A Construction Quality Assurance Plan for the liner would be provided during the engineering design phase.	P131_Candace Browne
P131	3/29/2016	Candace Browne		The commenter references a number of sources and summarizes by stating that omissions and inadequacies highlighted from the EPA guide that the November DEIS is woefully incomplete and inadequate without a detailed Construction Quality Assurance Plan (CQA) included. EPA considerations for the CQA plan must be evaluated by the BLM and all other departments involved, including the Public, before the DEIS can move forward.	WQ-20	Water Quality	Selected liner material, suitability, and respective design would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria. A Construction Quality Assurance Plan for the liner would be provided during the engineering design phase.	P131_Candace Browne
P131	3/29/2016	Candace Browne		The DEIS does not evaluate what the impact to the quality of the laying out and seaming will be for the geomembrane during times of high wind conditions that are so prevalent and continuous during certain seasons in Sierra County.	WQ-20	Water Quality	Selected liner material, suitability, and respective design would be specified and verified during the engineering design phase of the project in accordance with current regulatory requirements and design criteria. A Construction Quality Assurance Plan for the liner would be provided during the engineering design phase.	P131_Candace Browne
P131	3/29/2016	Candace Browne		The DEIS does not list the Golder Associates Report in page 19 references section. Since Golder's report gives information on the TSF since the wording concerning the TSF used on many pages in the DEIS is taken verbatim from the Golder report, it should be listed.	REF-16	References	The information from Golder Associates on the TSF was embedded in the source document used for the Proposed Action, the MPO. Since the wording was taken from the MPO directly, it is more appropriate to cite that document as the source.	P131_Candace Browne
P131	3/29/2016	Candace Browne		The Golder report also needs to be listed in the References section with information on how to view the original document. This would add needed detail to assist with the scoping process.	REF-16	References	The information from Golder Associates on the TSF was embedded in the source document used for the Proposed Action, the MPO. Since the wording was taken from the MPO directly, it is more appropriate to cite that document as the source.	P131_Candace Browne
P131	3/29/2016	Candace Browne		NEPA requirements call for and BLM asks for input from the public, therefore, we, the public, need to have the reports and studies made available in a clear, easy-to-locate way.	REF-1	References	All sources utilized to inform the NEPA document are listed in the References section of the EIS.	P131_Candace Browne
P132	3/29/2016	Vaughan Wickins		The mine will be an environmentally responsible operator.	HH&PS-2; REG-3	Human Health and Public Safety; Regulatory Compliance	Thank you for your comment. Early coordination with mine safety agencies is critical to safe and compliant operations once the mining activity has begun.	P132_Vaughan Wickins
P132	3/29/2016	Vaughan Wickins		Request that BLM work through the EIS process efficiently and without delay - request a timely review and completion of the EIS.	NEPA-8	NEPA Process	Thank you for your comment.	P132_Vaughan Wickins
P133	3/29/2016	Bruce Hooper		Support for the mine because responsible resource development is needed and the Copper Flats team have done an excellent job in preparing the application and it should be supported.	NEPA-6	NEPA Process	Thank you for your comment.	P133_Bruce Hooper
P133	3/29/2016	Bruce Hooper		The area has been previously mined and the current planning will have minimal environmental impact while improving the community, the region, the state and the USA.	LU-3	Land Ownership & Land Use	Thank you for your comment. Previous mining activities at the site are included in the cumulative impacts analysis as discussed in Chapter 4 of the FEIS.	P133_Bruce Hooper
P133	3/29/2016	Bruce Hooper		Please assess the project in a comprehensive but rapid manner so we can have local jobs and responsible development in the USA and not overseas.	NEPA-8; PA-5; SE-1	NEPA Process; Proposed Action; Socioeconomics	Thank you for your comment.	P133_Bruce Hooper
P134	3/29/2016	Mike Friedman	Adventure Partners, LLC.	The greatest potential hazards associated with the Copper Flat Mine are its direct environmental impacts. In reviewing the DEIS we see many open questions which the NEPA process is required to address and has failed to achieve.	NEPA-11	NEPA Process	The FEIS was objectively prepared, maximizing the use of available information. As provided by NEPA, the process has utilized input from public review of the DEIS to systematically proceed to the FEIS document.	P134_Mike Friedman
P134	3/29/2016	Mike Friedman	Adventure Partners, LLC.	The Mine's direct impacts to water quantity due to mine dewatering and pit lake formation will be substantial and cause severe impacts to the Las Animas Creek watershed.	GW-7	Groundwater Resources	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P134_Mike Friedman
P134	3/29/2016	Mike Friedman	Adventure Partners, LLC.	The Animas Creek watershed is a key destination for ecotourists and its degradation will cause irreparable damage to our business which depends on a thriving ecosystem.	SE-38; GW-7; GW-21; SE-20; VEG-1	Socioeconomics; Groundwater Resources; Vegetation	The BLM believes that the socioeconomic analysis of effects on the Las Animas Creek watershed in the FEIS, supplemented with additional information and analysis collected during the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of NEPA. The complete analysis is presented in the FEIS.	P134_Mike Friedman

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P134	3/29/2016	Mike Friedman	Adventure Partners, LLC.	Any drawdown of water from the Mine's production pumping and dewatering wells and open pit will likely affect Las Animas creek and riparian corridors, and the unique species that rely on them. These impacts will result in significant degradation to, and maybe even elimination of, wildlife and riparian habitat dependent upon these waters.	GW-3	Groundwater Resources	A detailed discussion of impacts to groundwater resources is included in Section 3.6 of the EIS. The DEIS indicates that the primary effect would be on flows in the Rio Grande, which would be subject to mitigation in accordance with obligations imposed by the OSE or agreed to by NMCC. With the possible exception of effects on habitat for the Chiricahua Leopard Frog that may use farm ponds in lower Las Animas Creek, the best information now available indicates there would be minimal effects on the human and biological environment, and no effect on the existing high-quality riparian corridors. The project will cause an increase in pumping lifts in area wells.	P134_Mike Friedman
P134	3/29/2016	Mike Friedman	Adventure Partners, LLC.	The DEIS fails to identify and analyze the Mine's impacts to night skies and the noise and vibrations impacts to recreation opportunities on the Ladder Ranch. Tranquility and the ability for guests to enjoy a dark, clear night skies are key expectations of visitors to the Ladder Ranch.	NOI-3; REC-5	Noise and Vibrations; Recreation	A summary of New Mexico's Night Sky Protection Act (1978) has been added to Section 3.14.1 of the FEIS. All lighting associated with mining is listed under the Act as an exemption. The nearest Dark Sky area designated by the International Dark Sky Places program is over 10 miles away from the mine. This information is summarized in Section 3.14.2 of the FEIS. Further analysis on night skies is not required. Noise and vibration impacts from the proposed project are discussed in Section 3.21 of the EIS. As stated in Section 3.21.2.1, the Proposed Action would not contribute to a violation of any State, Federal, or local noise or vibration regulation. As also stated in this section of the EIS, during each blasting event that would occur at the mine, which occur only in daylight hours, the 130-dBP peak noise levels would extend 556 feet from the point of detonation. This area of high concern and complaint would remain entirely within the mine area, and no nearby noise sensitive areas would be exposed to these levels of noise. The 115-dBP peak noise levels would extend 2,344 feet from the point of detonation. The level of concern and complaints associated with individual acoustical events would be moderate within this area. Although this area of moderate concern and complaint may extend beyond the mine area, there are no residences within this distance. Depending on meteorological conditions, blasting activities may be heard by residences and others as much as several miles from the site. However, these events would best be characterized as "audible but distant" and would not be appreciably intrusive. Due to the limited frequency of the loud acoustical events and the distance to the nearest nearby residents, these effects would be minor.	P134_Mike Friedman
P134	3/29/2016	Mike Friedman	Adventure Partners, LLC.	Adventure Partners encourages the BLM to move cautiously and in conformance with all NEPA regulations when analyzing the true impacts of the Copper Flat Mine. The adverse effects this project will have both on the environment and the New Mexico tourism economy calls into question its benefit to the public.	NEPA-20	NEPA Process	The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision that has impartially considered all relevant environmental and social impacts.	P134_Mike Friedman
P134	3/29/2016	Mike Friedman	Adventure Partners, LLC.	The DEIS "No Action" alternative statement that "local employment and economic revenue would not increase as a result of this alternative" clearly indicates a failure to consider all direct and indirect socio-economic impacts of the Mine.	SE-11	Socioeconomics	Thank you for your comment. A discussion of socioeconomic impacts due to jobs and tax revenue under the No Action Alternative has been added to Section 3.22.2.4.	P134_Mike Friedman
P134	3/29/2016	Mike Friedman	Adventure Partners, LLC.	We appreciate your consideration of our comments as you determine future alternatives, and would strongly encourage you to deny BLM approval to operate the Copper Flat Copper Mine.	NEPA-1	NEPA Process	The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts.	P134_Mike Friedman
P135	3/29/2016	Catherine Berger		This project is a total water grab in one of the driest places in the United States and this area along a fragile riparian creek is home to the largest sycamore forest in New Mexico, huge trees which are truly the "redwoods" of New Mexico. The mine will impact these trees.	GW-7; VEG-1	Groundwater Resources; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P135_Catherine Berger
P136	3/29/2016	Jessica Wood		The water usages required by the proposed project will deplete the water in an already impacted area. A third of all groundwater used in Sierra County will be used up and not returned due to pollution. The mine's use will drain the domestic and artesian wells so dramatically this will affect everything and everyone living off of it. The Rio Grande, Elephant Butte Lake, Caballo Reservoir will all be affected.	GW-2; GW-3	Groundwater Resources	In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	P136_Jessica Wood
P136	3/29/2016	Jessica Wood		The groundwater usage will destroy the Sycamore trees that provide habitat for rare birds which brings tourism to the area, as bird watchers flock to the area.	REC-9	Recreation	Evidence from well monitoring and the results of groundwater modeling indicate that mine operations would have a negligible impact on surface water flows in the areas of Las Animas Creek and Percha Creek that currently support riparian vegetation including the Las Animas Creek sycamores. Neither creek is at risk of being destroyed or altered adversely by mine operations.	P136_Jessica Wood

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P136	3/29/2016	Jessica Wood		The groundwater usages will impact the Animas Creek Nursery, a small business thriving off the artesian water which uses green practices to ensure the most efficient ways to irrigate are used. The mine will put them out of business.	SE-39	Socioeconomics	Thank you for your comment. The commenter did not provide supporting information as to why the Animas Creek Nursery would go out of business.	P136_Jessica Wood
P136	3/29/2016	Jessica Wood		The jobs the mine does provide will not be permanent and the probability that the jobs will be local is low.	SE-8	Socioeconomics	Section 2.1.5 of the FEIS indicates that NMCC would provide employment opportunities to individuals living in the immediate area of the mine. It is likely that personnel from outside the local area would be required to meet the full staffing needs of the mine; however, the southwestern United States provides a large base of experienced personnel to complete the employee roster (NMCC 2014a).	P136_Jessica Wood
P136	3/29/2016	Jessica Wood		It is completely negligent for a large corporation to come in and completely take the resources away from hard working farmers, ranchers, small business owners just trying to survive.	SE-2	Socioeconomics	Thank you for your comment. The purpose of the FEIS is not to discern whether it is negligent (or responsible) for a corporation to conduct operations but rather to evaluate the potential impacts from the Proposed Action and alternatives.	P136_Jessica Wood
P136	3/29/2016	Jessica Wood		The issue of pollution is evident with irreversible consequences. As has been the case with other mines in New Mexico, pollution from Copper Flat could happen to Animas Creek and Caballo Lake which would wipe out tourism and peoples' ability to make a living in the area.	SE-38	Socioeconomics	The EIS looks at the potential impacts from various types of pollution - be it to water quality, air quality, noise, etc. The BLM believes that the socioeconomic analysis of effects on the Las Animas Creek watershed in the FEIS, supplemented with additional information and analysis collected during the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of NEPA. The complete analysis is presented in the FEIS.	P136_Jessica Wood
P137	3/29/2016	Lee Newman	Animas Creek Nursery	Provides pictures of Animas Creek and vegetation; and other supporting data.	REF-3	References	The BLM acknowledges the commenter's submittal of pictures of Animas Creek and vegetation as well as other supporting data.	P137_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	<p>Animas Creek riparian hardwood community "depends on a shallow water table reachable to riparian species." (Copper Flat Mine EIS Vol. 1 David and Speigal 1967). Arizona sycamore is lower Animas Creek's climax tree species with trees reaching great size and age. The world's largest Arizona sycamore is located approximately 1 mile up Animas Creek from Animas Creek Nursery on the Sycamore Ranch. This forest of sycamores is most vigorous over the lower Animas Creek low water table.</p> <p>The Copper Flat EIS shows a 20 to 40-foot drop in water table for this area. This drop will result in a high mortality for Arizona sycamores, probably losing world record trees. Page 3-80 Copper Flat EIS impact on regional water budget Figure 3-15-A and 3-15-B paragraph 2 states "reductions in flow are shown and additional loss" of farm water would occur "should artesian wells increase their pumping to compensate for decreased artesian flow." Only 1 out of 10 artesian wells we sampled had pumps. Pumping in lower Animas Creek artesian wells is not a good option. Table 3-13-C shows that the mine pumping will cause lower Animas Creek artesian wells to be dry at the end of mining. This action which is recommended by the Copper Flat Mine EIS would further lower the water table of Animas Creek 4 to 7 feet. See Figure 13-C. This suggestion would further dry out the Arizona sycamore and the entire Animas Creek Canyon hardwood riparian community.</p>	VEG-1	Vegetation	<p>Evidence from well monitoring and the results of groundwater modeling indicate that pumping deep aquifers for mine operations would have no impact on the unconnected surface water flows in the areas of Las Animas Creek supporting the Las Animas Creek sycamores and no impact to areas of Percha Creek that currently support riparian vegetation. Neither creek is at risk of being destroyed or altered adversely by mine operations.</p> <p>Irrigation ponds used for agricultural purposes in the lower portion of the Las Animas Creek corridor are fed by an artesian system that would be affected by pumping water for mine operations. The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment." In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the Office of the State Engineer, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or drilling of a new one if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law to assure continued viability of the farming operation in sustaining tree growth.</p>	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	Who wrote Copper Flat Mine EIS?	NEPA-26	NEPA Process	Mangi Environmental Group, Inc. (Mangi) was awarded a contract in November 2011, via a third-party contract arrangement with NMCC, to assist the BLM in the preparation of the EIS. As part of the proposal for this contract, Mangi provided a Disclosure Statement certifying that there was no conflict of interest between Mangi, NMCC, and the work on the Copper Flat EIS. Effective December 31, 2013, Mangi Environmental Group changed its name to Solv LLC. The company federal employer identification number (FEIN) and DUNS number remain the same. The BLM has determined that the disclosure statement originally submitted by Mangi is binding on Solv LLC because they are the same entity.	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	Who paid for EIS? What did EIS cost?	BLM-4	Bureau of Land Management	NMCC pays for costs associated with the EIS, but the BLM is responsible for technical direction of the EIS contract, as well as the final decision made following finalization of the EIS. The EIS contract amount from late 2011 through September 2017 is approximately \$2 million. Assuming the conclusion referenced by the commenter refers to the EIS conclusion, the EIS is the BLM's document and it has been coordinated with cooperating agencies. When a conclusion is reached on the EIS, it will represent the BLM's careful review of the Proposed Action and alternatives developed for the proposed mine. The cooperating agencies will receive copies of the EIS, which contains all comments received and their responses.	P137a_Lee Newman

