From:	Juan Velasquez
To:	Ohori, David, EMNRD; Pat Siglin
Cc:	"Matt McMillan"
Subject:	Jones Hill Project Hydrolocial Survey Report
Date:	Thursday, September 9, 2021 1:28:08 PM
Attachments:	SWCA Hydrological Resources Final Report Jones Hill Exploration Project Rev20210830 Final.pdf
	Updated POO Table A 090921.pdf

Hi David,

Attached is the Final Hydrologic Report we recently submitted to the USFS in response to comments we received. Many of the revisions are simple clarification while others provide additional information requested for inclusion in the EA that the USFS is preparing. From our previous discussions, I wouldn't expect that there is a need to distribute the report to other constituent agencies but that, of course, is up to your discretion. Below is a list of the revisions made to the report for your information. I've also attached an updated TABLE A of the POO in response to USFS comment no. 8, below.

1. USFS Comment: "Regarding the Hydrological Resource Report, what are "T[t]he current proposed geophysical activities". We do not have a proposal for geophysical activities from Comexico. Will a geophysical project proposal be forthcoming in the near future? This is referenced in sec. 7.2.1 (page 24), sec. 7.2.2 (page 24), and in Sec. 7.4 (page 30)"

Comexico Response: We do not propose to conduct any additional geophysics surveys at this time at the site. The Hydrologic Report was originally authored and presented to the USFS early in the process at a time prior to conducting the geophysical surveys. Over time the report has been revised several times and the non-intrusive geophysics surveys have since been completed in advance of any exploration drilling. Unfortunately, the write up on geophysics contained in the Final Hydrologic Report submitted last week is a carryover from the previous reports. The attached Final Hydrologic Survey Report has been additionally revised to remove any reference to conducting geophysics surveys as part of the proposed action (note that Section 7.2.1 Geophysics, page 24, and the reference to geophysics surveys at the beginning of Section 7.4 have been removed).

2. USFS Comment: "In his review comments of the previous Hydrological Resources Report, Micah (USFS) specifically requested that cumulative effects be addressed. Micah also requested that direct and indirect effects be called out..."

Comexico Response: the Hydrologic Survey Report has been additionally revised to address cumulative effects, and direct and indirect effects (see revised Sections 7.3, 7.4 and new Section 7.5). Also a very few additional minor corrections were made such as correcting a reference to the use of mud "tanks" instead of mud pits and typographical errors.

3. USFS Comment: "There is a discussion about impacts to surface water and groundwater, what about effects to the soil resource ? If no direct/indirect effects to the soil resource are anticipated, specifically state why that is or if there are potential impacts state those. Could be a similar statement to the one in chapter 4." Comexico Response: We added a new section (Section 7.5 – "Potential Direct and Indirect Impacts to Soils") at page 30, that more specifically identifies impacts to soil resources (or lack of impact). We revised section 4.1.3, Soil Types at page 15 to identify the level of susceptibility to compaction for each soil type identified (see the end of each bullet). We added a new "potential direct and indirect Impacts to Soils " section (section 7.5), at page 30 and revised "potential cumulative impacts to water and soil resources", (section 7.6), at page 30, to include soils.

4. USFS Comment: "What about direct/indirect effects to the soil resource? (compaction, erosion, etc?"

Comexico Response: Please refer to our response above.

5. USFS Comment: "The spatial and temporal boundaries that were selected for the cumulative effects analysis should be addressed and the reason for selecting those should also be disclosed."

Comexico Response: We added a new section 7.6.1 at page 31 to more clearly state the assumptions upon which the cumulative effects analysis are based, including spatial and temporal boundaries, beneficial vs. adverse effects, and how past and present activities have been addressed.

6. USFS Comment: "does this statement indicate that one projects beneficial effects will offset another projects negative effects? If so, more discussion is needed as to how. It is stated that "no direct or indirect impacts to either groundwater or surface water are anticipated" Then the report states "in the event there were unanticipated effects...." "A suggestion would be to make one determination statement based on the analysis and keep the information about beneficial effects from Dalton Creek,"

Comexico Response: The language in question was revised to clearly indicate that there are no anticipated direct/indirect impacts from the project (see last three paragraphs of section 7.6.2 at page 33.

