HELIX Environmental Planning

East County Advanced Water Purification Project

Draft
Subsequent Initial Study/
Mitigated Negative Declaration

April 2022 | 02632.00001.003

Prepared for:

East County Advanced Water Purification Joint Powers Authority
9300 Fanita Parkway
Santee, CA 92071

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

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Acronyms and Abbreviations

µPa	micro-Pascals
AB	Assembly Bill
ADD	Assistant Deputy Director
ADRP	Archaeological Data Recovery Program
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
AME	Archaeological Monitoring Exhibit
APE	Area of Potential Effects
ASMD	Area Specific Management Directives
AWP	Advanced Water Purification
AWTP	Advanced Water Treatment Plant
BCME	Biological Construction Mitigation/Monitoring Exhibit
BI	Building Inspector
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFC	chlorofluorocarbon
CFG	California Fish and Game
CFMP	Comprehensive Facilities Master Plan
CGS	California Geological Society
CH_4	methane
CM	Construction Manager
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
County	County of San Diego
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSVR	Consultant Site Visit Record
CWA	Clean Water Act

Acronyms and Abbreviations (cont.)

dB	decibel
dBA	A-weighted decibels
District	Padre Dam Municipal Water District
DOC	California Department of Conservation
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EAS	Environmental Analysis Section
EIR	Environmental Impact Report
EMGFM	East Mission Gorge Force Main
EMGPS	East Mission Gorge Pump Station
ESA	Endangered Species Act
ESL	Environmentally Sensitive Lands
FJST	Father Junipero Serra Trail
FUDS	Formerly Used Defense Site
GHG	greenhouse gas
HELIX	HELIX Environmental Planning, Inc.
HFC	hydrofluorocarbon
HMMP	Habitat Mitigation and Monitoring Plan
HRG	Historical Resources Guidelines
Hz	hertz
I-	Interstate
IBC	International Building Code
IPS	Influent Pump Station
IS/MND	Initial Study/Mitigated Negative Declaration
JPA	Joint Powers Authority
kHz	kilohertz
kWh	kilowatt-hours
L_{DN}	Day Night sound level
LID	Low Impact Development
LUAG	Land Use Agency Guideline
LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
MCAS	Marine Corps Air Station
MEC	munitions and explosives of concern
MEI	maximally exposed individual

Acronyms and Abbreviations (cont.)

mgd	million gallons per day
MGTS	Mission Gorge Trunk Sewer
MHPA	Multi-Habitat Planning Area
MLD	Most Likely Descendant
MMC	Mitigation Monitoring Coordination
mph	miles per hour
MRZ-	Mineral Resource Zone
MSCP	Multiple Species Conservation Program
MT	metric ton(s)
MTRP	Mission Trails Regional Park
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NMVIS	North Mission Valley Interceptor Sewer
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NRMP	Natural Resources Management Plan
NSLU	noise sensitive land use
PD2FM	Padre Dam Basin 2 Force Main
PEIR	Program Environmental Impact Report
PEP	plant establishment period
PFC	perfluorocarbon
PI	Principal Investigator
PLWTP	Point Loma Wastewater Treatment Plant
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PPV	peak particle velocity
Project	East County Advanced Water Purification Project
RAQS	Regional Air Quality Strategy
RBL	Regional Brine Line
RE	Resident Engineer
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SanGIS	San Diego Geographic Information Source
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCIC	South Coastal Information Center
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District

Acronyms and Abbreviations (cont.)

SF_6	sulfur hexafluoride
SHERF	Solids Handling and Recycling Facility
SHPO	State Historic Preservation Officer
SLF	Sacred Land File
SMVTS	South Mission Valley Trunk Sewer
SO_2	sulfur dioxide
SPL	sound pressure level
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCR	Tribal Cultural Resource
TMP	traffic management plan
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UXO	unexploded ordnance
VHFHSZ	very high fire hazard severity zone
VOC	volatile organic compound
VPHCP	Vernal Pool Habitat Conservation Plan
WRF	Water Reclamation Facility
WRFFM	Water Recycling Facility Force Main

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1.0 INTRODUCTION

1.1 SUBSEQUENT INITIAL STUDY INFORMATION SHEET

1.	Project title:	East County Advanced Water Purification (AWP) Project
2.	Lead agency name and address:	East County Advanced Water Purification Joint Powers Authority PO Box 719003 Santee, CA 92072
3.	Contact person and phone number:	Rebecca Abbott 619-258-4643
4.	Project location:	Project components are proposed within the city of Santee, city of San Diego, and unincorporated San Diego County, CA
5.	Project sponsor's name and address:	Same as #2 above
6.	General Plan designation:	Various
7.	Zoning:	Various

8. Description of Project:

See Section 2.

9. Surrounding land uses and setting:

See Section 2.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement:

See Section 2.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Consultation letters were sent via certified mail on November 15, 2021, and follow-up emails were sent on November 18, 2021, to Native American representatives identified by the NAHC. Four responses were received requesting consultation from the Campo Band of Diegueno Mission Indians (Campo), Jamul Indian Village (Jamul), San Pasqual Band of Mission Indians (San Pasqual), and Viejas Band of

Kumeyaay Indians (Viejas). In addition, Iipay Nation of Santa Ysabel responded that they had no comments or concerns related to the Project. Virtual meetings were held with representatives from Campo, Jamul, San Pasqual, and Viejas between January 10 and 18, 2022. Campo notes that there are many known cultural resources throughout the Project area and that there is potential for additional buried cultural resources or human remains to be present and requested that cultural monitors be present for the entire Package 4 alignment and for all ground disturbance. Jamul, San Pasqual, and Viejas also requested that cultural monitoring occur for the Project. Jamul also requested on April 8, 2022 specific cultural resources information, which was provided on the same day via email. To date, no additional responses have been received.

1.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☒ Geology and Soils	☐ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials
☒ Hydrology and Water Quality	☒ Land Use and Planning	☐ Mineral Resources
☒ Noise	☐ Population and Housing	☐ Public Services
☒ Recreation	☒ Transportation	☒ Tribal Cultural Resources
☒ Utilities and Service Systems	☒ Wildfire	☒ Mandatory Findings of Significance

1.3 DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that, although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that, although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

April 25, 2022

Date

Rebecca Abbott, P.E.

