IS/MND Appendix B

Supplemental Biological Resources Report

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Subject: Supplemental Biological Resources Report for the East County Advanced Water Purification Project

Dear Mr. Baker:

HELIX Environmental Planning, Inc. (HELIX) prepared this brief supplemental Biological Resources Report for the East County Advanced Water Purification (East County AWP) Project (project) to document minor design changes being implemented in an effort to avoid existing utilities, avoid rocks and hard surfaces, avoid and minimize impacts to sensitive biological resources, and accommodate alternative construction methodologies (i.e., trenchless pipeline installation techniques). This supplemental report specifically addresses the "modification focus areas" identified on Figure 1, *Aerial Overview*.

PROJECT MODIFICATIONS

The previous design analyzed in the Final IS/MND dated December 2018 (District 2018) incorporated the location of proposed East County AWP alignments and components. The project incorporates four Packages during the final design and construction phases, all of which occur concurrently. Package 1 consists of the construction of the new Ray Stoyer Water Recycling Facility (WRF), construction of a Solids Handling and Energy Recovery Facility, and construction of an Advanced Water Treatment Plant Facility. Package 2 consists of the East County AWP pipeline, which has been further divided into pipeline segments, a dechlorination facility, and an aeration blower building and generator. Package 3 includes the residuals bypass system pipeline, East Mission Gorge Force Main, residuals bypass system lift station, influent pump station, and East Mission Gorge Pump Station. Additional modifications were brought forward in 2021 that were organized into a fourth package referred to as Package 4. Package 4 consists of the rehabilitation of the existing East Mission Gorge Force Main and the construction of a wet weather force main and regional brine line primarily within the rehabilitated East Mission Gorge Force Main. Because Package 4 project components were not analyzed in the 2018 Final IS/MND or technical documents, Package 4 impacts are discussed in the Biological Technical Report for the East Mission Gorge Force Main Rehabilitation and Regional Brine Line Project (HELIX 2022).

Sections of the planned pipeline alignments must be shifted to avoid existing utilities in the area, as well as to avoid sensitive biological resources and the presence of large rocks or hard surfaces. Minor adjustments were also required to accommodate alternative low-impact installation techniques and easement acquisitions. The Package 1 footprint has been slightly enlarged to utilize all available developed areas within the existing Ray Stoyer WRF footprint. In addition, Package 1 will include the recontouring and reconfiguration of Pond C, a constructed seasonal storage pond for stormwater, and the District's effluent recycled water. The recontouring activities related to Pond C would also be confined within the existing Ray Stoyer WRF footprint. In addition, the updated design resulted in a minor reconfiguration of the project pipeline alignments, including realignments of Package 2 and Package 3. In addition, the updated design resulted in a minor reconfiguration of the project alignments, including realignments of Package 2 and Package 3. Package 2 realignments include Segment 1, Segment 4, Segment 6, Segment 8, and Segment 10. Package 3 realignments include Segment 1 and Segment 2. The project also proposes a 12-inch potable water line from Strathmore Drive to Package 1 in association with Package 2 and a fiber optic line in association with Package 3. Previously analyzed project components, including the Package 2 interpretive site and proposed water feature at Lake Jennings, were also reconfigured and redesigned to reduce impacts to sensitive resources (Figure 1).

The supplemental analysis generally found that the impacts to biological resources were consistent with, or would result in a reduction of, certain impacts on biological resources compared with what was previously analyzed in the IS/MND. However, due to the recent federal listing of the Hermes copper butterfly (*Lycaena hermes*) and designation of critical habitat for the species over a portion of the project, supplemental analysis specific to these issues is warranted.

SIGNIFICANCE DETERMINATIONS AND MITIGATION FOR THE MODIFIED PROJECT

ISSUE 1: Special-Status Species

Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Impact Analysis

Special-Status Plants

Portions of the new Package 2 potable water line would occur within Diegan coastal sage scrub, and the modified Package 2 and Package 3 Segment 1 alignments have been shifted east into Diegan coastal sage scrub and non-native grassland habitats in order to achieve the required avoidance and distance separation from existing utilities. Both Diegan coastal sage scrub and non-native grassland habitats have the potential to contain special-status plant species, including San Diego barrel cactus (*Ferocactus viridescens*), a California Rare Plant Rank 2B.1 species, and San Diego goldenstar (*Bloomeria clevelandii*), a California Rare Plant Rank 1B.1 species. These special-status plant species are known to occur east of modified Package 2 and Package 3 Segment 1 and north of the Package 2 potable water line; however, neither species have been observed within the potential impact areas of the project during biological surveys. San Diego barrel cactus is a conspicuous succulent that would likely have already been observed if present; therefore, this species is presumed to be absent, and no impacts would occur. San Diego goldenstar is a perennial herb that typically occurs in grasslands with clay soils and in or near

vernal pools. No portions of the project impact area occur in or near vernal pools. Limited portions occur within non-native grassland that provide marginally suitable habitat for the species; however, the species has never been observed during biological surveys completed for the project and thus determined to be absent. Implementation of the Biological Resources Report and IS/MND mitigation measures would ensure that the areas supporting special-status plant species, including San Diego goldenstar if observed within the modified Package 2 and Package 3 Segment 1 area, are shown on project plans, delineated in the field prior to construction, and avoided during project construction to the extent feasible. Any inadvertent and unavoidable impacts shall be mitigated in accordance with the Biological Resources Report and IS/MND mitigation measures; therefore, impacts would be less than significant with mitigation incorporated. No special-status plant species were observed, and none are known to occur within these study or impact areas.

The proposed realignment of Package 2 Segment 10 would extend this previously analyzed alignment and Lake Jennings interpretive site and the proposed water feature approximately 100 feet south from the previously analyzed outlet (Figure 2-6, *Modified Impact Areas – Package 2 Segment 8*). Package 2 Segment 10 of the original project alignment included impacts to ashy spike-moss (*Selaginella cinerascens*), delicate (Campo) clarkia (*Clarkia delicata*), San Diego County viguiera (*Bahiopsis laciniata*), and San Diego goldenstar. The modified Package 2 Segment 10 alignment and Lake Jennings interpretive site and the proposed water feature would result in additional impacts to San Diego County viguiera, a CRPR 4 plant that is relatively widespread in the local and regional area; therefore, impacts would be less than significant. The modified Package 2 Segment 10 alignment would still impact the other aforementioned species but would not result in additional impacts beyond what was previously analyzed.

No special-status plant species were observed or known to occur within the modified impact area of Package 1, the Pond C recontouring, Package 2 Segment 4, Segment 6, or Segment 8 alignments, or Package 3 Segment 2; therefore, these project modifications and realigned segments would not result in impacts to special-status plant species.

No new special-status plant species occur within any of the project modifications, and no additional significant impacts to special-status plant species are anticipated. The project modifications would not result in new or greater significant impacts or new or greater substantial adverse effects on special-status plant species.

Special-Status Animals

Hermes Copper Butterfly

The USFWS listed the Hermes copper butterfly as a federally threatened species on December 21, 2021. Concurrent with the listing, the USFWS also finalized the designation of critical habitat for this species in San Diego County. With this designation, an estimated 1.5 acres of the project is located within Hermes copper butterfly critical habitat. The portions of the project within Hermes copper butterfly designated critical habitat are at the northern ends of Package 2 and Package 3, and a portion of the Package 2 potable water line west of the northern terminus of Strathmore Drive (Figure 3, *Hermes Critical Habitat and Potentially Suitable Habitat with Impacts*). Per the USFWS, suitable habitat for the species is considered to consist of spiny redberry (*Rhamnus crocea*), the Hermes copper butterfly host plant,

within 15 feet of California buckwheat (*Eriogonum fasciculatum*), the preferred nectar source for the Hermes copper butterfly, or any other Hermes nectar sources (USFWS 2021).

Potentially suitable habitat for Hermes copper butterfly occurs only within Package 2 and Package 3 Segment 1 (Figure 4-1, *Vegetation and Sensitive Resources with Impacts – Package 1 and Packages 2 & 3 Segment 1a*) and Package 2 Segment 10 (Figure 4-7, *Vegetation and Sensitive Resources with Impacts – Package 2 Segment 10*), collectively totaling 0.13 acre of potentially suitable habitat. Of the 0.13 acre within the study area, approximately 0.03 acre of potentially suitable habitat (approximately 1,330 square feet), or two percent, occurs within designated Hermes critical habitat within the proposed Package 2 and Package 3 Segment 1 impact area. The potentially suitable habitat within Package 2 Segment 10 is located along the existing dirt trail outside of critical habitat. Approximately 0.01 acre of potentially suitable habitat occurs within the proposed Package 2 Segment 10 impact area.

Hermes focused surveys were conducted within the Package 2 and Package 3 Segment 1 and Package 2 potable water line study areas in 2004, 2016, and 2020. No Hermes copper butterfly have been detected during these surveys within this portion of the study area and vicinity. The closest positive detection of Hermes was approximately 1,700 feet southeast, 8,850 feet east northeast, and 12,675 feet northeast of the study area in 2003, 2004, and 2005, respectively; however, the species was not detected again in those areas during subsequent surveys in 2016 or 2020 (Santee 2020). Hermes copper butterfly have not been previously detected in the vicinity of Package 2 Segment 10. Hermes copper butterfly has not been observed within the project study area and is not currently known within the immediate vicinity; therefore, the survey results indicate that Hermes are presumed to be absent and are considered to have a low potential to occur within the study area in the future.

Open trench and trenchless construction techniques are proposed in approximately 1.5 acres of designated Hermes copper butterfly critical habitat, which would result in temporary impacts; however, of the 1.5 acres total, the amount of potentially suitable habitat for the species is approximately 0.03 acre of the total amount of critical habitat within the project's impact area.

