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February 28, 2022

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Subject: Proposed Cottonwood Sand Mine Project (PROJECT), Draft Environmental Impact Report (DEIR), SCH #2019100513

Dear Mr. Hingtgen:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a DEIR from the County of San Diego (County) for the 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. The Project details referenced here are based on information provided in the DEIR and its associated documents, as well as through prior meetings and correspondence between the CDFW and Project proponents.

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 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.

[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.

CDFW also administers the Natural Community Conservation Planning (NCCP) program. The County participates in the NCCP program by implementing its approved Multiple Species Conservation Program (MSCP) Subarea Plan. Per the DEIR, the County has determined that the Project conforms with the County's MSCP Subarea Plan, the Biological Mitigation Ordinance (BMO), and the Implementation Agreement (IA) between the County, CDFW, and U.S. Fish and Wildlife Service (USFWS).

PROJECT DESCRIPTION SUMMARY

Proponent: County of San Diego

Objective: The Project proposes the conversion of two existing golf courses to a sand mining operation that would be conducted in three phases over 10 years with a two-year reclamation period. Mining operations would occur on approximately 251 acres of the 280-acre property, with about 214 acres proposed for extractive use. The Project would also make certain improvements to Willow Glen Drive prior to beginning mining operations. Reclamation would include widening of the Sweetwater River floodplain onsite and revegetation of riparian and upland habitats. Reclamation activities would begin immediately following completion of each mining phase and occur on a continuous basis, starting in the western portion of the Project site and proceeding east (EnviroMINE 2021a). As proposed, the Project would ultimately contribute approximately 142.8 acres of rehabilitated, revegetated, and restored native habitat preserved within a biological open space (BOS) easement onsite. Hiking trails are proposed to be established around the perimeter of the BOS, outside of the floodplain, following site reclamation.

Location: The Project is located within the southwestern portion of unincorporated San Diego County and is part of the Metro-Lakeside-Jamul segment of the MSCP Subarea Plan. Portions of the site are designated as a Minor Amendment area (37.8 acres total, 7.6 acres impacted) and Pre-Approved Mitigation Area (PAMA; 16.4 acres total, 9.0 acres impacted). The Project site extends west to east from approximately 600 feet east of the intersection of Willow Glen Drive and Jamacha Road, to approximately 0.25 mile west of the intersection of Willow Glen Drive and Hillsdale Drive. Surrounding land uses include commercial district, schools, residential, undeveloped land and rural areas, the USFWS San Diego National Wildlife Refuge (SDNWR) to the west and southwest, and the CDFW McGinty Mountain Ecological Reserve (MMER) to the east.

Biological Setting: The Project site is currently occupied by the Cottonwood Golf Club, which consists of two 18-hole golf courses, one east of Steele Canyon Road and the other located to the west. Currently, only the eastern course is operational. Operation of the western course was suspended in 2017. The Sweetwater River flows in a northeast-to-southwest direction through the entire central portion of the site. Per the Biological Resources Technical Report (BRTR; Helix 2021a), the following 14 vegetation communities are found onsite: disturbed wetland, freshwater marsh, southern cottonwood-willow riparian forest (including disturbed), southern willow scrub (including disturbed), tamarisk scrub, arundo-dominated riparian, open water, Diegan coastal sage scrub (including disturbed), man-made pond, eucalyptus woodland, non-native woodland, non-native vegetation, disturbed habitat, and developed lands.

Four special status plant species were observed within the Project site during surveys: singlewhorl burrobrush (*Ambrosia monogyra*; California Rare Plant Rank (CRPR) 2B.2), San Diego sagewort (*Artemisia palmeri*; CRPR 4.2, County List D), San Diego viguiera (*Bahiopsis laciniata*; CRPR 4.3, County List D), and southwestern spiny rush (*Juncus acutus ssp. leopoldii*; CRPR 4.2, County List

D). Direct impacts to four San Diego viguiera plants would occur; all other special status plant species observed onsite would be avoided.