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P137a	3/29/2016	Lee Newman	Animas Creek Nursery	Does the BLM agree the mine pumping will damage local agriculture?	VEG-1	Vegetation	<p>Evidence from well monitoring and the results of groundwater modeling indicate that pumping deep aquifers for mine operations would have no impact on the unconnected surface water flows in the areas of Las Animas Creek supporting the Las Animas Creek sycamores and no impact to areas of Percha Creek that currently support riparian vegetation. Neither creek is at risk of being destroyed or altered adversely by mine operations.</p> <p>Irrigation ponds used for agricultural purposes in the lower portion of the Las Animas Creek corridor are fed by an artesian system that would be affected by pumping water for mine operations. The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment". In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the Office of the State Engineer, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or drilling of a new one if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law to assure continued viability of the farming operation in sustaining tree growth.</p>	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	EIS Table 3-15 shows loss of water one hundred years after mine closes. What is the future value of all the water lost for a hundred years after the mine closes?	SE-3	Socioeconomics	<p>The purpose of the FEIS is to present potential adverse and beneficial impacts; not to compare different costs or conduct the equivalent of a cost-benefit analysis. It is not the BLM's responsibility to decide what the water will be used for or to determine a proponent's Proposed Action. For this EIS, the BLM is charged with determining the potential impacts of a mining company seeking to execute an action that involves water use. Had a company proposed to pump groundwater and manufacture bottled water for distribution, the BLM would similarly evaluate the potential impacts of that activity.</p>	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	Can BLM require super fund be set up by Copper Flats Mine to compensate farms and homes for loss of wells and loss of land and home value?	SE-14; GW-18; SE-28; GW-21; SE-20	Socioeconomics; Groundwater Resources	<p>The BLM has identified no wells of other ownership in the immediate vicinity of the pumping wells or pit, where the most significant drawdown impacts would occur. Drawdowns at more distant wells are projected to be small and would not be permanent. Under New Mexico water law, a user of groundwater has no obligation to compensate existing well owners for such costs unless the usefulness of the well is impaired.</p> <p>The project is not predicted to have effects on water supplies that would lead to direct, adverse economic impacts or direct, adverse impacts on real estate values in Sierra County overall. Section 3.22.1.6.3 discusses factors that can positively affect property values (e.g., availability of and proximity to public land like forests, lakes, and mountains) and negatively affect property values (e.g., noise, light, air pollution). A discussion of other important factors affecting property values (e.g., quality of public education, access to public transit and recreational opportunities, the age and condition of the home itself) have been added to Section 3.22.1.6.3. A discussion of how the introduction of a copper mine could adversely impact the property values of adjacent landowners specifically has been added to the 3.22.2.1.4, though it is difficult to quantify how much property values would be impacted.</p> <p>Bonding is not within the scope of the FEIS. The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party.</p> <p>The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMAC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor MMD would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMAC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMAC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.</p>	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	Does the BLM believe the employment analysis and the multipliers used to determine employment benefits from mine? (In the analysis business this is called blue sky analysis, you take out the clouds and you multiply by 5.)	SE-37; I&I-3; CI-20; SE-48	Socioeconomics; Irreversible & Irrecoverable Commitment of Resources; Cumulative Impacts	<p>The BLM believes that the socioeconomic analysis in the FEIS, supplemented with additional information and analysis as a result of information obtained during the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of the National Environmental Policy Act (NEPA). The complete analysis is presented in the FEIS.</p> <p>The economic impact modeling in the EIS was conducted independently and objectively by the EIS preparer under the technical direction of BLM. An appendix has been included in the EIS to explain the inputs and outputs of the economic model.</p>	P137a_Lee Newman

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P137a	3/29/2016	Lee Newman	Animas Creek Nursery	Does the BLM support the real estate analysis of the EIS? Question: Which is worth more—farm with flowing irrigation well or farm with dry well?	LR-6	Lands and Realty	The BLM has reviewed all resource sections of the EIS and supports the conclusions reached in them. Mining activities would follow BMPs to prevent soil or water impacts as described in Sections 3.8, 3.5, and 3.6. Any changes to soil or water conditions are unlikely to impact the mining area to the point where potential land use would conflict with land management plans by preventing planned land uses or permitting within or nearby the APE...The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer that affects existing wells without causing "impairment." In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of the well in the comment is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to a well is demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law.	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	Does the BLM or cooperating agencies plan on challenging conclusion based on opinion in the EIS?	BLM-4	Bureau of Land Management	NMCC pays for costs associated with the EIS, but the BLM is responsible for technical direction of the EIS contract, as well as the final decision made following finalization of the EIS. The EIS contract amount from late 2011 through September 2017 is approximately \$2 million. Assuming the conclusion referenced by the commenter refers to the EIS conclusion, the EIS is the BLM's document and it has been coordinated with cooperating agencies. When a conclusion is reached on the EIS, it will represent the BLM's careful review of the Proposed Action and alternatives developed for the proposed mine. The cooperating agencies will receive copies of the EIS, which contains all comments received and their responses.	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	What will be more financially important to Sierra County in twenty-five years—the Copper Flat Mine or recreation?	SE-3; SE-22; SE-47	Socioeconomics	The FEIS quantifies and analyzes the impacts associated with the proposed mining activities, and considers its impact on economic drivers that could be impacted - like recreation and tourism, quality of life, and recreational values (See Section 3.22.2.1.6). However, just as the EIS does not present impacts in terms of the value of the recreational experience as a commodity and its value as an economic driver, it does not present impacts in terms of the value of water or clean air or cultural resources as commodities and their values as economic drivers. This type of analysis - known as an ecosystem services valuation - is neither common nor required in a socioeconomic impacts analysis under NEPA. The purpose of the FEIS is to present potential adverse and beneficial impacts; not to compare different costs or conduct the equivalent of a cost-benefit analysis. For this EIS, the BLM is charged with determining the potential impacts of a mining company seeking to execute an action.	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	How many domestic wells in lower Animas Creek and how deep are they?	GW-5	Groundwater Resources	Domestic wells were not modeled. With regard to any concerns about well impairment, the Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer that affects existing wells without causing "impairment." In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of the well referenced in the comment is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to a well are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law.	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	If BLM permits mine, how much time will Animas Creek well owners have before shallow wells fail?	GW-5	Groundwater Resources	The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer that affects existing wells without causing "impairment." In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of the well referenced in the comment is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to a well are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law.	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	Does the BLM believe a hundred or more shallow wells in Animas Creek could be repaired and pumps installed quickly? And by whom?	GW-5	Groundwater Resources	The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer that affects existing wells without causing "impairment". In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations. The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of the well referenced in the comment is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to a well are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law.	P137a_Lee Newman

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	Why is there no plan for dangerous chemical spills other than diesel?	HM&SW-2	Hazardous Materials and Solid Waste/Solid Waste Disposal	<p>In the event of a release, the transportation company, licensed and inspected as required by the New Mexico Department of Public Safety/Motor Transportation Division and the DOT, would be responsible for response and cleanup. Local and regional law enforcement and fire protection agencies also may be involved initially to secure the site and protect public safety. In the event of an accident involving the release of hazardous material, CFR Title 49§171.15 and §171.16 require that the carrier notify local emergency response personnel and the U.S. DOT National Response Center. Compliance with these and other regulatory requirements would be met by NMCC and their contracted carriers.</p> <p>Hazardous materials would be handled as outlined in Section 3.9.2.1.1.2, Materials Management. Storage would have secondary containment as described in these sections to address spill prevention and materials would be managed and handled per regulations as outlined in this section. In addition, spills are addressed in Section 3.9.2.1.1.3, Releases. A Spill Prevention, Control, and Countermeasure Plan (SPCC) would be developed and implemented that would address spills of not only diesel but all hazardous materials during the operations. The SPCC plan describes the reporting requirements and response actions that would take place in the event of a spill, release, or other upset condition, as well as procedures for cleanup and disposal.</p>	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	Will the BLM send copies of my statement to cooperating agencies?	BLM-4	Bureau of Land Management	<p>NMCC pays for costs associated with the EIS, but the BLM is responsible for technical direction of the EIS contract, as well as the final decision made following finalization of the EIS. The EIS contract amount from late 2011 through September 2017 is approximately \$2 million. Assuming the conclusion referenced by the commenter refers to the EIS conclusion, the EIS is the BLM's document and it has been coordinated with cooperating agencies. When a conclusion is reached on the EIS, it will represent the BLM's careful review of the Proposed Action and alternatives developed for the proposed mine. The cooperating agencies will receive copies of the EIS, which contains all comments received and their responses.</p>	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	Why is the reclamation plan using less than one-tenth the amount of seed needed to re-establish vegetation?	VEG-18	Vegetation	<p>It is unclear why the commenter concludes that the amount of seed is one-tenth of what is needed to reestablish vegetation. The Mine Operations and Reclamation Plan (MORP) is subject to approval by the State of New Mexico before a mining permit is issued. Section 3.2.2, Seed Mixtures, in the MORP contains the following description of seed mixtures, including tables of seed mixes:</p> <p><i>The species selected for the reclamation seed mixtures have been successfully used in mine reclamation and range improvement projects in many parts of New Mexico and are readily available from seed suppliers. The seed mix is selected to provide early establishment of ground cover, erosion control and productivity while providing diversity in growth forms.</i></p> <p><i>The seed mixes are designed for application prior to the summer rains and the seeding will be completed in early- to mid-June. The ratio of cool season to warm season grasses may be adjusted if the seeding is conducted after the summer rains. The overall target seed rate for final seeding is expected to vary, but will range from about 40 to 60 seeds per square foot. Interim seedings for growth media stockpiles and other temporary stabilization seedings target a seed density of 30 seeds per square foot. All seed mixes shall be certified as weed free.</i></p> <p>The BLM finds the seed mix planning responsive for EIS purposes and defers to the permit application review by the State of New Mexico to determine the ultimate adequacy of the reclamation planning.</p>	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	Why does the reclamation plan not require successful re-establishment of grass and forbs, not just put down a tiny amount of seed and leave the sight bare to wind and water erosion?	VEG-18	Vegetation	<p>It is unclear why the commenter concludes that the amount of seed is one-tenth of what is needed to reestablish vegetation. The Mine Operations and Reclamation Plan (MORP) is subject to approval by the State of New Mexico before a mining permit is issued. Section 3.2.2, Seed Mixtures, in the MORP contains the following description of seed mixtures, including tables of seed mixes:</p> <p><i>The species selected for the reclamation seed mixtures have been successfully used in mine reclamation and range improvement projects in many parts of New Mexico and are readily available from seed suppliers. The seed mix is selected to provide early establishment of ground cover, erosion control and productivity while providing diversity in growth forms.</i></p> <p><i>The seed mixes are designed for application prior to the summer rains and the seeding will be completed in early- to mid-June. The ratio of cool season to warm season grasses may be adjusted if the seeding is conducted after the summer rains. The overall target seed rate for final seeding is expected to vary, but will range from about 40 to 60 seeds per square foot. Interim seedings for growth media stockpiles and other temporary stabilization seedings target a seed density of 30 seeds per square foot. All seed mixes shall be certified as weed free.</i></p> <p>The BLM finds the seed mix planning responsive for EIS purposes and defers to the permit application review by the State of New Mexico to determine the ultimate adequacy of the reclamation planning.</p>	P137a_Lee Newman
P137a	3/29/2016	Lee Newman	Animas Creek Nursery	In view of these and other flaws, will the BLM require the EIS contract author to rewrite this statement to follow 3.3.1.4 titled "Regulatory Requirements Related to Climate Change and Sustainability?" According to EO 13148, "Greening the Government", all Federal agencies must take necessary actions to integrate environmental accountability into day-to-day decisions.	REG-23	Regulatory Compliance	<p>CEQ's Final Guidance on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews (August 2016) guidance has been withdrawn for further consideration (March 2017). However, the BLM acknowledges the effects of climate change and estimates GHG direct and indirect potential emissions, using various tools such as reasonable foreseeable development and EPA's emission estimation factors for GHGs, in its NEPA documents. It is important to also note that the withdrawn guidance was not a regulation and does not change any law, regulation, or other legally binding requirement.</p>	P137a_Lee Newman

