

CHAPTER 9.0 – LIST OF MITIGATION MEASURES AND PROJECT DESIGN FEATURES FOR THE PROPOSED PROJECT

9.1 Mitigation Measures

9.1.1 Geological Resources

M-GE-1 A qualified geologist shall be on-site during applicable temporary and permanent cut slope excavations to monitor for localized unstable geologic conditions associated with the exposure of intersecting fractures, planes of weakness, or other conditions that may result in unstable slopes. Applicable recommendations from the noted monitoring shall be provided to a qualified engineer and incorporated into the Project design and construction efforts, through measures approved by the County such as localized changes in cut slope grades, use of stabilizing structures (e.g., rock bolts or wire mesh) and installation of protective devices (e.g., rock/debris fall fences or barriers).

M-GE-2 An SMP approved by the County shall be implemented by a qualified geotechnical engineer to monitor and document potential short- and long-term settlement related to the IDEFO. Specifically, this program shall include the following elements (or other applicable criteria as identified by the Project Geotechnical Engineer and/or the County): (1) identification of appropriate locations and design specifications for settlement monuments; (2) provision of a schedule to list the required frequency (e.g., weekly or monthly) of monitoring events and duration of the SMP; (3) installation of one or more settlement monuments at the location(s) specified in the SMP after completion of the IDEFO, but prior to construction of any subsequent proposed improvements (buildings, pavement, utilities, etc.); (4) documentation of all monitoring data; (5) review and analysis of monitoring data by the Project Geotechnical Engineer to determine if settlement is ongoing and additional monitoring or related standard remedial actions (e.g., surcharging to induce short-term settlement) are required; and (6) preparation/submittal of a report by the Project Geotechnical Engineer to the County documenting when significant settlement is no longer occurring, as well as any other conditions or standard remedial actions (e.g., surcharging) that may be required prior to development in the settlement monitoring area(s).

9.1.2 Biological Resources

The Proposed Project would significantly impact sensitive vegetation communities, plant and animal species, and jurisdictional areas through direct loss and could cause significant indirect impacts. Mitigation ratios used below are from the BMO. Mitigation measures shall be finalized through consultation with the resource agencies and County as part of the required regulatory processes. Evidence shall be demonstrated that all applicable Federal and State wetland and endangered species permits have been obtained. Mitigation for removal of vegetation communities shall be avoided or mitigated through implementation of mitigation measures prior to or immediately following the adverse effect.

The adequacy of protection for each species is discussed in detail in the BTR. The proposed preserve design for the Project is focused on preservation of adequate QCB habitat in a defensible

reserve design as the first priority. In addition, the Proposed Project is anticipated to preserve substantial acreage with prior CAGN sightings.

Riparian Habitat and Other Sensitive Natural Communities

M-BI-1 Mitigation for removal of 0.27 acre of cismontane alkali marsh (BI-1) shall occur at a 3:1 ratio through on- or off-site creation, restoration and/or enhancement of 0.81 acre of wetland or riparian habitat, or alternative mitigation acceptable to the County and resource agencies prior to commencement of construction of extraction operation support facilities or extraction operations. At least 0.27 acre of the mitigation shall be habitat creation to ensure no-net-loss of wetlands. Mitigation for cismontane alkali marsh shall occur as follows:

Prior to the clearing of habitat and commencement of construction of extraction operation support facilities or extraction operations for the Proposed Project, the applicant shall either: (1) purchase wetland habitat credits, (2) identify (and acquire, if necessary) appropriate habitat within the County and prepare a wetland restoration plan, or (3) identify and provide alternative mitigation acceptable to the County, the Corps, RWQCB, and CDFW. Such alternative mitigation could include financial or in-kind contributions to a larger restoration or enhancement project. The wetland restoration plan would require written approval from the Corps, RWQCB, CDFW, and County. In addition, a bond shall be provided to the County prior to habitat clearing and commencement of construction of extraction operation support facilities or extraction operations to cover 120 percent of any restoration plan implementation costs. A biological open space easement shall be placed over all areas used for wetland mitigation and an endowment provided for management in perpetuity. This shall be in addition to the biological open space proposed for areas preserved on site and its associated endowment.

M-BI-2 Mitigation for removal of 0.06 acre of tamarisk scrub (BI-2) shall occur at a 1:1 ratio (Table 4.3-5) through on- or off-site creation of 0.06 acre of wetland or riparian habitat, or alternative mitigation acceptable to the County and resource agencies prior to commencement of construction of extraction operation support facilities or extraction operations. Mitigation for tamarisk scrub shall occur as follows:

Prior to the clearing of habitat and commencement of construction of extraction operation support facilities or extraction operations for the Proposed Project, the applicant shall either: (1) purchase wetland habitat credits, (2) identify (and acquire, if necessary) appropriate habitat within the County and prepare a wetland restoration plan, or (3) identify and provide alternative mitigation acceptable to the County, the Corps, RWQCB, and CDFW. Such alternative mitigation could include financial or in-kind contributions to a larger restoration or enhancement project. The wetland restoration plan would require written approval from the Corps, RWQCB, CDFW, and County. In addition, a bond shall be provided to the County prior to habitat clearing and commencement of construction of extraction operation support facilities or extraction operations to cover 120 percent of any restoration plan implementation costs. A biological open space easement shall be placed over all areas used for wetland

mitigation and an endowment provided for management in perpetuity. This shall be in addition to the biological open space proposed for areas preserved on site and its associated endowment.

- M-BI-3 Mitigation for removal of 0.01 acre of disturbed wetland (BI-3) shall occur at a 1:1 ratio (Table 4.3-5) through on- or off-site creation of 0.01 acre of wetland or riparian habitat, or alternative mitigation acceptable to the County and resource agencies prior to commencement of construction of extraction operation support facilities or extraction operations. Mitigation for disturbed wetland shall occur as follows:

Prior to the clearing of habitat and commencement of construction of extraction operation support facilities or extraction operations for the Proposed Project, the applicant shall either: (1) purchase wetland habitat credits, (2) identify (and acquire, if necessary) appropriate habitat within the County and prepare a wetland restoration plan, or (3) identify and provide alternative mitigation acceptable to the County, the Corps, RWQCB, and CDFW. Such alternative mitigation could include financial or in-kind contributions to a larger restoration or enhancement project. The wetland restoration plan would require written approval from the Corps, RWQCB, CDFW, and County. In addition, a bond shall be provided to the County prior to habitat clearing and commencement of construction of extraction operation support facilities or extraction operations to cover 120 percent of any restoration plan implementation costs. A biological open space easement shall be placed over all areas used for wetland mitigation and an endowment provided for management in perpetuity. This shall be in addition to the biological open space proposed for areas preserved on site and its associated endowment.

- M-BI-4 Mitigation for removal of 0.5 acre of native grassland (BI-4) shall occur at a 2:1 ratio through preservation of 0.7 acre of native grassland within the Project site and off-site acquisition of 0.3 acre of suitable habitat prior to commencement of construction of extraction operation support facilities or extraction operations.

- M-BI-5 Mitigation for removal of 66.7 acres of Diegan coastal sage scrub (including disturbed) (BI-5) shall be mitigated at a 1.5:1 ratio through preservation of 100.1 acres of Diegan coastal sage scrub (including disturbed) within the Project site.

In addition, the indirect noise impact to 20.6 acres of potential CAGN habitat (Diegan coastal sage scrub [including disturbed]) as a result of Proposed Project implementation (refer to Impact BI-23) shall be mitigated at a 1:1 ratio through preservation of an additional 20.6 acres of Diegan coastal sage scrub (including disturbed) within the Project site (refer to Mitigation Measure M-BI-23).

