



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Desert Region
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



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Governor's Office of Planning & Research

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STATE CLEARINGHOUSE

Diana Robinson
Planning Division Manager
Imperial County Planning and Development Services Department
801 Main Street
El Centro, CA 92243

USG Plaster City Quarry Expansion and Well No. 3 Project (PROJECT)
Draft Subsequent Environmental Impact Report (DSEIR)
SCH# 2001121133

Dear Diana Robinson:

The California Department of Fish and Wildlife (CDFW) received a Draft Subsequent Environmental Impact Report (DSEIR) from the Imperial County Planning and Development Services Department (Imperial County) for the Project pursuant to the California Environmental Quality Act (CEQA) and CEQA guidelines¹.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

¹CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

Proponent: United States Gypsum (USG)

Objective: The proposed Project consists of approval of a Conditional Use Permit from Imperial County for the development of a new production well, Well No. 3, and an associated pipeline to provide water to the USG Quarry. A Draft Final Environmental Impact Report/Environmental Impact Study was completed for the project in April 2006. On March 18, 2008, a Final Environmental Impact Report/Environmental Impact Study was certified by the Imperial County Board of Supervisors pursuant to the requirements of CEQA (SCH 2001121133). As such, the potential environmental impacts of the proposed quarry expansion and reclamation and development of Quarry Well No. 3 were previously evaluated in the 2008 Environmental Impact Report/Environmental Impact Study. Additional land use entitlements from Imperial County are not needed for mining and reclamation activities under the quarry expansion. However, because Well No. 3 would provide water to support quarry operations, this DSEIR evaluates potential environmental impacts associated with mining and reclamation activities under the quarry expansion. The DSEIR also evaluates potential environmental impacts associated with the restoration of the Viking Ranch site (207 acres) and preservation of the Old Kane Springs Road site (121 acres). USG identified these sites for preservation to provide compensatory mitigation for impacts to 139 acres of waters of the United States at the quarry.

The Project includes expansion of the quarry areas on a series of mining claims to the south and southeast of the existing quarries. The existing and proposed quarry would be located primarily on private lands, but also would include new disturbance within mining claims on public lands managed by the Bureau of Land Management (BLM). The total acreage of USG's claims on public lands is 73.2 acres, and planned disturbance would be limited to 18.1 acres within them. The area proposed for continuing and future quarrying is on middle and lower slopes and a broad alluvial wash.

Well No. 3 would be located east of the existing quarry on a USG-owned parcel (APN 033-020-009) and would provide processing water via a 10-inch-diameter,

approximately 3.5-mile-long underground pipeline that would be developed within the existing USG narrow-gauge railroad right-of-way. The pipeline would extend from Well No. 3 to the existing offload facility within the quarry processing area. In conjunction with the development of the pipeline, USG would install an electric supply line to serve the well pump. The power service line would be installed underground from the well head to the quarry gate, and power poles would be installed within the quarry site. The well would be approximately 6 inches in diameter and 565 feet in depth. The water would be used in the quarry for dust suppression on the haul roads and crushing equipment, for the watering of transplanted desert plant species during reclamation, and as a possible supply of potable water for use by employees.

The proposed pipeline would be constructed of high-density polyethylene pipe and would be installed at a depth of about 4 feet below the ground surface. The pipeline would be developed within the existing narrow-gauge railroad right-of-way that is already disturbed by an existing unpaved access road. A trench, approximately five feet wide and seven feet deep would be excavated between the railroad and access road for installation of the pipeline. Excavated soils would be temporarily stockpiled along the alignment and used as backfill. Import of fill material is not anticipated. Construction would occur within a 30-foot-wide area along the entire length of the pipeline alignment. Development of the pipeline would disturb approximately 12.7 acres (30 foot wide by 3.5 miles) of land, most of which is managed by the BLM. A portion of the right-of-way (3.75 acres) is located within the Anza-Borrego Desert State Park. All waterline/powerline construction areas would be restored to pre-project conditions following the completion of construction activities.

The proposed project also includes restoration and/or preservation of two proposed off-site mitigation sites (Viking Ranch restoration site and Old Kane Springs Road preservation site) in San Diego County for the purpose of mitigating anticipated impacts to jurisdictional waters within the quarry expansion area. These project components were not evaluated in the 2008 Environmental Impact Report/Environmental Impact Study or the 2019 Supplemental Environmental Impact Study but are undergoing environmental review in the DSEIR.

The Viking Ranch parcels were primarily former orchard land located north of Borrego Springs and within the Coyote Creek Wash. However, parcel 140-030-10-00 and the southwestern portion of parcel 140-030-11-00 are undeveloped and were not historically in agriculture. The proposed mitigation site is located approximately 26 miles from the USG Quarry. Viking Ranch was used for orchard production until the site was purchased by the Borrego Water District in 2017. Previous agricultural land modifications were constructed that diverted hydrology of Coyote Creek around the agricultural field. These topographic modifications included excavation of ditches and construction of berms to protect the orchard from flooding. The restoration program proposes to remove these diversion features to re-establish braided, unconstrained flow

across the site, consistent with the existing Coyote Creek floodplain. Proposed restoration activities at the Viking Ranch site would include tree stump removal, grading, excavations, and revegetation of the site. These activities are expected to require the use of backhoes, a trencher, grader, dozer, and dump truck, as well as supply and water trucks. The Old Kane Springs Road Preservation Site would be preserved in its existing conditions. No construction or development is proposed at this site.