Printed name

East County AWP Joint Powers Authority

For

2.0 PROJECT DESCRIPTION

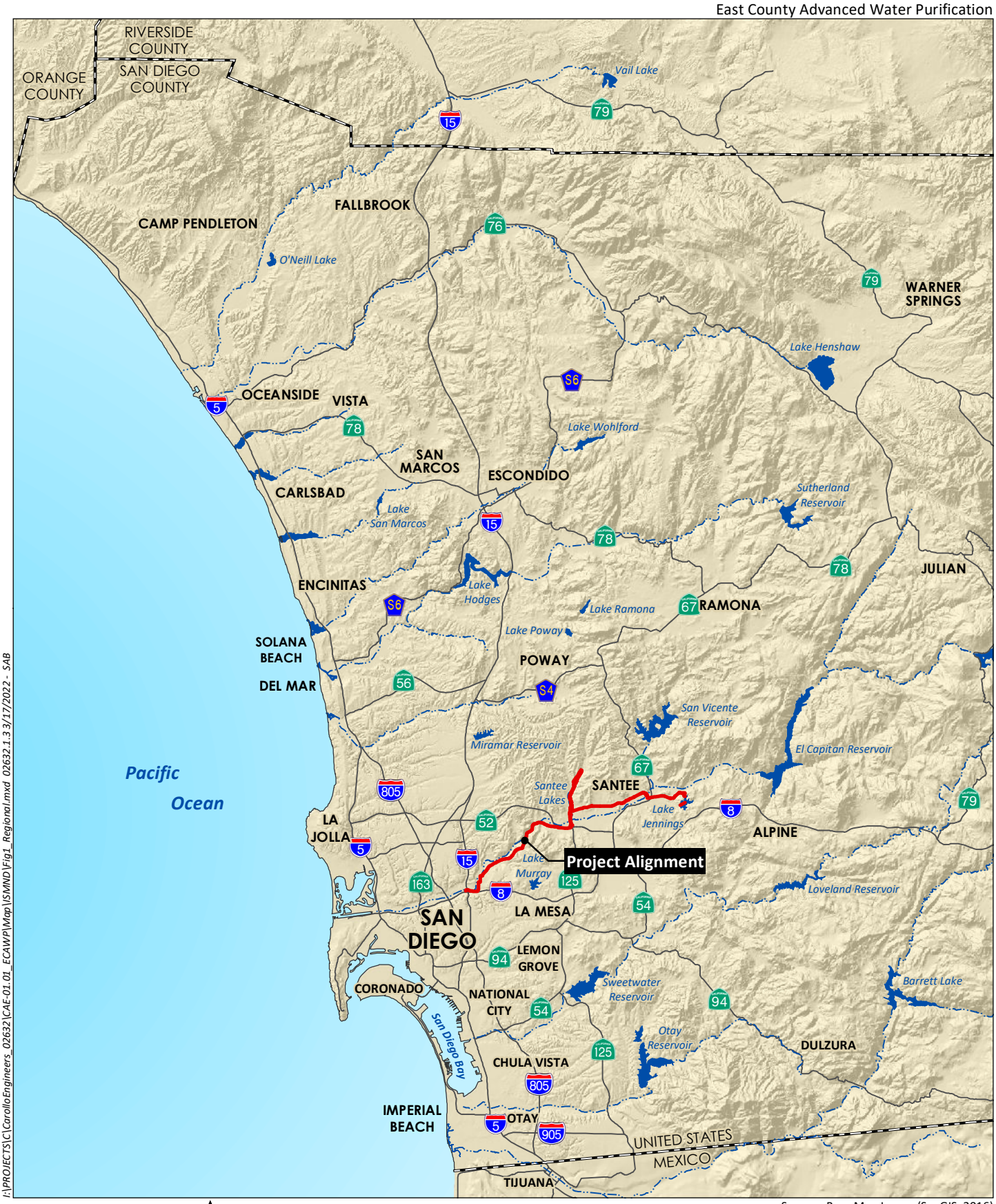
PROJECT BACKGROUND

Padre Dam Municipal Water District (District) previously approved the East County Advanced Water Purification (AWP) Project (Project) in 2018. In February 2020, the East County AWP Joint Powers Authority (JPA) approved a resolution considering the Project MND under the California Environmental Quality Act (CEQA), adopting the approved Mitigation Monitoring and Reporting Program (MMRP) and approving the Project. The JPA is implementing the Project in east San Diego County (refer to Figure 1, *Regional Location*, and Figure 2, *Previously Analyzed Project*). The approved Project will treat wastewater generated in the service area of JPA member agencies and recycle the water using state-of-the-art technology to create a sustainable supply of drinking water. The Project is an element of the Comprehensive Facilities Master Plan approved by the District through the 2017 Program Environmental Impact Report. The District is a member of the JPA and the Administrator of the Project. The JPA is the CEQA lead agency for the Project.

The Project will capture and treat wastewater generated within the East County area to produce a drought-resistant and locally controlled water supply for the region. The approved Project will treat approximately 15 million gallons per day (mgd) of wastewater for production of an annual average of approximately 11.5 mgd of potable reuse water. The Project includes AWP, wastewater recycling, and solids handling facilities. Byproducts from these facilities will include brine and centrate, collectively referred to as residuals. The approved Project includes a residuals bypass system that will convey brine from the AWP facility, and centrate from the solids dewatering process of the solids handling facility, to an existing regional sewage pipeline (the gravity line) owned and operated by the City of San Diego for treatment and disposal.

In coordination with the City of San Diego, the JPA is evaluating a modification of the approved Project to construct and operate a regional brine line (RBL) to convey the residuals of the Project around the City of San Diego's Pure Water Program facilities. The Pure Water Program is a phased, multi-year program that will provide more than 50 percent of San Diego's water supply locally by the end of 2035 through the use of water purification technology to clean recycled water to produce safe, high-quality drinking water. The Project modification would meet the City of San Diego's requirement of not re-treating wastewater residuals at its Pure Water Program facilities while preserving the quality of the wastewater delivered to the City's advanced treatment process. Additionally, the Project modification would conserve the water treatment capacity of the Pure Water Program facilities. In lieu of discharging the residuals into the existing gravity line as described in the previously approved Project, the RBL would consist of a pipeline built within the existing East Mission Gorge Force Main (EMGFM) pipeline and extending from the existing East Mission Gorge Pump Station (EMGPS) to the City of San Diego's South Mission Valley Trunk Sewer (SMVTS).

The JPA is proposing to design and construct the RBL primarily using a sliplining construction method, forming a pipe within a pipe, with smaller sections constructed via open-cut trenching. Under the sliplining construction method, the RBL would be inserted into the existing EMGFM to avoid environmental impacts associated with the construction of the RBL in a new and undisturbed location. The Project modifications also include actions to rehabilitate the EMGFM by sliplining an additional smaller pipe within the existing EMGFM. The Project modifications are described in detail below.



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0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

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Regional Location

Figure 1

East County Advanced Water Purification

Project Area
AWP Pipeline
East Mission Gorge Force Main Alignment
Residuals Bypass System Pipeline
Ray Stoyer WRF, SHERF, AWTP Facility
Dechlorination Facility Site
Lake Jennings Inlet
Lake Jennings Air Curtain
Lake Jennings Air Supply Line
Residuals Bypass System Lift Station

Solids Handling and Energy Recovery Facilities
Pond A
Pond B
Pond C
Ray Stoyer Water Recycling Facility
Advanced Water Treatment Plant
SAN DIEGO CITY
SANTEE
Planned Fanita Ranch Development
SANTEE
SANTEE
SAN DIEGO COUNTY
Lake 7
Lake 6
Sycamore Canyon Elementry
Residuals Bypass System Pipeline
Santee Lakes
Lake 5
Lake 4
Lake 3
Lake 2
Lake 1
East Mission Gorge Force Main
Residuals Bypass System Lift Station
Influent Pump Station
Carlton Oaks Drive
Mast Park
San Diego River
Carlton Oaks Country Club
SAN DIEGO
East Mission Gorge Pump Station
Mission Gorge Road
Cuyamaca Street
Magnolia Avenue
AWP Pipeline
Riverside Drive
Santana High
Mast Boulevard
Town Center Community Park
San Diego River
WINTER GARDENS
Winter Gardens Boulevard
Los Coches Road
Maine Avenue
El Capitan High
Mapleview Street
Lake Jennings Park Road
San Diego River
Hanson Pond
Dechlorination Facility
Lake Jennings Inlet Water Feature
Air Supply Line and Air Curtain
Julian Avenue
Lakeside
Aeration Blower Building and Generator
Tierra del Sol Middle
Lake Jennings
R.M. Levy Water Treatment Plant
67
52
125
8

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Source: Aerial (NearMap, 2019)

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Previously Analyzed Project

Figure 2

If the JPA decides not to approve or implement the RBL and EMGFM rehabilitation, the brine and centrate generated by the Project would be discharged using the existing gravity line as previously described and approved by the JPA in the 2018 Initial Study/Mitigated Negative Declaration (IS/MND). The EMGFM rehabilitation actions would not be implemented by the JPA.

The JPA is also evaluating other minor modifications to the approved Project in an effort to avoid existing utilities, avoid rocks and hard surfaces, minimize impacts to sensitive biological resources, accommodate alternative construction methodologies, and address new information. This Subsequent MND evaluates the environmental impacts of the Project modifications under consideration by the JPA.

PRIOR CALIFORNIA ENVIRONMENTAL QUALITY ACT DOCUMENTATION REGARDING THE PROJECT

The Project's environmental impacts were previously evaluated in three prior CEQA documents at a program and project level. A portion of the Project was analyzed at the project level in 2015 under the IS/MND for the Ray Stoyer Water Reclamation Facility (WRF) expansion project. Facilities analyzed include the expansion of the existing Influent Pump Station (IPS), expansion of the Ray Stoyer WRF from 2.0 to 6.0 mgd annual average capacity, and construction of up to a 2.2 mgd annual average capacity Advanced Water Treatment Plant (AWTP) facility. The IS/MND for the Ray Stoyer WRF Phase 1 Expansion project (SCH# 2015071078) was adopted by the District in October 2015. Following the 2015 IS/MND of the Ray Stoyer WRF expansion project, the Project became regional in nature and its project description expanded in subsequent CEQA documents.

In May 2017, the District certified the Final Program Environmental Impact Report (PEIR) (SCH No. 201511014) for the District's Comprehensive Facilities Master Plan (CFMP). The District subsequently approved the CFMP. The CFMP updated the District's 2001 Integrated Facilities Plan and extended the planning horizon for the construction and operation of the facilities in the Master Plan to 2040. The CFMP facilities include the Project.

The CFMP Final PEIR described the District's existing and forecasted potable water, recycled water and wastewater system demands and flows, described the District's existing and proposed facilities, and evaluated the potential environmental impact of the facilities in the CFMP. The CFMP facilities evaluated in the Final PEIR included the Project. (Final PEIR, §§ 2.4.4.)