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P138	3/31/2016	Kevin Wood	Animas Creek Nursery	The water usages required by the proposed project will deplete the water in an already impacted area. A third of all groundwater used in Sierra County will be used up and not returned due to pollution. The mine's use will drain the domestic and artesian wells so dramatically this will affect everything and everyone living off of it. The Rio Grande, Elephant Butte Lake, Caballo Reservoir will all be affected.	GW-2; GW-3	Groundwater Resources	In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	P138_Kevin Wood
P138	3/31/2016	Kevin Wood	Animas Creek Nursery	The groundwater usage will destroy the Sycamore trees that provide habitat for rare birds which brings tourism to the area, as bird watchers flock to the area.	REC-9	Recreation	Evidence from well monitoring and the results of groundwater modeling indicate that mine operations would have a negligible impact on surface water flows in the areas of Las Animas Creek and Percha Creek that currently support riparian vegetation including the Las Animas Creek sycamores. Neither creek is at risk of being destroyed or altered adversely by mine operations.	P138_Kevin Wood
P138	3/31/2016	Kevin Wood	Animas Creek Nursery	The groundwater usages will impact the Animas Creek Nursery, a small business thriving off the artesian water which uses green practices to ensure the most efficient ways to irrigate are used. The mine will put them out of business.	SE-39	Socioeconomics	Thank you for your comment. The commenter did not provide supporting information as to why the Animas Creek Nursery would go out of business.	P138_Kevin Wood
P138	3/31/2016	Kevin Wood	Animas Creek Nursery	The jobs the mine does provide will not be permanent and the probability that the jobs will be local is low.	SE-8	Socioeconomics	Section 2.1.5 of the FEIS indicates that NMCC would provide employment opportunities to individuals living in the immediate area of the mine. It is likely that personnel from outside the local area would be required to meet the full staffing needs of the mine; however, the southwestern United States provides a large base of experienced personnel to complete the employee roster (NMCC 2014a).	P138_Kevin Wood
P138	3/31/2016	Kevin Wood	Animas Creek Nursery	It is completely negligent for a large corporation to come in and completely take the resources away from hard working farmers, ranchers, small business owners just trying to survive.	SE-2	Socioeconomics	Thank you for your comment. The purpose of the FEIS is not to discern whether it is negligent (or responsible) for a corporation to conduct operations but rather to evaluate the potential impacts from the Proposed Action and alternatives.	P138_Kevin Wood
P138	3/31/2016	Kevin Wood	Animas Creek Nursery	The issue of pollution is evident with irreversible consequences. As has been the case with other mines in New Mexico, pollution from Copper Flat could happen to Animas Creek and Caballo Lake which would wipe out tourism and peoples' ability to make a living in the area.	SE-38	Socioeconomics	The EIS looks at the potential impacts from various types of pollution - be it to water quality, air quality, noise, etc. The BLM believes that the socioeconomic analysis in the FEIS, supplemented with additional information gathered and analysis conducted as a result of the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of NEPA. The complete analysis is presented in the FEIS.	P138_Kevin Wood
P139	3/7/2016 (email received 3/24/16)	Cynthia Kropp		Support for the Copper Flat mine.	NEPA-6	NEPA Process	Thank you for your comment.	P139_Cynthia Kropp
P140	4/1/2016	Bill Bussman		Impacts to surface and groundwater quantity have not been adequately evaluated. A cursory examination of 50 years of hydrological studies shows that, when considering the connectivity of Animas Creek Aquifer and the production wellfield aquifer, the connectivity is inversely proportional to the price of copper - bias is shown regarding connectivity when mining is supported.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	P140_Bill Bussman
P140	4/1/2016	Bill Bussman		Negative economic impacts have not been included in the socioeconomic analysis. Although some jobs are better than no jobs, because of the fluctuating nature of boom and bust mining, there will not be a long term stable jobs market as a result of the mine.	SE-21; SE-2; SE-20; SE-35	Socioeconomics	Adverse and beneficial socioeconomic impacts are discussed throughout the section. Potentially adverse impacts associated with boom and bust mining economies and potential impacts to quality of life (including to recreational values, property values, and recreation and tourism) are discussed in Section 3.22.2.1.6. Potentially adverse impacts to schools and health services are discussed in Sections 3.22.1.5.3.1 and 3.22.1.5.2, respectively.	P140_Bill Bussman
P140	4/1/2016	Bill Bussman		When the mine is shut down, the taxpayers will be left to clean up the mess and pick up the pieces once again.	SE-14	Socioeconomics	The BLM, MMD, and NMED would all require that NMCC submit "financial assurance" (often referred to as the Reclamation Bond), which would be held jointly by the agencies. The financial assurance amount is calculated and reviewed by the agencies to cover the costs of reclamation if an agency had to contract the work to a third party. The financial assurance would be established in accordance with BLM regulations at 43 CFR 3809.500-3809.599, which state that the amount "must cover the estimated cost as if BLM were to contract with a third party to reclaim operations according to the reclamation plan..." as well as 19.10.12 NMAC, which details MMD's requirements for a financial assurance to cover costs for a third-party contractor to complete reclamation work. Neither the BLM nor NMED would issue a mine permit until receipt of the approved financial assurance. Further, per 19.10.6.607E NMAC and 43 CFR 3809.552(b), MMD and the BLM would periodically review the amount of the financial assurance and may require adjustments to the amount of financial assurance to reflect inflationary increases or increased in anticipated costs of reclamation. Under 20.6.7.11U NMAC, the NMED also requires financial assurance to cover the cost of reclamation in accordance with the mine's closure plan.	P140_Bill Bussman

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P141	4/1/2016	Margie Gibson		The area has water, huge sycamores, abundant birds and wildlife drawn to its riparian habitat, and a clear night sky. The proposed Copper Flat Mine threatens all of these values and has broader impacts in the county including health, safety, the economy and the environment.	GW-7; REC-5; VEG-1; WL-17	Groundwater Resources; Recreation; Vegetation; Wildlife	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P141_Margie Gibson
P141	4/1/2016	Margie Gibson		NEPA requires an environmental analysis with public disclosure. The Copper Flat DEIS fails to do an adequate job of either. The preferred alternative does not meet BLM's stated purpose.	NEPA-2; NEPA-3; NEPA-9	NEPA Process	Chapter 2 of the EIS describes the Proposed Action and all reasonable alternatives. The EIS has been prepared to: 1) analyze the environmental impacts of alternatives that would meet the proposed purpose and need; and 2) assist the BLM in deciding whether to approve a preferred alternative. That preferred alternative may be the Proposed Action, an identified alternative, or a combination of analyzed elements of the Proposed Action or alternatives. The EIS was prepared in accordance with NEPA requirements for the BLM and a ROD will be signed. If the preferred alternative identified in the ROD differs from the MPO, the MPO must be revised by NMCC and approved by the BLM prior to commencing mining operations.	P141_Margie Gibson
P141	4/1/2016	Margie Gibson		The DEIS was made to be as confusing as possible, and the DEIS evaluates the proposed action, not Alternative 2 (which it should instead). By focusing on a proposed action that is no longer proposed, the entire document downplays and/or obscures actual impacts. The range of alternatives includes two THEMATIC operating plans that are out of date. The consideration of the no action alternative given by the BLM is completely inadequate.	NEPA-2; NEPA-3; NEPA-11; NEPA-15; PA-9	NEPA Process; Proposed Action	The Proposed Action reflects the Mine Plan of Operations (MPO) submitted to the Bureau of Land Management (BLM) by NMCC and presented to the public during the scoping process. The action alternatives were developed at an alternatives selection session following the scoping period at which the BLM and State cooperating agencies considered the input and proposed alternatives that reflected the substance of the scoping comments. The Proposed Action and alternatives were all analyzed with equal consideration. Where the impacts are the same for the alternatives as for the Proposed Action, the analysis cross-references the previous analysis for the Proposed Action rather than introduce repetitive findings. This is a streamlining technique for Environmental Impact Statement (EIS) documents preferred by the Council on Environmental Quality (CEQ). Chapter 2 of the EIS describes the Proposed Action and all reasonable alternatives. The EIS has been prepared to: 1) analyze the environmental impacts of alternatives that would meet the proposed purpose and need; and 2) assist the BLM in deciding whether to approve a preferred alternative. That preferred alternative may be the Proposed Action, an identified alternative, or a combination of analyzed elements of the Proposed Action or alternatives. The EIS was prepared in accordance with NEPA requirements for the BLM and a ROD will be signed. If the preferred alternative identified in the ROD differs from the MPO, the MPO must be revised by NMCC and approved by the BLM prior to commencing mining operations.	P141_Margie Gibson
P141	4/1/2016	Margie Gibson		Throughout the DEIS BLM makes unsubstantiated and/or undocumented assumptions, which downplay actual impacts. The DEIS also assumes that untested technology will reduce impacts and thus fails to do an adequate assessment. Estimates of impacts to clean water, clean air, wildlife habitat, and public health need to be based on actual records of similar operations.	NEPA-21; PA-30	NEPA Process; Proposed Action	It is unclear what untested technology is of concern in this comment. The BLM has evaluated proven technologies with regard to impact reduction and has utilized reliable records and data in its evaluation, as presented in the EIS.	P141_Margie Gibson
P141	4/1/2016	Margie Gibson		The DEIS uses an outdated and scientifically criticized method to determine the recharge of aquifers. Recharge potential is much less using realistic methodology, so the impacts of surface and ground water are much more significant than claimed in the DEIS.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	P141_Margie Gibson
P141	4/1/2016	Margie Gibson		The DEIS fails to adequately assess the effects of climate change – specifically, the impacts of the snowpack in the Black Range that has been decreasing.	CC-2	Climate Change and Sustainability	Additional description of possible specific climate change impacts has been added to Sections 3.3.1.2 and 3.3.2.1.1 of the EIS.	P141_Margie Gibson

