Cottonwood Sand Mine Project

Public Review Recirculated Draft Environmental Impact Report

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COTTONWOOD SAND MINE PROJECT
RECIRCULATED DRAFT EIR

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RECIRCULATED DRAFT EIR SUMMARY

RDEIR S.1 Scope of the Recirculated Draft EIR

This Recirculated Draft Environmental Impact Report ("Recirculated Draft EIR") recirculates for a second round of public review and comment two portions of the previously circulated Draft EIR for the Cottonwood Sand Mine Project (hereafter referred to as "Proposed Project" or "Project"). Specifically, this Recirculated Draft EIR revises and recirculates Chapter 1.0, *Project Description, Location, and Environmental Setting*, as well as Subchapter 2.2, *Biological Resources*. Also recirculated with this document is an additional Stormwater Quality Management Plan (SWQMP) for Priority Development Projects (PDPs), which describes how the Project would comply with the applicable requirements of the County of San Diego Best Management Practices Design Manual and the County of San Diego Watershed Protection Ordinance.

This Recirculated Draft EIR will be circulated for a 45-day public review and comment period, during which the public may submit comments to the County of San Diego (County) on the recirculated portions (Chapter 1.0 and Subchapter 2.2).

Pursuant to Section 15088.5(f)(2) of the California Environmental Quality Act (CEQA) Guidelines, reviewers of the Recirculated Draft EIR should limit their comments to the contents of this recirculated document only. The County requests that comments are provided on only the text included in the Recirculated Draft EIR. Comments received on this Recirculated Draft EIR will be included in the Final EIR prepared for the Project, along with responses to each comment. In addition, all comments received on the previously circulated Draft EIR will be included in the Final EIR along with responses to each comment.

Comments that are received during the Recirculated Draft EIR's public review period, but that address sections of the Draft EIR that were not recirculated, do not require a response. (California Environmental Quality Act [CEQA] Guidelines, Section 15088.5(f)(2).)

RDEIR S.1.1 Project Chronology

The County issued a Notice of Preparation of a Draft EIR (NOP) in October 2019. The NOP was circulated for a public review period ending November 22, 2019.

The County then prepared a Draft EIR to analyze the potentially significant environmental effects of the Project. On December 16, 2021, the County issued a Notice of Availability/Notice of Completion, alerting the public that the Draft EIR was complete and available for public review and comment. While CEQA requires a 45-day public review and comment period, the Draft EIR was originally slated for an extended 60-day public review and comment period, ending on February 14, 2022. Further, on January 7, 2022, the County notified the public that it would be extending the public review and comment period to a total of 75 days, ending on February 28, 2022.

RDEIR S.1.2 Legal Standard for Recirculation

Normally, an EIR is circulated for one round of public review and comment. However, a second round of public review and comment is required in some limited circumstances. If "significant" new information is added to an EIR after notice of the original public review period has been given, but before final certification of the EIR, a lead agency must issue a new notice and recirculate all or portions of the revised EIR for an additional round of comment and consultation. (Public Resources Code, Section 21092.1.) Recirculation is not required when changes or revisions to a previously circulated Draft EIR merely clarify, amplify, or make insignificant modifications to an adequate EIR. (CEQA Guidelines, Section 15088.5(b).)

Pursuant to CEQA Guidelines, Section 15088.5(a), new information is "significant" when one of the following circumstances occurs:

- The new information shows a new, substantial environmental impact resulting either from the project or from new mitigation measures;

- The new information shows a substantial increase in the severity of an environmental impact, except that recirculation would not be required if mitigation that reduces the impact to insignificance is adopted;

- The new information shows a feasible alternative or mitigation measures, considerably different from those considered in the EIR, that would clearly lessen the significant environmental impacts of a project and the project proponent declines to adopt it; and

- When the draft EIR was "so fundamentally and basically inadequate and conclusory in nature" that public comment on the draft EIR was essentially meaningless.

(See also *Laurel Heights Improvement Association v. Regents of University of California* (1993) 6 Cal.4th 1112, 1130.)

Where the revisions or additions to a previously circulated Draft EIR are limited to a few chapters or portions of the EIR, only those chapters or portions must be recirculated for an additional round of public review and comment. (CEQA Guidelines, Section 15088.5(c).)

Where only a portion of the EIR is recirculated, the recirculated document must include a summary of the revisions that were made to the part being recirculated. This summary may be contained in the body of the document, or in an attachment. (CEQA Guidelines, Section 15088.5(g).)

A lead agency may request that comments be limited to the parts of the EIR that are being recirculated. (CEQA Guidelines, Section 15088.5(f)(2).)

RDEIR S.1.3 New Information Added to Draft EIR

This Recirculated Draft EIR includes new information, as summarized below:

- New information regarding the number of truck haul trips generated by the Proposed Project. Specifically, after circulation of the Draft EIR, it was determined that an additional

58 truck trips per day, averaged over the 10-year operation of the Proposed Project, would be required to import suitable backfill material to achieve the Project's proposed post-reclamation elevation. These additional 58 truck trips per day were not disclosed in the Draft EIR.

- New information regarding the potential for significant impacts to biological resources. Specifically, as a result of comments received during the public review and comment period for the Draft EIR, additional surveys were completed. These surveys determined there was a potential for the Project to impact three additional special status plant species (Palmer's goldenbush [*Ericameria palmeri var. palmeri*], San Diego sagewort [*Artemisia palmeri*], and southwestern spiny rush [(*Juncus acutus* ssp. *Leopoldii*]), and five additional special status animal species (white-tailed kite [*Elanus leucurus*], small-footed myotis [*Myotis ciliolabrum*], Townsend's big-eared bat [*Corynorhinus townsendii pallescens*], western mastiff bat [*Eumops perotis*], western red bat [*Lasiurus blossevillii*], and Yuma myotis [*Myotis yumanensis*]).

- New biological resources mitigation measures, and revisions to existing mitigation measures, that reduce potential impacts to biological resources to less than significant. Specifically, Mitigation Measures BIO-6, BIO-11, BIO-12, and BIO-13 were added. Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4, BIO-7, BIO-8, BIO-9, BIO-10, BIO-14, BIO-15, BIO-17, BIO-18, and BIO-19 were refined and/or enhanced.

- A PDP SWQMP, which describes how the Project would comply with the applicable requirements of the County of San Diego Best Management Practices Design Manual and the County of San Diego Watershed Protection Ordinance.

RDEIR S.1.4 Scope of Comments Submitted on Recirculated Draft EIR

Pursuant to Section 15088.5(f)(2) of the California Environmental Quality Act (CEQA) Guidelines, reviewers of the Recirculated Draft EIR should limit their comments to the contents of this recirculated document only. The County requests that comments are provided on only the text included in the Recirculated Draft EIR.

RDEIR S.2 Project Description Revisions

After the close of the public review and comment period on the Draft EIR, it was determined that additional materials would be required to backfill the mined areas of the Project site, and to achieve the Project's proposed post-reclamation elevations. During the 10-year operating horizon for the Project, excavated material considered not suitable for processing and sale would be utilized for backfilling needs. However, an additional amount of backfill materials would also be required and would necessitate importation to the Project site. This importation of additional backfill material would generate additional truck haul trips to and from the site that were not considered in the Draft EIR circulated for public review.

The amount of imported materials required to meet the Project's backfill needs was calculated as follows: The total volume of sand to be extracted from the site is expected to be 4.26 million cubic yards (cy). A conservative 10 percent of that extracted material is assumed to be unsuitable for

sale and processing and thus available for backfilling mined areas on the site. The actual percentage of extracted material unsuitable for sale and available for backfilling may be greater. To accommodate the reclamation plan's post-reclamation elevations, a total of 2.92 million cy of backfill material is required. Thus, assuming only approximately 10 percent, or 427,000 cy, of backfill material would be generated onsite, 2.5 million cy of backfill material must be imported.

The number of additional truck trips required to import the backfill materials was conservatively determined by converting the maximum amount of needed backfill material import (2.5 million cy) and converting that amount to tons (3.75 million tons). Because reclamation utilizing the backfill material would occur over the course of the 10-year project life, as mining progresses across the site, this maximum tonnage was divided over the life of the project (10 years), and the number of operational days per year (260 days). Haul trucks were assumed to carry 25 tons per truck. This results in 57.7 average import truck trips per day, which was rounded up to 58. This is the same methodology that was used to calculate the number of outgoing haul trips from the Project site reported in the Draft EIR.

The actual number of truck trips may be less, given that some percentage of the truck trips importing backfill material would also be transferring produced material away from the site ("deadhead trip"), and thus the truck trip would have already been accounted for in the Draft EIR. However, to provide a conservative analysis, an average of 58 additional truck trips per day is assumed. The Draft EIR assumed a total of 89 truck trips per day would be required to export the operation's processed, saleable material. Thus, with the addition of the import trips, and not taking into account any deadhead trips, the new total daily truck trips assumed for the Project is 147. When backfill material is imported to the site, the mobile and processing equipment already accounted for in the Draft EIR would be used to stockpile and handle the imported material. No additional mobile or processing equipment is necessary to accommodate this change in the Project Description.

RDEIR S.2.1 Text of Project Description Revisions

To address the change in truck trips, and the use of imported backfill to meet the site's final elevations, the following additional text has been added to the Project Description, Location, and Environmental Setting chapter of the EIR.

Deletions are shown in ~~strikethrough~~, and additions are shown in underline. **Text that is shown in neither strikethrough or underline has not been revised from the Draft EIR**. The revisions shown below are the only revisions made to the Project Description as part of this Recirculated Draft EIR. A clean version of the Project Description is included in this Recirculated Draft EIR as Chapter 1.0.

In Section 1.2.1, *Project's Component Parts*, the following revisions have been made to the fifth paragraph:

> Reclamation of the site would include: (1) removal of all ~~manmade~~ artificial structures; (2) grading and backfilling to achieve final landforms; (3) incorporation of accumulated wash fines and salvaged topsoil (as applicable); and (4) revegetation and monitoring (Figures 1-6a and 1-6b, Reclamation Plan).

In Section 1.2.1.1, *Sand Mining and Processing Component*, the following revisions have been made to the first paragraph:

> Mining and extraction activities are expected to produce approximately 3.8 million cy (5.7 million tons) of sand and gravel for market use, with a 10 percent waste factor from the total amount extracted that includes wash fines and materials undesirable for processing (approximately 427,000 cy). These materials would be retained on site and utilized for backfilling.

In Section 1.2.1.1, *Sand Mining and Processing Component*, the following revisions have been made to the sixth paragraph:

> This would be accomplished by backfilling mined out areas of the pit with wash fines, ~~and~~ overburden, and imported materials prior to expanding the pit size.

In Section 1.2.1.1, *Sand Mining and Processing Component*, the following two paragraphs, and footnote, have been inserted after the eighth paragraph:

> It is conservatively estimated that approximately 10 percent (427,000 cy) of the excavated material would be considered not suitable for processing and thus would be retained onsite and utilized for backfilling needs. It is possible that a greater percentage of excavated material would be unsuitable for sale and thus available for backfilling. In addition, approximately 2.5 million cy would be imported to the site to meet the site's overall backfill requirements. The maximum number of truck trips necessary for importing the maximum anticipated amount of backfill material is conservatively estimated to be approximately 58 truck trips per day, over the 10-year operation of the project. [1]
>
> The imported material would consist of inert debris only. Inert debris would consist of excavated soil material from development projects, clean demolition materials, and possibly concrete, asphalt and rock. The Project would be conditioned to only accept materials suitable for the end use of the site. Imported inert debris would be transported to backfill areas using the same approach described above for wash fines and materials undesirable for processing.
>
> [1] The actual number of truck trips may be less, where the same truck transporting material to the site would also transfer produced material away from the site ("deadhead trip"). However, to provide a conservative analysis, 58 additional truck trips per day is assumed.

In Section 1.2.1.1, *Sand Mining and Processing Component*, the following revisions have been made to the second paragraph below the subheading "Phase 1":

> For Phase 1, wash fines and imported material would be returned to backfill areas by a tractor-trailer using the on-site conveyor line roads and/or over the existing golf course bridges by conveyor to areas south of the channel.

In Section 1.2.1.1, *Sand Mining and Processing Component*, the following revisions have been made to the third paragraph below the subheading "Phase 1":

These areas have been identified for mining up to 40 feet bgs. Subphase 1C is the largest of the subphases at approximately 30 acres and is identified as an over-excavation area on Figure 1-6a. In addition to incorporation of wash fines, inert debris also would be utilized to achieve finished grades in this subphase.

In Section 1.2.1.1, *Sand Mining and Processing Component*, the following revisions have been made to the second paragraph below the subheading "Phase 2":

As described above, both material extracted from the site that is not designated as saleable product as well as imported backfill (inert debris) would be utilized as backfill to construct the final landform.

In Section 1.2.1.1, *Sand Mining and Processing Component*, the following revisions have been made to the second paragraph below the subheading "Phase 3":

Reclamation in each of the Phase 3 subphases would begin as the final landforms are established. Reclamation would include establishment of all final slopes;~~,~~ incorporation of inert debris (within over-excavation areas identified on Figure 1-6b), accumulated wash fines, and topsoil;~~,~~ and revegetation.

In Section 1.2.1.1 under "Storm Water and Erosion Control," the following revisions have been made to the second paragraph:

Water quality and hydromodification for permanent construction (e.g., Willow Glen Drive improvements) and impervious areas would be addressed with a ~~Green Streets~~ Priority Development Project (PDP)~~-exempt~~ Storm Water Quality Management Plan (SWQMP) and permanent post-construction BMPs. ~~PDP-exempt projects include development of new sidewalks, bike lanes, and/or trails; or improvements to existing roads, sidewalks, bike lanes, and/or trails as described in Section 1.4.3 of the County BMP Design Manual.~~

In Section 1.2.1.2, *Reclamation Component*, the following revisions have been made to the third paragraph:

Reclamation of each area would begin as the final landforms are established. Reclamation would include establishment of all final slopes;~~,~~ incorporation of imported inert debris, accumulated wash fines, and topsoil (as applicable);~~,~~ revegetation of the channel using appropriate native species common to riparian habitat;~~,~~ establishment of upland vegetation on the upper slopes;~~,~~ weed control;~~,~~ and monitoring, as further detailed below.

In Section 1.2.1.2, *Reclamation Component*, the following revisions have been made to the first paragraph below the subheading "Landform":

Following extraction in areas where over-excavation deeper than the adjacent channel occurs, backfill would be placed to achieve the desired final elevation. Backfill is expected to be a combination of inert debris and overburden and wash fines produced at the wash plant. Fill material in the backfill areas would be spread in near-horizontal layers, approximately eight inches 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 would 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 85 percent in the floodway area and up to 90 percent in upland areas. In areas below the water table, the material would be placed at the edge of the pit and deposited to allow it to settle naturally. Once there is a working surface, compaction would occur. If necessary, over-compaction of the surface soil would be relieved by ripper, disc, and/or scarified to improve seed bed conditions for plant growth. Wash fines and inert debris would be used as backfill and blended with topsoil and used as a top dressing.

In Section 1.2.1.2, *Reclamation Component*, the following revisions have been made to update the cross-references to the various plant palette tables, that have been updated as part of the revisions to Subchapter 2.2, Biological Resources, below the subheadings "Revegetation and Erosion Control," "Monitoring," and "Weed Control and Maintenance."

Sample revegetation plant palettes are presented in Table 1-5, ~~*Riparian Scrub/Forest Rehabilitation Plant Palette*; Table 1-6, *Riparian Forest Plant Palette*~~, Table 1-6~~7~~, *Riparian Scrub Plant Palette*, Table 1-7~~8~~, *Streambed (Emergent Wetland) Seed Mixture*, Table 1-8~~9~~, *Diegan Coastal Sage Scrub Plant Palette.* The proposed erosion control seed mix is included in Table 1-9~~10~~, *Erosion Control Seed Mix.*

[…]

Proposed performance standards, which are subject to minor adjustments, are summarized in Table 1-10~~11~~, *Performance Standards.*

[…]

Therefore, weed control and maintenance on the site would occur continuously during Project operation and the reclamation process, with a focus on control of invasive plant species such as those species listed in Table 1-11~~12~~, *Weed Species of Concern*.

In Section 1.4, *Project Background*, the following revision has been made to update a cross-reference, immediately below the heading:

The Project site is currently occupied by the Cottonwood Golf Club and contains 22 Assessor's Parcel Numbers (APNs; Table 1-12~~13~~, *Assessor's Parcels*).

In Section 1.8, *List of Past, Present, and Reasonably Anticipated Future Projects in the Project Area*, the following revision has been made to update a cross-reference, at the end of the first paragraph:

Table 1-13~~14~~, *Cumulative Projects in the Vicinity of the Proposed Project*, provides a list of cumulative projects within 5 miles of the Project site. Figure 1-16, *Cumulative Projects*, shows the general location of the projects listed in Table 1-13~~14~~.

The following edits have also been made to Section 1.6.1, *Matrix of Project Approvals/Permits*, to reflect the permits required by the project:

Discretionary Approval/Permit	Approving Agency
Major Use Permit Reclamation Plan Landscape Plans Public Improvement Plan Right-of-Way Permits Construction Permit Excavation Permit Encroachment Permit	County of San Diego
Section 401 Water Quality Certification Waste Discharge Order	San Diego Regional Water Quality Control Board/State Water Resources Control Board (RWQCB/SWRCB)
Section 404 Permit – Dredge and Fill	U.S. Army Corps of Engineers (USACE)
Section 1602 Streambed Alteration Agreement (SAA)	California Department of Fish and Wildlife (CDFW)
NPDES Permit	RWQCB
Construction General Stormwater Permit – Pre-mining	RWQCB
Industrial General Stormwater Permit – Mining and Reclamation	RWQCB
Waste Discharge Requirements Permit	RWQCB
Authority to Construct and Permit to Operate	San Diego Air Pollution Control District (SDAPCD)
Fire District Approval	San Miguel Consolidated Fire Protection District
Conditional Letter of Map Revision (CLOMR)	Federal Emergency Management Agency (FEMA)
Inert Debris Engineered Fill Operation Plan	San Diego County Local Enforcement Agency

To address a typographical error, in Section 1.9, *Growth-inducing Impacts*, the following revisions have been made to the first paragraph of the section:

> As stated in State CEQA Guidelines Section 15126.2(~~d~~e), whether or not a project may be growth inducing must be discussed in an EIR. The question for discussion is whether or not a "project would foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Included are projects that would remove obstacles to population growth. Examples of these types of actions are cited including: (1) a "major expansion of a wastewater treatment plant," that would thereby allow for more construction in service areas covered by the plant; and (2) actions that could encourage and facilitate "other activities" that could significantly affect the environment. Typically, the latter issue involves the potential for a project to induce further growth by the expansion or extension of existing services, utilities, or infrastructure. The CEQA Guidelines further state that "[i]t must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment" (Section 15126.2[~~d~~e]).

Finally, to reference changes made in the revised Biological Technical Report Appendix N, Conceptual Revegetation Plan, attached to this Recirculated Draft EIR as an appendix, Table 1-5,

Riparian Scrub/Forest Rehabilitation Plant Palette, has been deleted to reflect the two separate plant palettes provided for riparian forest and riparian scrub in Table 1-6, *Riparian Forest Plant Palette*, and Table 1-7, *Riparian Scrub Plant Palette*, which have been renumbered and refined as shown below. Additional refinements to the revegetation plant palettes also are shown below for Table 1-8, *Streambed (Emergent Wetland) Seed Mixture*, and Table 1-9, *Diegan Coastal Sage Scrub Plant Palette*, which have been renumbered as shown. All subsequent tables have been renumbered to reflect the deletion of Table 1-5; however, no additional text changes have been made to those tables. Table number references are updated throughout Chapter 1.0, where applicable, and as indicated above in the redlines.

~~Table 1-5~~
~~RIPARIAN SCRUB/FOREST REHABILITATION PLANT PALETTE~~

~~Scientific Name~~	~~Common Name~~	~~Spacing on Center (ft.)~~	~~Grouping Size~~	~~Number Per Acre~~
~~**Container Stock**[1]~~				
~~*Baccharis salicifolia*~~	~~mule fat~~	~~6~~	~~10~~	~~230~~
~~*Distichlis spicata*~~	~~saltgrass~~	~~10~~	~~3~~	~~50~~
~~*Platanus racemosa*~~	~~western sycamore~~	~~15~~	~~2~~	~~25~~
~~*Populus fremonti* ssp. *fremonti*~~	~~western cottonwood~~	~~15~~	~~2~~	~~25~~
~~*Salix exigua*~~	~~sand bar willow~~	~~8~~	~~4~~	~~90~~
~~*Salix gooddingii*~~	~~black willow~~	~~12~~	~~5~~	~~120~~
~~*Salix laevigata*~~	~~red willow~~	~~12~~	~~5~~	~~120~~
~~*Salix lasiolepis*~~	~~arroyo willow~~	~~12~~	~~5~~	~~120~~
~~*Sambucus nigra*~~	~~blue elderberry~~	~~10~~	~~3~~	~~85~~
			~~**Total**~~	~~**865**~~

~~Scientific Name~~	~~Common Name~~	~~%Purity/ Germination~~	~~Pounds per Acre~~
~~**Seed Mixture**[1]~~			
~~*Ambrosia psilostachya*~~	~~western ragweed~~	~~45/45~~	~~4~~
~~*Anemopsis californica*~~	~~yerba mansa~~	~~55/80~~	~~1~~
~~*Artemisia douglasiana*~~	~~Douglas' sagewort~~	~~15/40~~	~~3~~
~~*Artemisia palmeri*~~	~~Palmer's sagebrush~~	~~20/50~~	~~2~~
~~*Baccharis salicifolia*~~	~~mule fat~~	~~10/20~~	~~3~~
~~*Bolboschoenus maritimus*~~	~~bulrush~~	~~90/60~~	~~1~~
~~*Cyperus eragrostis*~~	~~tall flatsedge~~	~~80/75~~	~~1~~
~~*Distichlis spicata*~~	~~saltgrass~~	~~90/75~~	~~1~~
~~*Eleocharis macrostachya*~~	~~pale spike rush~~	~~95/60~~	~~1~~
~~*Isocoma menziesii*~~	~~goldenbush~~	~~18/40~~	~~1~~
~~*Juncus acutus* ssp. *leopoldii*~~	~~southwestern spiny rush~~	~~95/80~~	~~0.5~~
~~*Juncus effusus* var. *pacificus*~~	~~Pacific rush~~	~~95/60~~	~~0.5~~
~~*Oenothera elata* ssp. *hookeri*~~	~~evening primrose~~	~~98/84~~	~~0.5~~
~~*Pluchea odorata*~~	~~salt marsh fleabane~~	~~30/40~~	~~2~~
		~~**Total**~~	~~**22.5***~~

~~[1] The quantity of seed ordered for each phase/subphase will be determined based on the exact size of the area disturbed as part of mining activities. Substitutions require approval of the Restoration Specialist.~~

~~[2] San Diego ambrosia (*Ambrosia pumila*) will only be installed within the 1.00 acre of wetland re-establishment area based on availability.~~

Table 1-~~5~~6
RIPARIAN FOREST PLANT PALETTE

Species	Common Name	Spacing on Center (feet)	Grouping Size	Number Per Acre
Container Plantings[1]				
Artemisia dracunculus	tarragon	5	5	100
Baccharis salicifolia	mule fat	6	10	~~230~~200
Distichlis spicata	saltgrass	10	3	150
Iva hayesiana	San Diego marsh elder	5	5	120
Platanus racemosa	western sycamore	15	3	50
Populus fremonti ssp. *fremonti*	western cottonwood	15	5	50
Quercus agrifolia	California live oak	15	3	50
Rosa californica	California wild rose	5	3	100
Salix exigua	sand bar willow	8	~~3~~5	120
Salix gooddingii	black willow	12	5	150
Salix laevigata	red willow	12	5	~~200~~180
Salix lasiolepis	arroyo willow	12	5	~~200~~180
Sambucus nigra	blue elderberry	10	3	50
			Total	**1,500~~1,420~~**

Scientific Name	Common Name	% Purity/ Germination	Pounds Per Acre
Seed Mixture[1]			
Ambrosia psilostachya	western ragweed	45/45	4
~~*Ambrosia pumila*~~	~~San Diego ambrosia~~	~~-~~	~~0.5~~[2]
Anemopsis californica	yerba mansa	55/80	1
Artemisia douglasiana	Douglas mugwort	15/40	3
Artemisia palmeri	Palmer's sagebrush	20/50	2
Baccharis salicifolia	mule fat	10/20	3
Baccharis sarothroides	broom baccharis	7/42	1
Bolboschoenus maritimus	alkali bulrush	90/60	1
~~*Croton californicus*~~	~~California croton~~	~~90/40~~	~~1~~
Eleocharis macrostachys	pale spike-rush	95/60	1
~~*Isocoma menziesii*~~	~~goldenbush~~	~~18/40~~	~~1~~
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	95/80	~~0.5~~1
Juncus effusus var. *pacificus*	Pacific rush	95/60	0.5
Oenothera elata ssp. *hookeri*	evening primrose	98/84	0.5
Pluchea odorata	salt marsh fleabane	30/40	2
		Total	**~~22.5~~20.0***

[1] The quantities and amount of container stock and seed to be order would be determined following reclamation of each phase/subphase based on the exact of area disturbed as part of mining activities. Substitutions require approval of the Restoration Specialist.

~~[2] San Diego ambrosia (*Ambrosia pumila*) would only be installed within the 1.00 acre of wetland re-establishment area based on availability.~~

* No less than 20 lbs. per acre of seed shall be installed.

Table 1-~~6~~7
RIPARIAN SCRUB PLANT PALETTE

Scientific Name	Common Name	Spacing on Center (ft.)	Grouping Size	Number Per Acre
Container Stock~~2~~[1]				
Ambrosia pumila [2,3]	San Diego ambrosia	5	5	25
Artemisia dracunculus	tarragon	5	5	200
Asclepias fascicularis	narrow leaf milkweed	5	3	50
Baccharis salicifolia	mule fat	6	10	~~250~~200
Croton californicus	California croton	5	5	200
Distichlis spicata	saltgrass	10	3	200
Ericameria palmeri var. *palmeri* [3]	Palmer's goldenbush	5	5	50
Iva hayesiana	San Diego marsh elder	5	5	200
Platanus racemosa	western sycamore	15	3	30
Populus fremonti ssp. *fremonti*	western cottonwood	15	3	30
Rosa californica	California wild rose	5	3	50
Salix exigua	sand bar willow	8	5	~~200~~180
Salix gooddingii	black willow	12	5	100
Salix laevigata	red willow	12	5	30
Salix lasiolepis	arroyo willow	12	5	30
Sambucus nigra	blue elderberry	10	3	100
			Total	**~~1,570~~1,695**

Scientific Name	Common Name	%Purity/ Germination	Pounds per Acre
Seed Mixture~~2~~[1]			
Ambrosia psilostachya	western ragweed	45/45	4
Artemisia douglasiana	Douglas' sagewort	15/40	3
Artemisia palmeri	Palmer's sagebrush	20/50	2
Baccharis salicifolia	mule fat	10/20	3
Baccharis sarothroides	broom baccharis	7/42	1
Bolboschoenus maritimus	alkali bulrush	90/60	1
Croton californicus	California croton	90/40	1
Eleocharis macrostachys	pale spike-rush	95/60	1
Isocoma menziesii	goldenbush	18/40	1
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	95/80	1
Juncus effusus var. *pacificus*	Pacific rush	95/60	0.5
Oenothera elata ssp. *hookeri*	evening primrose	98/84	0.5
Pluchea odorata	salt marsh fleabane	30/40	2
		Total	**21.0***

[1] The quantity of seed ordered for each phase/subphase will be determined based on the exact size of the area disturbed as part of mining activities. Substitutions require approval of the Restoration Specialist.

[2] If available at a nursery; should be installed in the higher elevation portions of this habitat (i.e., closer to the upland slopes).

[3] Special status species.

* No less than 20 lbs. per acre of seed shall be installed.

Table 1-~~7~~8
STREAMBED (EMERGENT WETLAND) SEED MIXTURE

Scientific Name	Common Name	%Purity/ Germination	Pounds per Acre
Seed Mixture[1]			
Anemopsis californica	yerba mansa	55/80	1
Artemisia douglasiana	Douglas' sagewort	15/40	3
Bolboschoenus maritimus	alkali bulrush	90/60	1
Cyperus eragrostis	tall flatsedge	80/75	1
Eleocharis macrostachys	pale spike-rush	95/60	1
Erythranthe cardinalis (*Mimulus cardinalis*)	Cardinal monkey flower	5/64	0.5
Erythranthe guttata (*Mimulus guttatus*)	seep monkey flower	10/69	0.5
Euthamia occidentalis	western goldenrod	24/45	1
Juncus effusus var. *pacificus*	Pacific rush	95/60	0.5
Pluchea odorata	salt marsh fleabane	30/40	2
		Total	**~~10~~11.5***

[1] The quantity of seed ordered for each phase/subphase will be determined based on the exact size of the area disturbed as part of mining activities. Substitutions require approval of the Restoration Specialist.
***** No less than 10 lbs. per acre of seed shall be installed.

Table 1-~~8~~9
DIEGAN COASTAL SAGE SCRUB PLANT PALETTE

Species	Common Name	Spacing on Center (feet)	Grouping Size	Number Per Acre
Container Plantings[1]				
Artemisia californica	California sagebrush	5	25	250
Asclepias fascicularis	narrow leaf milkweed	5	3	50
Bebia juncea	rough sweetbush	10	3	50
Encelia californica	coast sunflower	5	20	100
Eriogonum fasciculatum	flat top buckwheat	5	25	250
Hazardia squarrosa	saw-toothed goldenbush	5	10	100
Hesperoyucca whipplei	chaparral yucca	3	3	50
Heteromeles arbutfolia	toyon	10	3	150
Mimulus aurantiacus	bush monkey flower	5	10	100
Rhus integrifolia	lemonadeberry	10	5	50
Salvia apiana	white sage	5	10	250
			Total	**~~350~~1,400**

Scientific Name	Common Name	% Purity/ Germination	Pounds Per Acre
Seed Mixture[1]			
Acmispon glaber	deerweed	95/80	0.5
Amsinkia intermedia	common fiddleneck	45/65	1
Artemisia californica	California sagebrush	30/60	4
Deinandra fasciculata	fascicled tarplant	25/65	3
Encelia californica	coast sunflower	30/45	~~3~~2
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	N/A	2
Eriogonum fasciculatum	flat top buckwheat	50/20	~~5~~7
Eriophyllum confertiflorum	golden-yarrow	N/A	2
Eschscholzia californica	California poppy	98/80	2
Lupinus bicolor	miniature lupine	98/85	1
Phacelia parryi	Parry's phacelia	95/80	1

Salvia apiana	white sage	88/30	3
Stipa lepida, deawned	foothill needlegrass	90/71	3
Stipa pulchra, deawned	purple needlegrass	90/75	3
		Total	**34.5***

[1] The quantities and amount of container stock and seed to be order would be determined following reclamation of each phase/subphase based on the exact of area disturbed as part of mining activities. Substitutions require approval of the Restoration Specialist.

* No less than 30 lbs. per acre of seed shall be installed.

The revisions shown above in redline and strikethrough are the only revisions made to the Project Description as part of this Recirculated Draft EIR. No other revisions have been made to the Project Description that was previously circulated with the Draft EIR. A clean version of the revised Project Description is included within this Recirculated Draft EIR as Chapter 1.0.

RDEIR S.2.2 Impact Analysis of Project Description Revisions

Revising the Project Description to add backfill import truck haul trips does not result in new potentially significant adverse impacts, or substantially increase the severity of the potentially significant impacts previously disclosed in the circulated Draft EIR.

As discussed above, backfilling would be accomplished using a combination of wash fines and overburden produced from the mining operations and imported fill. Approximately 2.5 million cy would need to be imported to the site to fulfill the backfill requirements within over-excavation areas. The imported material would consist of inert debris transported to the Project site at an estimated rate of 250,000 cubic yards per year for the 10-year duration of mining activities. Backfill material import operations would occur from 9:00 a.m. to 3:30 p.m. Monday through Friday to avoid peak traffic periods. In addition to the 88 truck trips necessary for daily export of the saleable material, 58 trucks are assumed to commute to the construction site on a daily basis for the import of backfill material. A comparison of the project description information presented in the previously circulated Draft EIR and the Project Description as revised is presented in Table S-1, *Project Description Comparison (Volumes and Trucking)*.

Table S-1
PROJECT DESCRIPTION COMPARISON (VOLUMES AND TRUCKING)

Project Component	Draft EIR Project Description	Revised Project Description
Excavated Sand	4,266,900	4,266,900
Saleable Sand	3,840,210	3,840,210
Waste Sand (10 percent of Excavated Sand)	426,690	426,690
Total Backfill Required	2,928,700	2,928,700
Total Imported Backfill (Backfill – Waste Sand)	**0**	**2,502,010**
Export Trucks (Average/Day)	88.6	88.6
Import Trucks (Average/Day)	**0**	**57.7**

*All volumes are reported in cubic yards

To provide a highly conservative analysis, a 40-mile one-way truck trip length was assumed for the backfill import truck haul trips. It is reasonable to assume that the backfill (which would consist of excavated soil material from development projects, clean demolition materials, and possibly concrete, asphalt and rock) would be imported from development sites within the San Diego

region. Given current and reasonably likely future development patterns, the majority of new development in the region is anticipated to take place within urban areas within the City of San Diego, which is located 18 miles from the Project site. The California Emissions Estimator Model (CalEEMod) default value is 20 miles, which would capture all of downtown San Diego. Nonetheless, to be ultra-conservative, and to account for backfill material brought from all over San Diego County, a 40-mile one way trip length was assumed. This trip length is double the CalEEMod default, and would account for all trips coming from all over the County. Further, although a portion of the import trips would be deadhead trips, as discussed above, all import trips were assumed to be round trips, or 80 miles.

Relying on the above-described assumptions, it can be shown that no new potentially significant adverse environmental impacts, or substantially more severe significant adverse environmental impacts, would occur as a result of the above Project Description revisions. The following addresses the potential for the Project Description revisions to result in new potentially significant impacts, and the basis for concluding no new impacts would occur.

Air Quality

The Draft EIR circulated for public review and comment included a detailed air quality impact analysis (Section 3.1.1, *Air Quality*; Appendix I, *Air Quality Technical Report*). This analysis found that the Project would not exceed established thresholds of significance relating to air emissions and concluded that no significant impact would occur as a result of the Project's implementation. As summarized below, the addition of 58 daily truck haul trips does not change this conclusion. Thus the air quality analysis of the Draft EIR is not recirculated for public review and comment. All comments received on the Draft EIR's air quality analysis will be responded to in the Final EIR.

Operational emissions were re-modeled for each mining phase to account for the additional 58 truck trips per day. Criteria air pollutant emissions from on-road vehicle trips associated with each mining phase of the Project were modeled using CalEEMod Version 2020.4.0, as was done in support of the Draft EIR. As discussed above, a highly conservative 40-mile one-way truck trip length was assumed for the additional 58 truck trips.

On March 9, 2022, the U.S. Environmental Protection Agency (USEPA) withdrew the Safer Affordable Fuel-Efficient Vehicles Rule Part I (SAFE-1) and restored California's (and other states') authority under the Clean Air Act to implement its own fuel efficiency, emission standards, and zero emission vehicle sales mandate. As a result of this action, the CalEEMod option to account for the SAFE Vehicles Rule in accordance with California Air Resources Board (CARB) off-model adjustments factors was not selected for the updated modeling.

Fugitive dust emissions from vehicle and equipment movement on unpaved surfaces have been updated based on guidance provided by the San Diego Air Pollution Control District (SDAPCD) in their memorandum titled *Haul Road Emissions* last updated January 6, 2022. Where the Draft EIR analysis utilized the empirical equation provided in the USEPA Compilation of Air Pollutant Emission Factors, 5th Edition, Volume 1 (AP-42) Chapter 13 – Miscellaneous Sources, 13.2.2 (Unpaved Roads) dated November 2006, the SDAPCD memorandum points to AP-42 Chapter 13 – Miscellaneous Sources, 13.2.2 (Unpaved Roads) dated January 1995.

The model re-run also corrects overly conservative assumptions applied in the Draft EIR related to the mining activity. These assumptions were inconsistent with the Draft EIR's Project Description. As stated in Chapter 1 of the Draft EIR, "Approximately 4.3 million cubic yards (cy) (6.40 million tons) of material are proposed to be extracted (p. 1-3)" and "sand extraction operations would be conducted approximately 260 days per year (p. 1-9)." However, the modeling applied in the Draft EIR assumed up to 7.05 million tons of material extracted with operations occurring approximately 251 days per year.

The revised operational emission estimates, accounting for the changes to the methods and assumptions described above, are provided in Table S-2, *Estimated Daily Operational Emissions*. As shown in Table S-2, Project emissions of criteria pollutants and ozone precursors during operation of all mining phases would not exceed the daily screening thresholds. Therefore, the Project's operational emissions would remain less than significant, just as disclosed in the previously circulated Draft EIR.

Table S-2
ESTIMATED DAILY OPERATIONAL EMISSIONS

Category	Pollutant Emissions (pounds per day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Phase 1						
Off-Road Equipment Exhaust	1.8	16.0	11.3	<0.1	0.6	0.6
Mining and Processing Dust	-	-	-	-	76.9	14.6
On-Road Mobile Emissions	0.8	49.2	13.5	0.2	7.2	2.3
Phase 2 Demolition	1.2	11.1	10.3	<0.0	0.7	0.5
Phase 1 Total Daily Maximum Emissions	**3.8**	**76.2**	**35.1**	**0.3**	**85.4**	**17.9**
Screening-Level Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Exceed Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***
Circulated Draft EIR Phase 1 Estimate	***3.7***	***49.0***	***29.9***	***0.2***	***84.5***	***17.4***
Phase 2						
Off-Road Equipment Exhaust	1.8	16.0	11.3	<0.1	0.6	0.6
Mining and Processing Dust	-	-	-	-	76.9	14.6
On-Road Mobile Emissions	0.8	48.0	13.8	0.2	7.2	2.3
Phase 3 Demolition	1.1	10.8	10.3	<0.0	1.2	0.6
Phase 2 Total Daily Maximum Emissions	**3.7**	**74.9**	**35.4**	**0.3**	**85.9**	**17.9**
Screening-Level Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Exceed Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***
Circulated Draft EIR Phase 2 Estimate	***3.6***	***48.8***	***29.9***	***0.2***	***85.0***	***17.4***
Phase 3						
Off-Road Equipment Exhaust	1.8	16.0	11.3	<0.1	0.6	0.6
Mining and Processing Dust	-	-	-	-	76.9	14.6
On-Road Mobile Emissions	0.8	45.9	14.2	0.2	7.2	2.2
Phase 3 Total Daily Maximum Emissions	**2.6**	**61.9**	**25.5**	**0.2**	**84.7**	**17.4**
Screening-Level Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Exceed Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***
Circulated Draft EIR Phase 3 Estimate	***2.8***	***41.3***	***22.6***	***0.2***	***83.6***	***16.7***

Source: CalEEMod and calculations using emission factors from CARB ORION Off-Road database and EPA AP-42 (CalEEMod output and calculation data is provided in Appendices E and F).
ROG = reactive organic gas; CO = carbon monoxide; NO_X = oxides of nitrogen; SO_X = oxides of sulfur;
PM_{10} = particulate matter of 10 microns or less in diameter; $PM_{2.5}$ = particulate matter of 2.5 microns or less in diameter

Health Risks

As part of the air quality impact analysis, the Draft EIR circulated for public review and comment included a detailed health risk assessment (HRA) (Section 3.1.1, *Air Quality*; Appendix I, *Air Quality Technical Report*). This analysis found that the Project would not exceed established thresholds of significance relating to increased incremental cancer risk, acute health risk, and chronic health risk, and concluded that no significant impact would occur as a result of the Project's implementation. As summarized below, the addition of 58 truck haul trips per day does not change this conclusion. Thus, the HRA included in the Draft EIR is not recirculated for public review and comment. All comments received on the Draft EIR's HRA will be responded to in the Final EIR.

The HRA is closely tied to the air quality impact analysis and, as such, accounts for the same changes to the methods and assumptions described above related to import truck trips, the USEPA SAFE Vehicles Rule, SDCAPCD guidance related to fugitive dust, and correction of previously overly conservative assumptions related to sand extraction activity.

The results of the revised health risk estimates are provided in Table S-3, *Health Risks from TAC Emissions*. As shown in Table S-3, Project emissions of toxic air contaminants (TACs) during operation of all mining phases would not exceed the thresholds for increased incremental cancer risk, acute health risk, or chronic health risk. Therefore, the Project's operational emissions would remain less than significant, just as disclosed in the previously circulated Draft EIR.

Table S-3
HEALTH RISKS FROM TAC EMISSIONS

Maximum Exposed Individual	Risk Type	DEIR Maximum Risk	Revised Maximum Risk	SDAPCD Threshold	Exceed Threshold ?
Phase 1					
	Incremental Cancer Risk	2.3 in 1 million	3.80 in 1 million	10 in 1 million	No
Resident	Chronic Hazard Index	0.05	0.08	1	No
	Acute Hazard Index	0.07	0.06	1	No
	Incremental Cancer Risk	0.02 in 1 million	0.04 in 1 million	10 in 1 million	No
Non-Project Worker	Chronic Hazard Index	<0.01	0.01	1	No
	Acute Hazard Index	<0.01	0.04	1	No
Phase 2					
	Incremental Cancer Risk	2.9 in 1 million	7.89 in 1 million	10 in 1 million	No
Resident	Chronic Hazard Index	0.05	0.16	1	No
	Acute Hazard Index	0.09	0.08	1	No
	Incremental Cancer Risk	<0.01 in 1 million	0.02 in 1 million	10 in 1 million	No
Non-Project Worker	Chronic Hazard Index	<0.01	0.01	1	No
	Acute Hazard Index	<0.01	0.03	1	No

Maximum Exposed Individual	Risk Type	DEIR Maximum Risk	Revised Maximum Risk	SDAPCD Threshold	Exceed Threshold ?
Phase 3					
	Incremental Cancer Risk	2.7 in 1 million	3.40 in 1 million	10 in 1 million	No
Resident	Chronic Hazard Index	0.05	0.07	1	No
	Acute Hazard Index	0.07	0.06	1	No
	Incremental Cancer Risk	<0.01 in 1 million	0.02 in 1 million	10 in 1 million	No
Non-Project Worker	Chronic Hazard Index	<0.01	<0.01	1	No
	Acute Hazard Index	<0.01	0.01	1	No

Source: Lakes AERMOD View version 10.2.1 and CARB ADMRT version 22118, Model output files and cancer risk isopleth plots are included in Appendix G.
TAC = toxic air contaminant; SDAPCD = San Diego Air Pollution Control District

Greenhouse Gas Emissions

The Draft EIR circulated for public review and comment included a greenhouse gas (GHG) emissions impact analysis (Section 3.1.3, *Greenhouse Gas Emissions*; Appendix K, *Greenhouse Gas Emissions Technical Report*). This analysis found that the Project would not exceed the established threshold of significance relating to GHG emissions and concluded that no significant impact would occur as a result of the Project's implementation. As summarized below, the addition of 58 truck haul trips does not change this conclusion. Thus, the GHG emissions analysis of the Draft EIR is not recirculated for public review and comment. All comments received on the Draft EIR's GHG analysis will be responded to in the Final EIR.

Operational GHG emissions were re-modeled for each mining phase to account for the additional 58 truck trips per day. GHG emissions from on-road vehicle trips associated with each mining phase of the Project were modeled using CalEEMod Version 2020.4.0, as was done in support of the Draft EIR. Also as discussed above, a highly conservative 40-mile one-way truck trip length was assumed for the additional 58 truck trips.

On March 9, 2022, the USEPA withdrew SAFE-1 and restored California's (and other states') authority under the Clean Air Act to implement its own fuel efficiency, emission standards, and zero emission vehicle sales mandate. As a result of this action, the CalEEMod option to account for the SAFE Vehicles Rule in accordance with CARB off-model adjustments factors was not selected for the updated modeling. This results in reduced emission factors for lighter duty vehicles associated with worker commute.

The majority of the Project's GHG emissions would be associated with truck trips for hauling sand and backfill material. As discussed below, under *Vehicle Miles Traveled*, even with the additional 58 daily truck trips, the Project would result in a net reduction in County vehicle miles traveled (VMT) associated with construction grade sand transport, with a corresponding reduction in GHG emissions. Nonetheless, to be conservative and to follow the same methodology applied in the Draft EIR, all mobile GHG emissions associated with the Project are included in the project GHG emissions inventory and no discount was taken for the fact that, overall, substantially fewer VMT would occur in the region with implementation of the Project.

The GHG model re-run also corrects overly conservative assumptions applied in the Draft EIR related to the mining activity. These assumptions were inconsistent with the Draft EIR's Project Description. As stated in Chapter 1 of the Draft EIR, "Approximately 4.3 million cubic yards (cy) (6.40 million tons) of material are proposed to be extracted (p. 1-3)" and "sand extraction operations would be conducted approximately 260 days per year (p. 1-9)." However, the GHG modeling applied in the Draft EIR assumed up to 7.05 million tons of material extracted with operations occurring approximately 251 days per year.

Further, the GHG re-model takes into account a one-time loss of sequestered carbon dioxide (CO_2) by removing existing trees on site. To ensure that Project GHG emissions are fully accounted for and disclosed, emissions from this loss of sequestered carbon have been estimated according to the Intergovernmental Panel on Climate Change (IPCC) Good Practice Guidance for Land Use, Land-Use Change and Forestry (IPCC 2003). During implementation of the proposed roadway and site access improvements along Willow Glen Drive prior to the start of Phase 1, a total of 67 trees would be removed from the approximately 477 existing trees that provide landscape screening along the northern project boundary. An additional 513 trees were identified within the Project site that would be incrementally removed during each mining subphase. The total CO_2 sequestration lost by removal of existing on-site trees is estimated as 410.64 metric tons (MT). Amortized over the 10-year duration of the Project, this equates to 41.1 MT per year.

After revision of the operational emission estimates to account for the changes to the methods and assumptions described above, the Project would result in a peak annual net increase of 3,707 MT of CO_2 equivalent (CO_2e) per year. This is greater than the peak annual net increase of 1,815.8 MT CO2e per year previously disclosed in the Draft EIR, but still substantially below the South Coast AQMD screening level for industrial sources of 10,000 MT CO_2e per year. Therefore, the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and the impact would remain less than significant, just as disclosed in the previously circulated Draft EIR.

Table S-4
ESTIMATED OPERATIONAL GHG EMISSIONS

Emission Sources	DEIR Emissions (MT CO_2e/year)	Revised Emissions (MT CO_2e/year)
Phase 1 (2023)		
Off-Road Equipment Exhaust	424.6 (23.4%)	439.8 (11.9%)
On-Road Mobile Emissions	1,188.0 (65.4%)	3,039.2 (82.0%)
Electricity	186.1 (10.2%)	169.8 (4.6%)
Solid Waste	4.8 (0.3%)	4.8 (0.1%)
Amortized Construction	12.2 (0.74%)	12.2 (0.3%)
Amortized Loss of Sequestered Carbon	NA	41.1 (1.1%)
Total Phase 1	**1,815.8**	**3,706.9**
Phase 2 (2025)		
Off-Road Equipment Exhaust	424.6 (24.0%)	439.8 (12.2%)
On-Road Mobile Emissions	1,143.3 (64.6%)	2,924.8 (81.4%)
Electricity	186.1 (10.5%)	169.8 (4.7%)
Solid Waste	4.8 (0.3%)	4.8 (0.1%)
Amortized Construction	12.2 (0.7%)	12.2 (0.3%)
Amortized Loss of Sequestered Carbon	NA	41.1 (1.1%)
Total Phase 2	**1,1771.0**	**3,592.5**

Emission Sources	DEIR Emissions (MT CO_2e/year)	Revised Emissions (MT CO_2e/year)
Phase 3 (2028)		
Off-Road Equipment Exhaust	424.6 (25.0%)	439.8 (12.9%)
On-Road Mobile Emissions	1,069.4 (63.0%)	2,735.1 (80.4%)
Electricity	186.1 (11.0%)	169.8 (5.0%)
Solid Waste	4.8 (0.3%)	4.8 (0.1%)
Amortized Construction	12.2 (0.7%)	12.2 (0.4%)
Amortized Loss of Sequestered Carbon	NA	41.1 (1.2%)
Total Phase 3	**1,697.1**	**3,402.8**

Source: CalEEMod, CARB 2017, output data is provided in Appendices C and D
Notes: Totals may not sum due to rounding.
MT = metric ton; CO_2e = carbon dioxide equivalent

Vehicle Miles Traveled

The Draft EIR circulated for public review and comment included an analysis of potential transportation and traffic impacts, including an analysis of impacts associated with VMT. The Draft EIR's VMT analysis applied a Project-specific VMT threshold, given that the Project is not residential, office, or retail, and its location is dependent upon the existing location of the sand resource at the Project site. The Project-specific VMT threshold developed and applied in the Draft EIR is as follows: if the annual total change in VMT is at least a 15 percent reduction, then the impact is below a level of significance; if the annual total change in VMT is a net increase in VMT or less than a 15 percent reduction, then the impact is above a level of significance. The Draft EIR explains that this threshold is particularly conservative because the CEQA Guidelines advise that any net reduction in VMT creates a presumption that the project does not have a significant traffic impact.

The analysis included in the Draft EIR determined that, without the Project, the regional demand for 570,000 tons of aggregate is assumed to be satisfied by the current regional suppliers, resulting in a daily VMT of 13,498.77. The Draft EIR also determined that the daily VMT associated with the Project producing and locally distributing that same 570,000 tons of sand annually was only 2,806.15 VMT. Thus, the Draft EIR concluded that the Project would reduce the regional daily VMT for the importing of 570,000 tons of sand annually by 10,692.62 VMT. The Draft EIR explained that this constituted a 79.2 percent reduction in the area wide VMT. Therefore, the Draft EIR determined that the Project would result in a reduction in VMT of greater than 15 percent and no significant impact would occur.

The additional trips associated with importing backfill material to the site do not change this conclusion. Thus, the VMT analysis of the Draft EIR is not recirculated for public review and comment. All comments received on the Draft EIR's VMT analysis will be responded to in the Final EIR.

Specifically, backfill material import VMT was calculated assuming 58 trucks per day are required for the import of the backfill materials, and by applying a 40-mile average one-way trip length between the Project site and the locations where the backfill material would be obtained. Therefore, the daily VMT associated with backfill import to the Project site is approximately 4,640 (58 trucks per day multiplied by 80 miles roundtrip).

The sum of the VMT associated with obtaining 570,000 tons of sand from the Project site rather than being imported in from the north and south sources and the VMT associated with the backfill import is, together, 7,446.15 VMT (2,806.15 + 4,640). This is 6,052.62 VMT less than the existing VMT of 13,498.77 as described above.

This corresponds to a 44.8 percent reduction, which remains substantially greater than the 15 percent VMT reduction threshold of significance. Therefore, based on the significance criteria, the Project would have a less-than-significant transportation impact, just as disclosed in the previously circulated Draft EIR.

Noise

The Draft EIR circulated for public review and comment included a detailed noise impact analysis. This analysis found that the Project would have the potential to exceed the established thresholds of significance relating to noise, but concluded that no significant impact would occur as a result of the Project's implementation with the incorporation of mitigation. The addition of 58 truck haul trips does not change this conclusion or require new or additional mitigation. Thus, the noise analysis of the Draft EIR is not recirculated for public review and comment. All comments received on the Draft EIR's noise analysis will be responded to in the Final EIR.

The operational noise model was updated to account for the additional 58 truck trips per day, as well as a second conveyor used to transport backfill material. Per the updated model, the project's mining operation noise, the project's mining operation noise combined with existing traffic along Willow Glen Drive, and the project's mining operation noise combined with cumulative traffic along Willow Glen Drive would result in exceedances of applicable thresholds at the same noise-sensitive land use (NSLU) receiver locations as identified in the Draft EIR. Therefore, impacts are assessed as potentially significant, consistent with the analysis provided in the Draft EIR. The project would implement mitigation measure NOI-1, presented in the Draft EIR, to reduce noise levels from the project's mining activities to a less-than-significant level at these identified receiver locations. Due to a slightly increased noise level at one receiver location under the cumulative scenario, mitigation measure NOI-1 has been revised to require a 12-foot barrier instead of an 8-foot barrier between the project's mining activities and this receiver location to reduce the cumulative impact to a less-than-significant level.

RDEIR S.3 Biological Resources Analysis Update

After the close of the public review and comment period for the Draft EIR, and in response to comment letters received during the Draft EIR public review and comment period from the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), additional biological resource surveys of the Project site were conducted in 2022. These additional surveys included two rare plant surveys, an updated habitat assessment for arroyo toad, visual surveys for southwestern pond turtle, a survey for southwestern willow flycatcher, focused surveys for coastal California gnatcatcher, and acoustic monitoring surveys and a nighttime emergence survey for bats. Finally, motion-activated cameras were deployed in 2022 to document wildlife presence, use, and movement throughout the Project site.

The results of these additional surveys constitute new information added to the previously circulated Draft EIR and are included in this Recirculated Draft EIR.

Because the Biological Resource analysis Subchapter has been comprehensively revised to reflect the findings of the new surveys, mitigate all potentially significant impacts related to the findings of those new surveys, and update the Subchapter's numerous tables and figures, the revisions to and new information incorporated within the Subchapter are not presented here in redline and strikethrough. Instead, the revisions and new information are summarized below. A clean version of Subchapter 2.2 is included in this Recirculated Draft EIR as Subchapter 2.2.

RDEIR S.3.1 Summary of Biological Resources Analysis Update

The additional surveys conducted after the close of the public review and comment period for the Draft EIR identified the following, which has been added to Subchapter 2.2 of the EIR:

- The presence of Palmer's goldenbush, a sensitive plant species, was detected along the southeastern Project site boundary, within the south-central portion of the site east of Steele Canyon Road, and in the southwestern portion of the Project site, during rare plant surveys.

- The presence of small-footed myotis was detected within the eastern portion of the Project site during acoustical monitoring surveys.

- The presence of Townsend's big-eared bat was detected within the eastern and western portions of the Project site during acoustical monitoring surveys.

- The presence of western mastiff bat was detected within the western portion of the Project site during acoustical monitoring surveys.

- The presence of western red bat was detected within the western portion of the Project site during acoustical monitoring surveys.

- The presence of Yuma myotis was detected within the eastern and western portions of the Project site during acoustical monitoring surveys and during the nighttime emergence survey.

- A single individual white-tailed kite was observed foraging off-site during the biological field surveys.

In addition to the results of the 2022 biological surveys, Subchapter 2.2 of the EIR was also updated with the following minor clarifications, revisions, and technical edits:

- To acknowledge the change in the Project Description relating to additional truck haul trips.

- To make minor refinements to the proposed mining and reclamation phasing.

- To make minor refinements to the compensatory mitigation and reclamation revegetation phasing.

- To provide additional information about historic land uses on the Project site, including past mining activities within the Sweetwater River.

- To make minor refinements to the acreage of existing vegetation communities and land use types present on the Project site.

- To include a description of existing non-native grassland on the Project site.

- To enhance the description of existing disturbed habitat on the Project site.

- To explain that while USFWS designated critical habitat for the federally endangered San Diego ambrosia is present in the southwestern portion of the site, no individuals were observed within the Project site during the 2019 and 2022 rare plant surveys.

- To provide additional information relating to raptor foraging activities on the Project site.

- To make minor refinements to the reported acreage of Waters of the United States and CDFW jurisdiction present on the Project site.

- To make minor refinements to the report acreage of County Resource Protection Ordinance Wetlands present on the Project site.

- To refine the total acreage of impact from 209.63 acres to 211.94 acres.

- To refine the total acreage of land that would be placed into open space at the end of the Project from 142.8 acres to 150.7 acres.

- To refine the acreages presented in Table 2.2-1, *Existing Vegetation Communities/Land use Types*, Table 2.2-2, *Waters of the U.S. – Existing Conditions*, Table 2.2-3, *California Department of Fish and Wildlife Jurisdiction – Existing Conditions*, Table 2.2-4, *County Resource Protection Ordinance Wetlands – Existing Conditions*, Table 2.2-5, *Project Impacts to Vegetation Communities/Habitat Types*, Table 2.2-6, *Impacts to Jurisdictional Wetlands and Waterways*, Table 2.2-7, *PAMA Impacts Summary*, Table 2.2-8, *Cumulative Impacts on Biological Resources*, and Table 2.2-9, *Summary of Vegetation Communities Impact and Mitigation Acreages*.

- Other non-substantive edits.

A clean copy of Subchapter 2.2 of the EIR is provided in this Recirculated Draft EIR. The entirety of Subchapter 2.2 is being recirculated for an additional round of public review and comment as part of this Recirculated Draft EIR.

RDEIR S.3.2 Impact Analysis of Biological Resources Analysis Update

As a result of the revisions described above, Subchapter 2.2 of the EIR has been revised to conclude that a total of four special status plant species could be potentially significantly impacted by the Proposed Project. In addition to the potentially significant impact to San Diego County

viguiera disclosed in the Draft EIR, this Recirculated Draft EIR also discloses potentially significant impacts to Palmer's goldenbush, San Diego sagewort, and southwestern spiny rush.

Also, as a result of the revisions described above, Subchapter 2.2 of the EIR has been revised to conclude that a total of 23 special status animal species could be potentially significantly impacted by the Proposed Project. In addition to the impacts to 17 special status animal species disclosed in the Draft EIR, this Recirculated Draft EIR also discloses potentially significant impacts to small-footed myotis, Townsend's big-eared bat, western mastiff bat, western red bat, Yuma myotis, and white-tailed kite.

To address the new potentially significant impacts that were not disclosed in the Draft EIR, this Recirculated Draft EIR identifies additional mitigation measures that reduce these new impacts to a level of less than significant. These additional mitigation measures include:

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

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

In addition, the following two mitigation measures have been added to Subchapter 2.2 of the EIR to further address and reduce potentially significant impacts to reptile and amphibian species, including western spadefoot toad. Impacts to these species were previously disclosed in the Draft EIR.

- Mitigation Measure BIO-11: Prior to any vegetation removal, grading, and/or other ground disturbing activities, a qualified biologist familiar with special status reptile and amphibian species behavior and life history shall conduct a pre-construction survey no more than two weeks prior to commencement of activities to determine whether reptile and amphibian species designated as sensitive by CDFW, but not covered under the County's MSCP, occur within proposed impact area(s). If special status reptile or amphibian species are detected during the pre-construction survey, consultation with CDFW shall be initiated to prepare species-specific protocols for proper handling and relocation procedures.

- Mitigation Measure BIO-12: If western spadefoot toads, tadpoles, or egg masses are identified within the proposed impact area(s), the following measures shall be implemented: (1) A suitable relocation site(s) outside the proposed impact area(s) shall be identified by a qualified biologist. The relocation site(s) shall be located a minimum of 50 feet outside of the proposed impact area(s), or 100 feet if available, and shall be approved by CDFW; (2) All western spadefoot adults, tadpoles, and egg masses encountered in the proposed impact area(s) shall be collected and released in the identified relocation site(s); (3) The relocation site(s) shall be monitored annually for five years during and immediately following peak breeding season (late winter to March), such that surveys can be conducted for adults as well as for egg masses and tadpoles. The results of annual monitoring shall be provided to CDFW in an annual report.

Further, minor revisions were also made to other mitigation measures to further enhance their effectiveness and to reflect updated and revised acreages.

Like the Draft EIR, the Recirculated Draft EIR concludes that Project implementation could result in potentially significant impacts to sensitive plant and animal species, sensitive natural communities and riparian habitat, jurisdictional wetland and non-wetland waters, and consistency with local policies, ordinances and adopted plans protecting biological resources. However, like the Draft EIR, the Recirculated Draft EIR also concludes that implementation of Mitigation Measures BIO-1 through BIO-20 would reduce these impacts to less than significant.

RDEIR S.4 Stormwater Quality Management Plan for Priority Development Projects

The previously circulated Draft EIR included as Appendix P a Green Streets PDP-exempt SWQMP. The SWQMP previously circulated with the Draft EIR addressed the Project's frontage improvements along Willow Glen Drive. However, the previously circulated SWQMP did not address the sand mine operations and reclamation activities. Since circulation of the Draft EIR, the County has requested that the SWQMP be revised to address the entirety of the Project in one single PDP SWQMP. The revised PDP SWQMP is attached to this Recirculated Draft EIR for public review. The PDP SWQMP does not result in any new or substantially more severe environmental impacts that would necessitate the recirculation of any individual chapter of the EIR.

CHAPTER 1.0 – PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING

1.1 Project Objectives

The purpose of the Cottonwood Sand Mine Project (hereafter referred to as "Proposed Project" or "Project") is to extract construction aggregate resources and reclaim the site to a usable condition for beneficial end uses consistent with those allowed under the current General Plan and zoning designations for the site. The objectives of the Project are as follows:

1. Recover and process construction aggregates in a financially sound and efficient manner while meeting all local, state, and federal safety requirements.

2. Provide an open space resource within the County, that ultimately protects and enhances the Sweetwater River channel.

3. Provide reliable, high-quality, aggregate product in the amount of 570,000 tons per year (approximately one-quarter of San Diego County's annual sand demand).

4. Maintain the existing low-flow channel of the Sweetwater River to accommodate water transfers from Loveland Reservoir to Sweetwater Reservoir.

5. Widen the existing flood channel of the Sweetwater River to more closely mimic conditions prior to golf course construction.

6. Reclaim areas of extraction to uses consistent with the County General Plan and Zoning Ordinance.

1.2 Project Description

1.2.1 Project's Component Parts

The Project proposes sand mining activities on 251 acres of an approximately 280-acre site in the unincorporated community of Rancho San Diego in eastern San Diego County, north of State Route (SR) 94 and east of SR 54 (see Figure 1-1, *Regional Location*; Figure 1-2*, Project Vicinity [USGS Topography]*; and Figure 1-3, *Project Vicinity [Aerial Photograph]*). The Project includes the following discretionary actions:

- A Major Use Permit (MUP) PDS2018-MUP-18-023 to allow mining activities on 251.1 acres of the 279.8-acre property; and

- A Reclamation Plan (RP) PDS2018-RP-18-001 to specify the standards to which the site must be reclaimed upon completion of mining activities in accordance with the California Surface Mining and Reclamation Act of 1975 (SMARA).

The Project site is currently zoned as Open Space (S80, with 8-acre minimum lot sizes), Specific Planning Area (S88), and Holding Area (S90). The S80 designation is used to provide appropriate controls for areas considered generally unsuitable for intensive development, including hazard or

resource areas, public lands, recreation sites, or lands subject to open space easement or similar restrictions. The S90 zone is intended to prevent premature urban or non-urban development until more precise zoning regulations are prepared. Extractive use is allowed within the S80 and S90 classifications with the issuance of a MUP. The S88 zoning classification restricts extractive uses to site preparation, which allows the off-site removal of materials when it is secondary to the future use of the site. The parcels zoned as S88 are located in the southwestern corner of the Reclamation Plan boundary, within the Rancho San Diego Specific Plan area.

The Project proposes to convert the two golf courses within the Cottonwood Golf Club to a sand mining operation that would be conducted in three phases over 10 years. Approximately 214.4 acres of the approximately 280-acre site are proposed for extractive use (Figure 1-4, *Site Plan and Mine Phasing*). Surface areas included within the MUP boundary that are not disturbed by mining (i.e., that are outside of the mining phase boundaries shown on Figure 1-4) would be subject to removal of invasive species, as proposed within the river channel in the southwest portion of the site (refer to the discussion under "Revegetation and Erosion Control" in Section 1.2.1.2, *Reclamation Component*, below), or be left in their current condition. Specifically, the existing Sweetwater River channel and the majority of native habitat that currently exists on the site would be retained. As described in Section 1.2.2, setbacks would be established from the property boundary at a minimum of 100 feet from residential properties and 50 feet from other uses and would be provided for safety and protection of existing public and private property in proximity to the Project. This distance was determined to be adequate in conjunction with proposed noise reduction barriers, as evaluated in Subchapter 2.4, *Noise*, of this EIR relative to the distance of proposed activities from nearby sensitive receptors, as well as existing site topography. Setbacks are shown on the project plot plan (Figures 1-5a and 1-5b, *Plot Plan*).

The extraction process would occur in three phases, with three to four subphases of less than 30 acres each in each phase, and a fourth phase for cleanup, equipment removal, and final reclamation. Extraction activities are proposed to begin on the Lakes Course west of the Steele Canyon Road bridge. The total duration of mining operations that would be authorized by the MUP would be 10 years, with reclamation anticipated to last two additional years.

Reclamation of the site would include: (1) removal of all artificial structures; (2) grading and backfilling to achieve final landforms; (3) incorporation of accumulated wash fines and salvaged topsoil (as applicable); and (4) revegetation and monitoring (Figures 1-6a and 1-6b, *Reclamation Plan*). Final grading would begin after mining and backfilling have been completed within a given area, and as extractive operations proceed to the east. Reclamation would be an ongoing process starting in the second year as mining proceeds to the east and would continue in each 20- to 30-acre subphase over an approximately 10-year period, concluding two years after the completion of mining. The final landform is proposed to be a relatively flat plain that gently slopes downward from east to west, with a widened river channel bisecting the length of the site. The reclaimed river channel is expected to average approximately 250 to 300 feet in width and would be slightly higher in elevation than the existing low-flow channel. This low-flow channel would accommodate annual water transfers from Loveland Reservoir to Sweetwater Reservoir. Areas of extraction would be reclaimed to end uses consistent with the General Plan and zoning classifications, in accordance with the Project objectives. Revegetation monitoring would continue for a minimum of five years or until revegetation standards are met after this final phase. Each Project component is described in further detail below.

1.2.1.1 *Sand Mining and Processing Component*

The Project's mining operations would extract, process, and transport aggregate using conventional earth moving and processing equipment. Aggregate material extracted from the site would consist primarily of washed sand suitable for Portland cement concrete (PCC), but may also include fill sand, gravel, and rock. Approximately 4.3 million cubic yards (cy) (6.40 million tons) of material are proposed to be extracted. Mining and extraction activities are expected to produce approximately 3.8 million cy (5.7 million tons) of sand and gravel for market use, with a 10 percent waste factor from the total amount extracted that includes wash fines and materials undesirable for processing (approximately 427,000 cy). These materials would be retained on site and utilized for backfilling. Extraction operations would be limited to a maximum production of 380,000 cy (570,000 tons) of construction grade aggregate per calendar year. Material extracted and processed at the site would be suitable for construction uses and would be available to customers in San Diego County.

The Project would be developed in three continuous phases with 20- to 30-acre subphases in each major phase. Prior to the initiation of Phase 1, pre-mining activities such as the restriping of Willow Glen Drive between Steele Canyon Road and the Project ingress driveway to provide Class II buffered bike lanes on both sides of the roadway, improvements to the access point from Willow Glen Drive to the Phase 1 excavation area, and installation of screening landscaping would be implemented. Phase 1 would begin with the placement of the processing plant and the conveyor line from the plant to the western portion of the property where excavation would begin. Processing facilities would be located near the center of the Project area, adjacent to Willow Glen Drive and west of the existing golf course parking lot. The plant site would consist of aggregate processing and washing facilities, three settling ponds, loadout area, and support structures and buildings (e.g., scale, office kiosk, and office trailer).

A portable conveyor line would be installed to transport excavated materials to the processing plant from the excavation areas where it would be washed. The conveyor line would be mobile to provide access within each phase and would be relocated as mining activity is concluded in each phase. The mobile conveyor is proposed to minimize the use of on-site roads to transport excavated material between the plant and excavation areas. The conveyor line would cross the channel on one of the existing golf course bridges during all operations south of the channel. Portions of the conveyor system located within the 100-year floodplain would either be anchored to prevent displacement by flowing water or removed at least 24 hours prior to forecast of significant rain (i.e., 0.5 inch or greater). The conveyors would also be anchored, as needed, during scheduled water transfers.