Seventeen special status animal species were observed or detected on or adjacent to the project site: Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*; CDFW Watch List (WL), County Group 2, MSCP Covered Species), Cooper's hawk (*Accipiter cooperii*; CDFW Watch List, County Group 1, MSCP Covered Species), western bluebird (*Sialia mexicana*; County Group 2, MSCP Covered Species), vermilion flycatcher (*Pyrocephalus rubinus*; CDFW Species of Special Concern (SSC), County Group 1), least Bell's vireo (*Vireo bellii pusillus*; federally endangered (FE), state endangered (SE), County Group 1, MSCP Covered Species and Narrow Endemic (NE)), coastal California gnatcatcher (*Polioptila californica californica*; FT, CDFW SSC, County Group 1, MSCP Covered Species), American peregrine falcon (*Falco peregrinus anatum*; CDFW Fully Protected (FP), County Group 1, MSCP Covered Species/NE), yellow-breasted chat (*Icteria virens*; CDFW SSC, County Group 1), yellow warbler (*Setophaga petechia*; CDFW SSC, County Group 2), great blue heron (*Ardea herodias*, County Group 2), oak titmouse (*Baeolophus inornatus*; federal Bird of Conservation Concern (BCC)), red-shouldered hawk (*Buteo lineatus*; County Group 1), green heron (*Butorides virescens;* County Group 2), turkey vulture (*Cathartes aura*; County Group 1), monarch butterfly (*Danaus plexippus*; County Group 2), Lawrence's goldfinch (*Spinus lawrencei*; BCC), and barn owl (*Tyto alba*; County Group 2).

Nine more special status species were determined to have high potential to occur onsite, including: western spadefoot (*Spea hammondii*; CDFW SSC, County Group 2), two-striped garter snake (*Thamnophis hammondii*; CDFW SSC, County Group 1), sharp-shinned hawk (*Accipiter striatus*; CDFW WL), County Group 1), Canada goose (*Branta canadensis*; MSCP Covered Species), white-tailed kite (*Elanus leucurus*; CDFW FP, County Group 1), California horned lark (*Eremophila alpestris actia*; CDFW WL, County Group 2), merlin (*Falco columbarius*; CDFW WL, County Group 2), loggerhead shrike (*Lanius ludovicianus*; BCC, CDFW SSC, County Group 1), and Mexican long-tongued bat (*Choeronycteris mexicana*; CDFW SSC, County Group 2).

In addition, USFWS-designated critical habitat for San Diego ambrosia (*Ambrosia pumila*; FE, CRPR 1B.1, MSCP Covered Species/NE), Hermes copper butterfly (*Lycaena hermes*, FT), coastal California gnatcatcher, southwestern willow flycatcher (*Empidonax traillii extimus*; FE, SE, County Group 1, MSCP Covered Species/NE), and least Bell's vireo is present within or adjacent to the Project site. San Diego ambrosia was not detected within the Project site during rare plant surveys, but potential habitat is present onsite. Hermes copper butterfly and southwestern willow flycatcher were not detected and are not expected to occur within the Project site per the BRTR.

Surface areas not disturbed by mining would either be left in their current condition or be subject to enhancement through removal of invasive species. The existing Sweetwater River channel and the majority of native habitat that currently exists on the site would be retained. Prior to initiating work in a sub-phase, existing vegetation would be cleared, topsoil would be salvaged, and an approximately five-foot-high berm would be installed on either side of the existing low-flow channel to both protect the channel and contain stream flows. The maximum proposed excavation depth is 40 feet below the existing land surface, with the average depth of excavation expected to be approximately 20 feet below the existing land surface. The Project would result in a total of 1.63 acres of direct impacts to riparian habitat or other sensitive natural communities. Impacts would occur to 0.50 acre of disturbed wetland, 0.32 acre of southern cottonwood-willow riparian forest, 0.01 acre of arundo-dominated riparian, and 0.8 acre of Diegan coastal sage scrub. Potential Project-related impacts to jurisdictional wetlands are estimated to include 0.62 acre of wetland and 0.37 acre of non-wetland waters of the U.S., 0.83 acre of riparian habitat and 17.06 acres of streambed habitat under CDFW jurisdiction, and 0.83 acre of County wetlands.