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P141	4/1/2016	Margie Gibson		BLM claims a shallow clay layer isolates the effects of the mine's pumping of the Santa Fe Aquifer. It is not possible to make this claim based on a conceptual model produced by hired guns, with very limited data points. The imaginative cross section shown in figure 3-10 is just one possibility; the clay "bed" could be clay lenses. In addition, even if the conceptual model is correct, lowering the aquifer will effect pressure and in turn permeability.	GW-5	Groundwater Resources	<p>The FEIS provides details on the effects of the mining project on water resources and indicates that the primary effect that has the potential to impact other water users would be depletion of flows in the Rio Grande. These effects would be subject to mitigation in accordance with obligations imposed by the OSE and by voluntary actions applied by NMCC. NMCC has committed to provide such mitigation for the duration of the impacts from the project. To the extent the OSE determines NMCC has a vested right to deplete surface flows below the dam without providing an additional offset, and absent the voluntary mitigation, there could be an adverse effect on users of surface water in the Lower Rio Grande Basin and/or Texas that would exist for decades. However, because NMCC would provide mitigation in the form of offsets from upstream, this impact is predicted to not occur.</p> <p>Groundwater levels would decline near the NMCC wellfield during operations, and then gradually recover. The OSE would determine whether this causes impairment of any existing wells and, if so, would require mitigation; as of mid-2017, no analysis had indicated that such impairment would occur, i.e. there is not expected to be any loss of ability to produce water from existing livestock, domestic, or community supply wells. Some increase in pumping costs may occur, which is an acceptable effect under New Mexico water law. No impacts to Hatch Valley or thermal water sources would reasonably be expected.</p> <p>The continuous clay layer and the presence of perched water beneath portions of Las Animas Creek are demonstrated by water level measurements and geologic logs, and by the hydrologic reality that sustained flows in the Creek can only occur if the shallow hydrology is isolated from the deeper water table that is characteristic of the regional hydrology.</p>	P141_Margie Gibson
P141	4/1/2016	Margie Gibson		The DEIS needs to include how potential dewatering can impact the vegetation and wildlife.	GW-7; VEG-1	Groundwater Resources; Vegetation	<p>Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.</p>	P141_Margie Gibson
P141	4/1/2016	Margie Gibson		The DEIS needs to include how potential dewatering can impact the economy of Animas Creek, including the reduced tax base from declining property values.	GW-21; SE-20; SE-41	Groundwater Resources; Socioeconomics	<p>The project is not predicted to have effects on water supplies that would have adverse economic impacts, including on real estate values in Sierra County overall. Revenue from property taxes would increase during the construction phase; and tax revenue would be greater under all action alternatives compared to the No Action Alternative.</p> <p>Section 3.22.1.1.2 (p. 3-237 and 3-238) in the Socioeconomics section of the DEIS includes the current (2010) median value of homes in Truth or Consequences, Sierra County, and New Mexico. Current (2010-2014 estimates) of housing characteristics and property values by Census Tract and Block Group in Sierra County have been added to Section 3.22.1.1.2 of the FEIS (See Tables 3-62 and 3-63). Housing characteristics and property values for Sierra County and New Mexico in 1970, 1980 and 1990 have also been added to Section 3.22.1.2 of the FEIS (see Tables 3-64 and 3-65). It is difficult to say whether property values increased or decreased as a result of the operation of Quintana Mine, due in part to its short-lived operation, and also because several factors can affect real estate values.</p> <p>The location and proximity to an operation with negative externalities (noise, light, air pollution) can negatively impact property values. Section 3.22.1.6.3 notes that the proximity to environmental amenities can influence where people choose to live (in-migration) and how much people are willing to pay for housing (i.e., property values). Other important factors affecting property values include quality of public education (i.e., school district); access to public transit or recreational opportunities; the age and condition of the home itself; and history of other negative events (e.g., fire, site of a violent crime). A discussion of these other factors has been added to Section 3.22.1.1.2. Section 3.22.2.1.6 concludes: "The negative perception of mining impacts on natural amenities – especially on water quantity and water quality, wildlife, and air quality – that attract recreationists and potential residents in the first place could be a deterrent in both the short- and long-term." A discussion of how the introduction of a copper mine could adversely impact the property values of adjacent landowners specifically has been added to the 3.22.2.1.4, concluding that the Proposed Action and alternatives would likely have a negative effect on property values in Sierra County overall, and the effect would likely be greatest on properties in CT 9624.02, BG 2, or those closest to the mine area. However, it is difficult to quantify how much property values would be impacted.</p>	P141_Margie Gibson
P141	4/1/2016	Margie Gibson		Volume 1 of the DEIS does not show all of the actual water declines in figure 3- 16b – it only goes to 60 feet; the actual projections in Appendix F also show deficits at 70 and 80 feet. This seems like a deliberate effort to mislead the public. In addition, a figure overlapping the declines resulting from increased pumping (figure 3-19c) with an accurate figure 3-16b would be useful. Groundwater will continue to flow in the pit lake forever with the DEIS estimate of 38 and 39 acre-feet per year – more than 12 million gallons -- for the proposal. The rate is presumably greater for the preferred alternative. This will increase groundwater depletion.	REF-4	References	<p>The BLM believes that the graphics are presented with sufficient detail to convey the essential conclusions of the analysis. As noted in the main text, the maximum impacts are not hidden but are reported and displayed in an Appendix. Moreover, these maxima occur within the well field and do not impact any parties other than NMCC. It is correct that the groundwater flow into the pit and evaporation from the pit lake represent an ongoing and permanent depletion of groundwater. The different alternatives would have the same magnitude of this impact.</p>	P141_Margie Gibson

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P141	4/1/12016	Margie Gibson		The DEIS does not provide a dispersion model for the preferred alternative and does not address impacts of fugitive dust.	AQ-13	Air Quality	Section 3.2.2 of the EIS addresses the impacts of air pollution and dust from the Proposed Action and alternatives, including the Preferred Alternative. The air dispersion modeling performed for the air permit demonstrated compliance with all applicable ambient air quality standards. Therefore, adverse effects to nearby areas or individuals are not expected. The dispersion modeling included worst case meteorological conditions as a basis for this determination.	P141_Margie Gibson
P141	4/1/12016	Margie Gibson		In regards to dust suppression, the DEIS fails to address what will happen on dry windy days and during extreme wind events. Pollutants dispersed during such events could be deposited in soils miles from the mine site, and re-circulated whenever the wind blows, resulting in air and water pollution and contamination of soils. Smaller dust particles not only travel farther, they can get deeper into lungs and cause more health problems.	AQ-14	Air Quality	Section 3.2.2. addresses the impacts of air pollution and dust. Sections 3.2.2.1.1 states the "The modeling performed for the air permit demonstrated compliance with all applicable ambient air quality standards." This air dispersion modeling included worst case meteorological conditions as a basis for this determination. Therefore, adverse effects to nearby areas or individuals are not expected.	P141_Margie Gibson
P142	4/1/12016	Judy Majoras		The region of influence/impact (ROI) in the EIS is poorly defined. In those areas mentioned, such as Hillsboro, they are grossly in error in terms of both the number and character of the residents. The data about Hillsboro has no relationship to reality, and everyone else in the area has been ignored.	SE-5; SE-23	Socioeconomics	Rationale for the region of influence (ROI) defined as Sierra County is included in the second paragraph of 3.22.1 (Affected Environment). The median value of owner-occupied housing units in the Hillsboro Census Designated Place (CDP) has been added to Table 3-57 in the DEIS (Table 3-63 of the FEIS).	P142_Judy Majoras
P142	4/1/12016	Judy Majoras		What will be the economic impact, scenic environmental impact, and infrastructure damage impact of the mine and the truck traffic on the Lake Valley Backcountry Byway and Geronimo Trail Scenic Byway (receiving national status in 2005) and the Southern coast to coast cross country route?	REC-10; TR-9	Recreation; Transportation and Traffic	<p>The scenic environmental impact of the proposed project on the scenic and backcountry byways is analyzed in Section 3.22.2.1.6 of the EIS. This analysis does demonstrate the potential impacts to Byways-related tourism. The cumulative contribution of the mine on recreational/scenic driving along scenic byways was found to be negligible to minor.</p> <p>The FEIS addresses the scenic environmental impact of the Proposed Action and alternatives in Section 3.16, Recreation and Section 3.17, Special Management Areas. Additionally, "infrastructure damage impact of the mine and the truck traffic" is addressed in Section 3.20, Transportation and Traffic.</p> <p>If adverse impacts to recreation and tourism on the Ladder Ranch were to occur as a result of mining operations, impacts are anticipated to be minor. Where noise from the project is concerned, truck operations on site were included in the noise model discussed in Section 3.21.2.1.1 of the EIS. Section 3.20.2.1 indicates that operations in years 1-5 would require 10-14 truckloads per day to and from the site. This is approximately one truck per hour. Due to the limited number of trucks and the small number of nearby residences, the effects of truck noise would be negligible. As stated in Section 3.21.2.1, the Proposed Action would not contribute to a violation of any State, Federal, or local noise or vibration regulation.</p> <p>As also stated in this section of the EIS, during each blasting event that would occur at the mine, which occur only during daylight hours, the 130-dBP peak noise levels would extend 556 feet from the point of detonation. This area of high concern and complaint would remain entirely within the mine area, and no nearby noise sensitive areas would be exposed to these levels of noise. The 115-dBP peak noise levels would extend 2,344 feet from the point of detonation. The level of concern and complaints associated with individual acoustical events would be moderate within this area. Depending on meteorological conditions, blasting activities may be heard as much as several miles from the site. However, these events would best be characterized as "audible but distant" and would not be appreciably intrusive.</p> <p>Where traffic from the project is concerned, the traffic increase would occur primarily during shift change for the mine. This increase in the worse condition considered would be a LOS rating of C, which by definition is a stable flow, and therefore would be less than a significant impact.</p>	P142_Judy Majoras

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P142	4/1/2016	Judy Majoras		Negative economic impacts that are specific should be discussed in the DEIS to include such things as maintenance of highway, negative impact to tourism and fewer middle class retirees moving to this rural environment for the peace and quiet.	SE-10; SE-12; REC-3; TR-3	Socioeconomics; Recreation; Transportation and Traffic	<p>The potential to deter retirees (as well as tourists and recreationists) is discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life). Section 3.22.2.1.6 of the EIS also discusses that the extent to which an active mine would deter tourists or recreationists from travelling Route 152 is difficult to quantify. However, it is likely that during the 1- to 2-year construction period, some may avoid the portion of NM-152 (from Hillsboro east to the junction of NM-152 and Highway 85), where the Geronimo Trail Scenic Byway and the Lake Valley Backcountry Byway overlap, due to the perception of increased traffic and air emissions hindering their experience. Visitation at the Gila National Forest in the western edge of Sierra County may decrease during this time since the Black Range Ranger Districts (including the Gila Wilderness) is most easily accessed via NM-152.</p> <p>Additionally, the portion of the Geronimo Trail Scenic Byway that follows NM-152 is located in a former mining area, which promotes tourism through sightseeing tours of abandoned mines and ghost towns. While some tourists may be deterred due to the perception of increased traffic and air quality or the degradation of visual quality, some may instead be drawn to the area. The Copper Flat mine project could create or renew interest in nearby ghost mining towns, the mining process, and the evolution of mining in the area benefiting tourism.</p> <p>The increased rate of roadway deterioration is described in the Traffic and Transportation Section (3.20) for the Proposed Action and each of the alternatives. NMCC has consulted with NMDOT to discuss the project and NM 152. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine. Turn lanes and acceleration lanes would be added to facilitate traffic flow and provide enhanced safety for the traffic around the heavy trucks within 12 months of the beginning of the mine construction and prior to the full operation of the mine. After these enhancements are completed, the state would resume normal maintenance of NM-152. While no formal agreement has been made between NMDOT and NMCC at this time, NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS.</p> <p>Section 3.22.2.1.3 (Public Finance) describes additional state and local tax revenue from the Copper Ad Valorem and processors tax, as well as the shared distribution of severance taxes between the state and counties/municipalities. NMCC estimates direct tax liabilities of over \$18 million during the construction, operation, and reclamation phases under the Proposed Action; over \$18.5 million under Alternative 1; and over \$22 million under Alternative 2 (summarized in tables 3-77, 3-80 and 3-83 of the DEIS, respectively and tables 3-85, 3-88, and 3-91 of the FEIS, respectively). The additional tax revenue would allow the county and state to address any increased maintenance costs associated with road repair and infrastructure following the initial enhancements.</p> <p>Given the pending MOU between NMCC and NMDOT as well as the additional tax revenue from the project, potential impacts from increased road maintenance costs would be negligible; and this information has been added to the discussion in the FEIS.</p>	P142_Judy Majoras
P142	4/1/2016	Judy Majoras		What percentage of those employed by the mine will be hired outside of local communities because they fill specialized jobs? Additionally, the 'boom and bust' nature of copper mining in southern NM, as characterized by the Chino mines, is not addressed.	SE-8; SE-21	Socioeconomics	<p>NMCC would provide employment opportunities to individuals living in the immediate area of the mine. It is likely that personnel from outside the local area would be required to meet the full staffing needs of the mine; however, the southwestern United States provides a large base of experienced personnel to complete the employee roster (NMCC 2014a). As stated in Section 3.22.2.1.4 of the DEIS, "NMCC anticipates hiring over 70 percent of the workforce from communities within a 75-mile radius of the mine..."</p> <p>Potential impacts of a "boom and bust" economy are discussed in Section 3.22.2.1.6 (Community Cohesion and Quality of Life).</p>	P142_Judy Majoras
P142	4/1/2016	Judy Majoras		The commenter does not believe the groundwater model is accurate and should be reevaluated and probably rejected. The data used to run Modflow are not included in the DEIS. How was this flow model reviewed? What qualifications does the reviewer have to conduct the review? Why was there no discussion in the EIS of the procedure to derive the flow model?	GW-26	Groundwater Resources	<p>BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.</p>	P142_Judy Majoras
P142	4/1/2016	Judy Majoras		In regards to the model of groundwater flow in the animas uplift and Palomas Basin, the model shows a feature between the mine and the Rio Grande River that was named the "Palomas Graben." There is no reference to this feature in the geological literature and there is no evidence it is generally accepted as existing.	GW-26; WR-11	Groundwater Resources; Water Rights	<p>BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.</p>	P142_Judy Majoras
P142	4/1/2016	Judy Majoras		The model also shows a drop in the ground water level of 200 feet over a distance of approximately ½ mile, south of Route 152 (p. 59), apparently resulting from an impermeable barrier to groundwater flow. There does not appear to be any evidence to back up this supposition.	GW-26	Groundwater Resources	<p>BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.</p>	P142_Judy Majoras