Existing vegetation and infrastructure within the golf courses would be removed as mining operations proceed, with approximately 20 to 25 acres subject to mining at any one time. Approximately six inches of topsoil would be stripped from the surface and placed in stockpiles along the upper edges of extraction areas. The stockpiles may be utilized in the construction of temporary noise barriers—which can be constructed of soil, masonry, wood, plastic, fiberglass, steel, or a combination of those materials–until needed for reclamation activities. When feasible, topsoil would be stripped from the surface and directly re-applied to areas that have reached final grade to avoid storing soil. Topsoil stockpiles would be clearly identified with signage. They

would not be disturbed until used for revegetation, if feasible, and would be covered or seeded with a recommended seed mix if not to be used within six months.

Excavation would average approximately 20 feet in depth below the existing ground surface (bgs) across the site; some areas would be excavated to a maximum depth of 40 feet bgs (Figures 1-5a and 1-5b). Excavation would not occur within the bottom of the existing low-flow channel in order to retain existing hydrologic characteristics. Slopes in working cuts may be temporarily steeper that 3:1 ratio (horizontal:vertical) during operations. If these steeper slopes are to be inactive for a period of three or more weeks, they would be graded to a slope ratio of 3:1 or shallower.

Wheeled, front-end-loaders and an excavator would mine the materials to approximately one foot above the existing water table and load directly into a conveyor hopper (fitted with parallel bars to screen out large cobbles and rock). Groundwater will likely be encountered and the excavation pit would be limited to five acres in size. This would be accomplished by backfilling mined out areas of the pit with wash fines, overburden, and imported materials prior to expanding the pit size. Mined-out pit areas would be backfilled to an elevation above groundwater level as the mining phases advance. In areas where excavation extends below the water table, an excavator would be utilized for pit excavation; dewatering would not be required. The excavator would stack excavated material nearby and a loader would deliver and offload the material into the hopper.

An access point is proposed to be constructed directly across from Muirfield Drive consisting of a concrete apron that would convert to gravel surface for a short distance on the property for use during Phase 1. This access point and the existing access point on the northwest corner of the property would be used for mobilization/demobilization of heavy equipment for Phase 1. Equipment proposed to be used on site would include the front-end loaders and excavator noted above, as well as a water truck for dust suppression; dozer for rough grading, leveling, and ripping; motor grader for finish grading and maintenance; skid steer loader for a variety of cleanup activities; and a pickup for transportation for site supervisors (Table 1-1, *Project Mobile Equipment*). All equipment would be properly permitted in accordance with San Diego County Air Pollution Control District (SDAPCD) requirements. Heavy equipment would be delivered to the subphase 1A and 1A-1 areas south of the Sweetwater River Channel by crossing the existing channel during the dry season (generally July through September) within a 16-foot-wide temporary crossing area shown on Figure 1-5a. Once excavation activities within these subphase areas have been completed, the heavy equipment would be mobilized to the subphase 1B area using the same crossing. Once extraction activities have been completed within subphase 1C, heavy equipment would be mobilized for use within the Phase 2 and 3 areas south of the Sweetwater River channel from the Muirfield Drive access point, utilizing Willow Glen Drive, Steele Canyon Road, Jamul Drive, and Ivanhoe Ranch Road for one-time equipment delivery. Heavy equipment would be delivered through the existing golf course maintenance gate located off Ivanhoe Ranch Road at the subphase 2B area and then taken to subphase 2A, as shown on Figure 1-5b. When equipment needs to be mobilized to subphase areas north of the channel, a 16-foot-wide temporary crossing would be utilized in the subphase 2C area, as conceptually shown on Figure 1-5b. For equipment mobilization/demobilization, channel crossings would only be used when there is no water flow in the channel. Excavation and reclamation activities within each subphase area would be scheduled to avoid the need to cross the channel when water may be flowing. An operating procedure would be established to maintain communication with Sweetwater Authority prior to, and during, water transfers to ensure channel crossings during water flows are avoided.

Washed fines and materials undesirable for processing would be transported to backfill areas in one of three ways: (1) low-profile haul truck/tractor-trailer, (2) conveyor and haul truck, and (3) haul truck. For backfill areas north of the channel in Phase 1, the fill materials would be loaded onto a low-profile haul truck or tractor-trailer by an excavator at the processing plant and hauled along the conveyor access road (conceptual alignment shown on Figure 1-5a) to the backfill areas. Clearance under the Steele Canyon Road bridge is approximately 11 feet in height, which would allow the low-profile haul truck (approximately 9 feet in height with a capacity of 20 cy) or tractor-trailer (approximately 8 feet in height with a capacity of 16 cy) to pass beneath without requiring removal of soil material beneath the bridge. For the subphase 1A and 1A-1 and Phase 2 and 3 backfill areas south of the channel, fill material would be delivered from the processing plant area utilizing a conveyor line across existing golf course bridges. Only one conveyor line would be installed across each bridge at a time. A separate conveyor would be used to transport excavated material to the processing plant; transport of fill material to backfill areas would not interfere with transport of excavated material from active mining areas. The conveyor would transport backfill material from the processing area to Phase 2 or 3 where it would be offloaded for distribution to backfill areas with a haul truck. In order to allow for clearance below the Steele Canyon Road bridge, a tractor-trailer would be used to transport backfill material offloaded from a conveyor positioned within the Phase 2 area south of the channel, under the Steele Canyon Road bridge to the subphase 1A and 1A-1 backfill areas. For Phase 2 and 3 areas north of the channel (subphases 2A and 3D), fill material would be transported from the processing plant via haul truck. Off-road hauling of wash fines is expected to require approximately four to six round trips per day for all modes of transport to backfill areas.

It is conservatively estimated that approximately 10 percent (427,000 cy) of the excavated material would be considered not suitable for processing and thus would be retained on site and utilized for backfilling needs. It is possible that a greater percentage of excavated material would be unsuitable for sale and thus available for backfilling. In addition, approximately 2.5 million cy would be imported to the site to meet the site's overall backfill requirements. The maximum number of truck trips necessary for importing the maximum anticipated amount of backfill material is conservatively estimated to be approximately 58 truck trips per day, over the 10-year operation of the project.[1]

The imported material would consist of inert debris only. Inert debris would consist of excavated soil material from development projects, clean demolition materials, and possibly concrete, asphalt and rock. The Project would be conditioned to only accept materials suitable for the end use of the site. Imported inert debris would be transported to backfill areas using the same approach described above for wash fines and materials undesirable for processing.

Mine Phases

The Project would be developed in three main mining phases, with subphases of less than 30 acres per phase and a fourth phase for cleanup, equipment removal, and final reclamation. Mineral extraction would generally proceed in a southwest-to-northeast direction. Mine phase locations are

[1] The actual number of trucks may be less, where the same truck transporting material to the site would also transfer produced material away from the site ("deadhead trip"). However, to provide a conservative analysis, 58 additional truck trips per day is assumed.

illustrated on Figure 1-4, with acreages and the estimated duration and timing of each phase and subphase summarized in Table 1-2*, Mining Phases*. Table 1-3, *Existing and Proposed Facilities and Structures*, summarizes the improvements associated with the existing golf club and proposed mining operations, and when they are scheduled for removal.

Each phase would include three to four subphases. Site preparation activities would be conducted prior to initiation of extraction within a given subphase excavation area, including vegetation clearing, topsoil removal, and stockpile creation, as discussed above. Noise barriers would be constructed to the specifications identified in Subchapter 2.4, mitigation measure M-N-1, prior to initiation of extraction activities within 400 feet of noise sensitive land uses (NSLUs), as shown in Figures 2.4-3a through 2.4-3c. Excavation in each subphase would be completed before moving the conveyor and excavation equipment to the next subphase and reclamation would begin in the completed subphase. During each of the phases, it may be necessary to re-locate existing power distribution poles that cross the golf course. Relocation or removal of power poles would be completed in accordance with San Diego Gas & Electric (SDG&E) requirements.

Phase 1

Phase 1 would include site development for construction of the internal access road and processing plant pad, as well as installation of screening vegetation, the conveyor line, and the processing plant. A loading area, truck scale, office/scale house, two storage containers, and three connected settling ponds would be installed in the processing area. An unused residential structure located adjacent to Willow Glen Drive west of the Steele Canyon Road would be demolished and all demolition waste removed from the property. Following initial site development activities, extractive operations would commence in the approximately 94-acre area west of Steele Canyon Road. Extractive operations would involve removal of materials from the surface to approximately 15 to 40 feet bgs, utilizing front end loaders and an excavator. Approximately 79 acres are proposed to be included in Phase 1, including approximately 10 acres located in the southwestern portion of the Project site within the Sweetwater River channel that are proposed for habitat improvement (refer to Section 1.2.2.2, *Reclamation Component*, below). The remaining approximately 15 acres of the Phase 1 area, which includes the Sweetwater River channel, sensitive habitat areas, and setback areas, would not be disturbed.

Excavation would begin following site preparation activities (i.e., vegetation clearing, topsoil removal, stockpile creation) in the subphase 1A-1 area south of the river channel. As noted above, materials and heavy equipment utilized during extraction activities for subphases 1A-1 and 1A would be transported across the low-flow channel during the dry season (generally July through September) when water is not present; a conceptual crossing location is identified on Figure 1-5a. Mining equipment would remain in the subphase area for the duration of mining activities within each subphase. Noise barriers would be required to be installed when extraction activities would occur within 400 feet of NSLUs, as shown in Figures 2.4-3a and 2.4-3c for subphases 1A and 1C. Mineral excavation would then proceed to remove materials from the surface, generally in a southwest to northeast direction within each subphase. Excavation would extend approximately 20 to 25 feet bgs using an excavator and wheeled front-end loaders. During excavation of subphase 1-B and 1-C areas outside the existing channel, excavation may extend into the water table. Front-end loaders would transport the mined material to the loading bin connected to the conveyor line. Mined material would then be moved by conveyor to the processing plant where it

would be washed, screened, stockpiled, and loaded for delivery. As described above, material extracted from the site that is not designated as saleable product would be utilized as backfill to construct the final landform. For Phase 1, wash fines and imported material would be returned to backfill areas by a tractor-trailer using the on-site conveyor line roads and/or over the existing golf course bridges by conveyor to areas south of the channel.

Reclamation and revegetation within each subphase area would be performed following mining, while mining would move to the next subphase area. The subphase 1A-1 areas would be reclaimed and revegetated first to support visual screening. Once excavation is complete in subphase 1A, the conveyor line and excavating equipment would move to the subphase 1B area on the western edge of the Project site. Reclamation in the subphase 1A area would then begin with final grading/establishment of final slopes and incorporation of wash fines and topsoil, installation of irrigation equipment, and revegetation. This process is proposed to continue in subphases 1B and 1C, with excavation occurring at depths up to 40 feet bgs in both of these subphases (refer to Figure 1-5a). These areas have been identified for mining up to 40 feet bgs. Subphase 1C is the largest of the subphases at approximately 30 acres and is identified as an over-excavation area on Figure 1-6a. In addition to incorporation of wash fines, inert debris also would be utilized to achieve finished grades in this subphase.

Excavation in each subphase is expected to take approximately one year. Upon completion of mining activities in Phase 1, materials and equipment would be moved from the Phase 1 area via the access point at Muirfield Drive, trucked to the access point at Ivanhoe Ranch Road (existing maintenance entrance for golf course), and mobilized to the Phase 2 area. A permanent erosion control riprap structure would be installed on the west side of the Steele Canyon Road bridge following completion of excavation in Phase 1, in order to protect areas near the bridge from downstream erosion (see Figure 1-5a).

Phase 2

Prior to the initiation of extraction activities within the Phase 2 area, site preparation activities would be conducted, including vegetation clearing, topsoil removal, stockpile creation, and noise barrier construction (where extraction activities would occur within 400 feet of NSLUs, as shown in Figures 2.4-3b and 2.4-3c for Phase 2). Extraction would occur in a west-to-east direction from subphase 2A to 2C within an approximately 48.2-acre area east of the Steele Canyon Road bridge. Mined material would be moved by conveyor to the processing plant where it would be washed, screened, stockpiled, and loaded for delivery. In order to excavate within the northern portion of subphase 2A, equipment may be mobilized across the channel (during the dry season) or from the processing plant area. Both the conveyor crossing areas and conceptual 16-foot-wide temporary crossing for Phase 2 are shown on Figure 1-5b. The maximum depth of the excavation is expected to be 40 feet bgs, outside the low-flow channel in subphases 2B and 2C (refer to Figure 1-5b). The equipment would remain on site until excavation is completed for each subphase. Excavation in each subphase is expected to be completed in approximately one year; overall, Phase 2 is anticipated to last approximately three years. Upon conclusion of Phase 2, the conveyor line would be relocated to run from the processing plant to the eastern end of the Project site in preparation for Phase 3.

Reclamation of the Phase 2 subphases would begin as the final landforms are established in each subphase. As described above, both material extracted from the site that is not designated as saleable product as well as imported backfill (inert debris) would be utilized as backfill to construct the final landform. Reclamation would include establishment of all final slopes, incorporation of accumulated wash fines and topsoil, and revegetation. Three existing transmission towers owned by SDG&E would be avoided during Phase 2 excavation, leaving an "island" for the towers. An access ramp would be constructed on the western side of the island to connect to a 28-foot-wide access road within the existing SDG&E right-of-way easement that runs from the towers to the southern Project boundary. The ramp and slopes surrounding the towers would be lined, as needed, for access and to prevent erosion. Maintenance of this access road/ramp would ensure that SDG&E maintenance crews are able to access the towers during Project operations.

Phase 3

Excavation would continue for Phase 3 on approximately 78 acres east of the Phase 2 area. Phase 3 is anticipated to last approximately four years and would include four subphases. The same excavation and transportation procedures would be used as the two previous phases. Subphase 3A would be located at the northeast edge of the property. Excavation of each subphase would proceed westward. The maximum depth of excavation would be approximately 40 feet bgs in the eastern portion of subphase 3A (Figure 1-5b).

Reclamation in each of the Phase 3 subphases would begin as the final landforms are established. Reclamation would include establishment of all final slopes; incorporation of inert debris (within over-excavation areas identified on Figure 1-6b), accumulated wash fines, and topsoil; and revegetation.

Phase 4

Phase 4 would consist of removal of the processing plant, grading to final contours, final reclamation and revegetation efforts, cleanup, and equipment removal. This phase is expected to last approximately 8 to 10 months after the end of extraction activities in Phase 3. Revegetation monitoring would continue after this final phase for five years or until revegetation standards are met after this final phase.

Aggregate Processing

The Project would include a processing plant to wash and stockpile finished products. This would be located near the center of the Project area, adjacent to Willow Glen Drive and west of the existing golf course parking lot. The plant site would consist of aggregate processing and washing facilities, three settling ponds, and a loadout area, as well as support facilities (Figure 1-7a, *Processing Area Layout*). As described in Section 1.2.1.4, vegetative screening/landscaping would reduce visual exposure (Figure 1-7b, *Processing Area Landscape Screening*). Where existing or proposed fencing is not screened by existing or proposed vegetation, green screening mesh would be installed on perimeter fencing along Willow Glen Drive to screen Project operations from public view. Refer to Sections 1.2.1.4, *Landscaping*, and 1.2.1.5, *Fences*, for additional details.

The plant would screen and wash raw material into marketable PCC-grade construction aggregate material, including washed concrete sand, asphalt sand, pipe bedding, and some gravel. No

crushing would be necessary to process the materials extracted from the site. The plant and conveyor equipment are summarized in Table 1-4, *Plant and Conveyor Equipment*.

From the conveyor belt, material would be transferred to a blade mill, where material would be mixed with water to start the process of separating it into different sizes. Processing would occur through use of a screen deck plant capable of processing 400 tons per hour of raw material. The screen deck is a mechanical screening device that is used to separate granulated ore material into multiple grades by particle size. A screening machine consists of a drive that induces vibration, a screen media that causes particle separation, and a deck that holds the screen media and the drive (Figure 1-8, *Conditioner and Wet Screen – Profile*). This drive is used to cause the vibration that moves material down the screen media. As material becomes too fine to separate by a screen, the material is moved to a fine material screw, or sand screw, for washing. These fine material washers utilize a water bath and inclined augers to separate the fines (clay and silt) from the fine and very fine sands that are used in mortar and plaster. Fine materials are then piped to the first in a series of three settling ponds where fines settle. Clean water would be recycled through the process, with additional water provided by on-site groundwater wells as needed.

Once the processed aggregates are separated into different sizes, radial stacker conveyors would be used to stockpile the materials, and wash fines would be transferred to the settling ponds. Stockpiles would be up to 25 feet in height and located near the plant. The two primary stockpiles would consist of washed concrete sand and gravel. Other smaller stockpiles may be located within the loadout area, depending on the material being processed at the time; these stockpiles are not expected to exceed 15 feet in height. Customer trucks would be loaded with finished products from stockpiles by a front-end-loader and transported off-site. The weight capacity of a standard heavy vehicle for outgoing loads is approximately 25 tons of material transported per truck. With a maximum annual rate of production of 380,000 cy (570,000 tons), approximately 1,462 cy (2,192 tons) of materials would leave the site each day. A maximum day would include 88 one-way heavy vehicles accessing the Project site. As many as 15 over-the-highway trucks may be parked on site each day near the processing area and entrance to the site. Sand extraction operations would be conducted approximately 260 days per year, on weekdays, between the hours of 7:00 a.m. to 5:00 p.m. Trucking would occur from 9:00 am to 3:30 p.m. during the week. No activities would occur on weekends or major holidays.

Wash fines produced from the processing plant would be gathered in three settling ponds located near the plant that are 300 feet long, 50 feet wide, and 10 feet deep. The first pond, referred to as the “muck” pond, is where most of the sediment from the wash slurry settles and would be cleaned more frequently than the other ponds. These ponds would be used to protect surface water quality and to recycle the process water through the settling of silts and clays (wash fines). The ponds also would be used to collect local runoff that may be transporting earthen solids. These ponds would be cleaned occasionally by removing the sediment collected. Sediment would be stockpiled parallel to the prevailing wind direction for dewatering. When ponds are cleaned, the wash fines (silt, clay, and organic material) would be sold as a soil amendment or returned to excavation areas that have been completed to be used as backfill or incorporated into the surface of excavated areas as rough backfilling. Selling wash fines would be driven by market demand and would depend on orders for specific uses such as improving the texture of a planting mix, improving water retention, or for recreational uses. These orders are expected to be generally small in number and volume of material (estimated at approximately one haul truck load per month) and would be sold and

transported directly from the processing area between the hours of 9:00 a.m. and 3:30 p.m. The quantity of backfill materials would depend on the quality and composition of the excavated material; a 10 percent "waste factor" is typically estimated in aggregate mining for wash fines and materials undesirable for processing (e.g., low in sand). Materials not selected for processing would be utilized as backfill. Wash fines would be returned to backfill areas north of the channel by an off-road haul truck or tractor-trailer using the on-site conveyor line roads. Off-road hauling is expected to require approximately four to six round trips per day. South of the channel washed fines would be transported over the existing golf course bridges by conveyor, then transported by haul truck or tractor-trailer to backfill areas. A tractor-trailer would access Phase 1 by going underneath the Steele Canyon Road bridge; no equipment would cross the channel for backfilling.

Support Facilities

Additional support facilities adjacent to the processing plant would include a modular office trailer/scale house, one 70-foot truck scale, two storage containers for tools, and a portable restroom.

On-site Personnel

A total of 9 employees and up to 4 vendor vehicles are expected to access the Project site on a typical day. The employees would be responsible for tasks associated with mining and processing activities, environmental compliance, safety, management, and administrative tasks. The vendors would conduct sales or provide supplies, fuel, and maintenance to the heavy equipment and facilities utilized during mining.

Storm Water and Erosion Control

A Storm Water Pollution Prevention Plan (SWPPP) would be prepared and submitted to the State Water Resources Control Board (SWRCB) prior to construction in accordance with the Industrial General Permit Order 2014-0057-DWQ, effective July 1, 2015. The SWPPP and erosion control plan would define best management practices (BMPs) to prevent erosion and the discharge of sediment to surface waters. If needed during mining, small desiltation basins may be temporarily constructed to capture runoff from existing culverts underneath Willow Glen Drive and to prevent sediment from leaving the site while allowing water to pass through to existing drainage features. Runoff would be directed from the disturbed mining and reclamation areas towards the basins, as necessary, to allow for desiltation and infiltration. Typical soil stabilization BMPs include mulch, hydroseeding, soil binders, geotextiles, lining of drainage ditches, and/or velocity control structures. At a minimum, erosion and sedimentation control measures would be designed for the 20-year, 1-hour storm event in accordance with SMARA guidelines. Silt fences would be installed five feet from the outer edge of each side of the existing Sweetwater River channel and may be installed in other areas. Other erosion control measures would include monitoring soil movement, arresting gullies or rills using straw mulch and hay bales, compacting soils with equipment, and re-grading as necessary. Vehicle track out and dust-related BMPs may include paved or stabilized roadway surfaces, tire washes, use of grates at vehicle entrances or exits, soil stabilizers, and water spray. Temporary erosion control measures would be retained until vegetation becomes sufficiently established to serve as an effective erosion control measure. Recommended erosion and sedimentation control measures would be described in detail in the Project SWPPP.

Water quality and hydromodification for permanent construction (e.g., Willow Glen Drive improvements) and impervious areas would be addressed with a Priority Development Project (PDP) Storm Water Quality Management Plan (SWQMP) and permanent post-construction BMPs. As noted in the SWQMP, stormwater runoff from the Willow Glen Drive improvements would be directed along the southerly curb of Willow Glen Drive. A proposed spillway would be installed along the westerly end of the roadway improvements to convey the runoff into tree wells just south of the street (see Figures 1-5a and 1-5b). Two tree wells with a 25-foot mature tree canopy diameter would be installed to satisfy the required treatment volume.

Equipment Maintenance

Mobile equipment utilized for project operations would be maintained by private vendors. Maintenance and repairs on the site's mobile mining equipment would be completed on a level area near the active excavation and away from drainage features. Ground protection and spill containment, which would include plastic sheeting to line a bermed sump and absorbent pads, would be placed in the work area prior to work being conducted on the equipment to contain leaks and prevent accidental spills from reaching the ground. Available clean up materials would include absorbent pads, pillows, dry absorbent, flat nosed shovel, a broom, and a waste container for any clean up materials used. All materials used to clean up a spill would be transported from the site and disposed of at a licensed facility in accordance with state and federal requirements.

Vector Control

The mining operator would control mosquito breeding using BMPs in accordance with requirements of the San Diego County Department of Environmental Health and Quality (DEHQ) and the Project-specific Vector Management Plan (refer to Section 3.1.4, *Hazards and Hazardous Materials*, of this EIR). An active management plan would be implemented to ensure that water collected in the mining areas, process settling ponds, and Sweetwater River does not propagate the breeding of vectors. Vector management would be implemented through monitoring and, where necessary, corrective measures. As wash water is pumped to the process settling ponds for use in material processing and dust control, excess water would be collected and allowed to infiltrate or return to process cycle after a short retention period. Two submersible pumps enclosed in a waterproof casing would feed and circulate the wash water. Water used in the washing operation would be continuously reused and recycled. During the wet season (generally October through March), the mining areas, process settling ponds, and the streambed would be visually inspected monthly by the operations staff for the presence of vectors. The mining areas, process settling ponds, and the streambed would be visually inspected monthly during the wet season and weekly during the dry season (generally July through September) by the operations staff for the presence of vectors. If necessary, corrective measures would be initiated.

Emergent vegetation would be removed when recommended by the County DEHQ Vector Control Program, or when emergent vegetation (e.g., cattails, sedges, etc.) is in excess of 50 percent of the surface area. Emergent vegetation would be controlled by hand labor, mechanical means, or by frequent clear cutting. Herbicides may be used as needed to control re-growth. Removal of vegetation by hand would be the preferred method in order to lessen the re-growth frequency and density. Floating vegetation conducive to mosquito production (i.e., water hyacinth [*Eichhornia* spp.], duckweed [*Lemna* and *Spirodela* spp.], and filamentous algal mats) would be removed. Foot

pathways would be maintained for surveillance and abatement methods. Sizing of pathways would be a minimum of five feet wide to allow access to any ponded area.

Additionally, good housekeeping BMPs would be implemented to avoid attracting rodents to the buildings and structures at the Project site, including placement of all trash and debris in sealed bins, timely removal of refuse by a licensed disposal company, use of traps to control rodents if observed, and proper training of all on-site staff.

1.2.1.2 *Reclamation Component*

In association with the MUP, a Reclamation Plan for mining activities would be required in compliance with SMARA and the County Grading Ordinance. Reclamation plans are developed to identify reclamation measures and establish performance standards for reclamation adequacy of mined lands. These measures include protection of wildlife habitat; revegetation; recontouring and erosion control; elimination or reduction of residual public health and safety hazards; and minimization of environmental impacts. A reclamation plan also addresses subsequent uses of the property and identifies schedules for reclamation activities.

Areas disturbed by resource extraction would be progressively reclaimed in an ongoing process that commences when mining operations have ceased within a given area and continues until all mining-related disturbance is reclaimed and all equipment involved in these operations has been removed. Reclaimed areas would be restored to an end use of open space, multi-use trails, and land suitable for uses allowed by the General Plan and existing zoning classifications. Specifically, nearly 52 percent of the project site (142.8 acres) would be preserved in a biological open space easement to be held by the County. The reclamation plan for the riparian corridor is intended to stabilize the post-extraction landform and establish a productive native vegetative cover. For the areas outside the riparian corridor, the revegetation plan is intended to stabilize the surface and control erosion.

Reclamation of each area would begin as the final landforms are established. Reclamation would include establishment of all final slopes; incorporation of imported inert debris, accumulated wash fines, and topsoil (as applicable); revegetation of the channel using appropriate native species common to riparian habitat; establishment of upland vegetation on the upper slopes; weed control; and monitoring, as further detailed below.

All material extracted from the site, not designated as saleable product, would be utilized as backfill to construct the final landform. No tailings or waste piles would remain following conclusion of extractive operations.

<u>Landform</u>

The final landform of the site would be a relatively flat plain that gently slopes downward from east to west (Figures 1-6a and 1-6b). Following extraction in areas where over-excavation deeper than the adjacent channel occurs, backfill would be placed to achieve the desired final elevation. Backfill is expected to be a combination of inert debris and overburden and wash fines produced at the wash plant. Fill material in the backfill areas would be spread in near-horizontal layers, approximately eight inches 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 would 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 85 percent in the floodway area and up to 90 percent in upland areas. In areas below the water table, the material would be placed at the edge of the pit and deposited to allow it to settle naturally. Once there is a working surface, compaction would occur. If necessary, over-compaction of the surface soil would be relieved by ripper, disc, and/or scarified to improve seed bed conditions for plant growth. Wash fines and inert debris would be used as backfill and blended with topsoil and used as a top dressing.

A widened river channel, more similar to pre-disturbance conditions, would bisect the length of the site. Banks of the river channel would slope up to the plain surface at a 3:1 ratio (horizontal:vertical) or shallower. The elevation difference between the bottom of the river channel and the top of the slope may be up to 25 feet (Figure 1-9, *Typical Slope Grading Detail*). The reclaimed river channel would average approximately 250 to 300 feet in width. In some areas, benches may be constructed on the face of the riverbanks to accommodate varying vegetation types and/or multi-use trails. The riparian corridor would be re-established with native habitat and natural landforms consistent with the surrounding area. Reclaimed upland areas would be similar in elevation to Willow Glen Drive.

Portions of the Sweetwater River channel located along the southwest edge of the Lakes Course are heavily vegetated with a mixture of native and non-native plant species. This part of the channel is currently a choke point for water as it exits the Project site. These areas would be incorporated into the reclamation plan by modifying the topography, removing invasive species, and replacing with native vegetation. Removal of invasive plants would occur manually and/or through herbicide use. Those treated with herbicide would either be manually removed after herbicide treatment or left to decompose. Herbicide use within the Project site would be conducted in accordance with all label instructions and local, state, and federal regulations, including application rates and methods, storage, transportation, mixing, and container disposal. In addition, only herbicides approved for aquatic use would be applied in areas within or adjacent to Sweetwater River and other waters, or areas with potential to drain into these areas. Invasive plant material would be removed from the site and disposed of off-site at a licensed landfill. To improve the channel and expand the riparian vegetation in this area, approximately 70,000 cy of material would be removed. Widening the floodplain at this location and revegetating the area would improve drainage and replace existing vegetation that is dominated by invasive plant species with more desired species. Work in this area, including planting native species, would be completed in the first phase of the Project.

Revegetation and Erosion Control

Plant species used in the revegetation effort would be capable of self-regeneration without continued dependence on irrigation, soil amendments, or fertilizer, and would include species representative of natural habitat. This would include riparian habitat within the river channel, coastal sage scrub on the channel slopes and upland areas with an end use of open space, and an erosion control seed mix for other areas outside the riparian corridor (Figure 1-10, *Conceptual Reclamation Revegetation and Compensatory Mitigation Areas*). Sample revegetation plant palettes are presented in Table 1-5, *Riparian Forest Plant Palette*, Table 1-6, *Riparian Scrub Plant Palette*, Table 1-7, *Streambed (Emergent Wetland) Seed Mixture*, Table 1-8, *Diegan Coastal Sage*

Scrub Plant Palette. The proposed erosion control seed mix is included in Table 1-9, *Erosion Control Seed Mix.*

Revegetation would occur through a combination of planting and hydroseeding. Hydroseeding is the hydraulic application of a homogeneous slurry mixture consisting of water, seed mix, cellulose fiber, and a binding agent such as "M" Binder. Fertilizer can be added if the soil analysis shows the need for addition of amendments; however, this is not anticipated. The hydroseed mixture would consist of the following materials:

- 2,000 pounds per acre cellulose fiber
- 140 pounds per acre "M" Binder (gluing agent)
- 200 pounds per acre Milogranite (fertilizer if required)
- Seed mix as listed

Seeding and planting would occur at times when winds are relatively calm, between November and February to take advantage of the natural precipitation season for Southern California. This planting period may be extended due to the use of irrigation.

Where final landforms have been established, but are not yet available for final reclamation, erosion control would be provided through revegetation with the general erosion control seed mix. The application of the seed mix would be completed on an as-needed basis to control erosion and weed propagation.

Irrigation

As final landform areas are prepared for planting and seeding, temporary above-ground irrigation would be installed. An irrigation plan would be developed in accordance with the recommendations of the Project Landscape Architect and submitted to the County for approval prior to implementation. Supplemental irrigation of reclaimed lands may be used during the first two years after planting to augment natural precipitation and assist with the propagation of reclaimed vegetation. Watering would only occur to assist in initial establishment and/or in long periods of extended dryness. Irrigation would not be used continuously after seeding. Irrigation would be accomplished using sprinklers and would adhere to the Water Conservation in Landscaping Ordinance. Irrigation water would be provided by existing wells on site.

Monitoring

Vegetation monitoring would continue for five years or until the County and the State Division of Mine Reclamation acknowledge that performance standards have been met. Prior to release of the financial assurance, all revegetated areas must meet performance standards. Proposed performance standards, which are subject to minor adjustments, are summarized in Table 1-10, *Performance Standards.* A minimum of two revegetation test plots would be established in the Phase 1 area by the project biologist as reclamation commences to help ensure successful implementation of the revegetation plan. The first should be located at a lower elevation in an area of riparian plantings and second at a higher elevation that encompasses coastal sage scrub/upland plantings. The project biologist also would develop an evaluation plan that would be implemented after the test plots are

planted. Success of these test plots would be judged based upon the effectiveness of the vegetation for the approved end use, and by comparing the quantified measures of vegetative cover, density, and species richness of the reclaimed mined lands to the surrounding area. Comparisons would be made by a qualified individual until performance standards have been met.

Since revegetation would occur concurrently with extractive operations, revegetation practices would be continually evaluated as revegetation is completed throughout the site. Records would be kept of soil preparation, including the addition of amendments as determined to be necessary, seeding techniques, and erosion control measures. Annual monitoring reports would be submitted to the County until the approved success criteria have been met and approved by the County. When the County agrees that revegetated areas meet success criteria for two consecutive years, no further monitoring would be required, and the operator may apply for release of financial assurances and SMARA closure.

Weed Control and Maintenance

Weed control is necessary to reduce or eliminate the occurrence of undesirable non-native species of plants that may invade the site where mining activities have removed the plant cover and where active and natural revegetation is taking place. Non-native invasive species (weeds) can compete with native plant species for available moisture and nutrients and consequently interfere with revegetation of the site after the completion of mining. Therefore, weed control and maintenance on the site would occur continuously during Project operation and the reclamation process, with a focus on control of invasive plant species such as those species listed in Table 1-11, *Weed Species of Concern*.

The occurrence of weeds on the site would be monitored by quarterly visual inspection during active mining operations. The goal is to prevent weeds from becoming established and depositing seeds in areas to be revegetated in the future. If inspections reveal that weeds have become, or are becoming, established on the site then removal would be initiated. Weed removal would be accomplished through manual, mechanical, and/or chemical methods depending on the specific circumstances. Smaller plants (brome grasses, pepper weed) that cover more area may be sprayed, scraped with a tractor, or chopped by hand, depending upon the size of the area of infestation and the number of desired native plants in proximity to or mixed with the weeds. As discussed above, chemical (i.e., herbicide) use within the Project site would be conducted in accordance with all label instructions and local, state, and federal regulations, including application rates and methods, storage, transportation, mixing, and container disposal. In addition, only herbicides approved for aquatic use would be applied in areas within or adjacent to Sweetwater River and other waters, or areas with potential to drain into these areas.

Maintenance of the revegetation areas would consist of replanting and/or reseeding unsuccessful revegetation efforts. If revegetation efforts are not successful within four years following the initial seeding, seeded areas would be reevaluated to determine the measures necessary to improve revegetation success. If necessary, these areas would be reseeded with methods modified as needed. Prior to reseeding, the revegetation specialist would evaluate previous revegetation practices and test plot results to identify cultural methods to benefit the overall revegetation effort.

1.2.1.3 *Access, Circulation, and Parking*

The Project proposes to restripe Willow Glen Drive between Steele Canyon Road and the Project ingress driveway to provide Class II buffered bike lanes on both sides of the roadway per the County Roadway Standards as part of the pre-mining improvements (refer to Figure 1-5b). To facilitate deceleration of right-turning vehicles into the Project ingress driveway, a dedicated right-turn lane would also be constructed, which would serve as the primary access for mining operations, material sales, employees, and vendors. A new egress point would be established in the approximate center of the existing parking lot (refer to Figure 1-5b). The Project also proposes to construct a two-way left-turn lane between the ingress and egress driveways, which would serve as a refuge lane for trucks to complete their outbound maneuver. Willow Glen Drive between Steele Canyon Road and Hillsdale Road is classified in the County General Plan Mobility Element as a 4.1B: Major Road with Intermittent Turn lanes. The Project frontage along this stretch of roadway extends between Steele Canyon Road to approximately 1000 feet west of Hillsdale Road. In addition to the above improvements, the project proposes to provide an Irrevocable Offer of Dedication along the Project frontage as needed to accommodate the ultimate roadway classification of Willow Glen Drive.

A new access point to the property from Willow Glen Drive west of the Steele Canyon Road (Phase 1 area) would be necessary as the clearance height of the bridge that crosses the Sweetwater River on Steele Canyon Road would not allow most large trucks used by service vendors (e.g., to provide fuel and maintenance to the heavy equipment utilized during mining) to pass beneath the bridge. Current access from Willow Glen Drive to the western portion of the property is provided by a small driveway at the northwestern corner of the property. During the initial stages of the Project, this access point may be used briefly for equipment delivery. However, a more substantial access point for this area of the Project would be constructed at the intersection of Willow Glen Drive and Muirfield Drive as part of the pre-mining improvements, prior to initiation of Phase 1 activities (refer to Figure 1-5a). The access driveway would consist of a two-lane concrete apron that would transition to a gravel surface segment of road within the Project site and would be used primarily for mobilization/demobilization, servicing of heavy equipment, and reclamation for the Phase 1 area west of Steele Canyon Road. Both the Muirfield Drive access and existing driveways with gates would remain in place for the property owner after mining activities have been completed. This access point would not be used for transport of backfill materials to the Phase 1 area.

An access point to the property that is used by the golf course for maintenance exists from Ivanhoe Ranch Road, south of the river. This access point may be used for heavy equipment delivery and removal within Phase 2 and 3 areas south of the Sweetwater River channel but would not otherwise be used for mining purposes. The existing maintenance gate may also be used for reclamation maintenance and monitoring after mining in Phases 2 and 3 has ended.

Trucking operations for material sales would operate from 9:00 a.m. to 3:30 p.m. Monday through Friday to avoid peak traffic periods. There would be no trucking from the site or processing of materials on Saturdays, Sundays, and major holidays (as listed in Section 36.408 of the San Diego County Code of Regulatory Ordinances). As many as 15 over-the-highway trucks may be parked each day near the processing area and entrance to the site west of the existing golf course parking

lot. A parking lot would be provided near the processing area that would accommodate the 9 employee and 14 vendor vehicles.

Trails and Pathways

A pedestrian pathway would be provided along the northern Project frontage/Willow Glen Drive east of Steele Canyon Road to provide pedestrian access within the Project vicinity where there are no existing sidewalks. The public pathway has been designed to avoid removal of existing mature screening vegetation (refer to Figures 1-11a through 1-11e, *Conceptual Landscape Screening and Entrances Plan*). The pathway would range in width from eight feet wide just east of Steele Canyon Road, to five feet wide in the eastern portion of the Project site where the potential pathway alignment is constrained by existing topography and the Sweetwater River channel.

A publicly accessible community trail is also proposed to be constructed within the Project site, as shown in Figure 1-12, *Trail Plan*. The multi-use trail would connect to the pathway described above. The trail would be constructed by the Project applicant in conjunction with final site reclamation activities. Specifically, trail construction would be completed in segments and would begin in a phase area when mining activities have been completed in the phase area and reclamation has begun in the final subphase of that area. For example, in Phase 1, construction of the trails in that segment of the Project area would begin during reclamation of subphase 1C, when no mining activities are occurring in Phase 1. This would then continue during Phases 2, 3, and 4. The County has identified a number of existing and proposed community pathway and trails located along public rights-of-way, over private property, and through County-owned land in the vicinity of the Project in the Valle De Oro Community Trails and Pathways Plan, which is a component of the County Trails Program Community Trails Master Plan (CTMP; 2005, as amended). The location and design of on-site trails would be coordinated with the County.

1.2.1.4 *Landscaping*

Existing landscape vegetation along Willow Glen Drive, which primarily consists of trees and shrubs such as acacia, Peruvian pepper trees, and oleander, would be maintained to the extent feasible during Project operation to provide a visual screen between Project activities and the public. A tree survey conducted along the northern Project boundary identified a total of 477 trees that currently provide landscape screening. Approximately 67 (14 percent) of the existing trees would be required to be removed to construct the Project entrance and Willow Glen Drive improvements, including eucalyptus (*Eucalyptus* spp.), palm (*Washingtonia robusta*), California pepper tree (*Schinus mole*), European olive (*Olea europaea*), and *Myoporum laetum* (no common name) species. Tree removal would be concentrated east of Steele Canyon Road and west of the existing golf course parking lot where the improvements to Willow Glen Drive and Project ingress driveway are proposed. The full extent of tree removal would be confirmed once improvement plans are prepared as a condition of the Project MUP. Replacement trees would be planted prior to initiation of Phase 1 to provide visual screening of mining activities from Willow Glen Drive and viewers to the north of the Project site. The landscaping would be installed along Willow Glen Drive, adjacent to the Project entrances, and to provide additional screening of the plant area and parking lot (Figures 1-11a through 1-11e). Mature 36-inch box Mexican elderberry trees are proposed to be installed along the western and southern boundary of the processing plant footprint

prior to the initiation of Phase 1 (Figure 1-7b). These trees would be installed in ground and would be maintained throughout the duration of mining operations on the Project site. Although it may be possible to salvage some existing vegetation within areas proposed for extraction, the existing native tree species are reaching the end of their life span and may not survive relocation. Due to the relative lack of native vegetation on the property, on-site seed collection would be minimal.

Trees planted for landscaping and screening would include coast live oak (*Quercus agrifolia*), Fremont cottonwood (*Populus fremontii*), and Western redbud (*Cercis occidentalis*). Additional plants to be employed include shrubs (California lilac [*Ceanothus* x 'Ray Hartman'], toyon [*Heteromeles arbutifolia*], lemonade berry [*Rhus integrifolia*]), groundcover (dwarf coyote bush [*Baccharis pilularis*]), and a coastal sage scrub seed mix. Trees would be spaced approximately 20 to 25 feet on center. Where feasible, trees would be grouped such that some trees would be located diagonally behind others.

1.2.1.5 *Fences*

During the Project's operational lifetime, public access would be controlled by fencing on the perimeter of the property and gates on the access roads within the Project boundaries. Lodge pole fencing would be installed on the south side of the proposed pathway along the northern Project frontage/Willow Glen Drive east of Steel Canyon Road. In addition, appropriate signage would be posted around the perimeter of the excavation area and Project boundary at 150-foot intervals; wayfinding/directional signage would be provided for the pathway. The majority of the site is already surrounded by chain link fencing, with fencing to be replaced/repaired where missing or damaged. Fencing along the San Diego National Wildlife Refuge (SDNWR) to the southwest of the Project site would consist of four-foot-high, four-strand barbed wire; along all other public areas a six-foot-high chain link fence would be installed where not currently present. Where the fencing is not screened by existing or proposed vegetation, green screening mesh would be installed to screen Project operations from public view. The gates would be locked during non-operating hours. Security fencing would be removed after reclamation is complete, at the owner's request.

1.2.1.6 *Lighting*

Shielded night lighting would be installed around the processing plant for safety and security purposes. Lighting would be designed to minimize glare and reflection onto neighboring areas and is anticipated to include mounted sodium, metal halide, fluorescent, or light-emitting diode (LED) lighting. Lights would be directed downward and would have cut-offs installed to minimize spillover onto adjacent properties. Each light would provide the lowest light level necessary and would be limited to less than 4,050 lumens output, maintaining compliance with State and local regulations. Additional detail regarding lighting is discussed in Section 3.1.1, *Aesthetics*.

1.2.1.7 *Utilities and Services*

Electricity

Electrical power would be provided by SDG&E through an overhead distribution line that enters the site from the northwest. The Project would utilize temporary power poles for the plant location and conveyor system. Existing transmission lines across the site would be retained in their current

locations and the area immediately surrounding the existing transmission towers would not be subject to excavation. SDG&E easements would remain in place after the Project is completed.

Water

Eight groundwater wells on the property currently provide irrigation water for the golf courses, and would be used for dust control, processing, and irrigation during Project operation. Wells not proposed to be used by the property owner or for groundwater monitoring after mining and reclamation have been completed would be properly abandoned. Sweetwater Authority has requested that two wells, Lakes #11 and Ivanhoe #11, remain in place after cessation of mining and reclamation activities so groundwater monitoring can be continued in this area of the river. It is the intent of the Project not to remove these two wells unless it is required.

Bottled drinking water for the mine staff would be provided by a private vendor. The estimated existing annual groundwater usage from well pump data provided by the course superintendent is 840 acre-feet. The annual water usage, including evaporation from course ponds, was estimated as 804 acre-feet using the evapotranspiration method described in the Groundwater Sustainability Plan for Borrego Valley (Borrego Valley Groundwater Sustainability Agency, 2019), as referenced in the project reclamation plan. Water use by the Project for all purposes has been calculated at 139.9 acre-feet per year, or a reduction of approximately 664.1 acre-feet or 82 percent per year relative to existing conditions.

Sand mines use water to wash the material for use off site and water roads and stockpiles for dust suppression. The total amount of water used in the mining and processing is "handled water;" water that is lost from the site during the mining and processing is "consumed water." A water truck would be used for dust suppression on all operating areas. This would include material stockpiles and unpaved areas within the mining area, the processing plant, and access road. Outgoing loads also would be surface-watered for dust suppression purposes. Dust suppression is estimated to require 20.3 acre-feet of water per year. Water usage for processing would depend on production volume. The Project's estimated water usage assumes the maximum annual production of 570,000 tons. Of the 203 gallons per minute (gpm) of water used in the washing operation, 87 percent would be continuously reused and recycled. Approximately 38 gpm of continuous water input on workdays would be required to make up for approximately 13 percent that is estimated to be lost through evaporation and retention on material. Water consumed for processing is estimated at 64 acre-feet annually based on the maximum annual production rate. This includes the 20.3 acre-feet per year noted above for dust control, 20.3 acre-feet per year attributed to evaporation from stockpiles, and 23.4 acre-feet per year of water retained on aggregate product that is taken off site within exported mining materials. An additional 20.3 acre-feet per year would be consumed in association with evaporation from mining pit areas where groundwater may be encountered. Irrigation of landscaping near the entrance and as supplemental water on revegetated areas is estimated to utilize approximately 55.6 acre-feet per year. Total water consumption for the Project is estimated at 139.9 acre-feet per year.

Wells not to be used by the property owner or for groundwater monitoring after mining and reclamation are complete would be properly abandoned. Wells in the mining footprint, or not to be used in the future, would be abandoned as each mining phase is completed in accordance with County requirements and standards. As noted above, Sweetwater Authority has requested that two

wells, Lakes #11 and Ivanhoe #11, remain in place after cessation of mining and reclamation activities so that they can continue groundwater monitoring in this area of the river.

Additional discussion regarding proposed water use is provided in Section 3.1.6, *Hydrology and Water Quality*, and 3.2.7, *Utilities and Service Systems.*

Sewer

The Project would utilize portable restroom(s); no sewer connections are proposed. One portable restroom would be placed in the plant area and the second would be placed near the active excavation area and moved as needed. They would be serviced at appropriate intervals by contract vendors.

Solid Waste Disposal

Domestic refuse would be collected in trash bins and removed by a licensed, refuse disposal company. Equipment would be maintained on site and all used oils, fuels, and solvents would be collected in accordance with the Department of Toxic Substances Control (DTSC) regulations and removed from the site by an approved hauler for materials recycling.

1.2.2 Technical, Economic, and Environmental Characteristics

In accordance with the Project objectives, the Project has been designed to allow for the recovery and processing of construction aggregates in a financially sound and efficient manner, while considering environmental considerations. The complete suite of environmental characteristics, including comments that were received during the Notice of Preparation (NOP) public review period (Appendix A), was considered during the planning and design of Project facilities.

A California Geological Survey (CGS) special report classified the Cottonwood Golf Course to Mineral Resource Zone (MRZ-) 2, which is defined as an area where "adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists." The material specifications for PCC-grade aggregate are more restrictive than those for other grades of aggregate, which makes these deposits the scarcest of aggregate resources (CGS 2017). The Project would involve the extraction of aggregate sand, which is a known mineral resource that is of value to the region and the residents of the state.

The Project would extract these resources for local uses. The CGS report estimates that an average of 2.02 million tons per year of aggregate (primarily sand) were imported into western San Diego County between 1995 and 2014 (CGS 2017). Providing an additional local supply of aggregate material would reduce the need to import material from more distant mines. This issue is highlighted in the CGS Special Report 240, *Update of Mineral Land Classification: Portland Cement Concrete-Grade Aggregate in the Western San Diego County Production-Consumption Region* (2017, pp. viii-x):

> "Since the mid-1990s, local aggregate production has not been sufficient to meet local demand in the P-C Region [Western San Diego County Production-Consumption Region]. This shortfall has been met by importing construction aggregate, **predominately sand** [emphasis added], from neighboring aggregate producing regions. At various times,

> construction aggregate has been imported into the P-C Region from mines in Los Angeles, San Bernardino, Riverside, and Imperial counties, and Baja California, Mexico.…When compared to local production, importing aggregate is often more expensive and results in higher emissions of greenhouse gases, air pollution, traffic congestion, and road wear and maintenance because of increased truck traffic. These impacts occur both within the importing region and in the neighboring regions that supply the material and through which the material is transported."

Proposed mining depths were determined based on existing surface elevations, production goals, and proposed reclaimed surface elevations. These depths would allow flexibility to meet those goals in the event more material considered unsuitable for processing is encountered than anticipated. The stability of slopes created during mining operations would be governed by the Mine Safety and Health Administration (MSHA) to ensure worker safety. The proposed permanent slopes would be a maximum grade of 3:1 (horizontal to vertical) to provide an appropriate factor of safety.

Proposed mining setbacks in areas adjacent to residential properties were increased from 50 feet (derived from Section 87.412 of the County of San Diego Grading Ordinance) to 100 feet, or areas were excluded from excavation, to assist in reducing noise and visual impacts to those residents, specifically those along Willow Glen Drive to the north of the Project site and those along the southern boundary of the central portion of the Project site. The increase in setback distance was determined based on being able to provide reduction in noise and visual impacts while maintaining sufficient mining area to be able to meet the Project objective of providing 570,000 tons per year of aggregate product. In addition, certain areas of the property were excluded from excavation to avoid disturbing identified habitat and other sensitive resources.

In particular, the Sweetwater River channel and associated floodplain represent a key environmental characteristic of the site, related to biological resources, hydrology, water quality, groundwater, and water supply. Under existing conditions, on-site water flows in a naturally lined trapezoidal channel constructed within the golf course. The channel transitions to a broader riparian channel near the downstream portion of the Project site. The bottom of the trapezoidal channel would be undisturbed, with the exception of temporary 16-foot-wide channel crossings that would only be used during the dry season, to minimize impacts to jurisdictional waters and wetlands and allow the Sweetwater Authority water transfers to continue within the existing low-flow channel. Silt fences would be installed five feet from the outer edge of each side of the channel to minimize potential siltation. To minimize effects related to erosion, the Project may utilize small, temporary desiltation basins that to prevent sediment from leaving the site while allowing water to pass through to existing drainage features. Mining and reclamation grading would direct runoff from the disturbed areas towards the basins. Permanent erosion control structures would include a drop structure at the eastern end of the site where the Sweetwater River enters the property, a riprap structure on the west side of the Steele Canyon Road bridge, and appropriate slopes, terraces, ditches, and down drains where needed. The riprap structure on the west side of the Steele Canyon Road bridge would be constructed after excavation has been completed in Phase 1, and the drop structure would be constructed after excavation has been completed in Phase 3. The drop structure would prevent head cutting of the channel during infrequent, high flow events. It would be the width of the modified river channel (610 feet) on the slope face, extend approximately 20 feet below the slope face, and be constructed of grouted riprap. It would be

constructed using heavy equipment per standard techniques when mining activities commence downstream. The riprap structure on the west side of the Steele Canyon Road bridge, which would also be constructed of grouted riprap and after excavation has been completed in Phase 1, would protect the bridge from erosion after the downstream area (Phase 1) has been mined.

The Project has been designed to avoid capture of transferred water within extraction areas. To ensure that excavation activities would not substantially affect Sweetwater Authority water transfers between the Loveland and Sweetwater reservoirs, mining activities proposed during the rainy season (generally November through March) would be located away from the river channel, to the extent feasible. If mining would occur within 10 feet of the low-flow channel, berms approximately five feet in height would be constructed to separate the operations areas from the channel, as needed. The berm locations can be adjusted as mining progresses and would be set back from mining activities. Berms may also be incorporated upon final reclamation, where needed, to reduce potential loss of water during scheduled transfers. The Project design and berming are intended to preserve the Sweetwater Authority's ability to transfer water from Loveland Reservoir to Sweetwater Reservoir.

Potential impacts to groundwater also are of potential concern. Three excavation pit areas where groundwater may be encountered are planned (refer to Figures 1-5a and 1-5b). The first pit would be excavated during Phase 1 on the northern side of the river channel and south of Willow Glen Drive (subphase 1C area on Figure 1-4). The second pit would start to be excavated in the eastern half of the Phase 2 area (subphase 2C area on Figure 1-4) and would continue in a northeasterly direction toward the Phase 3 area (subphase 3C area on Figure 1-4). This pit would be located south of the existing channel and east of Steele Canyon Road. The pit would not connect with the channel. The third pit would be completed in the northeastern corner of the Project site during Phase 3 (subphase 3A area on Figure 1-4). These pits would be progressively backfilled as the excavation continues. Exposure of groundwater as a free water surface at any given time in each of the three pits would be limited to approximately five acres in size. This would minimize the associated potential for evaporative losses. Dewatering of these pits is not necessary and would not occur.

Mining activities would be limited to approximately 20 to 30 acres at any given time, with reclamation and revegetation occurring sequentially. This would limit the potential for erosion and sedimentation and temporal loss of biological resources, as well as both the magnitude of the visual impact and the duration to which views from a particular location would be affected.

A new access point to the property from Willow Glen Drive west of the Steele Canyon Road (Phase 1 area) would be necessary for the initial phase of mining activities as the clearance height of the bridge that crosses the Sweetwater River on Steele Canyon Road would not allow most large trucks used by service vendors to pass beneath the bridge. This new access point would be constructed as part of the initial pre-mining improvements. To reduce potential conflict points, the driveway would be restricted to right-in/right-out movements, with left-turn outbound movements prohibited (see Figure 1-5a). The southbound left-turn movements from Muirfield Drive would still be allowed.

In selecting the site for the processing plant, a location near a roadway was desirable to minimize the distance that trucks need to travel to access the plant, as well as avoid the need to construct

additional roadways across the site. Although several options were considered, Willow Glen Drive was selected because it was the primary road utilized by golf course patrons and has capacity for the traffic generated by the Project. By placing the plant in the proposed location, Willow Glen Drive would be easily accessible and the plant would be distanced from housing tracts in the area, reducing the potential for noise impacts. This location is also at the approximate center of the Project site and would not have to be moved until the final stage of the Project. A portable conveyor line would be installed to transport excavated materials to the processing plant from the excavation areas, thus minimizing the amount of truck traffic (with associated noise and dust) that is necessary on the site.

A new access off Willow Glen Drive to the west of the existing driveways to the Cottonwood Golf Club parking lot would be constructed as part of the initial pre-mining improvements to provide access for mining operations, material sales, employees, and vendors (see Figure 1-5b). To improve Willow Glen Drive consistent with its Mobility Element classification (4.1B: Major Road with Intermittent Turn Lanes), the Project would widen the roadway between Steele Canyon Road and the Project egress driveway to four lanes with intermittent travel lanes as part of the initial pre-mining improvements, as described in Section 1.2.1.3 (see Figure 1-5b). A two-way left-turn lane would be constructed between the existing driveways, which would serve as a refuge lane for trucks to complete their outbound maneuver as they are exiting the site. As described in Section 1.2.1.4, removal of approximately 67 trees would be necessary to construct the Project entrance and Willow Glen Drive improvements; the extent of removal would be confirmed once improvement plans are prepared as a condition of the Project MUP. As noted in Section 1.2.1.4, replacement trees would be planted prior to initiation of Phase 1 to provide visual screening of mining activities from Willow Glen Drive and viewers to the north of the Project site.

To minimize the visual effects of the Project, existing landscape vegetation along Willow Glen Drive would be maintained to the extent feasible during Project operations to provide a visual screen between Project activities and the public. Although approximately 67 (14 percent) of the existing trees are proposed to be removed to construct the Project entrance and Willow Glen Drive improvements, replacement trees and additional screening of the plant area are proposed to provide visual screening of mining activities from Willow Glen Drive and viewers to the north of the Project site (refer to Section 1.2.1.4, above, and Figures 1-11a through 1-11e). Additional landscaping would be installed to provide additional screening of the plant area and parking lot (refer to Section 1.2.1.4 and Figures 1-11a through 1-11e). In limited locations where vegetative screening is not feasible due to limited width between the public right-of-way and the existing Sweetwater River channel, or prior to establishment of adequate vegetative screening, green screening mesh would be installed on Project fencing along Willow Glen Drive and on the Steele Canyon Road bridge to screen Project operations from public view.

1.3 Project Location

The Project site is located in the unincorporated portion of the County, in the Valle de Oro Community Planning Area (CPA) (see Figures 1-1 through 1-3). The Valle de Oro CPA encompasses approximately 19 square miles of the unincorporated portion of the County located south of the city of El Cajon and east of the city of La Mesa. The Project is located within the Rancho San Diego community, which generally consists of the southeastern reaches of the CPA. More specifically, the Project site is located on the south side of Willow Glen Drive at 3121 Willow

Glen Drive, El Cajon, California. Steele Canyon Road bisects the Project site. The western edge of the Project area is approximately 600 feet east of the intersection of Willow Glen Drive and SR 54/Jamacha Road, with the site extending approximately 1.7 miles to the east of that intersection. SR 94/Campo Road is located approximately 0.7 mile southwest of the site. The site is situated within the Sweetwater River watershed and in the floodplain of the Sweetwater River, which flows in a northeast-to-southwest direction through the site.

The commercial village area of the Rancho San Diego community is located to the west of the Project site. An approximately 32-acre portion of the Project site is located within the Rancho San Diego Specific Plan area. The Cottonwood and Jamacha communities are located to the north and east of the Project site, respectively.

1.4 Project Background

The Project site is currently occupied by the Cottonwood Golf Club and contains 22 Assessor's Parcel Numbers (APNs; Table 1-12, *Assessor's Parcels*).

Site History

Prior to the 1940s, the Project site and surrounding lands of the Jamacha Valley were predominately used for commercial ranching and agriculture, most of which had ended by the 1950s. A 1953 aerial photograph of the Project site (Figure 1-13, *1953 Aerial Photograph*) indicates that the floodplain of the Sweetwater River was primarily undeveloped with the presence of a small, wooden house/structure adjacent to Willow Glen Drive to the west of Steele Canyon Road. A portion of the site was also being mined for construction aggregates on the south side of the river and west of Steele Canyon Road. Mineral extraction uses in this area had expanded to the east side of Steele Canyon Road by the early 1960s. Other disturbed areas observed on the 1953 aerial photograph suggest surface mining may have been occurring adjacent to Willow Glen Drive on the western end of the property. It also appears that a dirt aviation landing strip may also have been present.

Mining activities along Steele Canyon Road continued into the 1970s as both golf courses were developed. Construction of the golf courses began in approximately 1962 with the Lakes Course (formerly the Monte Vista Course) on the western side of the property and the Ivanhoe Course on the eastern side of the property. The golf course confined the Sweetwater River to a narrower channel and replaced native riparian vegetation with turf grass.

Since 1963, the property has been used as two public golf courses. Facilities at the golf club consist of a large parking lot, a clubhouse, practice facilities and two, 18-hole championship length golf courses. Sand extraction continued at the site through the years, which allowed the golf course to be modified with water hazards and expanded fairways. A small wooden house also exists next to the 4th tee box of the Lakes Course. Golf play on the Lakes Course was suspended indefinitely in 2017 to focus all operational efforts on the Ivanhoe Course. The Lakes Course area is periodically maintained to control weeds and remove trash.

Existing Land Entitlements

Golf Course

The existing golf course site is generally aligned along both sides of the Sweetwater River and extends for approximately two miles along Willow Glen Drive. The golf course is approved (Special Use Permit/MUP No. 61-090 W2M1) to occupy lowlands within the Sweetwater River floodplain.

The original permit (approved January 16, 1962) described real property for a Commercial Sport and Recreational Enterprise, consisting of and including a golf course, driving range, restaurant, bar, putting green, pro shop, swimming pool, and other ancillary facilities. Grading plans have been approved over the years associated with golf course improvement. The most recent grading plan amendment was approved June 6, 2016.

Several minor deviations were made to the original Special Use Permit between 1972 and 1989. Two modifications followed in 1992 and 1994. The first modification was approved on October 8, 1992 (P61-090W) with a certified Negative Declaration (Log No. 88-14-9), which revised the permit to include approximately 15 acres of additional area for the relocation of holes 12 and 13 of the western 18 holes at the Monte Vista Course (currently the closed Lakes Course) and to add and delete other property as reflected on the approved plot plan; a two-story, 30,000-square foot (SF) clubhouse consisting of a public lobby, pro shop, administrative offices, classrooms, restaurant dining, bar and grill, kitchen, locker rooms, and support areas; a practice range and practice greens; below-ground golf cart storage area; and a 336-space parking lot and demolition of existing clubhouse.

A second modification (P60-090W) was approved on January 19, 1994 with a certified Negative Declaration (Log No. 88-14-9). The modification proposed the addition of 8.2 acres on the north side of Willow Glen Drive to use an existing residential facility as the San Diego Golf Academy; the 8.2 acres are no longer owned by the golf course. The second modification also included three major sections of modifications as follows:

- Section I - Golf holes 12 and 13 were modified from the initial location and constructed as part of the western 18 holes of the Monte Vista Course (currently the closed Lakes Course). (MUP Modification P61-090W, Section I)

- Section II - Clubhouse with Related Facilities and Uses and Parking was not constructed; that portion of the permit expired. (MUP Modification P61-090W, Section II; expired on October 8, 1995)

- Section III - Instructional Facility located north of Willow Glen Drive was never constructed; that portion of the permit expired. An open space easement was dedicated on parcel 518-021-0800. (MUP Modification P61-090W, Section III; expired on January 19, 1997)

As noted above, the only work completed under these modifications included the relocation of golf holes 12 and 13 on the Lakes Course and the dedication of an open space easement on parcel 518-021-08-00 north of Willow Glen Drive. The new clubhouse and the instructional facility were never built. The 8.2-acre parcel north of Willow Glen Drive is now owned by a separate entity from the golf course ownership and the parcel is not within the boundary of the Proposed Project.

A separate MUP (P83-55) for a Mining and Processing/Reclamation Plan, pursuant to Sections 2805 and 2905 of the County Zoning Ordinance and Section 87.701 of the County Code was approved on May 30, 1984 to allow the periodic removal of sand, temporary stockpiling, preliminary screening of foreign matter, and transport of sand deposits from the Sweetwater River on the property as necessary to properly maintain free-flowing conditions. This permit was approved for a 15-year period. Based on discussions with the former operator, sand removal occurred approximately every five years with the last sand extraction in approximately 1995.

Rancho San Diego Specific Plan

The Rancho San Diego Specific Plan (Specific Plan) was originally adopted on January 16, 1980 and has been amended several times, primarily for development purposes. The most recent amendment was approved on December 4, 2013. There are two parcels in the southwestern corner of the Reclamation Plan boundary that are included in the Specific Plan. These parcels are 506-021-19-00 (8.2 acres) and 519-011-03-00 (23.8 acres) and have a zoning designation of S88, Specific Planning Area. Pursuant to Section 2885.b. of the County Zoning Ordinance, extractive uses on these parcels are restricted to site preparation, which allows the off-site removal of materials when it is secondary to the future use of the site. Currently, all of parcel 506-021-19-00 and approximately 13.3 acres of the 23.8-acre parcel 519-011-03-00 are used by the golf course as fairways. The primary reason for including the two parcels in the Project boundary is to improve the Sweetwater River channel and increase the area of native riparian vegetation. The end use for both parcels would be floodway; no mining activities are proposed within these parcels. The proposed channel enhancement would be compatible with the Specific Plan.

1.5 Environmental Setting

1.5.1 Project Vicinity

The Proposed Project is located within the County's Valle de Oro Community Planning area. Rancho San Diego is located to the west of the Project site. An approximately 32-acre portion of the Project site is located within the Rancho San Diego Specific Plan area, as discussed in the preceding section. The Cottonwood and Jamacha communities are located to the north and south of the Project site, respectively. The area is characterized by the Valle de Oro Community Plan as a balance of urban, semi-rural agricultural, and open space land uses, with the Rancho San Diego area developed with large-scale, well-planned residential and commercial developments interspersed with large areas of green-belt and biological open space for wildlife preservation.

Land uses in the surrounding area include residences, parks, and commercial uses of the Rancho San Diego community to the north and west; rural residential development, undeveloped land and extractive operations to the northeast; rural residential development, a residential treatment facility, and the Steele Canyon Golf Club (including a 27-hole golf course and associated

residential uses) to the south and southeast; and the SDNWR to the southwest, along the Sweetwater River. Residential uses occur immediately to the southeast of the site, within approximately 120 feet to the north, and within approximately 100 feet to the northeast. Jamacha Elementary School is located approximately one-quarter mile to the south, Steele Canyon High School is approximately one-half mile to the south, Valhalla High School approximately three-quarters of a mile to the northwest, Hillsdale Middle School approximately one-half mile to the west, and Cuyamaca College approximately two-thirds of a mile to the west.

Land use in the vicinity is limited by physical constraints including the Sweetwater River channel and steep terrain to the north and south of the river. The Sweetwater River extends from its headwaters in the Cuyamaca Mountains (east of the site) to San Diego Bay, approximately 15 miles southwest of the site. River flows in the vicinity of the Project are controlled by the Loveland Reservoir dam, approximately 4.8 miles upstream. Runoff from the upper Sweetwater River watershed is captured at Loveland Reservoir, primarily during winter and spring months. Surface water is only present during or shortly following precipitation, or during water releases from the Loveland Reservoir by the Sweetwater Authority. Sweetwater Reservoir is a terminal drinking water reservoir located less than 3 miles downstream of the Project site.

Important biological resources in the vicinity generally include core blocks of coastal sage scrub and chaparral, open space conserved within the SDNWR and on Dictionary Hill, and perennial waters and riparian habitat associated with Sweetwater River corridor.

In the Project vicinity, the Sweetwater River channel slopes gently to the southwest from approximately 400 feet above mean sea level (amsl) to 300 feet amsl. Land to the north and east of the river channel rises steeply to over 700 feet amsl. The area to the south consists of rugged terrain rising quickly to elevations over 800 feet amsl, and continuing to rise to San Miguel Mountain, at over 2,500 feet amsl, approximately three miles to the south.

Areas upstream and downstream along the Sweetwater River are characterized by riparian forest and riparian scrub vegetation. Undeveloped lands to the north, east, and south are primarily vegetated with coastal sage scrub, with smaller areas of grassland.

1.5.2 Project Site

The property is currently occupied by the Cottonwood Golf Club, which was permitted in 1962. The club consists of two 18-hole golf courses referred to as the Lakes Course and the Ivanhoe Course. Golf play on the Lakes Course was suspended indefinitely in 2017 to focus all operational efforts on the Ivanhoe Course. Figure 1-14, *Lakes Course Layout*, presents the layout for the Lakes Course and Figure 1-15, *Ivanhoe Course Layout*, shows the layout for the Ivanhoe Course.

In addition to the golf courses, facilities include an 11,590-SF clubhouse with a bar and grill, an open 13,000-SF golf cart storage yard, an approximately 2.2-acre equipment maintenance and repair facility, and a 2.4-acre parking area for approximately 320 automobiles (Table 1-3). These facilities would be removed during Phase 2. On-course restrooms are located near the tee box on Lakes Hole 7 and on the Ivanhoe Course at the tee box for Hole 14, and would be removed during Phases 1 and 3, respectively. These on-course restroom facilities are connected to septic systems. A small, wooden house owned by the golf course owner is located next to the 4th tee box of the

Lakes Course, immediately adjacent to Willow Glen Drive and 0.3 mile west of Steele Canyon Road. This house was not used for golf course operations. The building is not occupied and is boarded up and would be removed during Phase 1.

Hours of operation for golfing activities at the Ivanhoe Course are from dawn to dusk. Course maintenance occurs from 5:00 a.m. until 1:00 p.m. The bar and grill are open from 10:00 a.m. until 4:00 p.m., seven days per week. There are presently 23 golf course employees for administration, maintenance, and dining.