Location: The Project's proposed USG Quarry Well No. 3 is located in Imperial County on USG-owned property APN 033-020-009. It is located within Section 16 of Township 13 South, Range 09 East SBM.

The Project's proposed pipeline alignment is located in Imperial County within USG-owned property (APNs 033-020-009; 033-060-010 and -008); land owned by the U.S. Bureau of Land Management (BLM) (APNs 033-010-025 and -017; and 033-060-012); and Anza-Borrego Desert State Park (APN 033-010-016). The pipeline crosses Sections 16, 17, 18, and 19 of Township 13 South, Range 09 East SBM.

The Project's associated Viking Ranch restoration site is located in San Diego County and consists of approximately 150 acres of property owned by Borrego Water District (APNs 140-030-09-00 and -11-00); approximately 10 acres of privately owned property (APN 140-030-10-00); and approximately 47 acres of lands adjacent to these parcels that would be restored or enhanced. The adjacent lands consist of approximately 13 acres of land owned by the Anza-Borrego Foundation (APN 140-030-05-00), approximately 3 acres of State Park-owned land to the north of the restoration site, and approximately 31 acres of State Park-owned lands to the east of the restoration site (APN 140-030-07-00). The restoration site is located in the southeast corner of Section 4 of Township 10 South, Range 06 East SBM.

The Project's associated 121-acre Old Kane Springs Road preservation site is located in San Diego County on privately owned property (APN 253-150-34-00). The mitigation site is located in Section 18 of Township 12 South, Range 08 East SBM.

Timeframe: The proposed project and its associated mining and reclamation activities are anticipated to disrupt portions of the Project site for at least 80 years.

COMMENTS AND RECOMMENDATIONS

CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (i.e., biological resources). CDFW offers the comments and recommendations below to assist Imperial County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. The DSEIR has not adequately identified and

disclosed the Project's impacts (i.e., direct, indirect, and cumulative) on biological resources and whether those impacts are reduced to less than significant.

CDFW's comments and recommendations on the DSEIR are explained in greater detail below and summarized here. CDFW is concerned that the DSEIR does not adequately identify or mitigate the Project's significant, or potentially significant, impacts to biological resources. CDFW also concludes that the DSEIR lacks sufficient information to facilitate a meaningful review by CDFW, including both a complete and accurate assessment of biological resources on the Project site. CDFW recommends that additional information and analyses be added to a revised DSEIR, along with avoidance, minimization, and mitigation measures that avoid or reduce impacts to less than significant.

Existing Environmental Setting

Compliance with CEQA is predicated on a complete and accurate description of the environmental setting that may be affected by the proposed Project. CDFW is concerned that the assessment of the existing environmental setting has not been adequately analyzed in the DSEIR. CDFW is concerned that without a complete and accurate description of the existing environmental setting, the DSEIR may provide an incomplete analysis of Project-related environmental impacts.

The DSEIR lacks a recent and complete assessment of biological resources within the Project site and surrounding area. A complete and accurate assessment of the environmental setting and Project-related impacts to biological resources is needed to both identify appropriate avoidance, minimization, and mitigation measures and demonstrate that these measures reduce Project impacts to less than significant.

Mitigation Measures

CEQA requires that a DSEIR include mitigation measures to avoid or reduce significant impacts. CDFW is concerned that the mitigation measures proposed in the DSEIR are not adequate to avoid or reduce impacts to biological resources to below a level of significance. To support Imperial County in ensuring that Project impacts to biological resources are reduced to less than significant, CDFW recommends adding mitigation measures for an assessment of biological resources, bats, and the CDFW Lake and Streambed Alteration Program, as well as revising the mitigation measures (or sub-measures) for burrowing owl (*Athene cunicularia*), nesting birds, and artificial nighttime lightning.

1) Assessment of Biological Resources

Page 3 of the Project's Biological Report indicates that biological surveys over the Project areas, including the quarry and proposed new pipeline, were conducted in October 2014, April and October of 2016, and March and April of 2017.

CDFW generally considers biological field assessments for wildlife to be valid for a one-year period. Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts, that special emphasis should be placed on environmental resources that are rare or unique to the region, and that significant environmental impacts of the proposed Project are adequately investigated and discussed. CDFW recommends that the DSEIR is revised to include the findings of a complete, *recent* inventory of rare, threatened, endangered, and other sensitive species located within the footprint of proposed Well #3 and its associated pipeline and within offsite areas with the potential to be affected, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish and Game Code § 3511). Based on findings from a recent biological inventory, CDFW recommends that the DSEIR is revised to include an analysis of direct, indirect, and cumulative impacts to biological resources and identification of appropriate avoidance, minimization, and mitigation measures.

