

CHAPTER 7.0 – LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

7.1 Comprehensive Listing of Mitigation Measures

7.1.1 Mitigation for Biological Resources

M-BIO-1 Mitigation for impacts to 1.2 acres of potential foraging habitat for coastal California gnatcatcher, comprised solely of Diegan coastal sage scrub, shall occur at a 1.5:1 ratio for a total mitigation requirement of 1.8 acres. Mitigation shall occur through on-site preservation of 0.6 acre of Diegan coastal sage scrub and on-site revegetation of 11.3 acres of Diegan coastal sage scrub for a total of 11.9 acres of Diegan coastal sage scrub to be preserved within the biological open space easement.

M-BIO-2 ~~Grading or clearing of vegetation within 500 feet of occupied Diegan coastal sage scrub during the breeding season of the coastal California gnatcatcher (March 1 to August 15) shall be avoided to the extent feasible. All grading permits, improvement plans, and the final map shall state the same. If clearing or grading would occur within 500 feet of suitable coastal California gnatcatcher habitat during the gnatcatcher breeding season (March 1 to August 15) for the gnatcatcher,~~ a qualified biologist shall conduct a pre-construction survey no more than three days (72 hours) prior to commencement of activities to determine whether gnatcatchers occur within 500 feet of the proposed impact area(s). If there are no gnatcatchers nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If any gnatcatchers are observed nesting or displaying breeding/nesting behavior during the pre-construction survey or additional surveys within the area, construction shall be postponed within 500 feet of any location at which gnatcatchers have been observed until a qualified biologist has determined that all nesting (or breeding/nesting behavior) has ceased or until after August 15.

M-BIO-3 Mitigation for impacts to 0.58 acre of potential nesting and foraging habitat for least Bell's vireo (southern cottonwood-willow riparian forest, disturbed southern willow scrub, and tamarisk scrub) shall occur at a minimum 3:1 ratio with at least 1:1 creation (establishment/re-establishment) for a total mitigation requirement of 1.74 acres. Mitigation shall occur through on-site preservation of 13.8~~56~~ acres of wetland and riparian habitat, on-site rehabilitation of 7.36 acres of riparian habitat, and on-site re-establishment and revegetation of 107.6~~32~~ acres of riparian habitat for a total of 128.84 acres of wetland riparian habitat to be preserved within the biological open space easement.

M-BIO-4 ~~Grading or clearing of riparian habitat during the breeding season of the least Bell's vireo (March 15 through September 15) shall be avoided to the extent feasible. All grading permits, improvement plans, and the final map shall state the same. If clearing or grubbing must occur within 500 feet of suitable least Bell's vireo habitat during the least Bell's vireo breeding season (March 15 to September 15),~~

a qualified biologist shall conduct a pre-construction survey no more than three days (72 hours) prior to commencement of activities to determine whether vireos occur within 500 feet of proposed impact area(s). Impacts to occupied habitat shall be avoided. If there are no vireos nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If any vireos are observed nesting or displaying breeding/nesting behavior during the pre-construction survey or additional surveys within that area, construction shall be postponed within 500 feet of any location at which vireos have been observed until a qualified biologist has determined that all nesting (or breeding/nesting behavior) has ceased or until after September 15.

M-BIO-5 If operation of construction or excavation equipment is initiated within 500 feet of suitable habitat during the breeding seasons for the coastal California gnatcatcher (March 1 to August 15), nesting raptors (January 15 to July 15), or least Bell's vireo (March 15 to September 15), pre-construction survey(s) shall be conducted by a qualified biologist to determine whether these species occur within the areas potentially impacted by noise, with the final survey occurring within three days (72 hours) of the proposed start of construction, mining, or reclamation activities. If it is determined at the completion of pre-construction survey(s) that active nests belonging to these sensitive species are absent from the potential impact area, activities shall be allowed to proceed. If pre-construction surveys determine the presence of active nests belonging to these sensitive species, then activities shall: (1) be postponed until a qualified biologist determines the nest(s) is no longer active or until after the respective breeding season; or (2) not occur until a temporary noise barrier or berm is constructed at the edge of the impact footprint and/or around the piece of equipment to ensure that noise levels are reduced to below 60 dBA or ambient, whichever is greater. The type(s) and location(s) of noise barrier(s) shall be provided to the County and Wildlife Agencies along with the associated noise measurements demonstrating compliance with required noise level reductions. Decibel output would be confirmed by a County-approved noise specialist and intermittent monitoring by a qualified biologist to ensure that noise levels remain below 60 dBA at occupied areas.

M-BIO-6 Impacts to 234 individuals of Palmer's goldenbush shall be mitigated at a 1:1 ratio. Mitigation shall occur through planting and/or seeding of the species within on-site native revegetation areas in accordance with a revegetation plan to be approved by the County and Wildlife Agencies (USWFS and CDFW).

