



State of California – Natural Resources Agency

DEPARTMENT OF FISH AND WILDLIFE

Inland Deserts Region

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GAVIN NEWSOM, Governor

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November 19, 2025

Sent via email

Derek Newland, Planner II

San Bernardino County

Land Use Services Department – Planning Division

385 North Arrowhead Avenue, First Floor

San Bernardino, CA 92415-0187

Subject: Notice of Preparation of (NOP) a Draft Joint Environmental Impact Report (EIR) Castle Mountain Mine Phase II Expansion Project
State Clearinghouse No. 2025100846

Dear Mr. Newland:

The California Department of Fish and Wildlife (CDFW) received a Notice of Preparation (NOP) of a Draft EIR from San Bernardino County (County) for the Castle Mountain Mine Phase II Expansion Project (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

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.

CDFW is also submitting comments as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may

¹ CEQA 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.

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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

The Castle Mountain Mine (CMM) Project is located in unincorporated San Bernardino County, California, in the Mojave Desert near the community of Nipton at latitude 35.285°N, longitude -115.090°W. The Project site lies about 100 miles east of Barstow and 60 miles south of Las Vegas, covering roughly 3,294 acres across 38 parcels. The Project is situated on land managed by the Bureau of Land Management (BLM).

The Project will extend the life of Castle Mountain Mine by 30 years, with 20 years for mining/processing and 10 years for reclamation. Project activities including expanding open pits, creating overburden storage areas, and installation of heap-leach pads will allow for an increase in the annual mining rate from 18 to 80 million tons. The Project will extract an additional 296 million tons of material, deepen pits over 400 feet below the water table, and result in a permanent pit lake. The expansion will disturb an additional 1,800 acres, bringing the total disturbed area to approximately 3,294 acres. The Project proposes groundwater pumping, a 32-mile water pipeline, and a 16.5-mile powerline, supplying up to 2,250 acre-feet of groundwater annually and 25 megawatts of power. Installation of utilities will occur on the existing BLM right-of-way.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the County in adequately identifying and mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

CDFW recommends that the forthcoming EIR address the following:

Assessment of Biological Resources

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 and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable CDFW staff to adequately review and comment on the Project, the EIR should include a complete assessment of the flora and fauna within and adjacent to

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the Project footprint, with particular emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats.

The CDFW recommends that the EIR specifically include:

1. An assessment of the various habitat types located within the Project footprint, and a map that identifies the location of each habitat type. CDFW recommends that floristic, alliance- and/or association-based mapping and assessment be completed following *The Manual of California Vegetation*, second edition (Sawyer et al. 2009). Adjoining habitat areas should also be included in this assessment, where Project site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.
2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the Project. CDFW's California Natural Diversity Database (CNDDDB) should be searched at <https://apps.wildlife.ca.gov/bios6/> to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the proposed Project.

Please note that CDFW's CNDDDB is not exhaustive in terms of the data it houses, nor is it an absence database. CDFW recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the Project site.

3. A complete, *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). 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 (USFWS), where necessary. Special status species that the Project site has the potential to support, include but are not limited to: Crotch's bumble bee (*Bombus crotchii*); western burrowing owl (*Athene cunicularia*); Agassiz's desert tortoise (*Gopherus agassizii*); desert big horn sheep (*Ovis canadensis nelsoni*); LeConte's thrasher (*Toxostoma lecontei*); Bendire's thrasher (*Toxostoma benirei*); American badger (*Taxidea taxus*); and desert kit fox (*Vulpes macrotis*).

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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.

4. A thorough, recent, floristic-based assessment of special status plants and natural communities, following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (see <https://www.wildlife.ca.gov/Conservation/Plants>).
5. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]).
6. The impacts of both lighting and noise from the continuous operation of the Project should be analyzed for impacts for both resident species and species that are attempting to move through the Project area for as part of either seasonal migration or dispersal.
7. A full accounting of all open space and mitigation/conservation lands within and adjacent to the Project.
8. Species specific surveys for special status species that the Project footprint has the potential to support, including Crotch's bumble bee, burrowing owl, Agassiz's desert tortoise, American badger, desert kit fox and bats.

Crotch's Bumble Bee (*Bombus crotchii*)

The Project is within the distribution range for Crotch's bumble bee. As described, the Project may result in take of Crotch's bumble bee, a candidate species for listing under CESA. Take of Crotch's bumble bee is illegal unless authorized through a CESA Incidental Take Permit (ITP). California Fish and Game Code section 86, defines "take" as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CDFW considers the take of Crotch's bumble bee and the loss or degradation of its habitat to be a significant impact unless it is mitigated to a level of less than significant, which would occur through a CESA ITP.