The Project occurs in and adjacent to U.S. Fish and Wildlife Service (USFWS) critical habitat for Peninsular bighorn sheep (*Ovis canadensis*) and has the potential to impact this species both directly and indirectly. For example, Peninsular bighorn sheep rely on groundwater-dependent vegetation, especially during the dry summer months. Development of Well No. 3 may impact Peninsular bighorn sheep through drawdown of groundwater that results in fewer sources of forage plants. CDFW recommends that Imperial County seek current data on Peninsular bighorn sheep occurrence in the Project area in consultation with CDFW wildlife biologists (contact Jacob Skaggs at Jacob.Skaggs@Wildlife.ca.gov for more information) to ensure that data are recent and that direct and indirect impacts to this species from Project activities have been adequately analyzed in the CEQA document. CDFW recommends that the results of this consultation be included in a revised DSEIR.

Additionally, because quarry expansion activities will impact different areas of undisturbed habitat over an 80-year period, CDFW recommends that additional surveys for rare, threatened, endangered, and other sensitive species are conducted over undisturbed areas proposed for quarry expansion prior to ground disturbance or vegetation removal activities.

CDFW recommends that Imperial County add in a revised DSEIR the following mitigation measure:

Mitigation Measure BIO-[A]: Assessment of Biological Resources

Prior to adoption of the CEQA document and Project construction activities, a complete and recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish and Game Code § 3511), will be completed. Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. Focused species-specific surveys, completed by a qualified biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable are required. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. Note that CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.

2) *Burrowing Owl*

Burrowing owl (*Athene cunicularia*) is a California Species of Special Concern. Take of individual burrowing owls and their nests is defined by Fish and Game Code section 86, and prohibited by sections 3503, 3503.5, and 3513. Fish and Game Code section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.). Take is defined in Fish and Game Code section 86 as “hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill.”

Page 33 of the Project’s Biological Resources Technical Report dated March 2019 (Biological Report) indicates that suitable burrowing owl nesting and foraging habitat is present throughout the project area, and this species is considered to have moderate potential to nest in the Project area. The Biological Report also states that a single burrowing owl was observed during surveys for the project area in October 2014, and that subsequent surveys of the Project area conducted during the breeding season did not detect any burrowing owls.

Importantly, because the Project’s quarrying activities will occur over an 80-year period and undisturbed areas will be impacted at different times, CDFW recommends that focused and pre-construction burrowing owl surveys are completed each time the Project conducts ground disturbance and vegetation removal activities in a new undisturbed area.

Although the DSEIR includes Mitigation Measure 3.4-9 for burrowing owl, CDFW considers the measure to be inadequate in scope and timing to appropriately avoid, minimize, and mitigation impacts to burrowing owl. CDFW recommends that Imperial County revise Mitigation Measure 3.4-9 in a revised DSEIR, with additions in **bold** and removals in ~~strikethrough~~:

Mitigation Measure 3.4-9: Burrowing Owl Avoidance

Suitable burrowing owl habitat has been confirmed on the site; therefore, focused burrowing owl surveys shall be conducted in accordance with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version) prior to vegetation removal or ground-disturbing activities associated with all Project components (expansion of quarrying activities into previously undisturbed areas, construction of Well #3 and associated pipeline, and restoration of Viking Ranch) over the lifetime of the Project. If burrowing owls are detected during the focused surveys, the qualified biologist and Project proponent, in coordination with BLM, shall prepare a Burrowing Owl Plan that shall be submitted to CDFW and U.S. Fish and Wildlife Service (USFWS) for review and approval prior to commencing Project activities. The Burrowing Owl Plan shall describe proposed avoidance, monitoring, relocation, minimization, and/or mitigation actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Plan shall also describe minimization and relocation actions that will be implemented. Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated as exclusion is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls along with proposed relocation actions. The Project proponent shall implement the Burrowing Owl Plan following CDFW and USFWS review and approval.

Preconstruction burrowing owl surveys shall be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the *Staff Report on Burrowing Owl Mitigation* (2012 or most recent version). Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the *Staff Report on Burrowing Owl Mitigation*. If

the preconstruction surveys confirm occupied burrowing owl habitat, Project activities shall be immediately halted. The qualified biologist shall coordinate with CDFW and USFWS to conduct an impact assessment to develop avoidance, minimization, and mitigation measures to be approved by CDFW and USFWS prior to commencing Project activities. ~~Burrowing Owl Avoidance. If an active burrowing owl burrow is observed within a work area at any time of year, the Designated Biologist or Biological Monitor, in coordination with BLM, will designate and flag an appropriate buffer area around the burrow where project activities will not be permitted. The buffer area will be based on the nature of project activity and burrowing owl activity (i.e., nesting vs. wintering). The Designated Biologist or Biological Monitor will continue to monitor the site until it is confirmed that the burrowing owl(s) is no longer present. If avoidance of quarrying or pipeline construction within the buffer area is infeasible, Burrowing Owls may be excluded from an active wintering season burrow in coordination with CDFW and in accordance with the CDFW's Staff Report on Burrowing Owl Mitigation (March 2012), including provision of replacement burrows prior to the exclusion.~~

3) Nesting Birds

It is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Fish and Game Code sections 3503, 3503.5, and 3513 afford protective measures as follows: section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto. Fish and Game Code section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto. Fish and Game Code section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.).