Therefore, required preservation of Diegan coastal sage scrub (including disturbed) shall total 120.7 acres within the Project site prior to commencement of construction of extraction operation support facilities or extraction operations.

- M-BI-6 Mitigation for removal of 31.1 acres of non-native grassland (BI-6) shall occur at a 1:1 ratio through preservation of 16.1 acres of non-native grassland on site and 15.0 acres of grassland at an off-site location or through purchase of credits at an approved conservation bank consistent with the Burrowing Owl Strategy.
- M-BI-7 Fill of 0.21 acre of Corps jurisdictional cismontane alkali marsh, 0.01 acre of disturbed wetland, and 0.06 acre of tamarisk scrub (BI-7) shall be mitigated at 1:1 and 3:1 ratios according to M-BI-1, M-BI-2, and M-BI-3. Fill of 0.16 acre of Corps jurisdictional non-vegetated Waters of the U.S. (BI-7) shall be mitigated at a 1:1 ratio or alternative mitigation acceptable to the County and resource agencies prior to commencement of construction of extraction operation support facilities or extraction operations.
- Prior to commencement of construction of extraction operation support facilities or extraction operations for the Proposed Project, the Project applicant shall either (1) purchase Waters of the U.S. credits, (2) identify (and acquire, if necessary) appropriate habitat within the County and prepare a wetland/waters restoration plan for creation/enhancement, or (3) identify and provide alternative mitigation acceptable to the County, the Corps, RWQCB, and CDFW. Such alternative mitigation could include financial or in-kind contributions to a larger restoration or enhancement project. The wetland restoration plan would require written approval from the Corps, RWQCB, CDFW and County. In addition, a bond shall be provided to the County to cover 120 percent of any revegetation costs prior to commencement of construction of extraction operation support facilities or extraction operations. A biological open space easement shall be placed over all areas used for wetland mitigation and an endowment provided for management in perpetuity in addition to the biological open space proposed for areas preserved within the Project site and associated endowment.
- M-BI-8 Removal of 0.21 acre of RWQCB jurisdictional cismontane alkali marsh, 0.01 acre of disturbed wetland, and 0.06 acre of tamarisk scrub (BI-8) shall be mitigated at 1:1 and 3:1 ratios according to M-BI-1, M-BI-2, and M-BI-3. Impacts to 0.21 acre of RWQCB jurisdictional streambed, pond, and intermittent pond (BI-8) shall be mitigated at a 1:1 ratio (including the mitigation already provided by M-BI-7) or alternative mitigation acceptable to the County and resource agencies prior to commencement of construction of extraction operation support facilities or extraction operations.
- M-BI-9 Removal of 0.27 acre of CDFW jurisdictional cismontane alkali marsh, 0.01 acre of disturbed wetland, and 0.06 acre of tamarisk scrub (BI-9) shall be mitigated at 1:1 and 3:1 ratios according to M-BI-1, M-BI-2, and M-BI-3. Impacts to 0.19 acre of CDFW jurisdictional streambed and pond (BI-9) shall be mitigated at a 1:1 ratio (including the mitigation already provided by M-BI-7 and M-BI-8) or alternative mitigation acceptable to the County and resource agencies prior to commencement of construction of extraction operation support facilities or extraction operations.
- M-BI-10 Temporary construction staking or fencing shall be erected under the supervision of a qualified biologist at or outside the edge of the impact areas where they interface with natural areas to address indirect impacts associated with human access into adjacent open space that will be dedicated to the County to protect sensitive habitats (BI-10).

This fencing shall be erected prior to commencement of brushing or grading activities or extraction activities and shall demarcate areas where human and equipment access and disturbance from grading are prohibited. Upon placement of the permanent boundary fence following initial brush clearing, monitoring adjacent to project open space may cease. Staging areas shall be restricted to approved impact areas only.

In addition, the Project applicant shall dedicate 304.6 acres (including 133.1 acres as mitigation for removal of sensitive vegetation communities associated with the Proposed Project as well as an additional 166.8 acres in excess of the required amount to meet mitigation obligations for impacts to QCB habitat) of biological open space on site for impacts resulting from the Proposed Project prior to the clearing of habitat and commencement of construction of extraction operation support facilities or extraction operations. The biological open space shall be managed by a conservation entity (to be approved by the County and resource agencies prior to commencement of habitat clearing and construction of extraction operation support facilities or extraction operations) that would be responsible for implementing an RMP. An RMP shall be prepared that clearly describes biological open space management. The RMP includes stewardship measures, including but not limited to, fencing and signs upkeep, trespass restriction and debris removal. The applicant shall offer evidence to the County and resource agencies that an endowment has been provided to the conservation entity to manage the land in perpetuity. This endowment amount shall be determined through the use of PAR or similar method.

Pets/domestic animals and unauthorized Proposed Project personnel shall not be allowed within the biological open space. As part of the RMP, permanent signage shall be posted every 500 feet along western and southern boundaries and on alternating sides of the portion of Otay Truck Trail that traverses the open space, and at locations of any unauthorized trails entering the open space. All signs shall be corrosion-resistant (e.g., steel), measure at minimum 12 by 18 inches in size, be posted on a metal post at least 3 feet above ground level and provide notice in both English and Spanish that the area is restricted. The signs shall state the following:

Sensitive Environmental Resources
Area Restricted by Easement
Entry without express written permission
from the County of San Diego is prohibited.
To report a violation or for more information
about easement restrictions and exceptions
contact the County of San Diego,
Department of Planning & Development Services
Ref. PDS2004-3300-04-004
Phone Number: (858) 694-2960

- M-BI-11 To avoid the colonization and spread of invasive plant species into open space, the biological open space shall be actively monitored, maintained, and managed in accordance with the RMP (HELIX 2008). The RMP (discussed in M-BI-10, above)

shall ensure, for example, that access is restricted and invasive plant species (BI-11) are monitored and controlled.

Upon completion of the Proposed Project, final grading to establish the final landform, application of topsoil resources, and revegetation with native species (Seed Mix A) will occur for slope areas according to the Otay Hills Project Revegetation Plan (Sheet 7 of the Reclamation Plan [EnviroMINE 2019b]). A revegetation plan shall be submitted to the County for approval prior to issuance of any clearing or grading permit. The Project description already includes restoration of slopes adjacent to proposed open space with a native plant biological buffer (Seed Mix B) to help prevent the spread of any invasive plant species into open space.

A hydroseed mix incorporating only native species shall be used following extraction activities for all slope areas that are a biological buffer adjacent to open space. Weed control shall be provided for these areas according to the Otay Hills Project Revegetation Plan (Sheet 7 of the Reclamation Plan [EnviroMINE 2019b]).