Crotch's bumble bee is a ground-nesting species historically found in open grasslands, coastal scrub, and desert habitats in Southern California. The Project site may contain suitable breeding, foraging, and nesting habitat, particularly in areas with native flowering plants and undisturbed soils. Activities such as vegetation clearing, grading, or soil compaction could directly or indirectly impact the species by destroying nests, reducing floral resources, or fragmenting habitat.

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CDFW recommends that the County evaluate the potential for Crotch's bumble bee to occur within the Project area by conducting a habitat assessment and focused surveys according to the 2023 CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species.

If Crotch's bumble bee is found within the Project area during surveys or construction activities and complete avoidance is not possible, CDFW strongly recommends the County acquire a CESA ITP prior to any vegetation- or ground-disturbing activities. Any take of Crotch's bumble bee without authorization (e.g., ITP) would be a violation of Fish and Game Code section 2080.

Burrowing Owl (*Athene cunicularia*)

On October 10, 2024, the Fish and Game Commission designated burrowing owl as a candidate species under CESA. The Project, as described, may result in take of burrowing owl. CDFW considers the take of burrowing owl and the loss of the species' habitat as a significant impact, unless mitigated to a level of less than significant, which would occur through a CESA ITP. Further, burrowing owl is protected under Fish and Game Code section 3503.5 and the Migratory Bird Treaty Act. The Project site has the potential to provide suitable foraging and/or nesting habitat for burrowing owl.

Thus, CDFW recommends that the County follow the recommendations and guidelines provided in the Staff Report on Burrowing Owl Mitigation (Department of Fish and Game, March 2012); available for download from CDFW's website: <https://www.wildlife.ca.gov/conservation/survey-protocols>. The Staff Report on Burrowing Owl Mitigation, specifies three steps for project impact evaluation:

- a) A habitat assessment;
- b) Surveys; and
- c) An impact assessment

As stated in the Staff Report on Burrowing Owl Mitigation, the three progressive steps are effective in evaluating whether a project will result in impacts to burrowing owls, and the information gained from the steps will inform any subsequent avoidance, minimization, and mitigation measures. Habitat assessments are conducted to evaluate the likelihood that a site supports burrowing owl. Burrowing owl surveys provide information needed to determine the potential effects of proposed projects and activities on burrowing owls, and to avoid take in accordance with Fish and Game Code sections 86, 3503, and 3503.5. Impact assessments evaluate the extent to which burrowing owls and their habitat may be impacted, directly or indirectly, on and within a reasonable distance of a project.

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If burrowing owl is found within the Project area during surveys or construction activities and complete avoidance is not possible, CDFW strongly recommends the County acquire a CESA ITP prior to any vegetation- or ground-disturbing activities. Any take of burrowing owl without authorization (e.g., ITP) would be a violation of Fish and Game Code section 2080.

Agassiz's Desert Tortoise (*Gopherus agassizii*)

The proposed Project occurs within the range of desert tortoise, a federally listed threatened species and a species designated as endangered pursuant to CESA. The Project has the potential to result in permanent and temporary loss, degradation and impacts to desert tortoise and desert tortoise habitat. CDFW recommends the County completes protocol level surveys over all areas (i.e., 100 percent coverage) proposed to be directly or indirectly affected by the Project, using qualified biologists and following the U.S. Fish and Wildlife Service 2009 Desert Tortoise Field Manual (<https://www.fws.gov/sites/default/files/documents/Desert-Tortoise-Field-Manual.pdf>). To reduce the likelihood of nonconcurrence with proposed surveys, methodology, and qualifications of biologists, CDFW recommends working with the USFWS and CDFW concurrently to ensure a consistent and adequate approach.

If desert tortoise are found within the Project area during surveys or construction activities and complete avoidance is not possible, CDFW strongly recommends the County acquire a CESA ITP prior to any vegetation- or ground-disturbing activities. Any take of desert tortoise without authorization (e.g., ITP) would be a violation of Fish and Game Code section 2080.

American Badger (*Taxidea taxus*)

The proposed Project occurs within the range of American badger, a CSSC. CDFW recommends the County completes surveys for American badger in areas proposed to be directly or indirectly affected by the Project and that the results of the surveys be included in the EIR. If American badger or sign thereof is found, or have the potential to occupy the Project site, CDFW recommends the County incorporate into the EIR species-specific, avoidance, minimization, and mitigation measures.