A 2004 study found a median of 33.9, a maximum of 96.2, and a minimum of 18.8 of Hermes copper butterfly detected per acre of suitable habitat (Marschalek 2004). Furthermore, Hermes copper butterfly have limited dispersal abilities and require unfragmented patches of suitable habitat for reproduction (USFWS 2021). Extrapolating using the same population parameters of the 2004 study, the 0.03 acre of potentially suitable Hermes habitat within the Package 2 and Package 3 Segment 1 impact area has the potential to support a single Hermes copper butterfly, but no more than three butterflies; however, potentially suitable habitat within the study area consists of fragmented and patchy islands of habitat, which significantly reduces the potential of this species to occur. The two isolated areas totaling 0.01 acre of potentially suitable Hermes habitat within the Package 2 Segment 10 impact area do not have the potential to support Hermes copper butterfly primarily based on the very small size of the habitat, isolation from other potential habitat, and distance from known occurrences.

The results of the surveys summarized above, and the best available scientific information reviewed indicate that Hermes are absent. The negative survey results and the very small and fragmented suitable habitat within the project study area are evidence that Hermes is currently absent and has a low potential to occur within the study area in the future. If Hermes were to occur in the study area prior to construction, because of the very small amount of suitable habitat, it is estimated that the maximum potential impact on Hermes individuals could be one to three individuals. This potential impact on a

federally listed species would be significant. However, with the implementation of mitigation measures ECAWP Bio-4 and ECAWP Bio-8, the potential impact would be reduced to a less than significant level.

The mitigation measures previously described in the 2018 IS/MND require protocol-level and preconstruction surveys for special status species. Updated project-specific focused surveys for the Hermes copper butterfly are scheduled to be conducted in 2022 to confirm the continued absence of the species within the project impact areas. Should the updated focused Hermes surveys confirm the continued absence of the species, potential impacts on Hermes copper butterfly, designated Hermes copper butterfly critical habitat, and potentially suitable Hermes habitat, would be less than significant with the implementation of Mitigation Measures ECAWP Bio-7 and ECAWP Bio-8 to restore temporary impact areas, including full replacement of any temporarily lost physical and biological features within the species' designated critical habitat. Should the updated focused Hermes survey determine the presence of the species, implementation of Mitigation Measure ECAWP Bio-8 would reduce impacts on the Hermes copper butterfly and its critical habitat to less than significant.

As a regulatory requirement, the JPA and the federal action agency are required to re-initiate consultation with the USFWS pursuant to section 7 of the Endangered Species Act regarding the potential effect of the project on the Hermes copper butterfly and its critical habitat. ECAWP Bio-8 includes measures that will mitigate the impacts of the project on the Hermes copper butterfly and its critical habitat, which are required to comply with the (i) the regulatory standards of section 7(a) of the federal Endangered Species Act (16 U.S.C § 1536(a), and (ii) any the terms and conditions included by USFWS in a biological opinion to comply with the regulatory standards of section 7b) of the (16 U.S.C. § 1536(b) regarding minimization and mitigation of take of Hermes copper butterflies incidental to the construction of the project. At a minimum, the project will implement avoidance, minimization, and compensatory mitigation measures at a ratio of 1:1 as described in measure ECAWP Bio-8. As with the original project, Diegan coastal sage scrub and other potentially suitable habitat for the Hermes copper butterfly within the alignment would be restored in accordance with Mitigation Measures ECAWP Bio-7 and ECAWP Bio-8 to ensure there is no net loss of physical and biological features of the critical habitat within the species' designated critical habitat.

Quino Checkerspot Butterfly

The modified Package 2 and Package 3 Segment 1 alignment has been shifted east into Diegan coastal sage scrub habitat containing dwarf plantain (*Plantago erecta*), the primary host plant species of the federally listed as endangered Quino checkerspot butterfly (*Euphydryas editha quino*), resulting in impacts on potential host plants for the Quino checkerspot butterfly (Figure 4-1). Additional modifications include the relocation of modified Package 2 Segment 8 alignment to be primarily within roadways, resulting in the avoidance of previously anticipated impacts to dwarf plantain (Figure 2-5, *Modified Impact Areas - Package 2 Segment 6*). Updated protocol-level surveys for the Quino checkerspot butterfly were completed in 2021 in support of this supplemental; the 2021 survey results were negative, indicative of the continued absence of the species within the area (HELIX 2021). As of the submittal of this report, 2022 updated protocol-level surveys were underway, and thus far, are negative for Quino checkerspot butterfly. Therefore, the Quino checkerspot butterfly continues to be absent, and no impacts to this species are anticipated.

Other Special-Status Animals

Several special-status animal species are known to occur within and adjacent to the original project alignment, including American white pelican (*Pelecanus erythrorhynchos*), Caspian tern (*Hydroprogne caspia*), Cooper's hawk (*Accipiter cooperii*), coastal California gnatcatcher (*Polioptila californica californica*), Costa's hummingbird (*Calypte costae*), double-crested cormorant (*Phalacrocorax auritus*), least Bell's vireo (*Vireo bellii pusillus*), osprey (*Pandion haliaetus*), San Diego cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), and yellow warbler (*Setophaga petechia*).

Yellow-breasted chat (*Icteria virens*) was not detected during the original project surveys but was detected adjacent to the modified Package 2 Segment 6 preferred alignment during subsequent surveys, as shown on Figure 4-5, *Vegetation and Sensitive Resources with Impacts – Package 2 Segment 6*. Potential impacts on this species would be limited to the temporary displacement of individuals during project construction as all impacts are proposed within developed and upland areas. Implementation of mitigation measures already required and incorporated in the Biological Resources Report and IS/MND would reduce impacts to less than significant.

Yellow-breasted chat (*Icteria virens*)
Status: --/SSC
Distribution: Occurs throughout San Diego County's coastal lowlands in the breeding season
Habitat(s): Mature riparian woodland
Status on site: Detected west of the modified Package 2 Segment 6 within the southern cottonwood-willow riparian forest. A single individual was detected during project surveys.

No other special-status animal species occur within or adjacent to the modified impact area of Package 1, the Pond C recontouring, Package 2 potable water line, Segment 4, Segment 6, or Segment 10 alignments, or Package 2 Lake Jennings interpretive site and the proposed water feature; therefore, these project modifications would not result in additional significant impacts to special-status animal species.

Mitigation Measures

As discussed above, the project would be required to implement Mitigation Measure ECWP Bio-8 to minimize and reduce potential adverse effects that could occur to Hermes copper butterfly and its designated critical habitat as a result of project construction. Updated Hermes copper butterfly protocol-level surveys are being conducted in 2022 within potential impact areas of the project. Should the surveys determine the project site is occupied by the species, the JPA and federal action agency for the project shall re-initiate consultation with the USFWS regarding potential effects on the species and its designated critical habitat. Furthermore, the JPA shall implement avoidance and minimization measures during construction to prevent and minimize impacts to individuals and occupied habitat. Finally, compensatory mitigation measures shall be required to fully offset any temporary or permanent loss of occupied habitat.

ECAWP Bio-8 **Hermes Copper Avoidance, Minimization, and Compensatory Mitigation**. Prior to initiating project construction within areas supporting potential Hermes copper habitat and/or areas within designated critical habitat for the species, the JPA shall complete the following:

The JPA shall retain a qualified biologist to conduct updated protocol-level surveys for the Hermes copper butterfly in accordance with the County of San Diego Guidelines for Hermes Copper, dated September 15, 2010, which is the most current survey protocol recommended by the USFWS. The biologist shall have demonstrated experience surveying for the species using this protocol.

If the species is confirmed to be absent from potential impact areas of the project, inside or outside of the designated critical habitat, then no additional action shall be required, and any impacts to sensitive natural communities shall be mitigated in accordance with Mitigation Measure ECAWP Bio-7. Impacted spiny redberry within the designated critical habitat shall be replaced within the potential impact areas at a 1:1 ratio, in conjunction with California buckwheat, to ensure no net loss to the designated critical habitat and the physical and biological features of the species' designated critical habitat.

If the species is confirmed to be present within the potential impact areas of the project that occur inside of the designated critical habitat, then the measures described below shall be implemented.

The JPA and/or federal action agency shall complete the re-initiation of Endangered Species Act Section 7 consultation with the USFWS and shall implement measures identified by USFWS or the federal action agency to comply with the regulatory standards of section 7(a)(2) of the Endangered Species Act (16 U.S.C. §§ 1536(a)(2)) regarding impacts on the species and critical habitat. If the USFWS issues a biological opinion with regard to the re-consultation, the JPA will comply with any terms and conditions included in the biological opinion to comply with the regulatory standards of section 7(b)(4) of the Endangered Species Act (16 U.S.C. § 1536(b)(4) regarding minimizing and mitigating take of Hermes copper butterflies incidental to the construction and operation of the project. At a minimum, the following avoidance, minimization, and compensatory mitigation measures shall be implemented by the JPA:

A qualified biologist shall be retained to inventory and demarcate in the field, with flagging, staking, or similar methods, the boundaries of habitat determined to be occupied by the species in relation to project work areas. To the extent feasible, while allowing construction to proceed in a safe manner, the demarcated occupied habitat shall be avoided during project construction.

To the extent feasible, the project construction shall be restricted to periods that occur outside of the Hermes copper flight season, which is generally defined as May through July. If project construction must occur during the flight season, a qualified biologist shall be present during construction activities that occur within or immediately adjacent to occupied habitat and shall have the authority to temporarily halt work if the project

construction activities are observed to disrupt adult behavior or otherwise adversely affect individuals. If the qualified biologist finds that adverse project effects on Hermes copper butterfly and/or its habitat exceed those addressed during the consultation with the USFWS, the project activities generating those effects shall be temporarily halted and the USFWS shall be consulted to determine additional measures that may be required.