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P142	4/1/2016	Judy Majoras		Page 36, fig. 5.15 depicts a map of wells used in the pump test; none of the monitoring wells are west of the feature that is supposed to be the cause of the steep gradient of the groundwater table. This lack of evidence invalidates the assumption that drinking water in Hillsboro and the environs will not be affected by the mine's use of production wells.	REF-17	References	Water levels at the proposed well field are at least 800 feet lower than in the Hillsboro area, indicating that the overall water table gradient between the locations is substantial. Drawdowns at the well field would not have a measurable impact in Hillsboro.	P142_Judy Majoras
P142	4/1/2016	Judy Majoras		Section 6.4.2 Historical Transient Simulation seems to be pure fantasy. There is no relationship between historical measurements and simulations in several of the monitoring wells.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	P142_Judy Majoras
P142	4/1/2016	Judy Majoras		The modeling using unspecified data does not conform to the NEPA requirement for "best available scientific information" and cannot be used to support an impacts determination, when that determination is for significant impacts.	GW-26	Groundwater Resources	BLM has provided a general response to comments on its assessment of groundwater impacts; see the groundwater (GW) section of the Comment Categories and Responses (CCR) document. The general response discusses the extensive peer review conducted by BLM with respect to NMCC's groundwater model and explains the basis upon which BLM determined that the NMCC model is acceptable for use in predicting potential project impacts. The GW section of the CCR also summarizes BLM's overall conclusions regarding impacts to groundwater resources and uses. These impacts are among the most significant consequences of the proposed action and the alternatives, and are described in detail in Section 3.6 of the DEIS and the FEIS.	P142_Judy Majoras
P143	4/1/2016	Gerges Scott		Support for the mine because the site is a brownfield and will not cause any damage to the land.	CI-8	Cumulative Impacts	Thank you for your comment.	P143_Gerges Scott
P143	4/1/2016	Gerges Scott		The mine operators have presented a clear plan for water usage.	PA-1	Proposed Action	Thank you for your comment.	P143_Gerges Scott
P143	4/1/2016	Gerges Scott		The mine will provide a boost to the local and state economy that is sorely needed in the region, in addition this part of the state has a historical relationship with the mining industry.	SE-1	Socioeconomics	Thank you for your comment.	P143_Gerges Scott
P143	4/1/2016	Gerges Scott		Urge the BLM to proceed with the permit process to allow Copper Flat to begin operations without any additional delay.	NEPA-8	NEPA Process	Thank you for your comment.	P143_Gerges Scott
P144	4/1/2016	Jeff Cullum		Support for the project to get approved because it will jump start this economy, allow for a decent future, and provide more full time jobs. The Tyrone mine is a good example of how past mining activities have provided the same opportunity.	NEPA-8; SE-1	NEPA Process; Socioeconomics	Thank you for your comment.	P144_Jeff Cullum
P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	BLM correctly analyzed the environmental impacts of four alternatives that would meet the proposed purpose and need; BLM has designated Alternative 2 as the Preferred Alternative. NMCC recognizes and greatly appreciates the great amount of time, effort, and resources BLM has expended in evaluating all of the Proposed Alternatives, and in developing the very detailed DEIS. NMCC believes that BLM has come to the correct decision in designating Alternative 2 as the Preferred Alternative, and NMCC firmly supports that decision.	ALT-1; NEPA-7	Alternatives; NEPA Process	Thank you for your comment.	P145_Katie Emmer
P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	Moreover, from NMCC's review of the DEIS, BLM's designation of the Preferred Alternative is even more appropriate than is currently reflected in the DEIS. In particular, there are some areas of the DEIS in which appropriate clarifications will establish that the Preferred Alternative has even fewer environmental impacts than the DEIS currently indicates.	ALT-14	Alternatives	The BLM will ensure that all impacts associated with the Proposed Action and alternatives are fully described in the FEIS.	P145_Katie Emmer
P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	In its discussion of Bat Activity (§ 3.10.1.3, at 3-131), the DEIS states that "[a] thorough survey of shafts was not conducted for bat activity." It is possible that this statement might be misconstrued to indicate that the shafts have not been studied for bat activity, which is not accurate. NMCC notes that surveys of bat activity in shafts and adits were conducted as part of the 2013 Baseline Data Report Addendum, including a mist net survey at the two adits with the most favorable environmental conditions for roosting, and the results of these surveys were provided to BLM as it came to its decision. The FEIS should clarify this accordingly.	WL-23	Wildlife	The FEIS has been revised to reflect the information from the 2013 BDR Addendum.	P145_Katie Emmer

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P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	In discussing traffic capacity under the Proposed Action, the DEIS states that "[i]mpacts to [level of service] for Gold Mine Road, with time, would be major and potentially significant." (§ 3.20.2.1, at 3-221), and that impacts for the Preferred Alternative would be the same as with the Proposed Action (§ 3.20.2.3, at 3-224). NMCC notes that the correct name of this road is "Gold Dust Road."	TR-10	Transportation and Traffic	The text has been corrected.	P145_Katie Emmer
P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	The DEIS states that "[n]o mitigation measures for transportation and traffic beyond regulatory requirements described in the Proposed Action have been identified for any alternative." (§ 3.20.2.3, at 3-224) In this regard, NMCC notes that it will maintain Gold Dust Road through mutually agreeable mitigation agreements with Sierra County, which in turn will ensure that impacts to the level of service for Gold Dust Road, if any, will be neither major nor significant. The FEIS should clarify this accordingly.	TR-11	Transportation and Traffic	The increased rate of roadway deterioration is described in the Traffic and Transportation section (3.20) for the Proposed Action and each of the alternatives. At the time of the publication of the DEIS, NMCC was in consultation with NMDOT to discuss the project and NM 152. Discussions included NM 152 pavement and traffic studies which were provided to NMDOT. NMCC shared a study of the quality of NM 152 as well as a traffic study. In discussions, NMDOT and NMCC have agreed to the following: a. NMCC would pay for a one-time overlay for roadway improvements based on a 20-year design life for NM 152 with the projected traffic from the mine. b. Proposed improvements would be for approximately 10 miles along NM 152 from I-25 to the mine access point. c. The roadway improvements would be initiated by NMCC within 12 months of production at the mine and would conform to NMDOT standards. d. All roadway improvements required subsequent to the one-time overlay proposed would be the full responsibility of the NMDOT. NMDOT has not identified a requirement for road improvements beyond the pavement overlay, however, NMCC is considering adding turning and acceleration lanes at the mine access road subject to agreement by NMDOT. No formal agreement has been made between NMDOT and NMCC at this time. NMCC intends to complete discussion with NMDOT and develop a MOU prior to the publication of the FEIS. Additionally, NMCC would maintain Gold Dust Road during mining operations as necessary to keep it in good condition. While there is no formal agreement in place with Sierra County, it is expected that after mine closure, Gold Dust Road would revert to County maintenance as it stands today.	P145_Katie Emmer
P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	The DEIS makes the statement that "[r]unoff from mines into surrounding environments alters the pH of the receiving soils, contaminates soils with trace elements, and ultimately deteriorates soil fertility." (§ 3.8.2.1.1, at p. 3-111). This does not address the specific conditions and restraints involving runoff at the Mine under the Preferred Alternative and may give the inaccurate impression that such runoff protections will not be present at the Mine (in accordance with the stormwater management plan that will prevent pollution that may cause an exceedance of the applicable standards). The FEIS should clarify that fully enforceable controls will be in place.	SOI-5; PA-33	Soils; Proposed Action	Section 3.4.2.1.2, Mine Closure/Reclamation, under the subtitle Non-point Source Pollution from Disturbed Areas on the Mine Area states that "prior to initiating construction or mining activities, NMCC would need to obtain a Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity. This permit will require preparation of a Stormwater Pollution Prevention Plan (SWPPP); installation and use of BMPs for prevention of non-point source pollution from mine facilities; and routine inspection, maintenance, and recordkeeping for all stormwater pollution control facilities." The statement in 3.8.2.1.1 has been clarified.	P145_Katie Emmer
P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	The DEIS, in Section § 3.8.2.1.1, at p. 3-111 states that "[i]f pit water is used for dust suppression, high [total dissolved solids], sulfates, metals, etc. contained in the water would contaminate soils. Such impacts could range from negligible to moderate depending on contaminate concentrations." This assumes that pit water used for dust suppression will in fact contain high levels of contaminants, and that the result of dust suppression using pit water will in fact be elevated contaminants in soils. Neither assumption takes into account BLM's separate observation that the use of pit water for dust control "would require a groundwater DP from the NMED," thereby subjecting those discharges to applicable New Mexico groundwater standards. (§ 2.1.7.2, at 2-29). NMCC's discharge permit from NMED will require testing of any pit water that may be applied outside of the pit's own watershed or capture zone. Any unsuitable water will not be used for dust suppression. The FEIS should clarify that any water used for dust suppression will be tested pursuant to NMCC's discharge permit, and that no water containing high levels of the listed contaminants will be used for dust suppression.	SOI-6	Soils	The FEIS has been revised to address this concern.	P145_Katie Emmer

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P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	The statement in the DEIS re: water-based activities at state parks (§ 3.22.2.1.6, at 3-264) does not take into account the specific circumstances of the Mine. Unlike proposals for new mining operations where none previously existed, the Preferred Alternative is for re-establishment of an existing Mine, to which there is currently no access, and from which the public is already excluded. Moreover, the statement speculates about the possibility of adverse impacts without addressing how close a mine would need to be to a state park for revenues to be impacted.	SE-26	Socioeconomics	Thank you for your comment. The impacts analysis has been adjusted to consider the proximity of the proposed mine to state parks as it relates to revenue and visitation.	P145_Katie Emmer
P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	The Preferred Alternative would not adversely impact any state park revenue and visitation to any greater degree than may currently exist. Indeed, elsewhere the DEIS states that "due to the presence of existing mining-related structures, the open pit mine and tailings pond, and existing fencing around parts of the mine area, which already restricts access for human health and safety reasons, recreational activities in this area are not prevalent." (§ 3.16.2.1.1, at 3-200). The FEIS should either delete the statement quoted from (§ 3.22.2.1.6, or clarify that because an open-pit copper mine already exists the Preferred Alternative will not result in any additional adverse impacts to recreation and tourism.	SE-26	Socioeconomics	Thank you for your comment. The impacts analysis has been adjusted to consider the proximity of the proposed mine to state parks as it relates to revenue and visitation.	P145_Katie Emmer
P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	The DEIS states that "[a]dditional tree removal for the addition of haul roads and construction of facilities would contribute minor and long-term adverse impacts to recreation in the area based on the increased degradation of visual quality." (§ 3.16.2.1.1, at 3-200). There are, however, no groups of trees along the proposed haul road routes. It is therefore possible, and even likely, that there will in fact be no additional tree removal under the Preferred Alternative, and thus no such hypothesized adverse impacts to recreational activities that the DEIS acknowledges are not prevalent. The FEIS should clarify this accordingly.	REC-13	Recreation	The FEIS has been updated to reflect this information.	P145_Katie Emmer
P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	The DEIS does not discuss the fact that mitigation of any percolation from waste rock or low-grade ore that eventually would reach field capacity will exist under the Preferred Alternative. The pile will be mitigated by evaporation from revegetation that will be established on three feet (or other sufficient amount) of cover materials that will be replaced during reclamation. The FEIS should clarify that the rate of percolation of water into the pile will in fact be minimized as a result of planned reclamation.	WQ-28	Water Quality	The mitigation measures for water quality are described in detail within the subsections of Section 3.4.2 for the Proposed Action and each alternative. The BLM believes these measures are adequate and comply with the requirements of NEPA.	P145_Katie Emmer
P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	The DEIS outlined concerns in Table 2-28 regarding the total water use for the Preferred Alternative. (§2.3.7.1, at 2-83). In so doing, the DEIS indicates in a footnote that the referenced total water use "[i]ncludes recycled water." It would be helpful for a reader to understand in this footnote exactly what percentage of the total water used in the Preferred Alternative is recycled water, as opposed to freshwater. The FEIS should thus clarify in the footnote of Section §2.3.7.1, at 2-83 that 72% of the total water use described in Table 2-28 is recycled water. This clarification will be consistent with the text of the DEIS, which makes clear that process water sources "would be 72 percent of the total need." (§2.3.7.1, at 2-83).	PA-34; ALT-15	Proposed Action; Alternatives	The table referenced by the commenter has been corrected to clarify this.	P145_Katie Emmer
P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	The DEIS states that "[t]here would also be indirect impacts from groundwater pumping and pollutant migration via wind and water that would affected [sic] a larger area beyond the mine area." (§ 3.8.2.3, at 3-113). BLM came to the correct decision regarding the Preferred Alternative even with these claimed indirect impacts, but NMCC notes that it is unaware of any factual basis for this statement. If there is no such factual basis, NMCC respectfully requests that the statement be deleted from the FEIS.	SOI-7	Soils	The FEIS has been revised to address this concern.	P145_Katie Emmer