Mitigation measures proposed to lessen potential impacts to biological resources below a level of significance include the revegetation and preservation of riparian/wetland and coastal sage scrub habitats; breeding season avoidance for avian species; creation and implementation of a Revegetation Plan and Wetland Mitigation Plan; installation of temporary environmental fencing to protect sensitive resources; biological monitoring; the dedication of a BOS easement and limited building zone easement; and creation and implementation of a Resource Management Plan (RMP) over the open space areas. The proposed reclamation of the site would consist of backfilling of excavated areas, grading of final contours, application of salvaged topsoil, and planting of container stock and/or application of seed mix. Post-reclamation, the final landform of the overall mining area is proposed to be a relatively flat plain that gently slopes downward from east to west, with an expanded floodplain (200 to 300 feet in width) bisecting the length of the site and graded pads located above the new floodplain.

Timeframe: Sand mining and reclamation activities would be conducted in phases over a 10 to 12-year period followed by a five-year restoration and revegetation monitoring period. Sand excavation and processing would occur Monday through Friday, between the hours of 7:00 a.m. and 5:00 p.m. Reclamation would be an ongoing process starting immediately where mining operations have ceased within a given sub-phase area and continuing until all mining-related disturbance is reclaimed. Phase 1 is estimated to begin in 2022, with a reclamation completion date of 2034.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below 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. Editorial comments or other suggestions may also be included to improve the document.

1. Hydrological impact analysis: CDFW has previously expressed concerns (via email and in Project meetings) about potential hydrological impacts to conserved riparian areas adjacent to the Project site, both during mining activities and after revegetation/reclamation. These concerns include adequacy of the analysis of potential changes to hydrological conditions onsite and potential impacts to the post-reclamation functionality of the site as a wildlife corridor/linkage between conserved lands to the west and east. We appreciate the additional information and analysis provided in the DEIR and associated technical documents and offer the following subsequent comments:

a. Impacts to the downstream SDNWR are most likely to occur from changes in the channel form, location or sediment character leaving the Project site. Per the DEIR, changes to the hydrologic regime (timing, magnitude, frequency, duration, rate of change) are not anticipated from the Project. DEIR Appendix S (Sediment Load Analysis; Geo-Logic 2021b) describes a substantial increase in erosion during Phase 1 of the Project with reductions in erosion thereafter. This temporary and relatively short-term increase in sediment load has the potential to bury, abrade or otherwise damage instream vegetation, but can also refresh streambed deposits and create new substrate for vegetation to colonize.

b. Maintaining the existing single-thread trapezoidal channel form in the proposed Reclamation Plan appears designed to continue conveyance of specific water transfers and does not mimic the complexity of the (assumed) more natural riverscape in the adjacent SDNWR downstream. If this trapezoidal conveyance channel form is maintained across the site, there will continue to be a transition zone where the low flow channel transitions

towards a configuration more in balance with the wider and more heterogeneous riparian zone downstream. The proposed final grade at the downstream end of the Project leaves a much wider inset floodplain than existing conditions, which allows a greater width of potential channel migration in the future. Changes in the location that the low flow channel leaves the Project site and enters the SDNWR could cause changes in topography and vegetation patterns; however, having greater space for these changes to occur would likely be beneficial in the long run.

c. Impacts to SDNWR could result from changes to the streambed and streambank sediment composition through the mining process. Our understanding from the project description is that the excavated pits would be backfilled with undesirable/uneconomic excavated material minus the sand or merchantable size fractions. The extent to which this would impact revegetation efforts or the cohesion and erodibility of streambed and banks remains unclear. Updated hydraulic and/or sediment modeling should consider the anticipated backfill material composition when evaluating future conditions in all areas that may be affected by infrequent but high-volume flow events.

