

CHAPTER 7.0 LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

This section consists of Table 7-1, which is a comprehensive listing of all mitigation measures proposed for the project and all project design considerations that were relied upon to reduce impacts. This list is divided into sections according to the subchapter and impact number.

Table 7-1 Mitigation Measures and Design Considerations

List of Mitigation Measures and Environmental Design Considerations		
Impact No.	Mitigation Measure/ Design Considerations	Description
2.1 Aesthetics		
AE-1 AE-2 AE-3 AE-4	M-AE-1	The El Monte Road Screening Plan, which will be conditioned with the MUP, as shown in Figure 2.1-13, shall be implemented along certain segments of El Monte Road adjacent to the project site to reduce the visual impacts to vehicle occupants along this roadway. The Screening Plan shall be reviewed and approved through a Landscape Plan application by the County of San Diego prior to use and reliance on the Major Use Permit. The applicant shall be responsible to maintain the screening vegetation that is within the project boundary. Screening shall occur along the northern edge of El Monte Road within the project boundary where existing vegetation and landform do not screen project activities. Plantings shall be installed prior to any mobilization of Phase 1. Proposed plant material shall be mixed in an informal arrangement to avoid a linear look. Trees shall be planted at a maximum of 50' on center. Recommended tree species shall have a minimum container size of 24" box and may include: western sycamore (<i>Plantanus racemose</i>), fremont cottonwood (<i>Populus fremontii</i>), and/or coast live oak (<i>Quercus agrifolia</i>). Recommended shrub species shall have a minimum container size of 15 gallons and may include: Toyon (<i>Heterom elesarbutifolia</i>), blue elderberry (<i>Sambucus Mexicana</i>), bush mallow (<i>Malacothamnus fasciculatus</i>), and/or Laurel Sumac (<i>Malosma laurina</i>). Vegetation spacing shall be determined in the field to achieve the intent of the screening plan.
2.2 Air Quality		
AQ-1 AQ-2	M-AQ-1	Engine Standards for Off-Road Equipment. To reduce the impact of mining equipment DPM emissions, the project applicant shall ensure that all off-road diesel-powered equipment used will be equipped with USEPA Tier 4 or cleaner engines. This condition pertains to all excavators, graders, loaders, draglines, and dozers operated in Phases 1 through 4 of mining activities. In lieu of Tier 4 engines, project equipment can incorporate retrofits such that emissions reductions achieved can be verified to equal that of the Tier 4 engines. The project applicant shall submit a detailed list of the equipment fleet that demonstrates achievement of this mitigation measure to the County prior to

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		receiving a permit to construct and/or beginning operations. The modeling states that Tier 4 Equipment for onsite operations includes: excavators, graders, and dozers.
DC-AQ-1		<p>As required by the SDAPCD Rule 55, the following measures shall be incorporated to reduce emissions of fugitive dust:</p> <ul style="list-style-type: none"> • All haul trucks leaving the project site with aggregate shall maintain at least 2 feet of freeboard or securely cover the loads. • Watering shall be conducted three times per day for all active construction areas and on unpaved roads. Water shall be applied using water trucks and shall be sufficient to confine dust plumes to the immediate work area. • Mining activities shall be suspended when winds exceed 25 mph. • Sweepers and water trucks shall be used to control dust at public street access points. Paved streets shall be swept at least once per day when evidence of track-out (excess sediment and/or dust that is inadvertently carried out by vehicle or equipment tires onto paved roads, creating visible roadway dust) is present. • Vehicle speeds on unpaved roadways shall not exceed 15 mph. • Inactive disturbed areas where mining activities have been completed shall be revegetated as soon as possible to prevent soil erosion. • Chemical stabilizers, or other methods of soil stabilization/fugitive dust prevention, shall be applied to all disturbed surfaces left inactive for four or more days
DC-AQ-2		All construction equipment and trucks shall be maintained and tuned according to manufacturer's specifications.
DC-AQ-3		Diesel trucks shall be prohibited from idling for more than 5 minutes. Idling restrictions shall be posted at truck entrances and at loading areas.
DC-AQ-4		Water sprayers shall be used at transfer points as necessary to control dust from aggregate washing/separation activities.

2.3 Biological Resources

BIO-1	M-BIO-1	<p>Raptors and Nesting Birds Covered by MBTA</p> <p>1) To avoid and minimize impacts to nesting coastal California gnatcatchers, least Bell's vireo, raptors and other birds protected by the Migratory Bird Treaty Act, vegetation removal and grading shall occur outside of the nesting bird season (February 1 through August 31). Note</p>
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List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		<p>that no gravel crushing is required to process the materials extracted from the site; therefore, noise levels would be lower than those typically associated with mining activities. If the breeding season cannot be avoided, the following measures shall be implemented:</p> <ol style="list-style-type: none"> a. During the avian breeding season, a qualified Project Biologist shall conduct a preconstruction avian nesting survey no more than 72 hours prior to vegetation disturbance or site clearing. Surveys need not be conducted for the entire project area at one time; they shall be phased so that surveys occur shortly before a portion of the site is disturbed. If construction begins in the non-breeding season and proceed continuously into the breeding season, no surveys shall be required. However, if there is a break of 3-5 days or more in construction and mining activities during the breeding season, a new nesting bird survey shall be conducted before these activities begin again. b. The preconstruction survey shall cover all suitable bird nesting habitat on and within 300 feet, and all suitable raptor nesting habitat on and within 500 feet, of areas anticipated to be impacted in the near term. If an active nest is found during the preconstruction avian nesting survey, a qualified Project Biologist shall implement a 300-foot minimum avoidance buffer for coastal California gnatcatcher, least Bell's vireo, and other passerine birds, and a 500-foot minimum avoidance buffer for all raptor species. The nest site area shall not be disturbed until the nest becomes inactive or the young have fledged. <p>2) A preconstruction survey for burrowing owl will be conducted in accordance with Section 3.4.1 "Pre-grading Survey" of the <i>Strategy for Mitigating Impacts to Burrowing Owls in the Unincorporated County</i> (Burrowing Owl Strategy; County of San Diego 2010b). If burrowing owls are detected during the preconstruction survey within 300-feet of proposed grading, a translocation plan will be developed and finalized in coordination with the County and the wildlife agencies (USFWS and CDFW). Grading will not occur within 300-feet of an active owl burrow until the young have fledged and are no longer dependent on the burrow. Grading closer than 300 feet may occur within written concurrence from the wildlife agencies and the County Mitigation Monitoring Coordinator; the distance will depend on the burrow's location in relation to the site's topography and other physical and biological characteristics. In addition, mitigation for impacts to habitat would be required as outlined in the Burrowing Owl Strategy</p>

