October 26, 2018

Robert Hingtgen
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Subject: Comments on the Draft Subsequent Environmental Impact Report for the El Monte Sand Mining Project, SCH# 2015081025

Dear Mr. Hingtgen:

The California Department of Fish and Wildlife (CDFW) has reviewed the above-referenced Draft Subsequent Environmental Impact Report (SEIR).

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; California Environmental Quality Act [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 a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW 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.), related authorization as provided by the Fish and Game Code will be required.

CDFW also administers the Natural Community Conservation Planning program.

Project Location:
The proposed project site is located in the Lakeside Community planning area, within unincorporated San Diego County (County). The proposed site is bordered by El Monte Road to...
the south and Willow Road to the north. The western portion of the project site is approximately 1.5 miles east of State Route and the eastern portion of the site lies approximately 3 miles west of El Capitan Dam. El Cajon Mountain lies approximately 3.8 miles northeast of the eastern portion of the site.

**Project Description/Objective:**
The sand mining aspect of the proposed project would include extraction of approximately 12.5 million tons of construction aggregate (sand and gravel) over a 12-year period in the El Monte Valley on land that is zoned for extractive uses (intended for mining, quarrying, borrow pits and oil extraction). Mining activities would occur within approximately 228 acres. Extraction would begin in the eastern portion of the site and progress to the western portion in four phases. The Reclamation Plan includes the reclamation of mined lands to a useable condition for beneficial end uses, pursuant to California Surface Mining and Reclamation Act of 1975 requirements. Reclamation of the project site would be continuous and follow the mining phases across the site from east to west. Successful reclamation would return the site to a beneficial end use of undeveloped land with recreational trail easements. The Revegetation Plan would include the restoration and creation of self-sustaining riparian and native upland habitat, and describe the methods of habitat restoration, performance standards, success criteria, monitoring, and potential remedial measures. Reclamation/revegetation would be completed 4 years after the proposed sand mining is complete.

**COMMENTS AND RECOMMENDATIONS**

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

1. **Mitigation Measure M-BIO-4** proposes trapping and collection of herpetofauna species and subsequent translocation of all individuals to the eastern portion of the project site, including the California glossy snake (*Arizona elegans occidentalis*), a California Species of Special Concern. While a mark-recapture type of study is proposed to gauge the success of the translocation, no study is proposed of the potential impacts to the ecology and biological composition of the receptor site. Potential impacts to the receptor site include introduction of disease, population pressure due to limited carrying capacity, and genetic effects. In addition, since the proposal constitutes a study, and therefore the success of the initial trapping, translocation and any subsequent re-colonization of the restored site are in question, mitigation for the loss of both individuals and habitats may not be feasible or effective. Performance standards for the completeness of initial trapping and the subsequent translocation have not been described, and may not be attainable given the experimental nature of the proposal. CDFW generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species and cannot concur in this case that the proposed study represents feasible mitigation. Studies have shown that mitigation-driven translocations are largely unsuccessful and rarely of conservation benefit to the species involved (Germano, 2015; Romijn and Hartley, 2016).

2. **Mitigation Measure M-BIO-2** concerns the CESA-listed least Bell’s vireo (*Vireo bellii pusillus*). CDFW considers adverse impacts to a species protected by CESA, for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any endangered, threatened, or candidate species that results from the project is prohibited,
except as authorized by state law (Fish & G. Code, §§ 2080, 2085). Consequently, if the project, project construction, or any project-related activity during the life of the project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the project proponent seek appropriate take authorization under CESA prior to implementing the project. Appropriate authorization from CDFW may include an incidental take permit (ITP) or a consistency determination in certain circumstances, among other options (Fish and G. Code §§ 2080.1, 2081, subds. (b),(c)). Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that CDFW issue a separate CEQA document for the issuance of an ITP unless the project CEQA document addresses all project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

3. Mitigation Measures M-BIO-2 and M-BIO-3 include restoration and revegetation on the project site to mitigate for loss of habitat. CDFW recommends that the final or revised SEIR include design elements that avoid, to the maximum extent feasible, sufficient habitat to sustain populations of sensitive species throughout the life of the project. Any habitat mitigation for project impacts should be secured prior to initiation of the impacts. If project phasing and timing make on-site mitigation unfeasible prior to the onset of impacts, off-site mitigation alternatives should be included in the final SEIR.