The equipment maintenance facility is located on the Ivanhoe Course between Holes 7 and 8. Equipment maintained in this location includes all the tractors, mowers, and other landscaping equipment necessary to maintain the Ivanhoe Course in a playable condition. The facility includes two above-ground fuel storage tanks, storage for all landscaping supplies, two garage repair structures (3,440 and 3,880 SF), and 375-SF office, and covered parking bays for equipment. Maintenance staff park their personal vehicles at this location. All components of this facility would be removed at the end of Phase 2.

Public parking is currently located in two connected parking lots on the north side of the clubhouse and adjacent to Willow Glen Drive. The upper lot is the largest (1.6 acres) with designated parking spaces for approximately 200 vehicles, while the lower lot has space for approximately 120 vehicles (0.75 acre). Public use of the parking area would end after approval of the new MUP.

The site was previously used for commercial ranching and agriculture prior to the 1940s. Mining for construction aggregates occurred in the 1950s to the south of the Sweetwater River west of Steele Canyon Road, and adjacent to Willow Glen Drive at the western end of the site. Mineral extraction activities expanded to the east side of Steele Canyon Road in the 1960s and continued into the 1970s as both golf courses were developed. Construction of the golf course began in 1962 and was completed in 1964. Sand extraction activities have continued within the site throughout the years, allowing for the creation of water hazards and expanded fairways associated with golf course improvements. The most recent mining activities occurred in the western and southwestern portions of the site between 2007 and 2009, and in the extreme eastern portion of the site in 2016. Work that was completed between 2007 and 2016 was under Grading Plan Permit L14806, Cottonwood Golf Course Fairways Regrading, Waste Bunkers and Water Storage Lakes. Work included the excavation of water storage ponds on various fairways and development of unirrigated waste bunkers (i.e., unmaintained areas) within the course design, which also served as hazards for golf play. Several fairways were regraded and realigned on the southwestern end of the Project site within the now closed Lakes Course. Although not a mining project, materials were removed from the site.

The site gently slopes from the east to the west, with elevations ranging from approximately 380 feet amsl in the northeastern portion of the site to 320 feet amsl in the southwestern portion of the site. The Sweetwater River runs through the length of the site entering at the northeastern Project boundary and continuing to the southwestern boundary, where it exits the site and continues southwest towards Sweetwater Reservoir. The approximate groundwater elevation is 310 feet amsl at the western end of the site and 354 feet amsl at the eastern end of the site, typically between 5 and 18 feet bgs (Geocon 2019).

Vegetation within the Project site reflects the site's disturbed and developed nature; 14 vegetation communities/land use types occur on the Project site. The portion west of Steele Canyon Road, which consists of the closed portion of the golf course, is characterized by ruderal vegetation, disturbed habitat, and a mixture of native and non-native planted trees. The eastern portion of the site, which represents the active golf course, is characterized by landscaped turf grass, native and non-native planted trees, cart paths, parking lot, clubhouse, and other maintenance facilities.

Vegetation along the Sweetwater River channel has been heavily modified as part of golf course development and past disturbances associated with previous mining activities. It is currently dominated by Bermuda grass (*Cynodon dactylon*) or bare ground. Vegetation within portions of the channel is irrigated and regularly mowed as part of golf course maintenance activities. A small section, approximately 2,360 feet in length (0.45 mile) and 130 to 250 feet in width, of riparian vegetation is located along the southwestern Project boundary. This section is dominated by willows (*Salix* ssp.) intermixed with non-natives such as giant reed (*Arundo donax*) and tamarisk (*Tamarix* sp.).

Small patches of Diegan coastal sage scrub habitat occur at the southeastern and southwestern Project boundaries. These patches are connected to larger swaths of coastal sage scrub that occur off-site within preserved lands and open space. Dominant species include California sage brush (*Artemisia californica*), California buckwheat (*Eriogonum fasiculatum*), singlewhorl burrobrush (*Ambrosia monogyra*), and broom baccharis (*Baccharis sarothroides*). Disturbed coastal sage scrub on site occurs as narrow bands of habitat to the south of Willow Glen Drive at the northeastern boundary, and to the west of Steele Canyon Road along the southern boundary. These areas consist of scattered shrubs of California sagebrush and California buckwheat growing among planted non-native trees and woody debris deposited on the slopes. Scattered stands of eucalyptus woodland occur throughout the Project site, mostly at the northeastern, southeastern, and southern boundaries. Scattered eucalyptus trees also occur throughout the golf course among the trees lining the fairways. Peruvian pepper trees and oleander (*Nerium oleander*) line Willow Glen Drive along the site's northern boundary.

Man-made ponds on site consist of open water habitat excavated in uplands. A total of six constructed ponds are present on site, which serve as water hazards and aesthetic features for the golf course. Four ponds, totaling 3.5 acres, are present in the eastern portion of the site and two occur to the west of Steele Canyon Road. The water level in these constructed ponds is maintained artificially by pumping water into them.

The Project site is located on unincorporated lands within both the South County Segment and the Metro-Lakeside-Jamul Segment of the County's Multiple Species Conservation Program (MSCP) Subarea Plan. The southwestern portion of the site along the Sweetwater River is within a Minor Amendment Area (37.8 acres) of the South County Segment. Per the MSCP, Minor Amendment Areas "contain habitat that could be partially or completely eliminated (with appropriate mitigation) without significantly affecting the overall goals of the County's MSCP Subarea Plan." Minor Amendment Areas must meet the criteria and achieve the goals of linkages and corridors described in the County MSCP Subarea Plan and provide mitigation consistent with the County's Biological Mitigation Ordinance (BMO). Development within Minor Amendment Areas requires concurrence from the U.S. Fish and Wildlife Service (USFWS) Field Office Supervisor and California Department of Fish and Wildlife (CDFW) Natural Communities Conservation Planning

(NCCP) Program Manager. Within the Metro-Lakeside-Jamul Segment, small portions of the site along the northeastern, southern, and southeastern boundaries east of Steele Canyon Road are within areas identified as Pre-approved Mitigation Area (PAMA; 16.4 acres). Portions of the site are shown as Very High or High on the County's Habitat Evaluation Map from the BMO.

1.6 Intended Uses of the EIR

This project-level Environmental Impact Report (EIR) is prepared in compliance with the California Environmental Quality Act (CEQA), and ensures that information required by the public, as well as County decision-makers, is both adequate and available. This EIR is an informational document to inform public agency decision-makers, as well as the public generally, of the significant environmental effects of the Project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the Project.

The County is the lead agency for the Project under CEQA (i.e., the agency responsible for conducting environmental review); and is responsible for coordinating with the Applicant, public, and resource or service agencies during the CEQA process; and for final approval or denial of the Project. The purpose of this EIR is to identify the potential occurrence of impacts, and the anticipated significance of those impacts, that could occur if the Proposed Project is implemented.

For each significant impact identified in the EIR, the lead agency must make findings, and if appropriate, prepare a Statement of Overriding Considerations if mitigation presented does not reduce impacts to below a level of significance. Responsible agencies, identified below, will use this EIR in their discretionary approval processes.

1.6.1 Matrix of Project Approvals/Permits

This environmental analysis has been prepared to support the discretionary actions and approvals necessary for implementation of the Project. Potential required approvals and permits are listed in the following matrix.

Discretionary Approval/Permit	Approving Agency
Major Use Permit Reclamation Plan Landscape Plans Public Improvement Plan Right-of-Way Permits Construction Permit Excavation Permit Encroachment Permit	County of San Diego
Section 401 Water Quality Certification Waste Discharge Order	San Diego Regional Water Quality Control Board/State Water Resources Control Board (RWQCB/SWRCB)
Section 404 Permit – Dredge and Fill	U.S. Army Corps of Engineers (USACE)
Section 1602 Streambed Alteration Agreement (SAA)	California Department of Fish and Wildlife (CDFW)
NPDES Permit	RWQCB

Construction General Stormwater Permit – Pre-mining	RWQCB
Industrial General Stormwater Permit – Mining and Reclamation	RWQCB
Waste Discharge Requirements Permit	RWQCB
Authority to Construct and Permit to Operate	San Diego Air Pollution Control District (SDAPCD)
Fire District Approval	San Miguel Consolidated Fire Protection District
Conditional Letter of Map Revision (CLOMR)	Federal Emergency Management Agency (FEMA)
Inert Debris Engineered Fill Operation Plan	San Diego County Local Enforcement Agency

1.6.2 Related Environmental Review and Consultation Requirements

Consultation would be required with the wildlife agencies (USFWS and CDFW) with regard to sensitive species and associated habitats, and with the permitting/certification agencies (USACE, CDFW, and RWQCB) with regard to jurisdictional waters.

Pursuant to California Government Code 65352.3, Native American consultation was initiated in 2019. On January 8, 2019, the County initiated AB 52 consultation with seven tribes (Barona, Campo Kumeyaay Nation [Campo], Jamul Indian Village [Jamul], Kwaaymii, Iipay Nation of Santa Ysabel [Santa Ysabel], Sycuan Band of the Kumeyaay Nation [Sycuan], and Viejas). Barona, Campo, Jamul, Santa Ysabel, Sycuan, and Viejas requested AB 52 consultation. Tribal consultation under AB 52 has been ongoing and has occurred since January 2019 with all the tribes that have requested consultation. The reader is referred to Subchapter 2.4, *Cultural Resources and Tribal Cultural Resources*, for details of the Native American consultation.

In addition to the focused outreach efforts noted above, CEQA provides opportunity for public input at three distinct points during environmental evaluation: during scoping of an EIR, during public review of the completed EIR, and during hearings held on the Project by decision-making bodies (such as the County Planning Commission and/or Board of Supervisors). As part of the preparation of the Draft EIR, the first of these outreach efforts was undertaken and completed.

Pursuant to CEQA Guidelines Section 15082 regarding the NOP and determination of EIR scope, and Section 15083 regarding early public consultation, the County issued a NOP stating that an EIR would be prepared for the Proposed Project on October 24, 2019. The NOP included an Initial Study checklist identifying anticipated areas of technical review and anticipated levels of significance, and requested public and agency input on the scope of the EIR. Comments were received in response to the NOP through November 22, 2019. A meeting to discuss the scope of the environmental analysis also was held on November 4, 2019 at Hillsdale Middle School, 1301 Brabham St, El Cajon, CA 92019. In response to the NOP, a total of 301 comment letters were received, including six letters that were submitted after the close of the comment period. These letters are all included in Appendix A to this EIR. All of the comments received were considered and the topics are addressed as appropriate where required by CEQA in Chapters 2.0 through 4.0 of this EIR.

1.7 Project Inconsistencies with Applicable Regional and General Plans

A number of plans, regulations, and ordinances apply to this Project and were considered during the Project Applicant's preparation of the Plot Plan and Reclamation Plan. In particular, the County General Plan and the Valle de Oro Community Plan were reviewed for applicable designations, goals, policies, and conditions. Other plans and regulations also were reviewed, including the County Zoning Ordinance, County Grading Ordinance, RWQCB's San Diego Basin Plan, federal Clean Water Act (CWA), National Pollutant Discharge Elimination System (NPDES), San Diego Municipal Storm Water Permit, Regional Air Quality Strategy (RAQS) and State Implementation Plan (SIP), NCCP, County MSCP Subarea Plan, and County Light Pollution Code (LPC). The Project's compliance with these plans and ordinances is evaluated throughout the EIR, with discussion in Chapters 2.0 and 3.0. A Planning Analysis, which details how the Project would be consistent with all applicable planning documents, is presented in Appendix B to this EIR.

1.8 List of Past, Present, and Reasonably Anticipated Future Projects in the Project Area

The State CEQA Guidelines (Section 15355) state that a cumulative impact is "the change in the environment which results from the incremental impact of the project when added to other closely related past, present and reasonably foreseeable probable future projects." Sections 15065 and 15130 of the State CEQA Guidelines require that an EIR address cumulative impacts of a project when the project's incremental effects would be cumulatively considerable; i.e., the incremental effects of the project would be "considerable when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects." Table 1-13, *Cumulative Projects in the Vicinity of the Proposed Project*, provides a list of cumulative projects within 5 miles of the Project site. Figure 1-16, *Cumulative Projects*, shows the general location of the projects listed in Table 1-13.

Twelve projects in the vicinity of the Proposed Project, as well as the Proposed Project, were considered for the analysis of cumulative impacts. The list consists of projects that are pending or recently approved within the County and other adjacent jurisdictions (Grossmont-Cuyamaca Community College District; 2019).

Each individual technical subject area within Chapters 2.0 and 3.0 analyzes cumulative impacts of the Project in relation to those projects that could potentially combine with the Project to result in cumulatively considerable impacts. A description of the cumulative projects study area relevant to each specific resource topic is identified within each subchapter.

1.9 Growth-inducing Impacts

As stated in State CEQA Guidelines Section 15126.2(e), whether or not a project may be growth inducing must be discussed in an EIR. The question for discussion is whether or not a "project would foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Included are projects that would remove obstacles to population growth. Examples of these types of actions are cited including: (1) a "major expansion of a wastewater treatment plant," that would thereby allow for more construction in service areas covered by the plant; and (2) actions that could encourage and facilitate "other

activities" that could significantly affect the environment. Typically, the latter issue involves the potential for a project to induce further growth by the expansion or extension of existing services, utilities, or infrastructure. The CEQA Guidelines further state that "[i]t must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment" (Section 15126.2[e]).

The Project does not propose residential use and thus would not cause a direct increase in population.

Local mining of sand would accommodate the needs of ongoing construction in the County, rather than inducing additional growth. By providing a local source of aggregate material, the Project would reduce the need to import materials from more distant sources but would not remove an existing obstacle to population growth.

Approximately nine people are anticipated to be employed during mining activities at the site. This work would not require importation of a specialized work force, and the labor pool within the vicinity is adequate. Therefore, the Project would not result in population growth due to the provision of jobs.

Upon completion of mining activities, the Project site would be available for uses allowed by the existing land use designation and zoning classifications. Specifically, the General Plan land use designation for the site is Open Space-Recreation (OS-R), which applies to large, existing recreational areas and allows for active and passive recreational uses. The Project site includes three zoning designations: S80 (Open Space); S90 (Holding Area); and S88 (Specific Planning Area). Uses allowed within the S80 and S90 zones include family residential (with a minimum lot size of 8 acres), essential services, fire protection services, and agriculture (including horticulture, tree crops, row and field crops, and limited packing and processing). Within the S80 zone, all uses require a Site Plan Review. The Rancho San Diego Specific Plan designates the areas zoned S88 for golf course use. The entire site also is subject to Special Area Designator F (Flood Plain), which prohibits placement of permanent structures for human habitation in a floodway.

Future development of the site is not included in the Proposed Project, with planned uses as part of the Project limited to recreational trails and open space. The proposed trails would only be available for day use and are anticipated to be used primarily by residents of the immediate area. While some visitors may use trails, the Proposed Project would not include recreational components such as a hotel, resort, or campground involving overnight use that would enable visitors to stay in the area for extended periods of time. Therefore, the Project would not result in an increase in population.

Removal of the golf course could ultimately lead to the construction of housing, essential services, fire protection services, or agriculture on portions of the site outside of the floodway, although this is not proposed as part of the Project. Further, the Project involves frontage improvements to a portion of Willow Glen Drive, namely restriping between Steele Canyon Road and the Project ingress driveway to provide Class II buffered bicycle lanes on both sides of the roadway as well as construction of a dedicated right-turn lane into the primary Project ingress, which can be considered an expansion of infrastructure that could accommodate such future development; however, based on the current zoning and site characteristics, the potential for future development

is limited, and the widening of Willow Glen Drive would not result in indirect growth. The Project would result in modifications to the existing floodway and floodplain, which in most cases would result in the floodway (where development is prohibited) extending across a slightly larger portion of the site than under current conditions. Considering the zoning allows for a maximum of one home per 8 acres, along with floodplain, setback, and access constraints, only four residences (with the entire lot of the floodplain) could be constructed at the site. The Project would not include a rezone or change to the General Plan land use designation and would not result in an increase in potential future development relative to what would currently be allowed on the site. In addition, imported water line infrastructure already exists within Willow Glen Drive; the Project does not include improvements to water infrastructure that could accommodate additional growth.

Based on the above considerations, the Project would not promote the construction of housing; provide substantial employment opportunities; remove an obstacle to growth through provision of local aggregate materials; extend roads, public services, or utilities in a manner that would result in future development beyond the current potential for development; or include recreational opportunities that would increase population. No significant growth-inducing impacts are expected as a result of the Project.

Table 1-1
PROJECT MOBILE EQUIPMENT

Onsite Mobile Equipment – Extraction and Reclamation				
Quantity	**Make**	**Type/Model**	**Purpose**	**Usage**
2	Cat	Loader – 988K	Mineral Excavation above water table	100%
1	Cat	Loader – 988K	Highway truck loading	80%
1	Cat	Loader – 966M-BR	Highway truck loading - backup	20%
1	Freightliner	Water Truck M2106	General dust suppression	75%
1	Cat	Excavator –349F	Mineral extraction - pond cleanout	80%
1	Cat	Dozer – D8T	Rough grading, leveling, ripping	80%
1	Cat	Haul Truck 740EJ/Tractor Trailer	On-site transportation of material	40%
1	Cat	Motor Grader 140K	Finish grading, maintenance	30%
1	Cat	Skid Steer Loader-246D	Variety cleanup - reclamation	50%
1	Ford	Pick Up	Transportation for site supervisors, quality control personnel	20 miles/ day

Table 1-2
MINING PHASES

Mining Phase	Acres	Subphase Area (acres)	Mining Duration (years)	Mining Initiation Date (est.)	Mining Completion Date (est.)	Reclamation Completion Date (est.)
Phase 1	**78.98**		**3**	**2022**	**2025**	**2027**
Subphase 1A	-	22.10	1	-	-	-
Subphase 1B	-	26.46	1	-	-	-
Subphase 1C	-	30.42	1	-	-	-
Phase 2	**48.18**		**3**	**2025**	**2028**	**2030**
Subphase 2A	-	15.26	1	-	-	-
Subphase 2B	-	19.08	1	-	-	-
Subphase 2C	-	13.74	1	-	-	-
Phase 3	**78.57**		**4**	**2028**	**2032**	**2034**
Subphase 3A	-	29.42	1	-	-	-
Subphase 3B	-	16.15	1	-	-	-
Subphase 3C	-	14.13	1	-	-	-
Subphase 3D	-	18.87	1	-	-	-
Phase 4	**8.65**	**-**	**1**	**2032**	**2032**	**2034**
Total	**214.4**	**-**	**10***	**-**	**-**	**-**

***** Reclamation activities would occur concurrently with mining operations.

Table 1-3
EXISTING AND PROPOSED FACILITIES AND STRUCTURES

Use	Area	Number of Structures	Removal Phase
Golf Club Uses			
Clubhouse	11,590 square feet (sq. ft.)	1	Phase 3
Parking	2.4 acres	0	Phase 4
Maintenance	2.2 acres	3	Phase 3
Garages	3,440 sq. ft, 3,880 sq. ft.	2	Phase 3
Cart Storage	0.3 acre (13,068 sq. ft.)	1	Phase 3
Driving Range	Old fairway	8 tees	Phase 2
Lakes Course Restroom	190 sq. ft.	1	Phase 1
Ivanhoe Course Restroom	190 sq. ft.	1	Phase 3
Lakes - Cart Bridges	Varies	3	Phase 1
Ivanhoe - Cart Bridges	Varies	4	Phase 2 & 3[1]
Other Uses			
Wood House	400 sq. ft.	1	Phase 1
Proposed Mining Uses			
Processing Plant Area (includes plant, conveyor lines, and storage containers	8.3 acres with ponds, loading and parking	1	Phase 4
Loadout Area (includes scales, scale house, office kiosk)	1.9 of 8 acres	1	Phase 4
Mine Parking	0.15 of 8 acres	15 spaces	End of Project

[1] One bridge would be removed during Phase 2. The other three existing bridges within the Ivanhoe Course would be removed during Phase 3.

Table 1-4
PLANT AND CONVEYOR EQUIPMENT

Quantity	Type	Attachments	Size/Length	Horsepower (hp)
1	Feed Hopper - Skid Mounted	42” X 25' Belt Feeder	9' X 14'	25
5	Groundline Conveyor	NA	36" X 825'	50
1	Groundline Conveyor	NA	36" X 375'	30
1	Groundline Conveyor	NA	36" X 200'	25
1	Truss Frame Conveyor	Pit Portable Conveyor, Power Travel, Hopper, Discharge Hopper, Walkway	36" X 130'	40
1	Triple Deck Screen w Blade Mill Support	Urethane Media, Spray Manifold, Dual Motor Drive, Discharge Chutes, Rolling Box, Under Hopper, Walkway on Four Sides, Stairway	8' X 20'	50
1	Blade Mill	NA	44" x 20”	100
2	Fine Material Washer	NA	44" X 32'	50
1	Radial Stacker	Power Travel, Power Raise, Pivot, Hopper	36" X 80'	25
1	Radial Stacker	Power Travel, Manual Raise, Hopper	36" X 100'	30
1	Operations Control Room	Motor Control Center, Push Button Console, Motor Starters, In Plant Cable/Wiring, Air Conditioned	NA	NA

Table 1-5
RIPARIAN FOREST PLANT PALETTE

Species	Common Name	Spacing on Center (feet)	Grouping Size	Number Per Acre
Container Plantings[1]				
Artemisia dracunculus	tarragon	5	5	100
Baccharis salicifolia	mule fat	6	10	200
Distichlis spicata	saltgrass	10	3	150
Iva hayesiana	San Diego marsh elder	5	5	120
Platanus racemosa	western sycamore	15	3	50
Populus fremonti ssp. *fremonti*	western cottonwood	15	5	50
Quercus agrifolia	California live oak	15	3	50
Rosa californica	California wild rose	5	3	100
Salix exigua	sand bar willow	8	5	120
Salix gooddingii	black willow	12	5	150
Salix laevigata	red willow	12	5	180
Salix lasiolepis	arroyo willow	12	5	180
Sambucus nigra	blue elderberry	10	3	50
			Total	**1,500**

Scientific Name	Common Name	% Purity/ Germination	Pounds Per Acre
Seed Mixture[1]			
Ambrosia psilostachya	western ragweed	45/45	4
Anemopsis californica	yerba mansa	55/80	1
Artemisia douglasiana	Douglas mugwort	15/40	3
Artemisia palmeri	Palmer's sagebrush	20/50	2
Baccharis salicifolia	mule fat	10/20	3
Baccharis sarothroides	broom baccharis	7/42	1
Bolboschoenus maritimus	alkali bulrush	90/60	1
Eleocharis macrostachys	pale spike-rush	95/60	1
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	95/80	1
Juncus effusus var. *pacificus*	Pacific rush	95/60	0.5
Oenothera elata ssp. *hookeri*	evening primrose	98/84	0.5
Pluchea odorata	salt marsh fleabane	30/40	2
		Total	**20.0***

[1] The quantities and amount of container stock and seed to be order would be determined following reclamation of each phase/subphase based on the exact of area disturbed as part of mining activities. Substitutions require approval of the Restoration Specialist.

***** No less than 20 lbs. per acre of seed shall be installed.

Table 1-6
RIPARIAN SCRUB PLANT PALETTE

Scientific Name	Common Name	Spacing on Center (ft.)	Grouping Size	Number Per Acre
Container Stock[1]				
Ambrosia pumila [2,3]	San Diego ambrosia	5	5	25
Artemisia dracunculus	tarragon	5	5	200
Asclepias fascicularis	narrow leaf milkweed	5	3	50
Baccharis salicifolia	mule fat	6	10	220
Croton californicus	California croton	5	5	200
Distichlis spicata	saltgrass	10	3	200
Ericameria palmeri var. *palmeri* [3]	Palmer's goldenbush	5	5	50
Iva hayesiana	San Diego marsh elder	5	5	200
Platanus racemosa	western sycamore	15	3	30
Populus fremonti ssp. *fremonti*	western cottonwood	15	3	30
Rosa californica	California wild rose	5	3	50
Salix exigua	sand bar willow	8	5	180
Salix gooddingii	black willow	12	5	100
Salix laevigata	red willow	12	5	30
Salix lasiolepis	arroyo willow	12	5	30
Sambucus nigra	blue elderberry	10	3	100
			Total	**1,695**

Scientific Name	Common Name	%Purity/ Germination	Pounds Per Acre
Seed Mixture[1]			
Ambrosia psilostachya	western ragweed	45/45	4
Artemisia douglasiana	Douglas' sagewort	15/40	3
Artemisia palmeri	Palmer's sagebrush	20/50	2
Baccharis salicifolia	mule fat	10/20	3
Baccharis sarothroides	broom baccharis	7/42	1
Bolboschoenus maritimus	alkali bulrush	90/60	1
Croton californicus	California croton	90/40	1
Eleocharis macrostachys	pale spike-rush	95/60	1
Isocoma menziesii	goldenbush	18/40	1
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	95/80	1
Juncus effusus var. *pacificus*	Pacific rush	95/60	0.5
Oenothera elata ssp. *hookeri*	evening primrose	98/84	0.5
Pluchea odorata	salt marsh fleabane	30/40	2
		Total	**21.0***

[1] The quantity of seed ordered for each phase/subphase will be determined based on the exact size of the area disturbed as part of mining activities. Substitutions require approval of the Restoration Specialist.

[2] If available at a nursery; should be installed in the higher elevation portions of this habitat (i.e., closer to the upland slopes).

[3] Special status species.

* No less than 20 lbs. per acre of seed shall be installed.

Table 1-7
STREAMBED (EMERGENT WETLAND) SEED MIXTURE

Scientific Name	Common Name	%Purity/ Germination	Pounds per Acre
Seed Mixture[1]			
Anemopsis californica	yerba mansa	55/80	1
Artemisia douglasiana	Douglas' sagewort	15/40	3
Bolboschoenus maritimus	alkali bulrush	90/60	1
Cyperus eragrostis	tall flatsedge	80/75	1
Eleocharis macrostachys	pale spike-rush	95/60	1
Erythranthe cardinalis (*Mimulus cardinalis*)	Cardinal monkey flower	5/64	0.5
Erythranthe guttata (*Mimulus guttatus*)	seep monkey flower	10/69	0.5
Euthamia occidentalis	western goldenrod	24/45	1
Juncus effusus var. *pacificus*	Pacific rush	95/60	0.5
Pluchea odorata	salt marsh fleabane	30/40	2
		Total	**11.5***

[1] The quantity of seed ordered for each phase/subphase will be determined based on the exact size of the area disturbed as part of mining activities. Substitutions require approval of the Restoration Specialist.
***** No less than 10 lbs. per acre of seed shall be installed.

Table 1-8
DIEGAN COASTAL SAGE SCRUB PLANT PALETTE

Species	Common Name	Spacing on Center (feet)	Grouping Size	Number Per Acre
Container Plantings[1]				
Artemisia californica	California sagebrush	5	25	250
Asclepias fascicularis	narrow leaf milkweed	5	3	50
Bebia juncea	rough sweetbush	10	3	50
Encelia californica	coast sunflower	5	20	100
Eriogonum fasciculatum	flat top buckwheat	5	25	250
Hazardia squarrosa	saw-toothed goldenbush	5	10	100
Hesperoyucca whipplei	chaparral yucca	3	3	50
Heteromeles arbutfolia	toyon	10	3	150
Mimulus aurantiacus	bush monkey flower	5	10	100
Rhus integrifolia	lemonadeberry	10	5	50
Salvia apiana	white sage	5	10	250
			Total	**1,400**

Scientific Name	Common Name	% Purity/ Germination	Pounds Per Acre
Seed Mixture[1]			
Acmispon glaber	deerweed	95/80	0.5
Amsinkia intermedia	common fiddleneck	45/65	1
Artemisia californica	California sagebrush	30/60	4
Deinandra fasciculata	fascicled tarplant	25/65	3
Encelia californica	coast sunflower	30/45	2
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	N/A	2
Eriogonum fasciculatum	flat top buckwheat	50/20	7
Eriophyllum confertiflorum	golden-yarrow	N/A	2
Eschscholzia californica	California poppy	98/80	2

Scientific Name	Common Name	% Purity/ Germination	Pounds Per Acre
Lupinus bicolor	miniature lupine	98/85	1
Phacelia parryi	Parry's phacelia	95/80	1
Salvia apiana	white sage	88/30	3
Stipa lepida, deawned	foothill needlegrass	90/71	3
Stipa pulchra, deawned	purple needlegrass	90/75	3
		Total	**34.5***

[1] The quantities and amount of container stock and seed to be order would be determined following reclamation of each phase/subphase based on the exact of area disturbed as part of mining activities. Substitutions require approval of the Restoration Specialist.

* No less than 30 lbs. per acre of seed shall be installed.

Table 1-9
EROSION CONTROL SEED MIX

Species	Common Name	Percent Purity/ Germination	Pounds Per Acre[1]
Ambrosia psilostachya	western ragweed	45/45	6
Bromus carinatus	California bromegrass	95/90	8
Vulpia microstachys	small fescue	98/75	20
Plantago insularis	plantain	90/80	20
		Total	**54***

[1] The final quantities and amount of container stock and seed to be order would be determined following reclamation of each phase/subphase based on the exact of area disturbed as part of mining activities. Substitutions require approval of the Restoration Specialist.

* No less than 50 lbs. per acre of seed shall be installed.

Table 1-10
PERFORMANCE STANDARDS*

Vegetative Cover (m: meters)	Species Composition / Species Richness	Percent Cover	Density
Seed Mix	Target Goal: 100% of the most prevalent species shall be native species 12 randomly placed 50-meter by 1-meter transects	Target Goal: 50% cover (all native species combined) 12 randomly placed 50-meter by 1-meter transects	N/A
Container Stock	Target Goal: 5 tree species 12 randomly placed 50-meter by 1-meter transects	N/A	Target Goal: 30 total trees per acre (80% survival) 12 randomly placed 50-meter by 1-meter transects

* Performance Standards may be modified based on mitigation requirements.

Table 1-11
WEED SPECIES OF CONCERN

Common Name	Scientific Name
Giant Reed, Arundo	*Arundo donax*
Mustard	*Brassica sp.*
Ripgut Brome	*Bromus diandrus*
Foxtail brome	*Bromus madritensis*
Pampas Grass	*Cortaderia spp.*
Eucalyptus	*Eucalyptus spp.*
Pepperweed	*Lepidium latifolium*
Tree Tobacco	*Nicotiana glauca*
Castor Bean	*Ricinus communis*
Russian Thistle, Tumbleweed	*Salsola tragus*
Tamarisk, Salt Cedar	*Tamarix spp.*

Table 1-12
ASSESSOR'S PARCELS

Assessor's Parcel Number	Total Acres (approx.)	Owner	Zoning[1]	Land Use Designation[2]
506-021-19-00	8.20	Cottonwood Cajon ES, LLC	S88	OS-R
506-020-52-00	4.01	Cottonwood Cajon ES, LLC	S80	OS-R
518-012-13-00	2.97	Cottonwood Cajon ES, LLC	S90	OS-R
518-012-14-00	46.61	Cottonwood Cajon ES, LLC	S90	OS-R
518-030-05-00	2.30	Cottonwood Cajon ES, LLC	S90	OS-R
518-030-06-00	5.58	Cottonwood Cajon ES, LLC	S90	OS-R
518-030-07-00	2.59	Cottonwood Cajon ES, LLC	S90	OS-R
518-030-08-00	0.69	Cottonwood Cajon ES, LLC	S90	OS-R
518-030-10-00	7.16	Cottonwood Cajon ES, LLC	S90	OS-R
518-030-12-00	6.88	Cottonwood Cajon ES, LLC	S90	OS-R
518-030-13-00	10.20	Cottonwood Cajon ES, LLC	S90	OS-R
518-030-15-00	4.04	Cottonwood Cajon ES, LLC	S90	OS-R
518-030-21-00	56.71	Cottonwood Cajon ES, LLC	S90	OS-R
518-030-22-00	19.43	Cottonwood Cajon ES, LLC	S90	OS-R
519-010-15-00	33.72	Cottonwood Cajon ES, LLC	S90	OS-R
519-010-17-00	14.59	Cottonwood Cajon ES, LLC	S90	OS-R
519-010-20-00	19.22	Cottonwood Cajon ES, LLC	S90	OS-R
519-010-21-00	1.10	Cottonwood Cajon ES, LLC	S90	OS-R
519-010-33-00	1.76	Cottonwood Cajon ES, LLC	S90	OS-R
519-010-34-00	7.17	Cottonwood Cajon ES, LLC	S90	OS-R
519-010-37-00	1.06	Cottonwood Cajon ES, LLC	S90	OS-R
519-011-03-00	23.80	Cottonwood Cajon ES, LLC	S88	OS-R
Totals:	**279.79**			

[1] S90 - Holding Area; S88 - Specific Planning Area; S80 - Open Space.
[2] General Plan Land Use Designation is OS-R - Open Space – Recreation.

Table 1-13
CUMULATIVE PROJECTS IN THE VICINITY OF THE PROPOSED PROJECT

Map Key No.	Project Name	County Reference Number	Project Location	Size (acres)	Project Type; Description	CEQA Document (Environmental Issues)	Notes
A	Jamul Highlands Subdivision	TM 5289	South of the Valley Road/Jamul Highlands Road intersection	59.18	Residential; 25 lots	MSCP compatibility and traffic (288 ADT estimated)	Originally submitted in 1990; out to applicant, no work since 2006
B	Yacoo Minor Subdivision	TPM 20628	Schlee Canyon Road north of Proctor Valley Road (APN: 596-070-79-00)	6.85	Residential; 4 lots and one remainder	MND (Wetland/Riparian; Water Quality; Vegetation)	Approved February 11, 2003; lots not developed
C	Steinbarth Minor Subdivision	TPM 20868	14236 Hillside Drive	5.29	Residential; 2 lots, 1 lot developed	ND (None)	ND filed in 1992, Addendum completed 2006; approved November 24, 2006; no additional development has occurred
D	Pioneer Minor Subdivision	TPM 20594	2825 Pioneer Way (APN: 597-221-19)	3.90	Residential; 3 lots, 2 lots developed	MND (Wetland/Riparian; Vegetation)	Approved December 12, 2001; third lot has not yet been developed

Map Key No.	Project Name	County Reference Number	Project Location	Size (acres)	Project Type; Description	CEQA Document (Environmental Issues)	Notes
E	St. Gregory of Nyssa Greek Orthodox Church	PDS2005-3300-05-010	1454 Jamacha Road (APN: 498-320-56-00)	1.73	Church; proposes sanctuary and multi-purpose room totaling about 10,220 SF	MND (Cumulative Effects; Land Use; Growth Inducing; Wildlife; Wetland/Riparian; Water Supply; Water Quality; Vegetation; Traffic/Circulation; Toxic/Hazardous; Solid Waste Soil Erosion/ Compaction/ Grading; Recreation/Parks; Public Services; Population/ Housing; Noise; Minerals; Geologic/Seismic; Forest Land/Fire Hazard; Flood Plain/Flooding; Drainage/ Absorption; Biological Resources; Archaeologic-Historic; Air Quality; Agricultural Land; Aesthetic/Visual)	Draft MND circulated from December 26, 2018 to January 24, 2019
F	Simpson Farms Major Subdivision	TM 5460 TM-5460TE	Adjacent to SR-94/ Campo Road along the southwestern property boundary, Jefferson Road on the west, Olive Vista Drive on the north (APNs: 596-180-01, -02)	157.7	Residential; 95 lots Commercial; 1 lot open space: 2 lots, seven roads (7 lots) Drainage basin: 1 lot; 106 lots total	Exempt per CEQA Section 15183	TM 5460 approved December 9, 2016; TM-5460TE filed November 21, 2019

Map Key No.	Project Name	County Reference Number	Project Location	Size (acres)	Project Type; Description	CEQA Document (Environmental Issues)	Notes
G	Ivanhoe Ranch	PDS2018-TM 5629; PDS2018-GPA-18-005; PDS2018-REZ-18-004; PDS2018-STP-18-016	5261 Ivanhoe Ranch Road, between Cottonwood Golf Course and Steele Canyon Golf Course (APNs: 518-030-34, 518-030-37)	121.9	Residential; 120 lots	The Notice of Preparation (NOP) of a Draft EIR was out for public review from April 15 to May 17, 2021	Evaluation of potential impacts to all resource areas is currently being conducted.
H	Cuyamaca College Master Plan Revisions	N/A	Bounded by Fury Lane to the east and Jamacha Road (SR 54) to the south, located within the Community of Valle De Oro	165	School; 1,500 students	Addendum No 1. to 2003 FEIR (SCH 2003051013; Grossmont-Cuyamaca Community College District 2019)	Identifies facilities need to accommodate an 8,000 student increase in student enrollment to 15,000 students at existing community college. Proposed facilities include new building construction and renovation/remodel of existing buildings to provide expanded academic and administrative buildings, parking lots and physical education facilities.
I	Sweetwater Place	TM 5588	657 Sweetwater Springs Boulevard, Spring Valley, CA 91977 (APN: 505-231-36)	20.0	Residential; 122 detached units	Air Quality, Biological Resources, Cultural Resources, Hazards, Noise, and Traffic	MND issued September 2015; approved December 6, 2017
J	College Preparatory Middle School	PDS2015-MUP-15-006; PDS 2015-ER-15-19-002	Madrid Way and Agua Dulce Boulevard (APN: 501-321-07)	2.50	New school, 500 students		Open

Map Key No.	Project Name	County Reference Number	Project Location	Size (acres)	Project Type; Description	CEQA Document (Environmental Issues)	Notes
K	Skyline Retirement Center	GPA-16-005 REZ-16-003 MUP-16-003 ER-16-19-001	Campo Road/SR-94, east of Via Mercado (APNs: 506-140-06; -07)	8.90	Residential; 232 senior living units, offices, clinic services, etc.	MND (Agriculture, Biological Resources, Cultural Resources, Noise, Traffic/Circulation, and Wildfire)	MND public review ended September 24, 2018; approved March 11, 2020 Located 1.75 miles west of Project in Rancho San Diego.
L	Jamul Commercial	TPM 21262 MUP-18-008	3018 Jefferson Road (APN: 596-071-60-00)	0.90	Commercial; retail/self-storage	Exempt per CEQA Section 15183	Approved May 10, 2019. Located 3 miles southeast of Project in Jamul; not developed/
M	Sweetwater Vistas	SPA-15-002 GPA-15-006 REZ-15-008 TM-5608 MUP-89-015W4 STP-15-016 ER-89-019-015I	Jamacha Boulevard, between Pointe Parkway and Sweetwater Springs Boulevard (APNs: 505-672-03, -07, -09, -10, -23, and -37)	52	Residential; 218 units and conservation of 27.9 acres of biological open space	Addendum to the Final EIR for The Pointe San Diego Specific Plan certified August 1, 1990 (SCH No. 88030915) (Aesthetics, Air Quality, Biological Resources, Geologic Resources, and Land Use)	Located 2.5 miles southwest of Project in Spring Valley; approved December 6, 2017; development pending
N	Aventine at Sweetwater Springs	SPA-18-002 GPA-18-004 REZ-18-002 TM-5627 STP-18-013 MUP-70-299W1M32 ER-18-19-003	2770-2792 Sweetwater Springs Boulevard (APNs: 505-580-07, -08, -09, -10)	10.57	Residential; 92 detached condominium units	MND (Noise, Hazards/ Hazardous Materials, Transportation/Traffic)	Located 2.5 miles southwest of Project in Spring Valley; approved January 29, 2020

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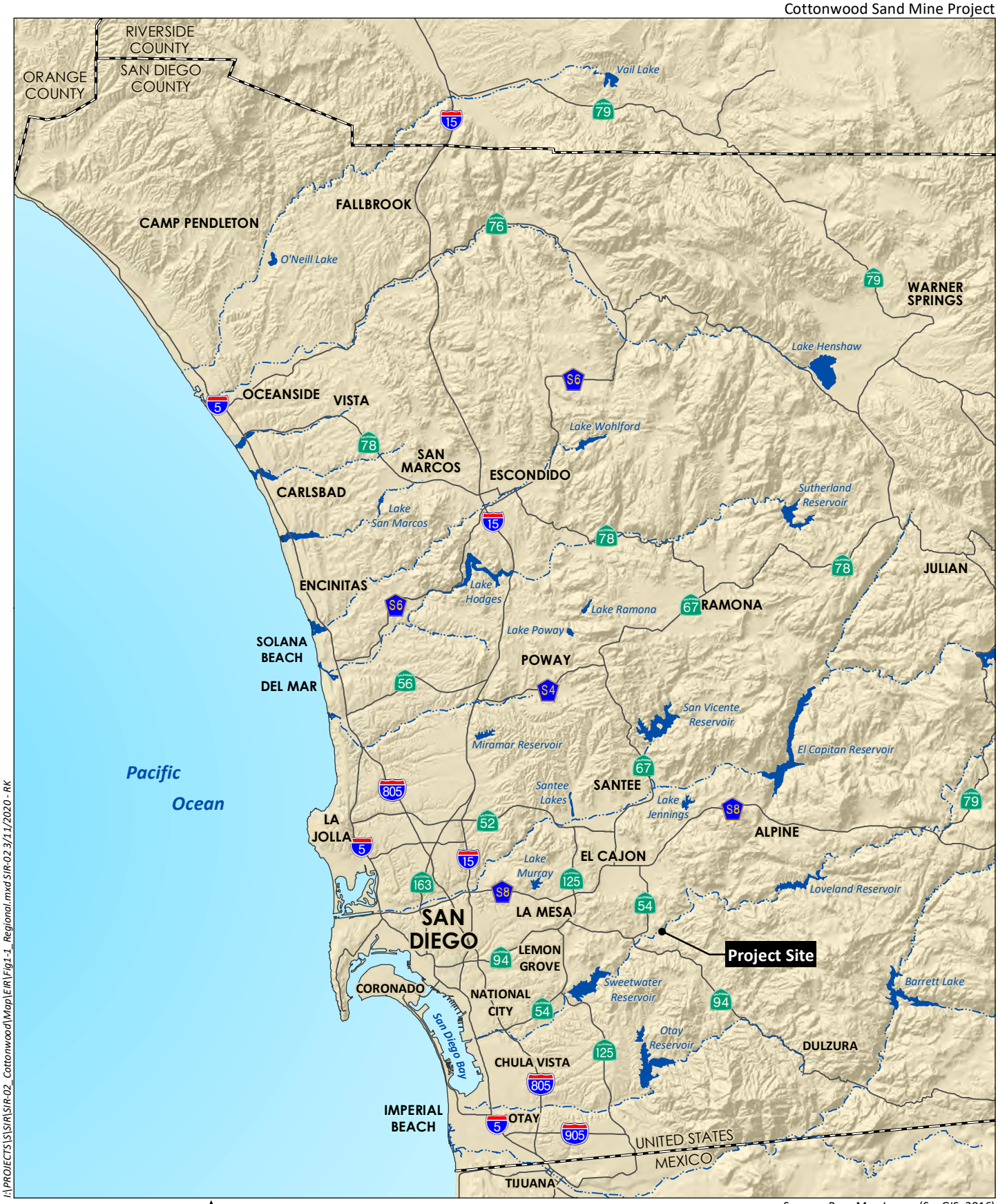

I:\PROJECTS\S\SIR\SIR-02_Cottonwood\Map\EIR\Fig1-1_Regional.mxd SIR-02 3/11/2020 - RK

0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

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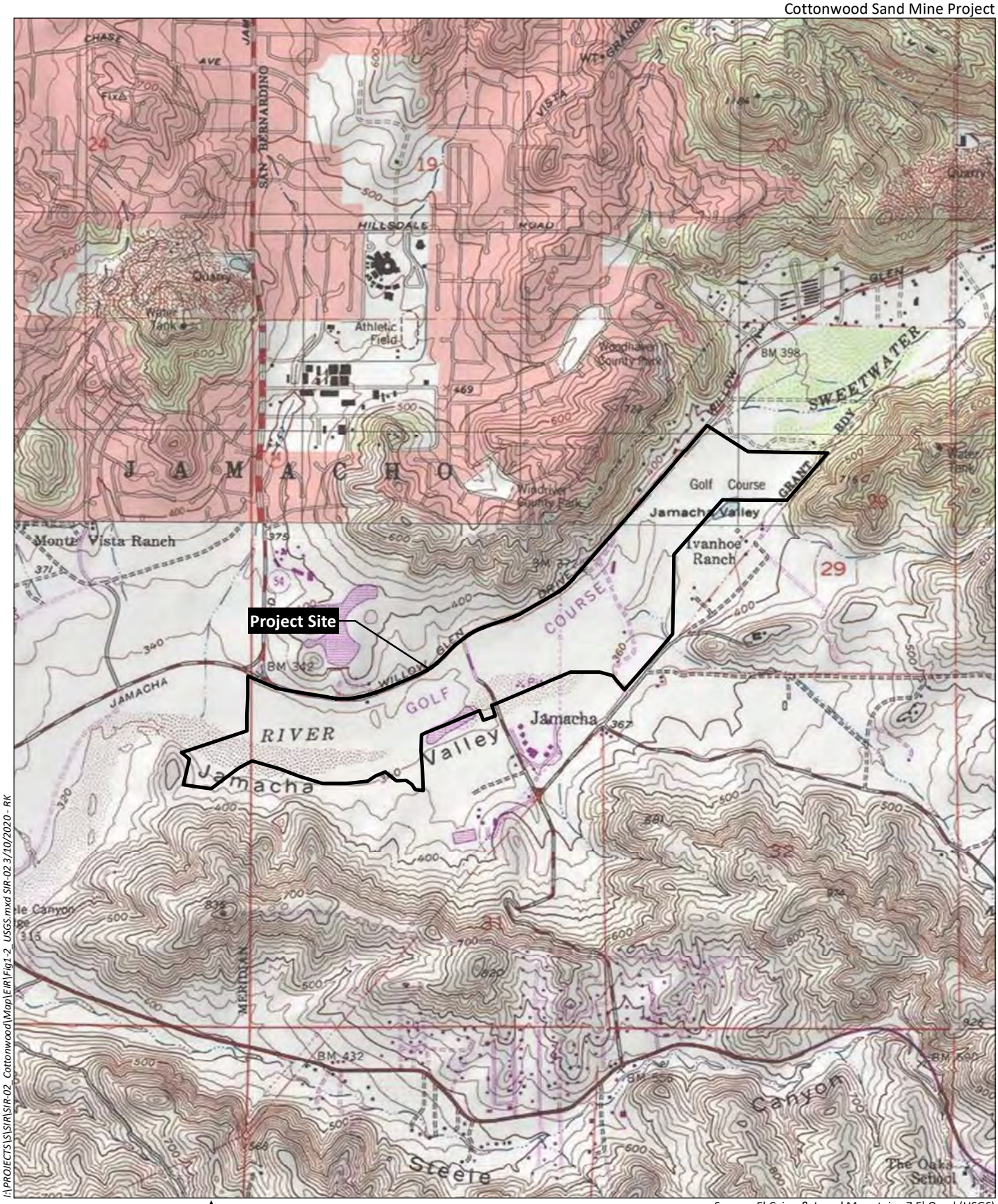
Regional Location

Figure 1-1



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0 2,000 Feet

Source: El Cajon & Jamul Mountains 7.5' Quad (USGS)

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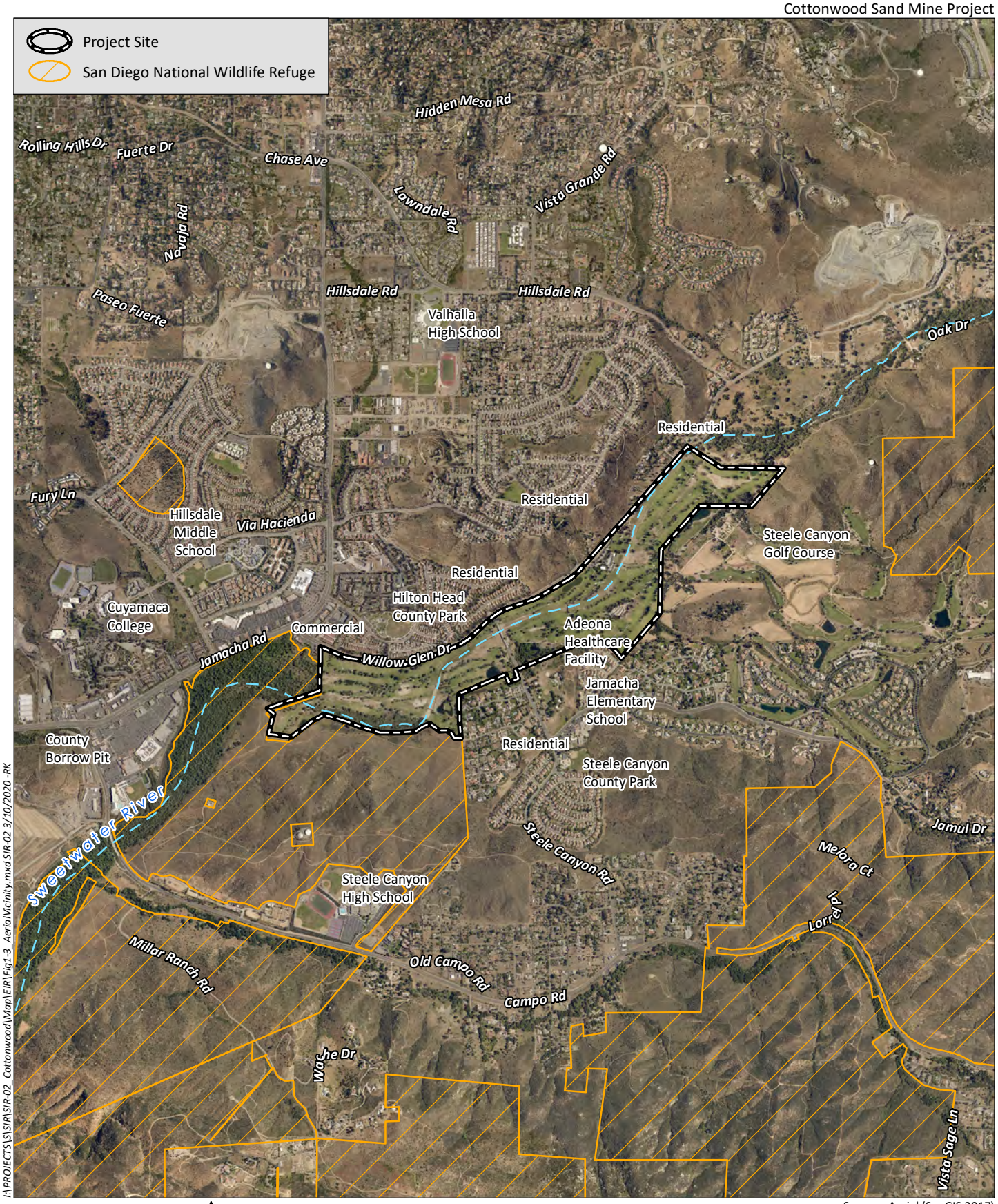
Project Vicinity (USGS Topography)

Figure 1-2



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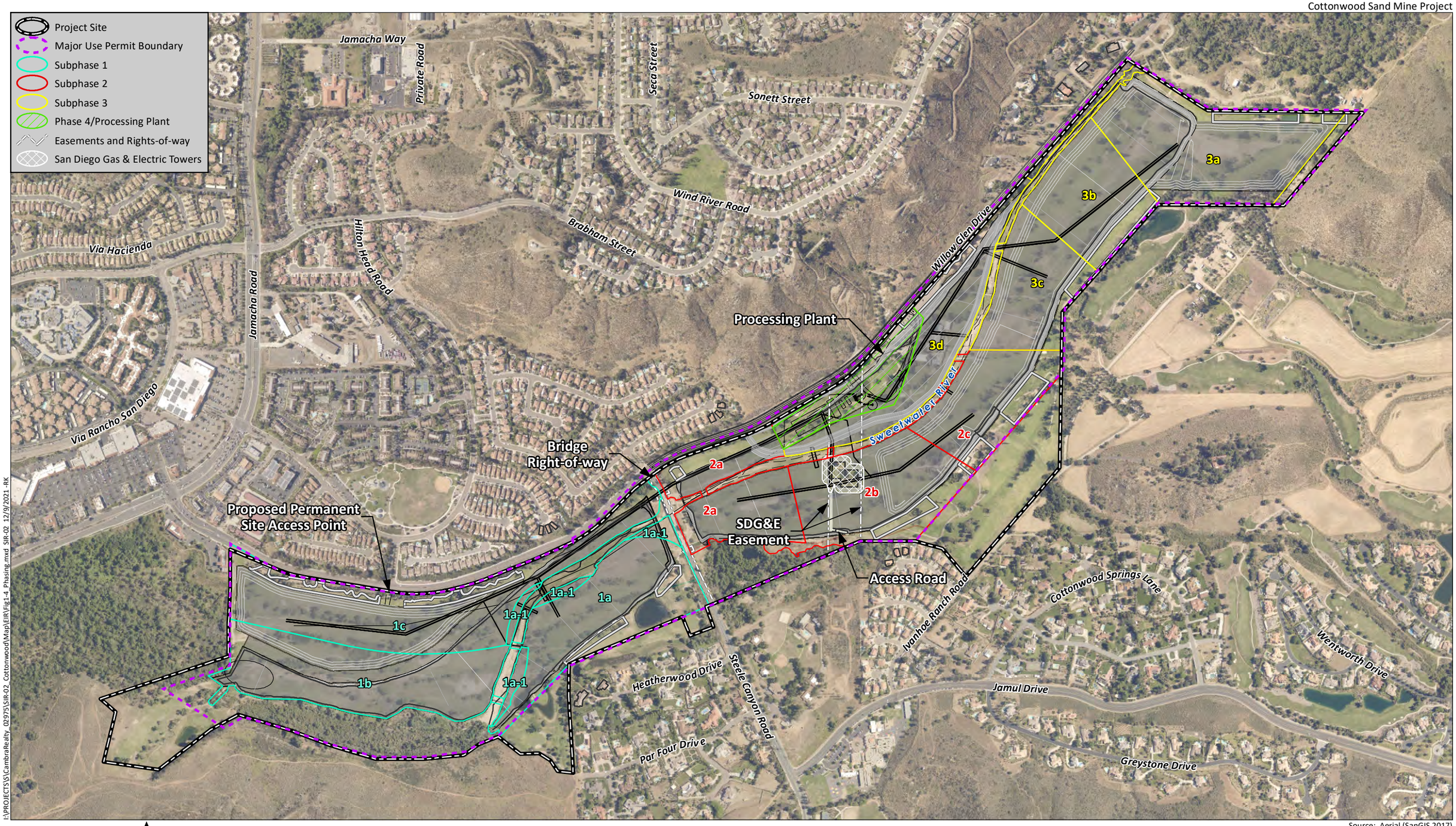
0 2,500 Feet

Source: Aerial (SanGIS 2017)

HELIX Environmental Planning

Project Vicinity (Aerial Photograph)

Figure 1-3



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0 700 Feet

N

Source: Aerial (SanGIS 2017)

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Site Plan and Mine Phasing

Figure 1-4

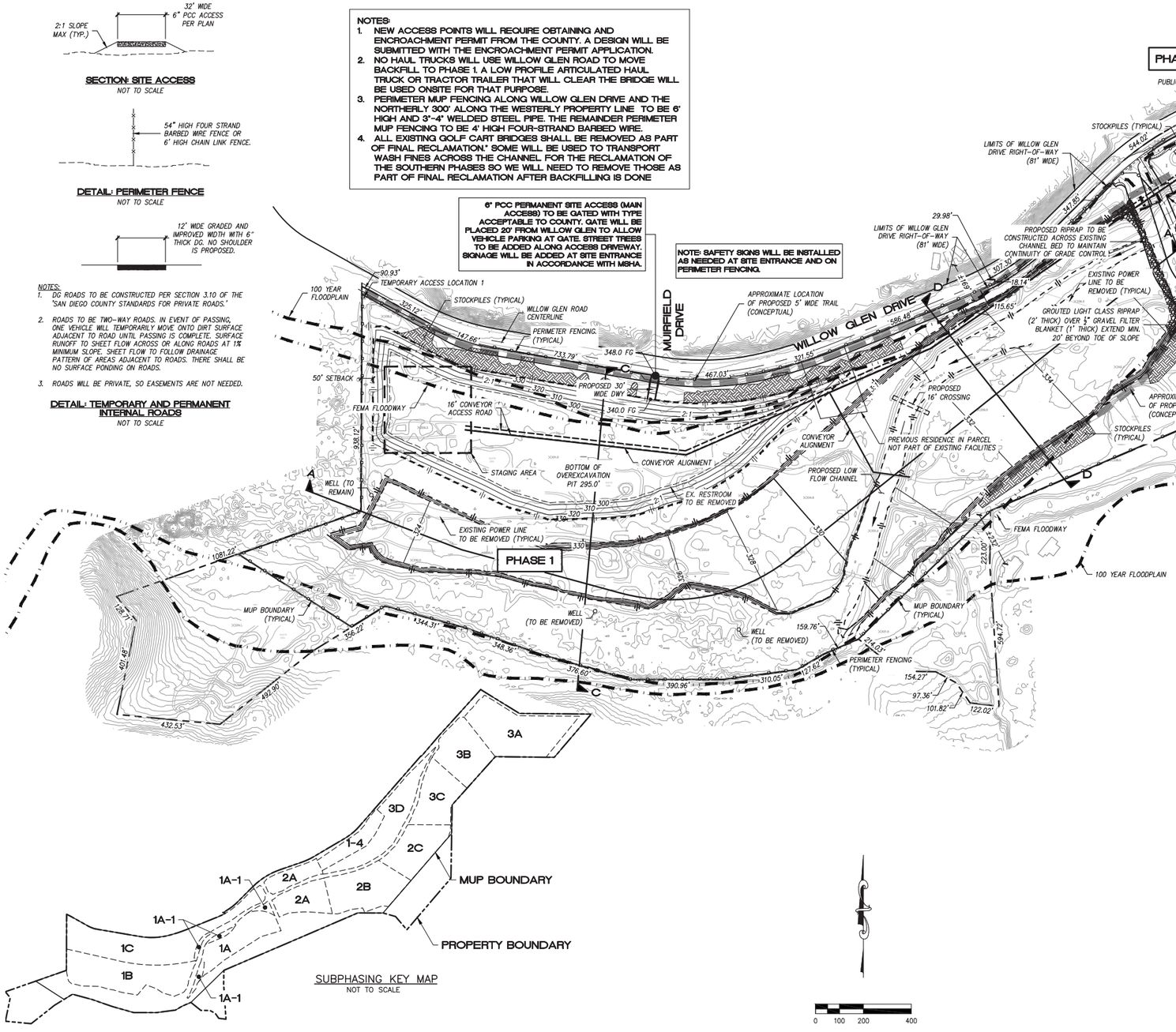


TABLE 8. GOLF COURSE AND MINE FACILITIES

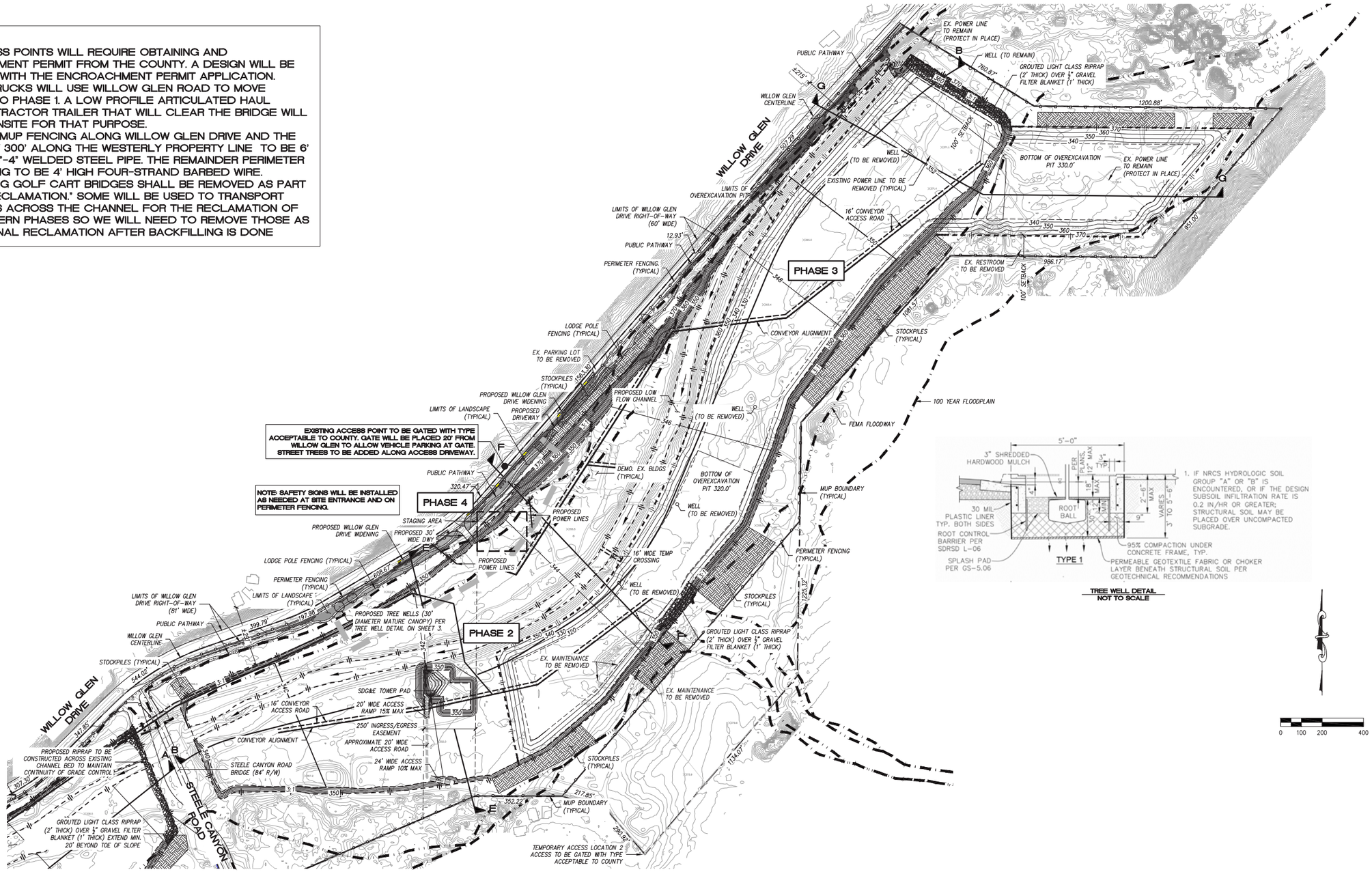
GOLF COURSE AND MINE FACILITIES			
USE	AREA	NUMBER OF STRUCTURES	REMOVAL PHASE
GOLF FACILITIES			
CLUBHOUSE	11,590 SQ. FT.	1	PHASE 3
MAINTENANCE	2.2 ACRES	3	PHASE 3
GARAGES	3,440 SQ. FT 3,880 SQ.FT.	2	PHASE 3
CART STORAGE	0.3 ACRES (13,068 SQ.FT.)	1	PHASE 3
DRIVING RANGE	OLD FAIRWAY	8 TEES	PHASE 2
LAKES COURSE RESTROOM	190 SQ. FT.	1	PHASE 1
IVANHOE COURSE RESTROOM	190 SQ. FT.	1	PHASE 3
LAKES - CART BRIDGES	VARIES	3	PHASE 1
IVANHOE - CART BRIDGES	VARIES	4	PHASE 2 & 3[1]
NON-GOLF FACILITIES			
WOOD HOUSE	400 SQ.FT.	1	PHASE 1
MINE FACILITIES			
PROCESSING PLANT AREA (INCLUDES PLANT, CONVEYOR LINES, AND STORAGE CONTAINERS	8.3 ACRES W PONDS, LOADING AND PARKING	1	PHASE 4
LOADOUT AREA (INCLUDES SCALES, SCALE HOUSE, OFFICE KIOSK)	1.9 OF 8 ACRES	1	PHASE 4
MINE PARKING	0.15 OF 8 ACRES	15 SPACES	END OF PROJECT
FENCING, GATES AND SIGNS	NA		WILL REMAIN ON PROPERTY

[1] ONE CART BRIDGE WOULD BE REMOVED DURING PHASE 2. THE OTHER 3 BRIDGES ON IVANHOE WILL BE REMOVED AS THEY ARE NO LONGER NEEDED.