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
BIO-1 through BIO-9	M-BIO-5	<p>Mining Best Management Practices and oversight. A qualified Project Biologist shall be responsible for monitoring the limits of construction and mining activity, mitigation measures, design considerations, and project conditions during all phases of the project. The Project Biologist shall conduct the following:</p> <ol style="list-style-type: none"> 1. Attend the preconstruction meeting with the contractor and other key construction personnel prior to clearing, grubbing, or grading. 2. Conduct worker training prior to all phases of construction; this shall include meetings with the contractor and other key construction personnel to explain limits of disturbance, which will be delineated with temporary construction fencing with clear signage stating the fenced area is a sensitive habitat area and to keep out, and the importance of restricting work to designated areas prior to clearing, grubbing, or grading. Discussions shall include procedures for minimizing harm to or harassment of wildlife encountered during construction and mining activities prior to clearing, grubbing, and/or grading. 3. Conduct pre-construction clearance surveys to detect the presence of nesting birds, burrowing owls, and other sensitive terrestrial wildlife species, such as coast horned lizard, glossy snake, orange-throated whiptail, and two-striped garter snake. The Project Biologist will use their discretion in ensuring impacts to any sensitive wildlife observed during pre-construction clearance surveys are avoided (e.g., avoidance buffers, relocation from harm's way, etc.). 4. Be present onsite to monitor initial vegetation clearing, grubbing, and grading to ensure that mitigation measures are being appropriately followed, including restricting activity to delineated construction areas and avoiding impacts to breeding birds. 5. Periodically monitor the limits of construction and mining operations as needed throughout the life of the project to avoid unintended direct and indirect impacts. 6. Confirm construction and mining activity boundaries are marked (e.g., delineated with temporary fencing and sensitive habitat signage) and not breached; 7. Monitor Mature Riparian Woodland areas to confirm they are protected from incursion with installation of temporary construction fencing and sensitive habitat signage. Also confirm that the slopes at the edge of protected Mature Riparian Woodland habitat are not eroding, and that appropriate erosion control measures, such as fiber rolls, blankets, gravel bags, etc., are installed; 8. Apply AggreBind® to temporary haul roads prior to beginning construction (remove at the end of construction) and spray water on grading areas and at points of ingress and egress of

List of Mitigation Measures and Environmental Design Considerations		
Impact No.	Mitigation Measure/ Design Considerations	Description
		<p>the haul road at the intersection where the haul roads meet dirt roads or paved roads to minimize dust</p> <p>9. Water roads and grading areas regularly to minimize dust;</p> <p>10. Implement pertinent requirements that address erosion and runoff, including the federal Clean Water Act, National Pollution Discharge Elimination System (NPDES), and Stormwater Pollution Prevention Plan (SWPPP); and</p> <p>11. Prepare a post-construction monitoring report for submittal to the County of San Diego. The report shall substantiate the supervision of the clearing, grubbing, and/or grading activities, and shall provide a final assessment of biological impacts.</p>
BIO-2	M-BIO-2	<p>Least Bell's vireo. In accordance with the project's Revegetation Plan, direct impacts to suitable habitat for the state and federally endangered least Bell's vireo shall be mitigated at a minimum of 3:1 ratio through the restoration of southern willow scrub habitat. Approximately 126 acres of riparian habitat suitable to support least Bell's vireo will be revegetated.</p>
BIO-3	M-BIO-3	<p>Coastal California gnatcatcher. In accordance with the project's Revegetation Plan, direct impacts to California gnatcatcher-occupied habitat shall be mitigated at a minimum 2:1 ratio through restoration. Restoration may include a combination of in-kind restoration (i.e., coastal sage scrub habitat restored to coastal sage scrub habitat) and out-of-kind restoration (i.e., non-native grassland habitat restored to coastal sage scrub habitat). Approximately 50.5 acres of Diegan coastal sage scrub habitat will be revegetated.</p>
BIO-4	M-BIO-4	<p>Glossy Snake and Other Special-Status Amphibian and Reptile Species. A focused herpetofaunal mitigation plan shall be developed and implemented by a qualified biologist to address potential direct and indirect impacts to glossy snake and other amphibian and reptile state Species of Special Concern. The mitigation plan shall include the following measures to be implemented:</p> <ol style="list-style-type: none"> 1) Trapping and collection of herpetofaunal species shall be conducted prior to any site preparation and mining activities (refer to Appendix J of the Biological Resources Report [included as Appendix G to this Draft EIR]). Once the herpetofaunal species are collected, they shall be relocated and set free outside of mining boundaries in the eastern portion of the project site, east of Dairy Road. They shall be marked to track the success of this action over time; the mitigation plan shall include detail on the specific methodology of the marking study. 2) Exclusionary fencing shall be installed along the project disturbance footprint to preclude special-status herpetofaunal species from moving back into the site. The focused mitigation plan shall include specifications for installing, monitoring, and repairing the fencing to

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
BIO-5	M-BIO-6	<p>maintain its function and integrity throughout the duration of construction and mining activities.</p> <p>3) Preconstruction surveys for herpetofaunal species shall be conducted by a qualified biologist no more than 10 days prior to initiation of excavation activities associated with site preparation and sand mining activities in those specified areas of the project site. Surveys may not need to be conducted for the entire project site at once; they may be phased so that surveys occur in portions of the project before excavation occurs (refer to Appendix J of the Biological Resources Report [included as Appendix G to this Draft EIR]).</p> <p>4) Overburden excavated and collected during site preparation and mining activities shall be moved (to the maximum extent feasible) to the eastern portion of the site, outside of the mining limits, to improve the habitat for herpetofaunal species at the release location for the project site, particularly as fill into some of the previously excavated areas in the eastern portion of the site where limited species observations have been documented (refer to Appendix J of the Biological Resources Report [included as Appendix G to this Draft EIR]).</p>
BIO-5	M-BIO-6	<p>Reclamation Plan implementation oversight. A qualified Restoration Ecologist shall be designated to oversee implementation of the Reclamation Plan (as it pertains to site preparation, erosion control, hydro seeding, and soil stabilization). The Restoration Ecologist shall have at least 5 years of experience monitoring successful native habitat restoration projects in Southern California, including all habitat types that shall be restored onsite. In addition, the Restoration Ecologist shall:</p> <ul style="list-style-type: none"> • Attend all relevant construction meetings. • Have the authority to redirect construction and maintenance crews in keeping with the goals, objectives, and performance standards of the final Reclamation Plan. • Approve the seed palette used for hydro seeding. • Regularly monitor reclamation activities to determine if and how remedial actions should be conducted, if needed, for observed issues such as sedimentation and erosion.
	M-BIO-7	<p>Revegetation Plan implementation and oversight. A Revegetation Plan shall be implemented to guide and ensure successful revegetation/creation of self-sustaining riparian and upland habitats, which shall serve as mitigation for impacts to native vegetation communities. In contrast to the Reclamation Plan, which focuses on landform and soil stabilization, the focus of the Revegetation Plan is to restore the ecological functions and values of the impacted habitats. Revegetation (mitigation) and habitat enhancement would occur within mining phases as depicted in Figure 7 and</p>