Special Status Species

- M-BI-12 Removal of 105.5 acres of Otay tarplant critical habitat (BI-12) shall be mitigated with preservation of 93.8 acres of Otay tarplant critical habitat within the Project site. Removal of 16.69 acres of suitable habitat and 30 individual plants (BI-12) are being mitigated through preservation of 6.58 acres of suitable habitat which includes preservation of 510 (94 percent) of the Otay tarplant individuals. In addition, seeds will be collected from the Otay tarplant in the impact area and spread within suitable habitat in the proposed open space prior to Phase 2a (Appendix C of HELIX 2018b).
- M-BI-13 Removal of 120 of 4,987 individuals of variegated dudleya (BI-13) shall be mitigated by preservation of 4,867 individuals in accordance with Section 86.507 of the BMO. Removal of 13.06 acres of suitable habitat are being mitigated through preservation of 48.65 acres of suitable habitat. Additionally, the variegated dudleya in the impact area will be salvaged by collecting the soil crust in the area where the 120 dudleya were observed and translocating to the proposed open space prior to Phase 2b (Appendix C of HELIX 2018b).
- M-BI-14 Removal of 1,214 individuals of San Diego goldenstar (BI-14) shall be mitigated by translocation of the impacted individuals to an appropriate on-site location. The goldenstar translocation would be subject to the Otay Hills Project Translocation Plan (Appendix C of HELIX 2018b). Proof of recordation of an open space easement on site and off site (if appropriate) shall be required prior to commencement of habitat clearing and construction of extraction operation support facilities or extraction operations. The San Diego goldenstar component of the Otay Hills Project Translocation Plan (Appendix C of HELIX 2018b) shall be implemented as follows: All San Diego goldenstar corms that are located within each phase shall be translocated prior to implementation of mining activities within that phase.

- Phase 1 – at least 400 corms
- Phase 2a – at least 813 corms
- Phase 2b – at least 1 corm

Removal of 13.06 acres of suitable habitat are being mitigated through preservation of 69.46 acres of suitable habitat. The Project would preserve 11,174 individuals (90.2 percent of the population on the Project site and five of the six primary populations) of San Diego goldenstar.

M-BI-15 Removal of 196 of 362 individuals of San Diego barrel cactus (BI-15) shall be mitigated at a 2:1 ratio in accordance with Section 86.507 of the BMO. Mitigation shall consist of salvage of the 196 San Diego barrel cactus impacted on and off site and relocation of these individuals to areas of suitable habitat within the Project site, as well as planting of an additional 196 San Diego barrel cactus on site consistent with the Otay Hills Project Translocation Plan (Appendix C of HELIX 2018b). Mitigation for San Diego barrel cactus shall be implemented by phase as follows:

- Prior to Phase 2a, 44 individuals of San Diego barrel cactus shall be translocated to the open space and an additional 44 individuals shall be planted.
- Prior to Phase 2b, 18 individuals of San Diego barrel cactus shall be translocated to the open space and an additional 18 individuals shall be planted.
- Prior to Phase 2c, 134 individuals of San Diego barrel cactus shall be translocated to the open space and an additional 134 individuals shall be planted.

Proof of recordation of the open space easement within the Project site, and implementation of the barrel cactus component of the Otay Hills Project Translocation Plan shall be required prior to commencement of construction of extraction operation support facilities or extraction operations. The barrel cactus component of the Otay Hills Translocation Plan shall be implemented within one year of commencement of construction of extraction operation support facilities or extraction operations.

M-BI-16 Removal of 142 of 290 individuals of San Diego marsh-elder (BI-16) shall be mitigated at a 2:1 ratio in accordance with Section 86.507 of the BMO. Mitigation shall include planting of 284 San Diego marsh-elder individuals in appropriate habitat within the proposed open space. The applicant shall fund implementation of an RMP that includes measures to protect and enhance the preserved or created populations.

M-BI-17 Removal of five locations where QCB were observed, 104.9 acres of QCB occupied habitat, and 97.8 acres of QCB critical habitat (BI-17) shall be mitigated by preservation of 52 locations where QCB were observed and by preservation of 304.6 acres of biological open space within the Project site, of which 303.5 acres are considered occupied by the QCB and 304.4 acres are QCB critical habitat. Funding for long-term management of an additional 61 acres within the AMA that also supports QCB host plants, QCB locations and occupied QCB habitat will be provided by the

Project. If the QCB is not covered under the MSCP at the time of Project approval, effects on the species shall be subject to review and approval by the USFWS as part of the Section 7 or 10(a) consultation process.

M-BI-18 Removal of one pair of CAGN, 66.7 acres of CAGN habitat, and 77.1 acres of CAGN critical habitat (BI-18) shall be mitigated through preservation of four pairs and 218.9 acres of CAGN habitat on site, of which 185.0 acres are CAGN critical habitat. Prior to Project implementation, preconstruction surveys to demonstrate CAGN absence from the development footprint shall be required pursuant to USFWS protocol if clearing occurs during the breeding season (March 15 to August 15).

M-BI-19 Removal of one location where a burrowing owl was observed in 2001 (BI-19) shall be mitigated by conducting a preconstruction survey before habitat clearing in each Project phase consistent with the Strategy for Mitigating Impacts to Burrowing Owls in the Unincorporated County. If a burrowing owl(s) is sighted within the development footprint, the resource agencies and County shall immediately be notified to determine the appropriate steps to take. If, for example, an active burrow is present, impacts to this species may be minimized by the active or passive translocation of the owl, outside of the breeding season or once the young have fledged, to a suitable area on the Proposed Project site that supports nesting and foraging habitat. A Burrowing Owl Translocation Plan, which may include installation of a minimum of two artificial burrows for every burrow impacted, would be prepared and submitted to the resource agencies and County for review and approval in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (2012).

Removal of burrowing owl habitat (BI-19) shall be mitigated by preservation of 16.1 acres of non-native grassland on site and 15.0 acres of grassland at an off-site location or through purchase of credits at an approved conservation bank consistent with the Burrowing Owl Strategy (see Mitigation Measure M-BI-6), as well as preservation of 0.7 acre of native grassland within the Project site and off-site acquisition of 0.3 acre of suitable habitat (see Mitigation Measure M-BI-4).

M-BI-20 Removal of approximately 98.7 acres of foraging habitat for golden eagles and other raptors (BI-20) shall be mitigated by preservation of grasslands and Diegan coastal sage scrub (see Mitigation Measures M-BI-4 through M-BI-6).

M-BI-21 Implementation of Mitigation Measures M-BI-4 through M-BI-6, M-BI-10, and M-BI-11 shall mitigate removal of coast horned lizard, coastal whiptail, southern California rufous-crowned sparrow, loggerhead shrike, grasshopper sparrow, California horned lark, San Diego black-tailed jackrabbit, Belding's orange-throated whiptail, red-diamond rattlesnake, Bell's sage sparrow, turkey vulture, northern harrier, barn owl and southern mule deer habitat (BI-21).

M-BI-22 Impacts from potential entrapment in the development footprint and injury or death to sensitive animal species (BI-22) shall be mitigated by the following measures:

- Deterrent measures may include, but are not limited to, ensuring that the ends of all pipes and culverts are covered when they are not being used, and covering rubble piles, dirt piles, ditches and berms that occur within the development footprint when they are not being regularly disturbed by quarry activities.
- Ponds and pits containing water shall be fenced or otherwise surrounded/covered to prevent wildlife access. Fencing shall be secured at the ground or buried to prevent animals digging underneath and shall be wrapped around the base with a durable finer mesh material to prevent small mammal, reptile and amphibian entry.
- Potential solutions to prevent trapped wildlife within ponds, pits or trenches shall be implemented and may include, but are not limited to, attaching textured liner material to create escape ramps, or depending on the configuration of the trapping hazard, earthen ramps, floating rafts or ladders may be appropriate solutions.
- During the initial clearing of each phase, the biological monitor will check implementation of nuisance minimization measures and conduct regular searches for wildlife in these areas. During regular plant operation, the project proponent will be responsible for attractive nuisance minimization measures, with annual compliance checks by a biological monitor.