Source: Chang Consultants (2021)

NOTES:

1. NEW ACCESS POINTS WILL REQUIRE OBTAINING AND ENCROACHMENT PERMIT FROM THE COUNTY. A DESIGN WILL BE SUBMITTED WITH THE ENCROACHMENT PERMIT APPLICATION.
2. NO HAUL TRUCKS WILL USE WILLOW GLEN ROAD TO MOVE BACKFILL TO PHASE 1. A LOW PROFILE ARTICULATED HAUL TRUCK OR TRACTOR TRAILER THAT WILL CLEAR THE BRIDGE WILL BE USED ONSITE FOR THAT PURPOSE.
3. PERIMETER MUP FENCING ALONG WILLOW GLEN DRIVE AND THE NORTHERLY 300' ALONG THE WESTERLY PROPERTY LINE TO BE 6' HIGH AND 3"-4" WELDED STEEL PIPE. THE REMAINDER PERIMETER MUP FENCING TO BE 4' HIGH FOUR-STRAND BARBED WIRE.
4. ALL EXISTING GOLF CART BRIDGES SHALL BE REMOVED AS PART OF FINAL RECLAMATION." SOME WILL BE USED TO TRANSPORT WASH FINES ACROSS THE CHANNEL FOR THE RECLAMATION OF THE SOUTHERN PHASES SO WE WILL NEED TO REMOVE THOSE AS PART OF FINAL RECLAMATION AFTER BACKFILLING IS DONE



TREE WELL DETAIL
NOT TO SCALE

Source: Chang Consultants (2021)

HELIX Environmental Planning

Plot Plan

Figure 1-5b

NOTES:
1. NEW ACCESS POINTS WILL REQUIRE OBTAINING AND ENCROACHMENT PERMIT FROM THE COUNTY. A DESIGN WILL BE SUBMITTED WITH THE ENCROACHMENT PERMIT APPLICATION.
2. NO HAUL TRUCKS WILL USE WILLOW GLEN ROAD TO MOVE BACKFILL TO PHASE 1. A LOW PROFILE ARTICULATED HAUL TRUCK OR TRACTOR TRAILER THAT WILL CLEAR THE BRIDGE WILL BE USED ONSITE FOR THAT PURPOSE.
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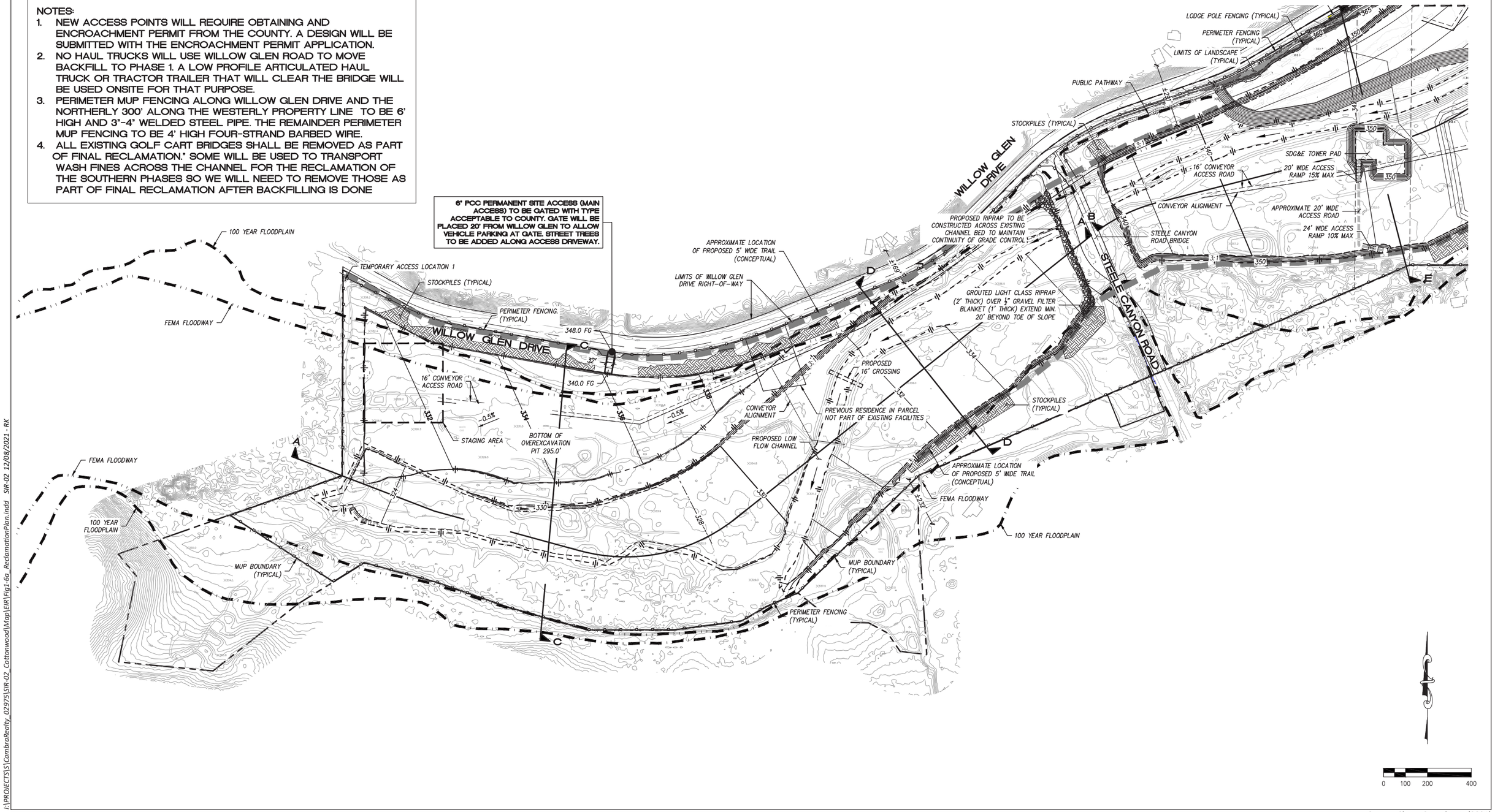

Source: Chang Consultants (2021)

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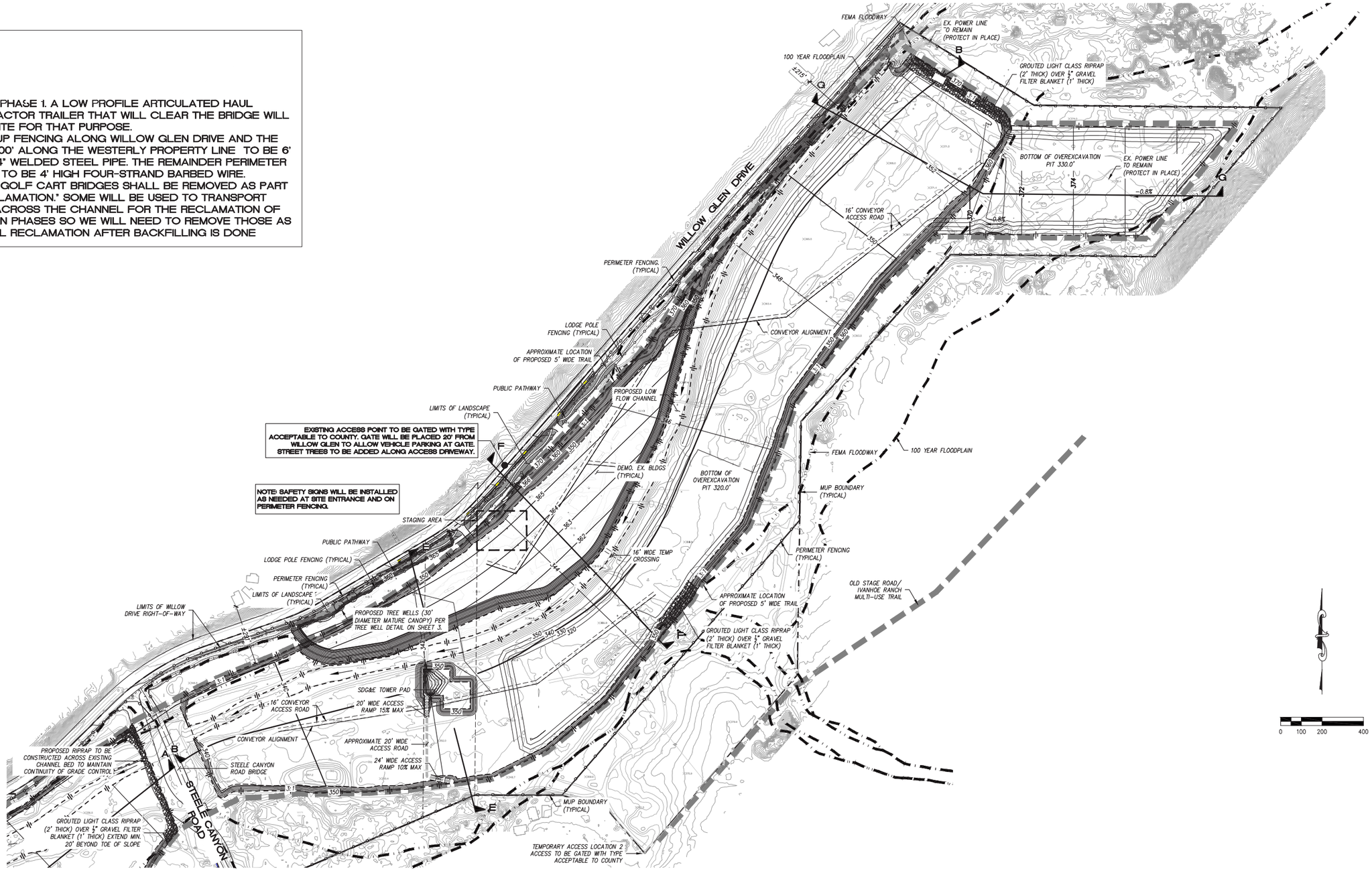
HELIX Environmental Planning

Reclamation Plan

Figure 1-6a

BACKFILL TO PHASE 1. A LOW PROFILE ARTICULATED HAUL TRUCK OR TRACTOR TRAILER THAT WILL CLEAR THE BRIDGE WILL BE USED ONSITE FOR THAT PURPOSE.

3. PERIMETER MUP FENCING ALONG WILLOW GLEN DRIVE AND THE NORTHERLY 300' ALONG THE WESTERLY PROPERTY LINE TO BE 6' HIGH AND 3"-4" WELDED STEEL PIPE. THE REMAINDER PERIMETER MUP FENCING TO BE 4' HIGH FOUR-STRAND BARBED WIRE.
4. ALL EXISTING GOLF CART BRIDGES SHALL BE REMOVED AS PART OF FINAL RECLAMATION." SOME WILL BE USED TO TRANSPORT WASH FINES ACROSS THE CHANNEL FOR THE RECLAMATION OF THE SOUTHERN PHASES SO WE WILL NEED TO REMOVE THOSE AS PART OF FINAL RECLAMATION AFTER BACKFILLING IS DONE



Source: Chang Consultants (2021)

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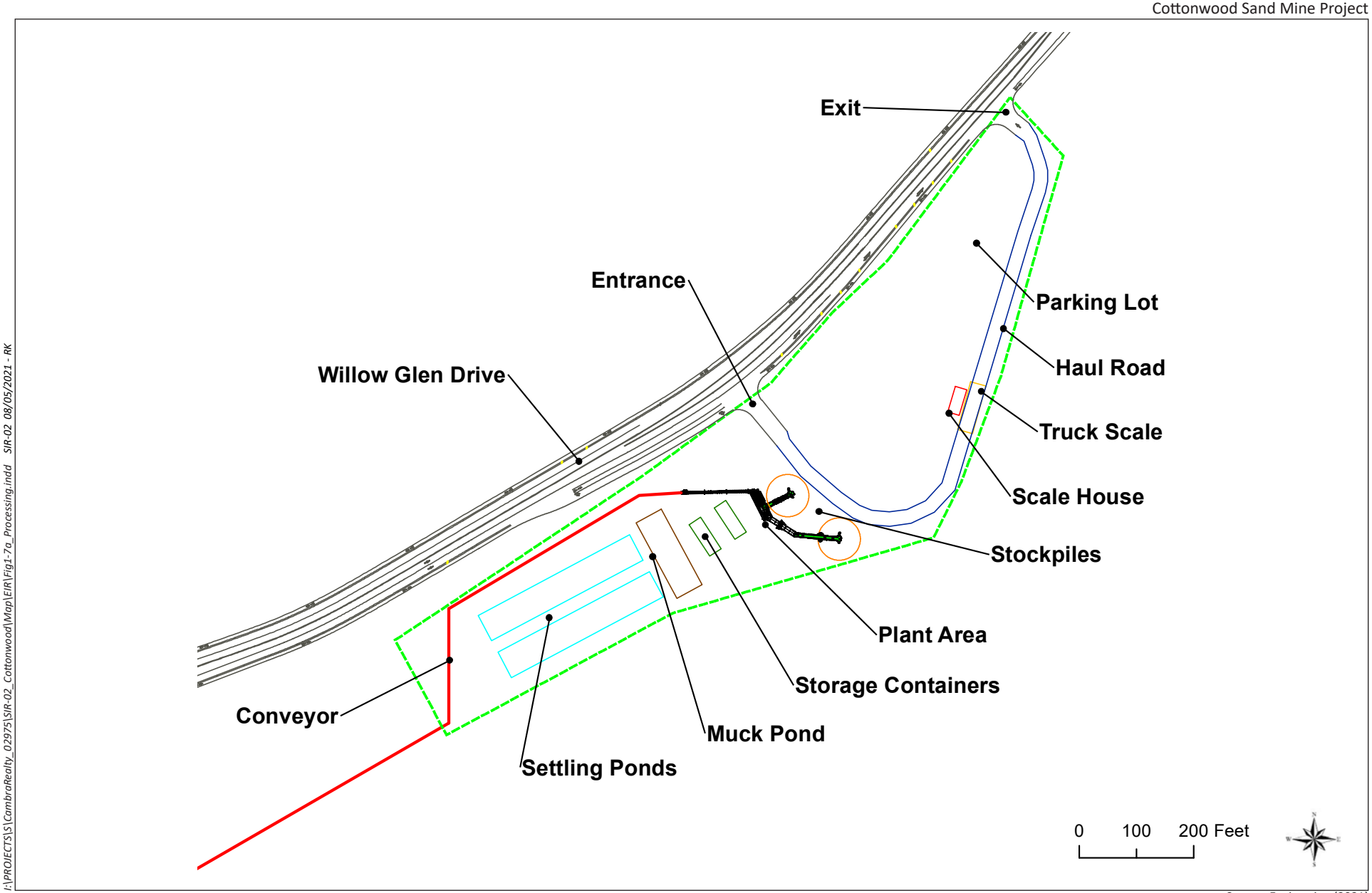
HELIX Environmental Planning

Reclamation Plan

Figure 1-6b



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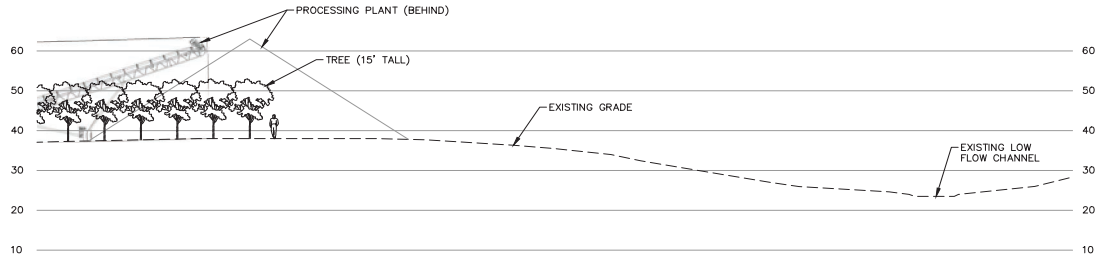
Source: Enviromine (2021)

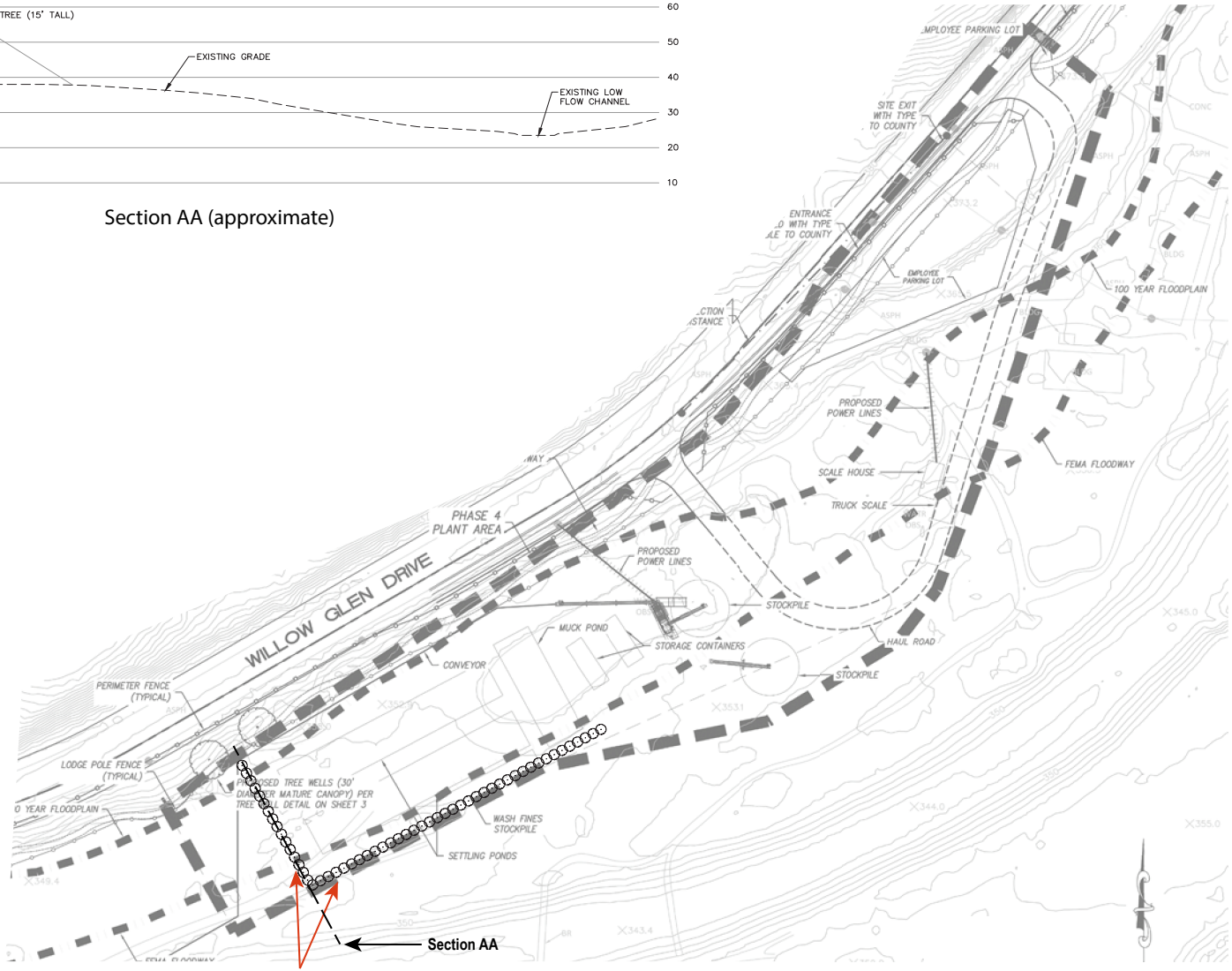
HELIX Environmental Planning

Processing Area Layout

Figure 1-7a



Section AA (approximate)

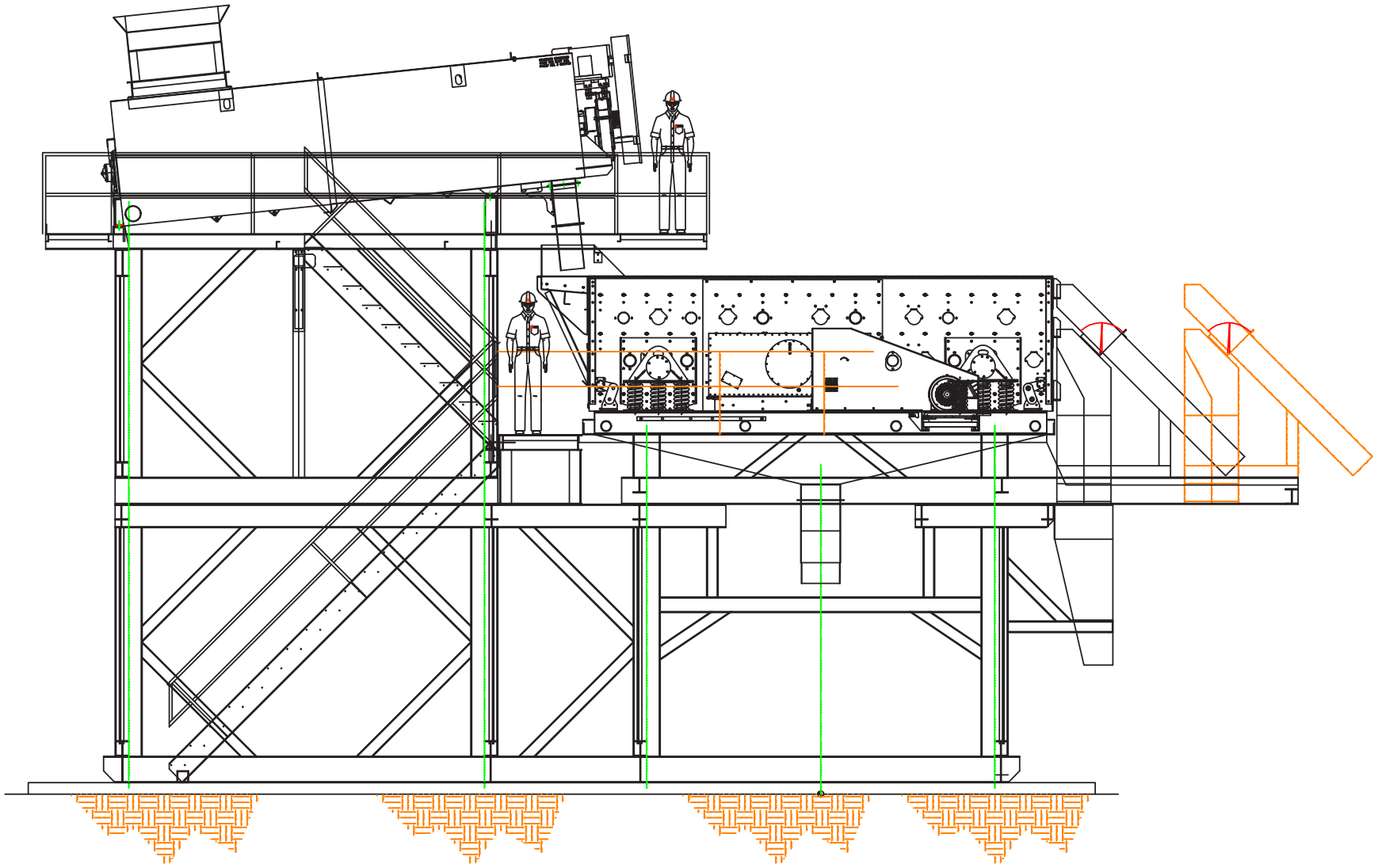


Source: Chang Consultants (2021)

HELIX Environmental Planning

Processing Area Landscape Screening

Figure 1-7b



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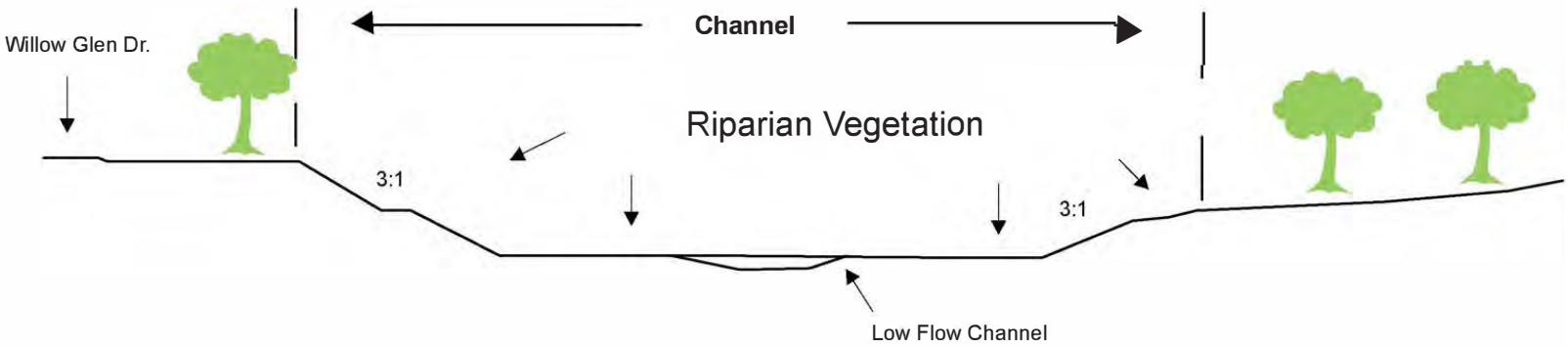
HELIX
Environmental Planning

Conditioner and Wet Screen - Profile

Figure 1-8



Source: Enviromine (2019)

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Typical Slope Grading Detail

Figure 1-9

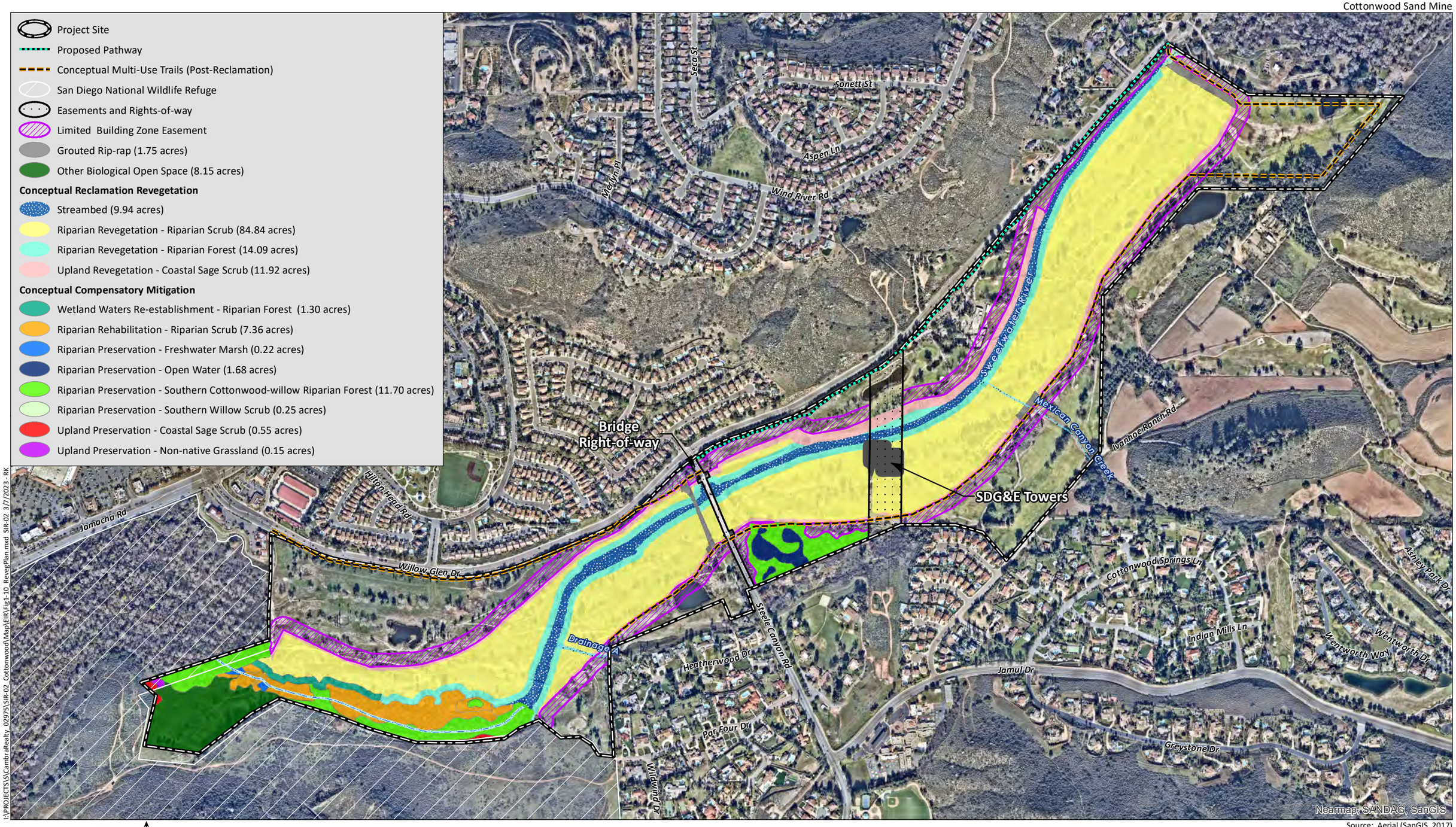
- Project Site
- Proposed Pathway
- Conceptual Multi-Use Trails (Post-Reclamation)
- San Diego National Wildlife Refuge
- Easements and Rights-of-way
- Limited Building Zone Easement
- Grouted Rip-rap (1.75 acres)
- Other Biological Open Space (8.15 acres)

Conceptual Reclamation Revegetation

- Streambed (9.94 acres)
- Riparian Revegetation - Riparian Scrub (84.84 acres)
- Riparian Revegetation - Riparian Forest (14.09 acres)
- Upland Revegetation - Coastal Sage Scrub (11.92 acres)

Conceptual Compensatory Mitigation

- Wetland Waters Re-establishment - Riparian Forest (1.30 acres)
- Riparian Rehabilitation - Riparian Scrub (7.36 acres)
- Riparian Preservation - Freshwater Marsh (0.22 acres)
- Riparian Preservation - Open Water (1.68 acres)
- Riparian Preservation - Southern Cottonwood-willow Riparian Forest (11.70 acres)
- Riparian Preservation - Southern Willow Scrub (0.25 acres)
- Upland Preservation - Coastal Sage Scrub (0.55 acres)
- Upland Preservation - Non-native Grassland (0.15 acres)



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0 700 Feet

Source: Aerial (SanGIS, 2017)

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Conceptual Reclamation Revegetation and Compensatory Mitigation Areas

Figure 1-10

LANDSCAPE NOTES

1. OWNER SHALL MAINTAIN ALL LANDSCAPE, TRAILS AND FENCING INCLUDING IN THE RIGHT OF WAY. OWNER SHALL MAINTAIN VEGETATION IN A HEALTHY DISEASED FREE CONDITION.
2. ROOT BARRIERS SHALL BE PROVIDED FOR ALL TREES WITHIN 5' OF HARDSCAPE.
3. A 3" MINIMUM THICK LAYER OF SHREDDED WOOD MULCH SHALL BE PROVIDED IN ALL AREAS OF BARE SOIL, 3:1 SLOPE OR LESS, EXCEPT WHERE MULCH IS CONTRAINDICATED.
4. TREES AND SHRUBS SHALL BE PLACED A MINIMUM OF 5' AWAY FROM WATER METER, OR SEWER LATERALS; A MINIMUM OF 10' AWAY FROM POWER POLES; A MINIMUM OF 8' AWAY FROM FIRE HYDRANTS AND FIRE DEPARTMENT SPRINKLER AND STANDPIPE LOCATIONS.
5. ALL LANDSCAPE AREAS SHALL BE FINISH GRADED TO REMOVE ROCKS AND ENSURE SURFACE DRAINAGE AWAY FROM BUILDINGS.
6. ALL REQUIRED STREET TREES SHALL BE PLANTED OUTSIDE THE PUBLIC RIGHT-OF-WAY ON PRIVATE PROPERTY.
7. LANDSCAPE IMPROVEMENTS, INCLUDING, BUT NOT LIMITED TO, PLANTS, BERMS, WALLS (DECORATIVE OR RETAINING), SIGNS, AND STRUCTURES HAVE BEEN SELECTED AND POSITIONED SO AS TO AVOID OBSTRUCTING VIEWS OF MOTORISTS NEAR INTERSECTIONS OR AISLES, DRIVES, AND PEDESTRIAN WALKWAYS. TREES HAVE BEEN SELECTED (AND SHALL BE MAINTAINED) SUCH THAT, AT MATURE SIZE, SCAFFOLD BRANCHES WILL BE A MINIMUM OF 60 INCHES ABOVE FINISH GRADE.
8. PLANTINGS ADJACENT TO OPEN SPACE LOTS DO NOT CONTAIN ANY NON-NATIVE, INVASIVE, OR FIRE PRONE PLANTS.
9. EROSION CONTROL PLANTING IS PROVIDED FOR ALL SLOPES OVER 3 FEET IN VERTICAL HEIGHT AND ADDITIONAL PLANTING (AS PER SECTION 87.417 OF THE GRADING ORDINANCE) IS PROVIDED FOR SLOPES OVER 15 FEET IN VERTICAL HEIGHT.
10. AN AUTOMATIC CONTROLLER SHALL BE WEATHER BASED (OR HAVE A MOISTURE SENSOR) AND UTILIZE A RAIN SENSOR EITHER INTEGRAL OR AUXILIARY, CAPABLE OF SHUTTING OFF THE UNIT.
11. AVOID SPRINKLER RISERS IN CORNER, ALONG WALLS AND PARKING AREAS. NO OVERHEAD IRRIGATION WITHIN 24" OF AN IMPERMEABLE SURFACE OR IN AREAS LESS THAN 10' WIDE IN ANY DIRECTION
12. EXISTING ON-SITE WELL WATER SHALL BE UTILIZED FOR IRRIGATION INCLUDING DURING CONSTRUCTION.
13. SOLAR POWERED AND / OR BATTERY OPERATED IRRIGATION CONTROLLERS AND VALVES SHALL BE USED.
14. PROTECT EXISTING TREES TO REMAIN FROM SOIL COMPACTION TO ROOT ZONES BY INSTALLING ORANGE CONSTRUCTION FENCING A 25' MINIMUM DISTANCE BETWEEN TREE TRUNKS AND STOCKPILE AREAS AND SAND MINING ACTIVITIES DURING EACH PHASE OF WORK.
15. FUTURE ROAD WIDENING WILL CAUSE SOME EXISTING SCREENING TREES TO BE REMOVED. SEE SHEETS 6 AND 7. NEW SCREENING TREES AND SHRUBS (SEE SHEETS 2-5) ARE PROPOSED TO BE PLANTED WHERE ADJACENT TO THE PROPOSED PLANT, EXIT AND ENTRANCES PRIOR TO THE ROAD WIDENING, PROVIDING A HEAD START TO SCREENING.

PLAN NOTES

KEY (XX) → DESCRIPTION

1. PLANT SITE MAIN ENTRANCE.
2. PLANT SITE EXIT.
3. RIGHT-OF-WAY LINE.
4. ORIGINAL CENTER LINE.
5. FEMA 100 YEAR FLOODZONE.
6. FEMA FLOODWAY.
7. SDG&E EASEMENT.
8. PROPOSED EDGE OF PAVING
9. EXISTING POWER POLE.
10. EMPLOYEE PARKING.
11. 6' HIGH CHAIN LINK FENCING WITH GREEN MESH SCREENING. SEE DETAIL D / SHEET 14.
12. SCALE HOUSE.
13. TRUCK SCALE.
14. GOLF COURSE.
15. HAUL ROAD.
16. STOCKPILE.
17. STORAGE CONTAINERS.
18. CONVEYOR.
19. EXISTING SCREENING TREES: SEE SHEETS 6, 7 AND 8. (TYPICAL).
20. SETTLING POND.
21. VEHICLE SIGHT DISTANCE TRIANGLE AT DRIVEWAY. MAINTAIN SHRUBS 36" MAXIMUM HEIGHT, TREE LIMBS TO CLEAR 60" ABOVE FINISH GRADE.
22. 495' INTERSECTION SIGHT DISTANCE.
23. 3" MIN. SHREDDED WOOD MULCH AT CONTAINER PLANTED GROUND COVER (TYPICAL).
24. MUCK POND.
25. GATE, 4' HIGH WITH 3"-4" WELDED STEEL PIPE.
26. WEST PLANT SITE ENTRANCE.
27. LIMIT OF LANDSCAPE SCREENING WORK.
28. PATHWAY / MULTI-USE TRAIL. SEE DET. A / SHT. 14.
29. LODGE POLE FENCE. SEE DET. B / SHT. 14.
30. WAYFINDING SIGN / TRAIL MARKER. SEE DET. C / SHT. 14
31. PROPOSED RIGHT-OF-WAY.
32. DAYLIGHT LINE.
33. PLANT AREA.
34. EXISTING EDGE OF PAVING.

PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME	CONT	QTY
	Cercis occidentalis / Western Redbud H 10'-18', W 10'-18', NATIVE, WUCOLS LOW	36"box	4
EUC POL	Eucalyptus polyanthemos / Silver Dollar Gum	Existing	31
MYO LAE	Myoporum laetum / No Common Name	Existing	5
PLA RAC	Platanus racemosa / California Sycamore	Existing	2
	Populus fremontii / Fremont Cottonwood H 40'-60', W 30', NATIVE, WUCOLS MOD	15 gal	24
	Populus fremontii / Fremont Cottonwood H 40'-60', W 30', NATIVE, WUCOLS MOD	24"box	9
	Quercus agrifolia / Coast Live Oak H 20'-70', W 20'-70', NATIVE, WUCOLS LOW	15 gal	37
	Quercus agrifolia / Coast Live Oak H 20'-70', W 20'-70', NATIVE, WUCOLS LOW	24"box	12
SCH MOL	Schinus molle / California Pepper	Existing	36
SCH TER	Schinus terebinthifolius / Brazilian Pepper	Existing	1
UNK SP	Unknown Species / Unknown Species	Existing	1

SHRUBS	BOTANICAL / COMMON NAME	SIZE	QTY
	Ceanothus x 'Ray Hartman' / California Lilac H 8'-15', W 8'-15', NATIVE, WUCOLS LOW	5 gal	217
	Heteromeles arbutifolia / Toyon H 15'-25', W 15'-25', NATIVE, WUCOLS VERY LOW, SINGLE TRUNK / STANDARD.	5 gal	59
	Rhus integrifolia / Lemonade Berry H 10', W 10', NATIVE, WUCOLS VERY LOW	5 gal	162

GROUND COVERS	BOTANICAL / COMMON NAME	CONT	SPACING
	COASTAL SAGE SCRUB SEED MIX		
	Baccharis pilularis / Dwarf Coyote Brush 2 lbs./acre, Purity 90 / Germination 80	seed	
	Bromus carinatus / California Brome-Grass 20 lbs./acre, Purity 95 / Germination 80	seed	
	Encelia californica / California Encelia 1 lb./acre, Purity 40 / Germination 60	seed	
	Lotus scoparius / California Deer Weed 3 lbs./acre, Purity 90 / Germination 60	seed	
	Salvia apiana / White Sage 2 lbs./acre, Purity 70 / Germination 50	seed	
	Trifolium tridentatum / Tomcat Clover 8 lbs./acre, Purity 90 / Germination 80	seed	
	Vulpia microstachys / Small Fescue 8 lbs./acre, Purity 90 / Germination 80	seed	
	Baccharis pilularis / Dwarf Coyote Brush H 8"-24", W 6'+, NATIVE, WUCOLS LOW	1 gal	36" o.c.

PLANT SCHEDULE NOTES

1. QUANTITY (QTY) FOR EXISTING TREES IS FOR TREES TO REMAIN AS SHOWN WITHIN 20' SCALE ENLARGED PLANS, SHEETS 2-5 ONLY.
2. SEE SHEETS 6 AND 7 FOR EXISTING TREES SURVEY PLAN ALONG WILLOW GLEN DRIVE. SEE SHEET 8 FOR TOTAL EXISTING TREE AMOUNTS.

Source: HELIX 2021

MUIRFIELD DRIVE

WILLOW GLEN DRIVE

ASPH

10' TYP

25' TYP

10' TYP

EUC POL

SCH MOL

SCH TER

LINK SP

X341.0

350

340

340

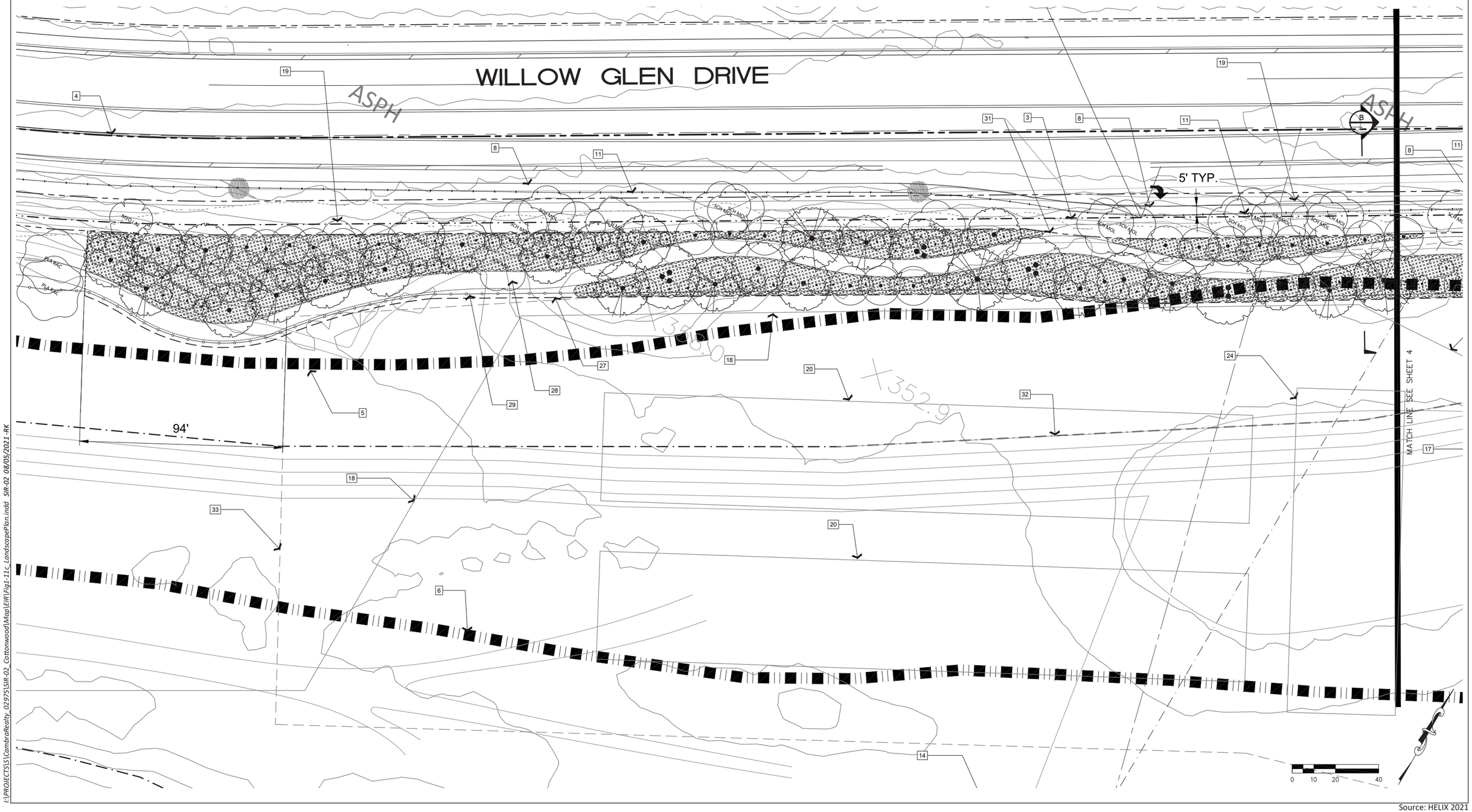
0 10 20 40

Source: HELIX 2021

HELIX Environmental Planning

Conceptual Landscape Screening and Entrances Plan

Figure 1-11b

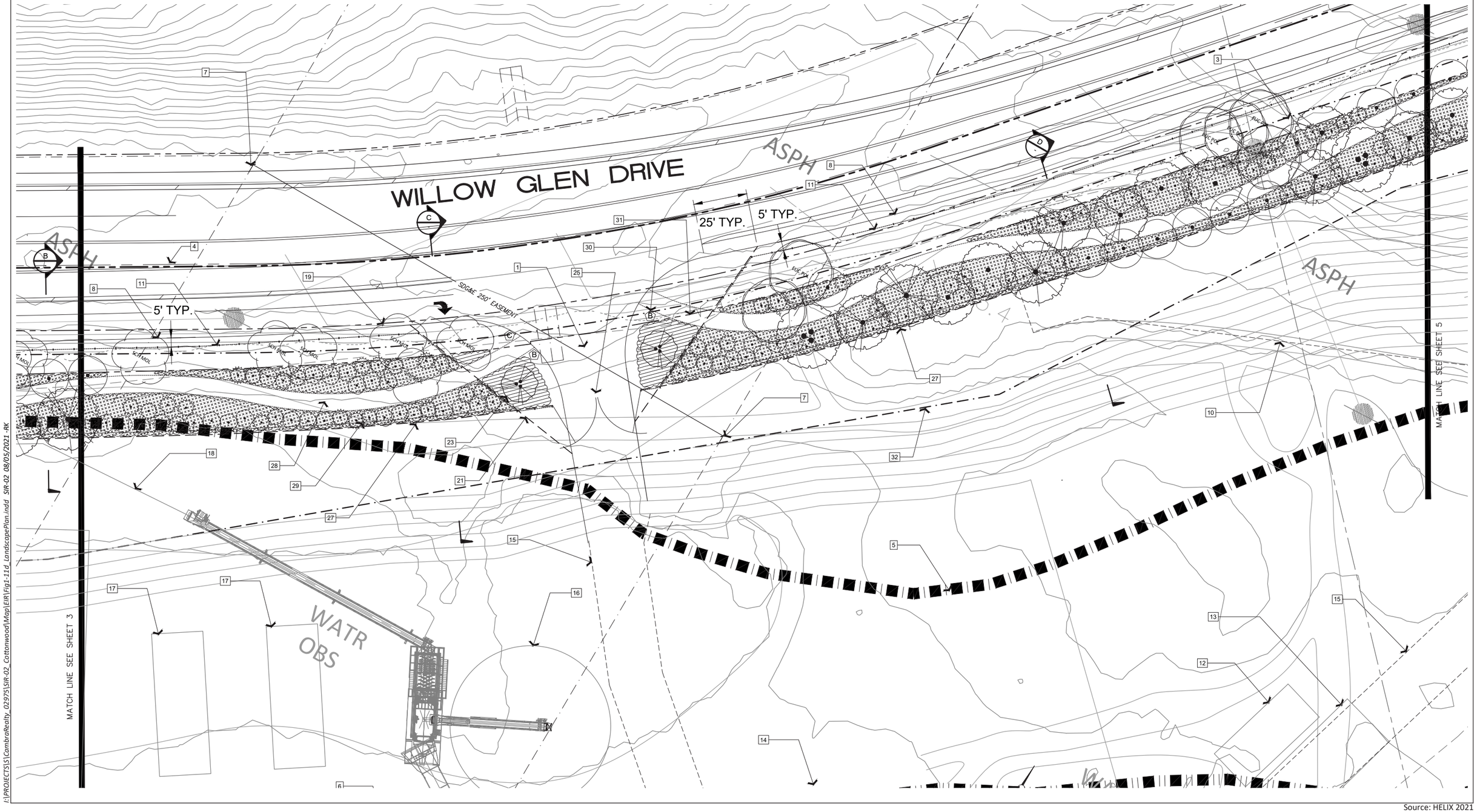


Source: HELIX 2021

HELIX Environmental Planning

Conceptual Landscape Screening and Entrances Plan

Figure 1-11c

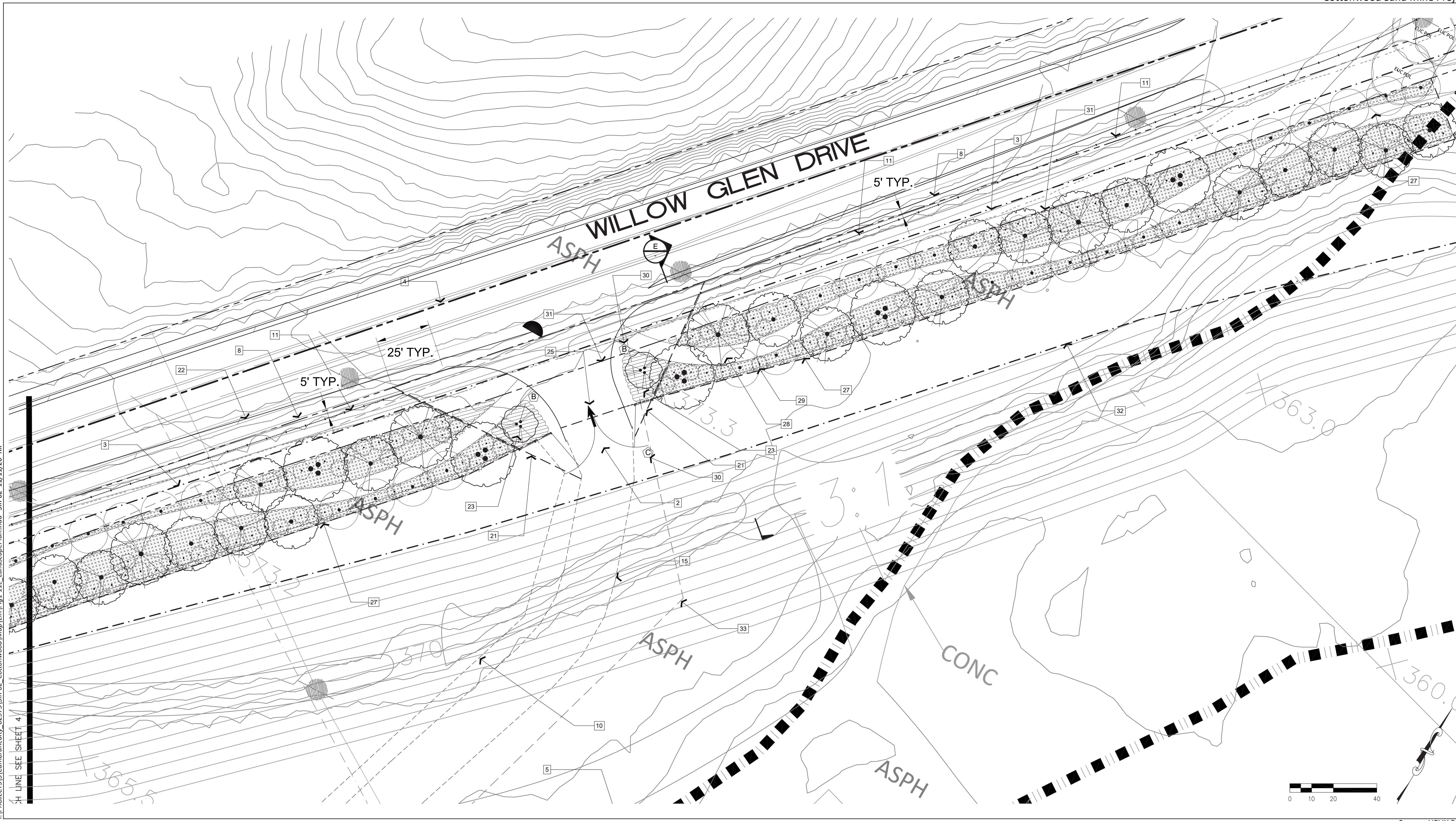


Source: HELIX 2021

HELIX Environmental Planning

Conceptual Landscape Screening and Entrances Plan

Figure 1-11d



Source: HELIX 2021

HELIX Environmental Planning

Conceptual Landscape Screening and Entrances Plan

Figure 1-11e

Cottonwood Sand Mine Project

- Project Site
- Major Use Permit Boundary
- Parks
- San Diego National Wildlife Refuge
- Proposed Pathway
- Conceptual Multi-Use Trails (Post Reclamation)

Community Trails/Pathways

- Existing Trail
- Proposed Trail
- Proposed Pathway
- Existing Trail (SDNWR)

Hillsdale Road
Jamacha
Woodhaven County Park
Cottonwood County Park
Cottonwood #2 County Open Space
Hilton Head County Park
Sweetwater River
San Diego National Wildlife Refuge
Willow Glen Drive
Steele Canyon Road
Jamul Drive
Steele Canyon County Park
Jamacha Road

HILLSDALE/VISTA GRADE EXTENSION
HILLSDALE/VISTA GRADE EXTENSION
SWEETWATER REGIONAL TRAIL
SWEETWATER REGIONAL TRAIL
SWEETWATER REGIONAL TRAIL
OLD STAGE ROAD TRAIL
IVANHOE TRAIL
IVANHOE LOOP TRAIL
MARTIN RANCH TRAIL
MCGRINTY LOOP CONNECTOR TRAIL
STEELE CANYON TRAIL
TRINA'S WAY TRAIL
OLD STAGE ROAD / IVANHOE RANCH
OLD STAGE ROAD / JAMUL DRIVE
WIESHORST LOOP/FURY LANE
WIESHORST LOOP/JAMACHA ROAD
PAR 4 TRAIL
WILDLIFE REFUGE LOOP TRAIL
EQUESTRIAN CENTER TRAIL
STEELE CANYON/VISTA CIELO TRAIL
LOS MONTANAS NORTH LOOP
EQUESTRIAN CENTER TRAIL
CALL
TRAIL

0 1,300 Feet

N

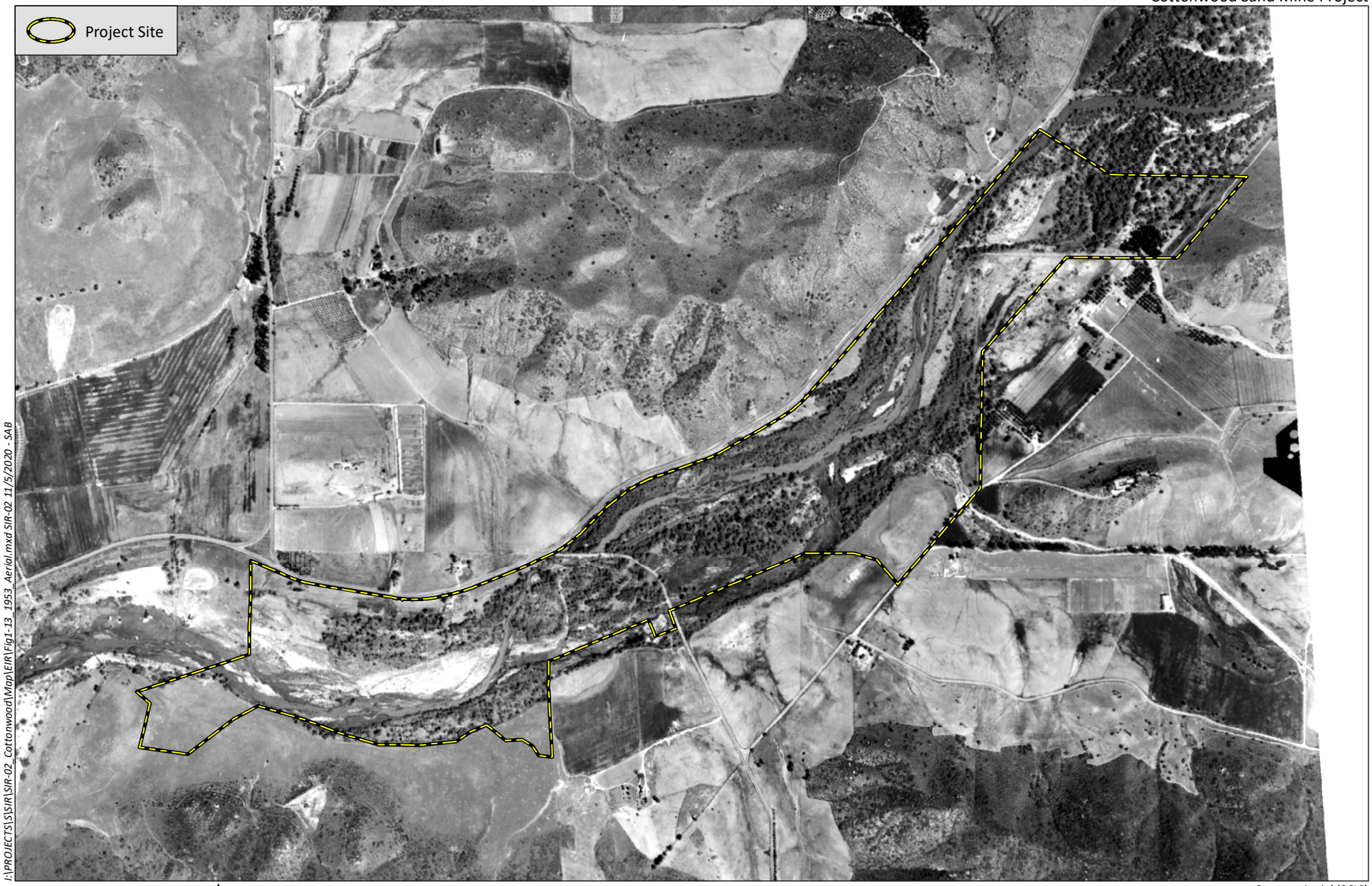
Source: Aerial (SanGIS 2017); Trails (SanGIS 2019)

I:\PROJECTS\S\CambraRealty_02975\SIR-02_Cottonwood\Map\EIR\Fig1-12_Trails.mxd SIR-02 12/9/2021 -RK

HELIX Environmental Planning

Trail Plan

Figure 1-12



Source: Aerial (SCIC)

HELIX Environmental Planning

1953 Aerial Photograph

Figure 1-13

I:\PROJECTS\S\SIR\SIR-02_Cottonwood\Map\EIR\Fig1-14_Lakes.indd SIR-02 2/10/2020 - SAB

Source: Enviromine (2019)

HELIX Environmental Planning

Lakes Course Layout

Figure 1-14

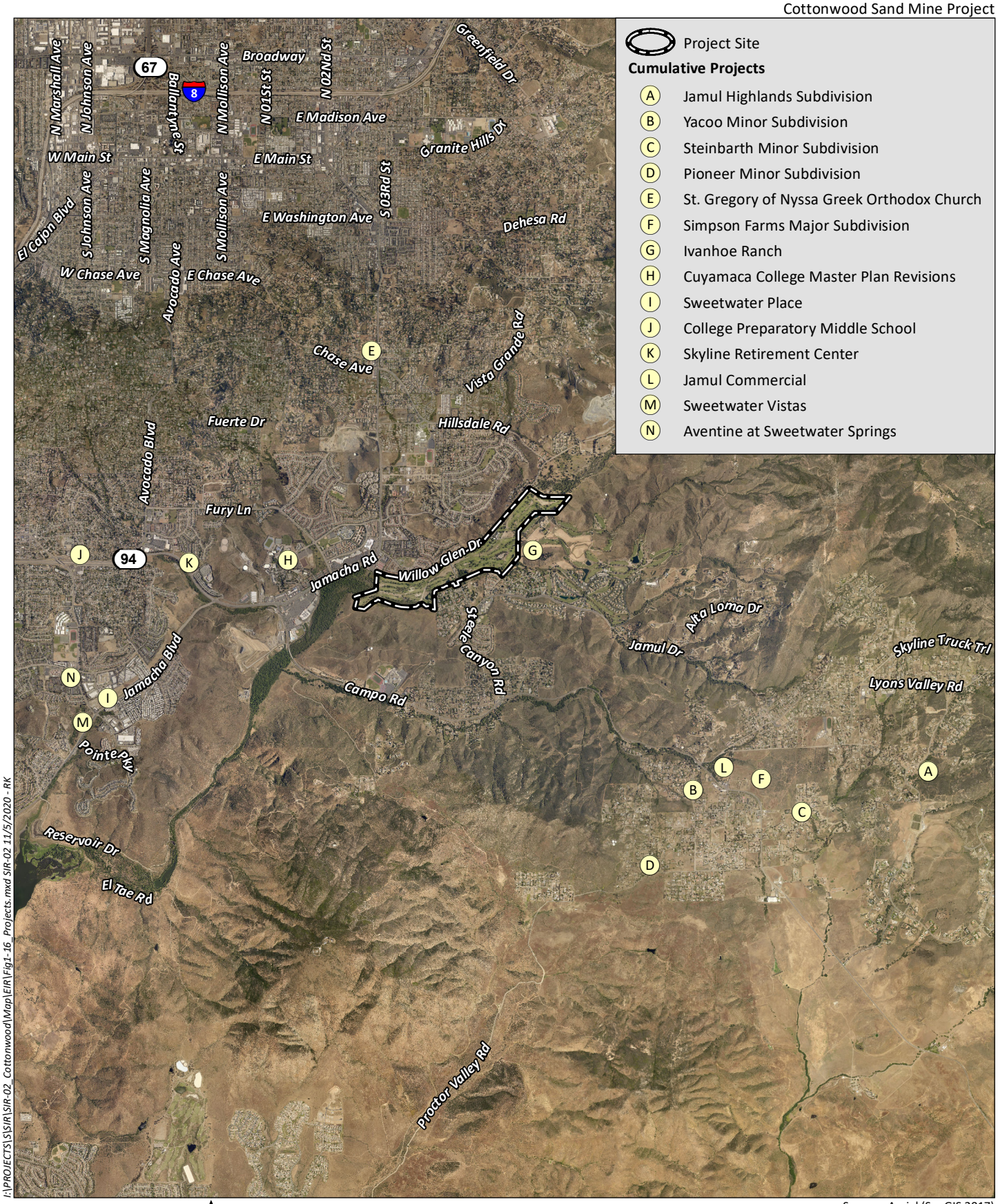
I:\PROJECTS\S\SIR\SIR-02_Cottonwood\Map\EIR\Fig1-15_Ivanhoe.indd SIR-02 2/10/2020 - SAB

Source: Enviromine (2019)

HELIX Environmental Planning

Ivanhoe Course Layout

Figure 1-15



I:\PROJECTS\SIS\SIR\SIR-02_Cottonwood\Map\EIR\Fig1-16_Projects.mxd SIR-02 11/5/2020 - RK

0 6,000 Feet

Source: Aerial (SanGIS 2017)

HELIX Environmental Planning

Cumulative Projects

Figure 1-16

2.2 Biological Resources

This subchapter describes existing biological conditions within the Proposed Project site and vicinity, identifies associated regulatory requirements and evaluates potential impacts (including cumulative impacts) and mitigation measures related to implementation of the Proposed Project. A Biological Technical Report (BTR) was prepared for the Project by HELIX Environmental Planning, Inc. (HELIX; 2023), in conformance with the County Guidelines for Determining Significance and Report Format and Content Requirements – Biological Resources (County 2010a) and is summarized below. The complete updated report is included as Appendix C of this EIR.

2.2.1 Existing Conditions

2.2.1.1 *Existing Setting*

Land Uses

The Project site is generally located within the southern valley humid temperate ecoregion of San Diego County, partially within the boundaries of the Rancho San Diego Specific Plan area and within the Valle de Oro Community Plan area. Generalized climate in the region is regarded as dry, subhumid mesothermal, with warm dry summers and cold moist winters. Mean annual precipitation is between 14 and 18 inches, and the mean annual temperature is between 60 degrees and 62 degrees Fahrenheit. The frost-free season is 260 to 300 days.

Important biological resources in the region generally include core blocks of coastal sage scrub and chaparral, open space conserved within the SDNWR and Otay Valley Regional Park, and perennial waters and riparian habitat associated with Sweetwater River and Otay River corridors and Sweetwater and Otay Reservoirs. The Project site is located within the Sweetwater River Valley and in the floodplain of the Sweetwater River, which flows in a northeast-to-southwest direction through the central portion of the site. The region hosts core populations of special status plants, including Dean's milk-vetch (*Astragalus deanei*), Orcutt's brodiaea (*Brodiaea orcuttii*), and felt-leaved monardella (*Monardella hypoleuca* ssp. *lanata*), in addition to important habitat for several special status animals, including least Bell's vireo (*Vireo bellii pusillus*) and coastal California gnatcatcher (*Polioptila californica californica*), among others. As shown on Figures 2.2-1, *MSCP Designations*, and Figure 2.2-2, *Critical Habitat*, USFWS-designated critical habitat for three species occurs within the extreme southwestern portion of the Project site: coastal California gnatcatcher (2.66 acres), least Bell's vireo (10.42 acres), and San Diego ambrosia (*Ambrosia pumila*; 15.66 acres). Additionally, critical habitat for southwestern willow flycatcher (*Empidonax traillii extimus*) occurs off site, just west of the Project boundary along a downstream segment of the Sweetwater River. The portion of least Bell's vireo critical habitat mapped within the Project site is primarily located within areas that have been converted to golf course, though a small portion of riparian habitat along Sweetwater River is present. Mapped critical habitat for coastal California gnatcatcher within the Project site is associated with the edge of the Sweetwater River riparian canopy, though critical habitat for this species also occurs directly off site in areas vegetated with coastal sage scrub. Designated critical habitat for San Diego ambrosia within the Project site is located along the Sweetwater River, though some of these areas consist of golf course.

In the context of the MSCP, the Project site occurs within both the northeastern portion of the South County Segment and the southwestern portion of the Metro-Lakeside-Jamul Segment of the adopted County MSCP Subarea Plan. The majority of the site is mapped as developed on Attachment J (Habitat Evaluation Map) of the BMO (County 2010b), though small portions along the Project site's southern boundary are also mapped as low, moderate, high, and very high habitat value. The MSCP Hardline is mapped off site to the west and south of the Project along Sweetwater River and within the SDNWR (Figure 2.2-1).

Lands designated as Pre-Approved Mitigation Area (PAMA), totaling 16.40 acres within the Project site, occur along the northeastern, southeastern, and southern Project boundaries (Figure 2.2-1). A narrow strip of PAMA (4.96 acres), averaging approximately 100 feet wide, occurs at the northeastern boundary just south of Willow Glen Drive and generally follows the upstream portion of Sweetwater River. A small portion of PAMA (3.20 acres), connected to a larger block of off-site habitat that continues further east and southeast of the Project site, is found at the extreme southeastern portion of the Project. The largest patch of PAMA (8.24 acres) occurs directly east of Steele Canyon Road, along the Project site's southern border, in an area that was excavated during the 1960s. This area was located at the edge of the historic Sweetwater River floodplain and was excavated to a depth that created conditions suitable to support ponded areas. Lastly, approximately 37.79 acres of the Project site at the southwestern boundary represent a Minor Amendment Area. This includes riparian habitat at the downstream portion of Sweetwater River, and lands developed as part of the golf course.

Biological Surveys

General biological surveys of the Project site were conducted, consistent with County requirements, by HELIX on August 13 and November 7, 2018, September 28 and 29, 2020, October 6, 2020, and May 10 and 19, 2022. The site was examined for general biological data, including vegetation mapping and species inventories. The locations of special status plant and animal species incidentally observed or otherwise detected were mapped. The Project site was also examined for evidence of potential jurisdictional waters and wetlands.

In addition to the general biological surveys, HELIX conducted a jurisdictional delineation, rare plant surveys, southwestern pond turtle (*Actinemys pallida*) surveys, acoustical bat surveys, wildlife camera trapping surveys, and protocol-level surveys for arroyo toad (*Anaxyrus californicus*), coastal California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher, as summarized below. All portions of the Project site were surveyed for potential resources and evaluated for Project impacts. More information on the extent and nature of these surveys is provided in the BTR for this Project (Appendix C).

Rare Plant Surveys

Surveys for special status plant species were conducted on April 17 and June 20, 2019, and May 20 and July 11, 2022, in accordance with applicable protocols. Rare plant surveys included focused surveys for San Diego ambrosia. USFWS-designated habitat for the federally listed endangered San Diego ambrosia occurs in the southwestern portion of the Project site. A nearby population of San Diego ambrosia is located south of the southwestern portion of the Project site within the SDNWR. This population was field verified for detectability during the surveys. Special status

plant species include species that are: listed as threatened or endangered by the USFWS or the CDFW; those with a California Rare Plant Rank (CRPR) 1 through 4 designated by the California Native Plant Society (CNPS); those that are on the County's Sensitive Plant List (County 2010c); and those covered by the County's MSCP Subarea Plan (County 1997).

Arroyo Toad Surveys

Focused surveys for arroyo toad were conducted within the Project site and consisted of six survey visits, spaced at least seven days apart, conducted between April 15 and June 25, 2019, in accordance with *Survey Protocol for Arroyo Toad* (USFWS 1999). At least one survey was conducted during the months of April, May, and June. The survey area covered all areas of potential habitat within the Project site, including riparian habitat located along, or directly adjacent to, the Sweetwater River.

An updated habitat assessment for arroyo toad was conducted on May 9, 2022. The habitat assessment consisted of one daytime and one nighttime site visit to assess and document changes in biological resources from the 2019 focused surveys and evaluate the suitability of potential habitat to support arroyo toad.

Southwestern Pond Turtle Surveys

Visual surveys for the southwestern pond turtle were conducted in spring and summer of 2022. The survey consisted of two site visits performed during the species' active period, May to July. The surveys were conducted using a modified protocol that generally followed those detailed in *USGS Western Pond Turtle Visual Survey Protocol for the Southcoast Ecoregion* (United States Geological Survey [USGS] 2006). The pond turtle survey area consisted of all potential aquatic habitat occurring within the Project site, including several artificial ponds that were constructed as part of the golf course development, though not all of these ponds were inundated during the surveys. A total of six ponded areas were surveyed, including two artificial ponds within the closed golf course area west of Steele Canyon Road, three artificial ponds within the active golf course area east of Steele Canyon Road, and a ponded area east of the Steele Canyon Road along the Project's southern boundary that represents a lower lying area that was excavated in the 1960s during construction of the golf course.

Least Bell's Vireo Surveys

Focused surveys for least Bell's vireo were conducted and consisted of eight survey visits spaced at least 10 days apart, between April 16 and July 15, 2019, in accordance with *Least Bell's Vireo Survey Guidelines* (USFWS 2001). The survey area consisted of potential least Bell's vireo riparian habitat present within the Project site.

Southwestern Willow Flycatcher Surveys

Focused surveys for southwestern willow flycatcher were conducted within the Project site and consisted of five survey visits conducted at least five days apart, between May 30 and July 15, 2019, in accordance with USFWS-approved survey protocol (Sogge et al. 2010). The survey area consisted of potential southwestern willow flycatcher riparian habitat present within the Project site.

Coastal California Gnatcatcher Surveys

Focused surveys for coastal California gnatcatcher were conducted within the Project site and consisted of three survey visits, at least seven days apart, conducted between June 23 and July 7, 2022, in accordance with the *Coastal California Gnatcatcher Presence/Absence Survey Protocol* (USFWS 1997). The survey area consisted of all potential gnatcatcher habitat present within the Project site.