M-BIO-7 ~~Grubbing or clearing of vegetation during the general avian breeding season (February 15 through August 31) or raptor breeding season (January 15 through July 15) shall be avoided to the extent feasible. If grubbing, clearing, or grading would occur during the general avian breeding season (February 15 through August 31) within 300 feet of general bird nesting habitat or during the raptor breeding season (January 15 through July 15) within 500 feet of nesting raptor habitat, a qualified biologist shall conduct a pre-construction survey no more than three days (72 hours) prior to the commencement of activities to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes~~

nest building or other breeding/nesting behavior) within this area, clearing, grubbing, and grading shall be allowed to proceed. Furthermore, if construction activities are to resume in an area where they have not occurred for a period of seven or more days during the breeding season, an updated survey for avian nesting will be conducted. If active nests or nesting birds are observed within the area, the biologist shall flag the active nests and construction activities shall avoid active nests until a qualified biologist has determined that nesting behavior has ceased, nests have failed, or young have fledged.

- M-BIO-8** Upon completion of all extraction activities, reclamation, and final grading to establish the final landform shall occur in accordance with the approved Reclamation Plan. Revegetation with native species will occur within the expanded Sweetwater River floodplain and constructed bordering slopes according to a revegetation plan to be approved by the County and Wildlife Agencies (USWFS and CDFW).
- M-BIO-9** Mitigation for impacts to 0.44 acre of southern cottonwood-willow riparian forest, 0.13 acre of disturbed southern willow scrub, 0.01 acre of tamarisk scrub, 0.01 acre of arundo-dominated riparian, and 0.55 of disturbed wetland shall occur at a 3:1 ratio with at least 1:1 creation for a total mitigation requirement of 3.42 acres. Mitigation shall occur through on-site preservation of 13.85~~6~~ acres of wetland and riparian habitat, on-site rehabilitation of 7.36 acres of riparian habitat, and on-site re-establishment and revegetation of 107.63~~2~~ acres of riparian habitat for a total of 128.84 acres of wetland riparian habitat to be preserved within the biological open space easement.
- M-BIO-10** Mitigation for 1.2 acres of impacts to Diegan coastal sage scrub shall occur at a 1.5:1 ratio through the on-site preservation of 1.8 acres of Tier II or Tier I habitat in the South County MSCP area within a biological resource core area. Mitigation shall occur through on-site preservation of 0.6 acre of Diegan coastal sage scrub and on-site revegetation of 11.3 acres of Diegan coastal sage scrub for a total of 11.9 acres of Tier II Diegan coastal sage scrub to be preserved within the biological open space easement.
- M-BIO-11** Prior to any vegetation removal, grading, and/or other ground disturbing activities, a qualified biologist familiar with special status reptile and amphibian species behavior and life history shall conduct a pre-construction survey no more than two weeks prior to commencement of activities to determine whether reptile and amphibian species designated as sensitive by CDFW, but not covered under the County's MSCP, occur within proposed impact area(s). If special status reptile or amphibian species are detected during the pre-construction survey, consultation with CDFW shall be initiated to prepare species-specific protocols for proper handling and relocation procedures.
- M- BIO-12** If western spadefoot toads, tadpoles, or egg masses are identified within the proposed impact area(s), the following measures shall be implemented: (1) A suitable relocation site(s) outside the proposed impact area(s) shall be identified by

a qualified biologist. The relocation site(s) shall be located a minimum of 50 feet outside of the proposed impact area(s), or 100 feet if available, and shall be approved by CDFW; (2) All western spadefoot adults, tadpoles, and egg masses encountered in the proposed impact area(s) shall be collected and released in the identified relocation site(s); (3) The relocation site(s) shall be monitored annually for five years during and immediately following peak breeding season (late winter to March), such that surveys can be conducted for adults as well as for egg masses and tadpoles. The results of annual monitoring shall be provided to CDFW in an annual report.

M- BIO-13 Prior to the removal of mature trees or existing buildings/structures with potential to support roosting bats, a qualified biologist shall conduct an initial pre-construction survey no more than 30 days and no less than two weeks prior to commencement of tree removal or demolition activities to determine if roosting bats are present in the proposed impact area(s). A letter report summarizing the survey methods and results of the survey, including negative findings, shall be submitted to the County and CDFW for review at least two weeks prior the commencement of Project activities. If bats are detected within the proposed impact area(s) during the initial pre-construction survey, the letter report will identify measures to be implemented to avoid and minimize potential direct and indirect impacts to roosting bats, including those identified in this measure. A final pre-construction survey shall be conducted no more than three days (72 hours) prior to tree removal or demolition activities within the proposed impact area(s). If bats are not detected during the final pre-construction survey or determined to be absent from the proposed impact area, construction activities shall be allowed to proceed, and no additional measures would be necessary. If bats are detected during the final pre-construction survey, the following avoidance measures shall be implemented, depending on the time of year, including additional measures identified in the letter report. If an active maternity roost is detected during the bat maternity season (April 15 through August 15), the biologist shall flag the active roost site and construction activities shall avoid the roost site until after the maternity season (August 16), or until the qualified biologist has determined young are self-sufficiently volant (able to fly). If bats are detected and determined to be roosting within the proposed impact area(s) outside of the bat maternity season (August 16 through April 14), the biologist shall flag the active roost site and construction activities shall avoid roost sites until bats are no longer determined to be roosting as determined by the qualified bat biologist. Exclusion of roost sites, where feasible, outside of the bat maternity season may be conducted with approval of the County and CDFW. Methods of roost exclusion shall be determined in consultation with the County and CDFW.