4. Mitigation Measure M-BIO-8 item 8 states that a biological open space easement would be placed over the mitigation areas. Table 1-2 includes 217.5 acres of Undeveloped Land. The final or revised SEIR should specify the final disposition of the entire 479.5 acres under the Major Use Permit, including the 217.5 acres of Undeveloped Land and the portion of the 262-acre impact area not included in the 178-acre mitigation area. CDFW recommends a conservation easement be placed over all acreage offered for mitigation. Item 8 also states that once the mining project is completed, and prior to completion of the mitigation, the 178-acre mitigation area would be transferred in fee title to a qualified entity. CDFW recommends a Property Analysis Record (PAR), or PAR-equivalent analysis, be completed prior to initiation of the project, to determine the amount of funding needed for the perpetual management, maintenance, and monitoring of the biological conservation easement areas by an approved natural lands management organization. The current applicant should establish a funding mechanism that would ensure adequate funding for annual implementation of the Resource Management Plan outlined in M-BIO-8 item 9 of the SEIR prior to any transfer in fee title.

5. Mitigation Measure M-BIO-8 item 2 states that the Revegetation Plan shall be designed to provide high quality habitat that is compatible with the post-project topography and hydrology. However, the final disposition of the water table and long-term flow features may not be conducive to the proposed revegetation palette. Any on-site restoration or revegetation should be sustainable in perpetuity in relation to the projected long-term hydrology and ground water level, within tolerable rates of variability relative to historical trend data. The proposed post-project elevations may not be appropriate for the re-colonization of the current flora and fauna, even with the removal of invasive species, and the proposed on-site mitigation may not be feasible or effective for potential impacts to the
San Diego River and associated ecosystems. The mining project would disrupt and destroy the upstream to downstream connectivity of the river, and reclamation or restoration work within the proposed mining pit are unlikely to restore hydrologic and sediment transport connectivity and river function. The project description and plot plans indicate that mining would result in an elongate, closed depression that would be excavated across the river channel. The Reclamation Plan indicates that a 25-foot-wide channel would be constructed in the bottom of the pit. The upstream end of the channel would abut against a so-called drop structure at the upper end of the pit, and the downstream end of the channel would abut against the pit wall. The description states that water must fill the pit to an elevation of about 424 feet NAVD 88 (i.e., about 2000 acre-feet) before spilling into the downstream continuation of the beheaded river channel. The evaluation of downstream effects considers only large releases of water during reservoir spilling events and does not appear to consider the importance of cutting off other lower flows and how downstream habitats and groundwater resources might be sustained. The mining pit would cut off all but the highest flows to downstream portions of the river. Although project documents acknowledge that the smaller flows occur in the river from large storm events, the analysis dismisses the significance of these flows to the existing functions of the river to transport sediment and supply water to nourish/sustain plant and animal species, their habitat, and groundwater levels downstream of the mine, no matter how infrequent the flows might be. CDFW recommends that the analysis be revised to evaluate the geomorphic and biological effects of eliminating lower flows to the river and its effect on downstream habitat.

6. The analysis for determining the significance of impacts associated with substantially altering the drainage patterns (i.e., Section 3.4.2.3) does not fully address the potential impacts of excavating a mining pit across the channel of the San Diego River. The analysis does not consider principles of fluvial geomorphology that would predict that large, infrequent flows through a mining pit could result in downstream degradation of the riverbed and associated sedimentation. The gross changes in channel morphology created by mining operations would interrupt sediment transport and may result in permanent downstream impacts, such as erosion and sedimentation, which may extend beyond the mine site. During large flow events, transported sediment from above the mine site would deposit within the mining pit, and water continuing downstream of the pit would still have the capacity to transport sediment but would have little to no sediment load. This effect, known as the "hungry-water effect," can lead to channel incision and erosion below the mining pit (Kondolf 1997). Given the occurrence of the 100-year flow (i.e., 19,000 to 20,000 cfs), the finished mining pit could fill to overflow with water in a little over an hour. The overflowing "hungry water" likely would cause downstream erosion during such large flow events. The existing hydrology and hydraulic studies do not recognize the dynamic nature of the San Diego River and lack an analysis of sediment transport and the potential for erosion of downstream portions of the river channel.