Bat Surveys

Bat surveys were conducted within the Project site in 2022 and consisted of acoustic monitoring surveys and a nighttime emergence survey. A habitat assessment was conducted during the first survey visit to evaluate and identify potential roosting and/or foraging habitat for bats present within the Project site (e.g., abandoned buildings, water bodies, rock outcrops, etc.). Acoustic monitoring surveys were conducted on the Project site over two separate two-week deployment periods between May 17 and July 14, 2022. Three AnaBat Express detectors were deployed throughout the Project site to record bat calls. Analook software was used to process the AnaBat Express recordings and aid in species identification. A nighttime emergence survey was conducted on the Project site by HELIX biologists on July 26, 2022. The emergence survey occurred between one hour before local sunset and one hour after sunset. An Echo Meter Touch 2 Pro detector was used to record bat calls. Following the survey, Sonobat software (version 4.5.5) was used to process the recordings and aid in species identification.

Wildlife Trapping Surveys

Wildlife camera trapping surveys were conducted using motion-activated cameras deployed within the Project site to document wildlife presence, use, and movement throughout the Project site. Three cameras were deployed throughout the Project site between May 19 and July 28, 2022 and were installed in areas where signs of wildlife use and movement (i.e., tracks and scat) were observed; potential food, shelter, and aquatic resources were present (such as existing native riparian habitat areas and artificial ponds); and at potential ingress/egress areas. A total of four deployments were conducted, with each deployment period spanning between two to three weeks. The images with a positive detection were reviewed, and species recorded were identified to the closest taxonomic group possible.

Jurisdictional Delineation

HELIX conducted a formal jurisdictional delineation on September 18 and October 5, 2018, to identify and map water and wetland resources potentially subject to USACE jurisdiction pursuant to Section 404 of the Clean Water Act (CWA; 33 USC 1344), RWQCB jurisdiction pursuant to Section 401 of the CWA and State Porter-Cologne Water Quality Control Act, and streambed and riparian habitat potentially subject to CDFW jurisdiction pursuant to Sections 1600 et seq. of the California Fish and Game Code (CFG Code). The delineation was also conducted to determine the presence or absence of County Resource Protection Ordinance (RPO) wetlands. Areas generally characterized by depressions, drainage features, and riparian and wetland vegetation were evaluated.

Habitats

Fifteen vegetation communities/land use types occur on the Project site, as shown on Figure 2.2-3, *Vegetation and Sensitive Resources*. The numeric codes in parentheses following each community/land use type name are from the Holland classification system (Holland 1986) as added to by Oberbauer (2008) and as presented in the County's Biology Guidelines (County 2010a). The communities are presented in Table 2.2-1, *Existing Vegetation Communities/Land Use Types*, and described below in order by MSCP Tier.

Disturbed Wetland

Disturbed wetland is dominated by exotic wetland species that invade areas that have been previously disturbed or undergone periodic disturbances. These non-natives become established more readily following natural or human-induced habitat disturbance than the native wetland flora. Characteristic species of disturbed wetlands include giant reed (*Arundo donax*), tamarisk (*Tamarix* spp.), cocklebur (*Xanthium strumarium*), umbrella sedge (*Cyperus involucratus*), and wild celery (*Apium graveolens*).

Disturbed wetland on site is located along the Sweetwater River and is dominated by Bermuda grass (*Cynodon dactylon*) or bare ground. The river channel has been altered from current and past disturbances associated with previous mining activities and golf course development, including on-going maintenance and operations. It has been planted with turf grass and is regularly mowed as part of golf course maintenance activities. Approximately 10.25 acres of disturbed wetland are mapped within the Project site.

Freshwater Marsh

Freshwater marsh is dominated by perennial, emergent monocots, 5 to 13 feet tall, forming incomplete to completely closed canopies. This vegetation type occurs along the coast and in coastal valleys near river mouths and around the margins of lakes and springs, and freshwater or brackish marshes. These areas are semi-permanently or permanently flooded, yet lack a significant current (Holland 1986). Dominant species include cattails (*Typha* sp.) and bulrushes (*Schoenoplectus* sp.), along with umbrella sedges (*Cyperus* sp.), rushes (*Juncus* sp.), and spike-sedge (*Eleocharis* sp.).

Freshwater marsh within the Project site is dominated by cattails and California bulrush (*Schoenoplectus californicus*). A small patch occurs in the southwestern portion of the Project site at the downstream end of Sweetwater River, just east (upstream) of a bridge crossing. Freshwater marsh also occurs in the south-central portion of the Project site, just east of Steele Canyon Road, in an area that was previously disturbed by mining and golf course development. A total of 0.22 acre of freshwater marsh are mapped on site.

Southern Cottonwood-Willow Riparian Forest (including disturbed)

Southern cottonwood-willow riparian forest consists of tall, open, broad-leaved, winter deciduous riparian species and is dominated by cottonwood species (e.g., *Populus* spp.), with willow species (*Salix* spp.) composing the main understory. This vegetation community is dense, structurally diverse, and similar to southern arroyo willow riparian forest, although it contains a greater number

of cottonwoods and western sycamores (*Platanus racemosa*). Disturbed southern cottonwood-willow riparian forest contains a higher percentage of exotic species such as tamarisk, shamel ash (*Fraxinus udehi*), eucalyptus (*Eucalytpus* spp.), peppertree (*Schinus* spp.), and Mexican fan palm (*Washingtonia robusta*).

Typical species occurring within southern cottonwood-willow riparian forest on site include western cottonwood (*Populus fremontii*), western sycamore (*Platanus racemosa*), arroyo willow (*Salix lasiolepis*), and black willow (*Salix gooddingii*). Non-native species within disturbed portions of southern cottonwood-willow riparian forest include eucalyptus, tamarisk, and Mexican fan palm. Approximately 12.87 acres of southern cottonwood-willow riparian forest, which includes 1.02 acres disturbed, are mapped at the northeastern and southwestern portions of the Project site along Sweetwater River, and to the east of Steele Canyon Road along the site's southern boundary in an area previously disturbed by mining activities.

Southern Willow Scrub (disturbed)

Southern willow scrub consists of dense, broad-leaved, winter-deciduous stands of trees dominated by shrubby willows in association with mule fat (*Baccharis salicifolia*), and with scattered emergent cottonwood and western sycamores. This vegetation community occurs on loose, sandy or fine gravelly alluvium deposited near stream channels during flood flows. Frequent flooding maintains this early seral community, preventing succession to a riparian woodland or forest (Holland 1986). In the absence of periodic flooding, this early seral type would be succeeded by southern cottonwood or western sycamore riparian forest. Disturbed southern willow scrub contains a higher percentage of exotics and non-native species.

This habitat occurs along the downstream portion of Sweetwater River in the southwestern portion of the Project site. Dominant species include arroyo willow, black willow, and sandbar willow (*Salix exigua*). Disturbed southern willow scrub includes the same species along with intermixed giant reed and tamarisk trees. A total of4.82 acres of disturbed southern willow scrub occurs on site.

Tamarisk Scrub

Tamarisk scrub typically comprises shrubs and/or small trees of exotic tamarisk species but may also contain willows, salt bushes (*Atriplex* spp.), and salt grass (*Distichlis spicata*). This habitat occurs along intermittent streams in areas where high evaporation rates increase the salinity level of the soil. Tamarisk is a phreatophyte, a plant that can obtain water from an underground water table. Because of its deep root system and high transpiration rates, tamarisk can substantially lower the water table to below the root zone of native species, thereby competitively excluding them. As a prolific seeder, it may rapidly displace native species within a stream channel.

Tamarisk scrub on site is dominated by tamarisk with occasional cattails and willows. It is found along the downstream portion of Sweetwater River in the southwestern portion of the Project site. A total of 1.23 acres of tamarisk scrub is mapped on site.

Open Water

Open water on the Project site consists of stands of fresh water located to the east of Steele Canyon Road along the Project's southern boundary in an area that was previously disturbed by mining activities. The area was excavated during sand extraction creating lower-lying areas that intersect the water table. These open water features are surrounded by native riparian habitat. A total of 1.68 acres of open water/freshwater pond is mapped on site.

Arundo-dominated Riparian

Arundo-dominated riparian consists of densely vegetated riparian thickets dominated almost exclusively by giant reed. It occurs along disturbed water courses. On site, this habitat occurs as a near monoculture of giant reed within a portion of Sweetwater River, an associated tributary off Ivanhoe Ranch Road, and at the fringe of a constructed pond west of Steele Canyon Road. A total of 0.56 acre of arundo-dominated riparian is mapped on site.

Diegan Coastal Sage Scrub (including Disturbed)

Coastal sage scrub is one of the two major shrub types that occur in southern California, occupying xeric sites characterized by shallow soils (the other is chaparral). Diegan coastal sage scrub may be dominated by a variety of species depending on soil type, slope, and aspect. Typical species found within Diegan coastal sage scrub include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), lemonadeberry (*Rhus integrifolia*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*). Disturbed Diegan coastal sage scrub contains many of the same shrub species as undisturbed Diegan coastal sage scrub but is sparser and has a higher proportion of non-native, annual species.

Small patches of this habitat occur at the southeastern and southwestern Project boundaries. These patches are connected to larger swaths of coastal sage scrub that occur off site within preserved lands and open space. Dominant species include California sage brush, California buckwheat, Palmer's goldenbush (*Ericameria palmeri* var. *palmeri*) and broom baccharis (*Baccharis sarothroides*). Disturbed coastal sage scrub on site occurs as narrow bands of habitat to the south of Willow Glen Drive at the northeastern boundary, and to the west of Steele Canyon Road along the southern boundary. These areas consist of scattered shrubs of California sagebrush and California buckwheat growing among planted non-native trees and woody debris deposited on the slopes. A total of 1.8 acres of Diegan coastal sage scrub, including 0.5 acre disturbed, is mapped within the site.

Non-Native Grassland

Non-native grassland is a mixture of annual grasses and broad-leaved, herbaceous species. Annual species comprise from 50 percent to more than 90 percent of the vegetative cover, and most annuals are non-native species. Non-native grasses typically comprise at least 30 percent of the vegetative cover, although this percentage can be much higher in some years and lower in others, depending on land use and climatic conditions. Usually, the grasses are less than three feet in height and form a continuous or open cover. Emergent shrubs and trees may be present but do not comprise more than 15 percent of the total cover. Most of the non-native grasses originated from

the Mediterranean region, an area with a long history of agriculture and a climate similar to California.

A small patch of non-native grassland totaling 0.2 acre, occurs in the southwestern portion of the Project site. Dominant species include ripgut grass (*Bromus diandrus*), short-pod mustard (*Hirschfeldia incana*), and Bermuda grass. Non-Native Woodland

Non-native woodland is dominated by exotic trees, often intentionally planted. These areas are not artificially irrigated or maintained. A single stand of non-native woodland is found in the southeastern portion of the site. Dominant species include eucalyptus, tamarisk, and Peruvian pepper tree (*Schinus molle*) with an understory comprised of scattered California sagebrush and California buckwheat shrubs, and annual non-native grasses (*Bromus* spp.). Approximately 1.7 acres of non-native woodland is mapped within the Project site.

Eucalyptus Woodland

Eucalyptus woodland is dominated by eucalyptus (*Eucalyptus* spp.), an introduced genus that produces a large amount of leaf and bark litter. The chemical and physical characteristics of this litter, combined with the shading effects of the trees, limit the ability of other species to grow in the understory, thereby decreasing floristic diversity. If sufficient moisture is available, eucalyptus becomes naturalized and can reproduce and expand its cover.

Scattered stands of eucalyptus woodland occur throughout the Project site, mostly at the northeastern, southeastern, and southern boundaries. Scattered eucalyptus trees also occur throughout the golf course amongst the trees lining the fairways. A total of 2.6 acres of eucalyptus woodland is mapped within the Project site.

Non-native Vegetation

Non-native vegetation is a category describing stands of naturalized trees and shrubs (e.g., acacia [*Acacia* spp.], peppertree [*Schinus* spp.]), many of which are also used in landscaping. On site, this habitat consists of Peruvian pepper trees and oleander (*Nerium oleander*) lining Willow Glen Drive along the site's northern boundary and tamarisk and other non-natives that have emerged within drained artificial ponds, totaling approximately 7.5 acres.

Disturbed Habitat

Disturbed habitat includes areas where there is evidence of soil surface disturbance and compaction resulting from previous legal human activities. Vegetation, if present, has a predominance of non-native and/or weedy species that are indicators of such surface disturbance (County 2010c). Vegetation on disturbed land (if present) will have a high predominance of non-native and/or weedy species that are indicators of surface disturbance and soil compaction, such as Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), horehound (*Marrubium vulgare*), and sow-thistle (*Sonchus oleraceus*). Although annual, non-native grasses may be present on disturbed land, they do not dominate the vegetative cover.

Disturbed habitat on site predominantly occurs to the west of Steele Canyon Road within the closed portion of the golf course. This area is no longer being irrigated and maintained, though it is subject

to periodic mowing. Disturbed habitat consists of dirt roads and non-native, weedy vegetation such as Bermuda grass, short-pod mustard, Russian thistle, filaree (*Erodium* spp.), and scattered non-native grasses (*Bromus* spp.). Additionally, native and non-native planted trees including cottonwoods, eucalyptus, shamel ash, and northern catalpa (*Catalpa speciosa*) are present along the borders of the previous fairways. A total of 91.3 acres of disturbed habitat is mapped on site.

Artificial Pond

Artificial ponds on site consist of open water habitat excavated in uplands. A total of six constructed ponds totaling 3.0 acres are present on site, which serve as water hazards and aesthetic features for the golf course. Four ponds are present in the eastern portion of the site and two occur to the west of Steele Canyon. The water level in these constructed ponds is maintained artificially by pumping groundwater into them.

Developed Land

Developed land includes areas that have been constructed upon or otherwise covered with a permanent, unnatural surface and may include, for example, structures, pavement, irrigated landscaping, or hardscape to the extent that no natural land is evident. These areas no longer support native or naturalized vegetation (County 2010c).

Developed land within the Project site consists of the active portion of Cottonwood Golf Club, to the east of Steele Canyon Road. These areas include a club house, parking lot, maintenance facilities and other buildings, golf cart paths, and other areas of hardscape or maintained landscaping that includes irrigated turf grass and planted native and non-native trees. Approximately 136.9 acres of developed land are mapped within the Project site.

Sensitive Vegetation Communities/Habitat Types

Sensitive vegetation communities/habitat types are defined as land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the CEQA Guidelines. Table 5 of the County guidelines (County 2010a, 2010c) provides a list of habitat mitigation ratios for each vegetation community type.

Sensitive vegetation communities/habitat types mapped on the Project site include disturbed wetland, freshwater marsh, southern cottonwood-willow riparian forest (including disturbed), disturbed southern willow scrub, tamarisk scrub, open water, arundo-dominated riparian, Diegan coastal sage scrub (including disturbed), and non-native grassland.

Non-native woodland, eucalyptus woodland, non-native vegetation, disturbed habitat, artificial pond, and developed lands do not meet the definition of sensitive habitat under CEQA.

Jurisdictional Wetlands/Waters

The Project site does not contain any vernal pools, but supports wetland and non-wetland waters of the U.S. subject to the regulatory jurisdiction of the USACE pursuant to Section 404 of the federal CWA; wetland and non-wetland waters of the State subject to the regulatory jurisdiction of the RWQCB pursuant to Section 401 of the CWA; riparian-vegetated and unvegetated

streambed subject to the regulatory jurisdiction of the CDFW pursuant to Section 1600 et seq. of California Fish and Game Code; and wetlands subject to the regulatory jurisdiction of the County pursuant to the RPO. However, as discussed in further detail in the local regulatory framework under *Resource Protection Ordinance*, below, the Proposed Project is exempt from RPO requirements based on implementation of measures specified in Section 86.605(d) of the RPO as conditions of the Project's MUP.

Impacts to jurisdictional wetlands/waters would require consultation and approvals from federal and state agencies, including a Section 404 Permit from USACE, 401 Certification from the San Diego RWQCB, and a 1602 Streambed Alteration Agreement (SAA) from CDFW.

Wetland habitat on site is primarily associated with the Sweetwater River, which enters the Project site at the northeastern boundary, flows west, and exits the site at the southwestern boundary. The majority of habitat along the river has been heavily modified by the development of the golf course and is dominated by Bermuda grass that is subjected to on-going disturbances associated with maintenance activities (i.e., mowing). A stand of riparian habitat is present at the downstream portion of the river within the southwestern portion of the Project site.

Three ephemeral drainages, two of which are tributary to Sweetwater River, are also present within the Project site. All three drainages enter the site at separate locations along the Project's southern boundary. The eastern-most drainage enters the Project site from the south and terminates within a lower lying area that was excavated in the 1960s during the construction of the golf course. This drainage course does not have downstream connectivity to the Sweetwater River or any other waterways. A second drainage, Mexican Canyon Creek, enters the site from Ivanhoe Ranch Road, just east of Steele Canyon Road. The drainage flows north, eventually converging with Sweetwater River. Development of the golf course and on-going maintenance activities have severely altered this drainage, which lacks a defined bed and bank. Vegetation along the drainage consists of Bermuda grass, which serves as turf grass along the golf course's fairways. The westernmost drainage flows west from Steele Canyon Road, south of the Project boundary. The off-site reach of this drainage enters a small detention basin located within a residential property at the terminus of Heatherwood Drive. A spillway is located at the western portion of the basin at the point where the narrow drainage feature enters the Project site. The on-site reach of this drainage flows west for approximately 400 feet and then converges with the Sweetwater River.

USACE Jurisdiction

Through implementation of the CWA, the USACE claims jurisdiction over waterways that are, or drain to, waters of the U.S. or "waters." The definition of "waters" includes (but is not limited to) inland waters; lakes, rivers, and streams that are navigable; tributaries to these waters; and wetlands adjacent to these waters or their tributaries. Waters of the U.S. are considered wetlands if wetland indicators for the following three parameters are met: vegetation, soils, and hydrology. If any single parameter does not contain a positive wetland indicator, the feature is not a USACE jurisdictional wetland. The jurisdictional limit of wetlands is the upper limit of the wetland. Delineations of wetland limits were conducted for the Proposed Project according to the procedures found in the Wetlands Delineation Manual (USACE 1987) and Arid West Regional Supplement (USACE 2008). Areas within the Project site were determined to be potential non-wetland waters of the U.S. if there was evidence of regular surface flow (e.g., bed and bank) but

vegetation and/or soil criteria were not met. The jurisdictional limit of non-wetland waters (i.e., creeks and drainages) were delineated by their relation to an ordinary high water mark.

All areas with depressions or drainage channels were evaluated for the presence of waters of the U.S., including jurisdictional wetlands. If an area was suspected of being a wetland, vegetation and hydrology indicators were noted, and a soil pit was dug and described. The area was then determined to be a federal (USACE) wetland if it satisfied the three wetland criteria (vegetation, hydrology, and soil). Fifteen sampling points were studied, and soil pits were excavated at each of these. Sampling points were located within representative uplands and wetlands.

Potential waters of the U.S. in the Project site include wetland waters of the U.S. and non-wetland waters of the U.S. within Sweetwater River and unnamed tributaries, as shown in Table 2.2-2, *Waters of the U.S. – Existing Conditions* and Figure 2.2-4, *Waters of the U.S.*). A total of 24.37 acres of potential waters of the U.S. occurs on site, comprised of 23.82 acres of wetlands and 0.55 acre of non-wetland waters. These waters of the U.S. would also be subject to RWQCB jurisdiction pursuant to CWA Section 401.

RWQCB Jurisdiction

Potential RWQCB-jurisdictional waters of the State were delineated in the same manner as potential USACE-jurisdictional waters of the U.S. All waters of the U.S. were also considered waters of the State subject to RWQCB jurisdiction pursuant to CWA Section 401; no geographically isolated waters subject to Porter-Cologne are present on the Project site (refer to Table 2.2-2 and Figure 2.2-4).

CDFW Jurisdiction

Under Section 1600 of the CFG Code, a Project Applicant may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel or bank of any river, stream or lake, or deposit or dispose of debris, waste or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream or lake, unless CDFW receives written notification regarding the activity. After said notification is complete, CDFW must determine whether the activity may substantially adversely affect an existing fish and wildlife resource. The Project Applicant would be required to apply for and receive approval of a SAA from CDFW.

Potential CDFW-jurisdictional streambed and riparian habitat were determined based on the presence of riparian vegetation or regular surface flow within a measurable bed and bank. Potential CDFW-jurisdictional unvegetated streambed encompasses the top-of-bank to top-of-bank width for the features within the Project site. The CDFW jurisdictional habitat includes all riparian shrub or tree canopy that may extend beyond the banks of a stream.

Potential CDFW jurisdictional areas within the Project site consist of arundo-dominated riparian, disturbed wetland, freshwater marsh, open water, southern cottonwood-willow riparian forest (including disturbed), disturbed southern willow scrub, tamarisk scrub, and streambed, as presented in Table 2.2-3, *California Department of Fish and Wildlife Jurisdiction*, and shown on Figure 2.2-5, *CDFW Jurisdictional Areas*. The potential CDFW jurisdiction totals 50.33 acres on site.

San Diego County RPO Wetlands

The County's RPO is more inclusive than the USACE's criteria for defining wetlands. Under the RPO, a wetland must only meet one of the following criteria in order to be classified as a wetland: (1) at least periodically the land supports predominantly hydrophytes (plants whose habitat is water or very wet places); (2) the substratum is predominantly undrained hydric soils; or (3) an ephemeral or perennial stream is present, whose substratum is predominantly non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

As shown in Table 2.2-4, *County Resource Protection Ordinance Wetlands*, and Figure 2.2-6, *County RPO Wetlands*, areas meeting the criteria to be considered County RPO wetlands (County 2011a) in the Project site include arundo-dominated riparian, disturbed wetland, freshwater marsh, open water, southern cottonwood-willow riparian forest (including disturbed), disturbed southern willow scrub, and tamarisk scrub. County RPO wetlands total 31.35 acres on site.

Plant Species

HELIX identified a total of 190 plant species within the Project site, of which 80 (42 percent) are native species and 110 (58 percent) are non-native species (refer to Appendix I of the BTR [EIR Appendix C] for a complete list of identified plant species).

Special Status Plant Species

Special status plant species have been afforded special status and/or recognition by the USFWS, CDFW, and/or the County and may also be included in the CNPS' Inventory of Rare and Endangered Plants. Their status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. A species that exhibits a small or restricted geographic range (such as those endemic to the region) is geographically rare. A species may be more or less abundant but occur only in very specific habitats. Lastly, a species may be widespread but exist naturally in small populations.

No federally or state listed plant species were observed within the Project site. While USFWS designated critical habitat for the federally endangered San Diego ambrosia is present in the southwestern portion of the site, no individuals were observed within the Project site during the 2019 and 2022 rare plant surveys. A nearby reference population of San Diego ambrosia that occurs within the SDNWR was field verified for detectability during the rare plant surveys. The species was observed both in vegetative and flowering states within the SDNWR during the surveys. As such, the species would likely have been visible during the survey if present within the Project site.

Four special status plant species were observed on the Project site, as listed below, referenced in Appendix I to the BTR, and shown on Figure 2.2-3.

San Diego Sagewort (*Artemisia palmeri*)
Status: --/--; CRPR 4.2; County List D
Distribution: Coastal regions of Orange and San Diego Counties at elevations below 1,970 feet.
Habitat(s): Moist drainages and stream courses on sandy and mesic soils.

Presence on site: Seven individuals were observed at the western Project boundary at the edge of southern riparian forest habitat along the Sweetwater River.

San Diego County Viguiera (*Bahiopsis laciniata*)
Status: --/--; CRPR 4.3, County List D
Distribution: Coastal portions of southern California from Ventura County south to San Diego County and into western Riverside County at elevations below 2,500 feet.
Habitat(s): Grows on a variety of soil types within coastal sage scrub and chaparral.
Presence on site: Three individuals were observed at the northeastern portion of the Project site within disturbed coastal sage scrub and non-native vegetation. Another three individuals were observed just outside of the Project site at the northeastern boundary along Willow Glen Drive and at the southeastern boundary along a dirt road.

Palmer 's Goldenbush (*Ericameria palmeri* var. *palmeri*)
Status: --/--; CRPR 1B.1; County List B; MSCP Covered and Narrow Endemic (NE)
Distribution: Coastal San Diego County and Baja California, Mexico at elevations below 1,970 feet.
Habitat(s): Mesic areas within chaparral and coastal sage scrub communities.
Presence on Site: This species was observed along the southeastern Project boundary, within the south-central portion of the site east of Steele Canyon Road, and in the southwestern portion of the Project site. Approximately 225 individuals were mapped within Diegan coastal sage scrub habitat in the southeastern portion of the site. Another 11 individuals were mapped within the Project site along the southern Project boundary at the edge of a patch of giant reed where Mexican Canyon Creek enters the Project site, within disturbed habitat just north of the patch of riparian habitat to the east of Steele Canyon Creek, and in the southwestern portion of the site within disturbed habitat just north of the Sweetwater River.

Southwestern Spiny Rush (*Juncus acutus* ssp. *leopoldii*)
Status: --/--; CRPR 4.2; County List D
Distribution: Coastal regions of southern California at elevations below 1,000 feet. San Luis Obispo County south to San Diego County, and further east into Riverside and Imperial Counties.
Habitat(s): Moist saline environments such as alkaline seeps and meadows, and coastal salt marshes and swamps.
Presence on site: Seventeen individuals were observed at the southwestern portion of Project site in wetland habitat at the downstream portion of the Sweetwater River.

Special Status Plant Species with Potential to Occur

Special status plant species that may have potential to occur on the Project site but were not observed are listed in Appendix K of the BTR (EIR Appendix C). In total, three special status plant species were determined to have a high potential to occur on site: singlewhorl burrobrush (*Ambrosia monogyra*), San Diego ambrosia, and Robinson's pepper grass (*Lepidium virginicum* var. *robinsonii*). No additional species have a high potential to occur, primarily due to the lack of suitable conditions, habitat conversion and disturbances from previous golf course uses, ongoing maintenance activities, and prevalence of non-native vegetation.

Animal Species

A total of 129 animal species were observed or otherwise detected on the Project site during the biological surveys, including 14 invertebrate, one fish, four amphibian, six reptile, 85 bird, and 19 mammal species (Appendix J of the BTR [EIR Appendix C]).

Special Status Animal Species

Special status animal species include those that have been afforded special status and/or recognition by the USFWS, CDFW, and/or the County. In general, the principal reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss.

Twenty-three special status animal species have been observed or detected on or directly adjacent to the Project site, or observed flying over the Project site, during biological surveys conducted for the Project. Each species is listed below in alphabetical order by common name, described, and shown on Figure 2.2-3.

Barn Owl (*Tyto alba*)
Status: --/--; County Group 2
Distribution: Common, yearlong resident of California.
Habitat: Open habitats such as grassland, chaparral, riparian, and wetlands avoiding dense forests and open desert habitats. Also found in urban and suburban areas. Nest in sheltered areas of cliffs or man-made structures, on ledges, in crevices, culverts, nest boxes, and in cavities in trees. Roosts in dense vegetation, cliffs, and buildings and other man-made structures.
Presence on Site: A single individual was observed foraging in the eastern portion of the Project site during an evening toad survey.

Belding's Orange-throated Whiptail (*Aspidoscelis hyperythra beldingi*)
Status: --/Watch List (WL); MSCP Covered; County Group 2
Distribution: Southern Orange County and southern San Bernardino County, south through Baja California below 3,500 feet.
Habitat(s): Coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include open, sunny areas, shaded areas, and abundant insect prey base, particularly termites (*Reticulitermes* sp.).
Presence on Site: At least three individuals were observed on several occasions in the northeastern portion of the Project site between Willow Glen Drive and Sweetwater River, and at least two individuals were observed adjacent to the patch of riparian habitat east of Steele Canyon Road.

Coastal California Gnatcatcher (*Polioptila californica californica*)
Status: Federally Threatened (FT)/ Species of Special Concern (SSC); MSCP Covered, County Group 1
Distribution: Year-round resident of California occurring from Ventura County south to San Diego County, and east within the western portions of San Bernardino and Riverside Counties.
Habitat(s): Coastal sage scrub, coastal bluff scrub, and coastal sage-chaparral scrub.

Presence on Site: A female gnatcatcher was observed foraging with and feeding one fledgling within coastal sage scrub at the Project's southwestern boundary on June 11, 2019. Additional observations of the species in 2019 include a single juvenile calling within the patch of riparian habitat along Sweetwater River in the southwestern portion of the Project site on July 1, 2019 and another female/juvenile type foraging in the same general area on July 17, 2019. In 2022, two single males were detected off site southeast of the southeastern Project boundary, and one adult male was observed off site southwest of the southwestern Project boundary foraging with and feeding a single juvenile. Though the species was observed within the Project site, suitable habitat present is limited to small patches of coastal sage scrub in the extreme southwestern and southeastern portions of the site that connect to larger blocks of coastal sage scrub that continue off site. The species may utilize these areas for foraging opportunities but would most likely breed off site in more extensive, higher quality habitat.

Cooper's Hawk (*Accipiter cooperii*)
Status: --/ WL; MSCP Covered; County Group 1
Distribution: In California, the species breeds from Siskiyou County south to San Diego County and east towards Owens Valley at elevations below 9,000 feet.
Habitat(s): Oak groves, mature riparian woodlands, and eucalyptus stands or other mature forests. Increasingly found in suburban and urban areas. Nests within dense woodlands and forests and isolated trees in open areas.
Presence on Site: A single individual was documented at five different locations within the eastern and western portions of the Project site. Observations included individuals flying over the site and individuals perched in trees within the closed and developed golf courses and riparian habitat along the Sweetwater River.

Great Blue Heron (*Ardea herodias*)
Status: --/--; County Group 2
Distribution: Year-round resident of California occurring throughout most of the state.
Habitat(s): Found in a wide variety of habitats foraging in various wetland habitats, water bodies, and occasionally uplands. Nests as single pairs and in small colonies with nests located on the ground, in trees and bushes, and on artificial structures that are usually adjacent to water and secluded from human disturbance.
Presence on Site: Individuals observed foraging in four separate locations within the Project site. A pair was observed in the southeastern portion of the site at an artificial pond, one individual was detected within the patch of riparian habitat just east of Steele Canyon Road, and two other individuals were detected at the edge of an artificial pond to the west of Steele Canyon Road.

Green Heron (*Butorides virescens*)
Status: --/--; County Group 2
Distribution: In California, the species is a year-round resident found generally west of the Sierra Nevada and within the southern deserts.
Habitat(s): Found in a wide variety of wetland habitats such as swamps, marshes, riparian habitat along creeks and streams, lake edges, and man-made ditches, canals, and ponds preferring thick vegetation and avoiding open areas.
Presence on Site: Detected in four separate locations within the Project site. A pair was observed at an artificial pond at the eastern boundary, an individual was observed perched within riparian

habitat just east of Steele Canyon Road, and two other individuals were detected at the edge of an artificial pond to the west of Steele Canyon Road.

Lawrence's Goldfinch (*Spinus lawrencei*)
Status: Bird of Conservation Concern (BCC)/--
Distribution: Resident of California breeding from Tehama, Shasta, and Trinity Counties to the foothills surrounding Central Valley, south through the southern Coast Range to Santa Barbara County continuing into San Diego County and east to the western edge of the southern Mojave and Colorado Deserts.
Habitat(s): Inhabits arid and open woodlands adjacent to scrub or chaparral habitats, grasslands or meadows, and water resources such as a stream, pond, or lake from sea level up to 10,000 feet.
Presence on Site: A small flock consisting of approximately eight birds was observed foraging within the eastern portion of the Project site along the southern boundary. The species is highly nomadic, flocking to areas where food sources are abundant, and most likely utilizes the site for foraging opportunities.

Least Bell's Vireo (*Vireo bellii pusillus*)
Status: Federally Endangered (FE)/State Endangered (SE); MSCP Covered and NE; County Group 1
Distribution: In California, breeds along the coast and western edge of the Mojave Desert from Santa Barbara County south to San Diego County, and east to Inyo, San Bernardino, and Riverside Counties.
Habitat(s): Breeding habitat consists of early to mid-successional riparian habitat, often where flowing water is present, but also found in dry watercourses within the desert. A structurally diverse canopy and dense shrub cover is required for nesting and foraging. The species can be tolerant of the presence of non-native species such as tamarisk.
Presence on Site: A total of two vireo pairs, and six additional male vireos were detected during the 2019 protocol surveys. One least Bell's vireo pair and three male vireos were detected within the Project site. The least Bell's vireo pair was observed foraging with and feeding three fledglings on May 30, 2019, in the patch of riparian habitat directly east of Steele Canyon Road. Additionally, one least Bell's vireo pair and three male vireos were detected outside of the Project site. The pair was observed to the west within the SDNWR, two of the males were detected within the Steele Canyon Golf Course, and one male was observed to the west within the SDNWR. Critical habitat for the species occurs both on site and off site along the Sweetwater River. Vireos were heard singing at many of these same locations during the 2022 biological surveys.

Monarch Butterfly (*Danaus plexippus*)
Status: Federal Candidate (FC)/--; County Group 2
Distribution: Winter roost sites extend along the coast from northern Mendocino south to Baja California, Mexico.
Habitat: Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Larval host plants consist of milkweeds (*Asclepias* sp.).
Presence on Site: A single individual was observed flying within non-native woodland in the southeastern portion of the Project site in August 2018. An additional individual was observed just outside of the Project boundary, to the south of the patch of riparian habitat east of Steele Canyon Road, in July 2019.

Oak Titmouse (*Baeolophus inornatus*)
Status: BCC/--
Distribution: Year-round resident found from southern Oregon south through California to northwestern Baja California, Mexico.
Habitat(s): Prefers dry oak and oak-pine woodlands but may use scrub oaks and other scrub habitat near woodlands. Also found in juniper woodlands and open pine forests.
Presence on Site: Individuals were detected foraging within trees at two separate locations east and west of Steele Canyon Road.

Peregrine Falcon (*Falco peregrinus*)
Status: BCC/Fully Protected (FP); MSCP Covered and NE, County Group 1
Distribution: In California, the species is a very uncommon breeding resident and migrant throughout the state.
Habitat(s): Inhabits a large variety of open habitats including marshes, grasslands, coastlines, and woodlands but is generally absent from desert areas. Typically nest on cliff faces in remote rugged sites where adequate food is available nearby, but the species can also be found in urbanized areas nesting on man-made structures.
Presence on Site: A pair was observed flying overhead on May 5, 2019. The pair flew north and perched on a transmission tower located on the hillside north of the Project site. An individual was later observed perched on a tree in the western portion of the site before flying further west and off site. The pair is presumed to have been foraging individuals moving through the area. No suitable nesting habitat for the species is present within or immediately adjacent to the Project site, and no nesting individuals were observed during Project surveys.

Red-shouldered Hawk (*Buteo lineatus*)
Status: --/--; County Group 1
Distribution: In California, occurs throughout the state in areas west of Sierra Nevada.
Habitat(s): Mature oak and riparian woodlands, eucalyptus groves, and suburban areas near forested areas. Nests in trees, both native and non-native, often located near a water source.
Presence on Site: Multiple individuals observed at four locations across the Project site. Observations included single individuals and at least one pair perched in trees or flying overhead within both the eastern and western portions of the Project site.

Small-footed Myotis (*Myotis ciliolabrum*)
Status: --/--; County Group 2
Distribution: Found throughout California occurring in desert, chaparral, riparian areas, and forests.
Habitat(s): Presence of riparian areas and waters appears to be important in distribution. Strongly associated with chaparral and montane habitats in San Diego County. Roosts solitarily or in small numbers in rocky crevices, caves, mines, snags, buildings, and bridges.
Presence on Site: Detected by AnaBat detectors within the eastern portion of the Project site. The species likely utilizes the site for foraging and has potential to roost within trees and buildings present within the Project site.

Townsend's Big-eared Bat (*Corynorhinus townsendii pallescens*)
Status: --/SSC; County Group 2

Distribution: In San Diego County, presumed absent from coastal areas being found more commonly in historic mining districts and boulder-strewn regions (i.e., Escondido, Lakeside, Dulzura, Jacumba, etc.).
Habitat(s): Found in a variety of habitats including desert scrubs as well as pine and pinyon-juniper forests with presence of caves or cave-like structures (such as buildings).
Presence on Site: This species was detected by AnaBat detectors within the eastern and western portions of the Project site. The species likely utilizes the site for foraging opportunities but is unlikely to roost within the Project site as preferred roosting sites are not present. Although buildings within the Project site could provide potential roosting habitat, this species is highly susceptible to disturbance and will abandon its roost if disturbed.

Turkey Vulture (*Cathartes aura*)
Status: --/--; County Group 1
Distribution: Observed throughout San Diego County with the exception of extreme coastal San Diego where development is heaviest.
Habitat(s): Foraging habitat includes most open habitats with breeding occurring in crevices among boulders. Roosts communally preferring stands of large trees or hilly areas, usually away from human disturbance.
Presence on Site: Single individual observed soaring high overhead in the eastern and southwestern portion of the Project site. No potentially suitable breeding habitat is present on site.

Vermilion Flycatcher (*Pyrocephalus rubinus*)
Status: --/ SSC; County Group 1
Distribution: Scarce breeding records occur in southern California with a few individuals wintering regularly along the California coast from Ventura County south to San Diego County.
Habitat(s): Arid scrub, farmlands, parks, golf courses, desert, savanna, cultivated lands, and riparian woodland, usually near water. Wintering individuals can be found in open and semi-open areas with hedges, scattered trees and bushes, and often near water.
Presence on Site: Multiple individuals and pairs were observed within and throughout the Project site during Project surveys. At least two breeding pairs were confirmed to occupy the site during 2019 and a pair was observed with an active nest in 2022. Observations included adult males and females, immature males and females, and numerous fledglings.

Western Bluebird (*Sialia mexicana*)
Status: --/--; MSCP Covered; County Group 2
Distribution: Common year-round resident throughout California but absent from the higher mountains and eastern deserts.
Habitat(s): Breeds in open woodlands, riparian habitats, grasslands, and farmlands. Nests and roosts in cavities of trees and snags, often in holes previously created by woodpeckers, and nest boxes. Winters in a wider variety of habitats.
Presence on Site: Multiple individuals were detected in thirteen different locations throughout the Project site within riparian habitat and the developed golf course. Observations included single individuals and small flocks of up to five individuals perched on trees, flying over the site, or foraging within the Project site. Suitable breeding habitat is present on site.

Western Mastiff Bat (*Eumops perotis*)
Status: --/SSC; County Group 2
Distribution: In California, the species occurs from Monterey County to San Diego County from the coast eastward to the Colorado Desert.
Habitat(s): Found in open, semi-arid to arid habitats including coastal and desert scrub, grasslands, woodlands, and palm oases. Prefers to roost in high situations above the ground on vertical cliffs, rock quarries, outcrops of fractured boulders, and occasionally tall buildings.
Presence on Site: Detected within the western portion of the Project site by AnaBat detectors. The species likely utilizes the site for foraging opportunities but is unlikely to roost within the Project site as preferred roosting sites are not present.

Western Red Bat (*Lasiurus blossevillii*)
Listing: --/SSC; County Group 2
Distribution: In California, the species is locally common occurring from Shasta County south to San Diego County and west of the Sierra Nevada/Cascade Range and deserts.
Habitat(s): Mainly occurs in riparian woodlands populated by willows, cottonwoods, sycamores, and oak trees but can be found in non-native vegetation such as tamarisk, eucalyptus, and orchards. Primarily roosts in trees preferring heavily shaded areas which are open underneath.
Presence on Site: Detected by AnaBat detectors within the western portion of the Project site. This tree roosting species has the potential to roost within riparian habitat and planted trees within the Project site. The species would also be expected to utilize the site for foraging opportunities.

White-tailed Kite (*Elanus leucurus*)
Status: --/ FP; County Group 1
Distribution: In California, year-long resident of coasts and valleys west of the Sierra Nevada foothills and southeast deserts, though the species has been documented breeding in arid regions east of the Sierra Nevada and within Imperial County.
Habitat(s): Inhabits low elevation grasslands, wetlands, oak woodlands, and open woodlands, and is associated with agricultural areas. Breeds in riparian areas adjacent to open spaces.
Presence on Site: A single individual was observed on numerous occasions during the 2022 biological surveys foraging off site within the SDNWR.

Yellow-breasted Chat (*Icteria virens*)
Status: --/SSC; County Group 1
Distribution: In California, occurs as a migrant and summer resident breeding from the coastal regions in northern California, east of the Cascades, and throughout the central and southern portions of the state.
Habitat(s): Breeds in early successional riparian habitats with well-developed shrub layer and an open canopy nesting on the borders of streams, creeks, rivers, and marshes.
Presence on Site: Two individuals were heard singing in the southwestern portion of the Project site within the patch of riparian habitat along the Sweetwater River. Additional individuals were detected further west of the Project site within the SDNWR.

Yellow Warbler (*Setophaga petechia*)
Status: BCC/SSC; County Group 2
Distribution: Common to locally abundant species breeding throughout California at elevations below 8,500 feet, excluding most of the Mojave Desert, and all of the Colorado Desert.
Habitat(s): Breeds in riparian areas dominated by willows and cottonwoods, near rivers, streams, lakes, and wet meadows. Also breeds in montane shrub and conifer forests at higher elevation areas.
Presence on Site: Multiple individuals were observed throughout the Project site. Observations included individuals perched in trees and along fences in the northeastern portion of the Project site, as well as foraging in these areas. Additional individuals were detected further west of the site within the SDNWR.

Yuma Myotis (*Myotis yumanensis*)
Status: --/--; County Group 2
Distribution: Widespread in California but uncommon in the Mojave and Colorado Deserts, except in the mountain ranges bordering the Colorado River Valley.
Habitat(s): Found in a variety of habitats including juniper and riparian woodlands, riparian forests, and desert regions where bodies of water (i.e., rivers, streams, ponds, lakes, etc.) are present. Closely associated with water which it uses for foraging and sources of drinking water. Roosts in caves, attics, buildings, mines, underneath bridges, and other similar structures.
Presence on Site: Detected by AnaBat detectors and during the nighttime emergence survey within the eastern and western portions of the Project site. The species likely utilizes the site for foraging and has the potential to roost within trees and buildings present within the Project site. Bridges suitable for roosting were not observed on site.

Special Status Animal Species with Potential to Occur

Special status animal species present on site or with potential to occur on site are included in Appendix L of the BTR (EIR Appendix C). The species are grouped into invertebrates and vertebrates (fish, amphibians, reptiles, birds, and mammals) and alphabetized by scientific name. Eight additional special status animal species that were not observed on the Project site were determined to have a high potential to occur: western spadefoot (*Spea hammondii*), two-striped garter snake (*Thamnophis hammondii*), sharp-shinned hawk (*Accipiter striatus*), Canada goose (*Branta canadensis*), California horned lark (*Eremophila alpestris actia*), merlin (*Falco columbarius*), loggerhead shrike (*Lanius ludovicianus*), and Mexican long-tongued bat (*Choeronycteris mexicana*). These species are further discussed in Appendices L and M of the BTR (EIR Appendix C).

Focused surveys for San Diego fairy shrimp (*Branchinecta sandiegonensis*), Quino checkerspot butterfly (*Euphydryas editha quino*), and Stephens' kangaroo rat (*Dipodomys stephensi*) were not warranted, as the site either lacks habitat suitable for the species (fairy shrimp and Quino checkerspot butterfly) or is located outside of the species known range (Stephens' kangaroo rat) as detailed in Appendix L of the BTR (EIR Appendix C).

San Diego fairy shrimp are generally restricted to vernal pools and other ephemeral basins. No vernal pools or other suitable habitat for fairy shrimp is present on site; therefore, the site lacks suitable habitat for the species and focused surveys are not required.

Quino checkerspot butterfly inhabits open-canopied habitats such as sage scrub, open chaparral, grassland, and open oak and juniper woodland communities. The Project site consists of a developed golf course lacking suitable habitat for the species and focused surveys are not required. Construction of the golf course resulted in the conversion of previous habitat, which primarily consisted of wetland- and riparian-associated habitat along the Sweetwater River, to non-native vegetation and developed areas associated with the current commercial uses of the site. On-going golf course maintenance and operation since the 1960s has resulted in further degradation and disturbance to the site, creating unsuitable conditions for Quino checkerspot butterfly occupation. Furthermore, host plants associated with the species were not found to occur within the Project site, and potential nectaring resources are limited as a result of on-going golf course operation and maintenance activities.

Stephens' kangaroo rat inhabits native to open grasslands and sparse coastal sage scrub (less than 30 percent cover) on relatively flat or gently sloping ground. The species occurs in southwestern San Bernardino, western Riverside, and northwestern San Diego Counties. In San Diego County, the species is found north of the City of Escondido within the Marine Corps Base Camp Pendleton, Fallbrook, and Lake Henshaw (USFWS 1997). The Project site is located in the southern portion of the County outside of the species known range; therefore, focused surveys are not required.

Raptor Foraging

Several species of raptors were observed within and adjacent to the Project site during the biological surveys. On most occasions, raptors were observed flying and soaring over the Project site or perching on trees in stands of riparian habitat or planted trees lining the golf course fairways. On a few encounters, raptors were observed carrying prey items (such as small mammals or a snake) or actively foraging within the Project site or adjacent areas, including within the SDNWR. Raptors observed during biological surveys include barn owl, Cooper's hawk, turkey vulture, red-shouldered hawk, peregrine falcon, white-tailed kite, American kestrel (*Falco sparverius*), and red-tailed hawk (*Buteo jamaicensis*).

The County (2010a) defines raptor foraging habitat as, "Land that is a minimum of five acres (not limited to project boundaries) of fallow or open areas with any evidence of foraging potential (i.e., burrows, raptor nests, etc.)." Based on this definition, disturbed habitat within the western portion of the site associated with the closed golf course and fairway greens in the eastern portion of the site associated with the active golf course could be considered raptor foraging habitat since they occupy greater than five acres and supports burrows of common small mammals, namely Botta's pocket gopher (*Thomomys bottae*) and California ground squirrel (*Otospermophilus beecheyi*). Several of the species observed within the Project site are known to be tolerant to urbanization and other disturbances, including Cooper's hawk, red-shouldered hawk, and red-tailed hawk, and are likely to utilize the site for foraging opportunities. Additional foraging opportunities for raptors occur within the surrounding local area and region, including high quality and prime foraging habitat off site within the SDNWR to the south and west, and McGinty Mountain Ecological Reserve to the east.

Habitat Connectivity and Wildlife Corridors

Wildlife corridors connect otherwise isolated pieces of habitat and allow the movement or dispersal of plants and animals, providing access to resources such as food, water, and shelter within the framework of their daily routine. Regional corridors provide these functions over a larger scale and link two or more large habitat areas, allowing the dispersal of organisms and the consequent mixing of genes between populations. A corridor is a specific route that is used for the movement and migration of species and may be different from a linkage in that it represents a smaller or narrower avenue for movement. A linkage is an area of land that supports or contributes to the long-term movement of animals and genetic exchange by providing live-in habitat that connects to other habitat areas. Many linkages occur as stepping stone linkages that are made up of a fragmented archipelago arrangement of habitat over a linear distance.

With respect to wildlife movement in the region, conservation targets generally include conserving core blocks of coastal sage scrub and chaparral habitat, as well as maintaining linkages between critical biological resource areas. The Project site is shown as a habitat linkage between the McGinty Mountain/Sycuan Peak-Dehesa Biological Resource Core Area (BRCA) to the east and Sweetwater Reservoir/San Miguel Mountain BRCA to the west, which overlap the extreme southwestern and southeastern portions of the Project site, respectively. These BRCA are generally associated with the SDNWR to the west, southwest, and southeast of the Project site, along with open space areas to the east and southeast located within the McGinty Mountain Ecological Reserve and McGinty Mountain Preserve. The Sweetwater River and Sweetwater Reservoir are expected to be key components to the movement of wildlife in the region, namely birds and mammals. These resources support permanent water sources and provide cover for a wide range of species known to the region. Large mammals, such as southern mule deer (*Odocoileus hemionus fuliginata*) and coyote (*Canis latrans*), would be expected to travel to and from the Sweetwater River/Sweetwater Reservoir and expansive habitat blocks associated with the SDNWR. Large mammals would also be expected to travel along the Sweetwater River valley and riparian corridor. Birds would be expected to move unobstructed between key habitat blocks of coastal sage scrub and riparian habitat, which provide important breeding, foraging, and dispersal functions. Key blocks of coastal sage scrub where gnatcatchers are known to occur include the SDNWR, with additional habitat extending further northeast within Crestridge and Harbison Canyon, and to the southeast into Proctor Valley and areas surrounding Jamul Mountain. Expected wildlife movement trends in the local and regional area are conceptually depicted on Figure 2.2-7, *Conceptual Wildlife Corridors and Linkages*, with the most significant features being undeveloped land associated with the Sweetwater River, Sweetwater Reservoir, SDNWR, San Miguel Mountain, and McGinty Mountain.

As noted above, the Project site includes areas identified as PAMA under the County's MSCP Subarea Plan. The PAMA in the region is based on the core and linkage concept of landscape-level conservation. The configuration of preserve lands includes large, contiguous areas of habitat supporting important species populations or habitat areas and important functional linkages and movement corridors between them. The Project site is mostly developed or disturbed, with only three small portions of the site at the northeastern, southeastern, and southern boundaries containing lands identified as PAMA under the County's MSCP Subarea Plan (Figure 2.2-1). The northeastern lands mapped as PAMA represent a narrow patch of habitat to the south of Willow Glen Drive and north of Sweetwater River. Vegetation in this area is comprised of small patches

of disturbed wetland, disturbed southern willow scrub, disturbed southern cottonwood-willow riparian forest, disturbed Diegan coastal sage scrub, eucalyptus woodland, non-native vegetation, and disturbed habitat. The southeastern section of PAMA is contiguous with other off-site lands mapped as PAMA. These lands represent undeveloped habitat and open space areas associated with the McGinty Mountain Ecological Reserve and SDNWR. The southern section of PAMA within the Project site represents an isolated patch of riparian habitat that is surrounded on all sides by development and provides no direct connectivity to other open space areas.

The Project site is shown as a habitat linkage in the South County MSCP, contains lands mapped as PAMA, is located along the Sweetwater River, and is adjacent to preserved and open space areas. The Project site is a developed golf course that is predominantly characterized by open, exposed areas that lack suitable cover and resources typically associated with wildlife movement areas. Scattered patches of mature riparian forest, eucalyptus woodland, and non-native woodland habitats more conducive to wildlife use and movement occur along the southern Project boundary. The Sweetwater River runs through the Project site, and although riparian habitat occurs upstream and downstream of the site, most of the on-site reach of the river is characterized by bare ground or open areas vegetated with low-growing plant species, primarily Bermuda grass, as part of the golf course development. The downstream section of Sweetwater River, approximately 0.5 mile of the 1.9 miles of Sweetwater River that runs through site, contains riparian habitat, which maintains connectivity to off-site habitat within the SDNWR. Large portions of the Project boundary are fenced along the northern, eastern, and southern boundaries, which can potentially constrain or impede wildlife access into the site, though several gaps in the fencing were observed. Residential development is present to the north and south of the site, and Steele Canyon Golf Club occurs to the southeast. The site is also subject to regular human activity and other disturbances associated with golf course operations (such as irrigation, mowing, night lighting [e.g., safety lighting within the clubhouse, maintenance building areas, and parking lots], and noise) and unauthorized recreational uses that could potentially discourage larger animals from utilizing the site.

Three motion-activated cameras were deployed within the Project site for a 10-week period between May and July 2022 to document wildlife use and movement within and throughout the site. Species captured by the cameras include great basin fence lizard (*Sceloporus occidentalis longipes*), San Diego gopher snake (*Pituophis catenifer annectens*), black phoebe (*Sayornis nigricans*), Cassin's kingbird (*Tyrannus vociferans*), European starling (*Sturnus vulgaris*), great blue heron, great-tailed grackle (*Quiscalus mexicanus*), greater roadrunner (*Geococcyx californianus*), house finch (*Haemorhous mexicanus*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), red-shouldered hawk, Say's phoebe (*Sayornis saya*), western bluebird, bobcat (*Canis latrans*), California ground squirrel, coyote, desert cottontail (*Sylvilagus audubonii*), long-tailed weasel (*Mustela frenata*), raccoon (*Procyon lotor*), and Virginia opossum (*Didelphis virginiana*). Many of the bird, reptile, and small mammal species detected within the Project site are commonly observed in urbanized, residential, and disturbed settings associated with human presence. Medium-sized mammal species such as coyote and bobcat were also detected, though larger species, such as mule deer and mountain lion, were not detected. Coyotes were detected at all camera stations during both daytime and nighttime hours. In addition, coyotes were observed in groups of two and three in the eastern and western portions of the Project site during daytime hours on several occasions during the 2022 biological surveys. Bobcat was detected a total of three times (June 25, June 28, and July 14, 2022) at two camera

stations located in the extreme southeastern and southwestern portions of the Project site. All detections were of a single individual. These areas are located towards the outskirts of the Project site and have direct connectivity to undeveloped upland habitats located south of the site. The lack of other bobcat detections in more interior areas of the Project site indicate that the species likely doesn't regularly utilize the site as a main movement corridor between upstream and downstream reaches of Sweetwater River. Despite multiple field surveys conducted between 2018 to 2022, and a 10-week wildlife camera deployment period, mule deer has not been observed within the Project site (including tracks, scat, or other sign). As such, the species likely doesn't regularly visit or utilize the Project site for foraging or movement activities.

In addition to wildlife, off-leash dogs, horses, bikers, hikers, off-road vehicles, and other recreational users were observed within both the eastern and western portions of the Project site during daytime and nighttime hours. The eastern portion of the Project site still serves as an active golf course with light to moderate human activity during daylight hours, including early morning. Unauthorized pedestrian access and recreational activity in the eastern portion of the Project site was detected along Steele Canyon Road and in an adjacent patch of riparian habitat at the southern Project boundary. Observations included mountain bikers, cyclists, hikers, off-leash dogs, and unhoused people moving through the area during daytime and nighttime hours. A culvert running beneath Steele Canyon Road occurs in the area and unhoused individuals have been observed utilizing the area for shelter during biological surveys. Unauthorized pedestrian access and recreational activity in the western portion of the Project site were detected at all camera stations and observed on numerous occasions during biological surveys conducted between 2018 and 2022. Observations included off-leash dogs, hikers and joggers, fishermen, cyclists, equestrian riders, all-terrain vehicle activity, and unhoused individuals during daytime and nighttime hours. Human encampments were observed within riparian habitat in the southwestern portion of the Project site and unhoused individuals were observed moving through the area on multiple locations. In addition, a small patch of riparian habitat downstream of a pedestrian bridge crossing at the extreme southwestern portion of the site was observed to have been recently burned during the 2022 biological surveys. These observations indicate that though the western golf course has been closed since 2017, human presence and activity still occur regularly within the area.

Birds, butterflies, and bats are expected to move freely through the site. Species documented within the Project site and the surrounding area likely utilize the site for foraging, dispersal, and breeding activities. Coastal California gnatcatcher likely forages and disperses through the Project site based on observations made during the 2019 and 2022 biological surveys during which the species, including adults and juveniles, was observed foraging within and adjacent to the Project site. Least Bell's vireo likely forages, disperses through, and breeds within the Project site based on observations made during the 2019 and 2022 biological surveys, which included the positive identification of a breeding pair with fledglings in the eastern portion of the Project site. Amphibians, reptiles, and small- to medium-sized mammals are expected to regularly move through the Project site and utilize the site for foraging, dispersal, and breeding activities where suitable habitat/conditions are present, especially in the southwestern portion of the Project site where greater connectivity to the SDNWR is present. Movement of these species through the local area is likely constrained by streets and surrounding development where present, but the site does provide potential live-in habitat with access to water resources. The only large mammal species expected to regularly move through the Project site is coyote, based on sign and direct observations made during the 2022 biological surveys. Though bobcat was observed at the outer edges of the

Project site during the 2022 biological surveys, the species is not expected to use the site, in its current condition, as a main corridor, linkage, or specific travel route to and from important resources based on results of the camera trapping and biological surveys, current site uses, disturbances, and lack of sufficient vegetative cover. Other large mammal species, such as mule deer and mountain lion, are not expected to regularly use the site as a main movement corridor or linkage based on results of the camera trapping and biological surveys, current site uses, disturbances, surrounding development, and lack of sufficient vegetative cover to conceal individual movements. Larger blocks of open space areas associated with the SDNWR occur further south between Steele Canyon Golf Club and Jamul that provide better access to resources and connectivity between preserved lands, open spaces areas, and pockets of undeveloped lands located to the east and west of the site.

Regulatory Setting

Biological resources in the Project site are subject to regulatory review by federal, state, and local agencies. Under CEQA, impacts associated with a Proposed Project or program are assessed with regard to significance criteria determined by the CEQA Lead Agency (in this case, the County) pursuant to CEQA Guidelines. Biological resources-related laws and regulations that apply include federal Endangered Species Act (FESA), Migratory Bird Treaty Act (MBTA), CWA, CEQA, California Endangered Species Act (CESA), CFG Code, Porter-Cologne Water Quality Control Act, and County regulations.

With respect to the Proposed Project, the USFWS will be responsible for reviewing issues related to migratory birds pursuant to the MBTA and Project consistency with the adopted South County MSCP Subarea Plan. The USACE will be responsible for reviewing issues related to waters of the U.S. The RWQCB will be responsible for reviewing issues related to WS pursuant to the CWA and the Porter-Cologne Water Quality Control Act. The CDFW will be responsible for reviewing issues related to riparian habitat and streambeds pursuant to the CFG Code, nesting birds and raptors pursuant to the CFG Code, and Project consistency with the adopted South County MSCP Subarea Plan.

The County is the lead agency for the CEQA environmental review process in accordance with state law and local ordinances. During CEQA review, the County will be responsible for reviewing Project issues per the Guidelines for Determining Significance for Biological Resources (County 2010a) and the County RPO. The County will also be responsible for reviewing the Project with respect to consistency with the County BMO, County RPO, and adopted South County MSCP Subarea Plan.

Federal

Federal Endangered Species Act

Administered by the USFWS, the FESA provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a ‘take’ under the FESA. Section 9(a) of the FESA defines take as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such

conduct." 'Harm' and 'harass' are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

The USFWS designates critical habitat for endangered and threatened species. The FESA defines critical habitat as specific geographic areas that contain features considered necessary for endangered or threatened species to recover. Critical habitat designations can include areas that are not currently occupied by the species, as the ultimate goal is to restore healthy populations of listed species within their native habitats so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the FESA, all federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of the critical habitat. Only activities that involve a federal permit, license, or funding require consultation with the USFWS.

Sections 7 and 10(a) of the FESA regulate actions that could jeopardize endangered or threatened species. Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect listed species. In this case, take can be authorized via a letter of biological opinion issued by the USFWS for non-marine related listed species issues. A Section 7 consultation (formal or informal) is required when there is a nexus between endangered species' use of a site and impacts associated with federal action (e.g., the USACE would initiate a Section 7 consultation with the USFWS for impacts proposed to USACE jurisdictional areas that may also affect listed species or their critical habitat). Section 10(a) allows the issuance of permits for incidental take of endangered or threatened species with the preparation of a Habitat Conservation Plan (HCP) when there is no federal nexus. The term "incidental" applies if the taking of a listed species is incidental to, and not the purpose of, an otherwise lawful activity. An HCP demonstrating how the taking would be minimized and how steps taken would ensure the species' survival must be submitted for issuance of Section 10(a) permits. The MSCP is a regional HCP that was developed pursuant to Section 10(a) of the ESA.

Migratory Bird Treaty Act

All migratory bird species that are native to the U.S. or its territories are protected under the federal MBTA, as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is now used to place restrictions on the disturbance of active bird nests during the nesting season (generally February 1 to August 31). In addition, the USFWS commonly places restrictions on the disturbances allowed near active raptor nests.

Clean Water Act and Rivers and Harbors Act

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the Clean Water Act (CWA). The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting for projects filling waters of the U.S. (including wetlands) is overseen by the USACE under Section 404 of the CWA. Projects could be

permitted on an individual basis or be covered under one of several approved Nationwide Permits. State

California Environmental Quality Act

Primary environmental legislation in California is found in CEQA and its implementing guidelines (CEQA Guidelines), which require that projects with potential adverse effects (or impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Endangered Species Act

The CESA established that it is state policy to conserve, protect, restore, and enhance state endangered species and their habitats. Under state law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the California Fish and Game Commission. The CESA authorizes that private entities may "take" plant or wildlife species listed as endangered or threatened under the FESA and CESA, pursuant to a federal Incidental Take Permit if the CDFW certifies that the incidental take is consistent with CESA (CFG Code Section 2080.1[a]). For state-only listed species, Section 2081 of CFG Code authorizes the CDFW to issue an Incidental Take Permit for state listed threatened and endangered species if specific criteria are met. The MSCP is a regional Natural Communities Conservation Plan that was granted take coverage under Section 2081 of the CESA.

Native Plant Protection Act

Sections 1900 to 1913 of the CFG Code (Native Plant Protection Act; NPPA) direct the CDFW to carry out the State Legislature's intent to "…preserve, protect and enhance endangered or rare native plants of this state." The NPPA gives the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take.

California Fish and Game Code

The CFG Code provides specific protection and listing for several types of biological resources. Section 1600 requires an SAA for any activity that would alter the flow, change, or use any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, and/or lake. Typical activities that require an SAA include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement. Notification is required prior to any such activities.

Pursuant to the CFG Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors, owls, and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These

regulations could require that construction activities (particularly vegetation removal or construction near nests) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds would not be disturbed, subject to approval by CDFW and/or USFWS.

Section 401 Water Quality Certification / Porter-Cologne Water Quality Control Act

The RWQCB, through the State Water Resources Control Board (SWRCB), asserts regulatory jurisdiction over activities affecting wetland and non-wetland waters of the State pursuant to Section 401 of the CWA and the State Porter-Cologne Water Quality Control Act. Potential RWQCB jurisdiction (i.e., waters of the State) need to be delineated on the project site and typically extend to the top of bank for streams and to the outer edge of wetlands, pursuant to the SWRCB's wetland definition that was adopted on April 2, 2019 (SWRCB 2019) and implemented as of May 28, 2020.

Whenever a project requires a federal CWA Section 404 permit or a Rivers and Harbors Act Section 10 permit, it must first obtain a CWA Section 401 Water Quality Certification. The RWQCB administers the 401 Certification program. Federal CWA Section 401 requires that every applicant for a Section 404 permit must request a Water Quality Certification that the proposed activity will not violate state and federal water quality standards.

The SWRCB and RWQCB regulate the discharge of waste into waters of the State via the 1969 Porter-Cologne Water Quality Control Act (Porter-Cologne) as described in the California Water Code. The California Water Code is the State's version of the federal CWA. Waste, according to the California Water Code, includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

State waters that are not federal waters may be regulated under Porter-Cologne. A Report of Waste Discharge must be filed with the RWQCB for projects that result in the discharge of waste into waters of the State. The RWQCB will issue Waste Discharge Requirements (WDRs) or a waiver. The WDRs are the Porter-Cologne version of a CWA Section 401 Water Quality Certification.

Natural Communities Conservation Planning Act

The Natural Communities Conservation Planning (NCCP) program is a cooperative effort to protect habitats and species that began under the state's NCCP Act of 1991, legislation broader in its orientation and objectives than the CESA or FESA. These laws are designed to identify and protect individual species that have already declined significantly in number. The NCCP Act of 1991 and the associated Southern California Coastal Sage Scrub NCCP Process Guidelines (1993), Southern California Coastal Sage Scrub NCCP Conservation Guidelines (1993), and NCCP General Process Guidelines (1998) have been superseded by the NCCP Act of 2003.

The primary objective of the NCCP program is to conserve natural communities at the ecosystem level while accommodating compatible land use. The program seeks to anticipate and prevent the controversies and gridlock caused by species' listings by focusing on the long-term stability of wildlife and plant communities and including key interests in the process.

This voluntary program allows the state to enter into planning agreements with landowners, local governments, and other stakeholders to prepare plans that identify the most important areas for a threatened or endangered species, and the areas that may be less important. These NCCP plans may become the basis for a state permit to take threatened and endangered species in exchange for conserving their habitat. The CDFW and USFWS worked to combine the NCCP program with the federal HCP process to provide take permits for state and federally listed species in exchange for conserving their habitat. Under the NCCP, local governments, such as the County, can take the lead in developing these NCCP plans and become the recipients of state and federal take permits. As described below, the County MSCP Subarea Plan is an NCCP plan adopted for South County.

Local

Multiple Species Conservation Program

The San Diego MSCP Plan for the southwestern portion of San Diego County was approved in August 1998 and covers 85 species (County 1998). The City of San Diego, portions of the unincorporated County, and 10 additional city jurisdictions make up the San Diego MSCP Plan area. It is a comprehensive, long-term habitat conservation plan that addresses the needs of multiple species by identifying key areas for preservation as open space in order to link core biological areas into a regional wildlife preserve.

County MSCP Subarea Plan

The County MSCP Subarea Plan, adopted by the Board of Supervisors in March 1998, implements the MSCP within the unincorporated areas under County jurisdiction (County 1997. The County Subarea Plan is divided into three Segments: Lake Hodges, Metro-Lakeside-Jamul, and South County. The Plan addresses areas authorized for take and planned for conservation, including portions of the South County Segment that are conserved subject to agreements with the Wildlife Agencies. Take of covered species and their habitat is authorized for projects that satisfy the requirements of the County's BMO.

The Project site is located within both the South County Segment and the Metro-Lakeside-Jamul Segment of the County MSCP Subarea Plan (Figure 2.2-1). A total of approximately 38 acres of the Project site lies within the South County Segment and is classified by the MSCP as Minor Amendment Area. Minor Amendment Areas "contain habitat that could be partially or completely eliminated (with appropriate mitigation) without significantly affecting the overall goals of the County's MSCP Subarea Plan." Minor Amendment Areas must meet the criteria and achieve the goals of linkages and corridors described in the County MSCP Subarea Plan and provide mitigation consistent with the BMO. Impacts to Minor Amendment Areas require approval from the USFWS Field Office Supervisor and CDFW NCCP Program Manager. The remainder of the Project site lies within the Metro-Lakeside-Jamul Segment and is classified as Unincorporated Land except for 16.4 acres that are classified as PAMA. The portion classified as PAMA lies east of Steele Canyon Road. Limited portions of the Project site are shown as Very High or High on the County's Habitat Evaluation Map from the BMO.

Biological Mitigation Ordinance

The BMO is the ordinance by which the County implements the County MSCP Subarea Plan at the project level within the unincorporated area. The BMO contains design criteria and mitigation standards that, when applied to projects requiring discretionary permits, protect habitats and species and ensure that a project does not preclude the viability of the MSCP Preserve System. In this way, the BMO promotes the preservation of lands that contribute to contiguous habitat core areas or linkages.

Pursuant to Section 86.503(a)(9) of the BMO, the Proposed Project would be exempt from the BMO requirements provided that the following measures are required as conditions of the Project's MUP:

a. The facility or project is consistent with the County General Plan, the MSCP Plan, and the Subarea Plan as approved by the Board of Supervisors;

b. All feasible mitigation measures have been incorporated that meet the standards for mitigation required by CEQA and the State Surface Mining and Reclamation Act of 1975;

c. Any wetland buffer area shall be restored to protect the environmental values of adjacent wetlands;

d. In a floodplain, reclamation shall result in a net gain in functional wetlands and riparian habitat in or adjacent to the area of extraction;

e. Native vegetation shall be used on steep slope lands to revegetate and landscape cut areas and fill areas in order to substantially restore the original habitat value, and slopes shall be graded to produce contours and soils which reflect a landform that is consistent with the approved Reclamation Plan;

f. Mature riparian woodland may not be destroyed or reduced in size due to sand, gravel, and mineral extraction; and

g. All Critical Populations of Sensitive Plant Species Within the MSCP Subarea, (Attachment C of Document No. 0769999 on file with the Clerk of the Board); Rare, Narrow Endemic Animal Species Within the MSCP Subarea, (Attachment D of Document No. 0769999 on file with the Clerk of the Board); Narrow Endemic Plant Species Within the MSCP subarea, (Attachment E of Document No. 0769999 on file with the Clerk of the Board); and San Diego County Sensitive Plant Species, as defined herein will be avoided as required by, and consistent with, the terms of the Subarea Plan.