M-BIO-14 The applicant shall dedicate ~~149.0150.7~~ acres of biological open space to be managed by a long-term manager approved by the County in accordance with a Resource Management Plan. The biological open space easement shall include native habitat revegetation areas located within the expanded Sweetwater River floodplain and bordering constructed slopes. Permanent open space fencing and

signage shall be installed around the perimeter of the biological open space as detailed in the final Resource Management Plan.

- M-BIO-15** The Project requires preparation of a Resource Management Plan (RMP) for on-site biological open space to be approved by the County and Wildlife Agencies (USFWS and CDFW). The RMP would provide direction for the permanent preservation and management of the on-site biological open space in accordance with County regulations.
- M-BIO-16** To help ensure errant impacts to sensitive vegetation communities outside of the impact footprint are avoided during construction, temporary environmental fencing (including silt fencing where determined necessary by the SWPPP), would be installed at the edges of the impact limits prior to initiation of grading. All construction staging shall occur within the approved limits of construction.
- M-BIO-17** A qualified biologist shall monitor the installation of environmental fencing wherever it would abut sensitive vegetation communities, jurisdictional waters or wetlands, or open space. Prior to the installation of temporary 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. The biologist also would conduct a pre-construction environmental training session for construction personnel prior to all phases of construction to inform them of the sensitive biological resources on site and avoidance measures to remain in compliance with Project approvals. The biologist shall monitor initial vegetation clearing, grubbing, and grading activities to ensure that activities occur within the approved limits of work and avoid impacts to nesting birds. The biologist shall periodically monitor the limits of construction and mining operations to ensure that mining and avoidance areas are delineated with temporary fencing and that fencing remains intact.
- M-BIO-18** Impacts to 0.60 acre of U.S. Army Corps of Engineers (USACE) wetland waters of the U.S. shall be mitigated a minimum 3:1 ratio and 0.36 acre of USACE non-wetland waters of the U.S. shall be mitigated at a minimum 1:1 ratio through one or a combination of the following: on- and/or off-site establishment, re-establishment, rehabilitation, and/or enhancement of 2.16 acres waters of the U.S.; and/or off-site purchase of waters of the U.S. credits at an approved mitigation bank, or other location deemed acceptable by the USACE. Any mitigation completed through purchase of mitigation credits shall be provided prior to issuance of a grading permit, and prior to use of the premises in reliance of this permit. Any applicant-initiated mitigation must be implemented prior to or concurrent with impacts to waters of the U.S. Impacts to waters of the U.S. would require issuance of a Section 404 CWA permit from the USACE prior to impacts.
- M-BIO-19** Impacts to 1.14 acres of California Department of Fish and Wildlife (CDFW) jurisdictional riparian habitat (0.44 acre of southern cottonwood-willow riparian forest, 0.13 acre of southern willow scrub, 0.002 acre of freshwater marsh, 0.01 acre of arundo-dominated riparian, and 0.56 acre of disturbed wetland) shall be

mitigated at a 3:1 ratio, totaling 3.42 acres of riparian habitat mitigation. Impacts to 17.06 acres of CDFW streambed shall be mitigated at a minimum 1:1 ratio through one or a combination of the following: on- and/or off-site establishment, re-establishment, rehabilitation, and/or enhancement of 17.06 acres of riparian and/or stream habitat; and/or off-site purchase of riparian and/or stream credits at an approved mitigation bank, or other location deemed acceptable by the CDFW. Combined mitigation for CDFW riparian habitat and streambed totals 20.48 acres. Any mitigation completed through purchase of mitigation credits shall be provided prior to the issuance of a grading permit, and prior to use of the premises in reliance of this permit. Any applicant-initiated mitigation must be implemented prior to or concurrent with impacts to CDFW habitat. Impacts to CDFW jurisdictional habitat would require issuance of a CFG Code Section 1602 Streambed Authorization Agreement from the CDFW prior to impacts.

M-BIO-20 The Project requires preparation of a wetland mitigation plan for impacts to wetland habitat and jurisdictional waters to be approved by the County (wetland impacts only) and U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB) (impacts to waters of the U.S. and State, and CDFW riparian habitat and streambed), as applicable. Approval of the plan and/or acceptance of mitigation bank credits by the USACE, CDFW, and RWQCB shall be a condition of the associated wetland permits for the Project.