Direct project impacts on occupied habitat and potential habitat (i.e., unoccupied habitat containing the physical and biological features of the species' designated critical habitat) shall be mitigated at a 1:1 ratio through in-kind restoration within or adjacent to project areas designated as critical habitat. The restoration shall ensure no net loss of physical and biological features within the critical habitat. If restoration within the critical habitat is determined infeasible due to existing or future land uses, utilities, or otherwise, the impacts shall be mitigated at a minimum 1:1 ratio through the establishment or re-establishment of potential habitat at an off-site location within critical habitat, or an alternative location determined in consultation with the USFWS. The off-site establishment or re-establishment shall ensure no net loss of physical and biological features within the critical habitat in the region.

Restoration and establishment or re-establishment mitigation shall include the preparation and implementation of a Habitat Mitigation and Monitoring Plan developed in consultation with the USFWS. At a minimum, the Habitat Mitigation and Monitoring Plan shall include requirements and specifications for responsible parties; mitigation site description; prescribed native plant palettes; installation and plant establishment period requirements; five-year maintenance and monitoring responsibilities; success criteria and performance standards; and reporting requirements. At a minimum, success criteria shall include 1:1 replacement of potential habitat acreage, zero percent coverage by non-native plants with a moderate or high level of invasiveness according to California Invasive Plant Council designations, and no more than 10 percent coverage by non-native vegetation, excluding non-native grasses that are naturalized components of the surrounding habitat. Off-site establishment or re-establishment areas shall be protected with a preservation mechanism, such as a restrictive covenant or conservation easement, and shall be managed in perpetuity by a land manager with demonstrated expertise in habitat management, such as a conservancy, public agency, or other entity approved by the USFWS. Long-term management shall be funded through the establishment of a non-wasting endowment or other funding mechanism to ensure management activities are adequately funded in perpetuity.

ISSUE 2: Sensitive Natural Communities

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS?

Impact Analysis

As with the original project, the modified project would result in impacts to sensitive natural communities and would require mitigation; however, project grading and disturbance limits to sensitive

natural communities are, overall, less than the original project, as illustrated in Table 1, *Impacts on Sensitive Natural Communities*.

Table 1
IMPACTS ON SENSITIVE NATURAL COMMUNITIES

	Original Impacts[2]			Modified Impacts[2]			Difference in Impacts [2,3]		
Sensitive Natural Community[1]	**Temporary**	**Permanent**	**Total**	**Temporary**	**Permanent**	**Total**	**Temporary**	**Permanent**	**Total**
Wetland/Riparian Habitats									
Freshwater Marsh	0.03	--	**0.03**	--	--	**--**	(0.03)	--	**(0.03)**
Mule Fat Scrub	0.02	--	**0.02**	--	--	**--**	(0.02)	--	**(0.02)**
Disturbed Wetland	--	--	**--**	<0.01	--	**<0.01**	<0.01	--	**<0.01**
Non-native Riparian	0.11	--	**0.11**	0.03	--	**0.03**	(0.09)	--	**(0.09)**
Open Water[4]	--	--	**--**	--	0.01	**0.01**	--	0.01	**0.01**
Southern Willow Scrub (including disturbed)	0.18	--	**0.18**	--	--	**--**	(0.18)	--	**(0.18)**
Wetland/Riparian Subtotal	0.34	--	**0.34**	0.03	0.01	**0.04**	0.01	0.01	**0.02**
Upland Habitats									
Diegan Coastal Sage Scrub (including disturbed)	5.4	3.0	**8.5**	5.7	0.1	**5.8**	0.3	(2.9)	**(2.7)**
Non-native Grassland	0.6	0.7	**1.3**	2.4	--	**2.4**	1.8	(0.7)	**1.1**
Upland Subtotal	6.1	3.7	**9.8**	8.1	0.1	**8.2**	2.1	(3.6)	**(1.6)**
TOTAL	6.40	3.7	**10.15**	8.13	0.11	**8.24**	1.73	(3.59)	**(1.78)**

1 Vegetation categories are from Holland (1986) and Oberbauer (2008).
2 Acres are rounded to the nearest 0.1 acre for upland habitats and 0.01 acre for wetland habitats; thus, totals reflect rounding. Numbers within parentheses reflect negative values.
3 Total modified project impacts to sensitive natural communities would be less; however, some temporary impacts are greater than originally analyzed. Values shown in parentheses represent modified impacts that are greater than originally analyzed.
4 Subaqueous installation of the aerator pipeline and the Lake Jennings Inlet would require temporary activities on the water surface, such as the use of boats and other activities that already occur on the lake on a regular basis. These would not be considered impacts to open water.

The proposed potable water line related to Package 2 would result in impacts to Diegan coastal sage scrub and non-native grassland (Figure 4-1). The modified Package 2 and Package 3 Segment 1 has been shifted to the east to avoid existing utilities within Fanita Parkway and would result in additional impacts to Diegan coastal sage scrub and non-native grassland (Figure 4-1). Trenchless construction techniques are proposed for sections of Package 2 Segment 1 to avoid impacts to potentially jurisdictional resources and sensitive natural communities such as Diegan coastal sage scrub. The construction technique for the modified Package 2 Segment 4 has been adjusted to open trench rather than the previously proposed trenchless construction and would result in additional impacts to Diegan coastal sage scrub and non-native grassland (Figure 4-4, *Vegetation and Sensitive Resources with Impacts – Package 2 Segment 4*). The modified Package 2 Segment 6 was realigned to cross the San Diego River using the Channel Road

bridge, rather than between Highway 67 and Lakeside Avenue. The pipeline would be suspended from the Channel Road bridge and cross Highway 67 within Mapleview Street, utilizing existing roads and disturbed habitats, and avoiding the majority of sensitive natural communities within the area (Figure 4-5). The modified Package 2 Segment 8 has been realigned into Lake Jennings Park Road and Laurel Canyon Road resulting in fewer impacts to Diegan coastal sage scrub (including disturbed) and non-native grassland (Figure 4-6, *Vegetation and Sensitive Resources with Impacts – Package 2 Segment 8*). The modified Package 2 Segment 10 and Lake Jennings interpretive site and the proposed water feature extend approximately 100 feet south from the previously analyzed outlet; however, the overall footprint of the modified components is less than originally analyzed and would result in fewer impacts to Diegan coastal sage scrub and freshwater marsh (Figure 4-7). Overall, the modified project would result in fewer impacts to sensitive natural communities as a result of the realignments and modifications (Table 1).

Pond C is a constructed seasonal storage pond that is maintained and operated for recycled water purposes that is part of a controlled water treatment system owned and operated by the District. There are three seasonal storage ponds that are affiliated with the existing Ray Stoyer WRF and are owned and operated by Padre Dam Municipal Water District. The ponds were created to receive and detain controlled water flows pumped from the facility. The ponds are routinely drained, filled, and maintained as part of regular facility operations. In addition, vegetation growing within Pond C is subject to routine and regular maintenance in which vegetation and algae are cleared from the ponds. Given their human-derived, operated, and maintained state as part of the existing developed facility, Pond C and the other seasonal storage ponds associated with the Ray Stoyer WRF have been classified herein as a type of developed land. No sensitive natural communities occur within modified Package 1, including the proposed modifications for Pond C; therefore, this project modification would not result in additional significant impacts to sensitive natural communities (Figure 4-1). The modified Package 3 Segment 2 is comprised entirely of non-native vegetation and developed lands; therefore, no impacts to sensitive natural communities would occur (Figure 4-3, *Vegetation and Sensitive Resources with Impacts – Package 2 Segment 2 &Package 3 Segments 1b & 2*).

No new significant or substantial adverse effects on sensitive natural communities would occur as a result of the project modifications, to the contrary, the modified project would result in a reduction of impacts (Figures 4-1 through 4-7).

Mitigation Measures

No additional mitigation measures for sensitive natural communities are required above and beyond those proposed in the Biological Resources Report and IS/MND.

ISSUE 3: Wetlands

Would the project have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the federal CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means?

ISSUE 3 Impact Analysis

As with the original project, the modified project has been specifically planned to avoid federally-protected wetlands and other potential jurisdictional features to the maximum extent.

The original project required approximately 0.35 acre of temporary impacts to federally-protected wetlands. As a result of project modifications and further wetland avoidance, the modified project would only result in 0.05 acre of temporary impacts to federally-protected wetlands (Table 2, *Impacts on Potential Jurisdictional Resources*).

Table 2
IMPACTS ON POTENTIAL JURISDICTIONAL RESOURCES

Sensitive Natural Community[1]	Original Impacts[2]	Modified Impacts[2]	Difference in Impacts[2,3]
Wetland/Riparian Habitats			
Concrete-lined Streambed	<0.01	0.01	**(<0.01)**
Freshwater Marsh	0.03	--	**0.03**
Mule Fat Scrub	0.02	--	**0.02**
Disturbed Wetland	--	<0.01	**(<0.01)**
Non-native Riparian	0.11	0.03	**0.08**
Open Water[4]	--	0.01	**(0.01)**
Southern Willow Scrub (including disturbed)	0.18	--	**0.18**
Wetland/Riparian Subtotal	0.34	0.05	**0.29**

1 Vegetation categories are from Holland (1986) and Oberbauer (2008).
2 Acres are rounded to the nearest 0.01 acre for wetland habitats; thus, totals reflect rounding.
3 Total modified project impacts to sensitive natural communities would be less; however, some temporary impacts are greater than originally analyzed. Values shown in parentheses represent modified impacts that are greater than originally analyzed.
4 Subaqueous installation of the aerator pipeline and the Lake Jennings Inlet would require temporary activities on the water surface, such as the use of boats and other activities that already occur on the lake on a regular basis. These would not be considered impacts to open water.

The potable water line related to Package 2 would result in impacts to potential jurisdictional water but would largely avoid impacts to wetland habitats (Figure 4-1). Package 2 and Package 3 Segment 1 would avoid impacts to mulefat scrub and southern willow scrub (including disturbed) as a result of the alignment shift east; however, the realignment would still result in impacts to potential jurisdictional waters (Figure 4-1 and Figure 4-2, *Vegetation and Sensitive Resources with Impacts – Package 1 and Packages 2 & 3 Segment 1c*). The modified Package 2 Segment 10 alignment would avoid impacts to freshwater marsh which was proposed in the 2018 IS/MND. The Lake Jennings interpretive site and proposed water feature would still result in impacts to the Lake Jennings shoreline as a result of the change in the installation and construction of the inlet to Lake Jennings; however, these impacts would be less than evaluated in the 2018 IS/MND (Figure 4-7).