Resource Protection Ordinance

The County regulates natural resources (among other resources) as sensitive biological resources via the RPO (County 2011a), the regulations of which cover wetlands, wetland buffers, sensitive plant and animal species, sensitive vegetation communities/habitat types, and habitats containing sensitive animals or plants.

Wetland habitats are defined per the RPO as described under *San Diego County RPO Wetlands* in Section 2.1.1.1, above. Sensitive habitat lands are identified by the RPO as lands that "support unique vegetation communities, or habitats of rare or endangered species or sub-species of animals or plants as defined by Section 15380 of the CEQA Guidelines." It is the intent of the RPO to increase the preservation and protection of the County's unique topography, natural beauty, biological diversity, and natural and cultural resources.

Pursuant to Section 86.605(d) of the RPO, the Proposed Project would be exempt from RPO requirements provided that the following mitigation measures are required as conditions of the Project's MUP:

a. Any wetland buffer area shall be restored to protect the environmental values of adjacent wetlands;

b. In a floodplain, any net gain in functional wetlands and riparian habitat shall occur in or adjacent to the area of extraction;

c. Native vegetation shall be used on steep slopes lands to revegetate and landscape cut and fill areas in order to restore substantially original habitat value, and slopes shall be graded to produce contours and soils that reflect natural landform consistent with the surrounding area; and

d. Mature riparian woodland[1] may not be destroyed or reduced in size due to sand, gravel, or mineral extraction.

2.2.2 Analysis of Project Effects and Determination as to Significance

2.2.2.1 *Special Status Species*

Guidelines for the Determination of Significance

A significant impact to special status species would occur if the Proposed Project would:

1. Impact one or more individuals of a species listed as federally or state endangered or threatened.

2. Impact the survival of an on-site population of any County Group A or B plant species, a County Group 1 animal species, or a species listed as a state Species of Special Concern.

3. Impact the local long-term survival of a County Group C or D plant species or a County Group 2 animal species.

4. Impact arroyo toad aestivation, foraging or breeding habitat.

5. Impact golden eagle habitat, foraging or nesting habitat.

[1] Mature riparian woodland is defined in the RPO as "a grouping of sycamores, cottonwoods, willows, and/or oak trees having substantial biological value, where at least ten of the trees have a diameter of six inches or greater."

6. Result in a loss of functional foraging habitat for raptors.

7. Impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species.

8. Cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive species over the long term.

9. Impact occupied burrowing owl habitat.

10. Impact occupied cactus wren habitat, or formerly occupied coastal cactus wren habitat that has been burned by wildfire.

11. Impact occupied Hermes copper butterfly habitat.

12. Impact nesting success of the following sensitive bird species through grading, clearing, fire fuel modification and/or other noise generating activities such as construction:

    - Coastal cactus wren
    - Coastal California gnatcatcher
    - Least Bell's vireo
    - Southwestern willow flycatcher
    - Tree-nesting raptors
    - Ground-nesting raptors
    - Golden eagle
    - Light-footed Ridgway's rail (*Rallus longirostris levipes*)

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010a).

Analysis

Federally or State Endangered or Threatened Species (Guideline 1)

The Project would result in significant impacts to the following species under the above guidelines for the following reasons:

The Project would result in potentially significant impacts to the federally listed threatened coastal California gnatcatcher, and potentially significant impacts to the federally and state listed endangered least Bell's vireo, further discussed below. In addition, USFWS-designated critical habitat for coastal California gnatcatcher, least Bell's vireo, and the federally listed endangered San Diego ambrosia, is present in the southwestern portion of the Project site (Figure 2.2-2) and critical habitat for the federally and state listed endangered southwestern willow flycatcher occurs

off site, to the west of the Project site, within the SDNWR. The Project would not impact southwestern willow flycatcher critical habitat off site within the SDNWR, but would result in minor impacts to San Diego ambrosia, coastal California gnatcatcher, and least Bell's vireo critical habitat areas that occur on site as discussed below.

Coastal California Gnatcatcher

Coastal California gnatcatcher is a federally listed threatened, CDFW Species of Special Concern, County Group 1, and MSCP covered species. The coastal California gnatcatcher was incidentally detected within the southwestern portion of the site during Project surveys. In 2019, observations included an adult female foraging with and feeding a juvenile gnatcatcher within coastal sage scrub at the Project's southwestern boundary, and female/juvenile types foraging within riparian habitat along Sweetwater River in the southwestern portion of the site. In 2022, two single males were detected off site to the southeast of the southeastern portion of the site, and one adult male was observed foraging with and feeding a single juvenile off site to the southwest of the southwestern portion of the site.

A narrow strip of critical habitat, totaling 2.7 acres, for the coastal California gnatcatcher is mapped in the southwestern portion of the Project site (Figure 2.2-2). Critical habitat within the Project site is mostly composed of riparian forest along the Sweetwater River that provides foraging opportunities for the species, but gnatcatchers would not be expected to utilize this habitat for breeding purposes. A small portion of critical habitat for the species would be impacted by the Proposed Project, consisting of 0.002 acre of tamarisk scrub and 0.08 acre of disturbed habitat associated with the golf course development. Impacts to areas mapped as coastal California gnatcatcher critical habitat would be less than significant since these areas do not support suitable coastal sage scrub habitat required by the species.

The Project would impact 1.2 acres of Diegan coastal sage scrub including habitat south of Willow Glen Drive, west of Steele Canyon Road, and at the southeastern Project boundary (Figure 2.2-8). Habitat along Willow Glen Drive and Steele Canyon Road consists of narrow strips of coastal sage scrub comprised of scattered shrubs and intermixed with non-native trees. Gnatcatchers were not observed within either area during biological surveys; the species would not be anticipated to occupy these areas for breeding purposes based on the small, narrow patch of habitat present in each area. Diegan coastal sage scrub habitat at the southeastern Project boundary is connected to a larger block of coastal sage scrub that continues off site. The species was not detected within the Project site in this area but was detected approximately 80 to 100 feet off site. **Impacts to occupied coastal California gnatcatcher habitat would be potentially significant (Impact BIO-1a).** Additionally, **if mining and reclamation activities take place within 500 feet of suitable gnatcatcher habitat during the gnatcatcher breeding season (March 1 to August 15), indirect impacts related to noise to nesting gnatcatchers would be potentially significant (Impact BIO-1b)**.

Following reclamation, the Project would provide additional habitat for the species through the revegetation of 11.9 acres of Diegan coastal sage scrub along the cut slopes constructed at the margins of the expanded Sweetwater River floodplain. The expanded Sweetwater River floodplain and associated riparian corridor would also provide additional foraging and dispersal habitat for gnatcatchers.

Least Bell's Vireo

Least Bell's vireo is a federally and state listed endangered, County Group 1 species, and MSCP covered and narrow endemic species. The least Bell's vireo was detected in several areas within riparian habitat located both on and off site, and at least one confirmed breeding pair was observed on site just east of Steele Canyon Road (Figure 2.2-3).

Approximately 10.42 acres of critical habitat for the least Bell's vireo occur in the southwestern portion of the Project site (Figure 2.2-2). Most of this habitat occurs within the footprint of the closed golf course, with small inclusions of undeveloped areas consisting of riparian forest habitat associated with the Sweetwater River. The Project would result in impacts to 1.22 acres of least Bell's vireo critical habitat consisting of 0.23 acre of southern cottonwood-willow riparian forest, 0.002 acre of freshwater marsh, 0.81 acre of disturbed habitat, 0.18 acre of developed land associated with golf course development. Impacts to disturbed habitat and developed land would be less than significant since these areas do not contain suitable riparian habitat required by the species. Impacts to southern cottonwood-willow riparian forest and freshwater marsh would be potentially significant as discussed below.

The Project would impact approximately 0.44 acre of southern cottonwood-willow riparian forest (including disturbed), 0.13 acre of disturbed southern willow scrub, and 0.01 tamarisk scrub at the periphery of existing habitat located along the Sweetwater River. Least Bell's vireo was detected adjacent to these areas. **Direct impacts to potentially occupied vireo habitat would be potentially significant (Impact BIO-1c)**. Additionally, **if mining and reclamation activities take place within 500 feet of suitable vireo habitat during the vireo breeding season (March 15 to September 15), indirect noise impacts to nesting vireos would be potentially significant (Impact BIO-1d)**.

Following reclamation, the Project would provide additional, higher quality habitat for the species through the revegetation of approximately 110.17 acres of wetland/riparian habitat within the expanded Sweetwater River floodplain.

The Project would result in less than significant or no impact to the following species under the above guidelines for the stated reasons:

San Diego Ambrosia

San Diego ambrosia is a federally listed endangered, CRPR 1B.1, County List A, and MSCP covered and narrow endemic species. The species has been documented within off-site areas south of the Project site within the SDNWR but was not detected on site during the 2019 and 2022 rare plant surveys. Approximately 15.66 acres of critical habitat for San Diego ambrosia occurs in the southwestern portion of the Project site. On-site areas mapped as critical habitat for the species are comprised of disturbed and developed areas associated with the golf course and riparian habitat associated with the Sweetwater River. The Project would result in impacts to 0.77 acre of San Diego ambrosia critical habitat consisting of 0.002 acre of freshwater marsh, 0.26 acre of southern cottonwood-willow riparian forest, 0.01 acre of tamarisk scrub, and 0.46 acre of disturbed habitat, and 0.04 acre of developed lands associated with golf course development. These impacts would

be less than significant since the species was not found to occur within the Project site; therefore, **no direct impact to San Diego ambrosia would occur.**

Southwestern Willow Flycatcher

Southwestern willow flycatcher is a federally and state listed endangered, County Group 1, and MSCP covered and narrow endemic species. USFWS-designated critical habitat for the southwestern willow flycatcher occurs to the west of the Project site within the SDNWR (Figure 2.2-2), and potentially suitable riparian habitat for the species is found on site to the east of Steele Canyon Road, and at the downstream portion of Sweetwater River in the southwestern portion of the site (Figure 2.2-3). The species was not detected within or adjacent to the Project site during protocol surveys conducted in 2019 and 2022, and there are no reported occurrences of the species within the Project vicinity. The last recorded breeding occurrence of the species within the area is located approximately 3 miles southwest of the site along Sweetwater River within the SDNWR. A single pair attempted to nest in this area in 1998 and 1999, though all nest attempts were unsuccessful. Migrants were recorded in the Project vicinity between 2000 and 2002, but no recent occurrences of the species have been reported. The Project would impact 0.44 acre of southern cottonwood-willow riparian forest (including disturbed), 0.13 acre of disturbed southern willow scrub, and 0.01 tamarisk scrub at the periphery existing habitat located along the Sweetwater River. However, the species is not expected to occupy the site given the negative survey results and lack of recent observations of the species in the area; therefore, **impacts to southwestern willow flycatcher would be less than significant.**

State Species of Concern, County Group A and B Plant Species, and County Group 1 Animal Species (Guideline 2)

The Project would result in significant impacts to the following species under the above guidelines for the following reasons:

The Project would result in potentially significant impacts to one County Group B plant species, Palmer's goldenbush. Additionally, the Project would result in impacts to suitable habitat with the potential to support the following County List A plant species that were determined to have high potential to occur within the Project site: San Diego ambrosia and Robinson's pepper grass. San Diego ambrosia is discussed above in Section 2.1.2.1 (Guideline 1), while the remaining species are discussed below.

The Project would result in potentially significant impacts to the following County Group 1 animal species and/or state Species of Special Concern: coastal California gnatcatcher, least Bell's vireo, Cooper's hawk, Lawrence's goldfinch, oak titmouse, peregrine falcon, red-shouldered hawk, turkey vulture, vermilion flycatcher, white-tailed kite, yellow-breasted chat, yellow warbler, Townsend's big-eared bat, western mastiff, and western red bat. Additionally, the Project would result in impacts to suitable habitat with the potential to support the following County Group 1 animal species and/or state Species of Special Concern that were determined to have high potential to occur within the Project site: loggerhead shrike, Mexican long-tongued bat, sharp-shinned hawk, two-striped garter snake, and western spadefoot. The Project would also result in potentially significant impacts to the following USFWS Birds of Conservation Concern: Lawrence's

goldfinch and oak titmouse. Coastal California gnatcatcher and least Bell's vireo are discussed above in Section 2.1.2.1 (Guideline 1), while the remaining species are discussed below.

Palmer's Goldenbush

Palmer's goldenbush is a CRPR 1B.1 species, County List B, MSCP covered and narrow endemic species. A total of 236 individuals were observed within the southeastern, south-central, and southwestern portions of the Project site. Approximately 234 individuals would be impacted by the Proposed Project. The two individuals that would be avoided by the Proposed Project are located outside of the MUP boundary within an area that would not be impacted by mining or reclamation activities to the east of Steele Canyon Road and north of Ivanhoe Ranch Road. **Impacts to Palmer's goldenbush, a County List B plant species, would be potentially significant (Impact BIO-2a)**. As a County List B plant species, species-based mitigation at a minimum 1:1 mitigation ratio is required pursuant to County Requirements.

Cooper's Hawk

Cooper's hawk, a CDFW Watch List. County Group 1, and MSCP covered species, was observed within the eastern and western portions of the Project site. The Project would impact approximately 0.44 acre of southern riparian forest, 0.13 acre of southern willow scrub, 0.01 acre of tamarisk scrub, 2.1 acres of eucalyptus woodland, and 1.7 acres of non-native woodland, in addition to removing trees along the golf course fairways that provide potential nesting and foraging habitat for this species. However, suitable nesting and foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for nesting and foraging opportunities. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's biological open space (BOS) providing suitable nesting and foraging habitat for the species. Temporal loss of potential nesting and foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive nesting and foraging habitat for the species is already preserved throughout the region within the SDNWR and other open space areas located in the Project vicinity.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential nesting and foraging habitat are considered a potentially significant impact (Impact BIO-2b)**. **Direct impacts to nesting Cooper's hawk and/or indirect noise impacts to Cooper's hawks nesting within 300 feet of active construction, mining, or reclamation areas would be potentially significant (Impact BIO-2c).**

Lawrence's Goldfinch

Lawrence's goldfinch, a USFWS Bird of Conservation Concern, was detected foraging within the eastern portion of the Project site. The Proposed Project would impact potential breeding and foraging habitat for this species. However, suitable nesting and foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year

restoration and revegetation monitoring period and accessible for nesting and foraging opportunities. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable nesting and foraging habitat for the species. Temporal loss of potential nesting and foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive nesting and foraging habitat for the species is already preserved throughout the region within the SDNWR and other open space areas located in the Project vicinity.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential nesting and foraging habitat during mining and reclamation activities are considered a potentially significant impact (Impact BIO-2b)**. **Direct impacts to nesting individuals would be considered potentially significant (Impact BIO-2d).**

Loggerhead Shrike

Loggerhead shrike is a USFWS Bird of Conservation Concern, CDFW Species of Special Concern, and County Group 1 species. This species was not observed within the Project site but was determined to have a high potential to occur based on the presence of suitable habitat and documented occurrences within adjacent habitat west of the site. However, suitable nesting and foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for nesting and foraging opportunities. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable nesting and foraging habitat for the species. Temporal loss of potential nesting and foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive nesting and foraging habitat for the species is already preserved throughout the region within the SDNWR and other open space areas located in the Project vicinity.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential nesting and foraging habitat during mining and reclamation activities are considered a potentially significant impact (Impact BIO-2b)**. **Direct impacts to nesting loggerhead shrikes would be considered potentially significant (Impact BIO-2d).**

Oak Titmouse

Oak titmouse, a USFWS Bird of Conservation Concern, was observed foraging within the western portion of the site. The Proposed Project would impact potential breeding and foraging habitat for this species. However, suitable nesting and foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for nesting and foraging opportunities. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the

Project's BOS providing suitable nesting and foraging habitat for the species. Temporal loss of potential nesting and foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive nesting and foraging habitat for the species is already preserved throughout the region within the SDNWR and other open space areas located in the Project vicinity.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential nesting and foraging habitat during mining and reclamation activities are considered a potentially significant impact (Impact BIO-2b)**. **Direct impacts to nesting individuals would be considered potentially significant (Impact BIO-2d).**

Peregrine Falcon

Peregrine falcon is a USFWS Bird of Conservation Concern, CDFW Fully Protected species, County Group 1, and MSCP covered and narrow endemic species. A pair was observed soaring over the Project site and temporarily perched on a tree in the western portion of the site. Suitable breeding habitat for the species is absent from the Project site, therefore, no suitable breeding habitat or breeding individuals would be impacted by the Project.

Potential foraging habitat occurs on site and would be impacted by the Project; however, suitable foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for foraging opportunities. Temporal loss of potential foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Additionally, large areas of foraging habitat for the species are present within preserved habitat in the local area, including the SDNWR, and existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable foraging habitat for the species.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential foraging habitat during mining and reclamation activities are considered a potentially significant impact (Impact BIO-2b)**.

Red-Shouldered Hawk

Red-shouldered hawk, a County Group 1 species, was observed within riparian areas and flying overhead during Project surveys. Suitable woodland nesting habitat occurs on site for this species, although it was not observed nesting on site. The Project would impact approximately 0.44 acre of southern riparian forest, 0.13 acre of southern willow scrub, 0.01 acre of tamarisk scrub, 2.1 acres of eucalyptus woodland, and 1.7 acres of non-native woodland, in addition to removing trees along the golf course fairways that provide potential nesting and foraging habitat for this species. However, suitable nesting and foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for nesting and foraging opportunities. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion

of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable nesting and foraging habitat for the species. Temporal loss of potential nesting and foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive nesting and foraging habitat for the species is already preserved throughout the region within the SDNWR and other open space areas located in the Project vicinity.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential nesting and foraging habitat are considered a potentially significant impact (Impact BIO-2b)**. **Direct impacts to nesting red-shouldered hawk and/or indirect noise impacts to red-shouldered hawk nesting within 300 feet of active construction, mining, or reclamation areas would be potentially significant (Impact BIO-2c).**

Sharp-shinned Hawk

Sharp-shinned hawk, a CDFW Watch List and County Group 1 species, was not observed within the Project site but was determined to have a high potential to occur based on the presence of suitable overwintering and foraging habitat and documented occurrences within the Project vicinity. This species is an uncommon winter visitor in San Diego but breeds in the northern and central portions of California. As such, suitable breeding habitat for the species is absent from the Project site; therefore, no suitable breeding habitat or breeding individuals would be impacted by the Project.

The Project would result in impacts to potential overwintering and foraging habitat for the species; however, suitable wintering and foraging opportunities for the species would remain during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for use. Temporal loss of potential wintering and foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Additionally, large areas of foraging habitat for the species are present within preserved habitat in the local area, including the SDNWR, and existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable foraging habitat for the species.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential wintering and foraging habitat during mining and reclamation activities are considered a potentially significant impact (Impact BIO-2b)**.

Turkey Vulture

Turkey vulture is a County Group 1 species that has been observed soaring over the southwestern portion of the Project site. No potentially suitable breeding habitat is present on site or would be impacted by the Project. Therefore, no suitable breeding habitat or breeding individuals would be impacted by the Project.

Potential foraging habitat for this species occurs on site and would be impacted by the Project; however, suitable foraging habitat would remain on site during mining and reclamation activities

as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for use. Temporal loss of potential foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Additionally, large areas of foraging habitat for the species are present within preserved habitat in the local area, including the SDNWR, and existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable foraging habitat for the species.

Temporal loss of potential foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Regardless, **impacts to foraging habitat for this species are considered a potentially significant impact (BIO-2b)**.

Vermilion Flycatcher

Vermilion flycatcher is a CDFW Species of Special Concern and County Group 1 species that was detected on numerous occasions in the eastern and western portions of the Project site; at least two breeding pairs were confirmed to occupy the Project site in 2019, and one pair was observed with an active nest in 2022. The Proposed Project would impact potentially suitable breeding and foraging habitat for the species; however, suitable nesting and foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for nesting and foraging opportunities.

Impacts to potential nesting and foraging habitat would be potentially significant (Impact BIO-2b). **Direct impacts to nesting individuals would be considered potentially significant (Impact BIO-2d).** Though the post-reclamation condition of the Project site would result in a substantial increase in native upland and riparian habitats and preserved BOS, these areas may be less suitable for vermilion flycatcher than the existing active and inactive golf course areas that are generally open with scattered mature trees. However, suitable habitat for the species is also present to the south of the site at the Steele Canyon Golf Club where the species was detected in 2000 (Unitt 2004).

White-tailed Kite

White-tailed kite, a CDFW Fully Protected and County Group 1 species, was not observed within the Project site but was observed flying overhead and foraging off site within the SDNWR in 2022. The species was determined to have a high potential to occur based on the presence of suitable riparian habitat. The Proposed Project would impact approximately 0.58 acre of suitable riparian breeding habitat for the species. However, suitable habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for use. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable nesting and foraging habitat for the species. Temporal loss of potential nesting and foraging habitat during mining and reclamation activities would not affect the local long-term survival of this

species. Furthermore, large areas of foraging and breeding habitat for the species are present within preserved habitat in the local area, including the SDNWR.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential nesting and foraging habitat are considered a potentially significant impact (Impact BIO-2b)**. **Direct impacts to nesting white-tailed kite and/or indirect noise impacts to white-tailed kite nesting within 300 feet of active construction, mining, or reclamation areas would be potentially significant (Impact BIO-2d)**. Following reclamation, the Project would provide additional, higher quality habitat for the species through the revegetation and restoration of the expanded Sweetwater River floodplain.

Yellow-breasted Chat

Yellow-breasted chat, a CDFW Species of Special Concern and County Group 1 species, was detected within riparian habitat in the southwestern portion of the Project site along the Sweetwater River. The Proposed Project would impact approximately 0.58 acre of riparian habitat with the potential to support breeding and foraging individuals (Figure 2.2-8, *Vegetation and Sensitive Resources/Impacts*). However, suitable habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for use. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable nesting and foraging habitat for the species. Temporal loss of potential nesting and foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, large areas of foraging habitat for the species are present within preserved habitat in the local area, including the SDNWR.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential foraging and nesting habitat are considered a potentially significant impact (Impact BIO-2b)**. **Direct impacts to nesting individuals would be considered potentially significant (Impact BIO-2d).** Following reclamation, the Project would provide additional, higher quality habitat for the species through the revegetation and restoration of the expanded Sweetwater River floodplain.

Yellow Warbler

Yellow warbler is a USFWS Bird of Conservation Concern, CDFW Species of Special Concern, and County Group 2 species. The species was detected on several occasions throughout the Project site. The Project would impact approximately 0.58 acre of riparian habitat with the potential to support breeding and foraging individuals. However, suitable habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for use. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable nesting and foraging habitat for the species. Temporal loss of potential nesting and foraging habitat

during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, large areas of foraging habitat for the species are present within preserved habitat in the local area, including the SDNWR.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential foraging and nesting habitat are considered a potentially significant impact (Impact BIO-2b)**. **Direct impacts to nesting individuals would be considered potentially significant (Impact BIO-2d).** Following reclamation, the Project would provide additional, higher quality habitat for the species through the revegetation and restoration of the expanded Sweetwater River floodplain.

Two-striped Garter Snake

Two-striped garter snake, a CDFW Species of Special Concern and County Group 1 species, was not observed within the Project site but was determined to have a high potential to occur based on the presence of potentially suitable aquatic and riparian habitat and reported occurrences within the surrounding area. The Proposed Project would result in impacts to 0.55 acre of disturbed wetland, 0.44 acre of southern cottonwood-willow riparian forest, 0.13 acre of southern willow scrub, 0.01 acre of tamarisk scrub, and 2.7 acres of constructed ponds with the potential to support the species. Suitable habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for use. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along the Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable habitat for the species. Temporal loss of potential habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive habitat for the species is already preserved throughout the region within the SDNWR and other open space areas located in the Project vicinity. Ground disturbance activities during mining and grading activities could potentially result in direct impacts to two-striped garter snake, if found to occur within the Project site.

Though the Project would not adversely impact the local long-term survival of the species, **loss of suitable habitat for two-striped garter snake is considered potentially significant (Impact BIO-2b). Direct impacts to two-striped garter snake would be considered potentially significant (Impact BIO-2e).** Following reclamation, the Project would provide additional, higher quality habitat for the species through the revegetation and restoration of the expanded Sweetwater River floodplain.

Western Spadefoot

Western spadefoot, a CDFW Species of Special Concern and County Group 2 species, was not observed within the Project site but was determined to have a high potential to occur based on the presence of potentially suitable aquatic and riparian habitat and reported occurrences within the surrounding area. The Proposed Project would result in impacts to 0.55 acre of disturbed wetland, 0.58 acre of potential wetland/riparian habitat, and 2.7 acres of constructed ponds with potential to support the species. Suitable habitat would remain on site during mining and reclamation

activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for use. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along the Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable habitat for the species. Temporal loss of potential habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, large areas of foraging habitat for the species are present within preserved habitat in the local area, including the SDNWR and other open space areas located within the Project vicinity. Ground disturbance activities during mining and grading activities could potentially result in direct impacts to western spadefoot, if found to occur within the Project site.

Though the Project would not adversely impact the local long-term survival of the species, **loss of suitable habitat for western spadefoot is considered potentially significant (Impact BIO-2b). Direct impacts to western spadefoot would be considered potentially significant (Impact BIO-2e).**

Mexican Long-tongued Bat

Mexican long-tongued bat, a CDFW Species of Special Concern and County Group 2 species, was not observed within the Project site but was determined to have a high potential to occur based documented occurrences within Project vicinity. In coastal San Diego County, this species is associated with urban areas and has been found within the nearby communities of Mt. Helix and El Cajon. The species forages on night blooming flowers of agaves (Agavaceae) and cacti (Cactaceae). Suitable nectaring resources may occur within adjacent residential areas and buildings within the Project site could potentially provide suitable roosting habitat; though, this species was not documented within the Project site during the 2022 bat surveys. Individuals, if present, would most likely utilize the surrounding residential neighborhoods for roosting and foraging opportunities which provide more extensive habitat for the species. As such, implementation of the Proposed Project would not affect the local long-term survival of this species.

Though the Project would not adversely impact the local long-term survival of the species, **impacts to potential foraging habitat for the Mexican long-tongued bat are considered potentially significant (Impact BIO-2b)**. Additionally, **direct impacts to roosting bats would be potentially significant (Impact BIO-2f).**

Townsend's Big-eared Bat

Townsend's big-eared bat, a CDFW Species of Special Concern and County Group 2 species, was detected within the eastern and western portions of the Project site. The species likely utilizes the site for foraging opportunities but is unlikely to roost within the Project site as preferred roosting sites are not present. Although buildings within the Project site could provide potential roosting habitat, this species is highly susceptible to disturbance and will abandon its roost if disturbed, Therefore, no suitable roosting habitat or roosting individuals would be impacted by the Project.

The Project would result in impacts to potential foraging habitat for the species. However, suitable foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for foraging opportunities. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along the Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable foraging habitat for the species. Temporal loss of potential foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive foraging habitat for the species is already preserved throughout the region within the SDNWR and other open space areas located in the Project vicinity.

Though the Project would not adversely impact the local long-term survival of the species, **impacts to potential foraging habitat for the Townsend's big-eared bat are considered potentially significant (Impact BIO-2b)**.

Western Mastiff Bat

Western mastiff bat, a CDFW Species of Special Concern and County Group 2 species, was detected within the western portion of the Project site. The species likely utilizes the site for foraging opportunities but is unlikely to roost within the Project site as preferred roosting sites are not present. Therefore, no suitable roosting habitat or roosting individuals would be impacted by the Project.

The Project would result in impacts to potential foraging habitat for the species. However, suitable foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for foraging opportunities. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along the Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable foraging habitat for the species. Temporal loss of potential foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive foraging habitat for the species is already preserved throughout the region within the SDNWR and other open space areas located in the Project vicinity.

Though the Project would not adversely impact the local long-term survival of the species, **impacts to potential foraging habitat for the western mastiff bat are considered potentially significant (Impact BIO-2b)**.

Western Red Bat

Western red bat, a CDFW Species of Special Concern and County Group 2 species, was detected within the western portion of the Project site. This tree roosting species has the potential to roost within riparian habitat and planted trees within the Project site. The species would also be expected to utilize the site for foraging opportunities. As such, the Project would result in impacts to potential foraging and roosting habitat for the species. However, suitable roosting and foraging

habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for roosting and foraging opportunities. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along the Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable roosting and foraging habitat for the species. Temporal loss of potential roosting and foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive roosting and foraging habitat for the species is already preserved throughout the region within the SDNWR and other open space areas located in the Project vicinity.

Though the Project would not adversely impact the local long-term survival of the species, **impacts to potential foraging and roosting habitat for the western red bat are considered potentially significant (Impact BIO-2b)**. Additionally, **direct impacts to roosting bats would be potentially significant (Impact BIO-2f).**

The Project would result in less than significant or no impact to the following species under the above guidelines for the stated reasons:

Robinson's Pepper Grass

Robinson's pepper grass is a CRPR 4.3 and County List A species. The Project would result in impacts to 1.2 acres of Diegan coastal sage scrub with the potential to support the species. However, the species was not found to occur within the Project site during the 2019 and 2022 rare plant surveys, and the small amount of potential habitat that would be impacted would not support a significant population of the species. Therefore, **impacts to Robinson's pepper grass would be less than significant.**

County List C and D Plant Species and County Group 2 Animal Species (Guideline 3)

The Project would result in significant impacts to the following under the above guidelines for the following reasons:

The Project would result in potentially significant impacts to three County List D plant species: San Diego County viguiera, San Diego sagewort, and southwestern spiny rush, as discussed below. No other County Group C or D plant species would be impacted by the Project. These species are further discussed below

The Project would result in potentially significant to the following County Group 2 animal species, though the Project would not impact the local long-term survival of any of these species: barn owl, great blue heron, green heron, western bluebird, yellow warbler, monarch butterfly, Belding's orange-throated whiptail, small-footed myotis, and Yuma myotis. Additionally, the Project would result in impacts to suitable habitat with the potential to support the following County Group 2 animal species that were determined to have high potential to occur within the Project site: California horned lark, Canada goose, merlin, Mexican long-tongued bat and western spadefoot. With the exception of Mexican long-tongued bat, western spadefoot, and yellow warbler, which are described under Guideline 2, these species are further discussed below.

San Diego County Viguiera

San Diego County viguiera is a County List D plant and has a CRPR of 4.3. The Project would impact five individuals of San Diego County viguiera observed within the Project site along the Project's northeastern boundary. One individual located along the Project's southeastern boundary would be avoided by the Proposed Project. The impacted individuals are not part of a population at the periphery of the species' range, located in an area where the taxon is especially uncommon, or occurring on unusual substrates. Additionally, there are numerous documented occurrences of this species throughout the surrounding area. Though the Project would not adversely impact the local long-term survival of the species, **impacts to San Diego County viguiera shrubs are considered potentially significant (Impact BIO-3a).**

San Diego Sagewort

San Diego sagewort is a CRPR 4.2 and County List D species. Two San Diego sagewort individuals observed at the western Project boundary at the edge of southern riparian forest habitat would be impacted by the Proposed Project. The impacted individuals are not part of a population at the periphery of the species' range, located in an area where the taxon is especially uncommon, or occurring on unusual substrates. Additionally, five individuals located along the Project's western boundary where it abuts the SDNWR would be avoided and preserved within the Project's BOS. Furthermore, there are numerous documented occurrences of this species throughout the surrounding area indicating that the Project site does not represent a geographically significant population. Though the Project would not adversely impact the local long-term survival of the species, **impacts to San Diego sagewort individuals are considered potentially significant (Impact BIO-3a)**.

Southwestern Spiny Rush

Southwestern spiny rush is a CRPR 4.2 species and County List D species. Three individuals occurring within the southwestern portion of the Project along the Sweetwater River would be impacted by the removal of the existing bridge crossing. The impacted individuals are not part of a population at the periphery of the species' range, located in an area where the taxon is especially uncommon, or occurring on unusual substrates. Fourteen individuals located along Sweetwater River in the western portion of the Project site would be avoided and would be preserved within the Project's BOS. Furthermore, there are numerous documented occurrences of this species throughout the surrounding area indicating that the Project site does not represent a geographically significant population. Though the Project would not adversely impact the local long-term survival of the species, **impacts to southwestern spiny rush individuals are considered potentially significant (Impact BIO-3a)**.

Barn Owl

Barn owl, a County Group 2 species, was observed in the northeastern portion of the Project site. The Proposed Project would impact potential breeding and foraging habitat for this species. However, suitable habitat for the species would remain during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible

for use. Additionally, large areas of foraging habitat for the species are present within preserved habitat in the local area, including the SDNWR, and existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable habitat for the species. Temporal loss of potential habitat during mining and reclamation activities would not adversely affect the local long-term survival of this species.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential nesting and foraging habitat during mining and reclamation activities would be considered potentially significant (Impact BIO-3b). Direct impacts to nesting individuals would be potentially significant (Impact BIO-3c)**.

California Horned Lark

California horned lark, a CDFW Watch List and County Group 2 species, was not observed within the Project site but was determined to have a high potential to occur based on the presence of potentially suitable habitat and reported occurrences within the Project vicinity. The Project would result in impacts potential foraging and breeding habitat for the species. However, suitable nesting and foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for nesting and foraging opportunities. Temporal loss of potential habitat during mining and reclamation activities would not adversely affect the local long-term survival of this species. Therefore, the Project would not adversely affect the long-term survival of the species, which is known to occur within adjacent preserved lands.

Though the Project would not adversely impact the local long-term survival of the species, **loss of suitable habitat during mining and reclamation activities would be considered potentially significant (Impact BIO-3b)**. **Direct impacts to nesting individuals would be potentially significant (Impact BIO-3c).**

Canada Goose

Canada goose, a County Group 2 species, was not observed within the Project site but was determined to have a high potential to occur based on the presence of suitable overwintering habitat and documented occurrences within the Project vicinity. The species overwinters in southern California, but local breeding records occur within the County as a result of introductions and translocations. The Project would result in impacts to suitable wintering and foraging habitat for the species, and potential breeding habitat. However, suitable habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible to the species. Temporal loss of potential habitat during mining and reclamation activities would not adversely affect the local long-term survival of this species. Furthermore, suitable habitat for the species is also present within the surrounding area including at other golf courses (e.g., Steele Canyon Golf Club) and local reservoirs (e.g., Sweetwater Reservoir). Therefore, the Project would not adversely affect the long-term survival of the species, which is known to occur within adjacent preserved lands.

Though the Project would not adversely impact the local long-term survival of the species, **loss of suitable habitat during mining and reclamation activities would be considered potentially significant (Impact BIO-3b)**. **Direct impacts to nesting individuals would be potentially significant (Impact BIO-3c).**

Great Blue Heron and Green Heron

Great blue heron and green heron are County Group 2 species that have the potential to forage within riparian areas and man-made ponds present within the Project site. The Project would impact 2.7 acres of artificial ponds and 0.58 acre of wetland/riparian habitat, which are used as foraging habitat for this species. However, the site is not expected to support a rookery site or significant population of these two herons based on the low numbers observed. Suitable nesting and foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for nesting and foraging opportunities. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable nesting and foraging habitat for the species. Temporal loss of potential habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive habitat for the species is already preserved throughout the region and within the SDNWR in the local area. Therefore, the Project would not adversely affect the long-term survival of the species, which is known to occur within adjacent preserved lands.

Though the Project would not adversely impact the local long-term survival of the species, loss of potential foraging and breeding habitat during mining and reclamation activities would be significant **(Impact BIO-3b)**. **Direct impacts to nesting individuals would be considered potentially significant (Impact BIO-3c)**. Following reclamation, the Project would provide additional, higher quality habitat for the species through the revegetation of the expanded Sweetwater River floodplain.

Merlin

Merlin, a CDFW Watch List and County Group 2 species, was not observed within the Project site but was determined to have a high potential to occur based on the presence of suitable overwintering and foraging habitat and documented occurrences within the Project vicinity. This species is an uncommon winter visitor in southern California occurring within San Diego from October to March (Unitt 2004); it does not breed in San Diego region. As such, the Project would not result in impacts to suitable breeding habitat or breeding individuals.

The Project would result in impacts to potential overwintering and foraging habitat for the species; however, however, suitable wintering and foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for use. Additionally, large areas of foraging habitat for the species are present within preserved habitat in the local area, including the SDNWR, and existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion

of the site along Sweetwater River would be avoided by Project's BOS providing suitable foraging habitat for the species. Temporal loss of potential wintering and foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Therefore, the Project would not adversely affect the long-term survival of the species, which is known to occur within adjacent preserved lands.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential wintering and foraging habitat during mining and reclamation activities would be considered potentially significant (Impact BIO-3b)**.

Western Bluebird

Western bluebird, a County Group 2 MSCP covered species, was observed in multiple locations throughout the Project site. The Project would impact the golf course where this species is known to forage and would remove trees suitable for nesting. However, foraging and breeding opportunities for the species would remain during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible to the species. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable nesting and foraging habitat for the species. Temporal loss of potential nesting and foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive habitat for the species is already preserved throughout the region and within the SDNWR in the local area. Therefore, the Project would not adversely affect the long-term survival of the species, which is known to occur within adjacent preserved lands.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential foraging and breeding habitat during mining and reclamation activities would be significant (Impact BIO-3b)**. **Direct impacts to nesting individuals would be considered potentially significant (Impact BIO-3c).**

Monarch Butterfly

A single monarch butterfly, which is a County Group 2 species, was observed flying through the Project site. This species is expected to migrate through the region but is not expected to roost on the site due to its inland location. This species is expected to migrate through the region but is considered unlikely to roost within the Project site due to its location away from the coast. Thus, while the species may fly through the site and use nectar resources, the site does not provide larval habitat or overwintering roosts.

The Project would impact 4.38 acres of potential habitat for this species comprised of 1.7 acres of non-native woodland, 2.1 acres of eucalyptus woodland, and 0.58 acre of riparian habitat. However, potential habitat for the species would remain during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for the species. Additionally, existing stands of native riparian habitat to the east of Steele Canyon

Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable habitat for the species. Temporal loss of potential habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive habitat for the species is already preserved throughout the region and within the SDNWR in the local area. Therefore, the Project would not adversely affect the long-term survival of the species, which is known to occur within adjacent preserved lands.

Though the Project would not adversely impact the local long-term survival of the species, **loss of potential habitat during mining and reclamation activities would be considered a significant impact (Impact BIO-3b)**.

Belding's Orange-throated Whiptail

Belding's orange-throated whiptail, a CDFW Watch List, County Group 2, and MSCP covered species, was observed in the eastern and northeastern portions of the Project site. The Project would impact 1.2 acres of suitable Diegan coastal sage scrub habitat for the species (Figure 2.2-8). However, patches of habitat for the species would remain during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for foraging. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable habitat for the species. Temporal loss of potential habitat during mining and reclamation activities would not adversely affect the local long-term survival of this species. Furthermore, extensive habitat for the species is already preserved throughout the region and within the SDNWR in the local area. Therefore, the Project would not adversely affect the long-term survival of the species, which is known to occur within adjacent preserved lands.

Though the Project would not adversely impact the local long-term survival of the species, **loss of suitable habitat during mining and reclamation activities would be considered potentially significant (Impact BIO-3b)**. Following reclamation, the Project would provide additional, higher quality habitat for the species through the creation of graded slopes planted with coastal sage scrub along the cut slopes constructed at the margins of the expanded Sweetwater River floodplain.

Small-footed Myotis

Small-footed myotis, a County Group 2 species, was detected within the eastern portion of the Project site. The species likely utilizes the site for foraging and has the potential to roost within trees and buildings present within the Project site. As such, the Project would result in impacts to potential foraging and roosting habitat for the species. However, suitable roosting and foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for roosting and foraging opportunities. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along the Sweetwater River would be

avoided by Project activities and preserved within the Project's BOS providing suitable roosting and foraging habitat for the species. Temporal loss of potential roosting and foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive roosting and foraging habitat for the species is already preserved throughout the region within the SDNWR and other open space areas located in the Project vicinity.

Though the Project would not adversely impact the local long-term survival of the species, **impacts to potential bat foraging and roosting habitat are considered potentially significant (Impact BIO-3b)**. Additionally, **direct impacts to roosting bats would be potentially significant (Impact BIO-3d).** Following reclamation, the Project would provide additional, higher quality habitat for the species through revegetation and restoration of the expanded Sweetwater River floodplain.

Yuma Myotis

Yuma myotis, a County Group 2 species, was detected within the western and eastern portions of the Project site. The species likely utilizes the site for foraging and has the potential to roost within trees and buildings present within the Project site. As such, the Project would result in impacts to potential roosting and foraging habitat for the species. However, suitable roosting and foraging habitat would remain on site during mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for roosting and foraging opportunities. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along the Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable roosting and foraging habitat for the species. Temporal loss of potential roosting and foraging habitat during mining and reclamation activities would not affect the local long-term survival of this species. Furthermore, extensive roosting and foraging habitat for the species is already preserved throughout the region within the SDNWR and other open space areas located in the Project vicinity.

Though the Project would not adversely impact the local long-term survival of the species, **impacts to potential bat foraging and roosting habitat are considered potentially significant (Impact BIO-3b)**. Additionally, **direct impacts to roosting bats would be potentially significant (Impact BIO-3d).** Following reclamation, the Project would provide additional, higher quality habitat for the species through revegetation and restoration of the expanded Sweetwater River floodplain.

The Project would result in less than significant or no impact to the following species under the above guidelines for the stated reasons:

Singlewhorl Burrobush (Guideline 3)

Singlewhorl burrobrush is a CRPR 2B.2 species. Singlewhorl burrobrush was not detected within the Project site during rare plant surveys conducted in 2019 and 2022, but the Project would result in impacts to 1.14 acres of wetland habitat and 1.2 acres of Diegan coastal sage scrub with the

potential to support the species. However, **impacts to singlewhorl burrobrush would be less than significant** as the species was not found to occur within the Project site and the small amount of potential habitat that would be impacted would not support a significant population of the species.

Arroyo Toad (Guideline 4)

The Project site contains potentially suitable breeding, aestivation, and foraging habitat for arroyo toad; however, no arroyo toads were detected within or adjacent to the Project site during protocol level surveys in 2019. The Sweetwater River is within the historical range of the species, but the river and associated floodplain within the region have been heavily modified by development, including the Singing Hills Golf Resort and rural residences upstream of the Project site. Furthermore, the hydrological regime of the river has been substantially altered by the creation of artificial impoundments including Loveland Reservoir upstream and Sweetwater Reservoir downstream of the site. The Sweetwater dam was constructed in 1888 and the Loveland dam was built in 1945, both of which are operated by the Sweetwater Authority and control releases of water to downstream areas.

Potentially suitable habitat within the Project site has been heavily degraded by the development of the golf course and previous mining activities. These disturbances have resulted in the removal and conversion of riparian habitat to turf grass throughout most of the Project site, along with the realignment and constriction of the river channel. Therefore, potentially suitable habitat for arroyo toad is now restricted to a single stand of riparian habitat in the southwestern portion of the Project site, and although this area has been subjected to past disturbances, it connects to more extensive, higher quality habitat off site within the SDNWR. The species is not expected to occupy the Project site as toads have not been detected south of Sloan Canyon Road, located over five miles upstream of the site, since 1997 (USFWS 2014; USGS 2005), and focused arroyo toad surveys conducted within the SDNWR, which occurs east and immediately west of site, were negative (Martin 2005). Furthermore, focused arroyo toad surveys were conducted within the Project site by the USGS in 2003, during which no arroyo toads were observed (USGS 2005). Although it is possible that toads may repopulate the reach of the Sweetwater River south of Sloan Canyon Road in the future, it is currently unlikely that a self-sustaining population of arroyo toads persists in the local area.

The Project site does not contain habitat critical to the survival of this species and the reach of river within the Project site is currently considered unoccupied by this species given the lack of observations in the area for several years, including during the 2019 protocol surveys conducted for the Proposed Project. Since arroyo toad was not found to occur within the Project site, **impacts to potentially suitable arroyo habitat would be less than significant**.

Golden Eagle (Guideline 5)

The Project site does not contain suitable nesting habitat for golden eagle and the site is not within a known golden eagle territory. The site does not contain adequate eagle foraging habitat as it is a developed and abandoned golf course which has historically been subjected to human visitation and disturbances. Golden eagles are less tolerant of development and areas associated with high amounts of human visitation and are known to avoid these areas. Golden eagles are occasional visitors to the SDNWR; however, no known active nest sites occur within 4,000 feet of the Project

site. The closest golden eagle nest is the San Miguel Mountain pair, which nests over eight miles to the southeast of the site. A prime foraging area for this pair is the area around Sweetwater Reservoir, west of the Project. The Project would not impact golden eagle habitat or a known golden eagle territory, and the site does not contain suitable foraging habitat for the species based on current and past commercial uses. **Therefore, impacts to golden eagle habitat would be less than significant.**

Raptor Foraging Habitat (Guideline 6)

The Project site consists of an active and abandoned golf course, which has historically been subjected to frequent human visitation and ongoing disturbances related to golf course operations, such as regular mowing, irrigation, and pest management. In its current state, the Project site provides relatively low- to moderate- quality foraging opportunities for common raptors that are resident and migratory to the region. Although the Project site provides some function and value for raptor foraging, it has been a golf course for decades and has likely not functioned as a local or regional foraging resource of importance for raptors considering that species observed within the Project site are known to be tolerant to urbanization and other disturbances. Other more expansive areas occur in the local area and region that provide foraging habitat, such as the SDNWR to the south and west, and McGinty Mountain Ecological Reserve to the east. Although the Project would result in the temporary loss of potential foraging habitat within subphases that are being actively mined, potential foraging opportunities for raptors would remain available in portions of the site outside of the active subphase. Since mining and reclamation activities as mining would occur incrementally in 20- to 30-acre subphases, the majority of the site would remain either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for foraging throughout the mining period. As such, the temporal loss of potential raptor foraging habitat during mining and reclamation activities would not affect the local long-term survival of raptors within the local area. **Impacts to raptor foraging habitat would be less than significant.**

Core Wildlife Areas (Guideline 7)

The extreme southwestern and southeastern portions of the Project site are located within designated Sweetwater Reservoir/San Miguel Mountain/Sweetwater River and McGinty Mountain/ Sycuan Peak-Dehesa BRCAs, respectively. However, these areas are highly degraded and fragmented by development of the golf course. The Project site is identified as a linkage between core areas in the MSCP, and small portions of the site are identified as PAMA (16.4 acres). The Project site mainly consists of an existing golf course which lacks adequate vegetative cover preferred by many species for use of an area as a corridor. The on-site reach of the river is narrow and mostly devoid of native riparian habitat (except in the southwest where it connects directly to off-site conserved lands), and the Project site is fenced in many locations, with both historic and ongoing human-related disturbances spanning several decades. Though its current function is likely constrained by the site's historic and ongoing human-related disturbances associated with the golf course development, ongoing maintenance, and operations, local wildlife still utilizes the site for foraging and dispersal activities, and the location of the Project site along the Sweetwater River and between two MSCP core areas gives it high restoration potential that could significantly increase the function and viability of the linkage.

Extraction activities would temporarily impact the low-functioning linkage; however, mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for wildlife use. Additionally, existing stands of native riparian habitat to the east of Steele Canyon Road and in the southwestern portion of the site along the Sweetwater River would be avoided by Project activities and preserved within the Project's BOS providing suitable nesting and foraging habitat for wildlife species. As such, temporal impacts to these areas during mining and reclamation activities would be less than significant as any wildlife temporarily displaced by activities would be anticipated to reoccupy the area once the activities had concluded and impacts.

The Project would result in direct impacts to lands mapped as BRCA and PAMA and would impact sensitive habitats present in these areas found to support, or with the potential to support, special status wildlife species. **Impacts to sensitive habitats and wildlife species within the BRCA would be considered potentially significant (Impact BIO-4)**. As part of the reclamation process the Project would ultimately contribute 150.7 acres of preserved, rehabilitated, and restored habitat to the linkage through placement of these areas within a BOS easement (Figure 2.2-9, *Proposed Open Space*). This BOS includes lands mapped as BRCA and PAMA and would restore and improve the connection of the riparian corridor along the Sweetwater River to off-site areas within the SDNWR providing important foraging, dispersal, breeding, and migratory habitat for several special status animals including the coastal California gnatcatcher and least Bell's vireo. The open space will be managed in accordance with a County-approved Resource Management Plan (RMP) to ensure preservation of native habitats and long-term management of the preserve. As such, the Project would have a less than significant effect on the viability of a core wildlife area with the implementation of mitigation**.**

Indirect Impacts/Edge Effects (Guideline 8)

Indirect impacts are actions that are not direct removal of habitat but affect the surrounding biological resources either as a secondary effect of the direct impacts (e.g., construction noise, runoff, nighttime lighting, fugitive dust, etc.), or as the cause of degradation of a biological resource over time (e.g., edge effects and adjacency issues). Potential significant indirect impacts may occur as a result of Project implementation, as described further below.

Noise

Construction noise from sources related to clearing, grubbing, grading, and extraction and processing activities would temporarily impact wildlife. Construction of the processing plant, aggregate extraction, and processing operations would require the daily use of heavy equipment that would elevate existing noise levels on site. Breeding birds and mammals may temporarily or permanently leave their territories to avoid disturbances from human activities, which could lead to reduced reproductive success and increased mortality. Potential short-term noise impacts could result from the proposed mining and reclamation of the site. Impacts would occur incrementally, meaning that not all areas would be impacted at once as mining activities would begin within Phase 1 and generally progress eastward following completion of earlier phasing. For example, as activities occur within subphase 1A, habitat within subphase 1B (and later phases) would not be impacted. **Noise effects would be considered potentially significant if noise levels generated during construction and/or extraction operations exceed a level of 60 A-weighted decibels**

(dBA) hourly average (L_{EQ}) or ambient (whichever is greater) adjacent to sensitive nesting bird species such as California gnatcatcher, least Bell's vireo, and raptors (Impact BIO-5).

Lighting

Night lighting that extends from a developed area onto adjacent wildlife habitat can discourage the use of the habitat by nocturnal wildlife and can also provide nocturnal predators with an unnatural advantage over their prey, resulting in a potentially significant impact. However, the Proposed Project is required to direct all necessary lighting in a downward direction with appropriate shield and illumination technology to prevent adverse spillover of light. The only proposed night lighting would be installed around the processing plant for security purposes. Sand excavation and processing would only occur between 7:00 a.m. and 5:00 p.m. Therefore, no lighting associated with night work would occur. All Project-related lighting would be required to adhere to Division 9 of the San Diego County Light Pollution Code. Lighting within the Proposed Project footprint adjacent to undeveloped habitat (including reclaimed areas) would be of the lowest illumination allowed for human safety, and would be selectively placed, shielded, and directed away from these areas. As such, **indirect impacts related to lighting would be less than significant.**

Fugitive Dust

Fugitive dust produced by construction and extraction operations has the potential to disperse onto preserved vegetation, which may reduce the overall vigor of individual plants by reducing their photosynthetic capabilities and increasing their susceptibility to pests or diseases. This in turn could affect animals dependent on these plants. Fugitive dust also may make plants unsuitable as habitat for insects and birds. Breeding birds and mammals may temporarily or permanently leave their territories to avoid construction and/or extraction operations, which could lead to reduced reproductive success and increased mortality. As a project design feature, the Project would implement a Fugitive Dust Control Plan (refer to Appendix I of this EIR) during construction (as well as during operations and reclamation activities) that would include fugitive dust control measures to minimize dust emissions and meet applicable dust control requirements. As part of the Proposed Project, active construction and extraction areas, unpaved surfaces, and stockpiles would be watered to minimize dust generation; all exposed soil would be watered a minimum of twice per day. Outgoing loaded trucks would be surface watered for dust suppression purposes and would either be covered or two feet of freeboard would be maintained. **Indirect impacts related to fugitive dust would be less than significant.**

Human Activity

Increases in human activity in the area could result in the degradation of open space habitat and associated indirect impacts on sensitive species through the creation of unauthorized trails and removal of vegetation. The eastern portion of the Project site currently consists of active and abandoned golf courses which have been historically subject to light to moderate human activity related to golf play and maintenance activities. Though the western portion of the Project site has been closed to golf play since 2017, the area is still periodically mowed and subject to unauthorized recreational uses (e.g., off-leash dogs, hikers and joggers, fishing, etc.), as well as the presence of unhoused people, resulting in disturbances from light to moderate human activity in this area.

Additionally, aggregate extraction activities have occurred periodically within the site since the 1950s.

Following approval of the MUP, golf play within the Project site would cease. Public access during mining and reclamation activities would be controlled by fencing on the perimeter of the property and gates on the access roads within the Project boundaries. In addition, appropriate signage would be posted around the perimeter of the excavation area and Project boundary at 150-foot intervals. Most of the Project site is already surrounded by fencing, which would be replaced/repaired where missing or damaged. The access gates would be locked during non-operating hours. Following mining activities, the Project site would be reclaimed, restored, and revegetated habitat would be preserved within open space, and a multi-use trail system would be constructed. **Potentially significant direct and indirect impacts could occur to BOS, and sensitive habitats and species present in these areas, if protective measures are not implemented to control human access into open space areas (Impact BIO-6)**. Permanent fencing and signage would be installed at the edge of open space and along on-site trails to prevent unauthorized access to sensitive habitat areas. The proposed trails would only be available for day use and are anticipated to be used primarily by residents of the immediate area. As the site is already subjected to human uses, the Proposed Project would not represent a substantial increase in human activity and would provide protections for sensitive habitat areas that are not currently in place.

Domestic Predators

The Project site is adjacent to existing residential development and is already subject to some level of disturbance and predation by domestic animals from adjacent lands. Domestic predators (e.g., dogs and cats) have the potential to harm native wildlife species. For example, free-roaming cats are known to injure and/or kill native wildlife, and are of particular threat to small animals, including lizards, birds, and small rodents, while off-leash dogs can be a nuisance to wildlife, resulting in changes in wildlife behavior such as alteration in patterns of habitat utilization, or damage to burrows of ground-dwelling animals. Implementation of the Proposed Project would not result in increased potential for encounters between cats and native wildlife as no residential development is proposed as part of the Project. Hiking trails, however, are proposed to be constructed along the perimeter of the open space, which would likely increase the presence of domestic dogs within the Project site. Effects of off-leash dogs on wildlife would be minimized through the installation of permanent fencing and signage along the edge of the open space and trail system and requiring dogs to be on leash. Trails that occur adjacent to or cross the open space would be fenced on either side, which would further discourage off-leash dogs from leaving the trail. Trails would not be lit and are considered unlikely to be used by people walking dogs during the night, thus minimizing encounters with nocturnal wildlife. **Indirect impacts related to domestic predators would be less than significant.**

Exotic Plant Species

Non-native plants could colonize areas disturbed by construction and extraction and could potentially spread into adjacent native habitats. Many non-native plants are highly invasive and can displace native vegetation (reducing native species diversity), potentially increase flammability and fire frequency, change ground and surface water levels, and potentially adversely affect native wildlife dependent on native plant species. However, the site is already heavily

infested by non-native vegetation. The Project would include weed control during operations and the reclamation process as described in the Reclamation Plan (EnviroMINE 2021a), with a focus on highly invasive species. The occurrence of weeds on site would be monitored by quarterly visual inspection during mine operations and removal would be initiated if the inspection reveals that weeds have become, or are becoming, established. The Project includes restoration and rehabilitation of existing riparian habitat within the southwestern portion of the site, revegetation of the expanded Sweetwater River floodplain, and constructed cut slopes at the margins of the expanded floodplain with native riparian and upland habitats. Further, graded pad areas located outside of the expanded floodplain would be revegetated with native or non-invasive plant species that would also minimize the chance for colonization and spread of invasive species into the open space. Successful completion of site reclamation and native restoration and revegetation areas would require achieving success criteria that include the amount of non-native cover on site. Additionally, only non-invasive plant species would be included in the landscape plan for the site (species not listed on the California Invasive Plant Inventory prepared by the California Invasive Plant Council [Cal-IPC; 2020]). Therefore, **indirect impacts related to exotic plant species would be less than significant**.

Occupied Burrowing Owl Habitat (Guideline 9)

The Project site consists of a developed and an abandoned golf course which have historically been subjected to on-going disturbances such as mowing and human visitation. The Project site is also characterized by highly sandy and friable soils which are not suitable for burrowing owls. As such, the site does not support suitable burrowing owl habitat and no burrowing owl or burrowing owl sign was detected within the site during biological surveys. As such, **the Project would have a less than significant impact on burrowing owl.**

Occupied Coastal Cactus Wren Habitat (Guideline 10)

The Project site does not contain suitable habitat (i.e., cacti thickets) for the coastal cactus wren. As such, **the Project would have a less than significant impact on cactus wren.**

Occupied Hermes Copper Butterfly Habitat (Guideline 11)

The Project site does not support Hermes copper butterfly habitat. The species' host plant, spiny redberry (*Rhamnus crocea*), was not observed within the Project site. Therefore, this species is not likely to occur, and **the Project would have a less than significant impact on the Hermes copper butterfly**.

Nesting Success (Guideline 12)

Project construction could impact the nesting success of coastal California gnatcatcher, least Bell's vireo, and tree-nesting raptors, all of which have the potential to nest on and/or within 500 feet of impact areas. **Removal of vegetation during the breeding season could result in significant direct impacts to nesting coastal California gnatcatcher (Impacts BIO-1b and BIO-2d), least Bell's vireo (Impacts BIO-1d and BIO-2d), and tree-nesting raptors (Impacts BIO-2c and BIO-2d)**. Noise from such sources as clearing, grading, and mining and reclamation activities could result in a potential significant indirect impact to wildlife. Noise-related impacts would be considered significant if sensitive species (such as coastal California gnatcatcher, least Bell's

vireo, and raptors) were displaced from their nests and failed to breed. **If construction or mining activities would be initiated within 500 feet of suitable habitat during the breeding seasons for California gnatcatcher (March 1 to August 15), nesting raptors (January 15 to July 15), or least Bell's vireo (March 15 to September 15), indirect noise effects would be potentially significant (Impact BIO-5).**

2.2.2.2 *Riparian Habitat and Sensitive Natural Communities*

Guidelines for the Determination of Significance

A significant impact to riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by the CDFW would occur if:

13. Project-related grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as identified in Table 5 in the County Guidelines for Determining Significance – Biological Resources, excluding those without a mitigation ratio) on or off the Project site.

14. Any of the following would occur to or within jurisdictional wetlands and/or riparian habitats as defined by USACE, CDFW, and County: removal of vegetation; grading; obstruction, or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

15. The Project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.

16. The Project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive habitats over the long term.

17. The Project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010a).

Analysis

Vegetation Communities/Habitats (Guideline 13)

The majority of Project impacts would be restricted to disturbed habitat and developed land currently occupied by the Cottonwood Golf Club. The Project would result in impacts to a total of

2.34 acres of riparian habitat or other sensitive natural communities, as shown in Table 2.2-5, *Project Impacts to Vegetation Communities/Habitat Types* and Figure 2.2-8, including 0.55 acre of disturbed wetland (Tier I), 0.44 acre of southern cottonwood-willow riparian forest (including disturbed, Tier I), 0.13 acre of southern willow scrub, 0.01 acre of tamarisk scrub, 0.01 acre of arundo-dominated riparian (Tier I), and 1.2 acres of Diegan coastal sage scrub (including disturbed, Tier II). **Impacts to sensitive natural communities would be considered potentially significant (Impact BIO-7). Potentially significant indirect impacts to riparian habitat or other sensitive vegetation communities could occur through inadvertent intrusion into these adjacent areas by construction vehicles, equipment, and personnel (Impact BIO-8).**

Jurisdictional Wetlands/Waters (Guideline 14)

As addressed under County Guideline 13, the Project would result in impacts to jurisdictional wetlands and riparian habitats as defined by the USACE, CDFW, and/or County. Impacts to jurisdictional wetlands and riparian habitat would occur through mining and reclamation activities. However, mining would not result in direct impacts to the existing Sweetwater River low-flow channel as the channel would be maintained with banks up to 3.5 feet in height in order to retain existing hydrologic characteristics and maintain water transfers operated by the Sweetwater Authority. In addition to Project impacts related to extraction and other ground disturbance activities, up to three temporary river crossings would be utilized to transport heavy equipment across the Sweetwater River low-flow channel during mining operations. Channel crossings would only be used when there is no water flow in the channel. An operating procedure would be established to maintain communication with Sweetwater Authority prior to, and during, water transfers to ensure channel crossings during water flows are avoided. Permanent Project impacts to jurisdictional wetlands would include the construction of three permanent grouted rip-rap drop structures within the expanded Sweetwater River floodplain. Two drop structures would be located along the constructed upland slopes bordering the expanded floodplain: one at the eastern of the site where the Sweetwater River enters the property along the eastern, western-facing slope; and one east of Steele Canyon Road along the southern, north-facing slope where Mexican Canyon Creek flows into the Sweetwater River. These drop structures would protect the slopes against upstream head cutting. A third structure would be located perpendicular to the Sweetwater River on the west side of the Steele Canyon Road bridge and would prevent head cutting of the channel during infrequent, high flow events.

As shown in Table 2.2-6, *Impacts to Jurisdictional Wetlands and Waterways*, impacts to jurisdictional waters and wetlands include 0.60 acres of wetland and 0.36 acre of non-wetland waters of the U.S. (Figure 2.2-10, *Waters of the U.S./Impacts*), 18.20 acres of CDFW jurisdictional areas (including 0.44 acre of southern cottonwood-willow riparian forest, 0.002 acre of freshwater marsh, 0.13 acre of southern willow scrub, 0.56 acre of disturbed wetland, 0.01 acre of arundo-dominated riparian, and 17.06 acres of streambed) (Figure 2.2-11, *CDFW Jurisdictional Areas/Impacts*). **Impacts to jurisdictional waters and wetlands would be considered potentially significant (Impact BIO-9).**

The Proposed Project would also impact 1.14 acres of County RPO wetland (Table 2.2-6; Figure 2.2-12, *County RPO Wetlands/Impacts*); however, the Project is exempt from RPO requirements pursuant to Section 86.605(d) of the RPO, as described above in Section 2.1.1.1 in the local regulatory framework under *Resource Protection Ordinance*, and evaluated in more detail

below in Section 2.1.2.5, *Local Policies, Ordinances, and Adopted Plans*, under *County RPO Wetlands (Guideline 27)* in Section 2.1.2.5. The Project would be conditioned as required by the RPO to restore wetland buffer areas and provide a net gain in functional wetlands and riparian habitat that would be conserved in open space post reclamation. No steep slopes occur on site or would be created as a result of mining activities. The final landform is proposed to be a relatively flat plain that gently slopes downward from east to west, with a widened river channel bisecting the length of the site. Graded slopes along the widened Sweetwater River floodplain would be revegetated with coastal sage scrub. Mature riparian woodland[2] would not be destroyed or reduced in size due to sand, gravel, or mineral extraction. The Proposed Project would not destroy or reduce the size of mature riparian woodland habitat. Therefore, **impacts to County RPO wetlands would be less than significant.**

Mining and reclamation activities would involve ground disturbance, movement of earth material, and use of heavy equipment which have potential to impact on-site and off-site jurisdictional wetlands and riparian habitat through alteration of the Sweetwater River floodplain and associated drainage patterns. These impacts were determined to be less than significant as detailed in the Project's Drainage Study (Chang Consultants 2022), which completed hydraulic models and compared existing and post-Project conditions to evaluate the effects of the proposed mining and reclamation activities on flood conveyance through the Project site, the findings which are summarized below.

Though the Project would impact the jurisdictional wetlands and riparian habitat during mining and reclamation, the bottom of the current Sweetwater River low-flow channel would not be altered. Extraction activities would be set back at least five feet from the outer edge of each side of the existing low-flow Sweetwater River channel. Mining activities proposed during the rainy season (November through March) would be located away from the river channel to the extent feasible. The existing 3.5-foot-high channel banks would remain in place and continue to accommodate water transfers along its current path during the various mining phases. The maximum 358 cfs transfer flow rate along with concurrent historic levels of precipitation would be accommodated by the Project within this existing channel. This would prevent capture of the water transfer in the extraction areas and preserve the Sweetwater Authority's ability to transfer water from Loveland Reservoir to Sweetwater Reservoir. The post-reclamation condition of the site also would retain the low-flow river channel in its current alignment, but with an expanded floodplain that be slightly higher in elevation than the low-flow channel. In terms of larger flow events, hydrologic modeling indicates that large flood events such as 100-year floods would extend outside the channel across the floodplain in the post-reclamation condition, similar to the existing current condition. As such, the Proposed Project **would have a less than significant impact on flow rates within the Sweetwater River channel**.

Extraction pits that are temporarily created during excavation activities would be progressively backfilled. The final landform of the Project site post-reclamation would be a relatively flat plain that gently slopes downward from east to west, with an expanded floodplain bisecting the length of the site. The expanded floodplain is expected to average approximately 450 to 720 feet in width and would be slightly higher in elevation than the existing low-flow river channel. Slopes

[2] Mature riparian woodland is defined in the RPO as "a grouping of sycamores, cottonwoods, willows, and/or oak trees having substantial biological value, where at least ten of the trees have a diameter of six inches or greater."

bordering the expanded floodplain would slope up at a 3:1 ratio or shallower with an elevation difference of up to 25 feet between the top of slope and bottom of the expanded floodplain. The expanded floodplain would improve the site's ability to accommodate both natural flows and high flows during storm events and would dissipate water energy during large storm events. As such, the Proposed Project would not result in increased velocities and peak flow rates exiting the Project site and would not cause downstream flooding. Furthermore, restored and revegetated wetland and riparian habitat would reduce the velocity of water flow, and the expanded floodplain would allow peak flows to extend outward from the existing low-flow channel during overtopping events increasing the carrying capacity and minimizing long-term erosion and sedimentation from the site. In addition, by retaining the existing low-flow channel within the site, there would be no changes to the location or geometry or the main channel. Further, the primarily non-vegetated low-flow channel adjacent to the current and previous golf course areas transitions to a natural channel stretching from the west end of the Project site to approximately 2,300 linear feet upstream in the Project site. This on-site reach of river is within a densely vegetated riparian corridor that merges with the wider riparian corridor immediately off site within the SDNWR. Thus, topography within the SDNWR downstream of the Project site is not anticipated to be altered as no changes to the low-flow channel are proposed and the post-reclamation condition would connect to existing riparian habitat in SDNWR that is wider than existing and proposed habitat on the Project site. Therefore, the Project **would have a less than significant impact on downstream waters and habitats including those within the SDNWR**.