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P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	In regards to Section § 3.8.2.1.1, at 3-110, while it is true that excess carbonates in soil can restrict the growth in some plants, there are numerous native and appropriate plant species that can thrive in soils with more than 10-20 percent caliche. Although the DEIS acknowledges this fact when it states that in Section § 3.8.1.2, at 3-106, the FEIS should be clarified to confirm that the referenced USDA standard for calcium carbonate is the appropriate standard for considering the effects of caliche in soil covers.	SOI-8	Soils	The FEIS has been revised to address this concern.	P145_Katie Emmer
P145	4/1/2016	Katie Emmer	Permitting and Environmental Compliance Manager New Mexico Copper Corporation	NMCC respectfully recommends that the numbers related to sites determined to be eligible for the National Register of Historic Places, sites that have undetermined eligibility, sites that have been determined not to be eligible, and sites that are considered to be potential contributing elements to a future mining-related historic district be revisited to ensure that they accurately reflect current numbers in the current Programmatic Agreement under review by consulting parties.	CR-8	Cultural Resources	The text and tables in the FEIS have been revised to match the property counts contained in the PA.	P145_Katie Emmer
P146	4/2/2016	Adele E Zimmermann		Request that BLM more fully analyze the impacts of the proposed mining operation on water impacts. As it stands now, the DEIS does not comply with NEPA and BLM's own regulations for surface water management.	BLM-3; SW-2	Bureau of Land Management; Surface Water Resources	The BLM performed a thorough analysis of groundwater, surface water, and water quality that was supplemented by additional analysis in response to comments received from the public, government agencies, and non-governmental organizations. The BLM is not aware of any BLM specific "regulations" on surface water management as they would apply to the Copper Flat mine.	P146_Adele E Zimmermann
P146	4/2/2016	Adele E Zimmermann		Due to the lack of adequate information on the substantial impacts of the proposed mining operation, urge BLM to disapprove the plan of operation for the Copper Flat Mine.	NEPA-1	NEPA Process	The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts.	P146_Adele E Zimmermann
P146	4/2/2016	Adele E Zimmermann		The DEIS does not provide enough information to fully evaluate the proposed action. Request that BLM amend the DEIS to ensure that the agency can make a decision that is based on a complete understanding of the environmental consequences of the proposed action and alternatives, and facilitate taking actions that protect, restore, and enhance the environment.	NEPA-29	NEPA Process	The comment did not provide basis or specifics for items not covered by the EIS, or addressed inadequately, but in response to this comment and in consideration of other comments received, the BLM has reviewed the thoroughness of its examination of environmental consequences for the Proposed Action and alternatives and found them to be compliant with NEPA. The BLM is not aware of BLM surface water management regulations that have not been complied with in completing this EIS.	P146_Adele E Zimmermann
P146	4/2/2016	Adele E Zimmermann		Project will cause surface and groundwater contamination and reduce the amount of water flowing to adjacent streams and springs and to the Rio Grande and Caballo Lake.	WQ-5	Water Quality	Discussion of the potential impacts to groundwater quality is provided in Section 3.6.2; also refer to Table 3-20a. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the NOI to comply with the MSGP is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation.	P146_Adele E Zimmermann
P146	4/2/2016	Adele E Zimmermann		The proposed action and alternatives do not comply with the New Mexico Mining Act since a pit lake would be created at mine closure that most likely will require "perpetual care" to achieve water quality standards potentially over hundreds of years.	PA-20	Proposed Action	As stated in Section 2.1.1 of the FEIS: "Because the deposit cannot be mined sequentially, there is no plan to backfill the pit although some benign waste rock would be used for pad preparation, plant site development, and in connection with the reclamation of disturbed areas." Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809). Section 2.1.15.6, Environmental Considerations for Reclamation, states "Acid Rock Drainage (ARD): Partially oxidized transitional waste rock would be managed and reclaimed to alleviate potential ARD. The transitional waste rock may be segregated and placed in the west and north waste rock disposal areas. The exact method of disposal and possible segregation would be determined through the current geochemical testing program and the development of a material handling plan." This material handling plan will be developed and in place, in accordance with all Federal and State laws and regulations, prior to the reclamation of the mine. To forecast these requirements 10+ years in the future would not be realistic. The BLM will require the development of this plan and the FEIS and ROD will stipulate its development.	P146_Adele E Zimmermann
P146	4/2/2016	Adele E Zimmermann		In addition to the substantial water impacts, I believe that this proposed mining operation will also have significant negative impacts on wildlife, air quality, roads, traffic, recreation and tourism, cultural resources, and the economy.	PA-3	Proposed Action	Thank you for your comment.	P146_Adele E Zimmermann

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P146	4/2/2016	Adele E Zimmermann		This mine is in an area that drains into the Rio Grande Watershed. The possibility of contamination of the Rio Grande from mining and extraction activities is completely unacceptable.	GW-1; WQ-5	Groundwater Resources; Water Quality	Discussion of the potential impacts to groundwater quality is provided in Section 3.6.2; also refer to Table 3-20a. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the NOI to comply with the MSGP is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation.	P146_Adele E Zimmermann
P147	4/2/2016	Steve and Robyn Schmalz		The project will provide much needed employment for a region that needs it.	SE-1; PA-5	Socioeconomics; Proposed Action	Thank you for your comment.	P147_Steve and Robyn Schmalz
P147	4/2/2016	Steve and Robyn Schmalz		The US needs responsible domestic production of natural resources and the mine will produce copper and other valuable metals in NM.	SCOPE-1	Scope of the DEIS	These comments are outside the scope of the FEIS.	P147_Steve and Robyn Schmalz
P147	4/2/2016	Steve and Robyn Schmalz		Request that BLM work through the EIS process efficiently and without delay.	NEPA-8	NEPA Process	Thank you for your comment.	P147_Steve and Robyn Schmalz
P148	4/2/2016	Jordan Holloway		BLM has downplayed potential impacts to public health, clean air and water, and wildlife habitat. An analysis of these impacts should be based on actual records of similar operations, rather than on undocumented assumptions. This is a problem throughout the DEIS.	PA-3	Proposed Action	Thank you for your comment.	P148_Jordan Holloway
P148	4/2/2016	Jordan Holloway		The assertion that a clay bed will protect the riparian habitat in the area is false. It does not use the best-documented methodology in calculating the recharge of the aquifer (which is out of date), thus it minimizes the permanent loss of water.	GW-20	Groundwater Resources	The recharge estimates were based on evaluations of the regional water budget and on comparisons to published values for similar basins in the region. In the area impacted by the well field, the estimated recharge was zero, and thus with respect to recharge the impacts predicted are already at the maximum. To the extent recharge does occur in that area, the expectation would be less drawdown and faster recovery than described in the EIS.	P148_Jordan Holloway
P148	4/2/2016	Jordan Holloway		The document does not address acute and chronic health effects to local residents downwind from the mine from dust dispersal during the dry windy days common to the area, or during extreme weather events (especially in Truth or Consequences). Small particles travel farther and can lodge deeper into lungs causing health effects in the future.	AQ-14	Air Quality	Section 3.2.2. addresses the impacts of air pollution and dust. Sections 3.2.2.1.1 states the "The modeling performed for the air permit demonstrated compliance with all applicable ambient air quality standards." This air dispersion modeling included worst case meteorological conditions as a basis for this determination. The modeling data showed that air emissions from mining operations would not exceed either short- or long-term air quality standards. Therefore, there are no acute or chronic health effects expected from operating the Copper Flat mine.	P148_Jordan Holloway
P148	4/2/2016	Jordan Holloway		The DEIS deliberately skews the socioeconomic picture of the area (e.g. the many college educated retirees whom participated in the BLM scoping meeting).	SE-6	Socioeconomics	The information contained in Table 3-68 was obtained using U.S. Census Bureau data, 2006-2010. Based on feedback from the public, the information has proven to be inaccurate. More accurate information is not available. This information was removed from Table 3-68 of the DEIS (Table 3-76 of the FEIS).	P148_Jordan Holloway
P148	4/2/2016	Jordan Holloway		The beauty of the sycamores and the wildlife supported by this unique riparian habitat add to the tax base and economy and home values of Sierra County. The mine will impact these resources and socioeconomic conditions.	GW-7; SE-20; VEG-1; SE-41; GW-21	Groundwater Resources; Socioeconomics; Vegetation	Evidence from well monitoring and the results of groundwater modeling indicate that pumping deep aquifers for mine operations would have no impact on the unconnected surface water flows in the areas of Las Animas Creek supporting the Las Animas Creek sycamores. Animas Creek is not at risk of being destroyed or altered adversely by mine operations. Revenue from property taxes would increase during the construction phase; and tax revenue would be greater under all action alternatives compared to the No Action Alternative. The project is not predicted to have effects on water supplies that would have adverse economic impacts, including on real estate values overall in Sierra County. Section 3.22.1.1.2 (p. 3-237 and 3-238) in the Socioeconomics section of the DEIS includes the current (2010) median value of homes in Truth or Consequences, Sierra County, and New Mexico. Current (2010-2014 estimates) of housing characteristics and property values by Census Tract and Block Group in Sierra County have been added to Section 3.22.1.1.2 of the FEIS (See Tables 3-62 and 3-63). Housing characteristics and property values for Sierra County and New Mexico in 1970, 1980 and 1990 have also been added to Section 3.22.1.2 of the FEIS (see Tables 3-64 and 3-65). It is difficult to say whether property values increased or decreased as a result of the operation of Quintana Mine, due in part to its short-lived operation, and also because several factors can affect real estate values.	P148_Jordan Holloway

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							The location and proximity to an operation with negative externalities (noise, light, air pollution) can negatively impact property values. Section 3.22.1.6.3 notes that the proximity to environmental amenities can influence where people choose to live (in-migration) and how much people are willing to pay for housing (i.e., property values). Other important factors affecting property values include quality of public education (i.e., school district); access to public transit or recreational opportunities; the age and condition of the home itself; and history of other negative events (e.g., fire, site of a violent crime). A discussion of these other factors has been added to Section 3.22.1.1.2. Section 3.22.2.1.6 concludes: "The negative perception of mining impacts on natural amenities – especially on water quantity and water quality, wildlife, and air quality – that attract recreationists and potential residents in the first place could be a deterrent in both the short- and long-term." A discussion of how the introduction of a copper mine could adversely impact the property values of adjacent landowners specifically has been added to the 3.22.2.1.4, concluding that the Proposed Action and alternatives would likely have a negative effect on property values in Sierra County overall, and the effect would likely be greatest on properties in CT 9624.02, BG 2, or those closest to the mine area. However, it is difficult to quantify how much property values would be impacted.	
P149	4/2/2016	Ella Joan Fenoglio		The Mine would create an impermissible burden on the environment, fish, wildlife, water and people of the area. Please do not approve the mining to proceed.	NEPA-1	NEPA Process	The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts.	P149_Ella Joan Fenoglio
P150	4/3/2016	Meredith Keeton		The DEIS does not provide enough information to fully evaluate the proposed action. Request that BLM amend the DEIS to ensure that the agency can make a decision that is based on a complete understanding of the environmental consequences of the proposed action and alternatives, and facilitate taking actions that protect, restore, and enhance the environment.	NEPA-29	NEPA Process	The comment did not provide basis or specifics for items not covered by the EIS, or addressed inadequately, but in response to this comment and in consideration of other comments received, the BLM has reviewed the thoroughness of its examination of environmental consequences for the Proposed Action and alternatives and found them to be compliant with NEPA. The BLM is not aware of BLM surface water management regulations that have not been complied with in completing this EIS.	P150_Meredith Keeton
P150	4/3/2016	Meredith Keeton		Request that BLM more fully analyze the impacts of the proposed mining operation on water impacts. As it stands now, the DEIS does not comply with NEPA and BLM's own regulations for surface water management.	BLM-3; SW-2	Bureau of Land Management; Surface Water Resources	The BLM performed a thorough analysis of groundwater, surface water, and water quality that was supplemented by additional analysis in response to comments received from the public, government agencies, and non-governmental organizations. The BLM is not aware of any BLM specific regulations on surface water management as they would apply to the Copper Flat mine.	P150_Meredith Keeton
P150	4/3/2016	Meredith Keeton		Project will cause surface and groundwater contamination and reduce the amount of water flowing to adjacent streams and springs and to the Rio Grande and Caballo Lake.	WQ-5	Water Quality	Discussion of the potential impacts to groundwater quality is provided in Section 3.6.2; also refer to Table 3-20a. The submitted Discharge Permit, DP-001, is required from the NMED Groundwater Quality Bureau, which regulates the discharges to groundwater to ensure water quality standards for the groundwater are not exceeded. Mitigation measures are put in place to minimize impacts of mining on groundwater quality. The EIS also addresses the requirement for the NMCC to obtain an NPDES permit for stormwater discharges in Section 3.4.2.1. The permit referenced is the MSGP. A SWPPP is a requirement under the MSGP, and the SWPPP must be in place at the time the NOI to comply with the MSGP is submitted to the EPA. The SWPPP must address how stormwater that is impacted by the industrial site will be managed to prevent pollution of stormwater. After mine closure, stormwater would be managed as a part of site reclamation.	P150_Meredith Keeton
P150	4/3/2016	Meredith Keeton		The proposed action and alternatives do not comply with the New Mexico Mining Act since a pit lake would be created at mine closure that most likely will require "perpetual care" to achieve water quality standards potentially over hundreds of years.	PA-20	Proposed Action	As stated in Section 2.1.1 of the FEIS: "Because the deposit cannot be mined sequentially, there is no plan to backfill the pit although some benign waste rock would be used for pad preparation, plant site development, and in connection with the reclamation of disturbed areas." Section 2.1.15, Reclamation and Closure, provides an overview of the Reclamation Plan required for submittal and approval by the MMD and NMED. Reclamation of disturbed areas caused by the project would have to comply with Federal and State regulations. Under FLPMA, the BLM is responsible for preventing undue or unnecessary degradation of federally-administered public land, which may result from operations authorized by the mining laws (43 CFR 3809). Section 2.1.15.6, Environmental Considerations for Reclamation, states "Acid Rock Drainage (ARD): Partially oxidized transitional waste rock would be managed and reclaimed to alleviate potential ARD. The transitional waste rock may be segregated and placed in the west and north waste rock disposal areas. The exact method of disposal and possible segregation would be determined through the current geochemical testing program and the development of a material handling plan." This material handling plan will be developed and in place, in accordance with all Federal and State laws and regulations, prior to the reclamation of the mine. To forecast these requirements 10+ years in the future would not be realistic. The BLM will require the development of this plan and the FEIS and ROD will stipulate its development.	P150_Meredith Keeton
P150	4/3/2016	Meredith Keeton		In addition to the substantial water impacts, I believe that this proposed mining operation will also have significant negative impacts on wildlife, air quality, roads, traffic, recreation and tourism, cultural resources, and the economy.	PA-3	Proposed Action	Thank you for your comment.	P150_Meredith Keeton
P150	4/3/2016	Meredith Keeton		Due to the lack of adequate information on the substantial impacts of the proposed mining operation, urge BLM to disapprove the plan of operation for the Copper Flat Mine.	NEPA-1	NEPA Process	The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts.	P150_Meredith Keeton
P150	4/3/2016	Meredith Keeton		The commenter spoke with the owner of the Animas Creek Nursery who was adamant that this mine will close his business and several surrounding businesses by cutting off the safe water supply.	SE-20; GW-21; GW-7; VEG-1	Socioeconomics; Groundwater Resources; Vegetation	Evidence from well monitoring and the results of groundwater modeling indicate that pumping deep aquifers for mine operations would have no impact on the unconnected surface water flows in the areas of Las Animas Creek supporting the Las Animas Creek sycamores. Animas Creek is not at risk of being destroyed or altered adversely by mine operations. The project is not predicted to have effects on water supplies that would have adverse economic impacts.	P150_Meredith Keeton

