



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Northern Region  
601 Locust Street  
Redding, CA 96001  
[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

GAVIN NEWSOM, Governor  
CHARLTON H. BONHAM, Director



April 16, 2019

Nancy McAllister  
Natural Resources Technician  
Lassen County Department of Planning and Building Services  
707 Nevada Street, Suite 5  
Susanville, CA 96130

Governor's Office of Planning & Research

APR 17 2019

STATE CLEARINGHOUSE

**Subject: Review of the Draft Subsequent Environmental Impact Report for the Ward Lake Pit Amendment, State Clearinghouse Number 2018022056, Near the Community of Litchfield, Lassen County**

Dear Ms. McAllister:

The California Department of Fish and Wildlife (Department) has reviewed the Draft Subsequent Environmental Impact Report (SEIR) dated February 2019, for the above-referenced project (Project). As a trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants and their habitat. As a responsible agency, the Department administers the California Endangered Species Act and other provisions of the Fish and Game Code that conserve the State's fish and wildlife public trust resources. The Department offers the following comments and recommendations on this Project in our role as a trustee and responsible agency pursuant to the California Environmental Quality Act (CEQA), California Public Resources Code section 21000 et seq.

### **Project Description**

The Project as described in the SEIR is to *"allow for 24-hour mining operations Monday through Saturday (currently 6:00 am to 7:00 pm Monday through Saturday), extend the life of the mine from 2020 to 2030, and allow annual site production in excess of the permitted 100,000 tons during declared emergencies."*

The mine has been an active rock quarry since 1980. The quarry is on a 442-acre parcel with 160 acres being actively mined. Due to adverse impacts to both wintering mule deer (*Odocoileus hemionus*) and pronghorn antelope (*Antilocapra americana*) herds, a condition of the mine's permit is a partial closure of the site from January 1 through March 31 of each year. This condition will remain in effect. No additional ground disturbance is proposed by the Project.

## **Comments and Recommendations**

The Department commented on this Project during early consultation on March 15, 2018, as well as during the Notice of Preparation (NOP) on July 16, 2018. The Department has reviewed the SEIR and has the following comments and recommendations as they pertain to biological resources.

### **Special Status Wildlife Species**

The SEIR states habitat is present for many special status species. The SEIR also states the increase in nighttime mining activities will not have a significant effect on nocturnal species because there is no "*spatial expansion*" being proposed. Additionally, the SEIR says that expanding the Project operating period to nighttime hours will cause additional disturbance in the form of light and noise but that nighttime foraging species will likely avoid the area.

The Department believes that the conclusion in the SEIR that species will avoid an area because of increased disturbance activities, and the impacts are therefore not significant, is premature without additional studies. Species that are active at night typically rely on sound for catching prey and detecting and reacting to potential threats. Nighttime foraging occurs in areas with a high prey base and usually within an animal's own territory. Mining operations may result in a substantial amount of noise through road use, equipment, and other Project-related activities. This may adversely affect wildlife species in several ways as wildlife responses to noise can occur at exposure levels of only 55-60 dB (Barber et al. 2009).

Anthropogenic noise can disrupt the communication of many wildlife species including frogs, birds, and bats (Sun and Narins 2005, Patricelli and Blickley 2006, Gillam and McCracken 2007, Slabbekoorn and Ripmeester 2008). Noise can also affect predator-prey relationships as many nocturnal animals such as bats and owls primarily use auditory cues (i.e., hearing) to hunt. Additionally, many prey species increase their vigilance behavior when exposed to noise because they need to rely more on visual detection of predators when auditory cues may be masked by noise (Rabin et al. 2006, Quinn et al. 2017). Noise has also been shown to reduce the density of nesting birds (Francis et al. 2009) and cause increased stress that results in decreased immune responses (Kight and Swaddle 2011). Habitat degradation caused by increase lighting and noise "*exacerbates the direct effects of habitat loss by degrading the quality of the remaining habitat*" (Scobie et al. 2016). In some instances, the prey base will leave the area experiencing disturbance.

The Project may create a situation where a special status species would avoid an area within its territory because of new nocturnal disturbance activities, thus preventing that species from utilizing known foraging or breeding habitat. This exclusion from foraging and breeding habitat may potentially have a significant

impact on nocturnal species especially during the breeding season. The Wildlife Survey Report, dated June 2018, and included as Appendix G, states three transects located within the active portion of the mine were walked at night and early morning. The report does not discuss surveying the vegetated areas for special status species adjacent to the active part of the mine. These vegetated areas would be directly and indirectly impacted by the increase in light and noise from mining operations. The Department had previously recommended surveying all areas directly and indirectly affected by the change in mining operations. According to Figure 5 of the Wildlife Survey Report provided in Appendix G, only three transects within the active part of the mine were surveyed.