Desert Kit Fox (*Vulpes macrotis*)

The proposed Project occurs within the range of desert kit fox, a protected species under Title 14 of the California Code of Regulations section 460, which prohibits take of the species at any time. CDFW recommends the County conducts surveys over all areas proposed to be directly or indirectly impacted by the Project to determine presence/absence and quantity of desert kit fox, and that this information be included in the EIR. If desert kit fox or sign thereof is found, or if desert kit fox has

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the potential to occupy the Project site, CDFW recommends the County incorporate into the EIR species-specific avoidance, minimization, and mitigation measures.

Roosting Bats

Bats are considered non-game mammals and are afforded protection by State law from take (Fish & G. Code, § 4150) and harassment (Cal. Code of Regs, § 251.1). The proposed Project may impact bats. CDFW recommends that the County conducts a habitat suitability assessment to identify bat roosts within the Project site. If bat roosts are identified, focused bat surveys should be conducted by a qualified bat biologist during the appropriate season and time using an appropriate combination of inspection, sampling, exit counts, and acoustic surveys. The results of the habitat suitability assessment and bat surveys should be included in the EIR. If bats are found roosting, the EIR should include species-specific avoidance, minimization, and mitigation measures, including replacement of lost roosts.

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

1. The EIR should provide a thorough discussion of the direct, indirect, and cumulative impacts expected to adversely affect biological resources as a result of the Project.
2. The EIR should include a discussion of potential impacts from lighting, noise, operations and maintenance activities, exotic and/or invasive species, and drainage. The latter subject should address Project-related changes on drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.
3. A discussion of potential indirect Project impacts on biological resources should be included in the EIR, including resources in areas adjacent to the Project footprint, such as nearby public lands (e.g. BLM lands, State, and County Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands.
4. A cumulative effects analysis developed as described under CEQA Guidelines section 15130. Please include all potential direct and indirect Project related impacts to riparian areas, wetlands, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis.

Alternatives Analysis

CDFW recommends the EIR describe and analyze a range of reasonable alternatives to the Project that are potentially feasible, would “feasibly attain most of the basic

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objectives of the Project,” and would avoid or substantially lessen any of the Project’s significant effects (CEQA Guidelines § 15126.6[a]). The alternatives analysis should also evaluate a “no Project” alternative (CEQA Guidelines § 15126.6[e]).

Mitigation Measures for Project Impacts to Biological Resources

The EIR should identify mitigation measures and alternatives that are appropriate and adequate to avoid or minimize potential impacts, to the extent feasible. The County should assess all direct, indirect, and cumulative impacts that are expected to occur as a result of the implementation of the Project and its long-term operation and maintenance. When proposing measures to avoid, minimize, or mitigate impacts, CDFW recommends consideration of the following:

1. *Fully Protected Species*: CDFW may issue permits authorizing take of fully protected species if the requirements under Fish and Game Code section 2081.15 are met, otherwise fully protected species may not be taken or possessed at any time and projects should be designed to completely avoid any fully protected species that have the potential to be present within or adjacent to the project areas. A fully protected species that occurs within the Project footprint is desert bighorn sheep. CDFW recommends that the County analyzes impacts to fully protected species and their habitats and includes measures in the EIR to fully avoid impacts to fully protected species.
2. *Sensitive Plant Communities*: CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDB and are included in *The Manual of California Vegetation* (Sawyer et al. 2009). The proposed powerline corridor would cut directly through habitat known to support the rare white-margined penstemon (*Penstemon albomarginatus*) (S1), a species endemic to the Mojave Desert whose survival depends on specific sandy and loamy soils and undisturbed desert terrain. The EIR should include measures to fully avoid and otherwise protect sensitive plant communities from Project-related direct and indirect impacts.
3. *California Species of Special Concern (CSSC)*: CSSC status applies to animals generally not listed under the federal Endangered Species Act or CESA, but which nonetheless are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. CSSC should be considered during the environmental review process. CSSC that have the potential or have been documented to occur within or adjacent to the Project area, include, but are not limited to: Le Conte's thrasher (*Toxostoma crissale*), Bendire's thrasher (*Toxostoma bendirei*), coast horned lizard (*Phrynosoma blainvillii*), loggerhead shrike (*Lanius ludovicianus*), and yellow-breasted chat (*Icteria virens*).

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4. *Mitigation*: CDFW considers adverse Project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the EIR should include mitigation measures for adverse Project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of Project impacts. For unavoidable impacts, onsite habitat restoration and/or enhancement, and preservation should be evaluated and discussed in detail. Where habitat preservation is not available onsite, offsite land acquisition, management, and preservation should be evaluated and discussed in detail.

The EIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset Project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

If sensitive species and/or their habitat may be impacted from the Project, CDFW recommends the inclusion of specific mitigation in the EIR. CEQA Guidelines section 15126.4, subdivision (a)(1)(8) states that formulation of feasible mitigation measures should not be deferred until some future date. The Court of Appeal in *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645 struck down mitigation measures which required formulating management plans developed in consultation with State and Federal wildlife agencies after Project approval. Courts have also repeatedly not supported conclusions that impacts are mitigable when essential studies, and therefore impact assessments, are incomplete (*Sundstrom v. County of Mendocino* (1988) 202 Cal. App. 3d. 296; *Gentry v. County of Murrieta* (1995) 36 Cal. App. 4th 1359; *Endangered Habitat League, Inc. v. County of Orange* (2005) 131 Cal. App. 4th 777).

CDFW recommends that the EIR specify mitigation that is roughly proportional to the level of impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). The mitigation should provide long-term conservation value for the suite of species and habitat being impacted by the Project. Furthermore, in order for mitigation measures to be effective, they need to be specific, enforceable, and feasible actions that will improve environmental conditions.

5. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by people with expertise in southern California ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum:
(a) the location of restoration sites and assessment of appropriate reference sites;
(b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and

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cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation onsite; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be initiated in the near future in order to accumulate sufficient propagule material for subsequent use in future years. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various Project components as appropriate.

Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project; examples could include retention of woody material, logs, snags, rocks, and brush piles.

6. *Nesting Birds and Migratory Bird Treaty Act*: Please note that 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: Fish and Game Code section 3503 makes it 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) 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 the 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.).

CDFW recommends that the EIR include the results of avian surveys, as well as specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur. Project-specific avoidance and minimization measures may include, but are not limited to: Project phasing and timing, monitoring of Project-related noise (where applicable), sound walls, and buffers, where appropriate. The EIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the Project site. Pre-construction surveys should be proposed in the EIR and CDFW recommends that they be

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required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted sooner.

7. *Moving out of Harm's Way*: To avoid direct mortality, CDFW recommends that the County condition the EIR to require that a CDFW-approved qualified biologist be retained to be onsite prior to and during all ground- and habitat-disturbing activities to move out of harm's way non-CESA or non-Fish and Game Code protected wildlife of low or limited mobility that would otherwise be injured or killed from Project-related activities. Movement of wildlife out of harm's way should be limited to only those individuals that would otherwise be injured or killed, and individuals should be moved only as far as necessary to ensure their safety (i.e., CDFW does not recommend relocation to other areas). Furthermore, it should be noted that the relocation of wildlife does not constitute effective mitigation for the purposes of offsetting Project impacts associated with habitat loss.
8. *Translocation of Species*: CDFW generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species as studies have shown that these efforts are experimental in nature and largely unsuccessful.

California Endangered Species Act

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that a CESA ITP be obtained if the Project has the potential to result in take of State-listed or CESA candidate species, either through construction or over the life of the Project. It is the policy of CESA to conserve, protect, enhance, and restore CESA species and their habitats.

CDFW encourages early consultation with CDFW, as significant modification to the proposed Project and avoidance, minimization, and mitigation measures may be necessary to obtain a CESA ITP. CDFW must comply with CEQA for issuance of a CESA ITP. CDFW therefore recommends that the EIR addresses all Project impacts to listed species and candidate species, and specify a mitigation monitoring and reporting program that will meet the requirements of CESA.

Lake and Streambed Alteration Program

Based on review of material submitted with the NOP and review of aerial photography, potential drainage features traverse the Project site. Depending on how the Project is designed and constructed, it is likely that the Project applicant will need to notify CDFW per Fish and Game Code section 1602. 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;

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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. Please 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.

Upon receipt of a complete notification, CDFW determines if the proposed Project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake and Streambed Alteration (LSA) Agreement is required. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify your Project that would eliminate or reduce harmful impacts to fish and wildlife resources.

CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if necessary, the EIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the proposed Project may be required to avoid or reduce impacts to fish and wildlife resources. To submit a Lake or Streambed Alteration notification package, please go to <https://wildlife.ca.gov/Conservation/Environmental-Review/EPIMS>.