The CEQA Guidelines provide that when a PEIR is used as the EIR for activities within the program, the agency is required to determine whether additional environmental review is required. If the agency determines that no new environmental effects will occur, and that no new mitigation measures are required, the agency may approve the activity as being within the scope of the project covered by the program. No additional CEQA documentation is required. (14 Cal.Code Regs, §15168, subd. (c)(3).) As activities within the program are approved, the agency incorporates the mitigation measures and alternatives developed in the PEIR in the agency's action approving the activity. (14 Cal.Code Regs, §15168, subd. (c)(3).) If a later activity would have effects that were not examined in the PEIR, the agency prepares a new initial study leading to either an EIR or a negative declaration. That later analysis may tier from the PEIR. (14 Cal.Code Regs., § 15168, subd. (c)(1).)

Upon further refinement of Project design details, the District then initiated a project-level CEQA evaluation of the Project to determine whether any potentially significant effects of the Project not addressed by the 2017 Final PEIR required additional CEQA documentation.

In 2018, the District prepared and circulated for public review an IS/MND (2018 IS/MND) regarding the construction and operation of the Project (SCH NO. 2018091029.) In December 2018, the District approved the 2018 IS/MND. The 2018 IS/MND incorporated the Final PEIR by reference and reviewed the Final PEIR to determine whether the Project as proposed to be constructed and operated may result in significant environmental effects that were not evaluated and mitigated in the Final PEIR. The 2018 IS/MND evaluated the potential construction and operational impacts at a project-specific level of detail and identified project-level measures to reduce any potential significant impacts of the Project to less than significant.

APPROACH TO CEQA EVALUATION OF PROJECT MODIFICATIONS

The JPA's evaluation of the potential effects of the Project modifications follows the approach to the evaluation of project modifications after the approval of a prior IS/MND provided in Section 15162 of the CEQA Guidelines, and as interpreted and described by the California Supreme Court.

Section Guidelines 15162 of the CEQA Guidelines provides, in part, that:

> When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:
>
> (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects (14 Cal.Code Regs, § 15162, subd. (a)(1).);
>
> (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant effects or a substantial increase in the severity of previously identified significant effects (14 Cal.Code Regs § 15162, subd. (a)(2).); or
>
> (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
>
> a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
>
> b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
>
> c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
>
> d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant

> effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

In Friends of College of San Mateo Gardens (2016) 1 Cal.5th 937, the California Supreme Court held that Section 15162 applied to the evaluation of project modifications where the agency approved the project after preparing an IS/MND. The Supreme Court explained:

> Once a project has been subject to environmental review and received approval, Section 21166 and CEQA Guidelines Section 15162 limit the circumstances under which a subsequent or supplemental EIR must be prepared. These limitations are designed to balance CEQA's central purpose of promoting consideration of the environmental consequences of public decisions with interests in finality and efficiency.
>
> * * *
>
> Under CEQA, when there is a change in plans, circumstances, or available information after a project has received initial approval, the agency's environmental review obligations "turn on the value of the new information to the still pending decision making process" (citation omitted). If the original environmental document retains some informational value despite the proposed changes, then the agency proceeds to decide under CEQA's subsequent review provisions whether project changes will require major revisions to the original environmental document because of the involvement of new, previously unconsidered significant environmental effects. (Friends of College of San Mateo Gardens, supra, 1 Cal.5th at p. 950-952.)

The Supreme Court concluded that rules governing the scope and extent of CEQA analysis of modifications to an approved project applied where the agency approved the project with an IS/MND:

> Limiting agencies' post-approval review obligations for projects that were initially approved via negative declaration is wholly consistent with a statutory scheme in which negative declarations, no less than EIRs, are entitled to a presumption of finality once adopted. These same principles apply with even greater force in a case such as this," in which the project "initially raised so few environmental questions that an EIR was not required, but a negative declaration was found to satisfy the environmental review requirements of CEQA." (Ibid., at p. 956, citations omitted.)

The 2017 Final PEIR and the 2018 IS/MND retain informational value in the future discretionary decisions of the JPA and responsible agencies as part of consideration of the Project modifications by the JPA and these documents are herein incorporated by reference. They are available at: https://www.padredam.org/98/Policies-Plans-Reports.

Section 3.0 of this Subsequent IS/MND evaluates the Project modifications not previously analyzed to determine whether the modifications involve substantial changes that require major revisions to the 2018 IS/MND due to the involvement of new or significantly more severe environmental effects. The components of the Project that have not been modified are not reevaluated in this Subsequent IS/MND as the analysis and mitigation in the 2018 IS/MND remain relevant and applicable to these components. Section 3.0 also considers substantial changes with respect to the circumstances under which the Project is undertaken and new information of substantial importance that may result in new significant effects or a substantial increase in the severity of previously identified significant effects. Section 3.0 also identifies the Project elements and enforceable mitigation measures to be adopted by the JPA as

evidence supporting a determination that the Project modifications will not have any new or more adverse significant effect than was previously identified in the 2017 Final PEIR and in the 2018 IS/MND.

PROPOSED PROJECT MODIFICATIONS

The Project analyzed in the 2018 IS/MND now comprises four "packages" for the design and construction phases (refer to Figure 3, *Project Design and Construction Packages*). Package 1 consists of the construction of the new Ray Stoyer WRF and construction of an AWTP Facility. Package 2 consists of the East County AWP pipeline, dechlorination facility, aeration blower building and generator, and inlet to Lake Jennings. Package 3 includes the residuals bypass system pipeline, residuals bypass system lift station, influent pump station improvements, new Water Recycling Facility Force Main (WRFFM) north of the EMGPS (previously termed the EMGFM in the 2018 IS/MND), and EMGPS improvements. Package 2 and Package 3 have been further divided into pipeline segments. Package 4 consists of the rehabilitated EMGFM (from the EMGPS to the SMVTS) and the associated RBL. Modifications associated with each of the packages are discussed below. Packages 1, 2, and 3 involve modifications directly related to Project components analyzed in detail in the 2018 IS/MND and within the same geographical areas. Package 4, while involving a modification to the overall Project, consists of components not analyzed in detail in the 2018 IS/MND and within a new geographical area. As such, the following descriptions for the Packages 1-3 modifications are brief as the component descriptions in the 2018 IS/MND remain relevant. The following description for the Package 4 modification is provided in greater detail. The Project modification areas are shown on Figures 4a and 4b, *Project Modification Areas*.

Package 1

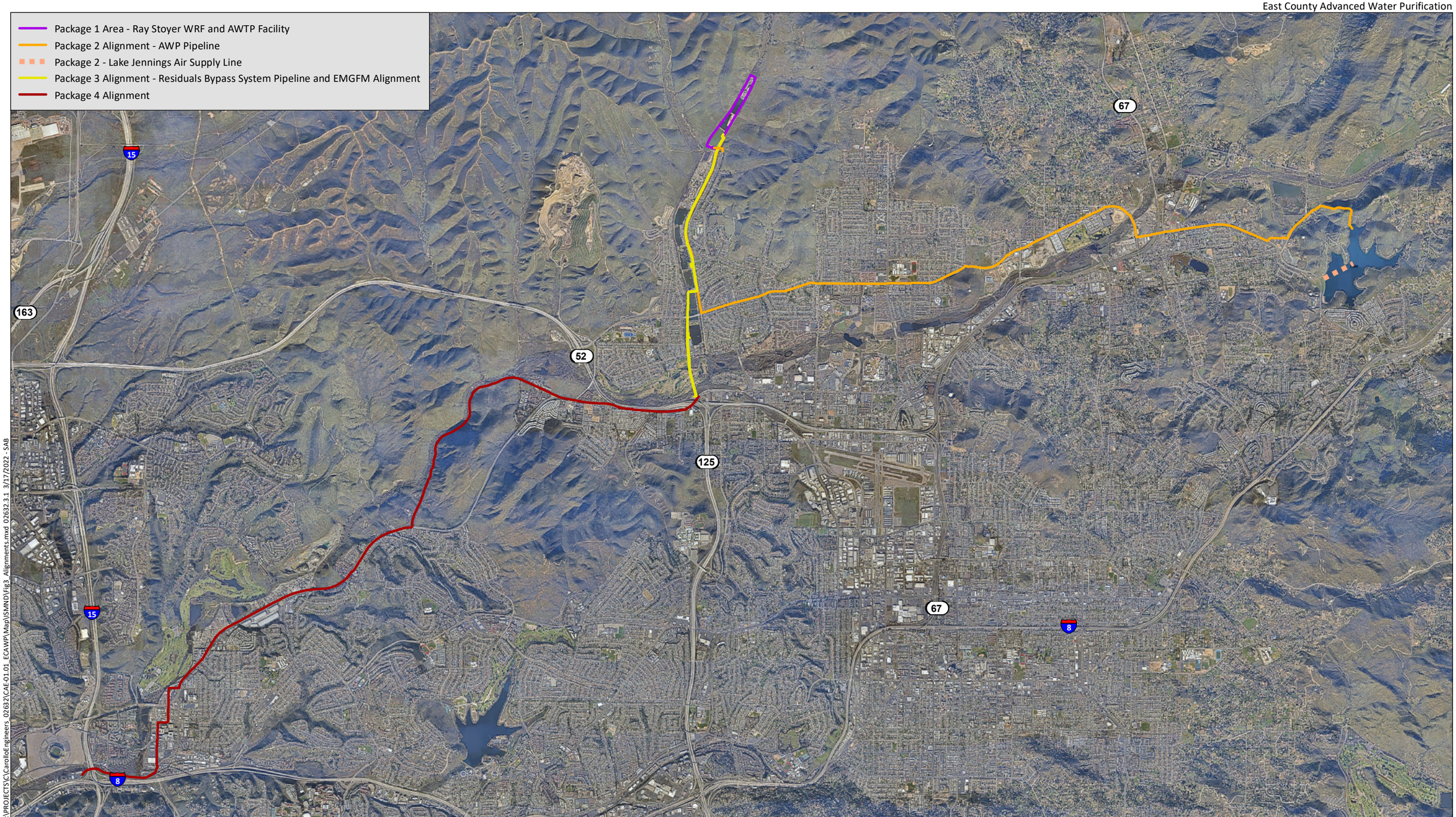
The Package 1 footprint has been slightly enlarged to utilize available developed areas within the existing Ray Stoyer WRF footprint. In addition, the modifications include the recontouring and reconfiguration of Pond C, a constructed seasonal storage pond for the District's Ray Stoyer WRF, in association with Package 1. The activities at Pond C would be confined within the existing Ray Stoyer WRF footprint.