As stated previously, Pond C is a constructed seasonal storage pond that is maintained and operated for recycled water purposes that is part of a controlled water treatment system owned and operated by the District. Pond C is clay-lined, as well as geographically and hydrologically isolated from Sycamore Creek and tributary waters. Furthermore, vegetation within Pond C is subject to routine and regular

maintenance, including trimming and clearing. As Pond C is a maintained seasonal storage pond associated with the WRF, and in accordance with previous regulatory determinations, Pond C, including the associated maintained freshwater marsh habitat with the potential to be impacted, is not subject to USACE, RWQCB, and CDFW jurisdiction.

The USACE determined that the constructed, seasonal storage Pond C does not qualify as waters of the U.S., and dredge, fill, and discharge activities would not be regulated by the USACE pursuant to CWA Section 404 (District 2015). Furthermore, the open waters associated with Pond C are also not considered to be waters of the State; thus, project activities would not be regulated by the RWQCB pursuant to CWA Section 401 (SWRCB 2019). The vegetation within Pond C represents artificial wetlands that have been constructed and are currently used and maintained primarily for industrial or municipal wastewater treatment or disposal, and would not represent waters of the State pursuant to current definitions. Finally, Pond C is a seasonal storage pond that is part of a water recycling facility; therefore, should not be subject to the wetlands' "no net loss" policy and other regulations applicable to impacts to natural wetlands. The "no net loss" policy's goal is to balance the loss of naturally occurring wetlands through wetland mitigation and/or restoration such that the total acreage of wetlands across a geographical region does not decrease. The waters of the seasonal storage ponds at the WRF (Pond C), are not subject to CDFG Code Sections 1600 et seq. (RECON 2007), which stipulates that a Lake or Streambed Alteration Agreement be issued when a project proposes to alter a lake or streambed.

The entirety of Package 1, modified Package 2 Segment 4, Segment 6, and Segment 8 alignments, and modified Package 3 Segment 1 would avoid impacts to federally-protected wetlands; therefore, these project modifications would not result in additional significant impacts to federally-protected wetlands.

The JPA would still notify and obtain necessary permits from responsible agencies of the modified project, including the USACE, RWQCB, and CDFW, for impacts to federally-protected wetlands. Implementation of the Biological Resources Report and IS/MND mitigation measures would ensure that the appropriate permits are obtained and that the impact is compensated in accordance with USACE, RWQCB, and CDFW permitting and regulatory requirements. The project is already required to obtain permits from the USACE, RWQCB, and CDFW for these impacts, and that requirement remains the same. No new significant or substantial adverse effect on wetlands would occur as a result of the project modifications. The modified project would result in a reduction of impacts, as shown above in Table 2 and on Figures 4-1 through Figure 4-7 and Figures 5-1 through 5-5, *Potentially Jurisdictional Resources with Impacts*.

Mitigation Measures

No additional mitigation measures for wetlands are required above and beyond those proposed in the Biological Resources Report and IS/MND.

ISSUE 4: Wildlife Movement and Nursery Sites

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites?

Impact Analysis

The proposed modified Package 1, Package 2, and Package 3 alignments and components are located adjacent to the original project; therefore, potential indirect effects on wildlife movement, corridor function, and nursery site access would not change with the realignments and modifications. Package 2 Segment 6 is still proposed to cross the San Diego River, which functions as a wildlife corridor. The modified Package 2 Segment 6 alignment would be suspended from the existing Channel Road bridge over the San Diego River, further avoiding impacts to wildlife movement, corridor function, and nursery sites. In addition, the modified Package 2 Segment 8 alignment has been relocated from conserved lands into existing roadways; therefore, the modified project would result in fewer impacts to wildlife movement and nursery sites than the original project. No new significant impact or substantial adverse effect on wildlife movement, corridor function, and nursery sites would occur as a result of the project modifications to Package 1, Package 2, or Package 3.

Mitigation Measures

No mitigation measures are required.

ISSUE 5: Local Policies and Ordinances

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact Analysis

As with the original project, the modified project would not conflict with any local policies or ordinances protecting biological resources. The modified project would not conflict with any City or County policies or ordinances, and no impact would occur.

Mitigation Measures

No mitigation measures are required.

ISSUE 6: Adopted Conservation Plans

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?

Impact Analysis

The project modifications will not result in an inconsistency with the applicable HCPs and NCCPs.

Portions of the project are within the City of San Diego and County of San Diego MSCP Subarea Plans. The modified project has been planned to site developments in disturbed and developed areas in the MSCP Subarea plans. Similar to the approved project, the modified Package 2 Segment 6 alignment would avoid impacts to the San Diego River, and the modified impact areas are not located within the City of San Diego MSCP or MHPA. To avoid impacts to the San Diego River, the modified Package 2 Segment 6 alignment would be suspended from the existing Channel Road bridge. Implementation of

mitigation measures proposed within the original Biological Resources Report and IS/MND would ensure consistency with the adopted City and County MSCP Subarea Plans.

As discussed in the project modification section above, Package 4 project components were not analyzed in the 2018 Final IS/MND or technical documents; therefore, Package 4 impacts and compliance with adopted conservation plans are discussed in the Biological Technical Report for the East Mission Gorge Force Main Rehabilitation and Regional Brine Line Project (HELIX 2022).

Mitigation

No mitigation measures are required.

CONFORMANCE ANALYSIS FOR BIOLOGICAL RESOURCES ISSUES

Issue 1: Federal Endangered Species Act

Does the project involve any direct effects from construction activities, or indirect effects such as growth inducement that may affect federally listed threatened or endangered species or their critical habitat that are known, or have a potential, to occur on site, in the surrounding area, or in the service area?

As with the original project analyzed in the 2018 Biological Resource Technical Report (HELIX 2018) and Informal Section 7 Consultation for the East County Advanced Water Purification project (USFWS 2020), the modified project also would result in effects on federally listed species and their critical habitat. Project impacts on sensitive vegetation communities, including federally-listed species' habitat, are summarized below within Table 3, *Effects on Listed Species Suitable Habitat and Designated Critical Habitat*, and shown on Figures 4-1 through 4-7.

The proposed modifications for Package 1, Package 2, and Package 3 project study areas contain approximately 12.9 acres of designated critical habitat for arroyo toad (*Anaxyrus californicus*), approximately 25.9 acres of designated critical habitat for coastal California gnatcatcher, approximately 3.8 acres of designated critical habitat for Hermes copper butterfly, approximately 5.8 acres of designated critical habitat for least Bell's vireo, and approximately 1.2 acres of designated critical habitat for willowy monardella (*Monardella viminea*). Open trench and trenchless construction techniques are proposed in designated coastal California gnatcatcher and Hermes copper butterfly critical habitat, which would result in temporary impacts.

Coastal California Gnatcatcher

The modified project would result in reduced effects on coastal California gnatcatcher suitable habitat, Diegan coastal sage scrub, and designated coastal California gnatcatcher critical habitat compared to the original project, as shown within Table 3 below. As with the original project, the alignment would be restored within the Diegan coastal sage scrub habitat consistent with the Biological Resources Report and IS/MND mitigation measures to ensure there is no permanent loss or adverse modification of critical habitat.

Arroyo Toad

As with the original project, all impacts within designated Arroyo toad critical habitat are proposed within existing disturbed and developed uplands that lack the physical or biological features associated with the species. The areas are isolated from potential breeding habitat within the San Diego River and would not be expected to be used by the species for overland dispersal or aestivation; therefore, the project would not result in an adverse modification to arroyo toad or modification to arroyo toad critical habitat.

Least Bell's Vireo

As with the original project, all impacts within designated least Bell's vireo critical habitat are proposed within existing disturbed and developed uplands that lack the physical or biological features associated with the species. The project does not propose modifications to the original impacts within least Bell's vireo critical habitat; however, the modified project would result in reduced effects on least Bell's vireo suitable habitat that occurs outside of designated critical habitat. Therefore, the modified project is consistent with the Biological Resources Report and IS/MND mitigation measures, which would ensure there is no permanent loss or adverse modification of critical habitat.

Hermes Copper Butterfly

With the December 21, 2021 listing of the Hermes copper butterfly as federally threatened, the USFWS also designated the final critical habitat for this species. Portions of the northern project alignment (Figure 3) are now located within Hermes copper butterfly designated critical habitat. Open trench and trenchless construction techniques are proposed within the critical habitat for this species, which would result in 1.5 acres of temporary impacts. Of the 1.5 acres of temporary impacts within designated Hermes copper critical habitat, 0.03 acre (approximately 1,330 square feet) or two percent is within habitat suitable for the species (spiny redberry within 15 feet of California buckwheat) but has been confirmed through protocol surveys to be unoccupied by the species and have a low potential to support the species in the future. As discussed above, the required unfragmented patches of suitable habitat for reproduction do not occur within the study area or immediate vicinity of the project. Furthermore, the 0.03 acre of impacts within potentially suitable Hermes habitat within designated critical habitat only has the capacity to potentially support a single Hermes copper butterfly, but no more than three butterflies if determined to be present.

Project implementation may affect but is not likely to adversely affect Hermes copper and its designated critical habitat. In accordance with ECAWP Mitigation Measure Bio-8, updated protocol-level surveys are being conducted in 2022 to confirm the continued absence of the species from project impact areas. ECAWP Mitigation Measure Bio-8 would further require that the JPA and/or the federal action agency for the project re-initiate consultation with the USFWS and implement avoidance, minimization, and mitigation measures to mitigate the project's insignificant effects. As with the original project, Diegan coastal sage scrub and other potential Hermes habitat within the project impact areas would be restored in accordance with Mitigation Measures ECAWP Bio-7 and ECAWP Bio-8 to ensure there is no net loss or adverse modification of designated critical habitat.