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
M-BIO-8	Sensitive vegetation communities.	<p>would be implemented in accordance with the Revegetation Plan (ESA 2018c) once approved by the County.</p> <p>The Revegetation Plan shall include the following:</p> <ul style="list-style-type: none"> • Sufficient restoration or creation of habitat to fulfill the mitigation obligations described in M-BIO-7. • The planting plan shall be designed to ensure that the appropriate restored/created habitat is suitable for the coastal California gnatcatcher and least Bell's vireo, and allows for local and regional wildlife movement (e.g., appropriate width and vegetative cover). • The planting design shall also include adequate wetland buffers (100 to 200 feet wide, measured from the edge of wetland habitat). • A native planting palette appropriate for each vegetation type being mitigated and appropriate to local conditions. • Irrigation for upland and wetland habitat types for the first 2 to 3 years. Irrigation should be removed during the final 2 years of restoration to ensure that the habitat is self-sustaining. • A 120-day plant establishment period plus five-year restoration maintenance period (or until success criteria are met). • Qualitative and quantitative monitoring methods to ensure that success criteria are met. • Five-year maintenance methods. • Success criteria for establishment period and years 1–5. • Responsibilities and qualifications of restoration and maintenance contractor(s) and restoration ecologist. • Description of annual reporting. <p>1. In order to be consistent with the Southern California Coastal Sage Scrub NCCP guidelines, direct impacts to more than 5 percent of the coastal sage scrub onsite (i.e., impacts to more than 0.52 acre) shall be avoided. Avoidance shall be targeted at those patches of coastal sage scrub in which a California gnatcatcher was observed during the 2015 surveys.</p> <p>2. Direct impacts to sensitive vegetation communities shall be mitigated through implementation of the Reclamation Plan and Revegetation Plan. The Revegetation Plan shall be designed to provide high quality habitat that is compatible with the post-project</p>

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		<p>topography and hydrology. As such, some of the temporarily impacted habitat shall be mitigated out-of-kind (i.e., with a different, but higher quality habitat type), resulting in a net gain of native habitat acreage onsite and improve overall native habitat quality and functions.</p> <p>3. Revegetation mitigation will occur in areas currently supporting non-vegetated channel (will be revegetated as vegetated channel), southern willow scrub, tamarisk scrub (will be revegetated as native cottonwood-willow riparian forest and riparian scrub), coastal sage scrub, and non-native grassland (will be revegetated as coastal sage scrub) (Table 2.3-5). Based on mitigation replacement ratios and projected impacts for the mine project, a total of 126.15 acres of riparian/wetland habitat is required to be revegetated (restored) or enhanced (plus 0.54 acre of riparian habitat restored for the previous golf course project for a total 126.69 acres); and 50.49 acres of upland habitat is required to be revegetated (restored) to mitigate for temporary and permanent impacts. For the 3:1 mitigation ratio, 1.5:1 of the mitigation (i.e., 50%) for the mine project will occur via revegetation and restoration of 62.71 acres divided between 46.36 acres of cottonwood-willow riparian forest and 16.28 acres of southern willow scrub. The remaining 1.5:1 of the mitigation ratio (i.e., remaining 50%) will occur via enhancement and restoration of 62.72 acres of riparian and transitional habitat (for a total mitigation requirement of 125.43 acres). Based on an assessment of riparian and transitional habitat with exotic species onsite, 64.16 acres are proposed for enhancement. Therefore, the proposed enhancement and restoration mitigation of 64.16 acres will exceed the 62.72-acre requirement based on the mitigation ratio.</p> <p>Based on input from the County, the proposed mitigation for impacts to tamarisk scrub includes restoration of native riparian habitat within post-mining areas and enhancement and restoration of riparian and transitional habitat outside of mining limits. This approach would improve habitat more comprehensively within the project site and improve the functions and sustainability of habitat restoration mitigation areas onsite.</p> <p>Riparian/wetland habitat restoration will consist of high quality vegetated channel (0.36 acre) planted within the channel, cottonwood-willow and transitional species dominated riparian forest (46.43 acres) planted along the edges of the channel for a width of up to 300 feet, and riparian scrub habitat dominated by mule fat along with scattered willows and transitional species (17.18 acres [16.64 acres for the mine project + 0.54 acre for the previous golf course project]) within the excavated mining pit (basin) and lower slopes. The planted riparian forest mitigation (i.e., 46.43 acres) and the majority of riparian scrub mitigation (i.e., 16.28 acres for the mine project + 0.54 acre for the golf course project) will provide</p>

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		<p>mitigation within post-mining areas for impacts to tamarisk scrub habitat. The additional 0.54 acre of southern willow scrub mitigation will occur as mitigation for the previously approved golf course project impact in 2005 to 0.18 acre of disturbed riparian (tamarisk scrub).</p> <p>As previously discussed, the required balance of mitigation for tamarisk scrub for the mine project (i.e., 62.72 acres) will be accomplished by enhancing and restoring 64.16 acres of riparian and transitional habitat that include invasive exotic species within the project site outside of mining limits. Because all remaining riparian habitats onsite are included in the planned enhancement along with some adjacent transitional habitats (i.e., to establish contiguous enhancement area), the planned enhancement area has been rounded up to 64.16 acres (relative to the 62.72- acre requirement). The enhancement of 64.16 acres of riparian and transitional habitat will include initial removal of target exotics, follow-up monitoring and maintenance treatments annually for five years as needed, and measures to promote native plant revegetation including limited seeding and scattered planting. Removal of exotic species will be conducted with hand-tools (shovels, chain-saws, etc.) along with follow-up application of herbicide to kill exotic plant specimens. No vehicular equipment will be driven into the river bed. Maintenance personnel will walk into the enhancement areas, cut exotic vegetation, and carry it in pieces to nearby vehicles (e.g., pickup trucks) or dumpsters located along project access routes and/or disturbed upland staging areas. Exotic plant biomass will then be hauled to an approved green waste facility. Exotic vegetation will be either dug out with shovels (if specimens are small enough and the root system can be effectively removed), or cut within one foot of the ground surface. Cut stems/stumps will then be treated with herbicide. Based on input from County staff during an August 16, 2017 site visit, the removal of large exotics such as eucalyptus trees which provide screening for adjacent residences on the south side of the river should be removed in a phased approach so that sufficient screening with vegetation is provided (e.g., with existing vegetation and new native plant growth) during the enhancement and restoration program.</p> <p>The existing riparian and transitional habitat areas that will be enhanced lack typical riparian habitat hydrology and are similar to alluvial fan scrub habitat (except for the extensive presence of tamarisk and other exotic species) which includes a mixture of riparian and transitional and upland species. Within this setting, management of natural recruitment is considered the most appropriate method to establish native habitat over time. However, measures will be conducted as part of the enhancement effort to promote native plant establishment including (1) limited seeding (utilizing some species in the project seed mixes and collection and spread of seed collected onsite during maintenance activities), (2)</p>