Package 2

Sections of the planned AWP alignment must be shifted to avoid existing utilities, avoid the presence of large rocks or hard surfaces, and minimize impacts to sensitive biological resources. Minor adjustments are also required to accommodate alternative low-impact installation techniques and final easement acquisitions. The proposed modifications include minor realignments of Package 2 Segment 1, Segment 4, Segment 6, Segment 8, and Segment 10 (refer to Figure 4). Specifically, Package 2 Segment 1 has been shifted east of the previously proposed alignment. This segment may also be constructed using trenchless methods to avoid sensitive biological habitat. Package 2 Segment 4 would now utilize open-cut trench construction methods instead of trenchless methods between the two segments of Mast Boulevard. Package 2 Segment 6 would now include a route that involves trenching south along Channel Road, suspending the AWP pipeline along the bridge over the San Diego River, continuing trenching south along Channel Road to Mapleview Street, trenching east along Mapleview Street, and using trenchless methods to cross under State Route (SR) 67. Package 2 Segment 8 would now trench along Lake Jennings Park Road, Laurel Canyon Road, and El Monte Road instead of trenching along Mapleview Street through undeveloped land to El Monte Road. Package 2 Segment 10 now includes a pipeline and smaller, less impactful water feature to feed into Lake Jennings instead of a large cascading water feature. An interpretive site would be located at Lake Jennings in association with Package 2 Segment 10

East County Advanced Water Purification

- Package 1 Area - Ray Stoyer WRF and AWTP Facility
- Package 2 Alignment - AWP Pipeline
- Package 2 - Lake Jennings Air Supply Line
- Package 3 Alignment - Residuals Bypass System Pipeline and EMGFM Alignment
- Package 4 Alignment



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0 5,000 Feet

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Source: Aerial (NearMap, 2019)

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Project Design and Construction Packages

Figure 3

East County Advanced Water Purification

Study Area
Modification Focus Area
Impacts from Previous Design

Package 1
Package 3 Segment 1a
Package 2 Segment 1a
Package 2 Segment 1b
Package 3 Segment 1b
Package 2 Segment 2
Package 2 Segment 3
Package 3 Segment 2
Package 2 Segment 4
Package 2 Segment 5
Package 2 Segment 6
Package 2 Segment 7
Package 2 Segment 8
Package 2 Segment 9
Package 2 Segment 10
Package 4

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

67
52
125
8

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Source: Aerial (NearMap, 2019)

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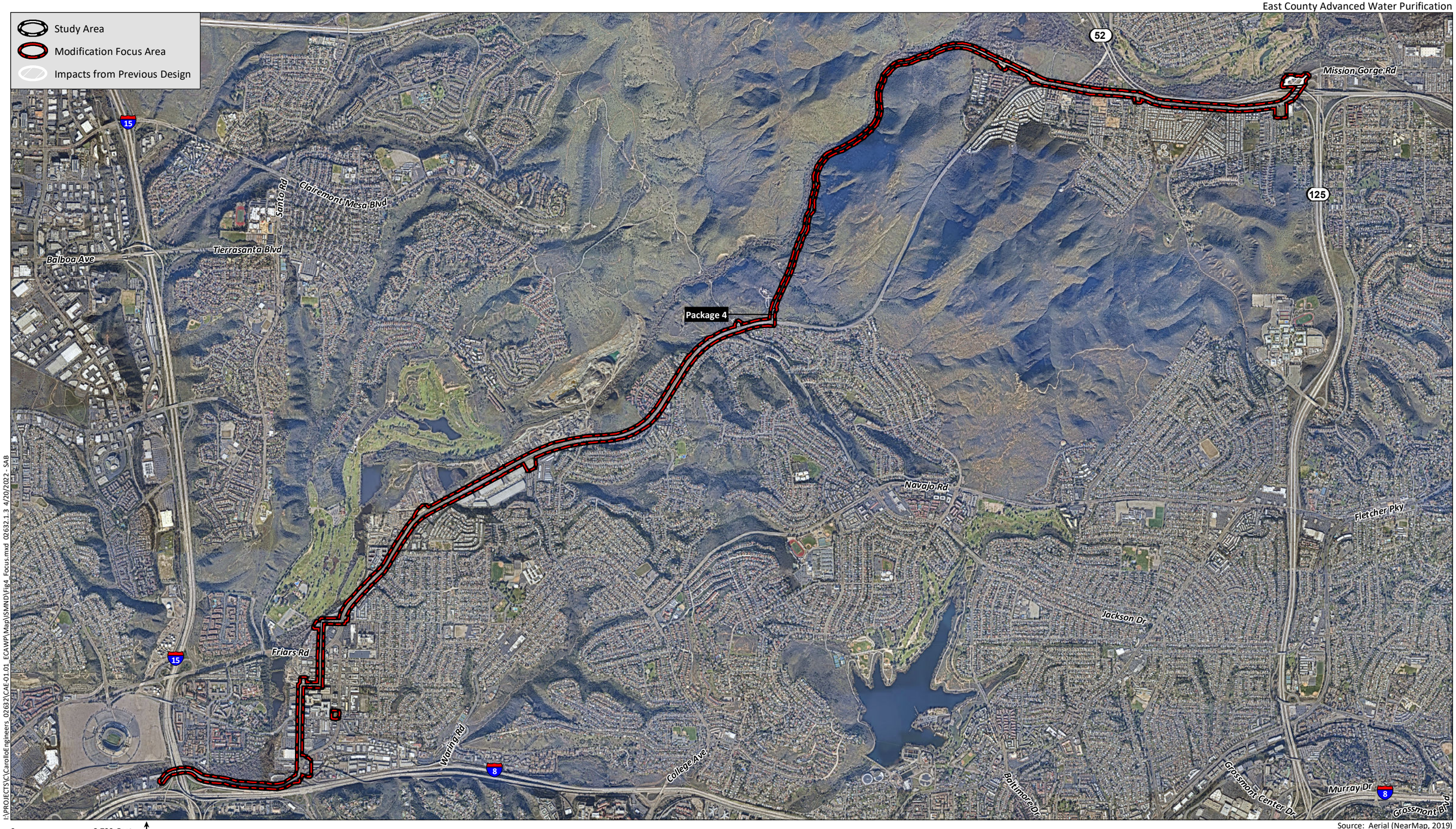
Project Modification Areas - Packages 1,2 & 3

Figure 4a

East County Advanced Water Purification



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Source: Aerial (NearMap, 2019)

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Project Modification Areas - Package 4

Figure 4b

and is anticipated to include viewing platforms, a walking path, and a small bridge over the proposed water feature. Package 2 also proposes a 12-inch potable water line from Strathmore Drive to the Package 1 site. Refer to Figure 5, *Packages 1-3 Previously Proposed Construction Techniques*, and Figure 6, *Packages 1-3 Currently Proposed Construction Techniques.*

Package 3

Similar to Package 2, sections of the planned WRFFM alignment and Residuals Bypass System pipeline must be shifted to avoid existing utilities, avoid the presence of large rocks or hard surfaces, and minimize impacts to sensitive biological resources. Minor adjustments are also required to accommodate alternative low-impact installation techniques and final easement acquisitions. The proposed modifications include minor realignments of portions of the Package 3 Segment 1 and Segment 2. Specifically, Package 3 Segment 1 has been shifted east of the previously proposed alignment. Package 3 Segment 2 has been expanded to provide additional staging areas. Package 3 also proposes a fiber optic line along Fanita Parkway and within Santee Lakes Recreation Preserve. Refer to Figure 5 and Figure 6.