M-BI-23 Indirect impacts to 20.6 acres of CAGN habitat (Diegan coastal sage scrub [including disturbed]) (BI-23) from noise shall be mitigated through the preservation of 20.6 acres of Diegan coastal sage scrub on site (included within the 218.9 acres to be preserved under Mitigation Measure M-BI-18).

Direct noise-related impacts to sensitive nesting species, such as the CAGN, tree-nesting raptors, or ground-nesting raptors, would be mitigated by conducting a preconstruction survey to demonstrate absence of such species from areas where effects resulting from construction noise could be significant. Tree-nesting raptor absence from the 500-foot buffer shall be required if habitat clearing is to occur during the tree-nesting raptor breeding season (January 15 to July 15). A preconstruction survey of the 900-foot buffer shall be required if habitat clearing is to occur during the ground-nesting raptor breeding season (February 1 to July 15).

In addition, the following measures shall be required in the MUP to minimize potential adverse noise effects to CAGN and its habitat:

- No jaw crusher shall be operated within 350 feet of the closest property line or biological open space boundary.

- No screen shall be operated within 165 feet of the closest property line or biological open space boundary.
- No vertical crusher shall be operated within 85 feet of the closest property line or biological open space boundary.
- All cone crushers used in the aggregate crushing process shall be shielded with noise controls. The barriers shall start at ground level and extend to at least a minimum of one-foot higher than the direct line of sight between any portion of the shielded equipment and any suitable habitat areas to the east of the Project site.
- All vertical crushers used in the aggregate crushing process shall be shielded with noise control barriers. The barriers shall extend to the ground or at least two feet below the crusher if it is an elevated unit and extend to at least a minimum of one-foot higher than the direct line of sight between any portion of the shielded equipment and any suitable habitat areas to the east of the site.
- All aggregate screens shall use synthetic screen elements (note this does not apply to recycled materials, which may utilize steel screens).
- All sound attenuation fence/walls shall be solid and constructed of masonry, wood, plastic, fiberglass, steel or a combination of those materials, with no cracks or gaps, through or below the wall. (Conveyor belting is an excellent noise shielding material to allow a flexible barrier or provide lower skirts.) 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 surface density of at least 3.5 pounds per square foot. 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 one-inch thick or better wood, solid-sheet metal of at least 18-gauge metal, or an exterior-grade solid-core steel door with prefabricated door jambs.
- If a cone crusher is used in the Asphaltic Concrete Plant, it shall be shielded with a barrier as described above in the fourth bulleted item.
- If a portable plant is used for occasional processing of recycled materials, the unit shall only be used in the area south of the main plant. The unit shall never be positioned closer than 500 feet to the eastern or southern excavation boundary or the southern boundary of the normal equipment areas to control additional noise impacts to the east.

Local Policies, Ordinances and Adopted Plans

- M-BI-24 Removal of Otay tarplant, variegated dudleya, QCB and burrowing owl (BI-24) shall be mitigated through implementation of Mitigation Measures M-BI-12, M-BI-13, M-BI-17 and M-BI-19, respectively.

M-BI-25 In order to avoid potential killing of migratory birds or destruction of active bird nests and/or eggs (BI-25), and to ensure compliance with FGC Sections 3500–3516, clearing of native vegetation shall occur outside of the breeding season of most avian species (February 1 through September 15). Clearing during the breeding season of FGC-protected species could occur if it is determined that no nesting birds (or birds displaying breeding or nesting behavior) are present immediately prior to clearing. A pre-construction survey shall be conducted three days prior to clearing or grading activities to determine if breeding or nesting avian species occur within impact areas.

9.1.3 Cultural Resources

In general, the mitigation of impacts to important archaeological sites may be achieved through avoidance (preservation) or data recovery. Because cultural resources are finite, avoidance and preservation are preferred mitigation measures. Avoidance would require that cultural resources be set aside and preserved in open space easements. The sizes of the easements would be based upon the boundaries of the sites or the areas of significance as defined by the testing program and appropriate buffers.

Where the aggregate extraction operations would directly impact significant sites and avoidance is not feasible, mitigation of potential impacts may be achieved through data recovery. The significance of the identified significant sites is based on the information potential represented by the subsurface deposits of artifacts. Therefore, the research potential of the sites may be realized through the data recovery program that would include the analysis of artifacts and provenance information. The data recovery programs would include adequate subsurface samples of the significant deposits to meet the requirements for data recovery.

The timing for mitigation of individual sites would be prior to any earth disturbing activities for data recovery, curation of artifacts already collected, and protective fencing. The Archaeological Monitoring Program will be timed according to the individual phases of extraction.

The following mitigation measures are recommended for potential impacts to cultural resource sites on the Project impact footprint:

M-CR-1a All earth disturbing activities that affect areas in the native soil within the MUP footprint shall be monitored by one or more archaeologists and Kumeyaay Native American monitors, as dictated by the size of the grading operation. All utility excavations, road grading, or brush removal must be coordinated with the archaeological monitor(s) and Kumeyaay Native American monitor(s). Any known resources must be intensively monitored during any earth disturbing activities to ensure that any important features, isolates, or deposits are either recorded and collected or evaluated. Should any resources be encountered during the monitoring of the earth disturbing activities that were not previously recorded, the earth disturbing activities shall be temporarily halted or redirected to another area while the nature of the discovery is evaluated. Any resources that may be encountered shall be evaluated to determine their significance. If the evaluation demonstrates that a resource is significant, then a data recovery program shall be implemented.

M-CR-1b Significant cultural resource sites SDI-10,298 and SDI-10,297/H shall be subject to a data recovery program. Earth disturbing activities at these sites shall be intensively monitored by the designated archaeological monitor and Kumeyaay Native American monitor to ensure that any important features, isolates, or deposits are either recorded and collected, or evaluated. Should any resources be encountered during the monitoring of the earth disturbing activities which were not previously recorded, the earth disturbing activities shall be temporarily halted or redirected to another area while the nature of the discovery is evaluated. The archaeological monitor in consultation with the Kumeyaay Native American monitor shall determine the excavation methods, laboratory analyses, and special studies for these resources. Cultural materials recovered from the Project shall be placed in permanent storage at a curation facility or a culturally affiliated Tribal curation facility or repatriated to a tribe of appropriate cultural affinity.

Table 4.4-1 provides additional information regarding timing and extent of the recommended data recovery mitigation program for sites SDI-10,297/H and SDI-10,298.

9.1.4 Noise

The following mitigation measure would be implemented to reduce noise impacts to potential future residential (or other NSLU) development in the areas adjacent to the Project impact footprint (Mitigation Measure M-N-2 is also the mitigation for Impact LU-2 and is the same mitigation as required by Mitigation Measure M-LU-2):

- M-N-2 Operational noise sources from extraction operations shall not exceed the one-hour limit of 75 dBA at the property line. The following measures shall be implemented to reduce noise levels:
- a. No jaw crusher shall be operated closer than 350 feet from the closest property line or habitat location.
 - b. No screen shall be operated closer than 165 feet from the closest property line or habitat location.
 - c. No vertical crusher shall be operated closer than 85 feet from the closest property line or habitat location.
 - d. All cone crushers used in the aggregate crushing process shall be shielded with noise control barriers: the barriers shall start at ground level and extend to at least a minimum of one foot higher than the direct line of sight between any portion of the shielded equipment and suitable habitat areas to the east of the site or other potential noise-sensitive receptors. Noise control barriers can either be mounted to the equipment or ground-mounted separate from the equipment, or some combination of the two, depending on what is required for appropriate noise control.