7.1.2 Mitigation for Cultural Resources and Tribal Cultural Resources

M-CR-1 Cultural Resources Treatment Agreement and Preservation Plan

A single Cultural Resources Treatment Agreement and Preservation Plan shall be developed between the applicant or their representative and the culturally-affiliated Kumeyaay Native American tribe(s) prior to the commencement of sand extraction operations, including the removal of any trees or vegetation. The Cultural Resources Treatment Agreement and Preservation Plan shall be reviewed and agreed to by the County prior to final signature and authorization. The Cultural Resources Treatment Agreement and Preservation Plan shall include but is not limited to the following:

- Parties entering into the agreement and contact information.
- Responsibilities of the Property Owner or their representative, Principal Investigator, archaeological monitors, Kumeyaay Native American monitors, and consulting tribes.
- Requirements of the Pre-Grade Survey and Data Recovery Program and Archaeological Monitoring Program including unanticipated discoveries.
- Requirements of tree removal monitoring.

- Identification of areas for archaeological and Native American monitoring during earth-disturbing activities related to sand extraction operations.
- Treatment of identified Native American cultural materials.
- Treatment of Native American human remains and associated grave goods.
- Confidentiality of cultural information including location and data.
- Negotiation of disagreements should they arise during the implementation of the Agreement and Preservation Plan.
- Regulations that apply to cultural resources that have been identified or may be identified during construction.

M-CR-2 Pre-Grade Survey and Data Recovery Program

Prior to sand extraction operations, a Pre-Grade Survey and Data Recovery Program shall be implemented, consistent with the Cultural Resources Treatment Agreement and Preservation Plan and criteria outlined below.

- **Pre-Construction**

A pre-grade survey shall be implemented due to the sensitivity of the area. The pre-grade and data recovery program shall include the following:

- **Tree Removal:** Removal of trees shall be monitored by an Archaeological Monitor and Kumeyaay Native American Monitor for the presence of cultural resources.
- **Pre-Grade:** Upon completion of grubbing and vegetation removal, and prior to sand extraction activities, a pre-grade survey shall be conducted in all areas identified for development. Development shall be defined as construction, extraction, or any other grading activity. The pre-grade survey shall include both an Archaeological Monitor and Kumeyaay Native American Monitor.
- **Identified Resources.** In the event that cultural resources are identified:
 - Both the Project Archaeologist and Kumeyaay Native American monitor(s) have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery.
 - The Project Archaeologist shall contact the County Archaeologist.
 - The Project Archaeologist in consultation with the County Archaeologist and Kumeyaay Native American monitor(s) shall determine the significance of discovered resources.

- Isolates and non-significant deposits shall be minimally documented in the field. Should the isolates and non-significant deposits not be collected by the Project Archaeologist, the Kumeyaay Native American monitor(s) may collect the cultural material for transfer to a Tribal curation facility or repatriation program.
- If cultural resources are determined to be significant, a Research Design and Data Recovery Program shall be prepared by the Project Archaeologist in consultation with the Kumeyaay Native American monitor(s) and approved by the County Archaeologist. The program shall include reasonable efforts to preserve (avoid) unique cultural resources or Sacred Sites; the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap if avoidance is infeasible; and data recovery for non-unique cultural resources. The preferred option is preservation (avoidance).
- **Human Remains**
 - The Property Owner or their representative shall contact the County Coroner and the PDS Staff Archaeologist.
 - Upon identification of human remains, no further disturbance shall occur in the area of the find until the County Coroner has made the necessary findings as to origin. Should the human remains need to be taken offsite for evaluation, they shall be accompanied by a Kumeyaay Native American monitor.
 - If the remains are determined to be of Native American origin, the MLD, as identified by the NAHC, shall be contacted by the Property Owner or their representative in order to determine proper treatment and disposition of the remains.
 - The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until consultation with the MLD regarding their recommendations as required by Public Resources Code Section 5097.98 has been conducted.
 - Public Resources Code §5097.98, CEQA §15064.5 and Health & Safety Code §7050.5 shall be followed in the event that human remains are discovered.
- **Vegetation Removal Completion**
 - Upon completion of grubbing and vegetation removal for each phase, a monitoring report shall be prepared identifying whether resources were encountered during the removal of trees or Pre-Grade Survey. A copy of the monitoring report shall be provided to any culturally-affiliated tribe who requests a copy. If resources were encountered, the analysis shall be

included in the final archaeological monitoring report and shall comply with all requirements of that condition.

M-CR-3 Archaeological Monitoring Program

- **Pre-Construction**

- Contract with a County approved archaeologist to perform archaeological monitoring and a potential data recovery program during earth-disturbing activities in areas identified in the Treatment and Preservation Agreement described in M-CR-1. The Project Archaeologist shall perform the monitoring duties before, during and after construction.
- Pre-construction meeting to be attended by the Project Archaeologist and Kumeyaay Native American monitor to explain the monitoring requirements.