The Project's Drainage Study determined that the 100-year flow of the on-site reach of the Sweetwater River would be the same under existing and post-reclamation conditions. Therefore, the Proposed Project would not create adverse flooding impacts within the Sweetwater River or off-site areas. Additionally, the 100-year flow velocities within the Project site would generally be low and are considered non-erosive. Velocities over six feet per second (fps) are typically considered erosive. The proposed velocities within the site at the completion of mining are less than six fps, except adjacent to the existing Steele Canyon Road crossing of the channel. However, grouted rip-rap would be installed in this location to prevent erosion associated with upstream headcutting on site. Grouted rip-rap would also be installed at the northeast end of the Project site along the upstream bank of the mining area to prevent upstream headcutting and creation of knickpoints off site to the northeast of the Project. The rip-rap would act as a grade control structure that prevents vertical erosion along the upstream channel, including along the McGinty Mountain Ecological Reserve and upstream private road crossings. Hydraulic modeling was conducted that included the rip-rap grade control structures and determined that the rip-rap would withstand the 100-year flow velocities. Further, to help ensure that the rip-rap is functioning as designed in preventing the formation of headcuts and knickpoints, the mining operator would perform routine inspections during ongoing mining and provide additional erosion protection measures and maintenance, as needed, and as documented in the SWPPP. Therefore, **the Project would have a less than significant impact on the on-site and off-site 100-year floodplain.**

Backfill operations, including those where groundwater is present, would be conducted in a manner so as to reduce the possibility of void space in the lower layers that could settle over time and result in depressions on the floodplain. Approximately 2.5 million cubic yards of material would be imported to the site to meet backfill requirements. This material would consist of excavated soil material from development projects, clean demolition materials, and possibly concrete, asphalt, and rock. The Project would be conditioned to only accept materials suitable for

the end use of the site. To reduce the possibility of void space, excavated pits would be limited to five acres in size and backfilled with wash fines, overburden, and imported materials prior to expanding the pit size. Mined-out pit areas would be backfilled to an elevation above groundwater level as the mining phases advance. In areas where excavation extends below the water table, an excavator would be utilized for pit excavation; dewatering would not be required. Backfilling activities will comply with the California Department of Natural Resources Recycling and Recovery regulations as well as State Water Resources Control Board Waste Discharge Regulations. If necessary, geotechnical oversight of backfilling operations would occur and could include compaction testing during grading, or other means to verify the adequacy of backfilling materials and methods.

Potential impacts to on-site and off-site jurisdictional wetlands and riparian habitat resulting from erosion, sedimentation, and Project run-off would be less than significant through compliance with current federal, State, and local regulations as detailed in the Project's Stormwater Quality Management Plan (Chang Consultants 2022), Groundwater Investigation Report (Geo-Logic Associates 2021), Sediment Load Analysis (Geo-Logic Associates 2022a), and Water Quality Evaluation Report (Geo-Logic Associates 2022b) and summarized below.

The Project would prepare and submit Storm Water Pollution Prevention Plan (SWPPP) prior to the commencement of construction activities. Best Management Practices (BMPs) to control runoff and prevent erosion and the discharge of sediment to surface waters would be implemented during all Project phases. Erosion control measures may include, but are not limited to, monitoring soil movement, arresting gullies or rills using straw mulch and hay bales, and installing silt fencing, compacting soils with equipment, and re-grading as necessary. During mining activities, silt fencing would be installed five feet from the outer edge of each side of the existing low-flow Sweetwater River channel, and other areas as needed. Temporary de-siltation basins would be established within the Project site to capture runoff from existing culverts within Willow Glen Drive and to prevent sediment from leaving the site while allowing water to pass through to existing drainage features. Runoff would be directed from the disturbed mining and reclamation areas towards these basins, as necessary, to allow for de-siltation and infiltration. The Project would not result in a substantial increase in impervious surfaces. Stormwater runoff from the new impervious surfaces on Willow Glen Drive would be directed along the southerly curb of Willow Glen Drive and conveyed into tree wells just south of the roadway, thus limiting potential for erosion and siltation.

Based on the results of the studies discussed above, **indirect impacts to critical habitat up or downstream of the Presulting from potential changes in hydrology would be less than significant**.

Potentially significant indirect impacts to adjacent jurisdiction waters and wetlands could occur through inadvertent intrusion into these adjacent areas by construction vehicles, equipment, and personnel (Impact BIO-10).

Groundwater table (Guideline 15)

Eight groundwater wells currently occur on the Project site and are used to provide irrigation water for the existing golf course and to fill the man-made ponds. The existing groundwater use by the

Cottonwood Golf Club is conservatively estimated to be approximately 803.6 acre-feet per year based on pump ratings and irrigation schedules (EnviroMINE 2021b). The existing wells would be used to provide water for mining operations, but consumption would be substantially reduced. The Project's estimated water usage is estimated at 139.9 acre-feet annually at the maximum annual production rate of 570,000 tons of construction aggregate, which is a reduction of approximately 663.7 acre-feet per year relative to current golf course consumption (Geo-Logic Associates 2021). Water would be required for the washing operation (90 percent of which would be continuously used and recycled), dust suppression, irrigation of landscaping near the site entrance, and supplemental water for revegetation activities. Water demand estimates for the Project considered irrigation usage and evaporation rates associated with the extraction pits and revegetation of the reclaimed areas. The 139.9 acre-feet per year estimated for the Project's total water consumption represents an 80 percent decrease in the annual groundwater consumption during mining operations than the entire golf club operation (or 60 percent reduction compared to groundwater use for a single course). Therefore, **Project impacts related to ground water drawdown during mining operations would be less than significant**. Ultimately, wells not proposed for use by Sweetwater Authority for groundwater monitoring and/or by the property owner after mining and reclamation are completed would be properly abandoned in accordance with County requirements and standards. It is assumed that six of the wells would be abandoned and two would be left in place.

The post-reclamation condition of the Project would include backfilling of excavation areas, widening of the Sweetwater River floodplain, and restoring and revegetating the channel with wetland/riparian vegetation. The groundwater study prepared for the Project calculated the post-reclamation groundwater use associated with these areas, which accounted for loss due to evapotranspiration, at 337-acre feet per year, which is a reduction of approximately 467 acre-feet per year relative to golf course consumption in the baseline condition with both courses in operation (Geo-Logic Associates 2021). Assuming previously recorded groundwater use with both courses in operation is cut in half to account for closure of the western Lakes Course (i.e., approximately 402 acre-feet per year), this would still represent an annual reduction of approximately 65 acre-feet from current conditions with operation of the eastern Ivanhoe Course. This represents a 16 percent decrease in the annual groundwater consumption in the post-reclamation condition compared to existing consumption related to the current golf club operation (Ivanhoe Course only) and a 58 percent decrease in the annual groundwater consumption with both golf courses operating as permitted and historically used. Therefore, **site reclamation and the proposed native habitat restoration and revegetation would have a less than significant effect on groundwate**r.

The approximate groundwater elevation is 310 feet amsl at the western end of the site and 354 feet amsl at the eastern end of the site, between 10 and 20 feet below the existing ground surface. The groundwater study prepared for the Project determined that pumping would not lower the water table three-feet below the historical low groundwater level as established from available water level data (Geo-Logic Associates 2021). Therefore, **the Project would not exceed the County's three-foot drawdown threshold below the historical low groundwater level for groundwater-dependent habitat and potential impacts would be less than significant.**

Indirect Impacts (Guideline 16)

As discussed above in Guideline 8, potential significant indirect impacts to sensitive habitat resulting from lighting, dust, human activity, domestic animals, and exotic plant species would be avoided through the following project design features: (1) all Project-related lighting would be required to adhere to Division 9 of the San Diego County Light Pollution Code and lighting within the Proposed Project footprint adjacent to undeveloped habitat (including reclaimed areas) would be of the lowest illumination allowed for human safety, and would be selectively placed, shielded, and directed away from these areas; (2) a Fugitive Dust Plan would be implemented during mining and reclamation activities that would include fugitive dust control measures to minimize dust emissions and meet applicable dust control requirements; (3) permanent fencing would be installed around open space, and signs precluding access to areas outside of established trails would be posted (in accordance with mitigation measure M-BIO-14); (4) off-leash pets would not be allowed on trails or public areas and signs would be posted along trails notifying pet owners of this regulation; (5) weed control measures would be implemented during mining and reclamation activities in accordance with the Project's Reclamation Plan, including monitoring the occurrence of weeds on site would be monitored by quarterly visual inspection during mine operations and initiating removal if the inspection reveals that weeds have become, or are becoming, established; and (6) only non-invasive plant species would be included in the landscape plan for the site (species not listed on the California Invasive Plant Inventory prepared by the Cal-IPC [2020]). **Indirect impacts related to lighting, dust, human activity, domestic predators, and exotic plant species would be less than significant. Potential significant indirect impacts from construction noise (Impact BIO-5) are discussed under Guideline 12.**

Wetland Buffer (Guideline 17)

The Proposed Project is exempt from the County's BMO (County 2010b) and RPO (County 2012a) requirements pursuant to Section 86.503(a)(9) of the BMO and Section 86.605(d) of the RPO. Therefore, no wetland buffer is required during the extraction process and **impacts to wetland buffers would be less than significant**. A material part of these exemptions requires reclamation of the site following extraction to restore wetland buffers to protect environmental values of adjacent wetlands. As such, the Project would be conditioned to restore wetland buffer areas and provide a net gain in functional wetlands and riparian habitat that would be conserved in open space post reclamation.

2.2.2.3 *Federal Wetlands*

Guideline for the Determination of Significance

A significant impact to federal wetlands would occur if the Proposed Project would:

18. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.

Guideline Source

This guideline is based on the County Guidelines for Determining Significance – Biological Resources (2010a).

Analysis

As previously stated in Section 2.1.2.2, implementation of the Proposed Project would result in impacts to 0.60 acre of wetland waters of the U.S. and 0.36 acre of non-wetland waters of the U.S. (refer to Table 2.2-6 and Figure 2.2-10). **Impacts to wetland and non-wetland waters of the U.S. would be considered potentially significant (refer to Impact BIO-9).**

2.2.2.4 *Wildlife Movement and Nursery Sites*

Guidelines for the Determination of Significance

A significant impact to wildlife movement or nursery sites would occur if the Proposed Project would:

19. Impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

20. Substantially interfere with connectivity between blocks of habitat or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage.

21. Create artificial wildlife corridors that do not follow natural movement patterns.

22. Increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

23. Not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path.

24. Not maintain adequate visual continuity (i.e., long lines-of-sight) within wildlife corridors or linkages.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010a).

Analysis

Wildlife Access (Guideline 19)

Proposed mining activities would primarily occur within disturbed and developed portions of the Project site already disturbed by golf course development and operations. In addition, mining and reclamation activities would occur incrementally in 20- to 30-acre subphases leaving other, previously disturbed portions of the site, either inactive or in the five-year restoration and revegetation monitoring period, and accessible for wildlife use. Wildlife foraging habitat, breeding habitat, and water sources necessary for reproduction on site generally consists of existing riparian habitat and open water resources located along the Project's southern boundary just east of Steele Canyon Road, and the riparian habitat located in the southwestern portion of the site along the downstream reach of Sweetwater River. These areas would be avoided by mining activities and would be further preserved within the Project's BOS. As such, they would remain available to wildlife during mining and reclamation activities and following Project completion. The patch of riparian habitat located east of Steele Canyon Road is geographically isolated from other habitat areas bounded to the south of residential development, west by roadway, and north and east by the current golf course development. Mining and reclamation activities during Phase 1 would avoid this area leaving it accessible to the north and east by wildlife. Mining and reclamation activities during Phase 2 would occur immediately north of this area temporarily constraining, and possibly impeding, access to this area by land roaming species. However, the area would remain available to other species, including the federally listed least Bell's vireo which was observed in this area during the 2019 and 2022 biological surveys. As such, potential impacts would be less than significant as they would be temporary in nature and habitat would still remain available for use by numerous species. Mining and reclamation activities during Phase 3 and Phase 4 would occur further east and north of this area. Following reclamation of Phase 2, wildlife access to the area would be improved to the north and west by widening of the Sweetwater River floodplain and planting of native riparian and upland vegetation. The downstream reach of Sweetwater River is contiguous with off-site habitats and preserved lands associated with the SDNWR, and the extreme southwestern portion of the Project site abutting the SDNWR would be avoided and preserved within the Project's BOS. Wildlife would be able to move freely in and out of the Project site in these areas. Therefore, the Project would not impede wildlife access to foraging and breeding habitat within these areas. Further, although it provides little vegetative cover across most of the site, the Sweetwater River channel would remain unobstructed throughout the mining period and could be used (most likely at night) by urban-adapted animals, such as coyotes, traveling east-west across the site through the adjacent mining phase. While wildlife access to different portions of the site would be temporarily constrained during each individual subphase, overall access to areas providing suitable foraging and breeding habitat would not be significantly or permanently constrained. As such, **the Project would not impede wildlife access and impacts would be less than significant**.

In addition, following reclamation, the Project would provide additional, higher quality foraging and breeding habitat for wildlife through widening of the Sweetwater River floodplain, which would be revegetated with native riparian and upland habitats and placed within the Project's BOS.

Local and Regional Wildlife Corridors and Linkages (Guideline 20)

The Project would not substantially interfere with the already constrained linkage between the McGinty Mountain/Sycuan Peak-Dehesa BRCA to the east and the Sweetwater Reservoir/San Miguel Mountain BRCA to the west. The Proposed Project is located within a developed golf course that has been maintained and operated since the 1960s. Though golf play within the Lakes Course in the western portion of the site was discontinued in 2017, the area is still regularly mowed and utilized recreationally by the public as evidenced through observations made during the biological surveys. The Project site is predominately characterized by disturbed and developed areas and contains limited vegetative cover to conceal land-traveling wildlife species that would likely move east to west through the Project site. The most common medium-sized mammal species captured by motion-activated cameras deployed was coyote, which is well adapted to urbanized areas. Other medium-sized species detected, such as bobcat, were captured on only a few occasions and were located at the outer edges of the Project site where the southern boundary abuts undeveloped areas and preserved habitat associated with the SDNWR. Mining and reclamation activities would largely avoid these areas and occur within disturbed and developed areas associated with golf course development. Furthermore, mining would occur incrementally in 20- to 30-acre subphases leaving other portions of the site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for wildlife use. As part of reclamation, the Project would preserve, rehabilitate, restore, and revegetate native habitat along the expanded Sweetwater River floodplain. The post-reclamation condition of the Project site would restore and substantially improve functional connectivity of the site and the identified linkage to BRCAs and preserved lands to the east, west, and south of the site. The Project would conform to the goals and requirements of the County Subarea MSCP and BMO, including effects on habitat linkages and wildlife corridors. **Impacts associated with habitat linkages and wildlife corridors would be less than significant.**

Artificial Wildlife Corridors (Guideline 21)

The Project does not create artificial corridors. Wildlife movement functions would continue and be substantially improved on the site under post-Project conditions. Adequate upland scrub and riparian habitat associated with favorable topography and cover for target wildlife would be preserved, rehabilitated, and restored as part of the Project site's reclamation following sand extraction operations. The Sweetwater River floodplain would be widened and planted with native riparian vegetation along the channel bottom and coastal sage scrub along the channel's slopes (Figure 2.2-9). The site is already situated along the path of a constrained linkage and the Project would not introduce significant barriers further separating or fragmenting key habitat stands as discussed above. Rather, the Project would restore and improve functional connectivity of the linkage by re-establishing a riparian corridor connecting existing habitat to the east and west of the site, including to areas preserved within the SDNWR. Proposed mining activities would occur within disturbed and developed portions of the Project site already disturbed by golf course development and operations. The Project would preserve adequate space and resources to conserve existing movement patterns and would result in a beneficial effect on species as a result of the site's proposed reclamation. **No artificial corridors would be created, and no adverse impacts associated with artificial corridors would occur.**

Indirect Effects (Guideline 22)

The Project occurs along the path of a constrained linkage that is already subjected to noise and nighttime lighting impacts associated with operation of the Cottonwood Golf Club. The reach of river traversing the Project site currently has low function as a wildlife corridor as it is narrow, lacks suitable vegetative cover to conceal and facilitate wildlife movement, and is situated within the center of developed golf course operations.

Construction-related noise generated from mining and reclamation activities could temporarily impact wildlife. Mining operations and reclamation activities would require the daily use of heavy equipment that would elevate existing noise levels on site. Wildlife may be temporarily displaced from or avoid the Project site during construction activities but would be expected to return to the area was activities have ceased. The proposed mining and reclamation would occur in 20- to 30-acre subphases across the site, rather than the entire project footprint impacted concurrently. This would allow for wildlife, particularly avian species, to continue to use or occupy portions of the site outside of active work areas. Larger wildlife species, such as mule deer or mountain lion, would already be discouraged from utilizing the Project site based on results of biological surveys and wildlife camera surveys, current golf course activity and lack of vegetative cover along the Sweetwater River. Reclamation activities would begin immediately following mining activities and would generally proceed eastwards with Project phasing. Reclamation of the Project site would include widening of the Sweetwater River floodplain and planting the area with native riparian habitat. Reclamation activities would first occur adjacent to existing riparian habitat along the Sweetwater River channel in the western portion of the Project site, followed by the southern portion of the site adjacent to the SDNWR. As mining activities progress eastward and reclamation is completed, active revegetation areas would provide a buffer between later extraction areas and core areas to the west of the Project site reducing potential project-related disturbances to these areas. Therefore, **potential noise related impacts to wildlife corridors or linkages during mining operations and reclamation activities would be less than significant.**

The final post-reclamation condition of the Project site would include a widened and re-established riparian corridor along Sweetwater River through the center of the site. Noise levels post-reclamation are anticipated to be similar to baseline conditions which range between 52.4 to 77.2 dBA across the Project site (HELIX 2021b). Therefore, **post-reclamation impacts to wildlife corridors or linkages resulting from noise would be less than significant.**

Nighttime lighting is not anticipated to adversely impact the linkage or on-site movement corridors. All Project-related lighting would be required to adhere to Division 9 of the San Diego County Light Pollution Code. Project lighting adjacent to undeveloped habitat (including reclaimed areas) would be of the lowest illumination allowed for human safety, and would be selectively placed, shielded, and directed away from such habitat. **Impact to wildlife corridors or linkages resulting from lighting would be less than significant.**

Adequate Corridor Width (Guideline 23)

The Project would not further constrain existing corridors or linkages in the local area. As discussed above, the Project site occurs along the path of an east-west linkage that is already constrained and fragmented as a result of previous golf course development of the site. The Project

would predominately result in impacts to disturbed and developed areas associated with the golf course development; only 2.34 acres (1.1 percent) of the 211.94 acres of the on-site impacts would occur to native or sensitive habitats at the periphery of those habitats. These impacts would occur in 20- to 30-acre subphases during mining and reclamation activities across the site rather than the entire project footprint impacted concurrently. Portions of the Project site located outside of active work areas would still be available for wildlife access and use, particularly areas of higher biological value with direct connectivity to off-site preserved areas associated within the SDNWR to the west and south of the site. As such, potential impacts would be temporary in nature and reduced to areas of active mining and reclamation grading.

The Project would not include the construction or placement of barriers in any wildlife movement paths. Steele Canyon Road crosses the Project site north to south bisecting the entirety of the east-west linkage; therefore, species that are currently accessing the Project site and crossing below the road will continue to be able to do so following Project implementation. No additional road crossings are proposed as part of the Project.

The Project would not narrow the existing wildlife linkage width. As stated above, the Project would widen the proposed post-reclamation condition of the site would consist of an expanded Sweetwater River floodplain that would be restored and revegetated with wetland/riparian habitat. Graded slopes would be created on either side of the channel and planted with coastal sage scrub. This would increase the width of the existing linkage and restore available vegetative cover that would encourage and adequately conceal wildlife movement within the area. The preserved, rehabilitated, and restored riparian habitat along Sweetwater River would be conserved within open space that directly abuts the SDNWR to the west of Project boundary. Biological open space would follow the path of the river across the entire site, extending approximately 10,040 feet from end to end, with widths varying between 450 feet and 720 feet wide and an overall average width of approximately 600 feet. The Project does not propose additional development following reclamation of the site, though select areas outside of the widened river channel would be available for land uses allowed by the existing land use designation and zoning classification (if approved through a subsequent review process). The Project would restore and greatly improve habitat connectivity and suitability for wildlife through the implementation of the proposed design features and site reclamation and revegetation as described above; therefore, **impacts associated with corridor width would be less than significant.**

Adequate Visual Continuity (Guideline 24)

The Project would not impair visual continuity within corridors or linkages within the local area. The site is currently a developed golf course that lacks sufficient vegetative cover to conceal and encourage wildlife movement through the linkage. The Project would predominantly result in impacts to disturbed and developed areas associated with the golf course development. These impacts would occur in 20- to 30-acre subphases across the site, rather than concurrently impacting the entire Project footprint, during mining and reclamation activities leaving other portions of the Project site either undisturbed or in the five-year restoration and revegetation monitoring period and accessible for foraging. Reclamation of the site would include widening of the Sweetwater River floodplain and planting the area with native wetland/riparian habitat. Reclamation activities would first occur adjacent to existing riparian habitat along the Sweetwater River channel in the western portion of the Project site, and adjacent to off-site preserved areas located within the

SDNWR. As mining activities progress eastward and reclamation is completed, active revegetation areas would provide a buffer between later extraction areas and existing riparian habitat off site improving visual continuity within the linkage.

The Project would also preserve and rehabilitate existing riparian habitat thereby preserving stepping-stone/archipelago habitat for avian species moving through the area. Although 0.58 acre of riparian habitat would be impacted as part of Project implementation, these impacts are on the outer edges of existing habitat and would not adversely affect visual continuity within the wildlife linkage. As part of the proposed reclamation, the Project would increase topographic complexity of the site by establishing a widened Sweetwater River floodplain with bordered graded slopes and elevated graded pads to the north and south. This would create topographic features more favorable to wildlife or target species along the linkage path and would separate the restored riparian corridor from graded pads located outside of the BOS, and roadways and residential development located north and south of the site. The Project would also increase vegetative cover along the river channel providing adequate coverage for wildlife species that would utilize the linkage. As such, the Project would not impair, but would ultimately improve, visual continuity within corridors or linkages in the local area and **visual continuity impacts would be less than significant.**

2.2.2.5 *Local Policies, Ordinances, and Adopted Plans*

Guidelines for the Determination of Significance

A significant impact would occur if the Proposed Project would:

25. Impact coastal sage scrub vegetation within lands outside the MSCP in excess of the County's five-percent habitat loss threshold as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

26. Preclude or prevent the preparation of the subregional NCCP. (If, for example, the Project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.)

27. Impact any amount of wetlands or sensitive habitat lands as outlined in the RPO.

28. Not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Guidelines.

29. Not conform to the goals and requirements as outlined in any applicable HCP, Resource Management Plan, Special Area Management Plan, Watershed Plan, or similar regional planning effort.

30. Not minimize impacts to BRCAs within lands in the MSCP, as defined in the Biological Mitigation Ordinance (BMO).

31. Preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

32. Not maintain existing movement corridors and/or habitat linkages, as defined by the BMO.

33. Not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.

34. Reduce the likelihood of survival and recovery of listed species in the wild.

35. Result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).

36. Result in the take of eagles, eagle eggs or any part of an eagle (Bald and Golden Eagle Protection Act; BGEPA).

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010a).

Analysis

Impact Coastal Sage Scrub in Excess of Five Percent, Preclude/Prevent NCCP, or Not Meet NCCP Requirements (Guidelines 25 and 26)

Implementation of the Project would not preclude or prevent the preparation of the subregional NCCP; the Project is located within the boundaries of the South County MSCP Subarea Plan, which has already been prepared and adopted. The Project would impact 1.2 acres of Diegan coastal sage scrub, all of which would occur within the adopted South County MSCP Subarea Plan. However, all impacts would be mitigated in accordance with the MSCP and BMO. A such, **no NCCP-related impact would occur**.

County RPO Wetlands (Guideline 27)

The Project would directly impact a total of 2.34 acres of riparian habitat or other sensitive natural communities, including 1.14 acres of County RPO wetlands. However, the Proposed Project is exempt from this guideline pursuant to Section 86.605(d) of the RPO. The Project would be required to include the mitigation measures listed under *San Diego County RPO Wetlands* in Section 2.1.1.1, above, as conditions of the Project's MUP. The Proposed Project would comply with these measures as follows:

a. Wetland buffer areas surrounding the Sweetwater River, currently consisting of golf course fairways and greens, would be restored as part of the site's reclamation. The Sweetwater River floodplain would be widened with the channel bottom planted with native riparian habitat and the slopes abutting the river planted with coastal sage scrub. Outside of the river, the other RPO wetland on site is the stand of riparian habitat to the east of Steele Canyon Road. This area is located immediately south of the proposed widened river channel which would be vegetated with native coastal sage scrub and riparian habitat, thereby restoring the wetland buffer area.

b. The site is located within the Sweetwater River floodplain. Reclamation of the site following mining activities would substantially widen the existing Sweetwater River floodplain and revegetate the area with native riparian habitat, resulting in a substantial net gain in functional wetland and riparian habitat.

c. Native vegetation (i.e., coastal sage scrub) shall be used on sloped lands to revegetate and landscape cut and fill areas in order to substantially restore the original habitat value, and slopes shall be graded to produce contours and soils which reflect a natural landform that is consistent with the surrounding area.

d. The site contains southern riparian forest meeting the definition of mature riparian woodland. The Proposed Project would result in impacts to approximately 0.44 acre of southern cottonwood-willow riparian forest located in the southwestern portion of the Project site. Impacts to riparian forest would be limited to the perimeter of existing habitat and would not occur as part of extraction activities. Impacts would occur during site reclamation as part of creation of the widened Sweetwater River floodplain. These impacts are required to maintain proper drainage of the widened floodplain and prevent ponding and erosion where the widened floodplain meets existing riparian habitat within the SDNWR. The impacted area would be restored with native riparian habitat following Project activities as part of site reclamation and Project's proposed mitigation. Therefore, the Project would not destroy or reduce the size of mature riparian habitat. Furthermore, the post-reclamation condition of the Project would result in a substantial increase in riparian habitat through widening and revegetation of the Sweetwater River floodplain. The restored and revegetated riparian habitat, and existing stands of riparian habitat would be preserved within open space following reclamation of the site. As such, the Proposed Project would not destroy or reduce the size of mature riparian woodland habitat.

The Project would conform with conditions (a) through (d) of Section 86.605(d) of the RPO; thus, **the Project is exempt from the RPO and no significant impact would occur**.

Coastal Sage Scrub Habitat Loss (Guideline 28)

The Project would impact 1.2 acres of Diegan coastal sage scrub. The Project is located within the adopted South County MSCP Subarea Plan and the loss would be mitigated in accordance with the South County MSCP Subarea Plan and BMO. **Therefore, impacts associated with coastal sage scrub habitat loss would be less than significant.**

Regional Planning Goals and Conformance/Minimization of Impacts (Guidelines 29 and 30)

The Project occurs within the boundaries of the adopted South County MSCP. The Project would impact a total of 9.8 acres of the 16.4 acres of on-site lands designated as PAMA under the County's Subarea MSCP (County 1997), comprising 60 percent of PAMA mapped within the Project site. However, most Proposed Project impacts within PAMA would be in lands that are in existing disturbed and developed land use categories, which together make up 8.8 acres of impact to on-site PAMA (90 percent of on-site PAMA impacts). Project impacts to sensitive vegetation communities in PAMA total 1.0 acre, representing only 10 percent of on-site PAMA impacts. As shown in Table 2.2-7, *PAMA Impacts Summary*, only 13.5 percent of the sensitive vegetation

communities within PAMA would be impacted, compared to 97.8 percent of the non-sensitive vegetation communities within PAMA.

Additionally, a total of 7.5 acres of lands within the Minor Amendment Area would be impacted, comprised primarily of disturbed habitat (6.6 acres), non-native vegetation (0.3 acre), and developed lands (less than 0.1 acre) associated with inactive portions of the golf course. A small portion of these impacts also include southern cottonwood-willow riparian forest (0.27 acre), disturbed southern willow scrub (0.13 acre), freshwater marsh (0.002 acre), tamarisk scrub (0.01 acre), arundo-dominated riparian (0.01), and disturbed wetland habitat (0.2 acre). The impacted areas would be restored with native riparian habitat following Project activities as part of site reclamation and the Project's proposed mitigation. The remainder of habitat within the Minor Amendment Area would either be left in place in impact neutral areas (4.9 acres) or would be conserved within open space (32.9 acres, including the 6.5 acres of impacted habitat) and would be restored as part of the Project's proposed mitigation.

The Project minimizes impacts to sensitive habitat, PAMA, and Minor Amendment Area to the greatest extent practicable. Impacts to PAMA and the Minor Amendment Area would largely encompass disturbed habitat and developed lands associated with the golf course development. The Project would preserve existing native habitat within open space and would further restore these areas through removal of exotic, invasive species. As required by the MSCP, development within the Minor Amendment Area would require approval from the USFWS, CDFW, and County. Therefore, **the Project would conform to goals and requirements outlined in the County MSCP Subarea Plan, and no significant impact would occur in regard to regional planning efforts.**

The Project minimizes impacts to BRCA in accordance with the MSCP and BMO. **Impacts to BRCA would be less than significant.**

Connectivity between Areas of High Habitat Values (Guideline 31)

The Project is located within the adopted MSCP and connectivity is evaluated according to the MSCP and BMO. **Impacts related to connectivity between high habitat value areas in the region would be less than significant.**

Maintenance of BMO-identified Corridors (Guideline 32)

The Project site is located within an identified habitat linkage in the South County MSCP. As part of the reclamation process, the Proposed Project would substantially improve the condition of the existing linkage through widening of the Sweetwater River floodplain and planting of riparian habitat. A riparian corridor would be re-established throughout the Project site which would encourage and facilitate wildlife movement within the region. Therefore, the Project would ultimately conserve and enhance the functions and values of the habitat linkage in accordance with the MSCP and BMO. **Impacts to BMO-identified corridors would be less than significant.**

Avoidance of MSCP Narrow Endemic Species (Guideline 33)

Three MSCP narrow endemic species were observed within the Project site (Palmer's goldenbush, peregrine falcon, and least Bell's vireo), and one was determined to have high potential to occur (San Diego ambrosia)

The Project would result in significant impacts to the following MSCP narrow endemic species under the above guideline for the following reasons:

Palmer's goldenbush was observed within the southeastern, south-central, and southwestern portions of the Project site. However, the Project site does not contain a core population of Palmer's goldenbush, the species was observed along the perimeter of the Project site, the species was observed within habitat immediately adjacent to the Project site, and protected populations occur in the local area at McGinty Mountain Ecological Reserve and San Diego National Wildlife Refuge. As such, the Project site does not contain an isolated or significant population of the species, and **Project implementation would not result in significant impacts to a core population of Palmer's goldenbush.** However, **direct Project impacts to 234 individuals of Palmer's goldenbush would be considered potentially significant (Impact BIO-2a)**. The Project site lacks suitable breeding habitat for peregrine falcon but does contain suitable foraging habitat for this species. The Project does not contain a core population of peregrine falcon as the site lacks suitable breeding habitat and observations are limited to foraging individuals. Therefore, **no impact would occur to a core population of peregrine falcon**. **Impacts would occur to suitable foraging habitat for this species which are considered potentially significant (Impact BIO-2a)**.

Least Bell's vireo was detected within the riparian habitat both on site and immediately adjacent to the Project site within the SDNWR. However, the Project does not contain a core vireo population as the Project site contains limited suitable habitat for the species, which would be avoided by the Proposed Project, and multiple vireos were detected within off-site habitat, including the SDNWR located immediately west of the site, indicating that the site does not contain an isolated or significant population of the species. Therefore, **the Project would not result significant impacts to a core population of least Bell's vireo**. The Project would impact approximately 0.58 acre of riparian habitat, which includes 0.28 acre mapped as least Bell's vireo critical habitat, with potential to support least Bell's vireo. **Direct impacts to occupied vireo habitat would be potentially significant (Impact BIO-1d)**.

For the reasons outlined above, **the Project would result in potentially significant impacts to MSCP narrow endemic species (Impact BIO-11)**.

The Project would result in no impact to the following MSCP narrow endemic species under the above guideline for the following reasons:

USFWS critical habitat for San Diego ambrosia occurs within the southwestern portion of the site, though the species was not detected within the Project site during rare plant surveys in 2019 and 2022. The Project would result in 0.77 acre of impacts to USFWS critical habitat for the species but would not result in direct impacts to individuals or core populations. Therefore, **the Project would not result in a significant impact to San Diego ambrosia.**

Survival and Recovery of Listed Species in the Wild (Guideline 34)

Two listed species were detected within the Project site: coastal California gnatcatcher and least Bell's vireo. The Project would impact 1.2 acres of disturbed Diegan coastal sage scrub habitat that provides potential foraging habitat for the coastal California gnatcatcher and 0.58 acre of riparian forest with potential to support least Bell's vireo. **Impacts to suitable gnatcatcher and vireo foraging and breeding habitat would not adversely affect the recovery of either species in the wild** as these impacts are minimal and larger blocks of the habitat for the species would be avoided by Project activities and preserved within the Project's BOS. Furthermore, following reclamation the Project would result in a substantial net gain in suitable gnatcatcher and vireo foraging and breeding habitat within the expanded Sweetwater River floodplain contributing to the species recovery. However, removal of vegetation during the breeding season for gnatcatcher (March 1 to August 15) or vireo (March 15 to September 15) could result in significant impacts to nesting gnatcatcher and vireo. Additionally, if mining and reclamation activities took place within 500 feet of suitable gnatcatcher or vireo habitat during the gnatcatcher or vireo breeding season, indirect impacts related to noise to nesting gnatcatchers and vireos would be potentially significant. These impacts **would be considered potentially significant (Impact BIO-12).**

Migratory Bird Treaty Act (Guideline 35)

Implementation of the Project could potentially result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs protected under the MBTA. Project construction could directly impact individuals or cause breeding birds to temporarily or permanently leave their territories, which could lead to reduced reproductive success and increased mortality. **These impacts would be significant (Impact BIO-13).**

Bald and Golden Eagle Treaty Act (Guideline 36)

The Project site does not contain eagle foraging habitat or nesting habitat and it is not within any known golden eagle territory. The surrounding habitat fragmentation and the distance from known eagle territories indicate that the site does not have high value for golden eagle. The surrounding area is primarily urbanized and new nesting in the vicinity is unlikely. Therefore, **no impacts would occur to golden eagle or its habitat.**

2.2.3 Cumulative Impact Analysis

Guidelines for the Determination of Significance

A significant cumulative impact would occur if the Proposed Project would:

37. Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species.

38. Have impacts that are individually limited, but cumulatively considerable.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010a).

Analysis

Impacts that may not be considered significant on a project-specific level can become significant when viewed in the context of other losses in the vicinity of the Project site. When evaluating cumulative impacts, CEQA states that "lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used" (Section 15130[b][3]). The area of consideration for cumulative biological projects impacts is based on an approximate 5.0-mile radius from the Project site and includes surrounding PAMA connections to the Project site, as well as Preserve areas (i.e., SDNWR, Sweetwater Reservoir, Ranch Jamul Ecological Reserve, McGinty Mountain Preserve), and foothills and canyons abutting the Sweetwater River (refer to Figures 1-15 and 2.2-1). The cumulative study area was chosen because it includes areas with similar biological resources as the Project site, as well as capturing the local watershed for the site. The area of consideration includes lands within a reasonable distance from the Project site that may have a biologically based connection to the site in terms of habitat connectivity and development in the region.

A total of 15 projects (including the Proposed Project) were reviewed for this cumulative analysis (Table 2.2-8, *Cumulative Impacts on Biological Resources*; Figure 1-15). Of these 15 cumulative projects, nine would result in significant or potentially significant cumulative impacts to sensitive biological resources. The remaining six projects either would not result in impacts to sensitive biological resources or information on impacts is not available. The Project has the potential to contribute to the cumulative impact on coastal California gnatcatcher and least Bell's vireo as discussed below.

Cumulative Impacts to Special Status Species

The cumulative projects with available data would impact 118.78 acres of coastal sage scrub habitat, including impacts from the Proposed Project. The loss of coastal sage scrub habitat would represent a potential cumulative impact on the coastal California gnatcatcher. This impact would be potentially significant. The Proposed Project would result in impacts to 1.2 acres of coastal sage scrub, no portions of which were determined to support coastal California gnatcatcher, which is considered less than cumulatively considerable. Projects are required to implement avoidance measures so that direct, inadvertent take of gnatcatcher individuals is prevented. In addition, projects are required to compensate impacts on coastal sage scrub at a minimum 1:1 ratio, which ensures that the loss of occupied and suitable habitat for the gnatcatcher is fully compensated. The Proposed Project would implement required gnatcatcher avoidance measures and compensate the loss of coastal sage scrub habitat at a 1.5:1 ratio through the on-site preservation of existing and revegetated of coastal sage scrub habitat within a BOS easement. The post-reclamation condition of the Project site would result in a biologically superior condition following site reclamation compared to its current condition as developed golf course. The Sweetwater River floodplain would be substantially widened and revegetated with native riparian habitat along the channel's bottom and with coastal sage scrub along the constructed channel slopes. These areas would be

placed within an open space easement and would be contiguous with existing native habitat located to the east and west of the site, including preserved areas within the SDNWR. With the implementation of these measures and project design features, the Proposed Project would have a less than significant contribution to the potentially significant cumulative impact on coastal sage scrub habitat or coastal California gnatcatcher**.**

The cumulative projects would impact 4.36 acres of riparian/wetland habitat, which is the preferred habitat of the least Bell's vireo. The cumulative loss of riparian/wetland habitat would represent a significant cumulative impact on least Bell's vireo. The Proposed Project would result in impacts to 1.14 acres of riparian/wetland habitat, a portion of which was determined to support least Bell's vireo. As with the coastal California gnatcatcher, projects are required to implement avoidance measures so that direct, inadvertent take of vireo is prevented. In addition, projects are required to compensate impacts on riparian/wetland habitat at a minimum 1:1 ratio, which ensures that the loss of occupied and suitable habitat for vireo is fully compensated. The Proposed Project would implement required vireo avoidance measures and compensate the loss of riparian/wetland habitat at a minimum 1:1 ratio through the on-site preservation, rehabilitation, restoration, and revegetation of riparian habitat along the expanded Sweetwater River floodplain. The post-reclamation condition of the Project site would result in a biologically superior condition following site reclamation compared to its current condition as developed golf course. The Sweetwater River floodplain would be substantially widened and revegetated with native riparian habitat along the channel's bottom and coastal sage scrub along the constructed channel slopes that would be contiguous with existing riparian habitat located to the east and west of the Project site, including preserved areas within the SDNWR. Therefore, the Proposed Project would have a less than significant contribution to the potentially significant cumulative impact on riparian/wetland habitat or least Bell's vireo**.**

As the Proposed Project would ultimately be in conformance with the South County MSCP Subarea Plan and any other projects proposed in the vicinity would also have to follow the South County MSCP Subarea Plan, cumulative impacts would be considered fully mitigated.

Cumulative Impacts to Riparian and Sensitive Habitats

The Proposed Project would result in impacts to 1.14 acres of riparian/wetland habitat and 1.2 acres of Tier II Diegan coastal sage scrub habitat. Project-level impacts would be mitigated in accordance with County and regulatory agency guidelines and requirements. The County-approved mitigation ratios are standardized and not dependent upon the quality of habitat. Rather, the mitigation ratios recognize the regional importance of the habitat, the overall rarity of the habitat, and the number and variety of species it supports. Mitigation for habitat loss is required to compensate for direct impacts as well as cumulative loss of habitat. Impacts to wetland/riparian habitat and sensitive upland communities would be fully mitigated at County-approved ratios through the on-site preservation, rehabilitation, restoration, and revegetation of wetland/riparian habitat and sensitive upland habitat (Diegan coastal sage scrub) along the expanded Sweetwater River floodplain bordering slopes. These areas would be placed within a BOS easement; thus, providing long-term conservation value. Since current regulations require mitigation for wetland impacts to include establishment (i.e., creation) or re-establishment of the same habitat at a minimum 1:1 ratio, coupled with rehabilitation (i.e., restoration), enhancement, and/or preservation of habitat, there ultimately would be no contribution to cumulative loss of the

resource. As the Project would be in conformance with County guidelines and mitigation ratios, Project impacts to wetland/riparian habitat and sensitive upland communities would not be cumulatively considerable and **the Proposed Project's contribution to cumulative impacts to sensitive vegetation communities would be less than significant.**

Cumulative Impacts to Jurisdictional Areas

The Proposed Project's impacts to 0.96 acre of USACE jurisdictional areas, comprised of 0.60 acre of wetland waters of the U.S. and 0.36 acre of non-wetland waters, while significant at the project level would be fully mitigated through one or a combination of the following: on- and/or off-site establishment, re-establishment, rehabilitation, enhancement and/or preservation; and/or off-site purchase of mitigation credits at an approved mitigation bank, or other location deemed acceptable by the County, Wildlife Agencies, and Regulatory Agencies. A "no net loss" policy has been established for wetlands by state and federal resource agencies, as well as the County; the Project is required to establish/re-establish jurisdictional habitat at a minimum 1:1 ratio. Other projects within the cumulative study area that may impact wetlands would be required to mitigate impacts as well, at ratios commensurate with the type and location of the impacts, pursuant to the MSCP and regulatory agency requirements, thereby ensuring that cumulative impacts would result in no net loss of wetlands. Accordingly, implementation of the Project and other cumulative projects would not result in the net loss of jurisdictional resources, and **the Project would not result in a cumulatively considerable contribution to loss of sensitive jurisdictional habitat and impacts would be less than significant**.

Cumulative Impacts to Wildlife Movement and Nursery Sites

The cumulative projects are located in existing urbanized areas of El Cajon, Rancho San Diego and Jamul within the unincorporated County, or on the fringes of urbanization. A cumulative impact on wildlife movement has already occurred in the local area where commercial and residential development and major roadways (such as SR 94, SR 54, and Steele Canyon Road) has constrained available areas for wildlife movement. Primary wildlife use areas in the local area are located in the McGinty Mountain/Sycuan Peak-Dehesa and Sweetwater Reservoir/San Miguel Mountain BRCAs, generally associated with the SDNWR, Sweetwater River and Sweetwater Mountain Ecological Reserve, McGinty Mountain Ecological Reserve, and McGinty Mountain Preserve. These resources provide wildlife movement areas for a wide range of species known to the region. As described in Section 2.2.1.1 under Habitat Connectivity and Wildlife Corridors, and in Section 2.2.2.4 under Guideline 19, the current function of the Project site as a linkage/corridor for wildlife movement is considered low based on previous golf course development, on-going disturbances related to golf course maintenance and operations, and lack of sufficient habitat cover to conceal wildlife movement through the site. As such, the Project is not expected to substantially interfere with the movement of wildlife species or impede the use of nursery sites.

The Project would comply with the requirements of the BMO and MSCP, including preserve design criteria related to corridors and linkages. In addition, the Project would improve habitat quality and connectivity compared to the site's current state as a golf course. The Project's proposed reclamation would preserve, rehabilitate, and restore native riparian and upland habitats along the Sweetwater River. This would result in widened riparian corridor that re-establishes functional connectivity to BRCAs located to the east and west of the Project site, including the

SDNWR. The contribution of the Project to the cumulative impact on wildlife movement would not be cumulatively considerable and would be less than significant.

Cumulative Impacts to Local Policies, Ordinances, and Adopted Plans

The Project would comply with the requirements of the MBTA, RPO, BGEPA, BMO, and MSCP. All currently proposed and future projects within the cumulative study area also would be required to comply with these regulations, thus **no significant cumulative impacts with respect to local policies, ordinances, and adopted plans would occur**.

2.2.4 Significance of Impacts Prior to Mitigation

The following significant impacts related to biological resources would occur with Project implementation (refer to Table 2.2-9, *Summary of Vegetation Communities Impact and Mitigation Acreages*):

Impact BIO-1a Direct impacts to occupied coastal California gnatcatcher habitat would be potentially significant.

Impact BIO-1b If mining and reclamation activities take place within 500 feet of suitable coastal California gnatcatcher habitat during the gnatcatcher breeding season (March 1 to August 15), indirect impacts related to noise to nesting gnatcatchers would be potentially significant.

Impact BIO-1c Direct impacts to potentially occupied least Bell's vireo habitat would be potentially significant.

Impact BIO-1d If mining and reclamation activities take place within 500 feet of suitable least Bell's vireo habitat during the vireo breeding season (March 15 to September 15), indirect noise impacts to nesting vireos would be potentially significant.

Impact BIO-2a Direct impacts to 234 individuals of Palmer's goldenbush, a County List B plant species, would be considered potentially significant.

Impact BIO-2b Direct impacts to potential breeding, wintering, and foraging habitat to the following County Group 1 animal species and/or state Species of Special Concern during mining and reclamation activities would be potentially significant: coastal California gnatcatcher, least Bell's vireo, Cooper's hawk, Lawrence's goldfinch, loggerhead shrike, oak titmouse, peregrine falcon, red-shouldered hawk, sharp-shinned hawk, turkey vulture, vermilion flycatcher, white-tailed kite, yellow-breasted chat, yellow warbler, two-striped garter snake, western spadefoot, Mexican long-tongued bat, Townsend's big-eared bat, western mastiff bat, and western red bat.

Impact BIO-2c Direct impacts to nesting Cooper's hawk, red-shouldered hawk, white-tailed kite, and other raptors, and/or indirect noise impacts to nesting raptors within 300 feet of construction, mining, or reclamation areas would be potentially significant.

Impact BIO-2d Direct impacts to nesting coastal California gnatcatcher, Cooper's hawk, least Bell's vireo, Lawrence's goldfinch, loggerhead shrike, oak titmouse, red-shouldered hawk, vermilion flycatcher, white-tailed kite, yellow-breasted chat, and yellow warbler individuals would be considered potentially significant.

Impact BIO-2e Direct impacts to special status reptile and amphibian species, including two-striped garter snake and western spadefoot, not covered under the South County MSCP Subarea Plan would be considered potentially significant.

Impact BIO-2f Direct impacts to County Group 1 roosting bats, including Mexican long-tongued bat and western red bat would be considered potentially significant.

Impact BIO-3a Direct impacts to the following County List D plant species during mining and reclamation activities would be considered potentially significant: five San Diego County viguiera, two San Diego sagewort, and three southwestern spiny rush.

Impact BIO-3b Direct impacts to potential breeding, wintering, or foraging habitat to the following County Group 2 animal species during mining and reclamation activities would be considered potentially significant: barn owl, California horned lark, Canada goose, great blue heron, green heron, merlin, western bluebird, monarch butterfly, Belding's orange-throated whiptail, small-footed myotis, and Yuma myotis.

Impact BIO-3c Direct impacts to nesting barn owl, California horned lark, Canada goose, great blue heron, green heron, western bluebird, small-footed myotis, Yuma myotis, and yellow warbler individuals would be considered potentially significant.

Impact BIO-3d Direct impacts to County Group 2 roosting bats, including small-footed myotis and Yuma myotis, would be considered potentially significant.

Impact BIO-4 Direct impacts to sensitive habitats located in lands designated as a biological core resource area during mining and reclamation activities would be considered potentially significant.

Impact BIO-5 If construction or mining activities would be initiated within 500 feet of suitable habitat during the breeding seasons for California gnatcatcher (March 1 to August 15), nesting raptors (January 15 to July 15), or least Bell's vireo (March 15 to September 15), indirect noise effects would be potentially significant.

Impact BIO-6 If protective measures are not implemented to control human access into open space areas, direct and indirect impacts to sensitive habitat and species located in the BOS be potentially significant.

Impact BIO-7 Implementation of the Proposed Project would result in direct impacts to approximately 2.34 acres of sensitive vegetation communities made up of 0.55 acre of disturbed wetland (Tier I), 0.44 acre of southern cottonwood-

willow riparian forest (including disturbed, Tier I), 0.13 acre of disturbed southern willow scrub, 0.01 acre of tamarisk scrub, 0.01 acre of arundo-dominated riparian (Tier I), and 1.2 acres of Diegan coastal sage scrub (including disturbed; Tier II). Impacts to sensitive natural communities would be considered potentially significant.

Impact BIO-8 Inadvertent intrusion into riparian habitat or other sensitive habitats located adjacent to work areas by construction vehicles, equipment, and personnel during mining and reclamation activities would be considered potentially significant.

Impact BIO-9 The Project would result in impacts to jurisdictional wetlands and riparian habitats as defined by the USACE, CDFW, and/or County. Impacts to jurisdictional waters and wetlands include 0.60 acres of wetland and 0.36 acre of non-wetland waters of the U.S. and 18.20 acres of CDFW jurisdictional areas (including 0.44 acre of southern cottonwood-willow riparian forest, 0.002 acre of freshwater marsh, 0.13 acre of southern willow scrub, 0.56 acre of disturbed wetland, 0.01 acre of arundo-dominated riparian, and 17.06 acres of streambed) Impacts to jurisdictional waters and wetlands would be considered potentially significant.

Impact BIO-10 Inadvertent intrusion into jurisdictional waters and wetlands located adjacent to work areas by construction vehicles, equipment, and personnel during mining and reclamation activities would be considered potentially significant.

Impact BIO-11 Implementation of the Proposed Project would result in potentially significant impacts to MSCP narrow endemic species during mining and reclamation activities.

Impact BIO-12 Implementation of the Proposed Project would result in potentially significant impacts to federally and/or state listed species during mining and reclamation activities.

Impact BIO-13 Direct impacts to nesting birds protected under the Migratory Bird Treaty Act would be considered potentially significant.

2.2.5 Mitigation

The following mitigation measures would reduce Project impacts to below a level of significance (refer to Table 2.2-10, *Summary of Biological Resources Mitigation Measures*).

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

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

M-BIO-3 Mitigation for impacts to 0.58 acre of potential nesting and foraging habitat for least Bell's vireo (southern cottonwood-willow riparian forest, disturbed southern willow scrub, and tamarisk scrub) shall occur at a minimum 3:1 ratio with at least 1:1 creation (establishment/re-establishment) for a total mitigation requirement of 1.74 acres. Mitigation shall occur through on-site preservation of 13.86 acres of wetland and riparian habitat, on-site rehabilitation of 7.36 acres of riparian habitat, and on-site re-establishment and revegetation of 107.62 acres of riparian habitat for a total of 128.84 acres of wetland riparian habitat to be preserved within the biological open space easement.

M-BIO-4 Grading or clearing of riparian habitat during the breeding season of the least Bell's vireo (March 15 through September 15) shall be avoided to the extent feasible. All grading permits, improvement plans, and the final map shall state the same. If clearing or grubbing must occur within 500 feet of suitable vireo habitat during the least Bell's vireo breeding season, a qualified biologist shall conduct a pre-construction survey no more than three days (72 hours) prior to commencement of activities to determine whether vireos occur within 500 feet of proposed impact area(s). Impacts to occupied habitat shall be avoided. If there are no vireos nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If any vireos are observed nesting or displaying breeding/nesting behavior during the pre-construction survey or additional surveys within that area, construction shall be postponed within 500 feet of any location at which vireos have been observed until a qualified biologist has determined that all nesting (or breeding/nesting behavior) has ceased or until after September 15.

M-BIO-5 If operation of construction or excavation equipment is initiated within 500 feet of suitable habitat during the breeding seasons for the coastal California gnatcatcher (March 1 to August 15), nesting raptors (January 15 to July 15), or least Bell's vireo (March 15 to September 15), pre-construction survey(s) shall be conducted by a qualified biologist to determine whether these species occur within the areas

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

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

M-BIO-7 Grubbing or clearing of vegetation during the general avian breeding season (February 15 through August 31) or raptor breeding season (January 15 through July 15) shall be avoided to the extent feasible. If grubbing, clearing, or grading would occur during the general avian breeding season within 300 feet of general bird nesting habitat or 500 feet of nesting raptor habitat, a qualified biologist shall conduct a pre-construction survey no more than three days (72 hours) prior to the commencement of activities to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, clearing, grubbing, and grading shall be allowed to proceed. Furthermore, if construction activities are to resume in an area where they have not occurred for a period of seven or more days during the breeding season, an updated survey for avian nesting will be conducted. If active nests or nesting birds are observed within the area, the biologist shall flag the active nests and construction activities shall avoid active nests until a qualified biologist has determined that nesting behavior has ceased, nests have failed, or young have fledged.

M-BIO-8 Upon completion of all extraction activities, reclamation, and final grading to establish the final landform shall occur in accordance with the approved Reclamation Plan. Revegetation with native species will occur within the expanded Sweetwater River floodplain and constructed bordering slopes according to a revegetation plan to be approved by the County and Wildlife Agencies (USWFS and CDFW).

M-BIO-9 Mitigation for impacts to 0.44 acre of southern cottonwood-willow riparian forest, 0.13 acre of disturbed southern willow scrub, 0.01 acre of tamarisk scrub, 0.01 acre of arundo-dominated riparian, and 0.55 of disturbed wetland shall occur at a 3:1 ratio with at least 1:1 creation for a total mitigation requirement of 3.42 acres. Mitigation shall occur through on-site preservation of 13.86 acres of wetland and riparian habitat, on-site rehabilitation of 7.36 acres of riparian habitat, and on-site re-establishment and revegetation of 107.62 acres of riparian habitat for a total of 128.84 acres of wetland riparian habitat to be preserved within the biological open space easement.

M-BIO-10 Mitigation for 1.2 acres of impacts to Diegan coastal sage scrub shall occur at a 1.5:1 ratio through the on-site preservation of 1.8 acres of Tier II or Tier I habitat in the South County MSCP area within a biological resource core area. Mitigation shall occur through on-site preservation of 0.6 acre of Diegan coastal sage scrub and on-site revegetation of 11.3 acres of Diegan coastal sage scrub for a total of 11.9 acres of Tier II Diegan coastal sage scrub to be preserved within the biological open space easement.

M-BIO-11 Prior to any vegetation removal, grading, and/or other ground disturbing activities, a qualified biologist familiar with special status reptile and amphibian species behavior and life history shall conduct a pre-construction survey no more than two weeks prior to commencement of activities to determine whether reptile and amphibian species designated as sensitive by CDFW, but not covered under the County's MSCP, occur within proposed impact area(s). If special status reptile or amphibian species are detected during the pre-construction survey, consultation with CDFW shall be initiated to prepare species-specific protocols for proper handling and relocation procedures.

M- BIO-12 If western spadefoot toads, tadpoles, or egg masses are identified within the proposed impact area(s), the following measures shall be implemented: (1) A suitable relocation site(s) outside the proposed impact area(s) shall be identified by a qualified biologist. The relocation site(s) shall be located a minimum of 50 feet outside of the proposed impact area(s), or 100 feet if available, and shall be approved by CDFW; (2) All western spadefoot adults, tadpoles, and egg masses encountered in the proposed impact area(s) shall be collected and released in the identified relocation site(s); (3) The relocation site(s) shall be monitored annually for five years during and immediately following peak breeding season (late winter to March), such that surveys can be conducted for adults as well as for egg masses and tadpoles. The results of annual monitoring shall be provided to CDFW in an annual report.

M- BIO-13 Prior to the removal of mature trees or existing buildings/structures with potential to support roosting bats, a qualified biologist shall conduct an initial pre-construction survey no more than 30 days and no less than two weeks prior to commencement of tree removal or demolition activities to determine if roosting bats are present in the proposed impact area(s). A letter report summarizing the survey methods and results of the survey, including negative findings, shall be

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

M-BIO-14 The applicant shall dedicate 150.7 acres of biological open space to be managed by a long-term manager approved by the County in accordance with a Resource Management Plan. The biological open space easement shall include native habitat revegetation areas located within the expanded Sweetwater River floodplain and bordering constructed slopes. Permanent open space fencing and signage shall be installed around the perimeter of the biological open space as detailed in the final Resource Management Plan.

M-BIO-15 The Project requires preparation of a Resource Management Plan (RMP) for on-site biological open space to be approved by the County and Wildlife Agencies (USFWS and CDFW). The RMP would provide direction for the permanent preservation and management of the on-site biological open space in accordance with County regulations.

M-BIO-16 To help ensure errant impacts to sensitive vegetation communities outside of the impact footprint are avoided during construction, temporary environmental fencing (including silt fencing where determined necessary by the SWPPP), would be installed at the edges of the impact limits prior to initiation of grading. All construction staging shall occur within the approved limits of construction.

M-BIO-17 A qualified biologist shall monitor the installation of environmental fencing wherever it would abut sensitive vegetation communities, jurisdictional waters or

wetlands, or open space. Prior to the installation of temporary fencing, the placement design should carefully consider potential impacts to wildlife movement patterns between the upstream and downstream riparian habitats adjacent to the Project site. The biologist also would conduct a pre-construction environmental training session for construction personnel prior to all phases of construction to inform them of the sensitive biological resources on site and avoidance measures to remain in compliance with Project approvals. The biologist shall monitor initial vegetation clearing, grubbing, and grading activities to ensure that activities occur within the approved limits of work and avoid impacts to nesting birds. The biologist shall periodically monitor the limits of construction and mining operations to ensure that mining and avoidance areas are delineated with temporary fencing and that fencing remains intact.

M-BIO-18 Impacts to 0.60 acre of U.S. Army Corps of Engineers (USACE) wetland waters of the U.S. shall be mitigated a minimum 3:1 ratio and 0.36 acre of USACE non-wetland waters of the U.S. shall be mitigated at a minimum 1:1 ratio through one or a combination of the following: on- and/or off-site establishment, re-establishment, rehabilitation, and/or enhancement of 2.16 acres waters of the U.S.; and/or off-site purchase of waters of the U.S. credits at an approved mitigation bank, or other location deemed acceptable by the USACE. Any mitigation completed through purchase of mitigation credits shall be provided prior to issuance of a grading permit, and prior to use of the premises in reliance of this permit. Any applicant-initiated mitigation must be implemented prior to or concurrent with impacts to waters of the U.S. Impacts to waters of the U.S. would require issuance of a Section 404 CWA permit from the USACE prior to impacts.

M-BIO-19 Impacts to 1.14 acres of California Department of Fish and Wildlife (CDFW) jurisdictional riparian habitat (0.44 acre of southern cottonwood-willow riparian forest, 0.13 acre of southern willow scrub, 0.002 acre of freshwater marsh, 0.01 acre of arundo-dominated riparian, and 0.56 acre of disturbed wetland) shall be mitigated at a 3:1 ratio, totaling 3.42 acres of riparian habitat mitigation. Impacts to 17.06 acres of CDFW streambed shall be mitigated at a minimum 1:1 ratio through one or a combination of the following: on- and/or off-site establishment, re-establishment, rehabilitation, and/or enhancement of 17.06 acres of riparian and/or stream habitat; and/or off-site purchase of riparian and/or stream credits at an approved mitigation bank, or other location deemed acceptable by the CDFW. Combined mitigation for CDFW riparian habitat and streambed totals 20.48 acres. Any mitigation completed through purchase of mitigation credits shall be provided prior to the issuance of a grading permit, and prior to use of the premises in reliance of this permit. Any applicant-initiated mitigation must be implemented prior to or concurrent with impacts to CDFW habitat. Impacts to CDFW jurisdictional habitat would require issuance of a CFG Code Section 1602 Streambed Authorization Agreement from the CDFW prior to impacts.

M-BIO-20 The Project requires preparation of a wetland mitigation plan for impacts to wetland habitat and jurisdictional waters to be approved by the County (wetland impacts only) and U.S. Army Corps of Engineers (USACE), California Department of Fish

and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB) (impacts to waters of the U.S. and State, and CDFW riparian habitat and streambed), as applicable. Approval of the plan and/or acceptance of mitigation bank credits by the USACE, CDFW, and RWQCB shall be a condition of the associated wetland permits for the Project.

2.2.6 Conclusion

Project implementation would result in potentially significant impacts to federally and state listed animal species, state Species of Special Concern animals, County Group 1 and Group 2 animal species, County List B and D plant species, and raptors with the potential to nest and/or forage over the Project site and immediate vicinity. Potential significant impacts would result from direct disturbance, loss of habitat, and noise. Implementation of mitigation measures M-BIO-1 through M-BIO-15 would reduce impacts to less-than-significant levels through implementation of breeding season avoidance and/or pre-construction surveys to avoid direct and indirect impacts to sensitive birds and raptors; pre-construction surveys to avoid direct and indirect impacts to special status amphibian and reptile species not covered under County's MSCP Subarea plan; pre-construction surveys to avoid direct and indirect impacts to roosting bats; mitigation for direct impacts to suitable habitat for the coastal California gnatcatcher; mitigation for direct impacts to suitable habitat for least Bell's vireo; mitigation for direct impacts to Palmer's goldenbush, a County List B plant species; habitat-based mitigation for direct impacts to sensitive vegetation communities with potential to support special status plant and animal species; reclamation of the Project site following completion of mining activities; placement of preserved, restored, and revegetated native habitat within BOS; and long-term management of the BOS areas in accordance with a County-approved RMP.

The Project would also result in potentially significant impacts to sensitive natural communities and riparian habitat; however, a combination of avoidance through project design, proposed open space, and mitigation measures to fully compensate the loss of habitat would reduce impacts to below a level of significance, and there would be no net loss of sensitive natural communities and riparian habitat. Mitigation is proposed at ratios consistent with those required by the County, Wildlife Agencies, and Resource Agencies. With the implementation of mitigation measures M-BIO-9, M-BIO-10, and M-BIO 16 through M-BIO-18, impacts on sensitive natural communities, including riparian habitat, would be less than significant.

Implementation of the Project would result in significant impacts to USACE wetland and non-wetland waters of the U.S. The Project would also result in significant impacts to RWQCB wetland and non-wetland waters of the State and CDFW-jurisdictional riparian habitat and streambed. Mitigation measures M-BIO-16 through M-BIO-18, and M-BIO-20 would reduce potential impacts to a less-than-significant level; final mitigation measures will be determined in consultation with the USACE, RWQCB, and CDFW.

Impacts to jurisdictional areas would require permitting through the appropriate regulatory agencies, as discussed below. Securing necessary wetland permits prior to issuance of a grading permit would be required. Anticipated wetland permits include a CWA Section 404 permit from the USACE, CWA Section 401 Water Quality Certification or State Porter-Cologne Water Quality Control Act Waste Discharge requirements from the RWQCB, and CFG Code Section 1602

Streambed Alteration Agreement from CDFW. Final mitigation requirements would be determined through consultation with the USACE, RWQCB, and CDFW, and would reduce impacts to less than significant.

With the Project's proposed open space, incorporation of design features, and implementation of the measures listed above, impacts to wildlife movement, corridors and linkages, and nursery sites would be less than significant and no additional mitigation measures are required.

Implementation of the Project would result in potentially significant impacts to MSCP narrow endemic species (Palmer's goldenbush, peregrine falcon, and least Bell's vireo), federally listed species (coastal California gnatcatcher and least Bell's vireo), and breeding migratory birds. Implementation of mitigation measures M-BIO-1 through M-BIO-8 would reduce these impacts to below a level of significance.

Although the Project is exempt from the RPO as discussed in the local regulatory framework under *Resource Protection Ordinance* in Section 2.1.1.1, and *County RPO Wetlands (Guideline 27)* in Section 2.1.2.5, above, mitigation measures M-BIO-9, and M-BIO-18 through M-BIO-20, would compensate for habitat loss to these areas and mitigate potential impacts associated with local policies, ordinances, and adopted plans to less than significant.

With the Project's proposed open space, incorporation of design features, compliance with the requirements of the MBTA, RPO, BGEPA, BMO, and MSCP, and implementation of the measures listed above, cumulative impacts would be less than significant and no additional mitigation measures are required to address potential cumulative impacts.

Table 2.2-1
EXISTING VEGETATION COMMUNITIES/LAND USE TYPES

Vegetation Community[1]	Within MUP (Acres)[2]	Outside MUP (Acres)[2]	Total (Acres)[2]
Tier I[3]			
Disturbed Wetland (11200)	10.25	0	10.25
Freshwater Marsh (52400)	0.22	0	0.22
Southern Cottonwood-willow Riparian Forest (61330)	9.43	2.42	11.85
Southern Cottonwood-willow Riparian Forest - disturbed (61330)	0.87	0.15	1.02
Southern Willow Scrub - disturbed (63320)	4.82	0	4.82
Tamarisk Scrub (63810)	1.20	0.03	1.23
Open Water (64140)[4]	1.68	0	1.68
Arundo-dominated Riparian (65100)	0.48	0.08	0.56
Tier II			
Diegan Coastal Sage Scrub (32500)	0.8	0.5	1.3
Diegan Coastal Sage Scrub –disturbed (32500)	0.5	<0.1	0.5
Tier IIIB			
Non-native Grassland (42200)	0	0.2	0.2
Tier IV			
Non-native Woodland (79000)	1.5	0.2	1.7
Eucalyptus Woodland (79100)	2.1	0.5	2.6
Non-native Vegetation (11000)	6.6	0.9	7.5
Disturbed Habitat (11300)	79.0	12.3	93.1
N/A			
Artificial Pond (64140)[4]	3.0	0	3.0
Developed Land (12000)	122.0	14.9	136.9
TOTAL	**244.45**	**32.18**	**276.63**

Source: HELIX 2023a
[1] Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008).
[2] Upland habitats are rounded to the nearest 0.1 acre, while wetland habitats are rounded to the nearest 0.01; thus, total reflects rounding.
[3] County Subarea Habitats and Tiers within the Multiple Species Conservation Program (MSCP).
[4] The numerical Holland/Oberbauer code refers to Fresh Water which describes year-round bodies of fresh water in the form of lakes, streams, ponds, or rivers and is the most appropriate vegetation community that represents these areas.
MUP = Major Use Permit

Table 2.2-2
WATERS OF THE U.S. – EXISTING CONDITIONS

Waters of the U.S.	Acreage[1]
Wetland Waters	
Disturbed Wetland	9.98
Freshwater Marsh	0.19
Open Water	1.67
Riparian Forest (including disturbed)	6.54
Southern Willow Scrub (including disturbed)	4.34
Tamarisk Scrub	1.10
Subtotal	*23.82*

Non-wetland Waters	
Streambed	0.55
Subtotal	*0.55*
TOTAL	**24.37**

Source: HELIX 2023a
[1] Acres rounded to the nearest hundredth. Total reflects rounding.

Table 2.2-3
CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE JURISDICTION – EXISTING CONDITIONS

Habitat Type	Acreage[1]
Riparian-Vegetated Streambed	
Arundo-dominated Riparian	0.56
Disturbed Wetland	10.26
Freshwater Marsh	0.22
Open Water	1.67
Riparian Forest (including disturbed)	12.87
Southern Willow Scrub (included disturbed)	4.82
Tamarisk Scrub	0.94
Subtotal	*31.35*
Unvegetated Streambed	
Streambed	18.98
Subtotal	*18.98*
TOTAL	**50.33**

Source: HELIX 2023a
[1] Acres rounded to the nearest hundredth.

Table 2.2-4
COUNTY RESOURCE PROTECTION ORDINANCE WETLANDS – EXISTING CONDITIONS

Habitat Type	Acreage[1]
Arundo-dominated Riparian	0.56
Disturbed Wetland	10.26
Freshwater Marsh	0.22
Open Water	1.68
Riparian Forest (including disturbed)	12.87
Southern Willow Scrub (including disturbed)	4.82
Tamarisk Scrub	0.94
TOTAL	**31.35**

Source: HELIX 2023a
[1] Acres rounded to the nearest hundredth.