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P150	4/3/2016	Meredith Keeton		The commenter supports business such as the Animas Creek Nursery with tourism dollars and they will continue to draw me and likeminded individuals to the area – the copper mine will do nothing beneficial for tourism and will have a profoundly negative impact. Please take this into consideration when making your final decision.	SE-38; SE-42	Socioeconomics	Section 3.22.2.1.6 of the DEIS discusses the extent to which an active mine would deter tourists or recreationists. Other potential impacts to recreation and tourism are discussed throughout Section 3.16 (Recreation) and Section 3.22 (Socioeconomics); including the potential impacts to quality of life and recreational values which are also discussed in Section 3.22.2.1.6. The BLM believes that the socioeconomic analysis of effects on the Las Animas Creek watershed in the FEIS, supplemented with additional information and analysis collected during the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of NEPA. The complete analysis is presented in the FEIS.	P150_Meredith Keeton
P151	4/3/2016	LeRoy Henderson		The BLM does not give us much to base faith on their DEIS because in the extension notice, they misspelled "draft" and instead spelled it "DRAT." This says a lot about accuracy of the rest of the DEIS!	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P151_LeRoy Henderson
P151	4/3/2016	LeRoy Henderson		Inferring that the public is not smart enough to understand this comprehensive document which includes "complex hydrological and water modeling studies...", is condescending and many people in the area take umbrage with it. There is such an apparent bias and disregard for the public's intelligence and desires that the BLM official in charge of the document should be replaced with someone not so greatly influenced by THEMAC and Santa Fe Politicians.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P151_LeRoy Henderson
P152	4/3/2016	Chuck Barrett		In reference to a 1994 letter from Mr. Jack Hammond, then Texas Commissioner to the Rio Grande Compact Commission, to Mr. Russell Jentgen of the BLM, commenting on the previous EIS concerning the reopening of the subject mine, the commenter notes that considering the water rights and proposed hydrologic drawdown being claimed by NMCC is hugely greater than that in the Alta Gold EIS case (referenced in the letter), it seems evident that the failure to include the attached letter and more importantly, its analysis and conclusions, and the substantive analysis of impacts on the Rio Grande Compact parties, in the current DEIS, are glaring omissions which would demand a fundamental rethinking and retooling of the DEIS.	GW-37; SW-8; WR-7	Groundwater Resources; Surface Water Resources; Water Rights	With the discussion of water rights in Chapter 1 of the EIS, the BLM has outlined a position for the EIS. It describes options to be implemented that would provide the needed water resources for the mine. If NMCC is not granted sufficient water rights to operate the mine, they would lease or purchase water rights to obtain the water needed. All of the water would originate from the four production wells identified in Chapter 2 of the EIS. Provision of water needed for the mine would require an independent permitting action through the State of New Mexico and that would determine the ability of the mine proponent to proceed with the proposed mining operation. The BLM asserts that the outcome of that permitting action gives adequate consideration to the potential impact of application of water rights for the project. In a March 23, 2017 letter from NMCC to Doug Haywood of the BLM, NMCC committed to fully offsetting calculated and actual depletions to the Rio Grande resulting from mining operations. In a subsequent letter to Mr. Haywood on June 29, 2017, NMCC confirmed that the offset was to be provided with water obtained from a lease executed with the Jicarilla Apache Nation for a period of 15 years from when ore crushing would begin. After that, the lease would be extended or another water source secured that would provide offsets to year 29. Thereafter, NMCC would retire an existing water right that holds a legal entitlement to deplete water from the river in an amount equal to NMCC's effects on the river at the time of retirement. Finally, in an August 24, 2017 letter to Mr. Haywood, NMCC reaffirmed their intent to fully offset all NMCC pumping impacts on the Rio Grande, including years beyond year 29 with actual water, "wet offsets," to ensure no net effect on the river would occur due to the proposed operation of Copper Flat. NMCC would accomplish this by taking one or more of the following actions: extending the previously described Jicarilla Apache Nation water lease; securing another lease of equally effectual water; or securing and permanently retiring water rights that physically affect the river today. With regard to the permanent retirement of a water right, the offset would continue to have a positive effect on the Rio Grande as the NMCC effects on the river decline and entirely cease.	P152_Chuck Barrett
P153	4/3/2016	Mark McIntosh		Commenter describes the Tulla Resources Group's history of successfully conducting mining operations in coordination with local communities.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P153_Mark McIntosh
P153	4/3/2016	Mark McIntosh		As referenced in a letter from the Director of Tulla Resources Group (as the controlling shareholder of THEMAC, of which NMCC is a wholly owned subsidiary), Mr. Stephen Law, the mine will have a significant economic benefit to the State generally and to its surrounding communities.	SE-1; PA-5	Socioeconomics; Proposed Action	Thank you for your comment.	P153_Mark McIntosh
P153	4/3/2016	Mark McIntosh		Tulla's (controlling shareholder of THEMAC) policy always is to give preference to local residents when it comes to employment opportunities and wherever practicable to use local service providers. Although they have a vested interest in seeing development approval granted, they argue that the reestablishment of mining operations at Copper Flat will be a positive outcome for the State.	SE-1; SE-29	Socioeconomics	Thank you for your comment.	P153_Mark McIntosh

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P154	4/4/2016	Judy Reagan		In reference to the groundwater model report presented in the DEIS, the risk to groundwater recharge and drawdown of the aquifer over the 10-12 year period far outweighs the benefits of a handful of jobs that will be created in the region. Because of the highly faulted geology, the hydrogeologic model is inaccurate unless it analyzes many years of data in pumping scenarios that are monitored all over the region – which it does not.	GW-1; GW-26; PA-3; SE-3; SE-46	Groundwater Resources; Proposed Action; Socioeconomics	<p>The groundwater resources section was developed with the close cooperation of groundwater experts from the EIS contractor, the BLM, the OSE, and NMCC's hydrogeologist. The groundwater model developed for NMCC by JSAI was carefully evaluated and validated by the other parties, resulting in a thorough assessment of groundwater impacts. This model is described in Section 3.6.2 of the FEIS.</p> <p>Based on its review of comments on the DEIS, the BLM identified one issue that required an additional model run and evaluation. Specifically, the BLM agreed that the model should be used to simulate effects from pumping that may occur before and/or after mining, e.g. mine start-up and rapid pit refill. An assessment of those impacts was conducted and is included in the FEIS. Additional sensitivity runs performed by JSAI for NMCC are also reported in the FEIS.</p> <p>With that exception, the BLM found no comments that demonstrated a significant error in the evaluation of potential groundwater impacts. The BLM has concluded that for purposes of a NEPA evaluation, the model provides reasonable estimates of changes to water levels and surface water depletions.</p> <p>The purpose of the FEIS is to present potential adverse and beneficial impacts; not to compare different costs or conduct the equivalent of a cost-benefit analysis. Evaluating the potential impacts from unknown variations of the alternatives is outside the scope of the EIS. It is not the BLM's responsibility to decide what the water will be used for or to determine a proponent's Proposed Action. For this EIS, the BLM is charged with determining the potential impacts of a mining company seeking to execute an action that involves water use.</p>	P154_Judy Reagan
P154	4/4/2016	Judy Reagan		If this project is approved and moves forward, there will be a risk to the Hatch Valley water source, the wells of the Animas Creek ranchers and farmers, and without a better set of data to confirm or deny, there could even be a risk to the hot mineral water resources of Truth of Consequences. This groundwater depletion could destroy the livelihood of many in the region?	GW-5	Socioeconomics; Groundwater Resources	<p>The FEIS provides details on the effects of the mining project on water resources and indicates that the primary effect that has the potential to impact other water users would be depletion of flows in the Rio Grande. These effects would be subject to mitigation in accordance with obligations imposed by the OSE and by voluntary actions applied by NMCC. NMCC has committed to provide such mitigation for the duration of the impacts from the project. To the extent the OSE determines NMCC has a vested right to deplete surface flows below the dam without providing an additional offset, and absent the voluntary mitigation, there could be an adverse effect on users of surface water in the Lower Rio Grande Basin and/or Texas that would exist for decades. However, because NMCC would provide mitigation in the form of offsets from upstream, this impact is predicted to not occur.</p> <p>Groundwater levels would decline near the NMCC wellfield during operations, and then gradually recover. The OSE would determine whether this causes impairment of any existing wells and, if so, would require mitigation; as of mid-2017, no analysis had indicated that such impairment would occur, i.e. there is not expected to be any loss of ability to produce water from existing livestock, domestic, or community supply wells. Some increase in pumping costs may occur, which is an acceptable effect under New Mexico water law. No impacts to Hatch Valley or thermal water sources would reasonably be expected.</p> <p>The continuous clay layer and the presence of perched water beneath portions of Las Animas Creek are demonstrated by water level measurements and geologic logs, and by the hydrologic reality that sustained flows in the Creek can only occur if the shallow hydrology is isolated from the deeper water table that is characteristic of the regional hydrology.</p>	P154_Judy Reagan
P155	4/24/16	R.Wm. & Nolan Winkler		Permitting the Copper Flat Mine would cause a serious traffic bottleneck a few miles down on the NM 152 highway. And all the trucks necessary to remove mining materials would be a serious threat to cyclists touring one of the nation's most scenic and popular bicycle touring byways for decades and that which is home to many different bicycling training events and tours.	HH&PS-8	Human Health and Public Safety	NMCC has met with NMDOT several times and has prepared a traffic and pavement study for NMDOT. NMDOT has not expressed a need for paved shoulders and discussions have not identified a lower level of safety due to existing shoulders. There is currently a verbal agreement between NMDOT and NMCC that will evolve into a Memorandum of Understanding and would require a 2-inch overlay on the highway 12 months prior to the beginning of mining operations that would have the strength to sustain expected truck traffic.	P155_Nolan Winkler
P156	4/4/2016	Melody Sears		The Draft EIS for the proposed NMCC project is characterized by numerous unaddressed issues most strikingly the lack of consideration, analysis, and research about the possible other and potentially better uses for the vast quantity of water claimed by NMCC. I find no comparative analysis of the amount of water required by other industries, businesses, or activities in which beneficial use is inherent	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P156_Melody Sears
P156	4/4/2016	Melody Sears		There is no comparative analysis of the amount of water required by other industries, businesses or activities in which beneficial use is inherent. There is no comparative analysis of how many jobs such alternative beneficial use activities would add to the economy. Similarly unaddressed is the comparative tax revenue such alternatives would bring to Sierra County.	SCOPE-1; SE-36	Socioeconomics; Scope of the DEIS	It is not the BLM's responsibility to decide what the water will be used for or to determine a proponent's Proposed Action. Instead, the BLM is charged with determining the potential impacts of a mining company seeking to execute an action that involves water use. Had another company proposed activities using an alternative use of water, the BLM would similarly evaluate the potential impacts of this activity (including impacts to jobs, tax revenue, and the general economy).	P156_Melody Sears