- **Construction**

- **Monitoring:** Both the Project Archaeologist and Kumeyaay Native American monitor are to be onsite during earth disturbing activities. The frequency and location of monitoring of native soils will be determined by the Project Archaeologist in consultation with the Kumeyaay Native American monitor.
- **Identified Resources.** In the event that cultural resources are identified:
 - Both the Project Archaeologist and Kumeyaay Native American monitor have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery.
 - The Project Archaeologist shall contact the County Archaeologist at the time of discovery.
 - The Project Archaeologist in consultation with the County Archaeologist and Kumeyaay Native American shall determine the significance of discovered resources.
 - Construction activities will be allowed to resume after the County Archaeologist has concurred with the significance evaluation.
 - Isolates and non-significant deposits shall be minimally documented in the field. Should the isolates and non-significant deposits not be collected by the Project Archaeologist, the Kumeyaay Native American monitor may collect the cultural material for transfer to a Tribal curation facility or repatriation program.
 - If cultural resources are determined to be significant, a Research Design and Data Recovery Program shall be prepared by the Project Archaeologist in consultation with the Kumeyaay Native American monitor and approved by

the County Archaeologist. The program shall include reasonable efforts to preserve (avoid) unique cultural resources of Sacred Sites; the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap if avoidance is infeasible; and data recovery for non-unique cultural resources. The preferred option is preservation (avoidance).

- **Human Remains**

- The Property Owner or their representative shall contact the County Coroner and the PDS Staff Archaeologist.
- Upon identification of human remains, no further disturbance shall occur in the area of the find until the County Coroner has made the necessary findings as to origin. If the human remains are to be taken offsite for evaluation, they shall be accompanied by the Kumeyaay Native American monitor.
- If the remains are determined to be of Native American origin, the MLD, as identified by the NAHC, shall be contacted by the Property Owner or their representative in order to determine proper treatment and disposition of the remains.
- The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until consultation with the MLD regarding their recommendations as required by Public Resources Code Section 5097.98 has been conducted.
- Public Resources Code §5097.98, CEQA §15064.5 and Health & Safety Code §7050.5 shall be followed in the event that human remains are discovered.

- **Rough Grading**

- Monitoring Report: Upon completion of Rough Grading, a monitoring report shall be prepared identifying whether resources were encountered. A copy of the monitoring report shall be provided to the South Coastal Information Center and any culturally-affiliated tribe who requests a copy.

- **Final Grading**

- Final Report: A final monitoring report shall be prepared substantiating that earth-disturbing activities are completed and whether cultural resources were encountered. A copy of the final report shall be submitted to the South Coastal Information Center, and any culturally-affiliated tribe who requests a copy.

- **Cultural Material Conveyance**

- The final report shall include evidence that all prehistoric materials have been curated at a San Diego curation facility or Tribal curation facility that meets federal standards per 36 Code of Federal Regulations (CFR) Part 79, or alternatively have been repatriated to a culturally affiliated tribe.
- The final report shall include evidence that all historic materials have been curated at a San Diego curation facility that meets federal standards per 36 CFR Part 79.

7.1.3 Mitigation for Noise

M-N-1 Below-Grade Excavation and Noise Barriers: Raw material extraction equipment operating within 400 feet of off-site noise-sensitive land uses (NSLU) useable space areas shall be located at the lowest feasible elevation within the Project's excavation areas such that the topography shall provide noise attenuation to off-site properties. To achieve the lowest feasible elevation, initial at-grade excavation activities shall be performed at least 400 feet from off-site NSLU usable space areas, as indicated in Figures 2.4-3a-c, *Noise Barriers*. Following this initial excavation to the lowest feasible elevation, excavation can extend outward and toward the NSLUs while maintaining the lowest feasible elevation at the active working face where extraction equipment is operating.

For NSLUs located at residential groups ~~5 and 8~~ (as shown on Figure 2.4-2), ~~as well as~~ Isolated Residence 2, Isolated Residence 3, and the Adeona Healthcare facility, an 8-foot-high noise barrier, constructed to the specifications identified below, shall be provided between excavation activities and the off-site NSLUs, when excavation is occurring within 400 feet of each location. When mining activities are occurring at distances greater than 400 feet from a given receiver location, a barrier would not be required adjacent to that receiver location. The barriers shall be located as shown on Figures 2.4-3a-c and break the line-of-sight (i.e., interrupt the straight-line path) between the excavation activities and receivers. For the barriers adjacent to residential groups ~~5 and 8~~, the required barrier height (8 feet) shall be measured relative to the adjacent Project site property line elevation. If the barrier is constructed at a location with an elevation lower than that of the adjacent property line, the total barrier height would be greater than the required barrier height in order to provide adequate noise attenuation (e.g., if the barrier with a required height of 8 feet is to be located at a surface elevation 5 feet below the adjacent Project site property line elevation, the total barrier height would be 13 feet).

For NSLUs located at residential groups 1, 2, 3, 4, 5, 10, and 11 (as shown on Figure 2.4-2), a 12-foot-high noise barrier, constructed to the specifications identified below, shall be provided between excavation activities and the off-site NSLUs, when excavation is occurring within 400 feet of each location. When mining activities are occurring at distances greater than 400 feet from a given receiver location, a barrier would not be required adjacent to that receiver location. The barriers shall be located as shown on Figures 2.4-3a-c and break the line-of-

sight (i.e., interrupt the straight-line path) between the excavation activities and receivers. For the barriers adjacent to residential groups 1, 2, 3, ~~and 4,~~ and 5, the required barrier height (12 feet) shall be measured relative to the adjacent Project site property line elevation. If the barrier is constructed at a location with an elevation lower than that of the adjacent project site property line, the total barrier height would be greater than the required barrier height in order to provide adequate noise attenuation (e.g., if the barrier with a required height of 12 feet is to be located at a surface elevation 5 feet below the adjacent project site property line elevation, the total barrier height would be 17 feet).