7. USFS Comment: "What about past projects? Are there any to consider? Are there legacy effects from past mining operations that would be considered cumulative effects? A statement/discussion about how far in the past the CE analysis went and why, would be important?"

Comexico Response: The past projects pertinent to the site as they relate to Comexico's exploration program at the site were described in section 7.1 of the report. There is no evidence available regarding "legacy effects" from past mining operations that would be considered cumulative affects inasmuch as the only physical evidence is the presence of historic mine adit(s) and associated materials. Nonetheless, a discussion has been added the new section 7.6.1.4, Past and Present Actions, at page 31 to acknowledge that historic mining took place in the past at the site and that Comexico has committed to obtaining

water sample data from certain springs and a well located on-site as a means of establishing some background data.

8. USFS Comment: "One potential minor edit jumped out at me on the Hydro Report. Report page #30 mentions "(see BMP Table A, supplement to the Plan of Operations and Exploration Application)". Is this BMP Table A still part of the project record?"

Comexico Response: Following discussions with USFS we revised and submitted TABLE of the POO so as to make it, the Hydrological Survey Report and the Biological Report all consistent with USFS's requirements for its EA.

TABLE A

JONES HILL EXPLORATION DRILLING PROGRAM PROJECT-WIDERESOURCE PROTECTION MEASURES & BEST MANAGEMENT PRACTICES¹

Resource protection measures (RPMs) (sometimes referred to as mitigation measures) are requirements developed to avoid, minimize, reduce, or eliminate negative impacts to project area resources that could result from actions proposed (40 Code of Federal Regulation [CFR] 1508.20). The following RPMs include and would be in addition to standards and guidelines from the Santa Fe National Forest Plan, as amended, and BMPs. During implementation, all applicable guidelines and policies would be followed. These include, but are not limited to, Regional Invasive Species guidance, New Mexico Air Quality Regulations, and Threatened and Endangered Wildlife Species Recovery Plans.

The RPMs would be incorporated into all project activities and used to guide project personnel in conducting implementation. RPMs are developed by resource specialists to ensure the avoidance and minimization of negative effects from implementation actions and would be integrated as part of all project activities for this project.

Best management practices (BMPs) are methods, measures, or practices selected by an agency to meet its nonpoint source control needs. BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during, and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters (36 CFR 219.19). Best Management Practices (BMPs) were developed by the USDA Forest Service (2012) in an effort to mitigate non-point source pollution from Forest activities. When properly implemented they have been shown to protect water quality. The BMPs below are crafted specifically for this project. The complete list of general BMPs can be found here: https://www.fs.fed.us/biology/resources/pubs/watershed/

CULTURAL AND ARCHAEOLOGICAL RESOURCES

The Forest Service would work with the Pueblos and Tribes and the operator to arrange short-term operation shut downs to allow for religious and cultural practices in the area.

If any archeological or paleontological resources are discovered during the operation, all work at the discovery site would stop immediately and Comexico would contact the Pecos/Las Vegas Ranger District Archeologist. Work at the discovery site would not proceed until authorized by the Forest Service.

BIOLOGICAL RESOURCES

Implementation, layout, preparation, and closeout/reclamation personnel, including the company, partners, contractors, and others would be briefed on all applicable RPMs, BMPs, and standards and guidelines from the Forest Plan, recovery plans, etc. prior to implementation, between phases and as needed, such as personnel changes.

A. Mexican Spotted Owl

The following MSO criteria were developed in May 2019 with the U.S. Fish and Wildlife Service.