7. The analysis for altered drainage patterns is inconsistent with the results of accompanying technical studies. The discussion on page 3.4-21 about the ability of the pit to retain stormflows states that the entire 228-acre mining pit would need to fill with water to a depth of 35 feet before it would overflow the western end of the pit. This would imply that the pit would retain almost 8,000 acre-feet of water and sediment before spilling downstream. This analysis is faulty and is inconsistent with the hydraulic studies and statements in the jurisdictional delineation study that demonstrate the mining pit would fill to 25 feet deep at the west end and impound 75 acres of surface water before spilling. The amount of water to
be retained would be 2,000 acre-feet before discharging downstream. As noted above, the pit would fill to the point of discharging into the downstream channel in a little over an hour during the 100-year flow, assuming the pit was already empty before the flow. Thus, it seems likely that the pit would overflow during a large flow event.

The analysis describes how it believes that a dam spill and large flow in the river is unlikely. According to the documentation, spills have occurred five times (i.e., 1938, 1939, 1941, 1980, and 1993) in the roughly 79 years since dam construction was completed in 1934. The dam spilled three times in 4 years, followed by a 39-year hiatus before spilling again in 1980, and then followed by a 13-year hiatus before spilling in 1993. The dam therefore spills on average once every 16 years. The 25-year hiatus since the last spill is therefore not unusual. These data on the timing of the spills indicates a high likelihood that the dam would spill during the life of the project.

8. Several technical reports and plans associated with the Reclamation Plan (i.e., Appendix J) are in draft form and, therefore, analysis and review of the Reclamation Plan may be incomplete as changes are made to finalize these plans. The technical documents in question are critical for understanding the final stable configuration of the site and many of the potential developmental impacts of the project. The draft documents include the Plot Plan (i.e., Reclamation Plan Attachment B and SEIR Appendix C), Groundwater Evaluation Technical Memorandum (i.e., Reclamation Plan Attachment C and SEIR Appendix R), and Geologic Reconnaissance and Slope Stability Analysis (i.e., Reclamation Plan Attachment D and SEIR Appendix L). Final public review under CEQA should include documents that are finalized, signed and stamped as required by law.

9. The Jurisdictional Delineation Report (i.e., Appendix H) notes that the estimated limits of jurisdiction identified in the report are preliminary, and a final determination would be made by each agency when the mining operation applies for the respective permits. The delineation for the Lake and Streambed Alteration (LSA) agreement appears to focus on biological indicators and does not include a geomorphic assessment of fluvial landforms. Therefore, the evaluation may be inadequate for LSA purposes, which is consistent with some readily available data (e.g., historical topographic maps) that indicates the stream corridor may be wider than delineated in the study. The delineation and associated mitigation should be finalized only after the mining operation notifies the CDFW pursuant to Fish and Game Code section 1602.

10. The localized steepened channel resulting from excavation at the upper end of the mining pit would increase flow velocities and higher shear stresses that would result in increased sediment transport. This is an effect also noted by Kondolf (1997). If left unconstrained or inadequately protected, the resulting nickpoint could migrate upstream resulting in channel and habitat degradation (i.e., incision and bank collapse) for a long distance upstream/off-site of the mining pit. To mitigate this effect, the project proposes to install a grouted riprap drop structure to control the grade of the channel at the upstream end of the mining pit. Proper design and construction of the drop structure is extremely important, because its failure could result in upstream channel degradation that could threaten channel habitats for miles upstream. In addition, it could threaten the success of reclamation and restoration efforts within the mining pit by depositing large amounts of sediment and burying or eroding reclaimed areas. Information on the construction design and specifications of the drop structure contained in the Reclamation Plan and accompanying documents are vital to
provide stability to the upstream end of the mining pit, and should include technical studies that would indicate the basis of design for the structure. CDFW recommends the final or revised SEIR include detailed construction drawings and specifications for the drop structure to protect upstream channel resources and associated habitats, including a design informed by appropriate technical studies.