Table 2.2-5
PROJECT IMPACTS TO VEGETATION COMMUNITIES/HABITAT TYPES

Vegetation Community[2]	Impact Neutral Areas (Acres)[1]	Project Impacts (Acres)[1]					Road Improvement Impacts (Acres)[1]			Total Impacts (Acres)[1]		
		Phase 1	Phase 2	Phase 3	Phase 4	Total	On-Site	Off-Site	Total	On-Site	Off-Site	Total
Sensitive Vegetation Communities												
Tier I[3]												
Disturbed Wetland (11200)	0	0.16	0.26	0.13	0	0.55	0	0	0	0.55	0	0.55
Freshwater Marsh (52400)	0	0	0	0	0	0	0	0	0	0	0	0
Southern Cottonwood-willow Riparian Forest – including disturbed (61330)	0.30	0.27	0.12	0.05	0	0.44	0	0	0	0.44	0	0.44
Southern Willow Scrub – including disturbed (63320)	0	0.13	0	0	0	0.13	0	0	0	0.13	0	0.13
Tamarisk Scrub (63810)	0.02	0.01	0	0	0	0.01	0	0	0	0.01	0	0.01
Open Water (64140)	0	0	0	0	0	0	0	0	0	0	0	0
Arundo-dominated Riparian (65100)	0.07	0.01	0	0	0	0.01	0	0	0	0.01	0	0.01
Tier II												
Diegan Coastal Sage Scrub – including disturbed (32500)	0.1	0.2	0	0.9	0	1.1	0	0.1	0.1	1.1	0.1	1.2
Tier IIIB												
Non-native Grassland (42200)	<0.1	0	0	0	0	0	0	0	0	0	0	0
Subtotal Sensitive Communities	*0.49*	*0.78*	*0.38*	*1.08*	*0*	*2.24*	0	*0.1*	*0.1*	*2.24*	*0.10*	*2.34*
Non-Sensitive Vegetation Communities												
Tier IV												
Non-native Woodland (79000)	0	0	0	1.7	0	1.7	0	0	0	1.7	0	1.7
Eucalyptus Woodland (79100)	0.4	<0.1	0	2.1	0	2.1	0	<0.1	<0.1	2.1	<0.1	2.1
Non-native Vegetation (11000)	0.4	3.2	0.6	1.5	1.2	6.5	<0.1	2.0	2.0	6.5	2.0	8.5
Disturbed Habitat (11300)	5.6	71.8	1.8	2.4	0	76.0	<0.1	0.1	0.1	76.0	0.1	76.1
N/A												
Artificial Pond (64100)	0	2.2	0	0.4	0.1	2.7	0	0	0	2.7	0	2.7
Developed Land (12000)	14.8	0.5	47.3	64.8	7.9	120.5	0.2	2.6	2.8	120.7	2.6	123.3
Subtotal Non-Sensitive Communities	*21.2*	*77.7*	*49.7*	*72.9*	*9.2*	*209.5*	*0.2*	*4.8*	*4.9*	*209.7*	*4.7*	*214.4*
TOTAL	**21.69**	**78.48**	**50.08**	**73.98**	**9.20**	**211.74**	**0.2**	**4.8**	**5.0**	**211.94**	**4.8**	**216.74**

Source: HELIX 2023a

[1] Upland habitats are rounded to the nearest 0.1 acre, while wetland habitats are rounded to the nearest 0.01; thus, total reflects rounding.

[2] Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008).

[3] County Subarea Habitats and Tiers within the MSCP.

Table 2.2-6
IMPACTS TO JURISDICTIONAL WETLANDS AND WATERWAYS (acre[s])[1]

Habitat	Waters of U.S.	CDFW	County RPO
Wetland Waters/Riparian			
Disturbed Wetland	0.51	0.56	0.56
Freshwater Mash	<0.01	<0.01	<0.01
Southern Cottonwood-Willow Riparian Forest (including disturbed)	0.09	0.44	0.44
Southern Willow Scrub (disturbed)	0	0.13	0.13
Arundo-dominated Riparian	0	0.01	0.01
Subtotal	*0.60*	*1.14*	*1.14*
Non-wetland Waters			
Streambed	0.36	17.06	0
TOTAL	**0.96**	**18.20**	**1.14**

Source: HELIX 2023a
[1] Areas are presented in acre(s) rounded to the nearest 0.01.
CDFW = California Department of Fish and Wildlife; RPO = Resource Protection Ordinance

Table 2.2-7
PAMA IMPACTS SUMMARY

Category of Impacts	Acreage		Percent Impacted[3]
	Existing PAMA On-Site	Proposed Impacts in PAMA On-Site	
Sensitive Vegetation Community[1]	7.4	1.0	13.5
Non-sensitive Vegetation Community/Land Use Type[2]	9.0	8.8	97.8
TOTAL	**16.4**	**9.8**	**59.8**

Source: HELIX 2023a
[1] Percent impacted represents impacts relative to the impact category, not total impacts.
[2] Disturbed wetland, freshwater marsh, open water, southern cottonwood-willow riparian forest (including disturbed), disturbed southern willow scrub, and Diegan coastal sage scrub (including disturbed).
[3] Eucalyptus woodland, non-native woodland, non-native vegetation, disturbed habitat, and developed land.
PAMA = Pre-approved Mitigation Area

Table 2.2-8
CUMULATIVE IMPACTS ON BIOLOGICAL RESOURCES

Project Number	Project Name	Resource Riparian / Wetland Impacts	Resource Riparian / Wetland Mitigation	CSS[1] Impacts	CSS[1] Mitigation
PDS2004-TM-5289; PDS2004-ER-03-19-04; PDS2004-3100-5289	Jamul Highlands Subdivision	3.04	--	0.31	--
PDS2002-TPM 20628; PDS2002-3200-20628	Yacoo Minor Subdivision	0	0	1.44	1.56
PDS2004-TPM-20868; PDS2004-ER-91-19-038A; PDS2004-3200-20868	Steinbarth Minor Subdivision	0	0	0.86	0.86

Project Number	Project Name	Resource Riparian / Wetland Impacts	Resource Riparian / Wetland Mitigation	CSS[1] Impacts	CSS[1] Mitigation
PDS2002-TPM 20594; PDS2002-3200-20594	Pioneer Minor Subdivision	--	0.44	0.03	0.03
PDS2005-MUP-05-010; PDS2005-3300-05-010	St. Gregory of Nyssa Greek Orthodox Church	--	--	--	--
PDS2005-TM 5460; PDS2005-TM-5460TE; PDS2005-ER-3910-05-19-023; PDS2005-3100-5460	Simpson Farms Major Subdivision	0.14	0.42	95.0	95.0
PDS2018-TM-5629; PDS2018-GPA-18-005; PDS2018-REZ-18-004; PDS2018-STP-18-016	Ivanhoe Ranch	--	--	--	--
N/A	Cuyamaca College Master Plan Revisions	--	--	--	--
PDS2014-GPA-14-003; PDS2014-REZ-14-003; PDS2014-TM-5588; PDS2014-STP-14-015	Sweetwater Place	0	0	0.64	0.68
PDS2015-MUP-15-006; PDS 2015-ER-15-19-002	College Preparatory Middle School	0	0	0	0
PDS2016-GPA-16-005; PDS2016-REZ-16-003; PDS2016-ER-16-19-001 PDS2016-MUP-16-003	Skyline Retirement Center	0	0	4.4	--
PDS2018-TPM-21262; PDS-2018-MUP-18-008	Jamul Commercial	--	--	--	--
PDS2015-ER-89-19-015I; PDS2015-REZ-15-008; PDS2015-TM-5608; PDS2015-SPA-15-002; PDS2015-STP-15-016; PDS2015-MUP-89-015W4; PDS2015-GPA-15-006	Sweetwater Vistas	0.04	0.04	14.9	22.4
PDS2018-SPA-18-002; PDS2018-GPA-18-004; PDS2018-REZ-18-002; PDS2018-STP-18-013; MUP-70-299W1M32; PDS2018-ER-18-19-003; PDS2018-TM-5627	Aventine at Sweetwater Springs	0	0	0	0
	Subtotal	***3.22***	***0.9***	***117.58***	***120.53***
PDS2018-MUP-18-023 PDS2018-RP-18-001 PDS2018-ER-18-19-007	Cottonwood Sand Mine (Proposed Project)	1.14	3.42	1.2	1.8
	TOTAL	**4.36**	**4.32**	**118.78**	**122.33**

Source: HELIX 2023a

[1] This column combines all sage scrub habitat variants and ecotones (e.g., coastal sage-chaparral scrub, flat-topped buckwheat scrub, coyote brush scrub, etc.)

ER = Environmental Review; GPA = General Plan Amendment; MUP = Major Use Permit; REZ = Rezone;
RP = Reclamation Plan; SPA = Specific Plan Amendment; STP = Site Plan: TM = Tentative Map; TPM = Tentative Parcel Map;
-- = Information Not Available or Not Applicable; CSS=coastal sage scrub

Table 2.2-9
SUMMARY OF VEGETATION COMMUNITIES IMPACT AND MITIGATION ACREAGES[1]

Vegetation Community/Habitat[2]	Total Existing	Total Impacts[3]	Mitigation			Preserved in Excess of Required Mitigation
			Ratio[4]	Required	Preserved On-Site[5]	
Tier I						
Streambed (Emergent Wetland) (52440)	0	0	3:1	0	9.58	9.58
Disturbed Wetland (11200)	10.25	0.55		1.65[6]	0	0
Freshwater Marsh (52400)	0.22	0		0	0.22	0.22
Southern Cottonwood-willow Riparian Forest - including disturbed (61330)	12.87	0.44		1.32[6]	26.48[6]	23.45[8]
Southern Willow Scrub – including disturbed (63320)	4.82	0.13		0.39	90.88	90.49
Tamarisk Scrub (63810)	1.23	0.01		0.03	0	0
Open Water (64140)	1.68	0		0	1.68	1.68
Arundo-dominated Riparian (65100)	0.56	0.01		0.03[6]	0	0
Subtotal	***31.63***	***1.14***	***--***	***3.42***	***128.84***	***125.42***
Tier II						
Diegan Coastal Sage Scrub – including disturbed (32500)	1.8	1.2	1.5:1	1.8	11.85	10.05
Subtotal	***1.8***	***1.2***	***--***	***1.8***	***11.85***	***10.05***
Tier IIIB						
Non-native Grassland (42200)	0.2	0	0.5:1	0	0.15	0.15
Subtotal	***0.2***	***0***	***--***	***0***	***0.15***	***0.15***
Tier IV						
Non-native Woodland (79000)	1.7	1.7	N/A	0	0	0
Eucalyptus Woodland (79100)	2.6	2.1		0	0.02	0.02
Non-native Vegetation (11000)	7.5	8.5		0	0.46	0.46
Disturbed Habitat (11300)	91.3	76.1		0	7.67	7.67
Subtotal	***103.1***	***88.4***	***--***	***0***	***8.15***	***8.15***
N/A						
Artificial Pond (64140)	3.0	2.7	N/A	0	0	0
Developed Land (12000)	136.9	123.3		0	1.75[7]	1.75[7]
Subtotal	***139.9***	***126.0***	***--***	***0***	***1.75***	***1.75***
TOTAL	**276.63**	**216.74**	**--**	**5.22**	**150.74**	**145.52**

Source: HELIX 2023a

[1] Area presented in acre(s) rounded to the nearest hundredth for wetlands and the nearest tenth for uplands. Totals reflect rounding.

[2] Vegetation categories and numerical codes are from Oberbauer (2008)

[3] Includes both on- and off-site impacts.

[4] Proposed mitigation ratios are consistent with those contained in the South County MSCP Subarea Area (County 1997) and Biological Mitigation Ordinance (County 2010c) and assume that impacts and mitigation shall occur within Biological Resource Core Areas.

[5] In Biological Open Space.
[6] Mitigation location for impacts to wetland habitats to be determined through consultation with USACE, RWQCB, CDFW, and the County.
[7] Consists of grouted rip-rap.
[8] Includes 1.65 acres of mitigation for impacts to 0.55 acre of disturbed wetland, 0.03 acre of mitigation for 0.1 acre of tamarisk scrub, and 0.03 acre of mitigation for impacts to 0.01 acre of arundo-dominated riparian.

Table 2.2-10
SUMMARY OF BIOLOGICAL RESOURCES MITIGATION MEASURES

Proposed Mitigation		Level of Significance After Mitigation	Guideline Number
M-BIO-1	Mitigation for impacts to 1.2 acres of potential foraging habitat for coastal California gnatcatcher, comprised solely of Diegan coastal sage scrub, shall occur at a 1.5:1 ratio for a total mitigation requirement of 1.8 acres. Mitigation shall occur through on-site preservation of 0.6 acre of Diegan coastal sage scrub and on-site revegetation of 11.3 acres of Diegan coastal sage scrub for a total of 11.9 acres of Diegan coastal sage scrub to be preserved within the biological open space easement.	Less than significant (Impacts BIO-1a, BIO-12)	1 2 34
M-BIO-2	Grading or clearing of vegetation within 500 feet of occupied Diegan coastal sage scrub during the breeding season of the coastal California gnatcatcher (March 1 to August 15) shall be avoided to the extent feasible. All grading permits, improvement plans, and the final map shall state the same. If clearing or grading would occur within 500 feet of suitable gnatcatcher habitat during the breeding season for the gnatcatcher a qualified biologist shall conduct a pre-construction survey no more than three days (72 hours) days prior to commencement of activities to determine whether gnatcatchers occur within 500 feet of the proposed impact area(s). If there are no gnatcatchers nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If any gnatcatchers are observed nesting or displaying breeding/nesting behavior during the pre-construction survey or additional surveys within the area, construction shall be postponed within 500 feet of any location at which gnatcatchers have been observed until a qualified biologist has determined that all nesting (or breeding/nesting behavior) has ceased or until after August 15.	Less than significant (Impacts BIO-1b, BIO-2c, BIO-5, BIO-12)	1 2 12 34 35
M-BIO-3	Mitigation for impacts to 0.58 acre of potential nesting foraging habitat for least Bell's vireo (southern cottonwood-willow riparian forest, disturbed southern willow scrub, and tamarisk scrub) shall occur at a minimum 3:1 ratio with at least 1:1 creation (establishment/re-establishment) for a total mitigation requirement of 1.74 acres. Mitigation shall occur through on-site preservation of 13.86 acres of wetland and riparian habitat, on-site rehabilitation of 7.36 acres of riparian habitat, and on-site re-establishment and revegetation of 107.62 acres of riparian habitat for a total of 128.84 acres of wetland riparian habitat to be preserved within the biological open space easement.	Less than significant (Impacts BIO-1c, BIO-12)	1 2 33 34

Proposed Mitigation		Level of Significance After Mitigation	Guideline Number
M-BIO-4	Grading or clearing of riparian habitat during the breeding season of the least Bell's vireo (March 15 through September 15) shall be avoided to the extent feasible. All grading permits, improvement plans, and the final map shall state the same. If clearing or grubbing must occur within 500 feet of suitable vireo habitat during the least Bell's vireo breeding season, a qualified biologist shall conduct a pre-construction survey no more than three days (72 hours) prior to commencement of activities to determine whether vireos occur within 500 feet of proposed impact area(s). Impacts to occupied habitat shall be avoided. If there are no vireos nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If any vireos are observed nesting or displaying breeding/nesting behavior during the pre-construction survey or additional surveys within that area, construction shall be postponed within 500 feet of any location at which vireos have been observed until a qualified biologist has determined that all nesting (or breeding/nesting behavior) has ceased or until after September 15.	Less than significant (Impacts BIO-1d, BIO-2c, BIO-5, BIO-11, BIO-12)	1 2 12 33 34 35
M-BIO-5	If operation of construction or excavation equipment is initiated within 500 feet of suitable habitat during the breeding seasons for the coastal California gnatcatcher (March 1 to August 15), nesting raptors (January 15 to July 15), or least Bell's vireo (March 15 to September 15), pre-construction survey(s) shall be conducted by a qualified biologist to determine whether these species occur within the areas potentially impacted by noise, with the final survey occurring within three days (72 hours) of the proposed start of construction, mining, or reclamation activities. If it is determined at the completion of pre-construction survey(s) that active nests belonging to these sensitive species are absent from the potential impact area, activities shall be allowed to proceed. If pre-construction surveys determine the presence of active nests belonging to these sensitive species, then activities shall: (1) be postponed until a qualified biologist determines the nest(s) is no longer active or until after the respective breeding season; or (2) not occur until a temporary noise barrier or berm is constructed at the edge of the development footprint and/or around the piece of equipment to ensure that noise levels are reduced to below 60 dBA or ambient, whichever is greater. The type(s) and location(s) of noise barrier(s) shall be provided to the County and Wildlife Agencies along with the associated noise measurements demonstrating compliance with required noise level reductions. Decibel output would be confirmed by a County-approved noise specialist and intermittent monitoring by a qualified biologist to ensure that noise levels remain below 60 dBA at occupied areas.	Less than significant (Impacts BIO-1b, BIO-1d, BIO-2b, BIO-2c, BIO-3b, BIO-5, BIO-12)	1 2 8 12 16 33 34 35

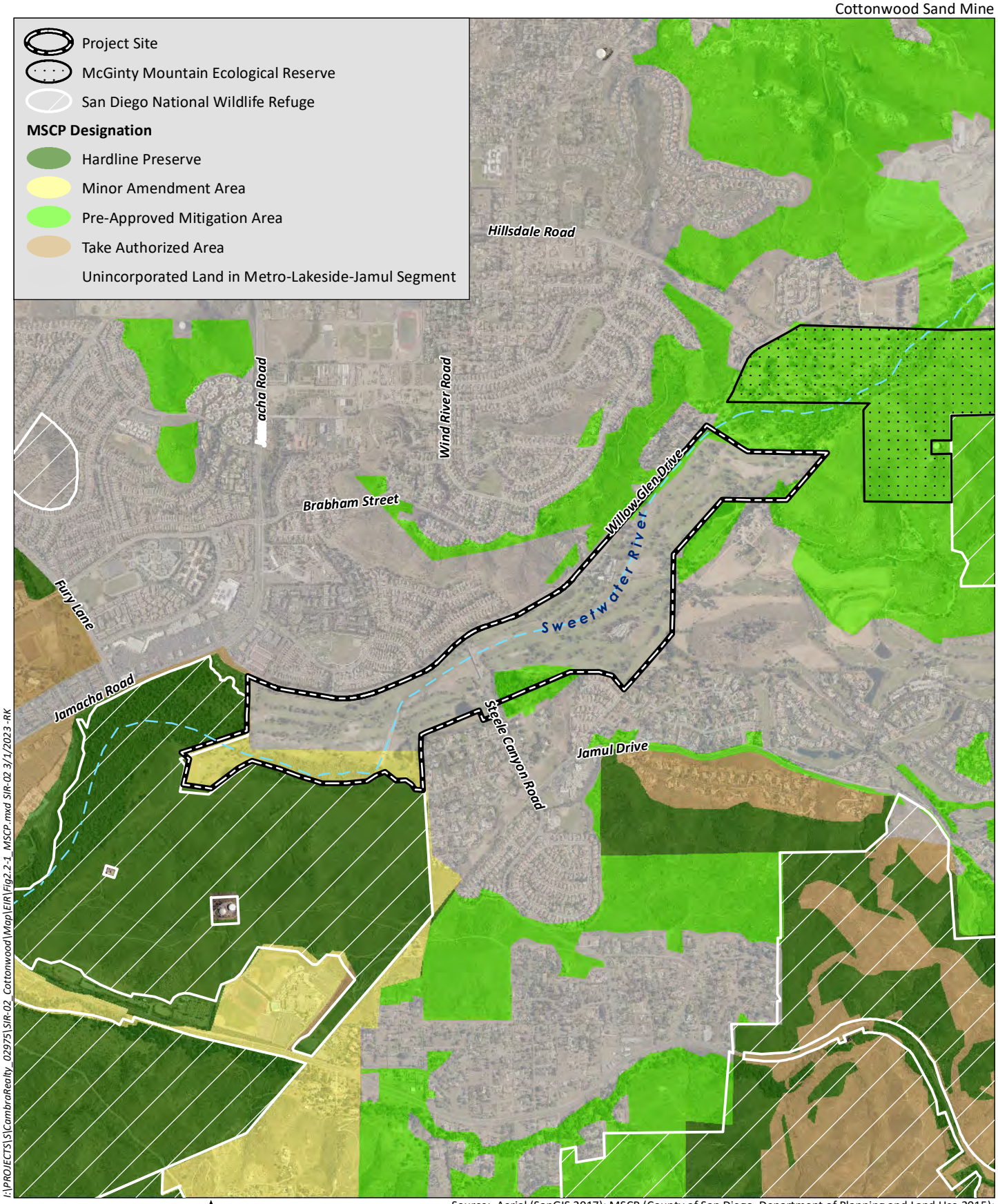
Proposed Mitigation		Level of Significance After Mitigation	Guideline Number
M-BIO-6	Impacts to 234 individuals of Palmer's goldenbush shall be mitigated at a 1:1 ratio. Mitigation shall occur through planting and/or seeding of the species within on-site native revegetation areas in accordance with a revegetation plan to be approved by the County and Wildlife Agencies (USWFS and CDFW).	Less than significant (Impact BIO-2a)	2 35
M-BIO-7	Grubbing or clearing of vegetation during the general avian breeding season (February 15 through August 31) or raptor breeding season (January 15 through July 15) shall be avoided to the extent feasible. If grubbing, clearing, or grading would occur during the general avian breeding season within 300 feet of general nesting bird habitat or 500 feet of nesting raptor habitat, a qualified biologist shall conduct a pre-construction survey no more than three days (72 hours) prior to the commencement of activities to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, clearing, grubbing, and grading shall be allowed to proceed. Furthermore, if construction activities are to resume in an area where they have not occurred for a period of seven or more days during the breeding season, an updated survey for avian nesting will be conducted. If active nests or nesting birds are observed within the area, the biologist shall flag the active nests and construction activities shall avoid active nests until the qualified biologist has determined that nesting behavior has ceased, nests have failed, or young have fledged.	Less than significant (Impacts BIO-2b, BIO-2c, BIO-2d, BIO-3c, BIO-5, BIO-11, BIO-13)	1 2 3 12 16 33 34 35
M-BIO-8	Upon completion of all extraction activities, reclamation, and final grading to establish the final landform shall occur in accordance with the approved Reclamation Plan. Revegetation with native species will occur within the expanded Sweetwater River floodplain and constructed bordering slopes according to a revegetation plan to be approved by the County and Wildlife Agencies (USWFS and CDFW).	Less than significant (Impacts BIO-2a, BIO-3b, BIO-4, BIO-7, BIO-12)	1 2 3 7 8 13 16 33 34
M-BIO-9	Mitigation for impacts to 0.44 acre of southern cottonwood-willow riparian forest, 0.13 acre of disturbed southern willow scrub, 0.01 acre of tamarisk scrub, 0.01 acre of arundo-dominated riparian, and 0.55 acre of disturbed wetland shall occur at a 3:1 ratio with at least 1:1 creation (establishment/re-establishment) for a total mitigation requirement of 3.42 acres. Mitigation shall occur through on-site preservation of 13.86 acres of wetland and riparian habitat, on-site rehabilitation of 7.36 acres of riparian habitat, and on-site re-establishment and revegetation of 107.62 acres of riparian habitat for a total of 128.84 acres of wetland riparian habitat to be preserved within the biological open space easement.	Less than significant (Impacts BIO-2a, BIO-3b, BIO-4, BIO-7)	1 2 3 7 13

Proposed Mitigation		Level of Significance After Mitigation	Guideline Number
M-BIO-10	Mitigation for 1.2 acres of impacts to Diegan coastal sage scrub shall occur at a 1.5:1 ratio through the on-site preservation of 1.8 acres of Tier II or Tier I habitat in the South County MSCP area within a biological resource core area. Mitigation shall occur through on-site preservation of 0.6 acre of Diegan coastal sage scrub and on-site revegetation of 11.3 acres of Diegan coastal sage scrub for a total of 11.9 acres of Tier II Diegan coastal sage scrub to be preserved within the biological open space easement.	Less than significant (Impacts BIO-2a, BIO-3a, BIO-3b, BIO-4, BIO-7)	1 2 3 7 13 28
M-BIO-11	Prior to any vegetation removal, grading, and/or other ground disturbing activities, a qualified biologist familiar with special status reptile and amphibian species behavior and life history shall conduct a pre-construction survey no more than two weeks prior to commencement of activities to determine whether reptile and amphibian species designated as sensitive by CDFW, but not covered under the County's MSCP, occur within proposed impact area(s). If special status reptile or amphibian species are detected during the pre-construction survey, consultation with CDFW shall be initiated to prepare species-specific protocols for proper handling and relocation procedures.	Less than significant (Impact BIO-2e)	2
M-BIO-12	If western spadefoot toads, tadpoles, or egg masses are identified within the proposed impact area(s), the following measures shall be implemented: (1) A suitable relocation site(s) outside the proposed impact area(s) shall be identified by a qualified biologist. The relocation site(s) shall be located a minimum of 50 feet outside of the proposed impact area(s), or 100 feet if available, and shall be approved by CDFW; (2) All western spadefoot adults, tadpoles, and egg masses encountered in the proposed impact area(s) shall be collected and released in the identified relocation site(s); (3) The relocation site(s) shall be monitored annually for five years during and immediately following peak breeding season (late winter to March), such that surveys can be conducted for adults as well as for egg masses and tadpoles. The results of annual monitoring shall be provided to CDFW in an annual report.	Less than significant (Impact BIO-2e)	2

Proposed Mitigation		Level of Significance After Mitigation	Guideline Number
M-BIO-13	Prior to the removal of mature trees or existing buildings/structures with potential to support roosting bats, a qualified biologist shall conduct an initial pre-construction survey no more than 30 days and no less than two weeks prior to commencement of tree removal or demolition activities to determine if roosting bats are present in the proposed impact area(s). A letter report summarizing the survey methods and results of the survey, including negative findings, shall be submitted to the County and CDFW for review at least two weeks prior the commencement of Project activities. If bats are detected within the proposed impact area(s) during the initial pre-construction survey, the letter report will identify measures to be implemented to avoid and minimize potential direct and indirect impacts to roosting bats, including those identified in this measure. A final pre-construction survey shall be conducted no more than three days (72 hours) prior to tree removal or demolition activities within the proposed impact area(s). If bats are not detected during the final pre-construction survey or determined to be absent from the proposed impact area, construction activities shall be allowed to proceed, and no additional measures would be necessary. If bats are detected during the final pre-construction survey, the following avoidance measures shall be implemented, depending on the time of year, including additional measures identified in the letter report. If an active maternity roost is detected during the bat maternity season (April 15 through August 15), the biologist shall flag the active roost site and construction activities shall avoid the roost site until after the maternity season (August 16), or until the qualified biologist has determined young are self-sufficiently volant (able to fly). If bats are detected and determined to be roosting within the proposed impact area(s) outside of the bat maternity season (August 16 through April 14), the biologist shall flag the active roost site and construction activities shall avoid roost sites until bats are no longer determined to be roosting as determined by the qualified bat biologist. Exclusion of roost sites, where feasible, outside of the bat maternity season may be conducted with approval of the County and CDFW. Methods of roost exclusion shall be determined in consultation with the County and CDFW.	Less than significant (Impacts BIO-2b, BIO-2f)	2 3
M-BIO-14	The applicant shall dedicate 150.7 acres of biological open space to be managed by a long-term manager approved by the County in accordance with a Resource Management Plan. The biological open space easement shall include native habitat revegetation areas located within the expanded Sweetwater River floodplain and bordering constructed slopes. Permanent open space fencing and signage shall be installed around the perimeter of the biological open space as detailed in the final Resource Management Plan.	Less than significant (Impacts BIO-4, BIO-6, BIO-7)	1 2 3 7 8 13 16 33

Proposed Mitigation		Level of Significance After Mitigation	Guideline Number
M-BIO-15	The Project requires preparation of a Resource Management Plan (RMP) for on-site biological open space to be approved by the County and Wildlife Agencies (USFWS and CDFW). The RMP would provide direction for the permanent preservation and management of the on-site biological open space in accordance with County regulations.	Less than significant (Impacts BIO-4, BIO-6, BIO-7)	1 2 3 7 8 13 16 33
M-BIO-16	To help ensure errant impacts to sensitive vegetation communities outside of the impact footprint are avoided during construction, environmental fencing (including silt fencing where determined necessary by the SWPPP), would be installed at the edges of the impact limits prior to initiation of grading. All construction staging shall occur within the approved limits of construction.	Less than significant (Impacts BIO-7, BIO-8, BIO-9, BIO-10)	13 14 18
M-BIO-17	A qualified biologist shall monitor the installation of environmental fencing wherever it would abut sensitive vegetation communities, jurisdictional waters or wetlands, or open space. Prior to the installation of temporary fencing, the placement design should carefully consider potential impacts to wildlife movement patterns between the upstream and downstream riparian habitats adjacent to the Project site. The biologist also would conduct a pre-construction environmental training session for construction personnel prior to all phases of construction to inform them of the sensitive biological resources on site and avoidance measures to remain in compliance with Project approvals. The biologist shall monitor initial vegetation clearing, grubbing, and grading activities to ensure that activities occur within the approved limits of work and avoid impacts to nesting birds. The biologist shall periodically monitor the limits of construction and mining operations to ensure that mining and avoidance areas are delineated with temporary fencing and that fencing remains intact.	Less than significant (Impacts BIO-7, BIO-8, BIO-9, BIO-10)	13 14 18
M-BIO-18	Impacts to 0.60 acre of U.S. Army Corps of Engineers (USACE) wetland waters of the U.S. shall be mitigated a minimum 3:1 ratio and 0.36 acre of USACE non-wetland waters of the U.S. shall be mitigated at a minimum 1:1 ratio through one or a combination of the following: on-and/or off-site establishment, re-establishment, rehabilitation, and/or enhancement of 2.16 acres waters of the U.S.; and/or off-site purchase of waters of the U.S. credits at an approved mitigation bank, or other location deemed acceptable by the USACE. Any mitigation completed through purchase of mitigation credits shall be provided prior to issuance of a grading permit, and prior to use of the premises in reliance of this permit. Any applicant-initiated mitigation must be implemented prior to or concurrent with impacts to waters of the U.S. Impacts to waters of the U.S. would require issuance of a Section 404 CWA permit from the USACE prior to impacts.	Less than significant (Impact BIO-9)	14 18

Proposed Mitigation		Level of Significance After Mitigation	Guideline Number
M-BIO-19	Impacts to 1.14 acres of California Department of Fish and Wildlife (CDFW) jurisdictional riparian habitat (0.44 acre of southern cottonwood-willow riparian forest, 0.13 acre of southern willow scrub, 0.002 acre of freshwater marsh, 0.01 acre of arundo-dominated riparian, and 0.56 acre of disturbed wetland) shall be mitigated at a 3:1 ratio, totaling 3.42 acres of riparian habitat mitigation. Impacts to 17.06 acres of CDFW streambed shall be mitigated at a minimum 1:1 ratio through one or a combination of the following: on- and/or off-site establishment, re-establishment, rehabilitation, and/or enhancement of 17.06 acres of riparian and/or stream habitat; and/or off-site purchase of riparian and/or stream credits at an approved mitigation bank, or other location deemed acceptable by the CDFW. Combined mitigation for CDFW riparian habitat and streambed totals 20.48 acres. Any mitigation completed through purchase of mitigation credits shall be provided prior to the issuance of a grading permit, and prior to use of the premises in reliance of this permit. Any applicant-initiated mitigation must be implemented prior to or concurrent with impacts to CDFW habitat. Impacts to CDFW jurisdictional habitat would require issuance of a CFG Code Section 1602 Streambed Authorization Agreement from the CDFW prior to impacts.	Less than significant (Impact BIO-9)	13 14 18
M-BIO-20	The Project requires preparation of a wetland restoration plan for impacts to wetland habitat and jurisdictional waters to be approved by the County (wetland impacts only) and U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB) (impacts to waters of the U.S. and State, and CDFW riparian habitat and streambed), as applicable. Approval of the plan and/or acceptance of mitigation bank credits by the USACE, CDFW, and RWQCB shall be a condition of the associated wetland permits for the Project.	Less than significant (Impact BIO-9)	13 14 18



Source: Aerial (SanGIS 2017); MSCP (County of San Diego, Department of Planning and Land Use 2015); NWR (U.S. Fish and Wildlife Service 2016); Ecological Reserves (CDFW 2013)

HELIX Environmental Planning

MSCP Designations

Figure 2.2-1

Cottonwood Sand Mine

Project Site

Critical Habitat

- Coastal California gnatcatcher
- Least Bell's vireo
- San Diego ambrosia
- Southwestern willow flycatcher

Sweetwater River

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Source: Aerial (SanGIS 2019)

HELIX Environmental Planning

USFWS Critical Habitat

Figure 2.2-2

Project Site

Major Use Permit Boundary

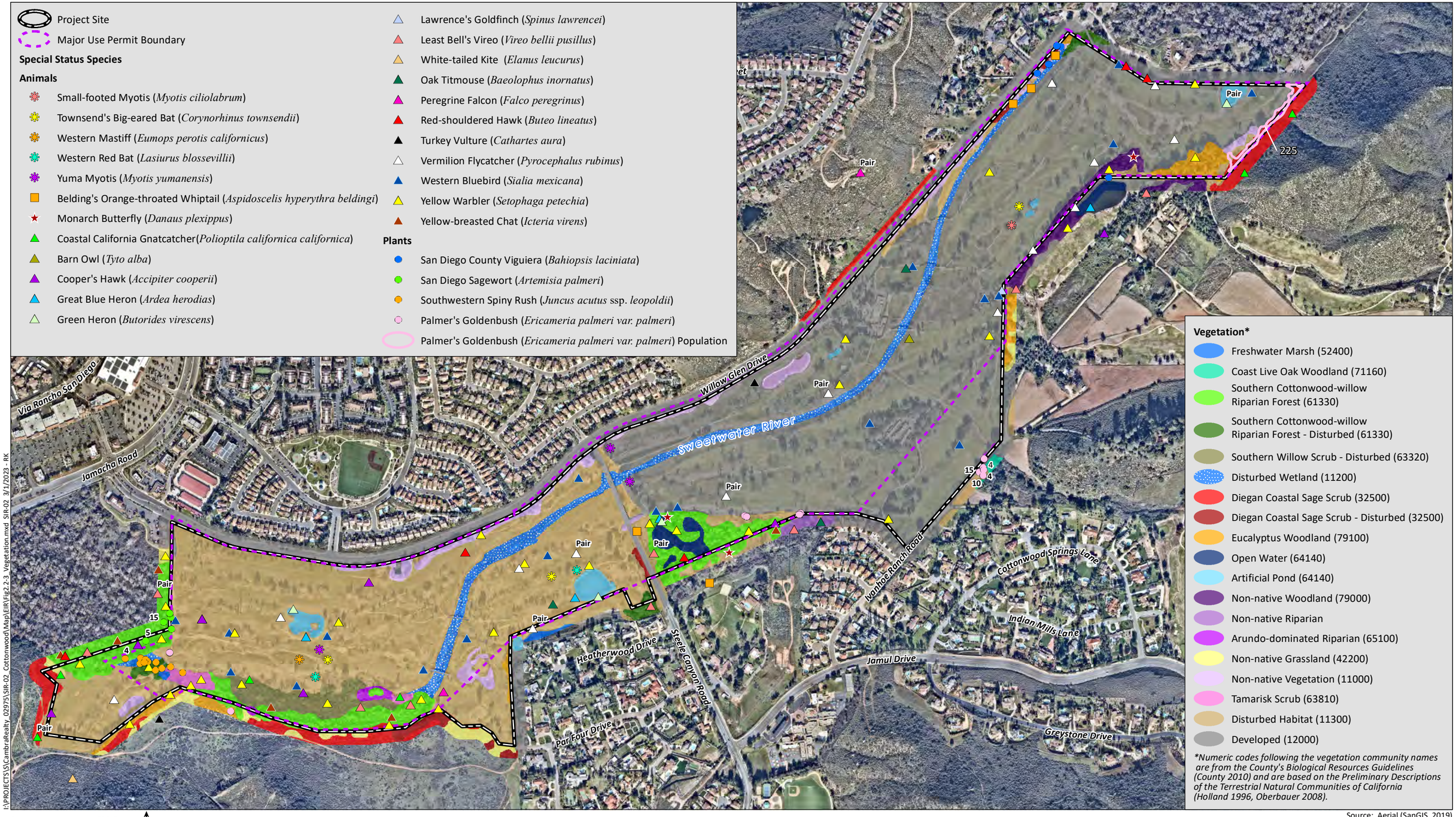
Special Status Species

Animals

- Small-footed Myotis (*Myotis ciliolabrum*)
- Townsend's Big-eared Bat (*Corynorhinus townsendii*)
- Western Mastiff (*Eumops perotis californicus*)
- Western Red Bat (*Lasiurus blossevillii*)
- Yuma Myotis (*Myotis yumanensis*)
- Belding's Orange-throated Whiptail (*Aspidoscelis hyperythra beldingi*)
- Monarch Butterfly (*Danaus plexippus*)
- Coastal California Gnatcatcher(*Polioptila californica californica*)
- Barn Owl (*Tyto alba*)
- Cooper's Hawk (*Accipiter cooperii*)
- Great Blue Heron (*Ardea herodias*)
- Green Heron (*Butorides virescens*)
- Lawrence's Goldfinch (*Spinus lawrencei*)
- Least Bell's Vireo (*Vireo bellii pusillus*)
- White-tailed Kite (*Elanus leucurus*)
- Oak Titmouse (*Baeolophus inornatus*)
- Peregrine Falcon (*Falco peregrinus*)
- Red-shouldered Hawk (*Buteo lineatus*)
- Turkey Vulture (*Cathartes aura*)
- Vermilion Flycatcher (*Pyrocephalus rubinus*)
- Western Bluebird (*Sialia mexicana*)
- Yellow Warbler (*Setophaga petechia*)
- Yellow-breasted Chat (*Icteria virens*)

Plants

- San Diego County Viguiera (*Bahiopsis laciniata*)
- San Diego Sagewort (*Artemisia palmeri*)
- Southwestern Spiny Rush (*Juncus acutus* ssp. *leopoldii*)
- Palmer's Goldenbush (*Ericameria palmeri var. palmeri*)
- Palmer's Goldenbush (*Ericameria palmeri var. palmeri*) Population



Vegetation*

- Freshwater Marsh (52400)
- Coast Live Oak Woodland (71160)
- Southern Cottonwood-willow Riparian Forest (61330)
- Southern Cottonwood-willow Riparian Forest - Disturbed (61330)
- Southern Willow Scrub - Disturbed (63320)
- Disturbed Wetland (11200)
- Diegan Coastal Sage Scrub (32500)
- Diegan Coastal Sage Scrub - Disturbed (32500)
- Eucalyptus Woodland (79100)
- Open Water (64140)
- Artificial Pond (64140)
- Non-native Woodland (79000)
- Non-native Riparian
- Arundo-dominated Riparian (65100)
- Non-native Grassland (42200)
- Non-native Vegetation (11000)
- Tamarisk Scrub (63810)
- Disturbed Habitat (11300)
- Developed (12000)

**Numeric codes following the vegetation community names are from the County's Biological Resources Guidelines (County 2010) and are based on the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1996, Oberbauer 2008).*

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Source: Aerial (SanGIS, 2019)

HELIX Environmental Planning

Vegetation and Sensitive Resources

Figure 2.2-3

- Project Site
- Sample Point

Non-jurisdictional Features

- Artificial Pond

Non-wetland Waters of the U.S.

- Streambed

Wetland Waters of the U.S.

- Disturbed Wetland
- Freshwater Marsh
- Open Water
- Southern Cottonwood-willow Riparian Forest
- Southern Cottonwood-willow Riparian Forest - Disturbed
- Southern Willow Scrub - Disturbed
- Tamarisk Scrub

Jamacha Way
Seca Street
Sonett Street
Wind River Road
Brabham Street
Hilton Head Road
Via Rancho San Diego
Jamacha Road
Willow Glen Drive
Sweetwater River
Lemon Grove Creek
Heatherwood Drive
Steele Canyon Road
Par Four Drive
Ivanhoe Ranch Road
Cottonwood Springs Lane
Indian Mills Lane
Jamul Drive
Greystone Drive

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Nearmap, SANDAG, SanGIS

Source: Aerial (SanGIS, 2019)

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HELIX Environmental Planning

Waters of the U.S.

Figure 2.2-4

Cottonwood Sand Mine

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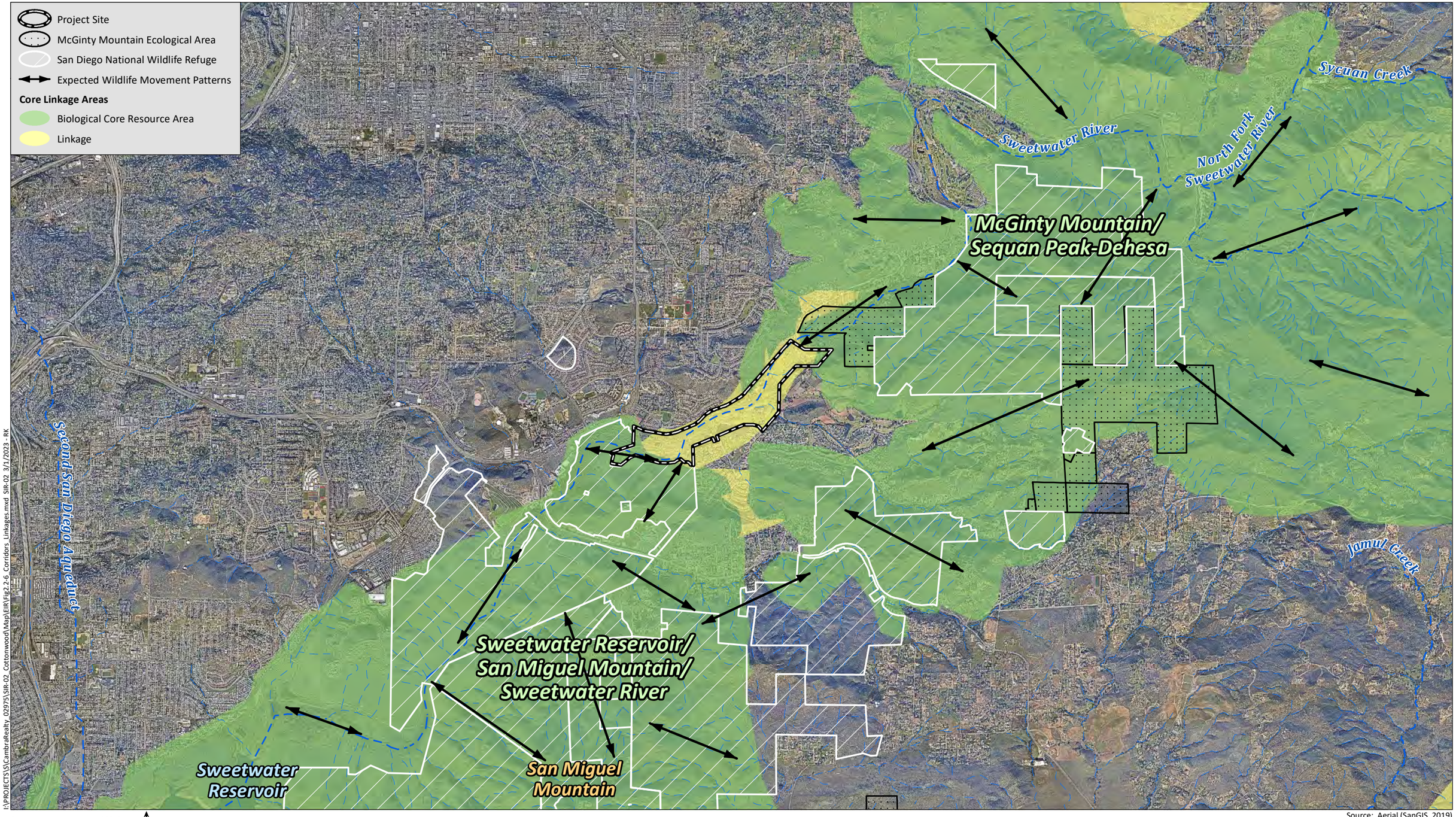
Source: Aerial (SanGIS, 2019)

HELIX Environmental Planning

CDFW Jurisdictional Areas

Figure 2.2-5



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Source: Aerial (SanGIS, 2019)

HELIX Environmental Planning

Conceptual Wildlife Corridors and Linkages

Figure 2.2-6

- Project Site
- Sample Point

Non-jurisdictional Features

- Artificial Pond

County RPO Wetlands

- Arundo-dominated Riparian
- Disturbed Wetland
- Freshwater Marsh
- Open Water
- Southern Cottonwood-willow Riparian Forest
- Southern Cottonwood-willow Riparian Forest - Disturbed
- Southern Willow Scrub - Disturbed
- Tamarisk Scrub

Jamacha Way
Seca Street
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Jamacha Road
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Sweetwater River
Mexican Canyon Creek
Heatherwood Drive
Steele Canyon Road
Par Four Drive
Ivanhoe Ranch Road
Cottonwood Springs Lane
Indian Mills Lane
Jamul Drive
Greystone Drive

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Nearmap, SANDAG, SanGIS

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Source: Aerial (SanGIS, 2019)

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HELIX Environmental Planning

County RPO Wetlands

Figure 2.2-7

Cottonwood Sand Mine

- Project Site
- Major Use Permit Boundary
- Phase 1
- Phase 2
- Phase 3
- Phase 4/Proccessing Plant
- Impact Area
- Impact Neutral Area
- Roadway Improvement Impacts
- Trail Impacts
- Conceptual Multi-Use Trails (Post-Reclamation)
- Proposed Pathway

Special Status Species

Animals

- Small-footed Myotis (*Myotis ciliolabrum*)
- Townsend's Big-eared Bat (*Corynorhinus townsendii*)
- Western Mastiff (*Eumops perotis californicus*)
- Western Red Bat (*Lasiurus blossevillii*)
- Yuma Myotis (*Myotis yumanensis*)
- Belding's Orange-throated Whiptail (*Aspidoscelis hyperythra beldingi*)
- Monarch Butterfly (*Danaus plexippus*)
- Coastal California Gnatcatcher(*Polioptila californica californica*)
- Barn Owl (*Tyto alba*)
- Cooper's Hawk (*Accipiter cooperii*)
- Great Blue Heron (*Ardea herodias*)
- Green Heron (*Butorides virescens*)
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- Least Bell's Vireo (*Vireo bellii pusillus*)
- White-tailed Kite (*Elanus leucurus*)
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- Peregrine Falcon (*Falco peregrinus*)
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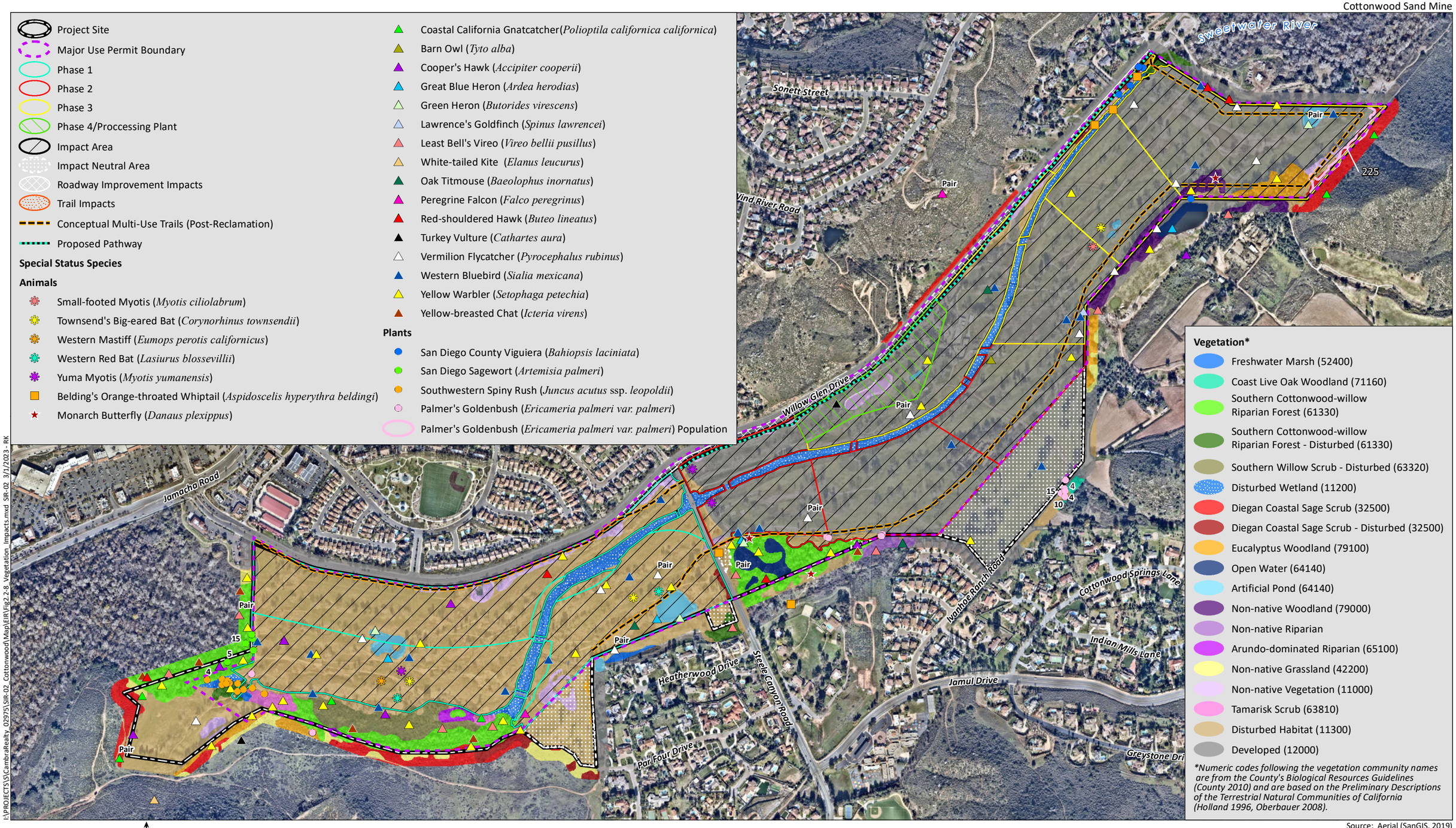
- Vermilion Flycatcher (*Pyrocephalus rubinus*)
- Western Bluebird (*Sialia mexicana*)
- Yellow Warbler (*Setophaga petechia*)
- Yellow-breasted Chat (*Icteria virens*)

Plants

- San Diego County Viguiera (*Bahiopsis laciniata*)
- San Diego Sagewort (*Artemisia palmeri*)
- Southwestern Spiny Rush (*Juncus acutus* ssp. *leopoldii*)
- Palmer's Goldenbush (*Ericameria palmeri var. palmeri*)
- Palmer's Goldenbush (*Ericameria palmeri var. palmeri*) Population



Vegetation*

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- Southern Cottonwood-willow Riparian Forest (61330)
- Southern Cottonwood-willow Riparian Forest - Disturbed (61330)
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- Open Water (64140)
- Artificial Pond (64140)
- Non-native Woodland (79000)
- Non-native Riparian
- Arundo-dominated Riparian (65100)
- Non-native Grassland (42200)
- Non-native Vegetation (11000)
- Tamarisk Scrub (63810)
- Disturbed Habitat (11300)
- Developed (12000)

**Numeric codes following the vegetation community names are from the County's Biological Resources Guidelines (County 2010) and are based on the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1996, Oberbauer 2008).*

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Source: Aerial (SanGIS, 2019)

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HELIX Environmental Planning

Vegetation and Sensitive Resources/Impacts

Figure 2.2-8

- Project Site
- Proposed Pathway
- Conceptual Multi-Use Trails (Post-Reclamation)
- Open Space Conceptual Signage Location
- Existing Fencing
- Proposed Fencing
- Easements and Rights-of-way
- Limited Building Zone Easement
- Biological Open Space
- Non-Biological Open Space
- Additional Reclaimed Areas*
- Retained in Existing Condition

**Additional reclaimed areas are composed of graded upland pads located outside of the expanded Sweetwater River floodplain that will be seeded with an erosion control seed mix.*

Jamacha Way
Sweetwater River
Sonett St
Aspen Ln
Wind River Rd
Sea Pines Rd
Via Rancho San Diego
Bridge Right-of-way
SDG&E Towers
Ivanhoe Ranch Rd
Augusta Ct
Jamacha Rd
Hilton Head Rd
Access Road
Willow Glen Dr
SDG&E Easement
Steele Canyon Rd
Cottonwood Springs Ln
Ashley Park Dr
Indian Mills Ln
Wentworth Way
Heatherwood Dr
Jamul Dr
Par Four Dr
Greystone Dr

Nearmap, SANDAG, SanGIS

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Source: Aerial (SanGIS, 2019)

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HELIX Environmental Planning

Proposed Biological Open Space

Figure 2.2-9

- Project Site
- Impact Area
- Impact Neutral Area
- Roadway Improvement Impacts
- Sample Point

Non-jurisdictional Features

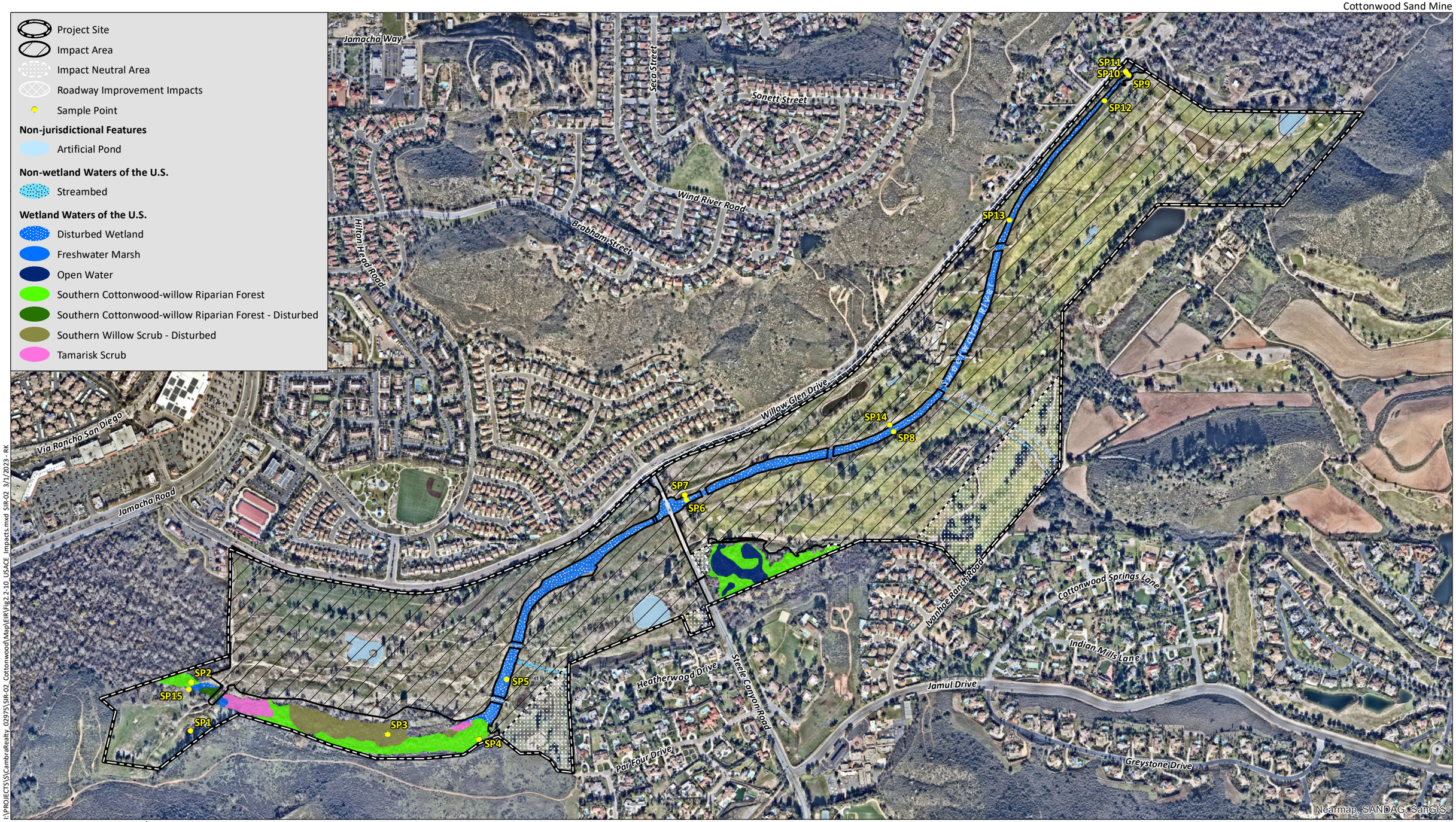
- Artificial Pond

Non-wetland Waters of the U.S.

- Streambed

Wetland Waters of the U.S.

- Disturbed Wetland
- Freshwater Marsh
- Open Water
- Southern Cottonwood-willow Riparian Forest
- Southern Cottonwood-willow Riparian Forest - Disturbed
- Southern Willow Scrub - Disturbed
- Tamarisk Scrub



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Source: Aerial (SanGIS, 2019)

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HELIX Environmental Planning

Waters of the U.S./Impacts

Figure 2.2-10

- Project Site
- Impact Area
- Impact Neutral Area
- Roadway Improvement Impacts
- Sample Point

Non-jurisdictional Features

- Artificial Pond

CDFW Jurisdictional Areas

- Arundo-dominated Riparian
- Disturbed Wetland
- Freshwater Marsh
- Open Water
- Southern Cottonwood-willow Riparian Forest
- Southern Cottonwood-willow Riparian Forest - Disturbed
- Southern Willow Scrub - Disturbed
- Streambed
- Tamarisk Scrub

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Nearmap, SANDAG, SanGIS

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Source: Aerial (SanGIS, 2019)

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HELIX Environmental Planning

CDFW Jurisdictional Areas/Impacts

Figure 2.2-11

Cottonwood Sand Mine

- Project Site
- Impact Area
- Impact Neutral Area
- Roadway Improvement Impacts
- Sample Point

Non-jurisdictional Features

- Artificial Pond

County RPO Wetlands

- Arundo-dominated Riparian
- Disturbed Wetland
- Freshwater Marsh
- Open Water
- Southern Cottonwood-willow Riparian Forest
- Southern Cottonwood-willow Riparian Forest - Disturbed
- Southern Willow Scrub - Disturbed
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Heatherwood Drive
Par Four Drive
Steele Canyon Road
Ivanhoe Ranch Road
Cottonwood Springs Lane
Indian Mills Lane
Jamul Drive
Greystone Drive

Nearmap, SANDAG, SanGIS

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Source: Aerial (SanGIS, 2019)

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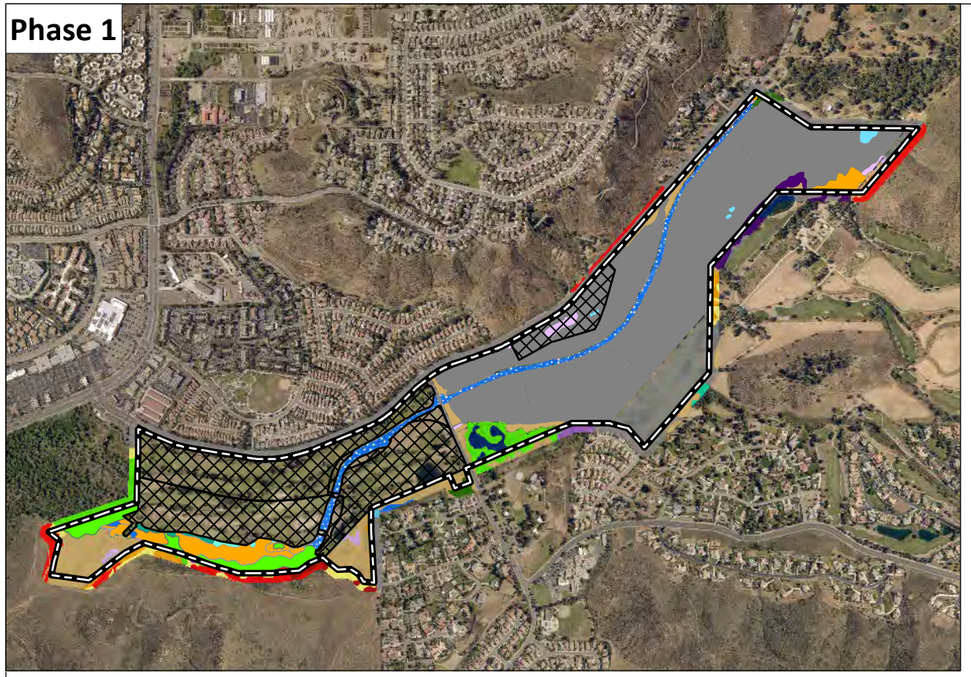
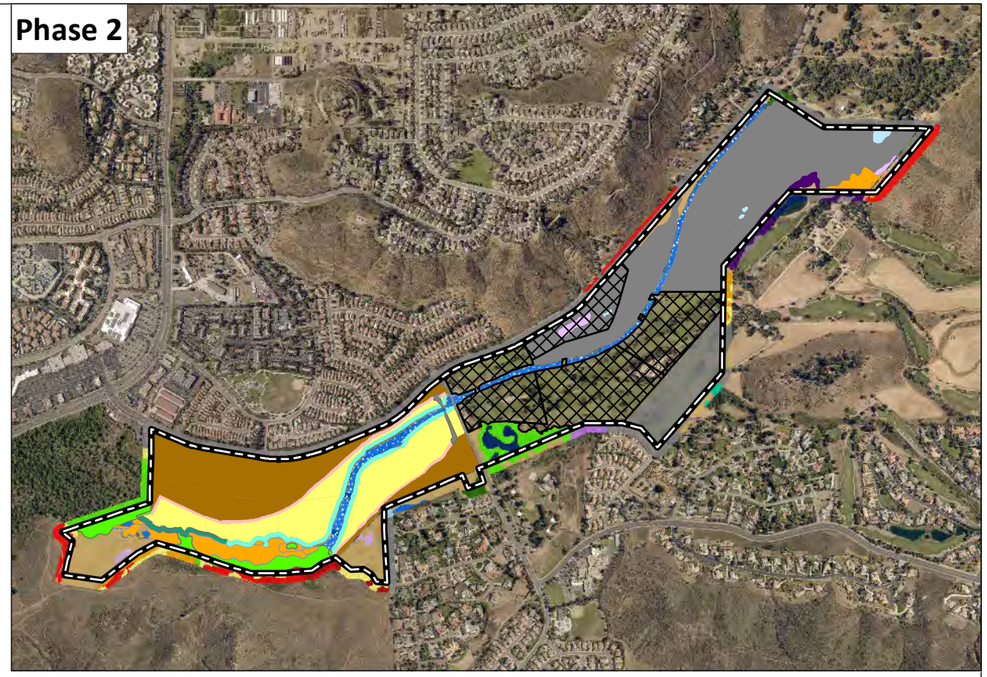
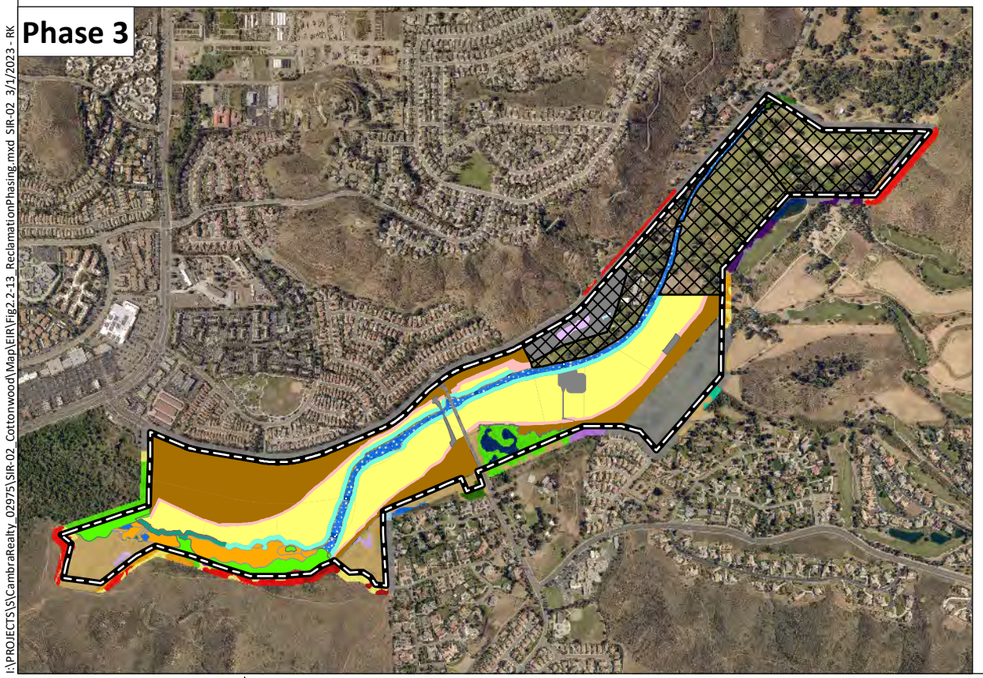
HELIX Environmental Planning

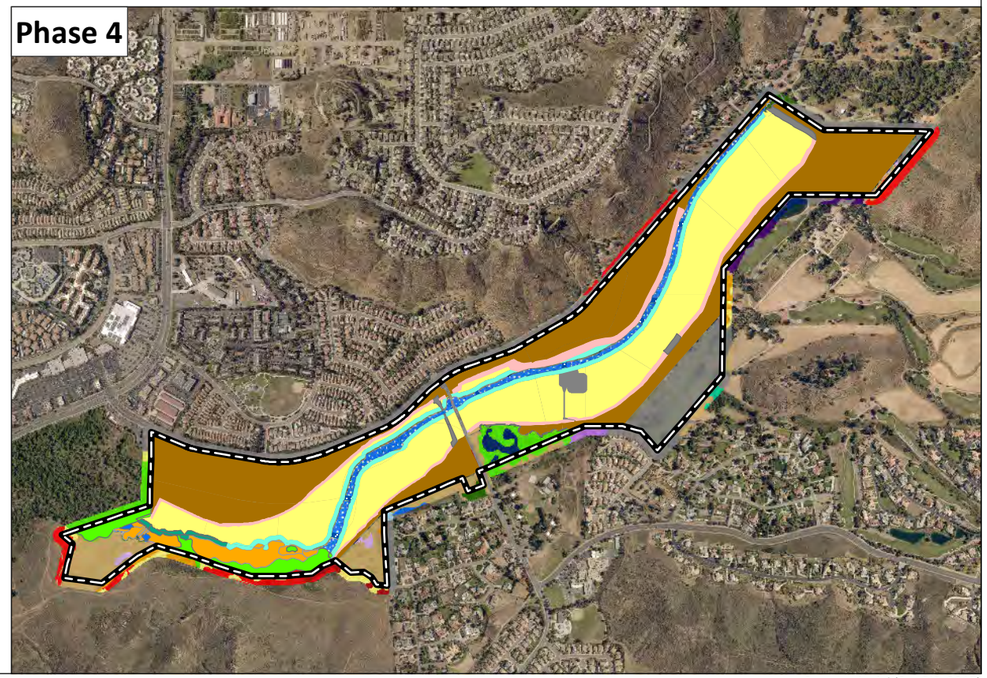
County RPO Wetlands/Impacts

Figure 2.2-12









Project Site
Disturbance Area

Conceptual Reclamation Revegetation
- Streambed
- Riparian Scrub
- Riparian Forest
- Coastal Sage Scrub
- Additional Reclaimed Areas

Conceptual Compensatory Mitigation
- Wetland Waters Re-establishment Riparian Forest
- Riparian Rehabilitation Riparian Scrub

Vegetation
- Freshwater Marsh (52400)
- Coast Live Oak Woodland (71160)
- Southern Cottonwood-willow Riparian Forest (61330)
- Southern Cottonwood-willow Riparian Forest - Disturbed (61330)
- Southern Willow Scrub - Disturbed (63320)
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- Diegan Coastal Sage Scrub (32500)
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- Artificial Pond (64140)
- Non-native Woodland (79000)
- Non-native Riparian
- Arundo-dominated Riparian (65100)
- Non-native Grassland (42200)
- Non-native Vegetation (11000)
- Tamarisk Scrub (63810)
- Disturbed Habitat (11300)
- Developed (12000)

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Source: Aerial (SanGIS, 2017)

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HELIX Environmental Planning

Extraction and Reclamation Phasing

Figure 2.2-13