The noise barriers must be solid. They can be constructed of soil (in the form of a berm), masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are no cracks or gaps, through or below the walls. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove and must be at least one-inch total thickness or have a density of at least 3.5 pounds per square foot. Sheet metal of 18-gauge (minimum) may be used if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. Any door(s) or gate(s) must be designed with overlapping closures on the bottom and sides and meet the minimum specifications of the wall materials described above. The gate(s) may be of wood with a thickness of at least one-inch, solid-sheet metal of at least 18-gauge metal, or an exterior-grade solid-core steel door with pre-fabricated doorjambs. Stockpiles must be continuous and maintain the required height along their entire length.

7.1.4 Mitigation for Paleontological Resources

M-PAL-1 The Project site has marginal levels of sensitive paleontological resources. All excavation activities are subject to the *County of San Diego Grading Ordinance Section 87.430*, if any significant resources (fossils) are encountered during excavation activities.

- a. The grading contractor is responsible to monitor for paleontological resources during all grading activities. If any fossils are found greater than 12 inches in any dimension, stop all grading activities and contact PDS before continuing grading operations.
- b. If any paleontological resources are discovered and salvaged, the monitoring, recovery, and subsequent work determined necessary shall be completed by or under the supervision of a Qualified Paleontologist pursuant to the *San Diego County Guidelines for Determining Significance for Paleontological Resources*.

M-PAL-2 One of the following letters shall be prepared upon completion of the excavation/mining activities that require monitoring:

- a. If no paleontological resources were discovered, submit a “No Fossils Found” letter from the grading contractor to PDS stating that the monitoring has been

completed and that no fossils were discovered, and including the names and signatures from the fossil monitors. The letter shall be in the format of Attachment E of the *San Diego County Guidelines for Determining Significance for Paleontological Resources*.

- b. If paleontological resources were encountered during grading, a letter shall be prepared stating that the field grading monitoring activities have been completed, and that resources have been encountered. The letter shall detail the anticipated time schedule for completion of the curation phase of the monitoring.

7.2 Project Design Features/Conditions of Approval

All Project Design Features (PDFs) identified below will be included as Conditions of Approval in the MUP Decision and shown on the Project plans, where applicable or as noted below.

7.2.1 Design Considerations for Aesthetics

1. The Project shall retain a minimum of 23 percent of the Project property acreage (approximately 64 acres) where no mining activities would be permitted. Within these areas that occur outside of the subphase boundaries (see EIR Figure 1-4), removal of exotic and invasive species and planting of riparian and/or upland habitat may occur.
2. The Project shall adhere to the proposed subphase plan and sequence of subphase mine operations (see Plot Plan, EIR Figures 1-5a and 1-5b; and EIR Figure 1-4).
3. The Project shall remove sections of conveyor (see Plot Plan, EIR Figures 1-5a and 1-5b) and other stationary equipment in a timely manner once this equipment is no longer required within the subphase area.
4. Prior to initiation of Phase 1, the conceptual landscape screening and entrances plan (see Conceptual Landscape Screening and Entrances Plan, EIR Figures 1-11a-e) shall be implemented within select areas of the property boundary along Willow Glen Drive.
5. Prior to initiation of Phase 1, minimum 36-inch box Mexican elderberry shrubs (or similar native species approved by the County) shall be planted along the western and southern boundary of the processing plant area prior to commencement of processing plant operations. Supplemental box trees would be irrigated in a similar manner as vegetation associated with the conceptual landscape screening and entrances plan.
6. Six-foot high chain link fencing with screening mesh shall be selectively installed along Willow Glen Drive and 3-foot-high fencing with screening mesh shall be installed on the northbound Steele Canyon Road Bridge railing to help screen the processing plant and exposed soils and mining activities in Phases 1 and 2 from motorists and cyclists (see Plot Plan, EIR Figures 1-5a and 1-5b). These screens may be installed and removed sequentially during the adjacent actively mined subphase areas (subphases 1A and 2A).

7. Removal of screen fence shall occur as soon as feasible following attainment of reclamation goals and vegetation performance standards.
8. Lighting shall be of the lowest illumination allowed for human safety and designed in compliance with the County LPC, shielded and oriented downward, and shall not spill onto open space or off-site areas.
9. Mining equipment shall be selected or painted in a light color to help diminish the contrasting quality of these features.
10. Aggregate material being processed and stored within the processing plant area (see EIR Figure 1-7) shall be limited to stockpiles up to 25 feet in height.

7.2.2 Design Considerations for Biological Resources

Measures regarding lighting in Aesthetics, fugitive dust in Air Quality, and water quality control measures in Hydrology/Water Quality are also applicable to Biological Resources.