- 1. The Santa Fe National Forest Plan (1987, as amended) would be implemented, which includes the 1995 MSO Recovery Plan. Additionally, the 2012 MSO Recovery Plan would also be implemented.
- 2. A minimum of 2 years of inventory would be conducted to 2012 MSO Survey Protocol standards, by Fish and Wildlife Service permitted individuals, in all potential spotted owl habitat areas including protected, restricted, nest/roost, mixed conifer, designated critical habitat and other forest and woodland types within the project area plus the area ½ mile beyond the perimeter of the proposed activities areas. Site-specific protections would be implemented in accordance with the MSO Recovery Plan, such as delineation of Protected Activity Centers (PAC).
- 3. A Limited Operating Period (LOP) would be in effect from March 1 through August 31 within ¹/₄ mile of active spotted owl nests, occupied PACs and potentially suitable habitat within 0.5 miles of the project area that was not surveyed to protocol. Project work would not occur within the LOP.
- 4. Project activities and species inventory would be planned in coordination with the USDA Forest Service and, as applicable, with consultation between the USDA Forest Service with the USDI Fish & Wildlife Service.
- 5. All personnel conducting project activities would be briefed on these RPMs, including how to avoid harassment, report sightings, and what to do if a Mexican spotted owl is incidentally injured, killed, or found injured or dead. If an owl fatality is discovered, project personnel shall immediately notify a qualified USFS wildlife biologist and contact the USFWS for further guidance.

B. Northern Goshawk

- 1. Prior to activities that may result in disturbance (such as noise, visual), suitable goshawk habitat within the project area, including ½ mile beyond the project boundary, would be surveyed to R3 Survey protocol by qualified individuals.
- 2. If the species is found in the area, according to protocol, Goshawk Post-Fledging Areas (GPFA), Goshawk Home Ranges (GHR) and Goshawk Nest Areas (GNA) would be designated.
- 3. A LOP would be in effect from March 1 through September 30 within ¹/₄ mile of active GNA and GPFA boundaries, and potentially suitable habitat that was not surveyed to protocol. Project work would not occur within the LOP.

A. General Wildlife

- 1. Disturbance, such as crushing or displacement, of large down logs, snags (standing, dead tree), large rocks and boulders would be avoided (with the exception of those blocking access roads).
- 2. Snags would be retained unless they are within falling distance of roads or landings, or would pose a safety hazard. Snags that are cut for safety reasons (within striking distance of a high human residency time area, e.g., laydown area, drill site, or designated FS road) would be left after felling to contribute to downed log habitat.
- 3. Slash piles would be located a sufficient distance from large snags, large down logs, and large trees to ensure these habitat features would not ignite if piles burn later.
- 4. Activities that may result in disturbance (such as noise, visual) including, but not limited to, people presence, equipment, tree cutting/piling and generators would occur outside of breeding/nesting season to minimize impacts to migratory birds and bats. Breeding season is from March 1 through August 15.
- 5. Mine shafts, adits, caves, and crevices would not be entered unless absolutely necessary for project work. Before entering mine shafts, adits, caves, crevices, etc., all objects such as equipment, boots, clothing, etc. would be decontaminated following white-nose syndrome disinfection/decontamination protocol Check for updated protocols between project phases. (https://www.whitenosesyndrome.org/static-page/decontamination.)
- 6. Any bats observed would not be harassed or handled. Caves, mine shafts, adits, crevices, etc. that are observed to house bats would not be visited more than one day. If such is needed, coordination with the District biologist would occur prior, to discuss and minimize potential impacts.
- 7. Project activities would be avoided to the extent possible within close proximity of an active bat roost and personnel should avoid mine adits or shafts, especially during the evening exodus from day roosts. Internal combustion equipment, such as generators, pumps, and vehicles, would not be parked or operated immediately adjacent to the mine adit or shaft.
- 8. To minimize impacts to bats and owls (including MSO), Project activities would incorporate dark sky–compliant lighting into operations across the entire project to minimize glare, light trespass, and skyglow, to the greatest extent possible. Exterior construction lighting would be shaded for downward display to the extent possible for safety, to prevent lights from being viewed beyond the work area and upwards affecting the night sky.
- 9. Tree felling would be directed away from mature trees designated to be retained. Machinery would avoid contact with mature trees designated to be retained.
- 10. Vehicles, ATVs and UTVs would not travel off of existing roads and predetermined overland routes. Project personnel would not drive around recreationally. Roads that are disappearing from the landscape (grown-over/revegetating, numerous logs across, or numerous large rocks, etc.) would not be reopened and traveled on, even if they appear in the roads mapping layer.