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		<p>scattered low-density planting (container plants and cuttings) during wet conditions to help establish small patches/"islands" of native plants (which can help promote more natural recruitment), (3) distribution of mulch (not including non-native seed or propagules) to provide improved microhabitat conditions for native plant germination and establishment, and (4) regular periodic follow-up exotic plant control to reduce competition with native plants. Because of the existing grades, depth to groundwater, and sandy alluvial soils, implementation of a planting program and temporary irrigation system are not considered appropriate or a worthwhile use of resources in the proposed enhancement areas. Relying on natural recruitment and treating exotic species is considered the best approach to establish native vegetation adapted to the site that will be self-sustaining over time. Enhancement mitigation activities are scheduled to start at the beginning of the project concurrent with the initiation of Phase 1 activities. The enhancement areas after the initial five-year maintenance and monitoring period will be managed in perpetuity, consistent with the other project mitigation areas.</p> <p>4. As previously discussed, the remainder of the temporary impact area within the mining phases not designated for habitat mitigation will be subject to reclamation. Based on planned habitat mitigation acreage for the mine project, a total of 112.48 acres of reclamation would be conducted. However, because 0.54 acre of southern willow scrub restoration mitigation required for previous golf course impacts is planned within post-mining Phase 1 area, total reclamation within the mining temporary impact area has been lessened from 112.48 acres to 111.94 acres.</p> <p>5. Upland habitat revegetation shall consist of high quality coastal sage scrub habitat. The upland habitat mitigation need is mostly due to projected impacts to non-native grassland habitat, which is dominated by non-native grasses and forbs, providing only low quality habitat. The restored coastal sage scrub will provide an important foraging and breeding resource for the coastal California gnatcatcher, which is known to be onsite. Providing high quality coastal sage scrub in this area is highly beneficial, as all of the habitat surrounding the project area is degraded due to past wildfires. The excess revegetation of riparian habitat, which is of higher value than non-native grassland, will address the remaining upland mitigation need. A summary of anticipated impacts, mitigation ratios, required mitigation, and actual restoration are provided in Table 16. Because it is anticipated the project would be amended into the MSCP through the BLA (or other process determined by the state and federal wildlife agencies), all habitat mitigation ratios shall be consistent with the BMO.</p>

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
6.		<p>Mitigation (i.e., revegetation and reclamation) shall be implemented on a phase-by-phase basis. Project site revegetation/restoration activities will be implemented in a phased approach moving from east to west across the project site as mining is completed. The mined area shall be progressively restored and reclaimed on disturbed areas previously mined prior to initiation of mining on the next phase. Restoration and reclamation is an ongoing process that commences when mining operations have ceased within a given area (phase) and continues until all mining related disturbance is reclaimed and all equipment involved in these operations have been removed before moving onto the next phase. Tables 2.3-6 through 2.3-10 show the anticipated breakdown of habitat mitigation and reclamation acres by phase.</p> <p>An overall restoration plan shall be approved by the County prior to the initiation of Phase 1 mining operations, including invasive species removal outside of the mining limits. Individual 40-scale restoration plans will be prepared for each phase and approved prior to the initiation of mining for the phase. Once Phase 1 mining has been completed and prior to the second half of Phase 2 mining operations being initiated, Phase 1 revegetation/restoration shall be implemented including, but not limited to, final restoration grading/slope stabilization, salvaged top soil placement and amendment, container planting, hydro-seed application/imprinting, temporary irrigation, erosion control, fencing and signage. Partial grading/mining of the subsequent mining phase is required to create a safe means of access for equipment and personnel to the previously mined phase to facilitate initiation the above outlined restoration activities. Once the revegetation/restoration installation has been completed for a particular phase, it will be reviewed by the County for conformance with the approved Revegetation Plan and will trigger the beginning of the monitoring and reporting period. Restoration/revegetation activities may be further broken down into sub-phases at the discretion of the mine operator. Ongoing maintenance is required to manage invasive species and trespass and is not part of the revegetation/restoration activities that must be completed prior to moving on to the next phase of mining, as it is an ongoing activity. Revegetation/restoration bonding is required by phase prior to phase mining and will be released upon the successful completion of the phase restoration/revegetation installation, as determined by the County.</p> <p>To minimize temporal loss of habitat values, mitigation for the proposed mine project for impacts outside of the mining footprint (i.e., fuel modification zones and some trail segments) and mitigation for the previous golf course project impact will be mitigated within the post-mine Phase 1 area. In addition, proposed enhancement to 64.14 acres of riparian</p>

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		<p>and transitional habitats (as part of mitigation for impacts to tamarisk scrub) will be initiated at the start the project and Phase 1 mining activities in areas outside the mining footprint.</p> <ol style="list-style-type: none"> 7. Temporary fencing shall be installed as necessary during all mining, reclamation, and restoration activities to protect sensitive habitat, including Mature Riparian Woodland and their buffers, from unauthorized incursion into areas outside the limits of disturbance. In addition, clear signage shall be installed, stating the fenced area is a sensitive habitat area and to keep out. 8. To protect the habitat mitigation area in the long term, the entirety of the revegetation and enhancement areas shall be protected in perpetuity by placing a Biological Open Space Easement granted to the County of San Diego, over the revegetation and enhancement areas. At this time, it is anticipated that once the four proposed mining phases are complete, the entirety of the areas proposed for mitigation, including the revegetation and enhancement areas that totals 178 acres, (1) will be transferred in fee title to a qualified land steward (non-profit) conservancy so that it may be maintained and managed in perpetuity for biological values, and (2) a Biological Open Space Easement will be recorded. It is understood, as standard measure, that a Biological Open Space Easement will be recorded and a long-term manager will be identified/established (and habitat management funds provided) for designated project habitat mitigation areas. It is the intent of the property owner to transfer the property to a non-profit/conservancy group prior to the completion of the habitat mitigation restoration. 9. A Resource Management Plan (RMP) will be prepared for the 178 acres of mitigation/enhancement areas designated as Biological Open Space (Figure 17 of the Biological Resources Report [Appendix G of the DEIR]). The RMP will be prepared in accordance with the County’s Report Format and Content Requirements for Biological Resources and approved by the County of San Diego and Wildlife Agencies (CDFW and USFWS). 10. Permanent fencing and signage shall be installed around the perimeter of the Biological Open Space Easement as proposed in Figure 17 of the Biological Resources Report. Fencing details (e.g., the type and final location of fencing) would be determined upon finalization of the Revegetation Plan.
BIO-6	M-BIO-10	<p>Jurisdictional resources. Direct impacts to jurisdictional wetlands and waters shall be mitigated through implementation of the Reclamation Plan and Revegetation Plan, resulting in habitat creation and restoration of higher quality than the habitat that is being impacted. Impacts to riparian resources shall be mitigated at a 3:1 ratio. A summary of anticipated impacts, mitigation ratios, and</p>