11. CDFW recommends a more thorough analysis and additional studies to demonstrate that the channel constructed in the bottom of the mining pit would function as intended. There is no geomorphic assessment or hydrology and hydraulic studies to support the design of the channel. Information that the constructed channel would function like a natural stream channel or even as a drainage ditch is incomplete or missing from the SEIR. For example, it is unclear how the water, sediment and debris load from upstream would transition from a relatively wide drop structure into the 25-foot-wide channel. Conceptually, given that the constructed channel would be wholly constrained within the mining pit, stream channel function that would support future efforts to restore habitat consistent with a functioning stream is unlikely. The final or revised SEIR should provide technical studies that support the design, construction, and restoration of the stream channel. CDFW recommends the draft Revegetation Plan be submitted to both CDFW and the United States Fish and Wildlife Service (Wildlife Agencies) for review prior to finalization and implementation.

12. The groundwater assessment suggests that there would be a net benefit to groundwater recharge and storage by construction of the mining pit across the river and retaining surface flows. The analysis is incomplete and assumes that water retained in the pit would infiltrate and be stored, whereas water flowing further downstream would be lost. The actual benefit of this retention is not evident in the analyses and technical documents of the SEIR, and the analyses appear to be incomplete. Water flowing downstream would infiltrate into the streambed to recharge groundwater and nourish plants and wildlife in the downstream areas. The assumption that excavation and removal of part of the groundwater aquifer would result in more water storage than if the aquifer were intact is likely incorrect. Although the analysis considers evaporative losses, it ignores a complete water balance. The groundwater table and aquifer would be directly exposed and possibly more susceptible to contamination from pollutants, precipitation of dissolved constituents, and possibly other effects. The Reclamation Plan supporting studies and SEIR lack a sufficiently thorough assessment of the water budget, and the actual benefit or impairment to the groundwater system is unknown. Additionally, the Groundwater Technical Memorandum is in draft form and does not consider all of the groundwater data for the site area.

13. The analysis of impacts to the groundwater and aquifer assumes that the groundwater table is currently below the floor of the proposed mining pit. While groundwater levels are low in the current year and declining in the absence of large surface flows, this condition not likely to persist for the duration of the surface mining operation and the post-mining reclamation period. Groundwater levels are rarely if ever static. The Groundwater Technical Memorandum shows that water levels fluctuate with releases of water from the dam and storm events. During the large releases, the groundwater aquifer fills with water and then declines at a rate of about 1.7 feet per year. While the SEIR acknowledges this, it assumes that the groundwater level would always remain below the bottom level of the pit during mining and reclamation. Given the relatively high likelihood of occurrence of a spill event, the analysis does not evaluate all of the potential impacts to the groundwater system and provides no mitigation in the event that water levels rise into the mining pit. Additionally,
given the occurrence of a spill, a pit lake would form that may persist for 10 to 15 years if it fills the aquifer and the groundwater level declines at a rate of 1.7 foot per year.

14. For mining projects, the reclamation plan is the project under CEQA. Although the project appears to look like a restoration project, it is a reclamation project with a lesser standard than restoration. The Conceptual Revegetation Plan (i.e., Appendix I) is included in the documentation because it describes how the mining area will be restored following reclamation. However, text in the Reclamation Plan explicitly omits the Conceptual Revegetation Plan and the restoration component. Although the Conceptual Revegetation Plan is included with the project documents, it is not part of the El Monte Sand Mining Project. So, it is unclear how the restoration component fits in to the overall project. Also, given that the Reclamation Plan excludes restoration, the mining operator will not have to bond for the restoration component under the Surface Mining and Reclamation Act. The project provides no guarantees that the restoration component will be completed.

15. The SEIR includes a number of trail alignments as design elements in Figures 1-10 and 2.3-6. CDFW recommends that designation of trail alignments be developed subsequent to the Resource Management Plan process so that restoration and revegetation planning and success take priority over eventual trail placement and to avoid additional cumulative impacts on mitigation areas due to trail construction, maintenance and use.

16. CDFW recommends that the survey protocol for burrowing owl (Athene cunicularia) described in mitigation measure M-BIO-1 item 2 follow any relevant revisions in the CDFW 2012 Staff Report on Burrowing Owl Mitigation. New CDFW guidelines or protocols take precedence as outlined in section 3.1 of the 2010 Strategy for Mitigating Impacts to Burrowing Owls in the Unincorporated County. CDFW does not recommend exclusion and burrow closure, but effective components of exclusion plans are included in Appendix E of the 2012 Staff Report.