ADDITIONAL COMMENTS AND RECOMMENDATIONS

Groundwater Pumping and Fish and Game Code Section 1602 Resources

The Project's proposed extraction of up to 2,250 acre-feet of groundwater annually poses significant risks to water availability and the ecological health of streams and habitats in the Mojave Desert that may rely on groundwater; therefore, potentially impacting Fish and Game Code section 1602 resources. CDFW is concerned that the significant increase in groundwater use may substantially impact stream flow, receptor springs such as Piute Spring and other desert springs, and associated riparian habitat. For example, an increase in local water extraction in the Lanfair Valley Groundwater Basin will harm protected resources in Piute Springs, causing a minimum decrease in flows of approximately 8%, and potentially reducing riparian habitat, thus leading to a loss in ecological value of an area that serves as an ecological reserve as National Park Service lands. Further, the proposed new off-site water extraction near Nipton in the Ivanpah Valley Groundwater Basin will significantly impact resources for desert tortoise in California including Desert Tortoise Critical Habitat (in addition to significant impacts from the proposed water pipelines).

Due to CDFW's concern with impacts to Fish and Game Code section 1602 resources, the EIR should include a detailed analysis of the impacts to groundwater resources from the proposed increase in groundwater use, including a standalone, groundwater flow

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model development and analysis report appended to the EIR. The model report should be of sufficient detail to provide the information described in USGS Scientific Investigations Report 2004-5038 (Rilley et al.) and should include access to the numerical groundwater model files. Key areas that should be covered in the modeling report (but not limited to) are:

- Modeling approach;
- Sensitivity analysis results;
- Model calibration;
- Representation of initial conditions; and,
- Uncertainties between data availability and modeled parameters.

Wildlife Connectivity

Since the proposed Project area is relatively remote and surrounded by existing conservation lands, it is key to providing important habitat and wildlife connectivity. Some important wildlife habitats and crucial connectivity include:

- Mojave Desert Tortoise Critical Habitat
- Mojave Desert Tortoise Conservation Areas
- California Desert Bighorn Sheep Mountain and Intermountain Habitat
- Designated Important Bird Areas – East Mojave Peaks

These habitats need to be analyzed as part of the impact analysis.

The Project is located within the known distribution range of a population of desert bighorn sheep, a Fully Protected species under California Fish and Game Code section 4700. No take of the species is allowed unless the Project meets the requirements under Fish and Game Code section 2081.15. The Project site supports essential habitat features for breeding, foraging, and movement of large mammals, including but not limited to desert big horn sheep. Project activities, including increased noise, human presence, and habitat alteration/fragmentation, could disrupt wildlife movement by eliminating or making wildlife corridors less favorable. Additionally, the Project may lead to population fragmentation and Jahner et al. (2018) found that population fragmentation due to barriers (natural and anthropogenic) affects genetic diversity in desert bighorn sheep. Additionally, the Project may reduce surface water due to groundwater pumping, reducing wildlife access to water, such as springs/streams (e.g., Piute Spring and others). The impact to wildlife from potentially reduced surface water due to groundwater pumping needs to be carefully and fully analyzed, including impacts to migratory bird species along the interior Pacific flyway that rely on these discreet water sources during migration.

The EIR should fully evaluate all direct, indirect, and cumulative impacts to desert bighorn sheep and wildlife connectivity. The industrialization of currently undeveloped desert landscapes introduces serious risks. New roads may lead to unpermitted

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recreation and increased human intrusion. Ground disturbance can remove mature vegetation and spread invasive plants, degrading habitat quality. Lighting, fencing, and powerlines may fragment habitat, disrupt wildlife behavior, and attract predators. Noise and traffic may displace wildlife and increase roadkill. These impacts can permanently alter habitat and isolate wildlife populations.

An impact assessment should be completed to evaluate potential direct, indirect, and cumulative impacts to desert bighorn sheep and their habitat. This analysis should consider:

- Noise and human disturbance during construction and operation
- Habitat fragmentation or loss of access to habitat or water
- Disruption of migration corridors or herd movement patterns
- Increased risk of disease transmission from domestic animals
- Hazards created by Project structures
- Effects on genetic diversity from habitat fragmentation

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 CNDDDB. Information can be submitted online or via completion of the CNDDDB field survey form at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The types of information reported to CNDDDB can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of 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 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.).

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP of a EIR for the Project and recommends that the County address CDFW's comments and concerns in the forthcoming EIR. If you should have any questions pertaining to the comments

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provided in this letter, please contact Scott Jakubowski, Senior Environmental Scientist (Specialist) at (909) 354-0919 or at scott.jakubowski@wildlife.ca.gov.

Sincerely,

DocuSigned by:

84FBB8273E4C480...

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