1. Only non-invasive plant species (species not listed on the California Invasive Plant Inventory prepared by the California Invasive Plant Council [Cal-IPC; 2020]) are included in the landscape plan for the site (see Conceptual Landscape Screening and Entrances Plan, EIR Figures 1-11a-e).
2. The existing Sweetwater River channel and the majority of native habitat that currently exists on the site will be retained (see Plot Plan, EIR Figures 1-5a and 1-5b; and EIR Figure 2.2-7).
3. Mining activities will be phased and once mining is complete in an area, it will be reclaimed to its end use, with approximately 142.8 acres of the site proposed to be preserved in on-site open space (see Revegetation Plan, EIR Figure 1-10).
4. Reclamation will include planting with native species. Only non-invasive plant species would be included in the landscape plan (i.e., species not listed on the California Invasive Plant Inventory prepared by the Cal-IPC [2020]). Revegetated and restored habitat will be maintained and monitored for a minimum of five years, or until the Project's performance standards are met.
5. Weed control measures will be implemented during mining and reclamation activities in accordance with the Project's Reclamation Plan. The occurrence of weeds on-site would be monitored by quarterly visual inspection during mine operations and removal would be initiated if the inspection reveals that weeds have become, or are becoming, established.
6. Off-leash pets will not be allowed on multi-use trails or public areas and signs will be posted along trails notifying pet owners of this regulation.
- 6.7. An Infectious Disease Management Plan would be prepared and implemented to address the potential for contagious tree diseases to spread during removal of existing trees.

7.2.3 Design Considerations for Noise

1. Sand excavation and processing is proposed to occur Monday through Friday, between the hours of 7:00 A.M. and 5:00 P.M. No material sales or trucking will occur on weekends or major holidays.

7.2.4 Design Considerations for Air Quality

1. The Project's designated mine operations manager (operator) will prepare, submit to the SDAPCD for approval, and implement the approved Fugitive Dust Control Plan for the project (refer to Appendix I of this DEIR).
2. Diesel exhaust emissions from on- and off- road equipment rated at 50 horsepower or greater will be required to implement BACT for reduction of exhaust particulate matter (PM), involving replacement of older equipment with equipment meeting the United States Environmental Protection Agency (USEPA) Tier-4 specifications or retrofitting equipment with diesel particulate filters, in accordance with California Air Resources Board (CARB) regulations and implementation schedules. Prior to issuing permits, the County shall verify that construction contracts specify the off-road equipment certification or retrofit requirements. The operator will maintain and submit to the County an inventory of equipment to be used on the Project site and evidence of Tier 4, or equivalent PM filter retrofit, certification.
3. The Project will comply with CARB's Regulation for In-Use Off-Road Diesel-Fueled Fleets (13 CCR Section 2449) and Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Vehicle Idling (13 CCR Section 2484), which restrict idling diesel equipment and vehicles, respectively, to five minutes.
4. Training will be provided to all employees on potential risks associated with site work regarding Coccidioidomycosis. As part of that training each employee shall be provided the fact sheet entitled "Preventing Work-Related Coccidioidomycosis (Valley Fever)" by the California Department of Public Health.

7.2.5 Design Considerations for Hazards and Hazardous Materials

1. A Hazardous Materials Business Plan (HMBP) will be prepared for the Project to implement a plan for emergency response to a release or threatened release of a hazardous material in accordance with the standards prescribed in the regulations adopted pursuant to Section 25503 of the H&SC. The HMBP will address the applicable items listed below.
2. All petroleum hydrocarbons (e.g., fuels and lubricants) currently utilized within the Project site for golf course maintenance will be removed from the property and disposed of in accordance with State and County regulations. The two ASTs currently used to store diesel and gasoline will be removed under permit through the DEHQ HMD acting as the CUPA for the County.
3. All existing on-site structures proposed to be demolished will be surveyed for ACMs and lead by certified individuals prior to demolition. After the results of the surveys are provided, demolition permits would be obtained through the County PDS Building Division. If ACMs or lead are present in the structure scheduled for demolition, a licensed abatement contractor

will remove hazardous materials from the structure prior to the demolition contractor dismantling the structure.

4. Ground protection and spill containment, which will include plastic sheeting to line a bermed sump and absorbent pads, will be put in place prior to work being conducted on equipment.
5. All used oils, fuels, and solvents will be collected in accordance with Department of Toxic Substances Control (DTSC) regulations and removed from the site by an approved hauler for materials recycling.
6. Mine Safety and Health Administration (MSHA) and California Division of Occupational Safety and Health (Cal-OSHA) rules, regulations, and standards will be employed to protect both the public and on-site employees from potential hazards related to mining activities.
7. A Vector Management Plan (refer to Appendix U of this DEIR) will be implemented to ensure that water collected in the mining areas, process settling ponds, and Sweetwater River does not propagate the breeding of vectors.