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
BIO-7	M-BIO-11	<p>required mitigation are provided in Table 2.3-11. Impacts to non-vegetated streambed/non-wetland waters shall be mitigated at a 1:1 ratio. Mitigation ratios shall be based on the requirements in the County's <i>Guidelines for Determining Significance</i> (County 2010a) for areas outside of the MSCP, and may be modified by finalization of the BLA process (or other process determined by the state and federal wildlife agencies) as discussed in Appendix K of the BRR. Additionally, federal (Section 401 and 404 of the Clean Water Act) and state permits (Section 1600 of the CFGC) require permits for impacts to jurisdictional resources. The project will comply with these regulations and pursue permitting for potential impacts to 41.46 acres of riparian habitat regulated by CDFW, and 0.36 impacts of non-vegetated streambed and non-wetland waters regulated by USACE and CDFW). Final mitigation requirements for impacts to jurisdictional resources will be determined through the permitting process.</p>
BIO-8	M-BIO-9	<p>Mature riparian woodland, as defined by the County RPO. Mature Riparian Woodland and a 50-foot buffer beyond the canopy of trees shall be avoided during preconstruction clearing, grubbing, and/or grading, and during mining activities. This shall be accomplished by having a qualified Project Biologist onsite prior to the start of the project to delineate and protect the Mature Riparian Woodland with temporary construction fencing to avoid incursion during preconstruction clearing, grubbing, and/or grading, and during mining activities. In addition, potential indirect impacts from dust coming from the nearby temporary haul road would be mitigated to a level below significant through the application of an environmentally-friendly water-based polymer binding agent, AggreBind® and use of a water truck, as discussed in M-BIO-5.</p>
BIO-9	M-BIO-12	<p>Wildlife movement. To ensure the area remains accessible to wildlife upon completion of the project, any fencing that is installed around the project area during the reclamation process shall be three strand, post-and-rail, or other type that allows for movement of terrestrial wildlife.</p>

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
2.4 Cultural Resources		
CR-1 CR-2 CR-3	M-CR-1	<p>Open Space Easements</p> <p>CA-SDI-13562 and CA-SDI-17300 are archaeological resources that occur within the project area and have previously been determined significant. The Project proponent shall formally dedicate those portions of significant cultural resources CA-SDI-13652 and CA-SDI-17300 within the project area as Open Space (OS). Temporary protective fencing and/or other markers shall be erected around OS prior to any ground disturbing activities nearby (see M-CR-2); however, such OS shall not be identified specifically as cultural resources, in order to protect sensitive information and to discourage unauthorized disturbance or collection of artifacts. OS shall be identified as an “Environmentally Sensitive Open Space”.</p>
	M-CR-2	<p>Environmentally Sensitive Areas/Temporary Fencing</p> <p>The Project proponent shall avoid sites CA-SDI-13609, CA-SDI-20799, CA-SDI-20800, CA-SDI-21862, CA-SDI-21863, P-37-034482, P-37-034839, P-37-034840, and P-37-035816 through the delineation of Environmentally Sensitive Areas (ESAs). The ESAs shall include a 50-foot buffer around each resource. Temporary protective fencing and/or other markers shall be erected around ESAs within the project area prior to any ground disturbing activities; however, such ESAs shall not be identified specifically as cultural resources, in order to protect sensitive information and to discourage unauthorized disturbance or collection of artifacts.</p>
	M-CR-3	<p>Archaeological and Native American Monitoring</p> <p>A County-approved archaeologist (Project Archaeologist) shall be retained to carry out all mitigation measures related to archaeological resources. The County approved Project Archaeologist shall provide the contract or letter of acceptance to the County. It shall include an agreement that the archaeological monitoring will be completed, and a Memorandum of Understanding (MOU) between the Project Archaeologist and the County of San Diego shall be executed. The contract or letter of acceptance shall include a cost estimate for the monitoring work and reporting. The Project Archaeologist shall provide evidence that a Kumeyaay Native American has been contracted to perform Native American Monitoring for the project. The Project Archaeologist and Kumeyaay Native American monitor shall attend the preconstruction meeting with the contractors to explain and coordinate the requirements of the archaeological monitoring program.</p> <p>A monitoring plan shall be prepared prior to the issuance of grading or excavation permits and prior to any project-related ground disturbing activities. The monitoring plan shall be prepared and implemented by the qualified archaeologist, and shall include measures designed to avoid and protect known archaeological resources, and for the treatment of unknown archaeological resources</p>

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		<p>that may be encountered during project implementation. The monitoring plan shall address, at a minimum, the measures outlined below:</p> <ol style="list-style-type: none"> 1. <u>Avoidance and Protection of Known Significant Resources</u> <p>Two resources (CA-SDI-13609 and P-37-034482) are located adjacent to the limits of disturbance and will be established as OS (M-CR-1). The monitoring plan shall outline measures designed to insure that no direct or indirect impacts occur to these two resources. The monitoring plan shall include, at a minimum, the following measures:</p> <ol style="list-style-type: none"> a) Monitoring of Ground Disturbance adjacent to the Resources <p>Archaeological and Native American monitoring shall be conducted for any ground disturbance within the portion of the limits of disturbance that is adjacent to resources CA-SDI-13609 and P-37-034482. The archaeological monitor shall work under the direction of the qualified archaeologist. In the event that cultural materials are discovered, the provisions for unanticipated discoveries of archaeological materials and/or human remains, as outlined below under the heading “Protection of Unknown Resources,” shall be implemented.</p> 2. <u>Avoidance and Protection of Assumed Significant Resources</u> <p>Full-time archaeological and Native American monitoring of ground disturbance within <i>100 feet (30 meters)</i> of ESAs shall be conducted to insure that the sites are not inadvertently impacted (M-CR-2). The archaeological monitor shall work under the direction of the qualified archaeologist. In the event that cultural materials are discovered, the provisions for unanticipated discoveries of archaeological materials and/or human remains, as outlined below under the heading “Protection of Unknown Resources,” shall be implemented.</p> <ol style="list-style-type: none"> a) Monitoring of ESAs throughout Project Implementation <p>In addition to the measure above, periodic archaeological monitoring of ESAs shall be conducted at times when no ground disturbance is scheduled to occur. The archaeological monitor shall work under the direction of the qualified archaeologist, who shall determine the timing of monitoring, in consultation with the County. The monitor shall inspect the ESAs and general vicinity to verify that: (1) protective fencing or other markers are intact; (2) no unplanned ground disturbance is taking place; and (3) the site is not being inadvertently impacted by project-related activities, such as increased foot and vehicular traffic.</p>

b) Development of Long Term Management Plan

As a component of the monitoring plan, a long-term management plan shall also be developed for those resources or portion(s) of resources that can be avoided during project construction, in order to minimize future impacts during project operation and maintenance. The management plan shall require that the boundaries of significant sites be appropriately delineated on project maps with prohibitions against future excavation and/or disturbance.