d. Impacts to the MMER could come from upstream propagation of knickpoints (head cutting), or changes in stream grade and sediment supply within the Project site. Pit capture (discussed in greater detail below) at the upstream end of the Project site during Phase 3 could be particularly damaging as it would create a significant knickpoint which could quickly propagate upstream to the MMER. Additionally, private road crossings are located between the Project site and MMER. The final EIR, Reclamation Plan, and associated technical documents should demonstrate that appropriate measures are in place to significantly reduce the potential for upstream migration of impacts from the Project.

e. CDFW recommends additional hydraulic modeling to appropriately design the proposed grouted riprap grade control features. At the upstream end of the Project site near the MMER, grouted riprap would be placed to protect the upstream end of the excavation area; however, it would be inundated by the Federal Emergency Management Agency (FEMA) 100-year flood. The final EIR, Reclamation Plan, and associated technical documents should demonstrate that the proposed revetment is sufficient to resist the anticipated forces acting on it during a large flood event, as well as demonstrate that the revetment is not subject to flanking or damage due to shifts in the location of the low flow channel immediately upstream of the Project site.

f. If the Project is developed and implemented as proposed, it does not appear that significant water retention would occur on the site relative to pre-Project conditions. The two main concerns with the site relate to the substantial open excavation pits, which will temporarily occur and shift throughout the site and include: pit capture and legacy pits. While the Project proposes to limit pit size to 5 acres at any time, there does not appear to be a mechanism to monitor and verify that this size is appropriate or being met throughout the mining period. The pits will be separated from the low flow/water transfer channel by temporary berms leaving the possibility for berm failure during regular water transfers, and the likelihood that any elevated flow events would breach the berms and begin flowing into a pit. Capture of surface flows by the excavated pits is environmentally damaging and challenging to repair. The final EIR, Reclamation Plan, and associated technical documents should demonstrate that the proposed berms are sufficient to withstand the forces acting upon them during normal water transfers as well as during the maximum anticipated flow event.

g. Topographic depressions or pits occur when insufficient material is available to backfill excavations or when operations cease prior to backfill operations. The backfill material proposed to be used in this Project consists of non-merchantable size fractions of the excavated material. Estimates of cut and fill were not reviewed to evaluate whether sufficient material would likely be present to complete the backfilling operations as proposed. Additionally, it is possible that changing market conditions could lead to economic use of greater material volumes than originally proposed leading to a deficit in backfill material volume. The final EIR, Reclamation Plan, and associated technical documents should demonstrate that a sufficient volume of material will be available for backfill as proposed prior to initiating the next mining Phase.

h. Another complication with backfilling of excavations when groundwater is present is obtaining and verifying appropriate compaction levels. Void space left in the lower layers of the excavation backfill could lead to broad settlement of overlying materials over time, eventually resulting in depressions and ponding on the floodplain. The final EIR, Reclamation Plan, and associated technical documents should demonstrate appropriate techniques and methods for backfill operations where groundwater is present.

i. It remains unclear from a review of the provided documents what impacts from changing the streambed sediment size gradation/composition (through mining and backfill) could have on the stream bed, bank or floodplain stability, erosional characteristics, or revegetation capacity. The Conceptual Revegetation Plan (Helix 2021b) appear to show a narrow band of riparian forest vegetation along a single trapezoidal channel, with riparian scrub vegetation covering almost the entire floodplain. This channel and floodplain form is different than the watercourse both upstream and downstream of the Project site. Without ongoing maintenance of a water transfer channel, it is very likely that high flow events would cause the channel to migrate, avulse, or otherwise occupy different alignments through the site, along with shifting to a more complex channel form. The SDNWR downstream appears to have riparian forest vegetation across the entire watercourse, and it should be anticipated, if not encouraged, that the riparian forest vegetation within the Project site would shift with any changes in channel form or location. More expansive or strategic floodplain planting of the riparian forest vegetation type could allow for some vegetative stabilization of the low flow channel banks and could reduce the time needed for natural expansion of the riparian forest into the riparian scrub on the floodplain as the complexity of the channel increased.