7.2.6 Design Considerations for Hydrology and Water Quality

1. The bottom of the existing Sweetwater River trapezoidal channel will be undisturbed, except for the two temporary channel crossings that would be used during the dry season, in order to allow the Sweetwater Authority water transfers to continue within the existing low-flow channel (see Plot Plan, EIR Figures 1-5a and 1-5b).
2. To ensure that excavation activities would not substantially affect Sweetwater Authority water transfers between the Loveland and Sweetwater reservoirs, mining activities proposed during the rainy season (November through March) will be located away from the river channel, to the extent feasible. If mining would occur within 10 feet of the low-flow channel, berms approximately five feet in height will be constructed to separate the operations areas from the channel, as needed. The berm locations will be adjusted as necessary as mining progresses and will be set back from mining activities. Berms may also be incorporated upon final reclamation, where needed, to reduce potential loss of water during scheduled transfers.
3. Three excavation pit areas where groundwater may be encountered are planned for the Project (see Plot Plan, EIR Figures 1-5a and 1-5b). The first pit will be excavated during Phase 1 on the northern side of the river channel and south of Willow Glen Drive (subphase 1C area on EIR Figure 1-4). The second pit will start to be excavated in the eastern half of the Phase 2 area (subphase 2C area on EIR Figure 1-4) and continue in a northeasterly direction toward the Phase 3 area (subphase 3C area on EIR Figure 1-4). The third pit will be completed in the northeastern corner of the Project site during Phase 3 (subphase 3A area on EIR Figure 1-4). These pits will be progressively backfilled as the excavation continues. Exposure of groundwater as a free water surface at any given time in each of the three pits will be limited to approximately five acres in size for.

7.2.7 Design Considerations for Transportation/Traffic

1. Trucking operations for material sales will occur during the week from 9:00 A.M. to 3:30 P.M. to avoid peak traffic periods in the area.
2. The Project will restripe Willow Glen Drive between Steele Canyon Road and the Project ingress driveway to provide Class II buffered bike lanes on both sides of the roadway per the County Roadway Standards (see Plot Plan, EIR Figure 1-5b).
3. To facilitate deceleration of right-turning vehicles into the Project ingress driveway, a dedicated right-turn lane will be constructed, which will serve as the primary access for mining operations, material sales, employees, and vendors (see Plot Plan, EIR Figure 1-5b).
4. The Project will construct a two-way left-turn lane between the ingress and egress driveways, which will serve as a refuge lane for trucks to complete their outbound maneuver (see Plot Plan, EIR Figure 1-5b).
5. The Project will provide an Irrevocable Offer of Dedication along the Project frontage as needed to accommodate the ultimate roadway classification of Willow Glen Drive.
6. The Project driveway at the Willow Glen Drive/Muirfield Drive intersection will be restricted to right-in/right-out movements only (see Plot Plan, EIR Figure 1-5b).
7. Appropriate traffic control plans will be prepared to the satisfaction of the County Engineer prior to the commencement of work in order to address roadway safety during construction. Traffic control plans will include the details such as work zones, staging areas, and other traffic control details, as necessary.

7.2.8 Design Considerations for Geology and Soils

1. The existing Sweetwater River channel will be avoided and silt fences will be installed five feet from the outer edge of each side of the channel. Specific requirements for the Project under the State Construction General Permit would be determined during SWPPP development, after completion of project plans and application submittal to the SWRCB.
2. Prior to mining excavation, approximately four inches of topsoil will be placed in stockpiles to be reapplied during reclamation (see Plot Plan, EIR Figures 1-5a and 1-5b). When possible, topsoil will be directly reapplied to areas that have reached final grade to avoid storing in stockpiles.
3. The Project will include small de-siltation basins at the bottom of slopes to prevent sediment from leaving the site while allowing water to pass through to existing drainage features. Mining and reclamation grading will direct runoff from the disturbed areas towards the basins.
4. Operations will implement erosion control measures in accordance with set criteria to reduce on- and off-site erosion. These measures will include monitoring soil movement, arresting gullies or rills using straw mulch and hay bales, and installing silt fencing, compacting soils with equipment, and re-grading as necessary.

5. Permanent erosion control structures will include a drop structure at the eastern end of the site where the Sweetwater River enters the property, a riprap structure on the west side of the Steele Canyon Road bridge, and appropriate slopes, terraces, ditches, and down drains where needed (see Plot Plan, EIR Figures 1-5a and 1-5b). The drop structure would prevent head cutting of the channel during infrequent, high flow events.
6. Following the completion of mining activities, the site will be reclaimed with native vegetation, which would stabilize the surface and minimize erosion (see Reclamation Plan, EIR Figures 1-6a and 1-6b; and Revegetation Plan, EIR Figure 1-10).
7. The permanent slopes will be a maximum grade of 3:1 (horizontal to vertical) (see Plot Plan, EIR Figures 1-5a and 1-5b).

7.2.9 Design Considerations for Waste Management

1. A Construction and Demolition Debris Management Plan will be developed to divert debris from construction and demolition away from landfills. In accordance with County Ordinance Sections 68.508 through 68.518, 90 percent of inert materials and 70 percent of all other construction and demolition debris generated by the Project will be recycled.

7.2.10 Design Considerations for Wildfire

1. The Project will comply with all recommended measures in the FPP (FireWise 2021, Appendix Z to this EIR).