Page 4.2-26 indicates that suitable foraging and nesting habitat for protected bird species, as well as "stopover" habitat for migratory songbirds, is found throughout the Project area. Although the DSEIR includes a sub-measure in Mitigation Measure 3.4-8 for migratory birds, CDFW considers the measure to be insufficient in scope and timing to reduce impacts to a level less than significant. CDFW recommends that disturbance of occupied nests of migratory birds and raptors within the Project site and surrounding area be avoided **any time birds are nesting on-site.**

Importantly, because the Project's quarrying activities will occur over an 80-year period and undisturbed areas will be impacted at different times, CDFW recommends that pre-construction nesting bird surveys are completed each time the Project conducts ground disturbance and vegetation removal activities in a new undisturbed area.

CDFW recommends Imperial County revise the following sub-measure in Mitigation Measure 3.4-8, with additions in **bold** and removals in ~~strikethrough~~:

Mitigation Measure 3.4-8: Wildlife Impact Avoidance and Minimization Measures

[...]

~~To the extent feasible, initial site clearing for Quarry expansion, pipeline construction, or other activities (e.g., clearing spoils stockpile areas) will be conducted outside the nesting season (January 1 through August 31) to avoid potential take of nesting birds or eggs.~~ **Regardless of the time of year, nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to vegetation removal or ground-disturbing activities associated with all Project components (the expansion of quarrying activities into previously undisturbed areas, the construction of Well #3 and associated pipeline, and restoration of Viking Ranch) and over the lifetime of the Project. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the pre-construction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground. Nest buffers are species specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Established buffers shall remain on-site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance.**

[...]

4) Special-Status Bats

Page 4.2-24 of the DSEIR indicates that several special-status bats have at least a moderate potential to forage over the Project area, including the following California Species of Special Concern: California leaf-nosed bat (*Macrotus californicus*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), spotted bat (*Euderma maculatum*), western mastiff bat (*Eumops perotis californicus*), and pocketed free-tailed bat (*Nyctinomops femorosaccus*). The DSEIR further indicates that the

gypsum cliffs in the quarry expansion areas and other cliffs and outcrops immediately adjacent to the quarry provide suitable roosting habitat for most of these species. Project activities associated with the expansion of mining operations may impact bat roosts and result in injury or mortality to bats. Also, any artificial nighttime lighting associated with the Project may also negatively impact bats, and details on lighting plans and lightning specifications and appropriate avoidance, minimization, and mitigation measures are needed (see section below on Artificial Nighttime Lighting).

Page 4.2-59 of the EIR states that potential impacts to bats would be avoided or minimized through Mitigation Measure 3.4-8 (Wildlife Impact Avoidance and Minimization Measures). However, it is unclear which sub-measure in Mitigation Measure 3.4-8 would apply to bats. CDFW recommends focused surveys for the special-status species of bats discussed above are conducted prior to quarry expansion activities to inform appropriate avoidance, minimization, and mitigation measures. CDFW recommends that Imperial County add the following mitigation measure to a revised DSEIR:

Mitigation Measure BIO-[B]: Surveys for Daytime, Nighttime, Wintering (Hibernacula), and Maternity Roosting Sites for Bats

Prior to the initiation of Project activities within suitable bat roosting habitat, Imperial County shall retain a qualified biologist to conduct focused surveys to determine presence of daytime, nighttime, wintering (hibernacula), and maternity roost sites. Two spring surveys (April through June) and two winter surveys (November through January) shall be performed by qualified biologists. Surveys shall be conducted during favorable weather conditions only. Each survey shall consist of one dusk emergence survey (start one hour before sunset and last for three hours), followed by one pre-dawn re-entry survey (start one hour before sunrise and last for two hours), and one daytime visual inspection of all potential roosting habitat on the Project site. Surveys shall be conducted within one 24-hour period. Visual inspections shall focus on the identification of bat sign (i.e., individuals, guano, urine staining, corpses, feeding remains, scratch marks and bats squeaking and chattering). Bat detectors, bat call analysis, and visual observation shall be used during all dusk emergence and pre-dawn re-entry surveys.

If active hibernacula or maternity roosts are identified in the work area or 500 feet extending from the work area during preconstruction surveys, for maternity roosts, quarry expansion activities into undisturbed habitat will be initiated between October 1 and February 28, outside of the maternity roosting season when young bats are present but are not yet ready to fly out of the roost. Maternity roosts shall not be evicted, excluded, removed, or disturbed.