- 11. Entrapment, entanglement, and electrocution of wildlife would not occur. Equipment would be installed, used, and maintained to avoid risks to wildlife. Drill holes and pipes would not be left open when unattended.
- 12. Noise would be mitigated to minimize both the level and distance the noise can be heard from. This would be done through techniques such as using functioning mufflers on engines and noise-dampening panels around drilling machinery. This would occur in all seasons because some species use the area even during winter months.
- 13. Structures and improvements (such as tanks, fences, water troughs, windmills, corrals, etc.) would be protected during project implementation. If damaged, such would be reported to the USFS range and biology specialists and would be repaired as part of the project. If reconstruction of these features is required, reconstruction would ensure that the features are wildlife-friendly, minimizing the risk of entrapment and injury.
- 14. No new roads (permanent or temporary) would be created other than up to 0.2 mi of overland routes. Roads used for the project would be considered for decommissioning after the project has been completed. The decommissioning process would block public vehicle access and mitigate for erosion control (such as re-contouring, providing roughness) and promote revegetation.
- 15. To the extent possible, existing disturbed areas would be used before creating new disturbed sites.
- 16. The District Biologist would be consulted prior to implementation of each activity type (i.e., at the beginning of tree cutting, beginning of drilling, etc.).
- 17. Leave No Trace practices would be followed, such as pack-in-pack-out of trash, and human waste management. (<u>https://lnt.org/learn/7-principles</u>)
- 18. Fire restrictions would be followed, and care would be taken, to prevent vehicles and equipment from igniting items such as vegetation, dry materials, and fuels. Fire extinguishing equipment would be on site during elevated fire danger periods.
- 19. A Forest Service biologist would be notified upon discovery of a den or large stick type nest. From February through September, noise-producing project activities within ½ mile of the den or nest would be temporarily paused, at least until it is investigated by a Forest Service biologist who would provide recommendation for proceeding. Small nests would be avoided; human activity would only be for short durations (less than a half hour) within 50 feet of small nests during the breeding season.
- 20. If any Forest Service Sensitive Species, or Threatened or Endangered species is located within or near the project area before or during implementation, work in the area would cease until a Forest Service Biologist has been notified, investigated the site, and made recommendations.
- 21. There would be no killing, harassment, removal or handling of animals, nests, eggs, dens, etc.
- 22. Project activities (especially those that might block roads or use water sources) would be planned in advance in coordination with USDA Forest Service Range Specialists to reduce potential conflicts with grazing allotment permittees, especially regarding water, fences, gates, and roads.
- 23. Post-project cleanup and reclamation would occur and would be done with consultation with USFS personnel, including hydrologists and biologists.

24. Project personnel would also implement all additional requirements and recommendations from the New Mexico Department of Game and Fish and the USFWS.

B. Botany; Weeds and Holy Ghost Ipomopsis

- 1. Staging, storage and parking of vehicles and equipment would be done in weed free areas.
- 2. Prior to surface disturbance activities, known noxious and invasive weeds known or observed to occur within the Project Area would be marked with signs or flagging to alert construction personnel to the locations and type of weeds present. Staging of equipment would be done in weed-free areas. Driving through or parking in weed areas on the way to the project area, such as in the weed areas on private and New Mexico Department of Game and Fish property, would be prohibited. Travel through these areas would be minimal and strategic.
- 3. Disturbance areas (e.g., staging, parking, etc., if needed) would be located outside of known weed areas by at least 300 feet. GIS mapping layers, Forest/District Weed specialists and the District Biologist would be consulted prior to implementation, road brushing, road blading, ditch clearing, etc. There are known scotch and bull thistle infestations in and surrounding the area.
- 4. All vehicles and off-road equipment (including ATVs, UTVs), tools, gear, personnel, clothing, etc. would be weed-free prior to entering the project area. Equipment and vehicles would be pressure-washed, inspected and weed-free (includes free of mud and vegetation) before entering the project area.
- 5. Project activities would not occur within the exclosure for HGI near Indian Creek. The road (FSR 192 upstream of the intersection with FSR 120) that exists immediately adjacent to this exclosure would be closed to associated project use.
- 6. New occurrences of Threatened, Endangered, or Sensitive (TES) plant species and weeds discovered before or during project activities would be reported to the USFS to be evaluated for protection measures such as through flag-and-avoid methods.
- 7. Seed mixes, mulches, and fill would be certified weed-free. Seed mixes used for re-vegetation of disturbed sites would consist of locally adapted native plants to the extent practicable.
- 8. Topsoil removed from drill sites would be stored on-site at the drill site to minimize distributing undesirable plants or gaining new ones. Topsoil would not be stored in areas of known non-native vegetation. Topsoil with known non-native vegetation would not be stored in areas that do not already have that specific species of non-native vegetation. Preferably, the topsoil would be stored at the drill site from which it originates.
- 9. Disturbed areas are to be monitored during the following two growing seasons to observe establishment and spread of weeds, which would then be documented and removed.
- 10. Additional invasive species management guidelines are found at:
- 11. Guidance for Invasive Species Management in the SW Region: <u>https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3801891.pdf</u> and <u>https://www.fs.usda.gov/detail/r3/forest-grasslandhealth/invasivespecies/</u> <u>?cid=stelprd3833403</u>.