- e. All vertical crushers used in the aggregate crushing process shall be shielded with noise control barriers: the barriers shall extend to the ground or at least 2 feet below the crusher if it is an elevated unit and extend to at least a minimum of 1 foot higher than the direct line of sight between any portion of the shielded equipment and any suitable habitat areas to the east of the site or other potential noise-sensitive receptors. Noise control barriers can either be mounted to the equipment or ground-mounted separate from the equipment, or some combination of the two, depending on what is required for appropriate noise control.
- f. All aggregate screens shall use synthetic screen elements (note this does not apply to recycled materials which may utilize steel screens).
- g. Excavation within 72 feet of the property line requires a temporary 10-foot high noise control barrier. The barrier must extend beyond the operational locations to break the line of sight for any location on the NSLU within 72 feet of the equipment operations.
- h. All sound attenuation fence/walls should be solid and constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, with no cracks or gaps, through or below the wall. Project Note: (conveyor belting is an excellent noise shielding material to allow a flexible barrier or provide lower skirts). Any seams or cracks must be filled or caulked. If wood is used, it can be tongue-and-groove and must be at least 1-inch total thickness or have a surface density of at least 3.5 pounds per square foot. 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 1-inch thick or better wood, solid-sheet metal of at least 18-gauge metal, or an exterior-grade solid-core steel door with prefabricated door jambs.
- i. If a cone crusher is used in the Asphaltic Concrete Plant, it shall be shielded with a barrier as described above in M-N-2.e.
- j. If a portable plant is used for occasional processing of recycled materials, the unit shall only be used in the area south of the main plant. The unit shall never be positioned closer than 500 feet to the eastern or southern excavation boundary or the southern boundary of the normal equipment areas to control additional noise impacts to the east.

9.1.5 Transportation/Circulation

The following mitigation measure would be implemented to reduce direct transportation impacts associated with the Proposed Project:

- M-TR-1 Within 180 days of MUP approval, the applicant shall re-stripe the segment of Otay Mesa Road between Alta Road and Enrico Fermi Drive to provide two lanes plus a continuous center turn lane, which will improve the level of service of the roadway to LOS D.

M-TR-2 Within 180 days of MUP approval, the applicant shall install a traffic signal control at the intersection of Otay Mesa Road and Alta Road, which will improve the level of service to LOS B in the AM peak and LOS A in the PM peak hours.

9.1.6 Paleontological Resources

The following mitigation measures shall be implemented to ensure that potential adverse impacts to paleontological resources from implementation of the Proposed Project would be reduced to less than significant levels:

M-PR-1a A qualified paleontologist shall be at the pre-construction meeting(s) to consult with the grading and excavation contractors concerning excavation schedules, paleontological field techniques and safety issues. A qualified paleontologist is defined as an individual having an M.S. or Ph.D. degree in paleontology or geology who is familiar with paleontological procedures and techniques, is knowledgeable in the geology and paleontology of San Diego County, and who has worked as a paleontological mitigation project supervisor in the County for at least one year.

M-PR-1b A qualified paleontological monitor shall be on site on a full-time basis during the original cutting of previously undisturbed deposits of the Tertiary Otay Formation to inspect exposures for contained fossils. A qualified paleontological monitor is defined as an individual having experience in the collection and salvage of fossil materials. The paleontological monitor shall work under the direction of a qualified paleontologist. If the qualified paleontologist or paleontological monitor ascertains that observed exposures of the Otay Formation are not fossil-bearing, the qualified paleontologist shall have the authority to terminate the monitoring program.

A Standard Monitor shall be on site during all original cutting of previously undisturbed deposits of the Jurassic Santiago Peak Volcanics to inspect exposures for contained fossils. A Standard Monitor is defined as any one person designated by the Applicant and given the responsibility of watching for fossils so that the project is in conformance with Section 87.430 of the Grading Ordinance.

M-PR-1c If fossils are discovered during monitoring of the Otay Formation, they shall be recovered by the qualified paleontologist or paleontological monitor. In most cases, fossil salvage can be completed in a short period of time, although some fossil specimens (such as a complete large mammal skeleton) may require an extended salvage period. In these instances, the paleontologist (or paleontological monitor) shall be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for recovering small fossil remains, such as isolated mammal teeth, it may be necessary to set up a screen-washing operation on the recovery site.

If a fossil of greater than twelve inches in any dimension, including circumference, is encountered during excavation or grading of the Santiago Peak Volcanics, all excavation operations in the area where the fossil was found shall be suspended immediately, the PDS Permit Compliance Coordinator shall be notified, the Project

- Paleontologist shall assess the significance of the find and, if the fossil is significant, the Project Paleontologist shall oversee the salvage program, including salvaging, cleaning, and curating the fossil(s), and documenting the find (as outlined below).
- M-PR-1d If any sub-surface bones or other potential fossils are found anywhere within the Project impact footprint by construction personnel in the absence of a qualified paleontologist or paleontological monitor, the qualified paleontologist shall be notified immediately to assess their significance and make further recommendations.
- M-PR-1e Fossil remains collected during monitoring and salvage shall be cleaned, repaired, sorted, and cataloged as part of the mitigation program.
- M-PR-1f Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited (as a donation) in a scientific institution with permanent paleontological collections such as the San Diego Natural History Museum. Donation of the fossils shall be accompanied by financial support from the applicant for initial specimen storage.
- M-PR-1g A final summary report outlining the results of the mitigation program shall be prepared by a qualified paleontologist and submitted to the County of San Diego for concurrence. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

9.2 Project Design Features

9.2.1 Geological Resources

- Slopes located within highly weathered materials in the upper approximately 20 feet of local bedrock should be constructed at more gentle inclinations than those recommended below for rock slopes (i.e., maximum 1:1 [horizontal to vertical] slopes), with a slope inclination of 1.5:1 suitable in such weathered areas for planning purposes.
- A safety factor of at least 1.5 for gross stability of the proposed overall and inter-bench post-excavation cut slopes would be maintained with the following recommended static slope conditions: (1) an overall maximum slope inclination of 45 degrees (i.e., 1:1), (2) a maximum inter-bench slope inclination of 65 degrees, (3) a maximum inter-bench slope height of 60 feet, and (4) a minimum bench width of 6 feet.
- Mapping and engineering analyses would be conducted every 50 vertical feet during quarrying operations to confirm the geologic conditions analyzed in the 2005 Project Geotechnical Evaluation, and to evaluate variations in geologic conditions where applicable.
- Depending on the results of the noted mapping and engineering analyses, slope inclinations shallower than the 1.5:1 grades for the upper 20 feet of quarry slopes recommended in the 2005 Geotechnical Evaluation may be required.

- Fill would be placed and documented as engineered fill under the observation of a qualified geotechnical engineer, with related specifications to address subgrade preparation, suitability of fill material, fill placement, and testing and documentation requirements appropriate to the potential uses of the property.
- Fill slopes would be constructed in conformance with the slope height and ratio criteria identified in the 2011 *Geologic Reconnaissance and Slope Stability Analysis* prepared by Christian Wheeler Engineering.
- Proposed fill slopes would include the following design criteria: (1) materials used as fill for the IDEFO should be limited to fully cured asphalt, uncontaminated concrete (including steel reinforcing rods embedded in the concrete), crushed glass, brick, ceramics, clay, and clay products, which can be mixed with rock and soil; (2) all fill materials used for the IDEFO should be properly compacted under controlled conditions to achieve a soil mass capable of supporting structural loading (or loading associated with other proposed uses); and (3) observation, testing and periodic monitoring by qualified personnel should be conducted to verify the assumptions, conditions and requirements identified in the evaluation of IDEFO fill slopes, including proper compaction, or to identify and implement appropriate modifications.

