July 1, 2022

To: David Ennis
P.G. Permit Lead
New Mexico Mining and Minerals Division

To: Ronald Kellermueller
Mining and Energy Habitat Specialist
State of New Mexico Game and Fish Department

Dear Mr. Ennis and Mr. Kellermueller,

I am a long-time resident of Mogollon who, among other local residents, has observed local Mexican spotted owls for many years.

My credentials pertaining to Mexican spotted owl survey protocol is as follows. I have bachelor degrees in Forest Management and Biology. During the 1990's and early 2000's, I trained over 20 personnel to become certified Mexican spotted owl surveyors and managed the implementation of Mexican spotted owl surveys conducted on tens-of-thousands of acres of primarily national forest lands in the Southwest Region.

I have studied in detail the first-year Mexican spotted owl survey report conducted by Everett Ecological and NV5 (hereafter, 'April 2022 Survey'). This letter highlights concerns related to the interpretation of survey results as presented in the April 2022 Survey with respect to: 1) Graveyard Gulch; 2) Mineral Creek; and 3) Silver Creek.

1) Graveyard Gulch Survey Interpretation. The April 2022 Survey concludes that the presence of owls in Graveyard Gulch are most likely male floaters:

"During the first follow-up survey conducted three hours after the first survey was completed, two male MSOs were detected. These two MSO were detected within 980 feet (300 m) of each other and within a few minutes of each other. It is unclear if these two males are from Silver Creek. It is possible that the two male owls heard are "floaters" (i.e., nonterritorial individuals). No MSOs were detected in this area during the following nighttime and daytime surveys or follow-up surveys." (Page 12, April 2022 Survey)

Since the area of concern (Graveyard Gulch) is located well within the ½-mile buffer zone of the Area of Interest (AOI), the above interpretation appears to be quite convenient favoring bias towards reducing the significance of the detection of two spotted owls in near proximity to each other. (see map on page 6, April 2022 Survey)

For instance, such proximity of two owls (ie, 300 meters apart) should initially lead to a bias towards determining if they are a pair (ie, male and female). In fact, The April 2022 Survey substantiates this bias by stating: "Per the USFWS protocol (2022), one of the ways to define if a pair of MSOs are present, is determined when a male and female owl are heard and/or observed within approximately 0.3 miles (500 meters [m]) from one another." (Page 9, April 2022 Survey)

Furthermore, assuming the owls are both male based on a brief audio response is deceptive. According to Joseph Ganey: "I studied the calling behavior of radio-tagged Mexican Spotted Owls (Strix occidentalis

lucida) in northern Arizona. Owls used a variety of calls, with three call types (Four-note Location Call, Contact Call, and Bark Series) accounting for 86% of calling bouts heard. **These calls were used by both sexes, but in significantly different proportions**". (bold added) (Calling Behavior of Spotted Owls in Northern Arizona, 1990, Joseph L Ganey) To be sure, there may also be tonal variation between male and female owls and between other male or female owls. That is why additional detection is needed to decipher what sex may be present, especially when they are in such close proximity of each other.

Additional surveys are needed in the Graveyard Gulch area to accurately determine the owl dynamic.

According to the April 2022 Survey, only three out of the four required nocturnal surveys performed calling at Call Point 9 located within the Graveyard Gulch area and only one out of the three daytime follow-up visits were conducted at an effective time of day (ie, soon after sunrise or shortly before sunset) to render an owl response. (The other two follow-up visits were conducted during the middle of the afternoon when response from an owl would be low.)

2) Mineral Creek Survey Interpretation. The April 2022 Survey concludes that the presence of owls in the northern portion of the survey area (ie, Call Points 1, 2, 3 and 4) are most likely a single owl pair (ie, male and female) located in Mineral Creek:

"The Mineral Creek male MSO was seen one time at Calling Point 1. This male was very agitated and remained at the location for several minutes before moving north in search of the MSO it "heard" (our call). After three follow-up visits to Mineral Creek, we detected an MSO male with a female, which corresponded with the territorial behavior where we had a visual encounter with a male MSO at Calling Station 1." (Page 15, April 2022 Survey)

Since Call Points 1,2, 3 and 4 are located well within the ½-mile buffer zone of the AOI, the above interpretation appears to be quite convenient locating a single owl pair near the bottom of Mineral Creek, outside the AOI. (see map on page 5, April 2022 Survey)

To the contrary, the April 2022 Survey forms indicate Mexican spotted owl(s) were detected several times within the calling range of Call Points 1, 2, 3 and 4, including a major drainage to the north that is well within the AOI.