Table 3
IMPACTS ON LISTED SPECIES SUITABLE HABITAT AND DESIGNATED CRITICAL HABITAT

Habitat	Original Impacts[1]			Modified Impacts[1]			Difference in Impacts[1,2]		
	Temporary	Permanent	Total	Temporary	Permanent	Total	Temporary	Permanent	Total
Arroyo Toad									
Designated Critical Habitat[3]	4.9	0.2	*5.1*	2.4	0.2	*2.7*	(2.5)	--	(2.5)
Suitable Habitat[4]	--	--	--	--	--	--	--	--	--
Coastal California Gnatcatcher									
Designated Critical Habitat[3]	19.2	0.9	*20.1*	18.2	0.2	*18.4*	(1.0)	(0.7)	*(1.7)*
Designated Critical Habitat with pbfs[3]	2.4	0.7	*3.1*	1.7	0.1	*1.8*	(0.7)	(0.6)	*(1.3)*
Suitable Habitat[4]	7.8	0.7	*8.5*	5.7	0.1	*5.8*	(2.1)	(0.6)	*(2.7)*
Hermes Copper Butterfly[5]									
Designated Critical Habitat[3]	--	--	--	1.5	--	*1.5*	1.5	--	*1.5*
Designated Critical Habitat with pbfs[3]	--	--	--	<0.1	--	*<0.1*	<0.1	--	*<0.1*
Suitable Habitat[4]	--	--	--	0.1	--	*0.1*	0.1	--	*0.1*
Least Bell's Vireo									
Designated Critical Habitat[3]	2.6	--	*2.6*	2.7	--	*2.7*	0.1	--	*0.1*
Suitable Habitat[4, 6]	0.2	--	*0.2*	--	--	--	(0.2)	--	*(0.2)*
Willowy Monardella									
Designated Critical Habitat[3]	--	0.2	*0.2*	--	0.2	*0.2*	--	--	--
Suitable Habitat[4]	--	--	--	--	--	--	--	--	--
Critical Habitat Total	**26.7**	**1.3**	***28.0***	**24.8**	**0.6**	***25.4***	**(1.9)**	**(0.7)**	***(2.6)***
Critical Habitat with pbfs Total	**2.4**	**0.7**	***3.1***	**1.7**	**0.1**	***1.8***	**(0.7)**	**(0.6)**	***(1.3)***
Suitable Habitat Total	**8.0**	**0.7**	***8.7***	**5.8**	**0.1**	***5.9***	**(2.3)**	**(0.6)**	***(2.8)***

1 Acres are rounded to the nearest 0.1 acre for upland habitats and 0.01 acre for wetland habitats; thus, totals reflect rounding.
2 All project modifications would result in no change, or fewer impacts to habitats, with the exception of impacts to Hermes copper butterfly designated critical habitat, designated critical habitat with pbfs, and suitable habitat.
3 pbfs = physical or biological features. Designated least Bell's vireo critical and arroyo toad habitat within the study area does not contain pbfs.
4 Vegetation categories are from Holland (1986) and Oberbauer (2008).
5 Hermes copper butterfly was listed as a federally threatened species on December 21, 2021; the original project was analyzed prior to the listing of this species, which is why no impacts to critical habitat or suitable habitat are identified in Table 3 in the impacts column for the original project.
6 Temporary impacts to suitable least Bell's vireo habitat would occur across several small, isolated stands of one to three trees and/or shrubs.

Portions of the modified project site would occur within and adjacent to undeveloped areas characterized by native habitat that could support animal species listed under the federal ESA. The proposed modified project would result in less direct effects to federally listed animal species and would not result in increased potential indirect effects that could occur during project construction. However, adverse effects would be avoided with the implementation of mitigation measures proposed in the Biological Resources Report and IS/MND. Further discussion is provided below regarding the potential effects of the proposed action on federally listed species.

Federally Listed Plant Species

No federally listed plant species were found during the original or updated focused surveys, and none have a high potential to occur. The original and modified project largely occurs in developed roadways and lacks suitable habitat for listed plant species. The undeveloped portions of the modified project are unsuitable for federally listed plants due to the level of disturbance, the existing soils, vegetation associations, and hydrology. Therefore, no direct or indirect effects on federally listed plant species are anticipated to occur as a result of the modified project.

Federally Listed Animal Species

Coastal California gnatcatcher and least Bell's vireo were detected during surveys for the 2018 Biological Technical Report (HELIX 2018). As detailed in the 2018 Biological Technical Report, arroyo toad were determined to have a low potential to occur within the survey area. Hermes copper butterfly has recently been designated as a federally threatened species with designated critical habitat; however, this species has not been detected within one mile of the project site since 2003. No additional federally listed animal species were detected during the updated surveys completed in 2021, and no additional federally listed animal species have a high potential to occur.

The proposed modified project is located adjacent to the original project; both the original and updated alignments, and components, are located within 500 feet of suitable and occupied coastal California gnatcatcher and least Bell's vireo habitat. The modified project would not result in additional adverse direct or indirect effects to arroyo toad, coastal California gnatcatcher, least Bell's vireo, or willowy monardella compared to the original project; to the contrary, the modified project would result in a reduction of potential effects to gnatcatcher and vireo (Table 3).

Hermes Copper Butterfly

Due to the recent December 2021 listing of Hermes copper butterfly on the federal ESA and associated designation of critical habitat, portions of the modified project impact areas could result in adverse effects on the Hermes copper and/or Hermes critical habitat (Table 3). Temporary impacts would occur to 1.5 acres of critical habitat, of which approximately 0.03 acre, or two percent, contain physical or biological features for the species (Figure 4-1). The portion of the project which overlaps with Hermes copper critical habitat has been confirmed through protocol surveys to be unoccupied by the species and have a low potential to support the species in the future. Impacts to suitable habitat outside of designated critical habitat consist of two small, isolated habitat patches within Package 2 Segment 10, approximately 200 feet apart, totaling approximately 0.01 acre combined (Figure 4-7). Hermes copper butterfly have not been detected in the vicinity of Package 2 Segment 10 and have not been observed within the project study area, nor are they currently known within the immediate vicinity based on the available data reviewed. Furthermore, because of the small size, less than 0.01 acre each, and the distance between the patches, approximately 200 feet, potentially suitable Hermes habitat within the Package 2 Segment 10 impact area does not have the potential to support Hermes copper butterfly. As discussed above, the required unfragmented patches of suitable habitat for reproduction do not occur within the study area or immediate vicinity of the project. Furthermore, the 0.04 acre of potentially suitable Hermes habitat within the impact area only has the capacity to potentially support a single Hermes copper butterfly, but no more than three butterflies, if determined to be present. Hermes are

considered to have a low potential to occur within the Package 2 and Package 3 Segment 1 study area, but are not expected to occur within the Package 2 Segment 10 study area.

In accordance with the project's Biological Resources Report and IS/MND mitigation measures requiring protocol-level and preconstruction surveys for special status species, project-specific focused surveys for the Hermes copper butterfly are scheduled to be conducted in 2022 to confirm the presumed absence of the species within the project impact areas. Should the updated focused Hermes survey determine the presence of the species, potential effects on individuals and occupied habitat could be significant and adverse. ECAWP Mitigation Measure Bio-8 would require that the JPA and/or the federal action agency for the project re-initiate consultation with the USFWS and implement avoidance, minimization, and mitigation measures to fully offset and mitigate the project's potential adverse effects. As with the original project, Diegan coastal sage scrub and other potentially suitable habitat for the Hermes copper butterfly within the alignment would be restored consistent with Mitigation Measures ECAWP Bio-7 and ECAWP Bio-8 to ensure there are no permanent loss of or adverse effects to suitable or critical habitat.

Mitigation

The project would be required to implement Mitigation Measure ECWP Bio-8 to minimize and reduce potential adverse effects that could occur to Hermes copper butterfly and its designated critical habitat as a result of project construction. Mitigation Measure ECAWP Bio-8 above requires that updated protocol-level surveys be completed for the Hermes copper butterfly within potential impact areas of the project, and that the JPA and/or federal action agency re-initiate consultation with the USFWS regarding the potential effects on species and its designated critical habitat. Mitigation Measure ECAWP Bio-8 also requires that the JPA implement avoidance and minimization measures during construction to prevent and minimize impacts to individuals and habitat potentially occupied by the species. Finally, Mitigation Measure ECAWP Bio-8 requires compensatory mitigation measures to fully offset any temporary or permanent loss of occupied habitat, suitable habitat, and designated critical habitat.

ISSUE 2: Magnuson-Stevens Fishery Conservation and Management Act, Essential Fish Habitat

Does the project involve any direct effects from construction activities, or indirect effects such as growth inducement that may adversely affect essential fish habitat?

As with the original project, the modified project would be constructed within areas that lack marine resources and Essential Fish Habitat regulated under the Magnuson-Stevens Fishery Conservation and Management Act. Therefore, no new significant impact or substantial adverse effect on Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat would occur as a result of the project modifications.

Mitigation

No mitigation measures are required.

ISSUE 3: Coastal Zone Management Act

Is any portion of the project site located within the coastal zone?

As with the original project, the modified project would be constructed within areas that are not located within or adjacent to Coastal Zone boundaries. Therefore, no new significant impact or substantial adverse effect on protected coastal resources or the Coastal Zone Management Act would occur as a result of the project modifications.

Mitigation

No mitigation measures are required.

ISSUE 4: Migratory Bird Treaty Act

Will the project affect protected migratory birds that are known, or have a potential, to occur on site, in the surrounding area, or in the service area?

As with the original project, the construction of the modified project may require the removal or trimming of trees and shrubs within ornamental landscaped areas and vegetated habitat during the general bird nesting season (January 15 through September 15), and/or raptor nesting season (January 15 through July 31), which could result in potential adverse effects on nesting birds and raptors in violation of the MBTA. Indirect effects could occur as a result of construction noise in the immediate vicinity of undeveloped areas supporting an active bird nest, such that the disturbance results in nest abandonment or nest failure.