2. Streambed jurisdiction and notification: CDFW has regulatory authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of any river, stream, or lake or use material from a river, stream, or lake. The following comments address accurate determination of CDFW jurisdictional impacts and the notification process pursuant to Fish & G. Code, § 1600 et seq.

a. The BRTR and Conceptual Wetland Mitigation Plan (Helix 2021c) appear to substantially underestimate the areas of the Project which appear to be within the Sweetwater River (Figure 11 titled “CDFW Jurisdictional Areas/Impacts”). Appendix E of the BRTR includes “Jurisdictional Delineation Datasheets” that appear to show the use of Ordinary High Water Mark indicators when delineating the CDFW Jurisdictional Areas displayed on Figure 11.

Fish & G. Code, § 1602 and California Code of Regulations, Title 14, § 720, clearly state that for the purposes of implementing these sections all streams are subject to Fish & G.

Code, § 1600 et seq., which is interpreted to mean that all streams are subject to jurisdiction without regard to stream type, size, duration of flow, or the flora or fauna present. Altered streams also are subject to jurisdiction.

A stream channel includes the area where water uniformly or habitually flows over a given course, and where the width of the watercourse can reasonably be defined. Thus, a channel is not limited to a specific flow event – such as ordinary high water – nor by the path of surface water associated with a particular low flow as this path might vary seasonally. Rather, the channel is more appropriately based on the topography or elevations of land that confine the water to a particular course when the waters of a stream rise to their highest point. To assert jurisdictional boundaries otherwise would result in a morass of jurisdictional boundaries that differed from stream to stream, changed with variations in channel morphology along the same stream, or that shifted seasonally on any given stream along with seasonal changes in flow.

FEMA has mapped both a Regulatory Floodway and "1 percent annual chance flood hazard" (i.e., 100-year flood) zone through this reach of the Sweetwater River. Nearly the entire Project site is located within the 100-year floodplain as shown on Sheet 2 of the Reclamation Plan. The final EIR and associated technical documents should demonstrate using geomorphic evidence, hydrologic records, valley cross sections, standard bulking or debris flow related equations that the full extent of the watercourse is reflected in Figure 11 and associated notification materials.

b. CDFW anticipates that the County will provide written notification pursuant to Fish & G. Code, § 1600 et seq. for the Project. Based on this notification and other information, CDFW determines whether a Lake and Streambed Alteration Agreement (LSAA) with the applicant is required prior to conducting the proposed activities. CDFW's issuance of a LSAA for a project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. CDFW as a Responsible Agency under CEQA may consider the County's DEIR for the Project. To minimize additional requirements by CDFW pursuant to Fish & G. Code, § 1600 et seq., and/or under CEQA, the DEIR should fully identify the potential impacts to any stream or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for issuance of the LSAA.

   Whether a LSAA is required to satisfy requirements of Fish & G. Code, § 1600 et seq., can only be determined at the time a formal Notification package is submitted to CDFW. Given the design elements of the proposed Project, we strongly encourage the County to consider submittal of a streambed notification package to the Lake and Streambed Alteration Program.

3. Groundwater analysis: Both the Groundwater Use Analysis (EnviroMINE, 2021b) and the Groundwater Investigation Report (Geo-Logic 2021a) base findings on the assumption that both onsite golf courses are currently using groundwater for regular operations, with a total estimated annual usage of 804 acre feet per year (afy). Based on the Project's estimated annual usage of 140 afy, the conclusion is that there will be a difference in onsite groundwater use of approximately 660 afy once mining activities begin. However, given that the western (Lakes) golf course closed and ceased irrigation in the summer of 2017, a more accurate estimate of the current groundwater use onsite is half of 804 afy, or roughly 400 afy. Subsequently, the conclusion that the proposed mining operation would use less than 20% of the current groundwater utilization - resulting in a large increase in the availability of groundwater - is inaccurate. This discrepancy, and any resulting changes to findings based

on the expected groundwater conditions during and after Project implementation, should be corrected and clarified in the final Project documents.