9.2.2 Hydrology/Water Quality

- Typical drainage, erosion and sediment control measures that would likely be implemented as part of the Project NPDES Industrial General Permit SWPPP, including measures associated with the pending Industrial General Permit update (refer to Section 3.2.1.2), include the following:
 - Employ Qualified SWPPP Developers (QSDs) and Qualified SWPPP Practitioners (QSPs) for SWPPP preparation/implementation.
 - Use phased grading schedules to limit the area subject to erosion at any given time.
 - Ensure that active grading/excavation areas and activities have adequate erosion and sediment controls in place prior the onset of applicable precipitation events.
 - Properly manage storm water and non-storm water flows to minimize runoff.
 - Use positive grading techniques and appropriate drainage facilities (e.g., swales or brow ditches) to direct surface flows away from unstable areas such as manufactured slopes and material stockpiles, and into drainage facilities and/or outlets.
 - Use erosion control/stabilizing measures such as geotextiles, mulching, mats, plastic sheets/tarps, fiber rolls, soil binders, compost blankets, soil roughening, or temporary hydroseeding (or other plantings) in appropriate locations, such as graded areas and slopes.

- Use sediment controls in applicable areas to ensure perimeter control and prevent off-site sediment/particulate transport. Specific measures may include temporary inlet filters, silt fence, fiber rolls, silt dikes, biofilter bags, gravel bags, compost bags/berms, street sweeping/vacuuming, energy dissipators, stabilized construction access points/sediment stockpiles, properly fitted covers for sediment transport vehicles, and (if applicable) advanced treatment systems.
 - Store BMP materials in applicable on-site areas to provide “standby” capacity adequate to provide complete protection of exposed areas and prevent off-site sediment transport.
 - Provide full erosion control for disturbed areas with no scheduled activity for 14 or more consecutive calendar days.
 - Provide appropriate training for personnel responsible for BMP installation and maintenance.
 - Implement Numeric Effluent Limitations (NELs) as appropriate.
 - Use solid waste management efforts such as proper containment/disposal of construction debris.
 - Comply with local dust control requirements, potentially including measures such as regular watering, use of chemical palliatives, and limiting construction during periods of high wind.
 - Install permanent landscaping, with emphasis on native and/or drought-tolerant varieties, as soon as feasible during or after construction.
 - Prepare and implement a program to ensure appropriate BMP monitoring/reporting, testing, effectiveness, and conformance with applicable discharge requirements, including during storm events.
 - Implement additional BMPs as necessary to ensure adequate erosion and sediment control pursuant to regulatory requirements.
- Overall pre-development drainage patterns would be retained, and drainage controls such as swales, brow ditches and/or berms would be used to collect and convey runoff into appropriate areas including the proposed detention basin and existing drainage outlets.
 - Native topsoil removed during mining operations would be managed to either reapply salvaged topsoil directly onto areas being concurrently reclaimed in other portions of the impact footprint, or stockpile soils for use in subsequent on-site reclamation areas.
 - Stockpiled soils (and/or other stockpiled materials subject to erosion) would be protected through measures such as covering with mats or plastic sheeting, use of chemical binders, and/or installing silt fence/fiber rolls (or other appropriate devices) around stockpile perimeters.

- Mined/graded areas would be recontoured to provide a central, essentially level, pad area flanked by slopes. All proposed manufactured slopes would be designed and constructed in accordance with applicable geotechnical and other regulatory guidelines, with additional information on slope stability and design provided in Subchapter 4.1, *Geological Resources*, and Appendix C.
- If groundwater is encountered during excavation and substantial inflow occurs such that more than minor accumulation results, Project excavation would be terminated at (or slightly below) that depth level and reclamation would begin within a year.
- All appropriate reclaimed surfaces would be revegetated through application of “erosion-control” seed mixes tailored for specific areas (i.e., level pads versus slopes). Specifically, such application would be conducted by hydroseeding with a slurry mixture of water, the appropriate seed mix, cellulose fiber, a binding agent, and (if applicable) fertilizer (with hydroseeded areas to be scarified as necessary prior to slurry application). Additional information on proposed slurry mixtures and specific seed mixes is provided in Appendix B. Hydroseeding would be conducted prior to or during the early part of the rainy season and would generally occur between October 15 and November 15 (with seeding for specific species completed during appropriate times as noted in Appendix B).
- All revegetated areas would be monitored periodically (at least annually) for five years after installation to ensure conformance with applicable performance standards, and test plots would be established on-site to assist in developing the most effective revegetation methods. Specific proposed criteria for revegetation standards and test plots are provided in Appendix B.
- Installation of interim seeding would be provided in areas where final slopes are established, but final revegetation cannot be immediately implemented. Proposed interim seed mixes are provided in Appendix B. If determined to be necessary during site monitoring (as outlined below), interim erosion and sediment control measures would also be implemented, with such measures similar to the NPDES erosion control efforts described above in Table 4.2-4a.
- Revegetated areas would be monitored and managed for weed control and erosion damage, with specific targeted weed species including Peruvian pepper (*Schinus molle*), Russian thistle (*Salsola iberica*), castor bean (*Ricinus communis*), horehound (*Marrubium vulgare*) and tree tobacco (*Nicotiana glauca*). Areas exhibiting erosion damage (e.g., rilling) would be repaired, with the associated source of runoff rerouted into appropriate drainage system facilities.
- All described reclamation, monitoring, and maintenance activities will be documented by a qualified biologist or restoration specialist. Specific documentation will include a map depicting the locations and installation dates of all revegetation sites and the submittal of annual reports to the lead agency.
- Good housekeeping measures would be implemented to maintain an orderly and clean facility and preclude the generation of potential contaminants. Specific efforts may include

efforts such as: (1) regular site maintenance (e.g., trash pick-up and sweeping of paved areas) and proper disposal of trash/debris and sediment; and (2) appropriate containment and proper disposal of wash water (e.g., from washing vehicles/equipment or processing aggregate), portable toilet wastes, and/or other solid or liquid waste products, through efforts such as the use of containment berms, sumps, impermeable liners, and/or off-site disposal (e.g., authorized discharge to a sanitary sewer system). This would include regular inspection and maintenance of site facilities to ensure proper function, identify problems, and prevent contaminant discharge. Specific targets for such efforts may include mining/processing equipment and material/vehicle storage and maintenance areas.