With the implementation of mitigation measures proposed in the Biological Resources Report and IS/MND, the proposed action is not likely to adversely affect nesting birds, and the modified project would be in conformance with the MBTA. Therefore, no new significant impact or substantial adverse effect on any migratory birds would occur as a result of the project modifications.

Mitigation

No additional mitigation measures are required above and beyond those proposed in the Biological Resources Report and IS/MND.

ISSUE 5: Protection of Wetlands

Does any portion of the project boundaries contain areas that should be evaluated for wetland delineation or require a permit from the U.S. Army Corps of Engineers (USACE)?

As with the original project, the modified project has been specifically planned to avoid federally-protected wetlands where feasible. Temporary impacts could potentially occur within the new potable water line in Package 2 and modified Package 2 and Package 3 Segment 1 alignments (Figure 4-1) as a result of the pipe installation and in the modified Package 2 Segment 10 alignment at Lake Jennings (Figure 4-7) as a result of the installation of the pipe outlet and proposed water feature. Aeration blower components of the project have not been modified and could potentially result in temporary impacts at Lake Jennings.

Vegetation growing within Pond C is subject to routine and regular maintenance in which vegetation and algae are cleared from the ponds. An Approved Jurisdictional Determination (AJD) was issued by the USACE in September 2005, which determined the features do not represent waters of the U.S., and dredge, fill, and discharge activities would not be regulated by the USACE pursuant to CWA Section 404 (District 2015). Therefore, project activities related to Pond C would not affect federal wetlands and would not require a permit from the USACE.

As a regulatory requirement, the modified project and JPA would still be required to notify and obtain necessary permits from responsible agencies of the project, including the USACE. Implementation of Biological Resources Report and IS/MND mitigation measures would ensure that the appropriate permits are obtained and that impacts are compensated in accordance with USACE requirements.

As with the original project, potential runoff and increase in pollutants associated with construction activities adjacent to undeveloped areas would be controlled and reduced through the implementation of BMPs and other protective measures incorporated into the project as mandatory requirements for regulatory compliance. With the implementation of protective measures and mitigation measures proposed in the Biological Resources Report and IS/MND, the modified project would not directly or indirectly adversely affect federally-protected wetlands and would be in conformance with the CWA.

Mitigation

No additional mitigation measures are required above and beyond those proposed in the Biological Resources Report and IS/MND.

ISSUE 6: Wild and Scenic Rivers Act:

Is any portion of the project located within a wild and scenic river?

As with the original project, none of the modified project components are planned on or in the immediate vicinity of areas designated as Wild and Scenic River. No new significant impact or substantial adverse effect on any areas designated as Wild and Scenic River would occur as a result of the project modifications.

Mitigation

No mitigation measures are required.

CLOSING

We appreciate the opportunity to provide your team with this supplemental focused biological study for the modification focus areas in support of your Subsequent IS/MND. Should you have any questions or require additional information regarding this study, please do not hesitate to contact me or Karl Osmundson at (619) 462-1515.

Sincerely,

Katie Bellon
Biologist

Enclosures:

Figure 1 Aerial Overview
Figure 2-1 Modified Impact Areas – Package 1 and Packages 2 and 3 Segment 1a
Figure 2-2 Modified Impact Areas – Packages 2 and 3 Segment 1b
Figure 2-3 Modified Impact Areas – Package 2 Segment 2 and Package 3 Segments 1b & 2
Figure 2-4 Modified Impact Areas – Package 2 Segment 4
Figure 2-5 Modified Impact Areas – Package 2 Segment 6
Figure 2-6 Modified Impact Areas – Package 2 Segment 8
Figure 2-7 Modified Impact Areas – Package 2 Segment 10
Figure 3 Hermes Critical Habitat and Potentially Suitable Habitat with Impacts
Figure 4-1 Vegetation and Sensitive Resources with Impacts – Package 1 and Packages 2 & 3 Segment 1a
Figure 4-2 Vegetation and Sensitive Resources with Impacts – Packages 2 & 3 Segment 1b
Figure 4-3 Vegetation and Sensitive Resources with Impacts – Package 2 Segment 2 &Package 3 Segments 1b & 2
Figure 4-4 Vegetation and Sensitive Resources with Impacts – Package 2 Segment 4
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Figure 5-1 Potentially Jurisdictional Resources with Impacts – Package 1 and Packages 2 & 3 Segment 1a
Figure 5-2 Potentially Jurisdictional Resources with Impacts – Packages 2 and 3 Segment 1b
Figure 5-3 Potentially Jurisdictional Resources with Impacts – Package 2 Segment 2 and Package 3 Segments 1b & 2
Figure 5-4 Potentially Jurisdictional Resources with Impacts – Package 2 Segment 6

Figure 5-5 Potentially Jurisdictional Resources with Impacts – Package 2 Segment 10

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Study Area
Modification Focus Area
Impacts from Previous Design

Ashwood St
Mapleview St
Mast Blvd
Mast Blvd
Woodside Ave
67
Lake Jennings Park Rd
Olde Highway 80
8
Cuyamaca St
Winter Gardens Blvd
Los Coches Rd
Mission Gorge Rd
125
52

0 2,700 Feet

Source: Aerial (NearMap, 2019)

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HELIX Environmental Planning

Aerial Overview

Figure 1

East County AWP

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0 250 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Modified Impact Areas - Package 1 and Packages 2 & 3 Segment 1a

Figure 2-1

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0 250 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Modified Impact Areas - Packages 2 & 3 Segment 1b

Figure 2-2

East County AWP

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0 250 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Modified Impact Areas - Package 2 Segment 2 and Package 3 Segments 1b & 2

Figure 2-3

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Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Modified Impact Areas - Package 2 Segment 4

Figure 2-4

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Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Modified Impact Areas - Package 2 Segment 6

Figure 2-5

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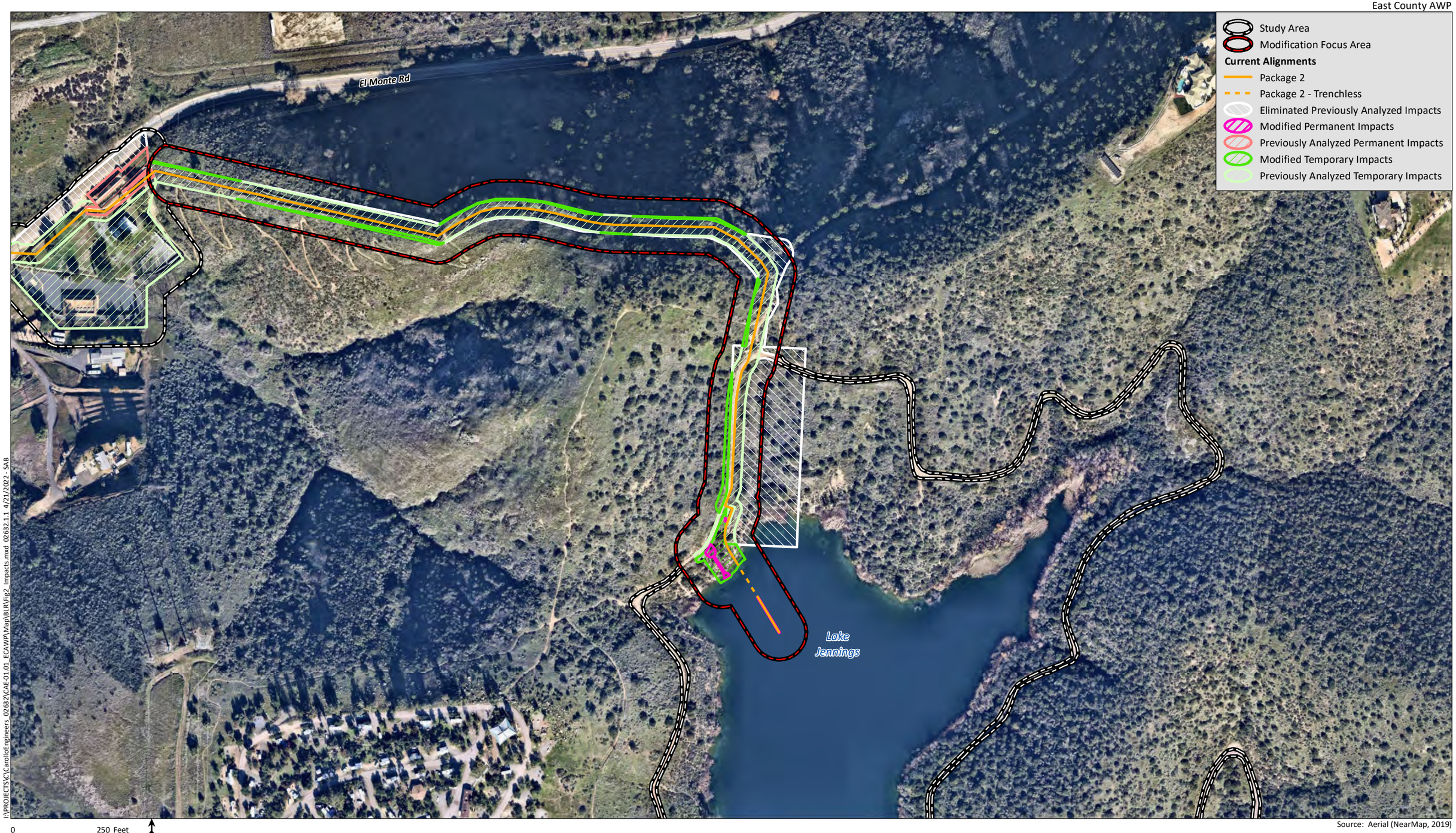
Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Modified Impact Areas - Package 2 Segment 8

Figure 2-6



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0 250 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Modified Impact Areas - Package 2 Segment 10