4. Impacts to special status amphibians and reptiles: The proposed mitigation measures in the DEIR properly include habitat-based mitigation for potential impacts to special status herpetological species with high potential to occur onsite that are covered under the MSCP Subarea Plan. However, Project implementation would include ground disturbing, vegetation clearing, and extraction activities that have the potential to directly impact individuals of these fossorial species that are otherwise sensitive but not covered under the MSCP. CDFW recommends that the following mitigation measures be included in the final EIR to avoid and/or minimize inadvertent, direct impacts to these special status, non-MSCP covered species from Project-related activities.

a. Due to the presence of potentially suitable habitat for western spadefoot (*Spea hammondii*) and two-striped garter snake (*Thamnophis hammondii*) within the Project site, prior to any vegetation removal, grading, and/or other ground disturbing activities, a qualified biologist familiar with sensitive reptile and amphibian species behavior and life history will conduct specialized presence/absence surveys. These species are considered a SSC by CDFW but are not covered under the MSCP Subarea Plan. These focused surveys should be conducted during active season/time of day when each reptile and/or amphibian species are most likely to be detected. Survey results, including negative findings, will be submitted to CDFW for review two weeks prior to initiation of Project activities. If a special-status animal species is detected during surveys, the biologist shall consult with CDFW to prepare species-specific protocols for proper handling and relocation procedures.

b. Western spadefoot: If toads, tadpoles, or egg masses are identified within an impact area, the following measures will be implemented:

    i. Under the direct supervision of a qualified biologist, suitable relocation sites outside the impact area will be identified. A minimum 50-foot buffer from the impact area will be included (a 100-foot buffer is recommended when feasible). Locations should be in suitable habitat, as far away as possible from Project activities, and shall be approved by CDFW.

    ii. All western spadefoot adults, tadpoles, and egg masses encountered in the impact area will be collected and released in the identified relocation basins.

    iii. Relocation sites will be monitored annually for five years during and immediately following peak breeding season, such that surveys can be conducted for adults as well as for egg masses and tadpoles. Survey data will be provided to CDFW in an annual report summarizing the monitoring results.

5. Impacts to bats: Per the DEIR, Mexican long-tongued bat (*Choeronycteris mexicana*) was determined to have high potential to occur within the Project site based on documented occurrences in the vicinity. This species is considered a SSC by CDFW but is not a covered species under the MSCP Subarea Plan. The Project site contains ornamental plantings that could provide suitable foraging habitat and buildings that provide potential roosting habitat. However, the DEIR does not include mitigation measures to avoid and/or minimize potential impacts to Mexican long-tongued bats from the Project-related removal of trees, vegetation, and structures. CDFW recommends that the following mitigation measures be included in

the final EIR to avoid and/or minimize inadvertent, direct impacts to these species from Project-related activities.

a. A qualified bat specialist shall conduct bat surveys to determine baseline conditions within the Project site and within a 100-foot buffer (as access to adjacent areas allows), where accessible, to identify trees and/or structures that could provide daytime and/or nighttime roost sites. Surveys should include all areas that would experience increased impacts resulting from noise disturbances, human activity, dust, vegetation clearing, ground disturbing activities (e.g., staging, access, excavation, grading), and vibrations caused by heavy equipment. CDFW recommends using acoustic recognition technology to maximize detection of bats. Night roosts are typically utilized from the approach of sunset until sunrise. In most parts of California, night roost use will only occur from spring through fall while day roosts are typically utilized during the spring, summer, and fall in California (Johnston et al. 2004).

b. Survey methodology and results, including negative findings, shall be submitted to CDFW for review 2 weeks prior to initiation of Project activities; and, provided as an appendix in the final environmental document. Depending on survey results, the final EIR shall provide an analysis of potentially significant effects of the proposed Project on the bats and include species specific mitigation measures to reduce impacts to below a level of significance (CEQA Guidelines, § 15125).

6. Wildlife movement: Though somewhat limited by current site conditions, the potential still exists for wildlife movement through the Project site. Common predators and mesopredators present within the surrounding area that may utilize the site for limited foraging or movement activities include coyote (*Canis latrans*), racoons (*Procyon lotor*), striped skunk (*Mephitis mephitis*), bobcat (*Lynx rufus*) and mule deer (*Odocoileus hemionus*). Under the proposed Project, the Sweetwater River floodplain would be substantially widened and revegetated with native riparian habitat along the channel's bottom and with coastal sage scrub along the constructed channel slopes. This proposed reclaimed condition is likely to improve the long-term suitability of the site for wildlife movement.