- Proper material handling and storage measures would be implemented, including efforts such as: (1) using raised (e.g., on pallets), covered, enclosed, and/or locked facilities to store hazardous materials (fuels, lubricants, etc.) or other substances which could generate pollutants if exposed to storm water or authorized non-storm water discharges; (2) using mobile fueling/maintenance units for construction equipment whenever feasible to avoid/reduce on-site fuel/lubricant storage; (3) maintaining accurate and up-to-date written inventories and labels for all stored hazardous materials; (4) placing warning signs in areas of hazardous material use or storage and along drainages and storm drains (or other appropriate locations) to avoid inadvertent hazardous material disposal; (5) properly locating and maintaining wastewater facilities; (6) providing secondary containment (e.g., with berms) for applicable sites such as vehicle/equipment fueling, maintenance and wastewater areas; and (7) developing a spill prevention plan to address issues such as keeping adequate supplies of spill containment materials in appropriate locations to allow a timely response in the event of a spill, and keeping emergency and agency contact information on-site and providing direction to staff on proper spill response procedures.
- Training would be provided at appropriate regular intervals to employees responsible for activities related to SWPPP implementation, site inspection/maintenance, sampling/testing, storm water management, and spill response/notification to ensure that staff are capable of addressing pertinent issues and conditions.
- If required as part of the Project SWPPP, regular sampling and testing of site run-on and runoff would be conducted to identify potential issues and remedial efforts related to Project-generated contaminant discharge.
- Detailed records would be kept on-site for efforts including inspections, maintenance activities, corrective actions, material deliveries and inventories, testing/sampling results, and spills and responses.
- Pollutant avoidance and treatment BMPs would be implemented, including measures to prevent pollutant discharge wherever feasible, and to provide appropriate treatment where pollutant discharge cannot be avoided (as applicable and required for regulatory conformance). In addition to the measures listed above, pollutant avoidance and treatment BMPs may potentially include the following types of efforts:
 - Maximize the retention of open space areas, particularly in problematic areas such as drainages, slopes, and erosion-prone soils.

- Minimize the construction of impervious surfaces.
- Minimize the potential for erosion from slopes through efforts such as: (1) reducing cut and fill areas to reduce slope lengths; (2) using retaining walls to reduce slope grades or lengths; (3) using benches, terraces and/or rounding/shaping techniques to reduce flow concentrations; and (4) collecting concentrated flows in stabilized drains and channels.
- Restrict access by heavy construction equipment in planned green/open space areas.
- Salvage native topsoils from graded/excavated areas for use in reclamation/restoration efforts.
- Install “no dumping” stencils/tiles and/or signs at applicable locations (e.g., drainage inlets and channels).
- Provide paved, enclosed, and covered areas for trash storage, with regular trash pick-up and proper off-site disposal.
- Direct flows from impermeable (or other applicable) areas into swales or detention basins.
- Install unlined/vegetated swales in applicable portions of the Project impact footprint to treat associated runoff in conformance with associated regulatory requirements prior to discharge, if applicable.
- Design the proposed detention basin near the northwestern outlet to provide water quality treatment as well as flow regulation, if applicable.
- Implement appropriate monitoring, testing and maintenance efforts to ensure regulatory conformance and proper function/efficiency of all applicable BMPs.

9.2.3 Biological Resources

- The Project applicant would dedicate 166.8 acres of biological open space (in addition to the 133.1 acres of habitat to be preserved as part of mitigation for impacts resulting from the Proposed Project [refer to Subchapter 4.3, *Biological Resources*]) within the Project site prior to commencement of construction of extraction operation support facilities or extraction operations. The biological open space would be managed by a conservation entity (to be approved by the County and resource agencies prior to commencement of construction of extraction operation support facilities or extraction operations) that would be responsible for implementing an RMP. An RMP would be prepared that clearly describes biological open space management. The RMP would include stewardship measures, including but not limited to fencing and signs upkeep, trespass restriction and debris removal. The Project applicant would offer evidence that an endowment has been provided to a conservation entity to manage the land in perpetuity.

- Areas that are impacted but undeveloped (e.g., cut or fill slopes) shall be revegetated with native species or non-invasive non-native species immediately after ground disturbance is completed. Weed control shall be provided for these areas as provided for in the RMP.
- Native vegetation would be used on steep slopes lands to revegetate and landscape cut and fill areas in order to restore substantially original habitat value, and slopes would be graded to produce contours and soils that reflect natural landform consistent with the surrounding area.
- Lighting within the Proposed Project footprint adjacent to preserved habitat would be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from preserved habitat to ensure that no light would spill beyond the boundary of the Project impact footprint.

9.2.4 Noise

- The Project impact footprint would be mined so that slopes would be created below the current ground level along the northern and eastern boundaries, as well as portions of the southern and western boundaries, and would reduce noise impacts due to shielding of the off-site line-of-site views.
- Material extraction would not occur on the entire periphery of the Project impact footprint at the same time; instead, it is anticipated that only a portion of the Project impact footprint would be quarried at any given time.
- As materials are extracted over time from the Project impact footprint, impacts to off-site areas would be reduced due to the noise shielding provided by the quarry slopes created during the materials extraction process.

9.2.5 Air Quality

- Baghouse emission control would be installed on crushers with the potential for emissions. This would reduce PM₁₀ emissions by estimated between 95 and 97.5 percent.
- Water spray emission controls would be installed on transfer points with the potential for emissions that are associated with the conveyors and screens. This would reduce emissions by estimated 75 percent.
- Paved access roads would be installed for the majority of the haul routes used by on-road delivery vehicles. Limited on-site haul roads would be unpaved, and those would be chemically stabilized and/or routinely watered.
- An efficient material loading system would be installed to minimize the amount of product delivery trucks idling time.
- Material load-out chutes would be utilized to minimize the potential for dust generation during product loading.

- Off-road equipment (such as off-road quarry haul trucks, loaders, graders, etc.) that meet required, stringent emission controls under USEPA and CARB off-road diesel vehicle regulations would be used. All heavy duty off-road equipment operating on the Project site would meet the state of California's Off-road Vehicle Regulations with a minimum of Tier 2 engines for Phases 1 and 2 and a minimum of Tier 4 engines for Phases 3 and 4.
- Emission controls on drilling equipment would be installed to minimize dust generation.
- A "blue smoke" program and other nationally accepted practices that reduce the potential for odor from asphalt (conventional, recycled asphalt products) production would be implemented.
- All unpaved construction areas would be sprinkled with water or other acceptable APCD dust control agents a minimum of every three hours during dust-generating activities to reduce dust emissions. Additional watering or acceptable APCD dust control agents would be applied during dry weather or windy days until dust emissions are not visible.
- A minimum soil moisture to limit visible dust emissions to 20 percent capacity for earthmoving would be maintained by using a movable sprinkler system or a water truck.
- Storage piles would be covered with tarp during high wind episodes.
- A 15-mile per hour (mph) speed limit would be enforced on unpaved surfaces.
- On dry days, dirt and debris spilled onto paved street surfaces would be swept up immediately to reduce resuspension of particulate matter caused by vehicle movement. Approach routes to construction sites would be cleaned daily of construction-related dirt in dry weather.
- All on-road heavy-duty diesel trucks with a gross vehicle weight rating of 19,500 pounds or greater used on site or to transport materials to and from the site would comply with CARB on-road regulation requirements, where available.
- Construction equipment would incorporate, where feasible, emissions control technology such as diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters, and specific fuel economy standards.
- Idling would be restricted to a maximum of five minutes when not in use.
- All off-road diesel-powered construction equipment greater than 50 hp would meet CARB's mobile off-road regulation requirements.

9.2.6 Transportation/Circulation

- A parking space would be provided for each of the processing plant employees; 25 parking spaces would be provided.

- Adequate sight distance would be included in the Project plans in accordance with County requirements.