Figure 2-7

- Modification Study Area
- Impact Corridor
- Hermes Copper Butterfly FCH

Uplands

- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub - Disturbed
- Non-native Grassland
- Developed
- Disturbed Habitat
- Non-Native Vegetation/Ornamental

Wetlands

- Streambed
- Non-native Riparian
- Mule Fat Scrub
- Southern Riparian Forest
- Southern Riparian Forest - Disturbed
- Southern Willow Scrub
- Southern Willow Scrub - Disturbed
- Potentially Suitable Hermes Habitat (Helix)
- Spiney Redberry (Helix)
- Potentially Suitable Hermes Habitat (Mapped by Others)

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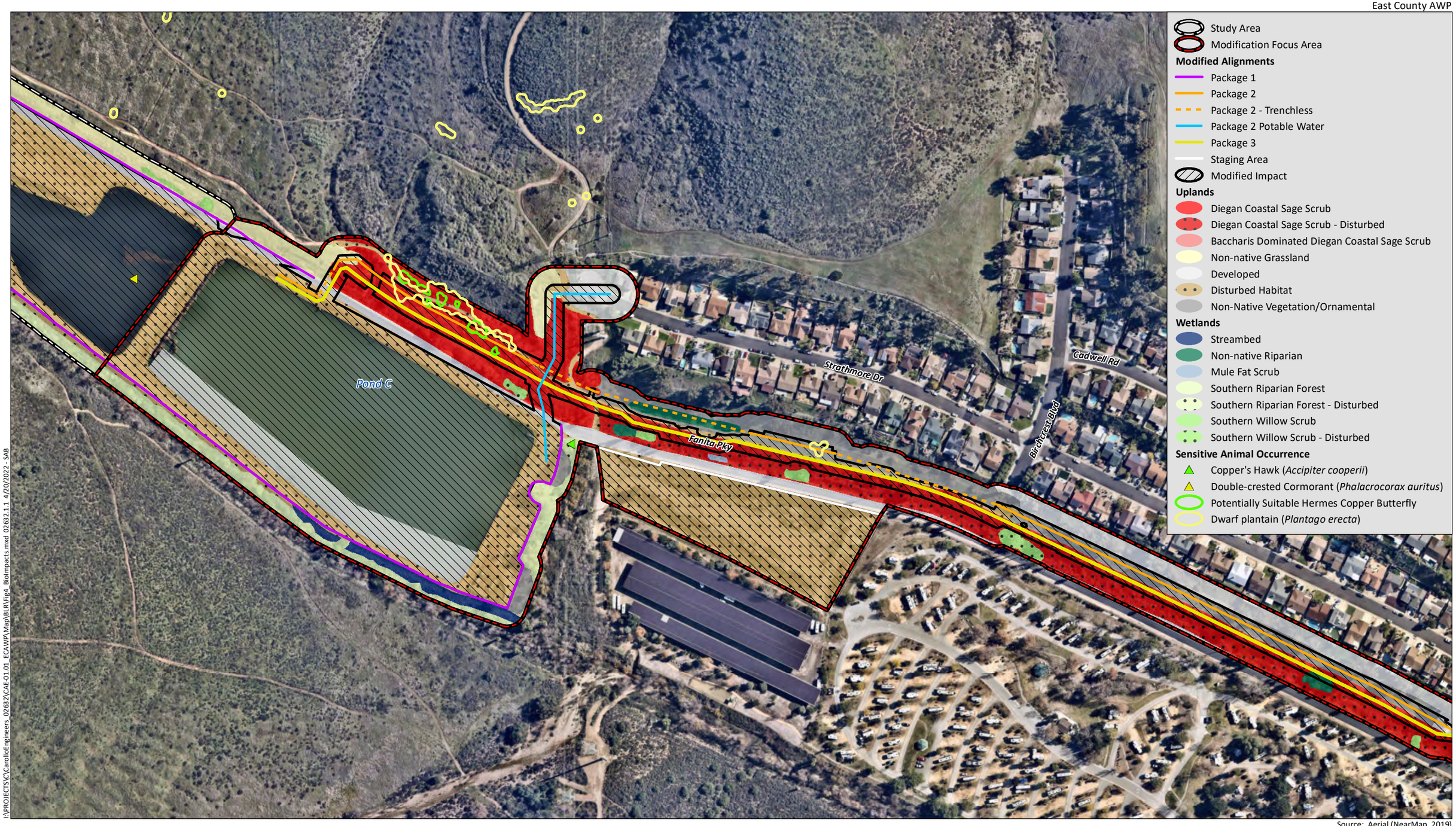
Source: Aerial (NearMap, 2019).

HELIX Environmental Planning

Hermes Critical Habitat and Potentially Suitable Habitat with Impacts

Figure 3

East County AWP



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Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Vegetation and Sensitive Resources with Impacts - Package 1 and Packages 2 & 3 Segment 1a

Figure 4-1

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0 250 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Vegetation and Sensitive Resources with Impacts - Packages 2 & 3 Segment 1b

Figure 4-2

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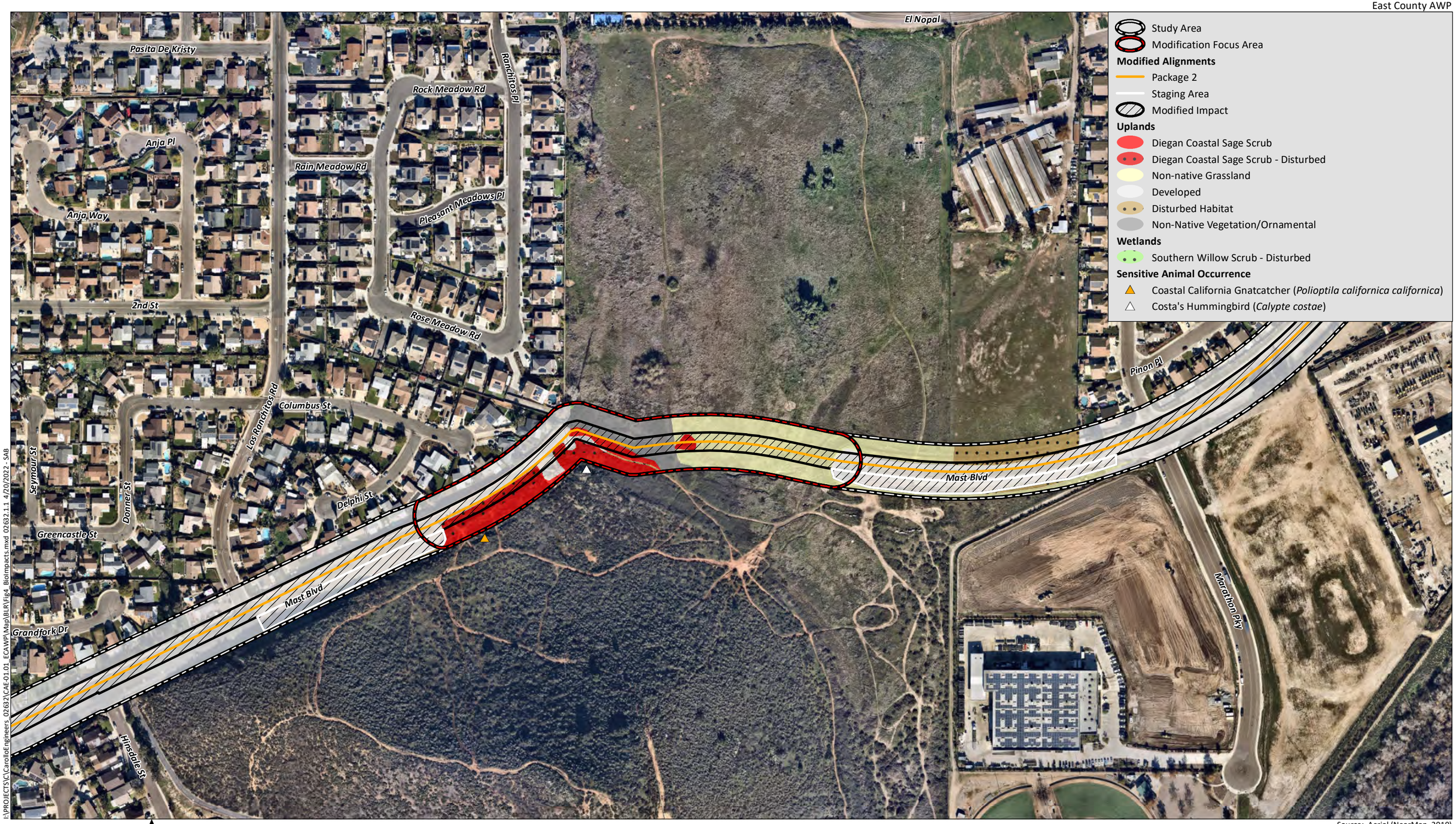
0 250 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Vegetation and Sensitive Resources with Impacts - Package 2 Segment 2 and Package 3 Segments 1b & 2

Figure 4-3



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0 250 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Vegetation and Sensitive Resources with Impacts - Package 2 Segment 4

Figure 4-4

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0 250 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Vegetation and Sensitive Resources with Impacts - Package 2 Segment 6