A minimum 500-foot no-work buffer shall be provided around hibernacula. The buffer shall not be reduced. Project-related construction and activities shall not occur within 500 feet of or directly under or adjacent to hibernacula. Buffers shall be left in place until a qualified bat biologist determines that the hibernacula are no longer active. Within this buffer, Project-related activities shall not occur between 30 minutes before sunset and 30 minutes after sunrise. Hibernacula roosts shall not be evicted, excluded, removed, or disturbed. If avoidance of a hibernacula is not feasible, the Project Biologist will prepare a relocation plan to remove the hibernacula and provide for construction of an alternative bat roost outside of the work area. A bat roost relocation plan shall be submitted for CDFW review prior to initiation of Project-related activities. The qualified biologist will implement the relocation plan and new roost sites shall be in place before the commencement of any ground-disturbing activities that will occur within 500 feet of the hibernacula. New roost sites shall be in place prior to the initiation of Project-related activities to allow enough time for bats to relocate. Removal of roosts will be guided by accepted exclusion and deterrent techniques. Imperial County shall compensate no less than 2:1 for permanent impacts to roosting habitat.

5) Artificial Nighttime Lighting

Page ES-18 of the DSEIR includes Mitigation Measure 3.4-8 that indicates the Project will “avoid or minimize night lighting by using shielded directional lighting pointed downward, thereby avoiding illumination of adjacent natural areas and the night sky.” However, the DSEIR lacks a discussion of the lighting plans and lighting specifications that will be used across all Project components including quarry expansion activities, Well #3 and associated pipeline construction, and proposed mitigation sites. CDFW recommends that the DSEIR is revised to include a discussion of lightning plans and lightning specifications proposed to be used across all the Project’s components to allow CDFW to conduct a meaningful review and provide expertise on activities that have the potential to adversely affect fish and wildlife resources.

Additionally, because the Project is located within and adjacent to open-space areas that support Fully Protected Peninsular bighorn sheep (*Ovis canadensis*), several special-status species of bats, migratory birds that fly at night, and other nocturnal and crepuscular wildlife, CDFW recommends the DSEIR is revised to include an analysis of the direct, indirect, and cumulative impacts of artificial nighttime lighting expected to adversely affect biological resources surrounding the Project site. In general, available research indicates that artificial nighttime lighting alters ecological processes including, but not limited to, the temporal niches of species; the repair and recovery of physiological function; the measurement of time through interference with the detection of circadian and lunar and seasonal cycles; the detection of resources and natural

predators; and navigation². Further, many of the effects of artificial nighttime lighting on population- or ecosystem-level processes are still poorly understood suggesting that a precautionary approach should be taken when determining appropriate avoidance and minimization measures concerning artificial nighttime lighting.

Regarding impacts on bats, including the California Species of Special Concern discussed in the previous section, while artificial nighttime lighting can benefit some opportunistic bat species by providing a foraging resource where insect prey is attracted to lights,³ numerous studies have shown that direct lighting on roost structures can have profound negative effects on bats roosting in those structures. For example, the complete abandonment (or significant reduction of the bat population) at human-made structures used by roosting bats following the installation of bright artificial lighting has been documented on multiple occasions (e.g., Boldogh et al. 2007; Rydell et al. 2017). Downs et al. (2003) found that the intensity of the artificial light near the roost affected the bats' behavior during emergence more than the color of the light, while Rydell et al. (2017) found that the loss of bat colonies at structures that were newly illuminated was most apparent when light was applied in such a manner that there was no dark corridor for the bats to exit and return to the roost.

Adverse effects from the illumination of a roost structure by artificial lights extend beyond simply having the potential to discourage further use of that structure by bats. For example, Boldogh et al. (2007) found that not only did bright artificial lighting at roosts delay the start of the emergence and/or prolong the duration of bats' emergence from that structure, but also juveniles at roost structures that were illuminated were significantly smaller than juveniles at roost structures that were not illuminated by bright artificial lights. The smaller body masses of juveniles at illuminated sites may be attributed to the delayed emergences at those sites, which not only reduces the total foraging time available for lactating female bats (and later, juveniles learning to hunt) each night, but also causes those bats to miss the peak insect abundance that occurs at dusk, reducing their foraging efficiency. These findings suggest that even if a maternity colony chooses to remain at a newly illuminated roost site, juvenile survivorship is negatively affected, and therefore the reproductive success of those colonies could be severely compromised.

² Gatson, K. J., Bennie, J., Davies, T., Hopkins, J. *The ecological impacts of nighttime light pollution: a mechanistic appraisal*. *Biological Reviews*, 88.4 (2013): 912-927.

³ It should be noted that because many insects congregate around artificial light sources and die from exhaustion, long-term reductions of insect populations from light pollution is expected to have significant adverse effects for predators of insects such as bats (Hölker et al. 2010).

Rydell et al. (2017) and Voigt et al. (2018) note that maintaining darkness at maternity roosts is particularly important because at these types of roosts, aggregations of bats are present consistently over a long period of time, individual bats emerge from predictable locations, and juvenile bats are learning how to fly. Illumination of a maternity roost renders the colony more vulnerable to opportunistic predators such as raptors and owls, and predator-avoidance behaviors such as delayed emergence times reduce their foraging opportunities, thereby lowering juvenile survivorship. Suitable maternity roost sites are a limited resource, and if an alternate roost site is not available, extirpation of the entire colony could occur as a result of artificial lighting. Various studies (e.g., Boldogh et al. 2007; Rydell et al. 2017; Voigt et al. 2018) have concluded that because bright artificial lighting at roost structures has significant negative effects on bats, including the potential for the extirpation of an entire maternity colony, the addition of lighting near an established roost should be considered during the environmental impact review process.