3. Avoidance and Protection of Unknown Resources

- a) The Project Archaeologist and Native American Monitor shall monitor all areas identified for development including off-site improvements.
 - b) An adequate number of monitors (archaeological/historical/Native American) shall be present to ensure that all earth moving activities are observed and shall be on-site during all grading activities for areas to be monitored.
 - c) During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and Native American monitor(s) shall be onsite. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and locations of inspections will be determined by the Project Archaeologist in consultation with the Kumeyaay Native American monitor. Monitoring of cutting of previously disturbed deposits will be determined by the Project Archaeologist in consultation with the Kumeyaay Native American monitor.
 - d) In the event that previously unidentified potentially significant cultural resources are discovered:
 - i) The Project Archaeologist or the Kumeyaay Native American monitor shall have the authority to divert or temporarily halt ground disturbance operations in the area of discovery to allow evaluation of potentially significant cultural resources.
 - ii) At the time of discovery, the Project Archaeologist shall contact the PDS Staff Archaeologist.
 - iii) The Project Archaeologist, in consultation with the PDS Staff Archaeologist and the Kumeyaay Native American Monitor, shall determine the significance of the discovered resources.
 - iv) Construction activities will be allowed to resume in the affected area only after the PDS Staff Archaeologist has concurred with the evaluation.
 - v) Isolates and clearly non-significant deposits shall be minimally documented in the field. Should the cultural materials for isolates and non-significant deposits not be collected by the Project Archaeologist, then the Kumeyaay Native American monitor may collect the cultural material for transfer to a Tribal Curation facility or repatriation program.
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List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		<ul style="list-style-type: none"> vi) A Research Design and Data Recovery Program to mitigate impacts to significant cultural resources shall be prepared by the Project Archaeologist in coordination with the Kumeyaay Native American Monitor. The Research Design and Data Recovery Program shall include (1) reasonable efforts to preserve (avoidance) "unique" cultural resources or Sacred Sites; (2) the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap, if avoidance is infeasible; and (3) data recovery for non-unique cultural resources. vii) The County Archaeologist shall review and approve the Program, which shall be carried out using professional archaeological methods.
		<ul style="list-style-type: none"> e) If any human remains are discovered: <ul style="list-style-type: none"> i) The Property Owner or their representative shall contact the County Coroner and the PDS Staff Archaeologist. ii) 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. iii) If the remains are determined to be of Native American origin, the NAHC shall immediately contact the Most Likely Descendant (MLD). iv) 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. v) The MLD may, with the permission of the landowner, or their authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. vi) 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. f) In the event that previously unidentified cultural resources are discovered, all prehistoric archaeological materials collected during the archaeological monitoring program shall be submitted and curated at a San Diego curation facility or a culturally

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		<p>affiliated Native American Tribal curation facility that meets federal standards per 36 CFR Part 79, and, therefore, would be professionally curated and made available to other archaeologists/ researchers for further study. The collections and associated records, including title, shall be transferred to the San Diego curation facility or culturally affiliated Native American Tribal curation facility and shall be accompanied by payment of the fees necessary for permanent curation. Evidence shall be in the form of a letter from the curation facility stating that the prehistoric archaeological materials have been received and that all fees have been paid.</p> <p style="text-align: center;">or</p> <p>Evidence that all prehistoric materials collected during the grading monitoring program have been repatriated to a Native American group of appropriate tribal affinity. Evidence shall be in the form of a letter from the Native American tribe to whom the cultural resources have been repatriated identifying that the archaeological materials have been received.</p> <p>Historic materials shall be curated at a San Diego curation facility, as identified above, and shall not be curated at a Tribal curation facility or repatriated. The collections and associated records, including title, shall be transferred to the San Diego curation facility and shall be accompanied by payment of the fees necessary for permanent curation. Evidence shall be in the form of a letter from the curation facility stating that the historic materials have been received and that all fees have been paid.</p> <p>g) In the event that previously unidentified cultural resources are discovered, a report documenting the field and analysis results and interpreting the artifact and research data within the research context shall be completed and submitted to the satisfaction of the Director of PDS prior to the issuance of any building permits. The report shall include Department of Parks and Recreation Primary and Archaeological Site forms.</p> <p>h) In the event that no cultural resources are discovered, a brief letter to that effect shall be sent to the Director of PDS by the consulting archaeologist that the grading monitoring activities have been completed.</p>

2.5 Paleontological Resources

PR-1	M-PR-1	<p>Monitoring for Paleontological Resources</p> <p>Monitoring for paleontological resources requires that a Standard Monitor be designated and that the Standard Monitor watches for fossils, during initial cutting, grading or excavation of the substratum. If a fossil of greater than twelve inches in any dimension, including circumference, is encountered</p>
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List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		<p>excavation or grading in the area where the fossil was found shall be suspended immediately, the County’s Permit Compliance Coordinator shall be notified, and a Project Paleontologist shall be retained by the applicant to evaluate the significance of the find and to salvage, clean, and curate the fossil(s), and to document the find, as described below.</p> <p>The Project Paleontologist is a person with a Ph.D. or Master’s Degree in Paleontology or related field, and who has knowledge of San Diego County paleontology and documented experience in professional paleontological procedures and techniques. The Project Paleontologist will:</p> <ol style="list-style-type: none"> 1. Salvage unearthed fossil remains, including simple excavation of exposed specimens or, if necessary, plaster-jacketing of large and/or fragile specimens, or richly fossiliferous deposits; 2. Record stratigraphic and geologic data to provide a context for the recovered fossil remains, typically including a detailed description of all paleontological localities within the project site, as well as the lithology of fossil-bearing strata within the measured stratigraphic section, if feasible, and photographic documentation of the geologic setting; 3. Prepare collected fossil remains for curation, to include cleaning the fossils by removing the enclosing rock material, stabilizing fragile specimens using glues and other hardeners, if necessary, and repairing broken specimens; 4. Curate, catalog and identify the fossil remains to the lowest taxon possible, inventory specimens, assign catalog numbers, and enter the appropriate specimen and locality data into a collection database; and 5. Transfer the cataloged fossil remains to an accredited institution (museum or university) in California that maintains paleontological collections for archival storage and/or display. The transfer shall include copies of relevant field notes, maps, stratigraphic sections, and photographs. 6. Prepare a Paleontological Resources Mitigation Report summarizing the field and laboratory methods used, the stratigraphic units inspected, the types of fossils recovered, and the significance of the fossils collected. 7. Submit TWO hard copies of the final Paleontological Resources Mitigation Report to the Director of PDS for final approval of the mitigation, and submit an electronic copy of the report according to the County PDS’s Electronic Submittal Format Guidelines. <p>If no fossils of greater than 12 inches in any dimension are found during grading and excavation, a letter shall be submitted to the County identifying who conducted the monitoring, stating that no fossils were found, and signed by the Standard Monitor.</p>