Package 4

Components

The proposed Package 4 modifications include three main components:

- Construction of the new RBL and associated new lift station (termed the Mission Valley Lift Station);
- Rehabilitation of the EMGFM, which will serve as the wet weather failsafe force main; and
- Installation of a new Padre Dam Basin 2 Force Main (PD2FM).

The locations and descriptions for each of these components are included in detail below.

Component Alignment Corridors

The Package 4 pipeline alignment corridors are shown on Figure 7, *Package 4 Alignment Overview*, and Figures 8a-p, *Package 4 Alignment Detail,* and are described in the following sections.

Rehabilitated EMGFM, RBL, and PD2FM Shared Alignments

Beginning near the EMGPS, a new segment of EMGFM (relocated from the segment of the existing EMGFM north of SR 52; refer to Figure 7), the RBL, and PD2FM would share a common (triple) alignment within Mission Gorge Road. The triple alignment would connect to infrastructure at the EMGPS. The three new pipelines would exit the EMGPS via open-cut and trenchless construction methods within and adjacent to Mission Gorge Road to the intersection with the existing 48-inch EMGFM, near the entrance to the Meadowbrook community, using open-cut trench construction.

Rehabilitated EMGFM and RBL Alignments

After the termination of the PD2FM near the Meadowbrook community entrance, the new segment of EMGFM and the RBL (dual alignment) would transition from open-cut installation to pipe-in-pipe construction within the existing 48-inch EMGFM located within Mission Gorge Road. Installation would occur primarily via sliplining with open-cut trenching methods used at locations in the alignment where sliplining is not a viable option and at sliplining access and receiving pits. The dual alignment would continue west within Mission Gorge Road and then west and southwest within Father Junipero Serra Trail (FJST) through Mission Trails Regional Park (MTRP) to the southwest intersection with Mission Gorge Road. Within MTRP pipeline construction would occur via sliplining that would involve intermittently spaced (typically at 500- to 900-foot intervals) excavation areas for sliplining access and receiving pits; except for excavation for the access pits, no open-cut trenching would be required. The alignment would continue southwest within Mission Gorge Road to the intersection with Zion Avenue, turn west, and continue westerly along Zion Avenue to Riverdale Street. It would then turn south down Riverdale Street and continue south until turning west onto Vandever Avenue. The alignment would run west along Vandever Avenue until turning south at Fairmount Avenue and continue south to the intersection with Twain Avenue. The rehabilitated EMGFM alignment would end in the vicinity of the Twain Avenue and Fairmount Avenue intersection, where it would discharge into the existing City of San Diego North Mission Valley Interceptor Sewer (NMVIS).

RBL Extension

From the termination point of the dual alignment, open-cut trench construction would primarily be used to extend the RBL. The RBL extension would continue south along Fairmount Avenue to the intersection with Mission Gorge Road and would then follow Mission Gorge Road south to the intersection of Mission Gorge Road and Camino Del Rio North, turn west, and continue west along Camino Del Rio North toward Interstate (I-) 15. The RBL would continue within Camino Del Rio North under I-15 and connect into a new manhole constructed within Camino Del Rio North along the City of San Diego's SMVTS just west of I-15. Either open-cut trench or trenchless construction methods would be utilized for the portion of the RBL extension crossing under I-15.

Mission Valley Lift Station

A sewer lift station that would be owned and operated by the City of San Diego would be necessary along the RBL extension alignment to maintain positive flow to the new manhole at the SMVTS. Nine locations (indicated as letters A though G, H1, and H2; refer to Figures 7 and 8) have been evaluated as locations for the lift station. Six locations (letters A through F) are in the area where Fairmont Avenue intersects Mission Gorge Road and Camino Del Rio North and are currently developed with buildings, parking lots, and/or lawn space. The seventh location (letter G) is at the northwest corner of the intersection of Mission Gorge Road and Twain Avenue and is comprised of disturbed land. Locations H1 and H2 are at the northeast corner of the intersection of Vandever Avenue and Fairmont Avenue and are comprised of developed land. The lift station would be within the area depicted by one of the nine polygons shown on Figures 8n and 8o but would not necessarily take up the entire area.

East County Advanced Water Purification

Project Area
Ray Stoyer WRF, SHERF, AWTP Facility
Lake Jennings Inlet Water Feature
Dechlorination Facility Site
Lake Jennings Air Curtain
Lake Jennings Air Supply Line
Residuals Bypass System Lift Station

AWP Pipeline
Construction Method
Open-Cut
Jack & Bore
Horizontal Directional Drilling (HDD) Trenchless
HDD Staging Area
Above Grade
Through Existing El Monte Tunnel
Water Feature

East Mission Gorge Force Main Alignment
Construction Method
Horizontal Directional Drilling (HDD) Trenchless
Open-Cut

Residuals Bypass System Pipeline
Construction Method
Open-Cut
Horizontal Directional Drilling (HDD) Trenchless
Sliplining
Sliplining Access Pits

Solids Handling and Energy Recovery Facilities
Pond A
Pond B
Pond C
Ray Stoyer Water Recycling Facility
Advanced Water Treatment Plant
SAN DIEGO CITY
SANTEE
Planned Fanita Ranch Development
SANTEE
SANTEE
SAN DIEGO COUNTY
Lake 7
Lake 6
Sycamore Canyon Elementry
Residuals Bypass System Pipeline
Santee Lakes
Lake 5
Lake 4
Lake 3
Lake 2
Lake 1
East Mission Gorge Force Main
Residuals Bypass System Lift Station
Influent Pump Station
Carlton Oaks Drive
Mast Park
San Diego River
East Mission Gorge Pump Station
Carlton Oaks Country Club
SAN DIEGO
Mission Gorge Road
Cuyamaca Street
Magnolia Avenue
Santana High
Mast Boulevard
AWP Pipeline
HDD Staging Areas
Town Center Community Park
San Diego River
Riverside Drive
HDD Staging Areas
El Capitan High
San Diego River
Hanson Pond
Dechlorination Facility
Mapleview Street
Lake Jennings Park Road
Lake Jennings Inlet Water Feature
Maine Avenue
Air Supply Line and Air Curtain
Julian Avenue
Lakeside
Lake Jennings
Tierra del Sol Middle
Aeration Blower Building and Generator
R.M. Levy Water Treatment Plant
Winter Gardens Boulevard
WINTER GARDENS
Los Coches Road
67
52
125
8

0 2,500 Feet

Source: Aerial (NearMap, 2019)

