



THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT

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July 17, 2017

Shelby Cave
BLM Hassayampa Field Office
21605 North 7th Avenue
Phoenix, Arizona 85027
1-623-580-5639

Re: Notice of Public Scoping – Kirkland Mining Company/Skull Valley high quality pozzolan mine.

Dear Shelby Cave,

The Arizona Game and Fish Department (Department) has received your June 26, 2017 Notice of Public Scoping letter soliciting comments regarding the Kirkland Mining Company development of a high quality pozzolan mine on approximately 76 acres of public land located near the town of Kirkland, Arizona, within the Bureau of Land Management (BLM) Bradshaw-Harquahala Planning Area. The Department has reviewed the Draft Mining and Reclamation Plan of Operations and understands this development would entail collectively removing pozzolan with front end loaders, performing the primary processing of crushing and screening on-site, and then loading materials onto trucks to be taken off-site. The mine boundaries have been adjusted to maintain a minimum 50 foot separation between the mine operation disturbed area and the major washes known as the limit of disturbance. Chemicals will not be utilized during the primary material processing, and a well located on Kirkland Mine property will be used to supply water for dust abatement. No water will be needed for removing, or processing the high quality pozzolan.

Under Title 17 of the Arizona Revised Statutes, the Department, by and through the Arizona Game and Fish Commission (Commission), has jurisdictional authority and public trust responsibilities for the management of state fish and wildlife resources. It is the mission of the Department to conserve Arizona's diverse fish and wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations. The Department appreciates the opportunity to provide input on this project and offers the following comments based on our agencies statutory authorities, public trust responsibilities, and special expertise related to wildlife resources and recreation.

Both the Northwestern and Southeastern sides of the proposed project area are adjacent to riparian habitat. Additionally, there are five desert wash habitats surrounding the proposed project area. These washes are far more productive than surrounding uplands and provide both

food and shelter for many species. These xeroriparian areas are especially critical during the hot, dry summer months when this microclimate becomes necessary for thermoregulation and providing vegetation missing from the surrounding upland. The Department is concerned about the potential impacts this project will have on the riparian habitat and desert washes around the proposed limits of disturbance.

The most important component of maintaining wildlife connectivity through drainage corridors and other washes is preserving linkage connections between wash systems. Loss of connectivity and permeability for wildlife results in the fragmentation of populations, prevents wildlife from accessing resources, reduces gene flow, prevents wildlife from re-colonizing areas where local extirpations may have occurred, and prevents populations from adapting to effects from climate changes. To enhance the likelihood of wildlife utilizing wash or drainage corridors, these corridors should be maintained in as natural a state as possible, with minimal disturbance.

The Draft Mining and Reclamation Plan of Operations, Section 2.2.2 Water Management Facilities, mentions that the mine boundaries have been adjusted to maintain a minimum 50-foot separation between the disturbed areas and the major washes. The Department recommends increasing this buffer zone to a minimum of 100 feet. This recommendation is based on multiple areas of research regarding the improvement of riparian buffer strips and corridors for water quality and wildlife that have been collected and presented by the American Water Resources Association (Fischer, Martin and Fischenich 2000). This research collective recommends that widths of vegetated buffer strips for riparian ecology and management in multi-land use watersheds be maintained as follows:

- Mammal Habitat \geq 50m
- Bird Habitat \geq 100m
- Reptile/Amphibian Habitat \geq 100m to 165m
- Maintain an unaltered microclimatic gradient \geq 45m

The proposed project area provides suitable habitat for several species of birds regulated under the Migratory Bird Treaty Act (MBTA). Several Species of Greatest Conservation Need (SGCN) for the Department falls directly south and west of the quarry; the Arizona toad and the lowland leopard frog both have habitat occupying the site. Several riparian obligate bird species, such as the common black-hawk, Sonoran yellow warbler, and the southwestern willow flycatcher breed in and around the project area and could potentially be affected by the proposed mining activities. There are also riparian plant species, including willow and cottonwood trees that occur in the washes throughout the proposed project area. These riparian plant species provide habitat that is used by the above mentioned and other bird species. Increasing the suggested buffer zone to 100m would help minimize any potential disturbance and impacts to these species of conservation concern.

In addition, the Department recommends removing the 10,000 gallon double-walled diesel fuel tank away from the watersheds on the Northwest side of the limits of disturbance, and placing it with the adjacent mine support facilities on privately owned lands. It would be environmentally responsible to add additional protections in the event of a fuel leak, spillage, or accident by

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removing a fueling station out of the wash, and adding further protections to the above mentioned watersheds.

The Department recommends using the Online Environmental Review Tool (ERT) (<https://azhgis2.esri.com/>), administered by the Department's Heritage Data Management System (HDMS) to obtain information on Special Status Species, Arizona's Species of Greatest Conservation Need (SGCN), and Species of Economic and Recreation Importance (SERI) that are known or predicted to occur within the vicinity of the project area. We request that the needs of these species are considered within the development of the Environmental Assessment (EA) and that any direct, indirect, and/or cumulative impacts are avoided, minimized, or mitigated. The Department has preliminarily accessed the ERT and notes that there are recorded observations of Western Burrowing Owl, a special status species that is regulated under the Migratory Bird Treaty Act (MBTA), within 3 miles of the proposed project area. In order to reduce impacts to this species, the Department is enclosing a brochure that provides information on the importance of relocating burrowing owls prior to construction activities. Based on the information provided in the Plan of Operations, we recommend conducting an occupancy survey for western burrowing owl to determine if this species occurs within your project footprint, prior to any type of land clearance. We recommend that only individuals with proper training and certification conduct the survey, and that all survey data be reported to the Department within 30 days of survey completion.

The Department appreciates the opportunity to provide preliminary comments on the draft Mining and Reclamation Plan of Operations for the Kirkland High Quality Pozzolan Mine. We would like to offer our continued assistance in providing further comments once the EA is completed and available for review. If you have questions regarding this letter please contact me at (928)263-8855, or by email at dkephart@azgfd.gov.

Sincerely,



Dee Kephart, Habitat, Evaluation and Land Program Manager, Region III - Kingman

cc: Laura Canaca, Project Evaluation Program Supervisor
Jami Clark, Project Evaluation Program, Phoenix
Scott Poppenberger, Regional Supervisor, Region III

Enclosures: AGFD Burrowing Owl Project Clearance Guidance for Landowners

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References

Fischer, R.A., C.O. Martin, and J.C. Fischenich, 2000. *Improving Riparian Buffer Strips and Corridors for Water Quality and Wildlife*. U.S. Army Engineer Research and Development Center, Waterways Experiment Station, Vicksburg, MS.