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		<p>If fossils meeting the description above are found and the services of a Project Paleontologist are retained, the paleontologist will prepare a report documenting the mitigation program, including field and laboratory methodology, location and the geologic and stratigraphic setting, list(s) of collected fossils and their paleontological significance, descriptions of any analyses, conclusions, and references cited. The report shall include appropriate graphics (index map, fossil localities, stratigraphic column) and photographic documentation of where the fossil(s) and other paleontological resources were found. A summary stratigraphic section shall be included that records the stratigraphic section exposed by the excavation (i.e., lithology and stratigraphic thicknesses) and stratigraphic positions of recovered paleontological resources, to the extent possible.</p> <p>Two hard copies and an electronic copy of the report shall be submitted to the County within 90 days following the collection of fossil on the project site.</p>
2.6 Hazards and Hazardous Materials		
HZ-1	M-HZ-1	<p>The applicant shall maintain the following measures in accordance with the project specific Vector Management Plan (VMP).</p> <p>Mosquitos:</p> <p><i>Extraction Pit</i></p> <ul style="list-style-type: none"> • Trash and debris collection and removal shall occur continuously by the site personnel <p><i>Process Settling Ponds</i></p> <ul style="list-style-type: none"> • Ponds shall be maintained by the routine removal of vegetation, sediment, trash, and debris • Control mosquito breeding using BMPs in accordance with requirements of the San Diego County DEH. • Circulate water in settling ponds constantly <p><i>Monitoring</i></p> <ul style="list-style-type: none"> • The applicant shall implement an active management plan to control mosquitos as described below: <ol style="list-style-type: none"> 1. As water is pumped to the processing plant area settling basins for use in material processing and dust control, excess water will be collected in the settling ponds and allowed to infiltrate or return to process cycle after a short retention period. Therefore, this water will be constantly circulating and will help to prevent propagation of vectors.

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		<p>2. During the wet season (October through March) the open pit, processing plant area ponds and any detention basins shall be visually inspected monthly, by the operations staff, for the presence of vectors. If necessary, corrective measures shall be initiated, including more frequent inspections if vector issues are identified by the public and/or routine inspections.</p> <p>3. In the dry season (July through September) the open pit, processing plant area ponds and any detention basins shall be visually inspected weekly, by the operations staff, for the presence of vectors, including more frequent inspections if vector issues are identified by the public and/or routine inspections.</p> <p><i>Corrective Measures</i></p> <ul style="list-style-type: none"> • If necessary, corrective measures described below shall be initiated: <ol style="list-style-type: none"> 1. The removal of emergent vegetation shall occur when recommended by the DEH San Diego County, Vector Control Program or when emergent vegetation (e.g., cattails, sedges, etc.) is in excess of 50% of the surface area. 2. Emergent vegetation shall be controlled by hand labor, mechanical means or by frequent clear cutting. No herbicides shall be used in submerged or aquatic habitat areas, as the project site is a recharge area for the groundwater aquifer. 3. Vegetation clearing is intended to prevent habitat for mosquito larvae and refuge from predation by predatory fish, if present. 4. Removal of the vegetation by hand shall be the preferred method in order to lessen the re-growth frequency and density. 5. Eliminate floating vegetation conducive to mosquito production (i.e., water hyacinth [Eichhornia spp.], duckweed [Lemna and Spirodela spp.], and filamentous algal mats). 6. Foot pathways shall be maintained for surveillance and abatement methods. Sizing of pathways shall be a minimum of 5 feet wide to allow access to any ponded area. <p><i>Rodents:</i></p> <ul style="list-style-type: none"> • Good housekeeping practices shall be followed: <ol style="list-style-type: none"> 1. Place all trash and debris in trash containers 2. Covering/closing trash of all containers <p><i>Education</i></p> <ul style="list-style-type: none"> • Employees engaged in the operation and maintenance of the sand mine and employees of monitoring companies shall be trained on how to control vectors. Training sessions shall be

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		<p>held at least once per year for all staff. The training shall cover all of the MUP conditions set forth to avoid and/or discourage vector breeding including:</p> <ol style="list-style-type: none"> 1. Vegetation removal procedures for non-wetland standing water. 2. Biological controls and vegetation maintenance for wetland waters. 3. Inspection and maintenance procedures for any open water source. 4. Routine inspection and maintenance of storm water basin BMPs. <p>Long Term</p> <p>Ongoing maintenance shall include monitoring of the pit, processing plant area ponds and any detention basins for the existence of vector conditions. Appropriate mitigation measures approved by the Department of Environmental Health – Vector Control Program shall be utilized. Maintenance shall continue until reclamation has been completed and approved.</p>
DC-HZ-1		<p>As required by the FPP, the applicant shall prepare a Site Safety and Evacuation Plan for review and approval by the County of San Diego and the Lakeside Fire Protection District prior to use and reliance on the Major Use Permi. The Site Safety and Evacuation Plan shall include the following:</p> <ul style="list-style-type: none"> • Fire Safety Coordinator: This position is required by the California Fire Code Section 1408.1. • A List of Project Fire Risks and Fire Risk Mitigation Measures • Communications Plan • Instructions for Emergency Alarms • Instructions on Calling 911 • First Aid Measures • Instructions for Portable Fire Extinguishers • Information on the Construction of Access Roads on the Project Site Prior to the Start of Construction • Instructions for Red Flag Warnings; High Fire Hazard Weather Conditions • Hot Work (Welding, Grinding, etc.): These requirements are primarily from California Fire Code (CFC) Chapter 26, “Welding and other Hot Work,” and NFPA 51-B, “Fire Prevention during Welding, Cutting and other Hot Work” • Instructions for the Storage of Combustibles and Trash and Storage and Use of Hazardous Materials

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
DC-HZ-2		<ul style="list-style-type: none"> • Instructions regarding “No Open Burning” • Information regarding “Designated Smoking Areas” <hr/> <p>The applicant shall maintain the following fire minimization measures and FMZs in perpetuity in accordance with the project specific FPP:</p> <p>Water Supply</p> <ul style="list-style-type: none"> • Water storage tanks may be required onsite, at locations to be determined by the Fire Code Official. <p>Fire Access Roadways</p> <ul style="list-style-type: none"> • Fire access roads shall be provided around the perimeter of the project via existing roads. In addition, dead end fire access roads leading into the interior of the project site that exceed 150 feet shall be provided with emergency vehicle turnarounds. • The existing perimeter roads and any proposed interior roads for maintenance and emergency access shall have grades that are less than 15 percent. • Proposed fire access roads shall be built to current standards or a minimum of 20 feet in width. The road surface may be compacted decomposed granite or other material capable of supporting a 75,000-pound weight load. The driving surface on all fire apparatus access roads shall be all-weather and maintained for the life of the project. • Gates will provide a full 24-foot-wide access through the opening. All chained gates shall have a Knox Padlock. <p>Setback from Property Lines</p> <ul style="list-style-type: none"> • All structural improvements (i.e., apparatus for extraction wells and monitoring wells), proposed for the project shall comply with the 30-foot setback requirement. • Minimum setback from property lines abutting national forests, open space preserves, and designated riparian areas shall be 100 feet where required structures are protected by a 100-foot fuel modification zone. <p>Building Construction</p> <ul style="list-style-type: none"> • Temporary structures that may be included as part of the project shall comply with the requirements of the Lakeside Fire Protection District. All structures shall comply with the ignition resistive construction requirements.