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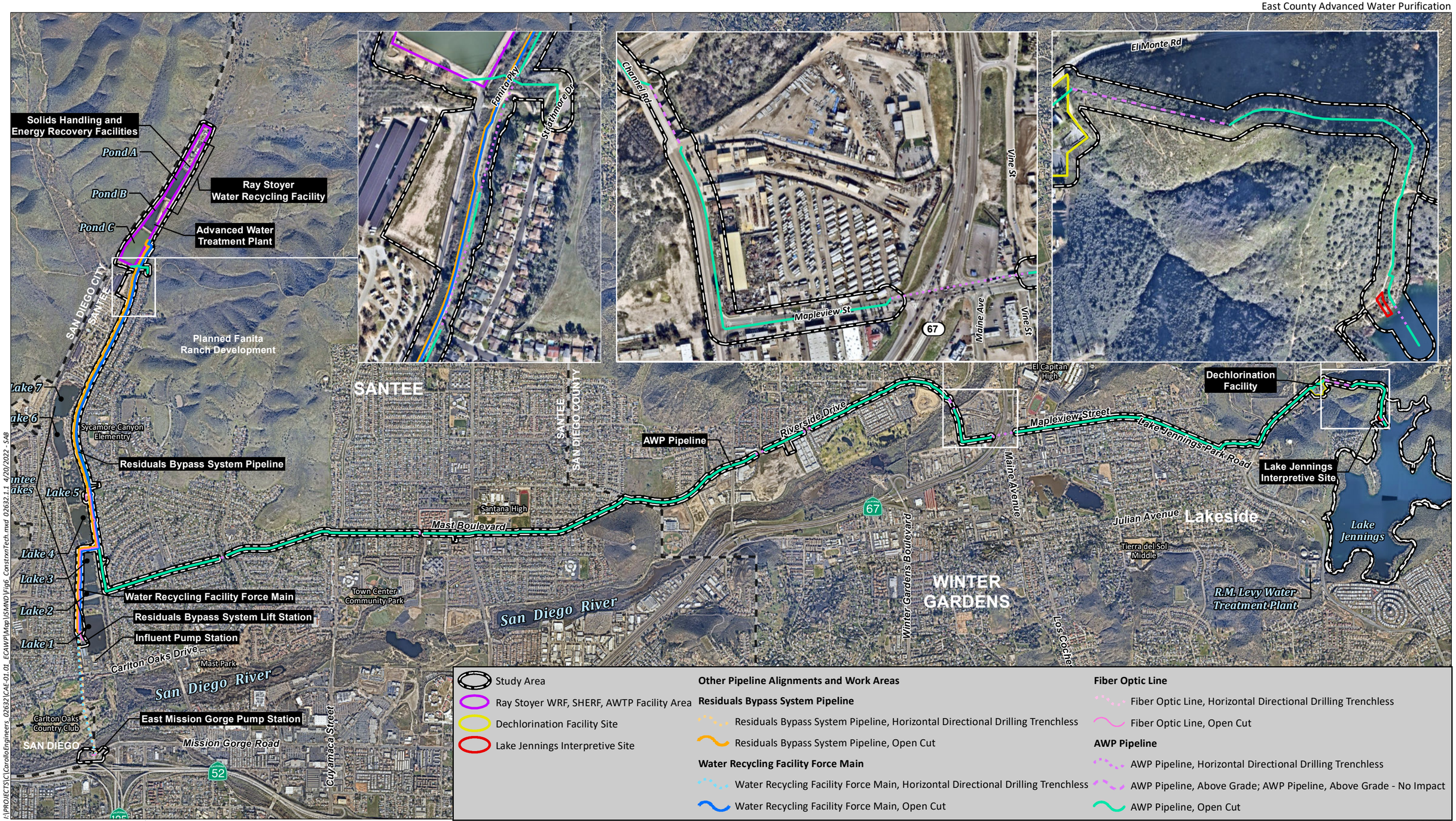
HELIX Environmental Planning

Packages 1-3 Previously Proposed Construction Techniques

Figure 5



Source: Base Layers, SanGIS 2017

HELIX Environmental Planning

Packages 1-3 Currently Proposed Construction Techniques

Figure 6

East County Advanced Water Purification

Proposed Components

- RBL Extension
- Dual Alignment
- Triple Alignment
- Potential Lift Station Location

Existing Components

- East Mission Gorge Pump Station
- East Mission Gorge Force Main
- Mission Gorge Trunk Sewer
- North Mission Valley Interceptor Sewer
- South Mission Valley Trunk Sewer
- Mission Trails Open Space Area
- Municipal Boundary

52
52
West Hills Pky
Forester Creek
Mission Gorge Rd
Father Junipero Serra Trl
SANTEE
SAN DIEGO
125
Santo Rd
Tierrasanta Blvd
Mission Gorge Rd
SANTEE
EL CAJON
EL CAJON
SAN DIEGO
San Diego River (Lower)
Navajo Rd
Fletcher Pky
Jackson Dr
EL CAJON
LA MESA
SAN DIEGO
LA MESA
Friars Rd
15
Alvarado Creek
8
College Ave
Baltimore Dr
Murray Dr
Grossmont Blvd
8
Fenton Pky
805
Camino Del Rio North
Fairmount Ave

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0 3,000 Feet

N

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Alignment Overview

Figure 7

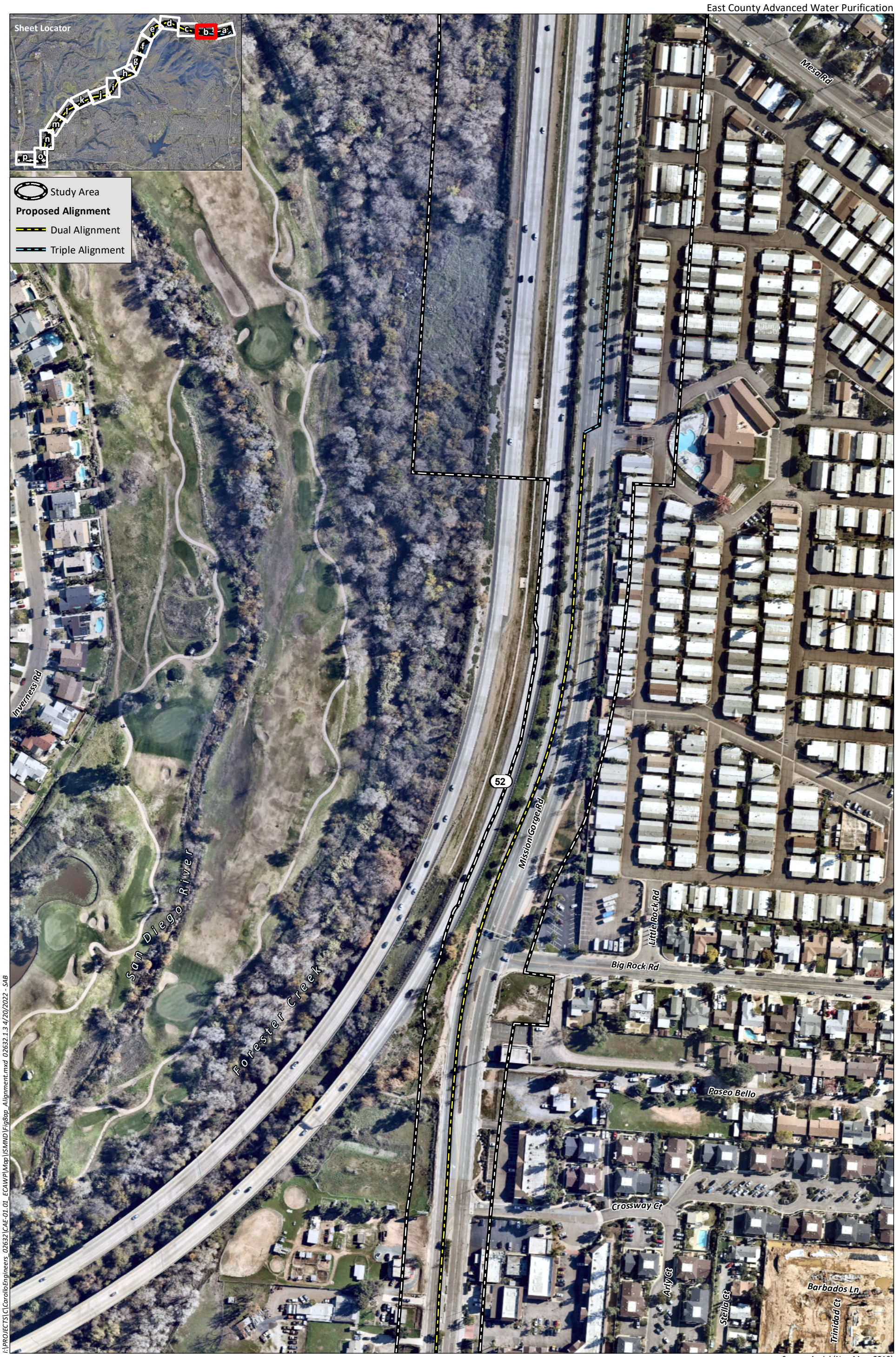
0 200 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Alignment Detail

Figure 8a



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Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Alignment Detail

Figure 8b

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Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Alignment Detail

Figure 8c

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0 200 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Alignment Detail