   CDFW offers the following recommendations to avoid and minimize impacts to wildlife that may attempt to move through the site during mining and reclamation activities. Prior to the installation of temporary or permanent fencing, the placement design should carefully consider potential impacts to wildlife movement patterns between the upstream and downstream riparian habitats adjacent to the Project site. Current conditions within the Project site force most animals to travel along the perimeter of the golf course when moving between the adjacent upstream and downstream riparian habitats. The vegetative cover for terrestrial species stops just short of the Steele Canyon Road bridge. There is inadequate cover to attract animals to move north and south under the bridge, and no fencing to prevent them from crossing the road where cover exists. As a result, CDFW has documented animals being struck by vehicles while crossing Steele Canyon Road. Since mining activities within the Project site may increase wildlife use of the perimeters, potentially leading to increased roadkill on Steele Canyon Road, we recommend that the placement of any onsite fencing consider/address its potential impacts to onsite wildlife movement patterns.

7. Exotic aquatic species: CDFW recommends revising Section 3.3.4 of the Conceptual Resource Management Plan (RMP; Helix 2021d) to include monitoring and management

measures for exotic aquatic species. Non-native, nuisance wildlife species detected on the Project site include the American bullfrog (*Rana catesbeiana*) and red-eared slider (*Trachemys scripta elegans*). CDFW also recommends that the final RMP include measures to monitor for these and other exotic aquatic species (including invasive aquatic invertebrates; see https://stopaquatichitchhikers.org/) to ensure that they do not occupy the BOS preserve or use it to disperse between conserved lands both up- and downstream of the Project site. If exotic aquatic species are found onsite, coordination with land managers on adjacent preserves should be initiated and control/eradication measures enacted.

8. Revegetation implementation success: Per the draft Reclamation Plan, reclamation would include backfill and grading to achieve final landforms using accumulated wash fines, overburden, and topsoil. Wash fines are defined as clay and silt particles left over after washing aggregate. Overburden, often referred to as spoil or waste, is the rock or soil removed to access the ore being mined. Final project documents should analyze the use of these specific types of fill in terms of potential impacts on infiltration rates and subsequent effects on plant growth relative to the proposed native habitat restoration. Section 5.1 of the Conceptual Revegetation Plan cites the presence of appropriate soils (e.g., Riverwash and Tujunga sand) within the riparian revegetation areas as a rationale for expecting implementation success. However, the analysis seems based on pre-mining site conditions, whereas the post-reclamation soil conditions onsite will be fundamentally altered by the proposed backfill with wash fines and overburden. CDFW recommends the final Project documents consider whether the post-reclamation soil and hydrological conditions support the proposed restoration and revegetation plans.

9. Erosion control seed mix: The Project proposes “Additional Reclaimed Areas” (Figure 2.2-8 of the DEIR) located outside of the expanded floodplain and composed of graded upland pads that would be hydroseeded with an erosion control seed mix. Table 11 of the Conceptual Revegetation Plan lists the following species to be included in the erosion control seed mix: Western ragweed (*Ambrosia psilostachya*), California brome (*Bromus carinatus*), small fescue (*Vulpia* [*Festuca] microstachys*), and plantain (*Plantago insularis*). Two of the four plant species proposed are annuals and none seem likely to outcompete nonnative, invasive plant species. It is foreseeable that these areas would become dominated by invasive and exotic plants. Given that no success criteria are proposed for these areas, which are located immediately adjacent to the BOS preserve, we are concerned they may function as a source of invasive plant encroachment into the BOS preserve. A 100-foot wide Limited Building Zone (LBZ) easement is proposed around the BOS preserve to reduce potential edge effects. As proposed, the LBZ easement would be seeded with the erosion control seed mix. CDFW recommends the County consider extending the coastal sage scrub plant palette into the LBZ easement to provide a transitional buffer and minimize potential spread of exotic invasive plants from the erosion control areas into the BOS preserve.