The Department again recommends conducting additional surveys in the vegetated portion around the mine footprint in order to account for all species impacted directly and indirectly by Project impacts. The survey distance from the mining footprint should be based off the sensitivity of each species known to occur in the area. For instance, the Department recommends that during the nesting season of Swainson's hawk (*Buteo swainsoni*), no new disturbances, habitat conversions, or other Project-related activities that may cause nest abandonment or forced fledging occur within 1/2 mile of an active nest between March 1 and September 15. Thus, the Department would recommend surveys extend at least 1/2 mile from the Project activity to ensure that no Swainson's hawk are disturbed within that buffer area. A similar exercise for determining survey distance from the Project site should be completed for each species known to occur in the area.

A typical mitigation measure recommended by the Department for special status species are buffers; as mentioned above, the size of the buffer will differ depending on the species and its location relative to the potential disturbance. Without the additional survey information collected from areas adjacent to the mining footprint, it is difficult to understand the Project impacts and to develop feasible and effective mitigation. Great horned owls (*Bubo virginianus*), for example, were observed in an abandoned water tower in the undisturbed portion of the mine area. The SEIR states the owls appear to tolerate associated noise levels. The Department concurs; however, these existing noise levels occur during the day when the owls are not actively foraging for food, which they do by sound and sight at night. Increasing the noise level at night may cause the owls to abandon their nest or possibly cause impacts to reproductive behavior in general.

The Department would typically call for a 150- to 300-foot buffer during the breeding season or until the young have fledged depending upon the type of disturbance. Currently, the Department considers the breeding season for most bird species to begin February 1 and continue until August 31. To avoid impacts to birds during the nesting season, additional seasonal restrictions may need to be developed. Seasonal restrictions would depend on species use of areas

surrounding the mine and their tolerance to nocturnal disturbance. Upon conclusion of additional surveys, the Lead Agency and Project applicant should consult with the Department on appropriate buffers for each species identified.

#### Burrowing Owl (*Athene cunicularia*)

Habitat for this species is found onsite. A preliminary survey did not observe any burrowing owls; however, the burrowing owl survey protocol was not used. The Department recommends that a burrow survey be conducted in the vegetated portion of the mining area to determine if burrowing habitat exists. A game camera could be set up at the burrows to determine if they are being used and which species is utilizing them. If burrowing owls are observed, a focused protocol-level survey should be conducted to determine the population size, and avoidance and minimization measures developed. The survey protocol for burrowing owl can be found here: <https://www.wildlife.ca.gov/conservation/survey-protocols#377281284-birds>

Any survey results for burrowing owl or any other species should be sent to the Department at the following address: California Department of Fish and Wildlife, ATTN: CEQA, 601 Locust Street, Redding, CA 96001.

#### Bats

No specific surveys, other than visual observation, were done for bat species. At a minimum, acoustic surveys should have been done to determine if any bat species were utilizing the area within and adjacent to the mining area.

The Department recommended a complete assessment for all special status species in our letter dated July 16, 2018.

#### Wintering Habitat for Pronghorn Antelope and Mule Deer

The Department acknowledges and concurs that the mitigations listed in Mitigation Measure 4.4.5.2 will benefit pronghorn antelope and mule deer. In the event vehicular collisions increase despite the mitigation measures, a measure stating that the Project or Lassen County will consult with the Department to determine additional measures to protect pronghorn antelope and mule deer from additional collisions should be developed.

#### Lighting

The Department appreciates the inclusion of lighting fixtures that are downward facing, fully-shielded, and designed and installed to minimize photo-pollution.

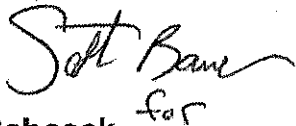
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Mining Area

Although the SEIR does not go into detail about the actual mining activities, the Department would like to recommend, if it is not already in the Reclamation Plan, a mitigation measure to prevent animal entrapment in the mine pit. If the mine pit becomes deep and the slopes are steep, having benching or some other mechanism to allow wildlife safe passage out of the mine pit should be developed.

If you have any questions, please contact Amy Henderson, Environmental Scientist, at (530) 225-2779, or by e-mail at [Amy.Henderson@wildlife.ca.gov](mailto:Amy.Henderson@wildlife.ca.gov).

Sincerely,



**Curt Babcock** for  
Habitat Conservation Program Manager

cc: Nancy McAllister, Natural Resources Technician  
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