Figure 8d

East County Advanced Water Purification

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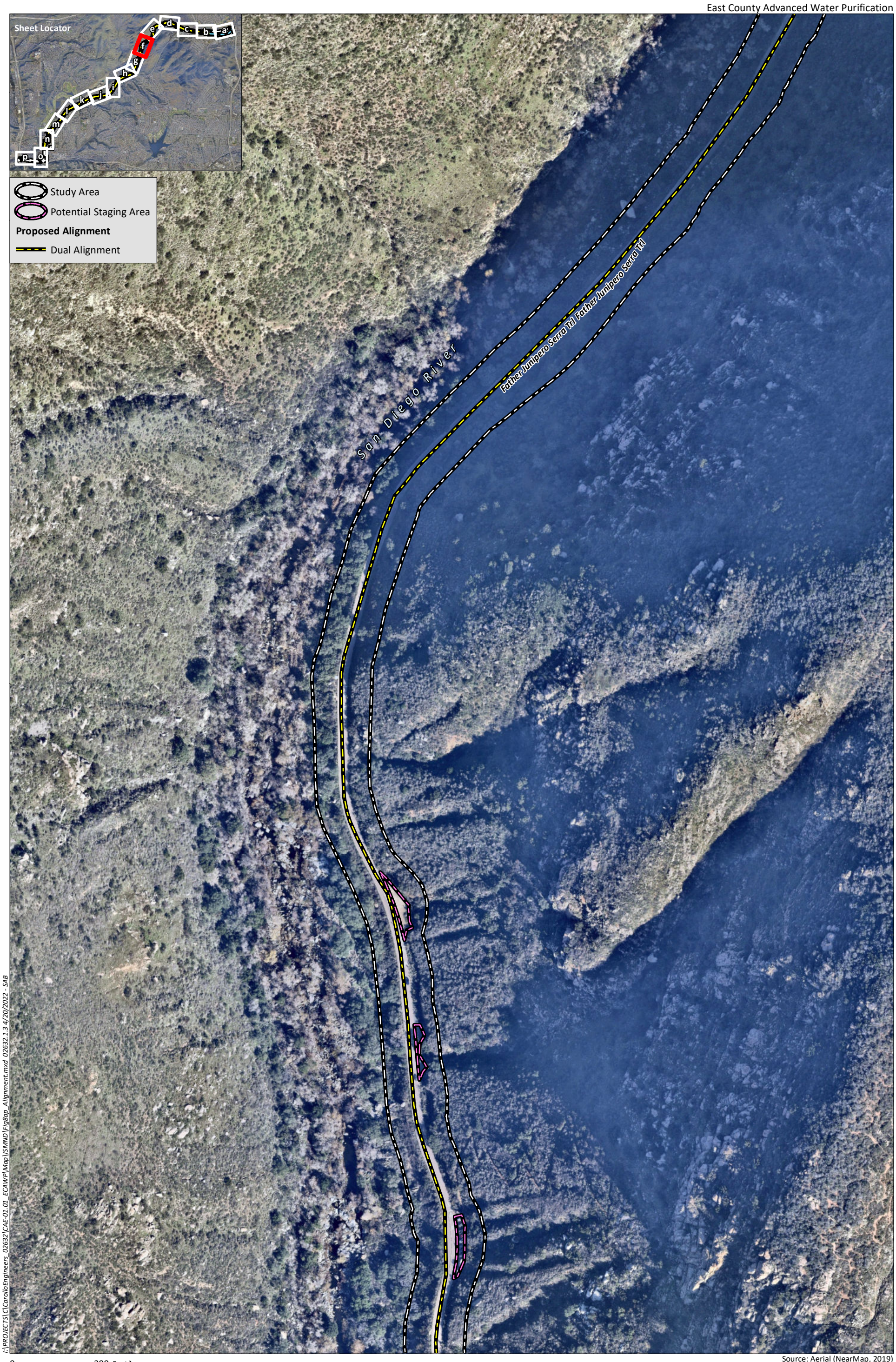
Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Alignment Detail

Figure 8e

East County Advanced Water Purification



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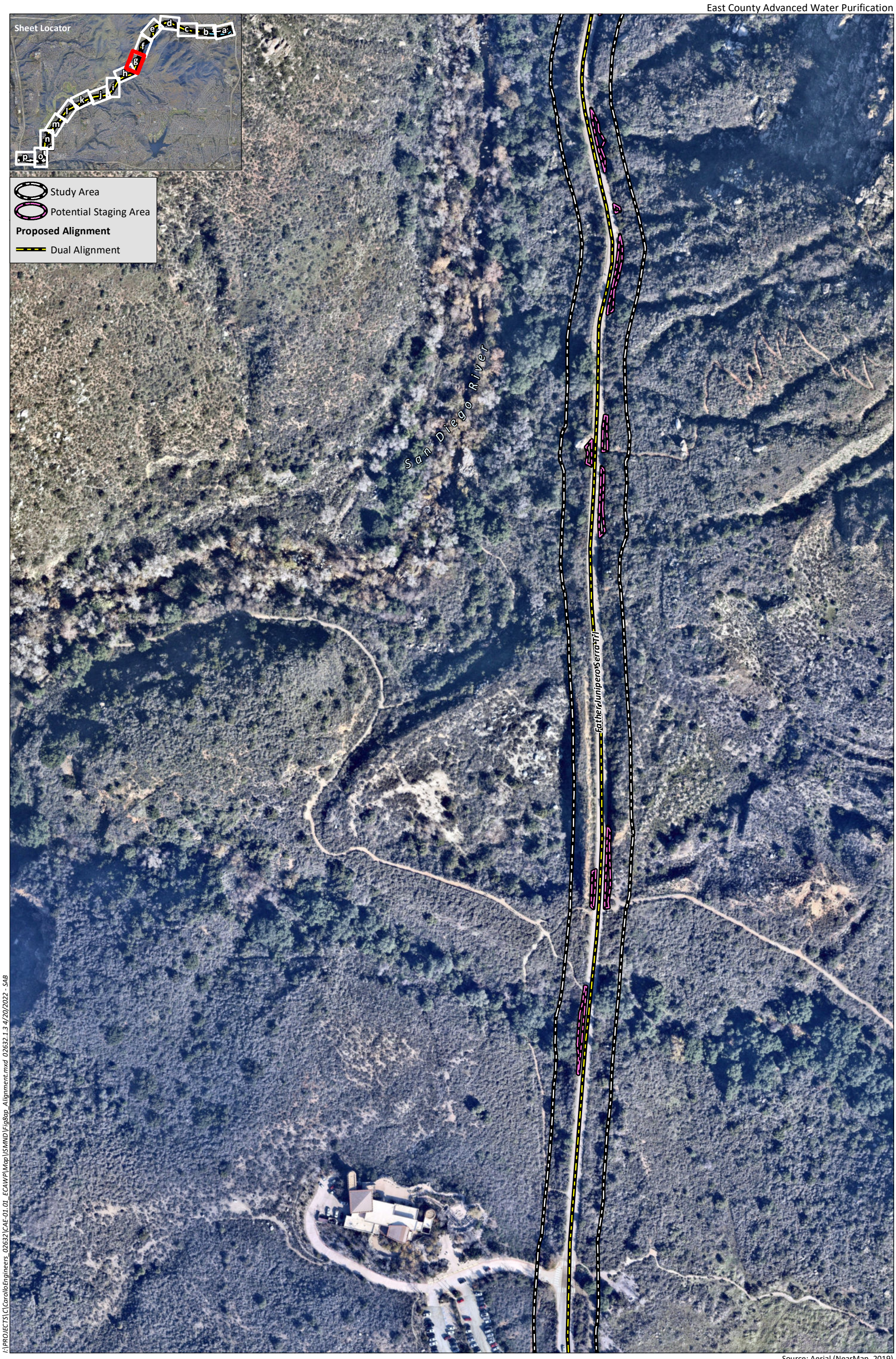
0 200 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Alignment Detail

Figure 8f



Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Alignment Detail

Figure 8g

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0 200 Feet

Source: Aerial (NearMap, 2019)

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Package 4 Alignment Detail

Figure 8h

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0 200 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Alignment Detail

Figure 8i

East County Advanced Water Purification

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Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Alignment Detail

Figure 8j

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Package 4 Alignment Detail

Figure 8k

East County Advanced Water Purification

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Source: Aerial (NearMap, 2019)

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Package 4 Alignment Detail

Figure 8l

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0 200 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Alignment Detail

Figure 8m

0 200 Feet

Source: Aerial (NearMap, 2019)

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HELIX Environmental Planning

Package 4 Alignment Detail

Figure 8n

East County Advanced Water Purification

Sheet Locator

Study Area

Potential Lift Station Location

Proposed Alignment

RBL Extension

Dual Alignment

Potential Mission Valley Lift Station Location

Existing Alignment

North Mission Valley Interceptor Sewer

South Mission Valley Trunk Sewer

Twain Ave

Connection Point

San Diego Mission Rd

Caminito Bravura

Caminito Yucatan

Mission Gorge Rd

A

B

C

D

E

F

San Diego River

Camino Del Rio North

MTS Green Line

Alvarado Canyon Rd

Fairmount Ave

Camino Del Rio South

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0 200 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Alignment Detail

Figure 8o

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0 200 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Alignment Detail

Figure 8p

Component Details

Rehabilitated EMGFM

The existing EMGFM conveys intermittent wastewater flows that exceed the capacity of the City of San Diego's Mission Gorge Trunk Sewer (MGTS) during wet weather high flow events. Rehabilitation of the EMGFM will allow the pipeline to continue to reliably convey these peak wet weather flows and serve as an emergency failsafe pipeline to convey wastewater flows during times when the Project is not in service or is operating under limited capacity.