To support Imperial County in avoiding, minimizing, and mitigating the impacts of artificial nighttime lighting on biological resources, CDFW recommends that Imperial County revise the following sub-measure of Mitigation Measure 3.4-8 in a revised DSEIR as follows, with additions in **bold** and removals in ~~strike through~~:

Mitigation Measure 3.4-8: Wildlife Impact Avoidance and Minimization Measures

[...]

~~Avoid or minimize night lighting by using shielded directional lighting pointed downward, thereby avoiding illumination of adjacent natural areas and the night sky.~~ **Throughout the lifetime of the Project, the Project proponent shall eliminate all nonessential lighting throughout the Project area and avoid or limit the use of artificial light during the hours of dawn and dusk when many wildlife species are most active. Imperial County shall ensure that all lighting for the Project is fully shielded, cast downward, reduced in intensity to the greatest extent, and does not result in lighting trespass including glare into surrounding areas or upward into the night sky (see the International Dark-Sky Association standards at <http://darksky.org/>). Imperial County shall ensure use of LED lighting with a correlated color temperature of 3,000 Kelvins or less, proper disposal of hazardous waste, and recycling of lighting that contains toxic compounds with a qualified recycler.**

[...]

6) CDFW's Lake and Streambed Alteration Program

Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: substantially divert or

obstruct the natural flow of any river, stream, or lake; substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or deposit debris, waste, or other materials that could pass into any river, stream, or lake. Note that "any river, stream, or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

Page 4.6-22 of the DSEIR indicates that the Project's Jurisdictional Delineation "identified a total 325.79 acres of unnamed streambeds within Quarry area and found that the expansion of quarrying activities would result in impacts to approximately 134.08 acres of CDFW, USACE, and RWQCB jurisdictional drainages." The DSEIR also indicates that "Well No. 3 and the water supply pipeline would result in filling of all ephemeral streambeds and washes within the waterline/powerline area, and that these activities would result in impacts to 0.21 acres of CDFW, USACE, and RWQCB jurisdictional drainages." Regarding the Restoration of Viking Ranch, Figure 2-6 of the DSEIR shows that restoration plans will involve removal and creation of berms, backfill of diversion ditches, installation of a grade structure, grading of ephemeral channels, and recontouring of areas of the floodplain within the Viking Ranch Project boundary.

The DSEIR includes Mitigation Measure 3.5-1f: "Prior to any new disturbances on the alluvial wash portion of the project area, USG shall contact the CDFG and the US Army Corps of Engineers to determine whether either agency holds jurisdiction over the wash through Sections 1601-3 of the California Fish and Game Code or Section 404 of the Federal Clean Water Act, respectively."

In addition to this measure and to address requirements under CDFW's Lake and Streambed Alteration Program, CDFW recommends that Imperial County add the following mitigation measure to a revised DSEIR:

Mitigation Measure BIO-[C]: Lake and Streambed Alteration Program

Prior to construction and issuance of any grading permit, the Project Sponsor shall obtain written correspondence from the California Department of Fish and Wildlife (CDFW) stating that notification under section 1602 of the Fish and Game Code is not required for the Project, or the Project Sponsor shall obtain a CDFW-executed Lake and Streambed Alteration Agreement, authorizing impacts to Fish and Game Code section 1602 resources associated with the Project.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make

subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be filled out and submitted online at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

ENVIRONMENTAL DOCUMENT FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSIONS

CDFW appreciates the opportunity to comment on the DSEIR to assist Imperial County in identifying and mitigating Project impacts to biological resources. CDFW concludes that the DSEIR does not adequately identify or mitigate the Project's significant, or potentially significant, impacts to biological resources. CDFW also concludes that the DSEIR lacks sufficient information for a meaningful review of impacts to biological resources, including a complete and accurate assessment of biological resources on the Project site. The CEQA Guidelines (§ 15088.5) indicate that recirculation is required when insufficient information in the DSEIR precludes a meaningful review. CDFW recommends that a revised DSEIR including a recent and complete assessment of impacts to biological resources (inclusive of recent data on Peninsular bighorn sheep), as well as lightning plans and design specifications, be recirculated for public comment. CDFW also recommends that revised and additional mitigation measures as described in this letter be added to a revised DSEIR to avoid or reduce significant impacts.

CDFW personnel are available for consultation regarding biological resources and strategies to minimize impacts. Questions regarding this letter or further coordination should be directed to Jacob Skaggs, Environmental Scientist, at jacob.skaggs@wildlife.ca.gov.