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P156	4/4/2016	Melody Sears		An analysis should be included in the DEIS that evaluates whether the use of the 12 years' worth of water as proposed by the mine could expand other activities in the area such as agriculture, tourism, or the construction of RV parks, hotels, restaurants, or retail shops would use geometrically less water and produce manifestly less environmental risk to roads and other public infrastructure and spaces, while having equal or greater positive economic impact.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P156_Melody Sears
P156	4/4/2016	Melody Sears		A detailed analysis could provide/reveal many more examples of categories of comparative analysis not performed and issues left unaddressed by the Draft EIS. I urge the BLM to redo the EIS, perform its mandates and meet the norms of a fully developed EIS accordingly.	NEPA-11	NEPA Process	The FEIS was objectively prepared, maximizing the use of available information. As provided by NEPA, the process has utilized input from public review of the DEIS to systematically proceed to the FEIS document.	P156_Melody Sears
P157	4/4/2016	Velma Boone		Positive assurances that the mine will not impact my water well do not exist. The loss of water from the mine's operation will destroy my family's lifestyle, our property value and ultimately our existence on the Animas Creek.	GW-7; SE-20; VEG-1; SE-41; GW-21	Groundwater Resources; Socioeconomics; Vegetation	<p>Evidence from well monitoring and the results of groundwater modeling indicate that pumping deep aquifers for mine operations would have no impact on the unconnected surface water flows in the areas of Las Animas Creek. Animas Creek is not at risk of being destroyed or altered adversely by mine operations. The project is not predicted to have effects on water supplies that would lead to direct, adverse economic impacts or direct, adverse impacts on real estate values in Sierra County overall.</p> <p>Section 3.22.1.1.2 (p. 3-237 and 3-238) in the Socioeconomics section of the DEIS includes the current (2010) median value of homes in Truth or Consequences, Sierra County, and New Mexico. Current (2010-2014 estimates) of housing characteristics and property values by Census Tract and Block Group in Sierra County have been added to Section 3.22.1.1.2 of the FEIS (See Tables 3-62 and 3-63). Housing characteristics and property values for Sierra County and New Mexico in 1970, 1980 and 1990 have also been added to Section 3.22.1.2 of the FEIS (see Tables 3-64 and 3-65). It is difficult to say whether property values increased or decreased as a result of the operation of Quintana Mine, due in part to its short-lived operation, and also because several factors can affect real estate values.</p> <p>The location and proximity to an operation with negative externalities (noise, light, air pollution) can negatively impact property values. Section 3.22.1.6.3 notes that the proximity to environmental amenities can influence where people choose to live (in-migration) and how much people are willing to pay for housing (i.e., property values). Other important factors affecting property values include quality of public education (i.e., school district); access to public transit or recreational opportunities; the age and condition of the home itself; and history of other negative events (e.g., fire, site of a violent crime). A discussion of these other factors has been added to Section 3.22.1.1.2. Section 3.22.2.1.6 concludes: "The negative perception of mining impacts on natural amenities – especially on water quantity and water quality, wildlife, and air quality – that attract recreationists and potential residents in the first place could be a deterrent in both the short- and long-term." A discussion of how the introduction of a copper mine could adversely impact the property values of adjacent landowners specifically has been added to the 3.22.2.1.4, concluding that the Proposed Action and alternatives would likely have a negative effect on property values in Sierra County overall, and the effect would likely be greatest on properties in CT 9624.02, BG 2, or those closest to the mine area. However, it is difficult to quantify how much property values would be impacted.</p>	P157_Velma Boone
P157	4/4/2016	Velma Boone		It has been stated that THEMAC will drill our wells deeper if they are impacted – do they have approval from the state engineer's office to do so? If there are no concerns with the depths required for the wells and associated loss of water, why were wells drilled in the last couple of years on Harvey Chatfield's property, "Lower Animas?" This and the name of the company that drilled the wells should be discussed in the DEIS.	GW-18; SE-28	Groundwater Resources; Socioeconomics	The Legislature has passed a law (NMSA 72-12A) allowing a mine to dewater an aquifer (i.e. open pit) that affects existing wells without causing "impairment." In this situation, the mining company may proceed with dewatering. If the well is determined to be impaired by the OSE, the mining company must comply with the law and provide the affected owner with a replacement well or replacement water supply. In this case the mining company would pay for deepening the well or for drilling a new well if the well's function is diminished by mining operations.	P157_Velma Boone
P157	4/4/2016	Velma Boone		Is there an environmental plan in place to save the Sycamore trees as a result of the groundwater drawdown from the proposed mine?	GW-7; VEG-1	Groundwater Resources; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P157_Velma Boone
P157	4/4/2016	Velma Boone		The largest natural stand of Arizona Sycamore trees in New Mexico cannot survive if the flow of water from the Animas Creek is lost because of the water drawdown.	GW-7; VEG-1	Groundwater Resources; Vegetation	The BLM recognizes and accepts the validity of this approach based upon this law recognizing that the performance of any of the Animas Uplift wells is not known to an extent that will allow an accurate determination of impact. If hydrological impacts to these wells from pit dewatering are demonstrated and documented against an accepted baseline as mine operations proceed, then NMCC would be obligated to replace the well or water supply in accordance with this law.	P157_Velma Boone

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P157	4/4/2016	Velma Boone		The mine will create noise pollution both from the constant roar of trucks transporting mine material on Highway 152 and because it is an open pit mine – both will impact the wildlife in our area.	NOI-1	Noise and Vibrations	Truck operations on site were included in the noise model discussed in Section 3.21.2.1.1 of the EIS. Section 3.20.2.1 indicates operations in years 1-5 would require 10-14 truckloads per day to and from the site. This is approximately one truck per hour. Due to the limited number of trucks and the small number of nearby residences, the effects of truck noise on wildlife would be negligible. The effects of noise and human activity on wildlife are addressed in the Biological Resources section of the EIS. BLM has been in consultation with the US Fish and Wildlife Service concerning potential impacts to federally-listed species both within and outside of the project area (e.g., species at the Ladder Ranch). The product of the Section 7 Consultation process will include protective and mitigation actions for all listed species that may be affected by the project. The specific analysis for listed species and all protective and mitigation actions derived via the consultation process with USFWS are included in the Biological Assessment as part of the EIS analysis. Protective and mitigation actions for listed as well as other wildlife species will be included in the Record of Decision.	P157_Velma Boone
P157	4/4/2016	Velma Boone		The mine will create air pollution both from the constant roar of trucks transporting mine material on Highway 152 and because it is an open pit mine – both will impact the wildlife in our area.	AQ-2	Air Quality	The Air Quality section of the DEIS, Section 3.2, contains a detailed analysis of the potential for air pollution and dust generation from the Proposed Action and alternatives. Mine operations in years 1-5 would require 10-14 truckloads per day to and from the site. This is approximately one truck per hour. Due to the limited number of trucks and the small number of nearby residences, the effects of truck emissions on wildlife would be negligible. The effects of air emissions on wildlife was not evaluated in this EIS; however, as stated in Section 3.2, the estimated air emissions from mining operations would not exceed either the short- or long-term air quality standards.	P157_Velma Boone
P157	4/4/2016	Velma Boone		Toxicity from this open pit mine is already evident and documented. The toxicity will continue, spread, and impact the health and wellbeing of all people and living matter throughout the region.	WQ-4; WQ-14	Water Quality	Stormwater runoff from mine facilities, including the WRDFs, would be captured and potentially used as process water. Discussion has also been added to Section 2.1.15.7 of the EIS explaining that the final details of the placement and use of the cover materials for WRDFs would be approved by the State and the BLM following analysis of the results of a test-plot program that would be conducted during the mining operation. The water quality of the existing pit lake is summarized in Section 3.4.1. Section 3.4.2 explains that the proposed MPO would require a preliminary pit lake water quality management plan that describes reclamation, water quality management, and monitoring activities that would be conducted to facilitate compliance with applicable water quality standards during the post-mining monitoring period. Analysis of the extent of the existing groundwater plume is being done under the auspices of a Stage 1 Abatement Plan approved by the NMED Groundwater Quality Bureau. Work on the Abatement Plan will be conducted regardless of the proposed mining activities. Section 3.4.2.1.2 refers to the existing plume of groundwater with elevated TDS that resulted from past operations. This section further explains that the TSF liner and underdrain system would prevent a similar occurrence and over time would promote the natural attenuation of the existing plume.	P157_Velma Boone
P157	4/4/2016	Velma Boone		Based on the BLM's mission statement to protect the public land for the present and future, BLM should not support destroying 2,000+ acres of that public land.	NEPA-1	NEPA Process	The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts.	P157_Velma Boone
P158	4/4/2016	Joseph Cummins		Allow the Copper Flat preferred plan of operations because "we'd better learn to communicate with the microbes and learn what they want before they threaten us with extinction."	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P158_Joseph Cummins
P158	4/4/2016	Joseph Cummins		It's said that this proposed mining operation could, might or may endanger the environment and/or pollute the water. Humans are not perfect and an accident could occur.	HH&PS-9	Human Health and Public Safety	Throughout the EIS there are references to Federal, State, and local laws and regulations that would require compliance by the mine proponent and those interacting with the mine, such that accidents would be minimized.	P158_Joseph Cummins
P158	4/4/2016	Joseph Cummins		The solution to pollution is not dilution or regulation. Instead it is innovation which only the metals/minerals can achieve. When the metals are scarce it is prohibitively expensive to conduct research, whereas if the elements are abundant then man, machine and bacteria can achieve wonders we can only dream about.	SCOPE-1	Scope of the DEIS	This comment is outside the scope of the FEIS.	P158_Joseph Cummins

Comment Code	Date	Name	Affiliation	Summary of Comment	Comment Category	Chapter/Section/Resource Area	Response	File Name
P159	4/4/2016	Lee Newman		Why did the BLM not notify well owners in Animas Creek Village of planned loss of well water?	GW-18; SE-28	Groundwater Resources; Socioeconomics	Anticipated effects on water resources are described in the EIS and those related to groundwater drawdown and consequent surface water depletions are quantified using a groundwater model that was peer reviewed by the BLM, and further subject to review and comment by the OSE. Although actual impacts can be expected to differ to some degree from those predicted, there is no basis on which to expect those differences to change the overall impact analysis. These predicted impacts are adverse and significant, but would be compensated for through mitigation requirements of the OSE and by voluntary mitigations applied by NMCC. In a March 23, 2017 letter to the BLM, NMCC committed to working with OSE to incorporate into their OSE permit "all monitoring, offsets, and replacement requirements deemed necessary to avoid impairment to other water users and impacts to the Rio Grande". NMCC would fully offset calculated and actual depletions to the Rio Grande resulting from mining operations. NMCC would obtain water for the offset through a surface water lease executed with the Jicarilla Apache Nation. In an August 24, 2017 letter to the BLM, NMCC reaffirmed to fully offset depletions to the Rio Grande to ensure no net effect on the river due to proposed mining operations. The BLM appreciates that there is considerable public concern over these impacts and the methods used to evaluate them, but has found no comments or inputs that would contradict the findings of the DEIS. The BLM finds no impacts that would preclude any existing user of surface or groundwater from continuing their use.	P159_Lee Newman
P159	4/4/2016	Lee Newman		The hearing on Copper Flat Mine should have been in Caballo, Animas Creek Village, not Truth or Consequences because that's where the people live and the farms are that the mine will pump water from.	NEPA-27	NEPA Process	Several factors determined the locations of the public meetings, and the selection of Truth or Consequences and Hillsboro offered the optimum balance of these factors.	P159_Lee Newman
P159	4/4/2016	Lee Newman		Do you think this is an acceptable EIS, does BLM agree that this is a very badly written EIS and that it should be rejected and re-written?	NEPA-1	NEPA Process	The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts.	P159_Lee Newman
P159	4/4/2016	Lee Newman		Does the BLM agree that the economic analysis is severely flawed? Is the economic impact analysis just a bad job or is it carefully designed to hide the environmental impact from opening the Copper Flat Mine?	SE-37; CI-21; I&I-3; SE-48	Socioeconomics; Cumulative Impacts; Irreversible & Irrecoverable Commitment of Resources	The BLM believes that the socioeconomic impacts analysis in the FEIS, supplemented with additional information and analysis collected during the public comment period, provides a thorough and accurate evaluation in accordance with the requirements of NEPA. The complete analysis is presented in the FEIS.	P159_Lee Newman
P159	4/4/2016	Lee Newman		Is taking Animas Creek artesian water and drying up farms and homes just an oversight in the EIS or is this information carefully hidden in the EIS?	GW-7; VEG-1	Groundwater Resources; Vegetation	Adverse impacts to the sycamore trees and other high-quality riparian vegetation along Animas Creek are not predicted to occur. This vegetation occurs in areas where there is a shallow water table that: a) are maintained by clay layers that occur near the land surface; and b) are not hydraulically connected to the primary regional aquifer, which would be the source of supply to the NMCC wells. This hydrologic separation is the reason that flows in the creek would not be diminished by the project, and why the supply of water available to the vegetation would not be impacted by the pumping of the supply wells. To the extent that impacts would occur to Animas Creek (and Percha Creek), they would be observed very near the mouth of the streams; i.e., at the far downstream end and beyond the area where vegetation is supported by groundwater.	P159_Lee Newman
P159	4/4/2016	Lee Newman		Please do not underutilize my work and group it with nonprofessional comments in your response. I have written a body of calculations in addition to what I have submitted. Please respond to my questions and comments individually without grouping with other questions from other concerned citizens. This mine is one of the biggest issues the BLM will have to face in the next twenty years. Let's do the right thing, reject and rewrite the Copper Flat EIS.	NEPA-1; SCOPE-1; NEPA-5	NEPA Process; Scope of the DEIS	Thank you for your comment. One goal of the NEPA process is to facilitate public input to projects that may affect the public and the human and natural environment. The FEIS was developed in accordance with NEPA procedures. The BLM uses the NEPA process to inform the decision-making process to reach a decision based on impartial consideration of all relevant environmental impacts.	P159_Lee Newman