C. Watershed and Aquatic Resources

- 1. Prior to operations beginning, Comexico will complete all necessary permitting under Clean Water Act requirements. This includes preparing and adhering to a Stormwater Pollution Prevention Plan if required.
- 2. Comexico will adhere to guidelines under the New Mexico Administrative Code 19.27.4 for drilling and plugging of wells. All boreholes would be closed or abandoned.
- 3. In the event any historic mine waste is encountered during road improvements and or maintenance, it would be removed and disposed in a manner that is protective of surface water and groundwater quality.
- 4. Prior to any use on-site, a ground water sample shall be collected from well UP 00826 and tested for New Mexico Water Quality Control Commission (NMWQCC) constituents. NMED will evaluate the results, and if any constituent is found to exceed 20.6.2.3103 NMAC standards, use of the water on-site may not be permitted.
- 5. Utilize USFS technical publication, including Drain Dips, Waterbars, Diverters, and Open-Top Culverts-Surface Water Drainage of Low-Volume Roads (USFS 2014) for road maintenance.
- 6. Surface disturbing activities shall be located to the greatest extent practicable where existing roads or previous used drill sites have already disturbed the soil.
- 7. All disturbed surface areas would be managed and reclaimed as required by applicable permits. Disturbance areas would be decommissioned and/or evaluated at the project end to ensure soil stability and erosion prevention.
- 8. Riparian/Aquatic Management Zones (AMZ) would include a minimum width of 100 feet from the bank-full mark of each water feature (includes ephemeral, intermittent and perennial creeks, springs, and wetlands) or from the outer edge of riparian vegetation, or would be a site-appropriate delineation, whichever is greater, for each water feature.
- 9. Vehicle (such as trucks and ATV/UTV) and equipment use in AMZs would only occur on existing, designated roads or drill site location. If multiple roads lead to the same general destination, travel would occur on the route that is not in a drainage bottom or paralleling a drainage in its riparian zone or high-water mark. Roads which have culvert crossing or that perpendicularly cross creeks and riparian areas are acceptable for use.
- 10. New disturbance areas (expanding drill sites, fueling, and equipment staging/maintenance areas) would be located outside of AMZs and would be the minimum size needed for their function. Existing disturbance areas within AMZs may be used by agreement (with a USFS biologist or hydrologist) when the effects of water quality concerns can be abated by erosion prevention measures.
- 11. Vehicle access would not occur when use could result in rutting of roads. Travel on access routes and trails would not occur during or soon after periods of wet weather when use could result in rutting of road/trail surface or adverse soil erosion/sediment transport. If this is unavoidable, any rutting or soil damage would be repaired.
- 12. Equipment staging and storage would only occur at the designated laydown area.
- 13. Refueling, including ground-based equipment (such as UTVs), generators and hand tools (such as chainsaws), would not occur in AMZs, but could be done at the laydown area or drill sites, outside of AMZs.