Diana Robinson, Planning Division Manager
Imperial County Planning and Development Services Department
June 2, 2023
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Sincerely,

DocuSigned by:

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Kim Freeburn
Environmental Program Manager

Attachment 1: MMRP for CDFW-Proposed Mitigation Measures

ec:

Heather Brashear, Senior Environmental Scientist (Supervisor), CDFW
Heather.Brashear@Wildlife.ca.gov

Office of Planning and Research, State Clearinghouse, Sacramento
state.clearinghouse@opr.ca.gov

Rollie White, U.S. Fish and Wildlife Service
rollie_white@fws.gov

Vincent James, U.S. Fish and Wildlife Service
vincent_james@fws.gov

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ATTACHMENT 1: MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

Mitigation Measures	Timing and Methods	Responsible Parties
<p>Mitigation Measure BIO-[A]: Assessment of Biological Resources</p> <p>Prior to adoption of the CEQA document and Project construction activities, a complete and recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish and Game Code § 3511), will be completed. Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. Focused species-specific surveys, completed by a qualified biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable are required. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. Note that CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.</p>	<p>Timing: Prior to adoption of the CEQA document and Project construction activities</p> <p>Methods: See Mitigation Measure</p>	<p>Implementation: Imperial County</p> <p>Monitoring and Reporting: Imperial County</p>
<p>Mitigation Measure 3.4-9: Burrowing Owl Avoidance</p> <p>Suitable burrowing owl habitat has been confirmed on the site; therefore, focused burrowing owl surveys shall be conducted in accordance with the Staff Report on Burrowing Owl Mitigation (2012 or most recent version) prior to vegetation removal or ground-disturbing activities associated with all Project components (expansion of quarrying activities</p>	<p>Timing: Prior to the start of Project-related activities for focused surveys. No less than 14 days prior to the start of Project-related activities and within 24</p>	<p>Implementation: Project proponent</p> <p>Monitoring and Reporting: Imperial County</p>

<p>into previously undisturbed areas, construction of Well #3 and associated pipeline, and restoration of Viking Ranch) over the lifetime of the Project. If burrowing owls are detected during the focused surveys, the qualified biologist and Project proponent, in coordination with BLM, shall prepare a Burrowing Owl Plan that shall be submitted to CDFW and U.S. Fish and Wildlife Service (USFWS) for review and approval prior to commencing Project activities. The Burrowing Owl Plan shall describe proposed avoidance, monitoring, relocation, minimization, and/or mitigation actions. The Burrowing Owl Plan shall include the number and location of occupied burrow sites, acres of burrowing owl habitat that will be impacted, details of site monitoring, and details on proposed buffers and other avoidance measures if avoidance is proposed. If impacts to occupied burrowing owl habitat or burrow cannot be avoided, the Burrowing Owl Plan shall also describe minimization and relocation actions that will be implemented. Proposed implementation of burrow exclusion and closure should only be considered as a last resort, after all other options have been evaluated as exclusion is not in itself an avoidance, minimization, or mitigation method and has the possibility to result in take. If impacts to occupied burrows cannot be avoided, information shall be provided regarding adjacent or nearby suitable habitat available to owls along with proposed relocation actions. The Project proponent shall implement the Burrowing Owl Plan following CDFW and USFWS review and approval.</p> <p>Preconstruction burrowing owl surveys shall be conducted no less than 14 days prior to the start of Project-related activities and within 24 hours prior to ground disturbance, in accordance with the <i>Staff Report on Burrowing Owl Mitigation</i> (2012 or most recent version). Preconstruction surveys should be performed by a qualified biologist following the recommendations and guidelines provided in the <i>Staff Report on Burrowing Owl Mitigation</i>. If the preconstruction surveys confirm occupied burrowing owl habitat, Project activities shall be immediately halted. The qualified biologist shall coordinate with CDFW and USFWS to conduct an impact assessment to develop avoidance,</p>	<p>hours prior to ground disturbance for preconstruction surveys.</p> <p>Methods: See Mitigation Measure</p>	
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<p>minimization, and mitigation measures to be approved by CDFW and USFWS prior to commencing Project activities.</p>		
<p>Mitigation Measure 3.4-8: Wildlife Impact Avoidance and Minimization Measures</p> <p>[...]</p> <p>Regardless of the time of year, nesting bird surveys shall be performed by a qualified avian biologist no more than 3 days prior to vegetation removal or ground-disturbing activities associated with all Project components (the expansion of quarrying activities into previously undisturbed areas, the construction of Well #3 and associated pipeline, and restoration of Viking Ranch) and over the lifetime of the Project. Pre-construction surveys shall focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior. The qualified avian biologist will make every effort to avoid potential nest predation as a result of survey and monitoring efforts. If active nests are found during the pre-construction nesting bird surveys, a qualified biologist shall establish an appropriate nest buffer to be marked on the ground. Nest buffers are species specific and shall be at least 300 feet for passerines and 500 feet for raptors. A smaller or larger buffer may be determined by the qualified biologist familiar with the nesting phenology of the nesting species and based on nest and buffer monitoring results. Established buffers shall remain on-site until a qualified biologist determines the young have fledged or the nest is no longer active. Active nests and adequacy of the established buffer distance shall be monitored daily by the qualified biologist until the qualified biologist has determined the young have fledged or the Project has been completed. The qualified biologist has the authority to stop work if nesting pairs exhibit signs of disturbance.</p> <p>[...]</p>	<p>Timing: No more than 3 days prior to vegetation removal or ground-disturbing activities for all phases of the Project</p> <p>Methods: See Mitigation Measure</p>	<p>Implementation: Imperial County</p> <p>Monitoring and Reporting: Imperial County</p>