Furthermore, due to the expansiveness of Mineral Creek and its multiple secondary drainages, the follow-up daytime surveys conducted in the area of concern were not productive in finding nest or roost locations. Additional surveys are needed in the northern portion of the AOI to accurately determine if there is a single owl pair (as the April 2022 Survey suggests) or additional owls inhabiting the northern portion of the AOI.

3) Silver Creek Survey Interpretation. The April 2022 Survey concludes that a Mexican spotted owl is present in the Silver Creek watershed with status unknown:

"The detected location of the Silver Creek MSO is a short walk from the town of Mogollon. At least some local residents are aware there is an MSO in the area. It is possible that some residents may visit this owl At the end of the fourth protocol survey and follow-up survey, it is unknown if the Silver Creek male MSO is paired with a female. Surveyors did not hear a female response, even when we heard a male MSO respond from within its roosting area during a follow-up survey. It is possible this owl is considered a floater (Franklin 1992). Although floaters do not contribute to the reproductive output of a population,

they can influence population dynamics because they provide a pool of birds that could colonize vacant territories or pair with single birds (Franklin 1992)." (Page 14, April 2022 Survey)

To the contrary, it is common knowledge by locals that multiple owls inhabit Silver Creek as multiple owls have been heard at the same time on the south and north slopes up and down the canyon.

Additional surveys are needed to obtain clarification of the presence of Mexican spotted owls in Silver Creek. According to the April 2022 Survey, scant calling was performed during the nocturnal surveys within Silver Creek. For example, only one out of the four required nocturnal surveys performed calling at Call Point 7 and only two out of the four required nocturnal surveys performed calling at Call Point 8. This represents only 3-nocturnal callings out of a potential of eight were conducted during the entire survey period of the April 2022 Survey.

In Conclusion, any legitimate scientific study or survey requires a sufficient amount of data to draw appropriate conclusions. The above instances demonstrate that insufficient data has been collected at this time to make proper conclusions. That is why the Mexican Spotted Owl Survey Protocol of 2012 requires a minimum of 2-years of survey to be considered a complete inventory. To be clear, the Mexican Spotted Owl Survey Protocol states that: "Specific criteria on number and timing of surveys are used to determine whether a complete inventory has been accomplished. A **complete inventory** requires that at least four properly scheduled complete surveys be accomplished annually for two years. Additional years of surveys strengthen any inferences made in cases where owls are not detected." (underline added) (pg 305, MSO Survey Protocol (2012))

Moreover, as stated in the April 2022 Survey: "The main objective of conducting surveys is to locate and observe an MSO nest and any potential young associated with that nest (USFWS 2022). Since spotted owls do not nest every year, it is important to note that it can take up to four years of compiling roost locations to "effectively delineate owl core activity areas" (USFWS 2022; Ward and Salas 2000). (underline added) (Page 7, April 2022 Survey)

To the point, no Mexican spotted owl nests and only minimal potential roost-sites were found during the survey period of the April 2022 Survey. Therefore, drawing conclusions of owl population, location, and dynamics from the sparse data obtained to date is frivolous at best, deceptive at worst.

Furthermore, the Mexican Spotted Owl Survey Protocol 2012 also states that: "If habitat modifying or potentially disruptive activities are scheduled for a particular year, the second year of surveys should be conducted either the year before or the year of (but prior to) project implementation." (underline added) (pg 305, MSO Survey Protocol (2012)) Therefore, no management activity should be allowed to move forward until at least a complete inventory (ie, two years of survey) has been accomplished.

The Mexican spotted owl population in and around Mogollon is without a doubt, more substantial than previously thought. Should not the time be taken to collect more data to accurately determine the owl dynamics so proper management decisions can be made for effective protection of the Mexican spotted owl population?

It is our understanding that the US Fish and Wildlife Service has advised New Mexico Game and Fish Department (NMGFD) of Section 9, Prohibited Acts, of the Endangered Species Act. In general, the act states that it is illegal to "take" an endangered fish or wildlife species or possess taken species. Take means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect," or an attempt to do

the same.

Allowing Summa Silver Corporation to continue operations without completing a Mexican spotted owl inventory of 2-years of survey may result in a take of a threatened species under the Endangered Species Act.

We ask the New Mexico Mining and Minerals Division and the New Mexico Game and Fish Department to take action to ensure the protection of our local Mexican spotted owl population.

Respectfully,

Bob Moore
Mogollon Resident

Mogollon Resident Co-Signers:
Vicki Moore
Stan King
Kathy Knapp
Niels Mandoe
Marianne Scharn
John Gebhardt
Linda Gebhardt

cc:
Janelle Alleman for US Fish and Wildlife Service
Ashley Beyer for U.S. Senator Martin Heinrich
NM Senator Sia Correa Hemphill
Leia Barnett for WildEarth Guardians