Figure 4-5

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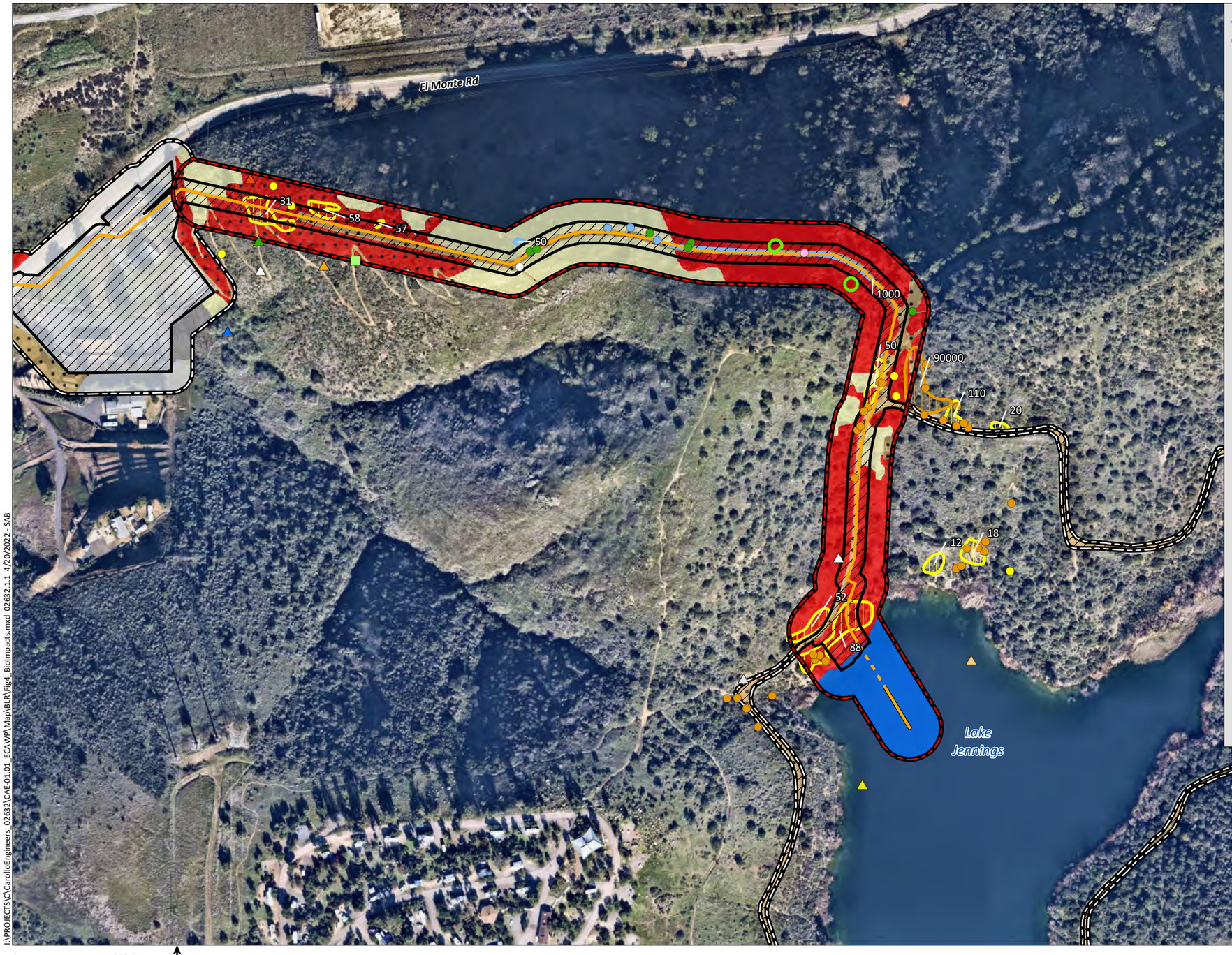
0 250 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Vegetation and Sensitive Resources with Impacts - Package 2 Segment 8

Figure 4-6



Study Area
Modification Focus Area

Modified Alignments
- Package 2
- Package 2 - Trenchless
- Modified Impact

Uplands
- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub - Disturbed
- Non-native Grassland
- Developed
- Disturbed Habitat
- Non-Native Vegetation/Ornamental

Wetlands
- Open Water

Sensitive Animal Occurrence
- Belding's Orange-throated Whiptail (*Aspidoscelis hyperythra beldingi*)
- American White Pelican (*Pelecanus erythrorhynchos*)
- Cactus Wren (*Campylorhynchus brunneicapillus*)
- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Costa's Hummingbird (*Calypte costae*)
- Least Bell's Vireo (*Vireo bellii pusillus*)
- Northern Harrier (*Circus hudsonius*)
- Double-crested Cormorant (*Phalacrocorax auritus*)
- Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)
- Turkey Vulture (*Cathartes aura*)

Sensitive Plant Occurrence
- Ashy Spike-moss (*Selaginella cinerascens*)
- Chinese Houses (*Collinsia heterophylla*)
- Delicate Clarkia (*Clarkia delicata*)
- Dwarf Plantain (*Plantago erecta*)
- San Diego County Sunflower (*Bahiopsis laciniata*)
- San Diego Goldenstar (*Bloomeria clevelandii*)

Cluster Extent with Population Count
- Chinese Houses (*Collinsia heterophylla*)
- Dwarf Plantain (*Plantago erecta*)
- San Diego County Sunflower (*Bahiopsis laciniata*)
- Potentially Suitable Hermes Copper Butterfly

0 250 Feet

N

Source: Aerial (NearMap, 2019)

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HELIX Environmental Planning

Vegetation and Sensitive Resources with Impacts - Package 2 Segment 10

Figure 4-7

East County AWP

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0 250 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Potentially Jurisdictional Resources with Impacts - Package 1 and Packages 2 & 3 Segment 1a

Figure 5-1

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Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Potentially Jurisdictional Resources with Impacts - Packages 2 & 3 Segment 1b

Figure 5-2

East County AWP

I:\PROJECTS\CCarolloEngineers_02632\CAE-01.01_ECAWP\Map\BLR\Fig5_PotJurisImpacts.mxd 02632.1.1 4/20/2022 - SAB

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Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Potentially Jurisdictional Resources with Impacts - Package 2 Segment 2 and Package 3 Segments 1b & 2

Figure 5-3

East County AWP

I:\PROJECTS\C\CarrolloEngineers_02632\CAE-01.01_ECAWP\Map\BLR\Fig5_PotJurisImpacts.mxd 02632.1.1 4/20/2022 - SAB

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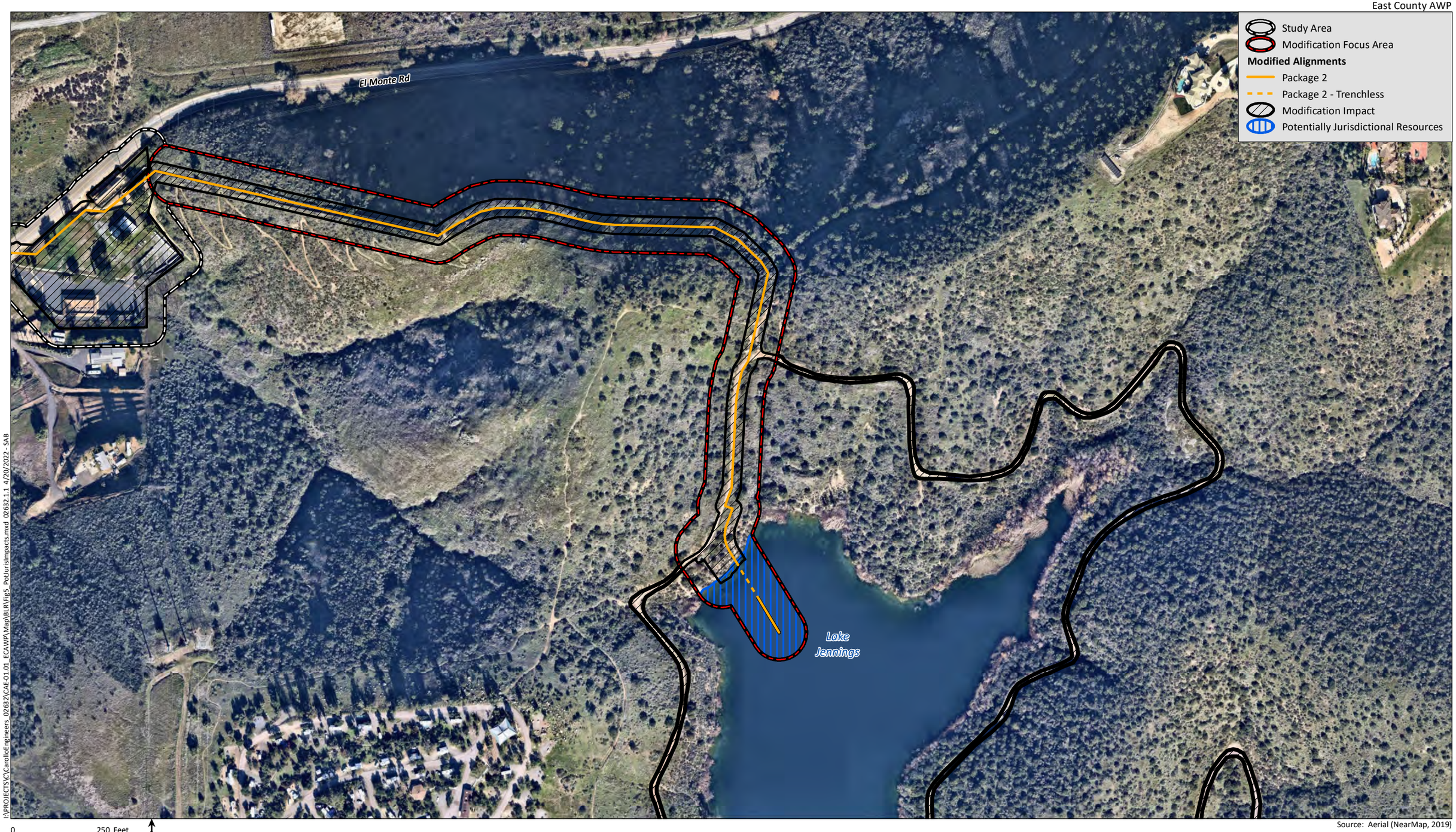
Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Potentially Jurisdictional Resources with Impacts - Package 2 Segment 6

Figure 5-4

East County AWP



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Source: Aerial (NearMap, 2019)

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HELIX Environmental Planning

Potentially Jurisdictional Resources with Impacts - Package 2 Segment 10

Figure 5-5