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
		<p>Fire Protection Systems and Equipment</p> <ul style="list-style-type: none"> Vehicle-mounted portable fire extinguishers shall be provided on all vehicles associated with the construction, operation, and maintenance of the project. <p>Fuel Modification Zones</p> <ul style="list-style-type: none"> The applicant shall be responsible for creating a minimum 100-foot FMZ within the project boundary, and in areas along the perimeter of the project site where there are existing residences over 250 square feet in size. FMZ are detailed in the FPP and range in width from 50 feet to 100 feet. FMZs shall be maintained along all project access roads to ensure safe access to the area for emergency response vehicles (refer to Figure 2.6-1). Boundaries of fuel modification zones shall be clearly marked through the life of the project. Any re-vegetation of fuel modification zones during the life of the project shall be a best practice design, and reference the County of San Diego Approved and Prohibited plant lists. FMZs shall be reviewed in successive years as the project develops, and may be modified or removed through consultation with the County of San Diego and the Lakeside Fire Protection District.
2.7 Land Use and Planning		
LU-1		No feasible mitigation would reduce Impact LU-1 to a less than significant level.
2.8 Mineral Resources		
MR-1 MR-2 MR-3 MR-4		No feasible mitigation would reduce Impacts MR-1 through MR-4 to a less than significant level.

List of Mitigation Measures and Environmental Design Considerations		
Impact No.	Mitigation Measure/ Design Considerations	Description
2.9 Noise		
N-1a N-1b N-1c N-2	M-N-1	All operations shall be limited to the hours of 7:00 a.m. to 5:00 p.m. on any working day except Sundays and holidays, in accordance with the Major Use Permit (MUP) for the proposed project, and is consistent with the San Diego County Code of Regulatory Ordinance, Chapter 4 Noise Abatement and Control, Section 36.404 General Sound Level Limits, daytime hours. Operational noise levels shall not exceed an equivalent continuous sound level of 75 dBA (75 dBA Leq) for any hour at the project boundary. No activities are permitted outside of these hours or on Sundays and holidays. No queuing of trucks at the project entrance prior to 7:00 a.m. is allowed.
	M-N-2	During all project-related activities, the project contractor shall equip all equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
	M-N-3	The project contractor shall place all stationary equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
	M-N-4	The project contractor shall locate equipment staging in areas that will create the greatest distance between operations-related noise sources and the noise-sensitive receptors nearest the project site during all project operations.
	M-N-5	During the excavation and reclamation operational phases, the project contractor shall require all onsite activities to occur a minimum of 150 feet from the project boundaries, which is the distance to the 75 dBA Leq contour from the maximum noise level of 87 dBA Leq, as shown in Table 2.9-7.
	M-N-6	During the operation of the processing plants, the project contractor shall require all plant related onsite activities to occur a minimum of 170 feet from the project boundaries, except when processing plant operations occur in the southwest corner of the project site. A distance of 170 feet is the distance to the 75 dBA Leq contour from the maximum noise level of 89 dBA Leq, as shown in Table 2.9-7. When the processing plant operations occur in the southwest corner of the project site, equipment must remain a distance of 100 feet or more from the 8-foot high berm.
	M-N-7	During the site preparation and construction phase, the project contractor shall require all onsite activities to occur a minimum of 120 feet from the project boundaries, which is the distance to the 75 dBA Leq contour from the maximum noise level of 84 dBA Leq, as shown in Table 2.9-7

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
2.10 Transportation and Traffic		
TR-1a	M-TR-1	<p>Intersection – Lake Jennings Park Road/El Monte Road/Julian Avenue</p> <p>The following mitigation measures shall be implemented in order to reduce both the direct and cumulative significant impacts at this intersection to less than significant:</p> <ul style="list-style-type: none"> • Project Applicant shall pay for the installation of a traffic signal; • Restriping the intersection on the eastbound and westbound approaches to include permissive signal phasing with shared left-thru and dedicated right-turn lanes; • Reduce curb return radii for right-turn movements to improve pedestrian and bicycle mobility. To promote bicycle mobility, Class II bike lanes are proposed on El Monte Road/Julian Avenue at this intersection; and • Pay the appropriate Traffic Impact Fee (TIF) amount towards the County TIF program to mitigate for its cumulative significant impact.
TR-1b TR-2	M-TR-2	<p>Lake Jennings Park Road, between Blossom Valley Road and I-8</p> <p>The following mitigation measures shall be implemented in order to reduce both the direct and cumulative significant impacts at this roadway segment to less than significant:</p> <ul style="list-style-type: none"> • Restripe Lake Jennings Park Road between Blossom Valley Road and I-8 WB off-ramp to include two southbound travel lanes that would increase roadway capacity. • Pay the appropriate TIF amount towards the County TIF program to mitigate for its cumulative significant impact.

List of Mitigation Measures and Environmental Design Considerations

Impact No.	Mitigation Measure/ Design Considerations	Description
TR-3a TR-3b TR-4	M-TR-3	<p>Lake Jennings Park Road/I-8 WB Ramps</p> <p>The following mitigation measures shall be implemented in order to reduce cumulative significant impacts at this intersection to less than significant:</p> <ul style="list-style-type: none"> • Pay the appropriate TIF amount towards the County TIF program to mitigate for its cumulative significant impact. Based on the County of San Diego TIF Transportation Needs Assessment Report (San Diego County 2012), this intersection has been included in the list of TIF eligible interchange improvements. <p>Caltrans is currently reviewing proposed improvements at this interchange which would include restriping the undercrossing to four lanes with Class II bike lanes, traffic signals or roundabouts at the ramp intersections. However, a final design has not been selected or approved at this time. The TIA in Appendix U contains the Caltrans conceptual drawing of the proposed improvements on the Lake Jennings Park Road/I-8 WB ramps interchange.</p>

3.2 Geology and Soils

DC-GE-1

The following recommendations listed below are incorporated into the final Reclamation Plan documents. These recommendations address issues including, but not limited to, compacted fills, fill slope construction, periodic observation of mine benches above working areas, and slope protection.

- Overall final cut slopes in soil/alluvial materials should be no steeper than 3h:1v up to the maximum proposed height (approximately 30 feet).
- Periodic observations of mine benches above working areas for indications of potential instability during mine operations.
- Fills should be spread in near-horizontal layers, approximately 8 in. thick. Thicker lifts may be approved by the geotechnical engineer if testing indicates that the grading procedures are adequate to achieve the required compaction. Each lift should be spread evenly, thoroughly mixed during spreading to attain uniformity of the material and moisture in each layer, brought to near optimum moisture content and compacted to a minimum relative compaction of 90 percent in accordance with ASTM D1557.
- Project slopes should be protected from erosion by establishment of vegetation as soon as possible. Also, slopes should be protected with drainage improvements such as berms and/or levees as necessary to prevent slope erosion.

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