- 14. Spill containment materials (e.g., absorbent pads, etc.) would be on-site and used to ensure that spills would not leave the disturbance areas. Fuel containers and equipment (such as generators) would be placed on spill mats (or other appropriate container) and preferably within truck or UTV beds, rather than on the ground. Contaminated soils would be properly removed from Forest Service land. Spills would be immediately reported to the Forest Service project lead, hydrologist/watershed specialist and biologist. Prevention, Reporting, and Remediation are listed below:
 - a. **Prevention of petroleum product spills**—If operator or contractor maintains storage facilities for oil or oil products on or near the project area, the operator or contractor shall take appropriate preventive measures to ensure that any spill of such oil or oil products does not enter any stream or other waters of the United States or any of the individual States.
 - b. **Reporting of petroleum product spills**—The U.S. Environmental Protection Agency (EPA) and New Mexico Environment Department have delegated authority for emergency actions related to spills, so the operator or contractor must report spills to those agencies as required.

The operator or drilling contractor must also immediately report all petroleum product spills which leave visible soil contamination to the USFS representative. Provide a written narrative report form no later than 24 hours after the initial report and include the following:

- Description of the item spilled (including identity, quantity, manifest number, and other identifying information).
- Whether amount spilled is EPA or state reportable, and if so whether it was reported, and to whom.
- Exact time and location of spill including a description of the area involved.
- Containment procedures.
- Summary of any communications the Contractor had with news media, Federal, state and local regulatory agencies and officials, or Forest Service officials.
- Description of clean-up procedures employed or to be employed at the site including final disposition and disposal location of spill residue.

When available provide copies of all spill related clean up and closure documentation and correspondence from regulatory agencies.

c. **Remediation of petroleum product spills**–Small spills (spills that are not reportable to EPA or New Mexico Environment Department) may be remediated by placing the contaminated soil with a shovel into plastic bags, removing the contaminated soil from site and disposing of it where they are disposing used oil.

All other spills must be remediated as directed by the EPA and New Mexico Environment Department.

15. Equipment would be washed and maintained free of oil leaks prior to and during use in the project area.

- 16. Drilling fluid/mud would be properly contained to prevent runoff. At the end of the proposed activity, the mud pit liners would be folded over the top of the dried contents, and the pit would be filled and recontoured. If ground water is encountered when excavating mud pits, that location should not be used as a mud pit.
- 17. Riparian species (alder, willows, cottonwood, aspen, etc.) would not be cut or removed.
- 18. If Water is brought in from offsite for use during operations water should be free of aquatic invasive species and must meet applicable state water quality standards .
- 19. Slash scattered or piled (slash piles) would only occur outside of AMZs, swale bottoms, and the high-water mark of springs, lakes, ponds, and channels (including perennial, intermittent, and ephemeral). Slash would not be scattered or piled in road drainages.
- 20. When necessary to provide ground cover, access routes, drill sites, parking, staging areas, and other disturbed areas would be assessed, in agreement with the USFS, to be scarified and seeded with weed-free, native grasses and forbs, and weed-free mulched at the conclusion of project activities and/or may be covered with project slash. Edge berms and rutting would be removed and re-contoured. Route entrances would be camouflaged with slash and/or rocks to discourage use.
- 21. Roads, access routes, drill sites, , staging areas, and other disturbed areas, would have adequate drainage such as silt fencing, compostable bio socks, water-bars, rolls, dips, and armoring and placed as needed to minimize runoff channeling and erosion risk, especially on features meant for extended use (overwinter) such as roads. Water-bars would be installed with the maximum spacing dependent on slope gradient and cut at an angle of 30 degrees with a depth of 12 to 18 inches.
- 22. Erosion control measures, such as silt fencing, compostable bio socks, water-bars, culverts, and ditches, would be kept current (functioning) through periodic monitoring for effectiveness and subsequent maintenance as necessary before, during, and at the end of the project.
- 23. Roads would be maintained to standards for minimized hydrology and aquatic impacts before, during, and at the end of the project. Road prisms would not be widened. The road maintenance plan included in the Plan of Operations will be adhered to.
- 24. Topsoil removed from the drill sites would be stored in a manner that would not block drainages and would have sediment/erosion mitigations installed and maintained.
- 25. After use, drill sites would be rehabilitated. Portions of the drill site beyond the roadbed would be restored to pre-implementation conditions, to contour with natural drainage, and/or with erosion mitigation structures designed and constructed to remain functional through high flow events and extended periods of time (decades).
- 26. Drilling would be done in a manner that would consider and avoid impacts to groundwater, including not altering spring flows and not contaminating waters.