17. Mitigation Measure M-BIO-1 item 1a states that avian nesting surveys need not be conducted for the entire project area at one time. CDFW recommends that surveys by a qualified biologist be performed within 300 feet of any disturbance area (within 500 feet for raptors) to avoid indirect impacts, including any noise above the normal ambient level for the area. Surveys should be conducted within 3 days of initial disturbance and repeated whenever construction or other project activities have been halted for more than 7 days. The final or revised SEIR should specify the interval for post-construction reporting. M-BIO-5 item 11 does not specify how the final report of impacts fits into the phasing and restoration plan schedule.

18. Section 1.4.4 of Appendix G2 states that roosting and foraging habitat for potentially sensitive bat species occur on site. CDFW recommends the final or revised SEIR include a full biological survey for bats and thorough analysis of potential impacts to bat roosting or foraging habitat throughout all phases of the proposed project. Based on survey results, appropriate mitigation should be included for potential impact due to changes in hydrology, artificial lighting and forage.

19. The SEIR states that section 10.11 of the County's Multiple Species Conservation Plan (MSCP) Subarea Plan (SAP) Implementing Agreement (County of San Diego 1998) allows for Boundary Line Adjustments (BLA), and Section 5.4.2 of the MSCP (Ogden
Environmental and Energy Services 1998) and Section 1.4 of the County’s SAP outline the preserve boundary adjustment process (p. 2.3-19). However, these processes do not apply to amending the boundary of the County SAP. The BLA process is only applicable to lands designated as Preserve under the SAP that occur within the current plan boundary. The project site is located outside the boundary of the SAP. In order to amend the boundary of the SAP and cover the proposed project, the County must process a Major Amendment. A request for a Major Amendment would be processed by the Wildlife Agencies in conformity with all applicable laws and regulations (including the National Environmental Policy Act, CEQA, the Endangered Species Act and CESA) in effect at the time of the amendment request.

20. The Polyphagous and Kuroshio shot hole borers (ISHBs) are invasive ambrosia beetles that introduce fungi and other pathogens into host trees. The adult female (1.8-2.5 mm long) tunnels galleries into the cambium of a wide variety of host trees, where it lays its eggs and propagates the *Fusarium* fungi species for the express purpose of feeding its young. These fungi cause *Fusarium* dieback disease, which interrupts the transport of water and nutrients in at least 58 reproductive host tree species, with impacts to other host tree species as well. With documented occurrences within 2.5 miles of the project site, the spread of invasive shot hole borers (ISHBs) could have significant impacts in local ecosystems. Therefore, with regard to ISHBs, we recommend the final or revised SEIR include the following:

a. a thorough discussion of the direct, indirect, and cumulative impacts that could occur from the potential spread of ISHBs as a result of proposed activities in the final SEIR;

b. an analysis of the likelihood of the spread of ISHBs as a result of the invasive species' proximity to above referenced activities;

c. figures that depict potentially sensitive or susceptible vegetation communities within the project area, the known occurrences of ISHB within the project area (if any), and ISHB’s proximity to above referenced activities; and

d. a mitigation measure or measure(s) within the final SEIR that describe Best Management Practices (BMPs) that bring impacts of the project on the spread of ISHB below a level of significance. Examples of such BMPs include:

   i. education of on-site workers regarding ISHB and its spread;
   ii. reporting sign of ISHB infestation, including sugary exudate (“weeping”) on trunks or branches and ISHB entry/exit-holes (about the size of the tip of a ballpoint pen), to the Department and UCR’s Eskalen Lab;
   iii. equipment disinfection;
   iv. pruning infected limbs in infested areas where project activities may occur;
   v. avoidance and minimization of transport of potential host tree materials;
   vi. chipping potential host materials to less than 1 inch and solarization, prior to delivering to a landfill;
   vii. chipping potential host materials to less than 1 inch, and solarization, prior to composting on-site;
   viii. solarization of cut logs; and/or
   ix. burning of potential host tree materials.
CONCLUSION

CDFW appreciates the opportunity to comment on the SEIR to assist the County in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Eric Hollenbeck, Senior Environmental Scientist (Specialist) at (858) 467-2720 or Eric.Hollenbeck@wildlife.ca.gov.

Sincerely,

[Signature]

Edmund Perl
Regional Manager
South Coast Region

cc: John R. Wesling, C.E.G., CDFW, Sacramento
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REFERENCES