10. Shot-hole borers: Per the draft Conceptual Wetland Mitigation and Revegetation Plans, a restoration specialist would be consulted on any pest control matters and monitor the mitigation site for evidence of invasive Polyphagous shot-hole borers (*Euwallacea* spp.; SHBs). Regional methods for control of SHBs would be evaluated if determined necessary and all container stock and cuttings would be inspected for pests. CDFW recommends that the final Wetland Mitigation and Revegetation Plans also include procedures for disposal of removed trees that may be infested with invasive pests and disease. Removal of infested trees from the Project site has potential to result in the spread of tree insect pests and disease into areas not currently exposed to these stressors. This could result in expediting

the loss of oaks, alders, sycamore, and other trees in California which support a high biological diversity including special status species. To reduce impacts to less than significant, the final EIR should describe an infectious tree disease management plan and how it will be implemented to avoid significant impacts under CEQA. All trees identified for removal resulting from the Project should be inspected for contagious tree diseases including but not limited to: thousand canker fungus (*Geosmithia morbida*), see http://www.thousandcankers.com/; SHBs, see http://eskalenlab.ucr.edu/avocado.html; and goldspotted oak borer (*Agrilus auroguttatus),* see http://ipm.ucanr.edu/PMG/PESTNOTES/pn74163.html. To avoid the spread of infectious tree diseases, diseased trees should not be transported from the Project site without first being treated using best available management practices relevant for each tree disease observed.

11. Irrigation: Per the Conceptual Revegetation Plan, the irrigation system within the riparian forest, riparian scrub and DCSS revegetation areas will be maintained until the Restoration Specialist determines that supplemental water is no longer required. At that time, irrigation will be permanently disconnected (e.g., the mainline will be cut), but not removed. CDFW generally recommends removing temporary irrigation systems/pipes associated with restoration projects. We request that the above-ground portions of irrigation within the BOS be removed following restoration sign off by the County, unless otherwise agreed to by CDFW.

12. Offsite mitigation: Per the DEIR, M-BIO-15 still includes the possibility of offsite mitigation for riparian and wetland impacts. As discussed in prior meetings with the County, it is CDFW's understanding that all Project-related impacts will be mitigated onsite. We recommend that references to potential offsite mitigation be removed from the final DEIR.

13. Wildlife Agency approvals: The Project's draft documents are inconsistent regarding the USFWS and CDFW (Wildlife Agencies) review and approval of the final Revegetation and Wetland Mitigation Plans and Resource Management Plan for the Project, as well as submittal of annual reports to the Wildlife Agencies. CDFW requests that the final EIR clarify that the Wildlife Agencies must concur in writing with the final Revegetation and Wetland Mitigation Plans and Resource Management Plan for the Project. We also note that any LSAA may include a measure for CDFW review and approval of the restoration plans.

14. Biological Open Space easement: According to the DEIR, a BOS easement will be placed over approximately 142.8 acres of preserved, rehabilitated, revegetated, and restored habitat once reclamation is complete. CDFW requests the opportunity to review the BOS easement language to determine whether recordation of a conservation easement may be more suitable for areas provided as compensatory mitigation for Project impacts.

15. Performance standards: The Conceptual Wetland Mitigation and Revegetation Plans do not explain what measures will be implemented if certain performance standards are not progressing toward the stated restoration/revegetation goals. CDFW recommends that the final documents provide specific measures that will be implemented (if necessary) during the 5-year monitoring and management to move toward achieving the success criteria.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a data base 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 (CNDDB). The CNNDB field survey form can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDB_FieldSurveyForm.pdf. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp.

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 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 DEIR to assist the County in identifying and mitigating Project impacts on biological resources. Questions regarding this letter or further coordination should be directed to Heather Schmalbach, Environmental Scientist, at Heather.Schmalbach@wildlife.ca.gov.

Sincerely,

DocuSigned by:
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2021b. Groundwater Use Analysis, Cottonwood Sand Mine. April.

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