<p>Mitigation Measure BIO-[B]: Surveys for Daytime, Nighttime, Wintering (Hibernacula), and Maternity Roosting Sites for Bats</p> <p>Prior to the initiation of Project activities within suitable bat roosting habitat, Imperial County shall retain a qualified biologist to conduct focused surveys to determine presence of daytime, nighttime, wintering (hibernacula), and maternity roost sites. Two spring surveys (April through June) and two winter surveys (November through January) shall be performed by qualified biologists. Surveys shall be conducted during favorable weather conditions only. Each survey shall consist of one dusk emergence survey (start one hour before sunset and last for three hours), followed by one pre-dawn re-entry survey (start one hour before sunrise and last for two hours), and one daytime visual inspection of all potential roosting habitat on the Project site. Surveys shall be conducted within one 24-hour period. Visual inspections shall focus on the identification of bat sign (i.e., individuals, guano, urine staining, corpses, feeding remains, scratch marks and bats squeaking and chattering). Bat detectors, bat call analysis, and visual observation shall be used during all dusk emergence and pre-dawn re-entry surveys.</p> <p>If active hibernacula or maternity roosts are identified in the work area or 500 feet extending from the work area during preconstruction surveys, for maternity roosts, quarry expansion activities into undisturbed habitat will be initiated between October 1 and February 28, outside of the maternity roosting season when young bats are present but are not yet ready to fly out of the roost. Maternity roosts shall not be evicted, excluded, removed, or disturbed.</p> <p>A minimum 500-foot no-work buffer shall be provided around hibernacula. The buffer shall not be reduced. Project-related construction and activities shall not occur within 500 feet of or directly under or adjacent to hibernacula. Buffers shall be left in place until a qualified bat biologist determines that the hibernacula are no longer active. Within this buffer, Project-related activities shall not occur between 30 minutes before sunset and 30 minutes after sunrise.</p>	<p>Timing: Prior to grading or vegetation removal activities</p> <p>Methods: See Mitigation Measure</p>	<p>Implementation: Imperial County</p> <p>Monitoring and Reporting: Imperial County</p>
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<p>Hibernacula roosts shall not be evicted, excluded, removed, or disturbed. If avoidance of a hibernacula is not feasible, the Project Biologist will prepare a relocation plan to remove the hibernacula and provide for construction of an alternative bat roost outside of the work area. A bat roost relocation plan shall be submitted for CDFW review prior to initiation of Project-related activities. The qualified biologist will implement the relocation plan and new roost sites shall be in place before the commencement of any ground-disturbing activities that will occur within 500 feet of the hibernacula. New roost sites shall be in place prior to the initiation of Project-related activities to allow enough time for bats to relocate. Removal of roosts will be guided by accepted exclusion and deterrent techniques. Imperial County shall compensate no less than 2:1 for permanent impacts to roosting habitat.</p>		
<p>Mitigation Measure 3.4-8: Wildlife Impact Avoidance and Minimization Measures</p> <p>[...]</p> <p>Throughout the lifetime of the Project, the Project proponent shall eliminate all nonessential lighting throughout the Project area and avoid or limit the use of artificial light during the hours of dawn and dusk when many wildlife species are most active. Imperial County shall ensure that all lighting for the Project is fully shielded, cast downward, reduced in intensity to the greatest extent, and does not result in lighting trespass including glare into surrounding areas or upward into the night sky (see the International Dark-Sky Association standards at http://darksky.org/). Imperial County shall ensure use of LED lighting with a correlated color temperature of 3,000 Kelvins or less, proper disposal of hazardous waste, and recycling of lighting that contains toxic compounds with a qualified recycler.</p> <p>[...]</p>	<p>Timing: Throughout the lifetime of the Project</p> <p>Methods: See Mitigation Measure</p>	<p>Implementation: Project proponent and Imperial County</p> <p>Monitoring and Reporting: Imperial County</p>

<p>Mitigation Measure BIO-[C]: Lake and Streambed Alteration Program</p> <p>Prior to construction and issuance of any grading permit, the Project Sponsor shall obtain written correspondence from the California Department of Fish and Wildlife (CDFW) stating that notification under section 1602 of the Fish and Game Code is not required for the Project, or the Project Sponsor shall obtain a CDFW-executed Lake and Streambed Alteration Agreement, authorizing impacts to Fish and Game Code section 1602 resources associated with the Project.</p>	<p>Timing: Prior to construction and issuance of any grading permit</p> <p>Methods: See Mitigation Measure</p>	<p>Implementation: Project Sponsor</p> <p>Monitoring and Reporting: Imperial County</p>
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