9.2.7 Hazardous Materials, Public Health and Safety

- All hazardous materials used on-site would be stored in fully contained sites (e.g., double containment in enclosed buildings), and all on-site use and storage of hazardous materials would conform to applicable regulatory requirements.
- Explosives used for quarrying operations would be transported into the site on an as-needed basis, and any unused explosives would be removed daily from the site for storage in an approved off-site facility.
- Blasting would conform to all associated regulatory requirements regarding blasting operations, use/transport of explosives, and the qualifications of the Project blaster, as administered by the San Diego County Sheriff's Department.
- A licensed blaster would be used pursuant to SDIR requirements, and all requisite information would be submitted to the Sheriff's Department for review and approval prior to transporting explosives and implementing blasting operations.
- All noted hazardous materials would be stored in fully contained sites (e.g., double containment in enclosed buildings), with all on-site use and storage of hazardous materials to conform to applicable regulatory requirements.
- An approved HMBP and/or RMP would be implemented (as appropriate), as well as conformance with other pertinent requirements such as OSHA, California Accident Release Plan, and HMMD standards.
- The following conditions would be implemented to ensure that water collected in the open pit, detention basin and processing plant ponds does not propagate the breeding of vectors:
 - If water collects in the open pit, it would be collected in a sump and pumped to the processing plant area ponds for use with materials processing and dust control. Therefore, this water would be constantly circulating and would help to prevent the propagation of vectors. If groundwater accumulates in the excavation area, excavation would halt at that elevation. Groundwater, if present, would be treated that same way as surface water.
 - During the wet season (October through March), the open pit, processing plant area ponds and detention basins would be visually inspected monthly by the operations staff for the presence of vectors and mosquito fish (*Gambusia affinis*). If necessary, corrective measures, described in this list of conditions, would be initiated.
 - During the dry season (April through September), the open pit, processing plant area ponds and detention basins would be visually inspected weekly by the operations staff for the presence of vectors and mosquito fish (*Gambusia affinis*).

If necessary, corrective measures, described in this list of conditions, would be initiated.

- Mosquitoes within the open pit, processing plant area ponds or detention basin would be controlled with the use of mosquito fish (*Gambusia affinis*). Ongoing maintenance of the open pit would be conducted in a manner that complies with DEH-VCS regulations. Ongoing maintenance would include minor grading to eliminate potential water retention pockets and to ensure slope stability and drainage, and monitoring of the open pit, processing plant area ponds vector conditions. Maintenance would continue until backfilling of the pit is complete.
- Ongoing maintenance of the open pit would be conducted in a manner that complies with DEH-VCS regulations. Ongoing maintenance would include minor grading to eliminate potential water retention pockets and to ensure slope stability and drainage, and monitoring of the open pit, processing plant area ponds vector conditions. Maintenance would continue until backfilling of the pit is complete.
- A 50-foot setback from on-site transmission line towers and gas lines would be maintained so that the proposed mining operations would not affect gas and electric facilities within the noted SDG&E easement.
- Existing vegetation near the proposed trailer and processing equipment would be cleared in preparation for mining activity. A buffer, or vegetation management zone, of at least 100 feet wide would surround all inhabited structures. The vegetation management zone would begin at the structures or processing equipment and extend out on all sides to the unmodified vegetation. Vegetation management zones would be installed at the time of construction and would be maintained annually at the expense of the Project operator, prior to May 1, on an ongoing basis.
- There would be a 30-foot wide vegetation management zone around all retention basins and water district and power line rights-of-way within the Project impact footprint.
- An annual vegetation management inspection, funded by the Project operator, would be conducted by a qualified wildland fire protection consultant to assure compliance with the Conceptual Fire Protection Plan, and a report shall be submitted to the operator, the SDCFA Fire Chief, and the County PDS Fire Marshal.
- All structures greater than 500 sf would be equipped with automatic fire sprinkler systems designed and installed per the appropriate National Fire Protection Association (NFPA) standard.
- Access roads would comply with the California Fire Code, County Fire Code and County Consolidated Fire Code and would be provided when the closest exterior wall of the first floor of any structure is beyond 150 feet from the closest Fire Department vehicle access. All fire apparatus access roads would be a minimum of 24 feet wide and would be all-weather and meet RFPD and PDS requirements for fire access. Access roads would be installed and usable before combustible construction occurs on site. There would be no

overhanging canopies. There would be no road grades over 15 percent, unless approved by the Fire Chief and mitigated (20 percent maximum). Dead end access roads would have an approved turnaround. Angle of departure and approach would be approved by the Fire Chief (Fire Code maximum is 7 degrees).

- Automatic gates would comply with the County Fire Code Section 902.2.4.3. All gates on access roads would have Knox (or equivalent) emergency key-operated switches overriding all command functions and opening the gate. The key switch would be dual keyed or have dual switches to allow law enforcement access. Gates would be subject to SDCFA and PDS approval.
- Prior to introduction of combustible material on site, a fire hydrant would be installed and operable at the nearest intersection to the site (such as the existing fire hydrant located approximately 500 feet west of the northeastern corner of the Project impact footprint). If other hydrants are required, their location(s) would be determined prior to the initiation of mining activities. Fire hydrants would be of an approved type and have one 4-inch outlet and one 2.5-inch outlet, unless otherwise specified by the SDCFA Fire Chief. Fire hydrants would have a 3-foot-by-3-foot gravel (for dry barrel hydrant) or concrete pad at base for weed control. Reflective blue dot hydrant markers would be located in the center of the road to indicate the location of a hydrant.

9.2.8 Land Use and Planning

- Restoration and revegetation would be implemented after each phase of mineral extraction.
- Outdoor lighting at the Project site (e.g., security or parking lot lighting) would be less than 4,050 lumens and fully shielded.

9.2.9 Aesthetics

- Revegetation of slopes upon the completion of each phase to reduce visual contrast of exposed soil with the surrounding area.
- Exposed rock outcroppings would be stained to lessen the dominance of the newly formed slopes.
- The native plants proposed by the Reclamation Plan would provide visual continuity between the Project impact footprint post-reclamation and the surrounding area, softening the strong contrast and ensuring that the diversity created by the Project would not be incompatible with the existing visual environment.
- Most of the Proposed Project would include landscaping, either within parking lots, along the perimeter of a lot, and/or as streetscaping; landscaping would add vegetation within the viewshed that would be similar to the trees currently visible in developed portions of the mesa and would not block views of the mountains in the background.

9.2.10 Public Services and Utilities

- A 50-foot setback from on-site transmission line towers would be maintained.
- The site generally would not encompass permanent structures such as paved roads and buildings that require extensive storm drain facilities; therefore, a substantial storm drain system is not necessary.
- Proposed drainage structures would include a series of swales, brow ditches, and/or berms to collect and convey runoff into appropriate areas including detention basins and existing drainage outlet points.
- The Project Applicant would share the cost of construction of expanded water facilities through water service fees, fair share contributions, and developer impact fees.
- The Project Applicant would pay for its fair share contribution, as necessary, to solid waste impacts through developer impact fees and would generate only a minimal amount of waste.

9.2.11 Climate Change

- All heavy duty off-road equipment operating on the Project site would meet CARB's Off-road Vehicle Regulations with a minimum of Tier 2 engines for Phases 1 and 2 and a minimum of Tier 4 engines for Phases 3 and 4. In addition, all construction equipment shall be outfitted BACT devices certified by the CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 2 diesel emissions control strategy for a similarly sized engine as defined by the CARB regulations.
- As a condition of building permit approval, the Proposed Project is required to comply with 2016 Title 24 standards (which surpass the 2013 Title 24 Energy Efficiency Standards by 28 percent). Verification of increased energy efficiencies will be demonstrated based on a performance approach, using a CEC-approved water and energy compliance software program, in the Title 24 Compliance Reports provided by the Project applicant to the County prior to issuance of the building permit.