RBL and Mission Valley Lift Station

As discussed above, the new East County AWP facilities will produce residuals as part of the advanced water purification treatment and solids handling processes. Project residuals need to be discharged downstream of the City of San Diego's Pure Water Program so as to avoid reintroduction of residuals into the City of San Diego's North City Water Reclamation Plant. Without the RBL, the East County AWP would discharge into the existing MGTS, a tributary to the City of San Diego's Morena Pump Station, which feeds the North City Water Reclamation Plant where the Phase 1 Pure Water Program facilities are located. In place of discharging residuals to the existing MGTS, the separate RBL would be constructed to convey the residuals from the East County AWP facilities to the SMVTS. Flows from the SMVTS will eventually reach the Point Loma Wastewater Treatment Plant (PLWTP), without passing through the Morena Pump Station. Separating the residuals from the existing MGTS allows residuals to physically bypass the Morena Pump Station and thus improve the overall quality of the wastewater used in the Phase 1 Pure Water Program system. Construction of the RBL would also allow for future planned industrial uses to discharge residuals directly to gravity portions of the RBL, thus avoiding water quality impacts to the Phase 1 Pure Water Program.[1] If the City of San Diego decides to implement Phase 2 of the Pure Water Program, it is likely they would extend the RBL further west to bypass critical Phase 2 Pure Water Program facilities. This future expansion would be covered under a subsequent CEQA review.

As discussed above, a sewer lift station (termed the Mission Valley Lift Station) will be necessary along the RBL alignment to maintain positive flow to the existing SMVTS, due to the anticipated elevation of the RBL extension and the invert elevation of the SMVTS. The lift station would pump the flows in the RBL from a low point in the alignment to the higher-elevation SMVTS. The lift station would involve typical lift station components such as pumps, underground structures (combination wet well and dry well), lift station building (with an electrical control room, above-ground natural gas emergency generator, odor control tank, and air supply system), electrical equipment, lighting, and above-ground transformer, fuel tank, surge tank, and storage tank emergency power. The pumps may include submersible motors or standard extended drive shaft motors. Refer to Figure 9, *Typical Lift Station*, for a graphic depicting a typical City of San Diego lift station.

Potential locations for the Mission Valley Lift Station are identified on Figures 8n and 8o. The estimated overall footprint for the proposed lift station sized for two million gallons per day, including room for

[1] Construction of the RBL would not increase capacity that would allow for the construction of future industrial uses. The industrial uses are planned to be constructed regardless of whether the RBL is constructed or not. The RBL would simply be a means for residuals from the industrial uses to bypass the City of San Diego's Pure Water Program facilities.

ingress and egress for maintenance vehicles and equipment traveling to the lift station, is estimated 0.5 acre.

The air supply system and emergency generator will be equipped with sound dampening measures such as insulation, filters, baffles/silencers, acoustic panels and liners, and mufflers to reduce the noise levels at the property line. The lift station site will be paved with asphalt and landscaped with plants and trees that match the surrounding area.

Relationship between the Rehabilitated EMGFM and RBL

The existing EMGFM is a 48-inch pipeline, which will accommodate both the new rehabilitated EMGFM and the RBL within the existing EMGFM, primarily using a sliplining operation. This process is a viable option for portions of the alignment in which the proposed alignment overlaps with the existing EMGFM, approximately the Meadowbrook community to the Fairmont Avenue and Twain Avenue intersection. Sliplining construction allows the two new pipelines to be located within the corridor of the existing EMGFM pipeline. Sliplining construction would reduce overall impacts to the surrounding environment by avoiding much of the excavation associated with typical open-cut pipeline construction. The sliplined portion of the alignment limits excavations to interspersed launching and receiving pits at specific locations. Open-cut construction would occur at locations where sliplining is not a viable option (e.g., at sharp turns in the alignment). Open-cut construction would also be used to relocate the portion of the existing EMGFM between the EMGPS and the Meadowbrook community entrance that runs along the north side of SR 52 to within Mission Gorge Road, to avoid work in sensitive biological habitat associated with Forester Creek. This portion of the existing EMGFM north of SR 52 would be abandoned in place, capped, and potentially filled.

PD2FM

The planned corridor for a future force main connection for the Padre Dam Sewer Basin 2 area (the PD2FM) is immediately adjacent to the planned alignment of the rehabilitated EMGFM/RBL. The new connection would be a part of a project that would reroute existing sewer flows produced by one of the District's sewershed areas called "Basin 2" from its current discharge point in the City of San Diego's MGTS to be captured and treated by the East County AWP facilities instead. This will occur via a new connection of the PD2FM upstream of the EMGPS. Since the force main would share the same alignment as the proposed rehabilitated EMGFM and RBL pipelines, installation of the PD2FM can be incorporated with the construction of the rehabilitated EMGFM/RBL to minimize the overall cost and impacts of the work. The PD2FM would be installed via open cut construction parallel to the rehabilitated EMGFM and the RBL under the triple alignment section shown in Figures 7 and 8.

Construction Methods and Schedule

Construction Techniques

Construction techniques for the Project modifications would include a variety of above- and below-ground methods depending on the component, including open-cut trenching, sliplining, and other trenchless methods. These techniques are described in further detail below. Construction equipment would be used for the various Project modification components and would primarily include excavators, loaders, forklifts, pavers, rollers, backhoes, dump trucks, welders, generators, bore/drill rigs, cranes, and compactors.

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Typical Lift Station

Figure 9

Open-cut Trenching

Open-cut trenching is the technique that is most commonly used for pipe and conduit installation. It is also referred to as trenching or cut and cover. This is where a piece of construction equipment digs a trench to the appropriate installation depth and then the pipe is placed in the trench by workers and different construction equipment. The trench is then backfilled, re-compacted, and restored to the original condition. Refer to Figure 10, *Typical Open-cut Trenching Construction.*

Sliplining

The sliplining technique to install pipe is where a new pipe is placed inside of an existing pipe. The existing pipe acts as the "host" or path for the new pipe. This technique greatly reduces the amount of area that needs to be excavated when upgrading or installing new pipe. The existing pipe is accessed by digging up pits along the existing pipe alignment to allow for the insertion of the new pipe. The new pipe is installed in segments that are connected to each subsequent segment inside of the access pit once the pipe has successfully been inserted into the existing pipe. Once each segment has been installed the access pit location is backfilled, re-compacted, and restored to the original condition. Refer to Figure 11, *Sliplining Work Area,* and Figure 12, *Typical Sliplining Construction.*

Trenchless (General)

Trenchless pipe installation is a technique that involves drilling or tunneling through the soil to install the pipe without having impacts to the surfaces above. Different types of augers or drills can be used to complete the tunnel where the new pipe can be installed. Typically, a launching pit and receiving pit are excavated using traditional backhoes or excavators on each side of the tunnel for access and pipe insertion into the tunnel. The launching and receiving pit areas are then backfilled, re-compacted, and restored to their original condition. Refer to Figure 13, *Typical Trenchless Construction.*

Blasting

Based on preliminary findings of the geotechnical investigations for the proposed Project, rock excavation is anticipated along several areas of the AWP Pipeline alignment and during renovation of the EMGPS, WRFFM, and Residuals Bypass System. The ease, or difficulty, of excavating the rock would depend on if the rock encountered is fractured or not. Rock that is not fractured and has a high compressive strength is considered non-rippable and may require mechanical means or controlled blasting to remove. It is anticipated that rock encountered which is non-rippable would be excavated utilizing mechanical means such as a hydraulically operated rock breaker or a rock breaker in combination with a rotary cutting head or rock drill. However, if the rock cannot be excavated utilizing mechanical means, controlled blasting would be required. At the current stage of planning, exact blasting requirements are unknown, including the associated quantities of blasts, blast fuel, holes per blast and area per blast.

RBL and Mission Valley Lift Station

Construction for the lift station includes the following major components. Demolition of any structures on the existing property would be accomplished utilizing concrete saws, excavators, loaders, and dump trucks. The site would be cleared, grubbed, and graded in preparation for new construction with the same equipment package used for the demolition. The new wet well and a portion of the new lift station would be constructed underground. This would involve the use of excavators, loaders, dump trucks, and

shoring to protect the surrounding structures and areas. Once the majority of the deeper underground components are complete, the site would be backfilled and the surface components of the lift station such as the pump station building, emergency standby generator, site piping would be constructed. This phase of construction involves cranes, excavators, forklifts, compaction equipment, loaders, dump trucks, and generators. Construction of the RBL and Mission Valley Lift Station may also include blasting, which will be determined through geotechnical investigation.

Construction Staging

Packages 1-3

Staging for construction of the IPS would be a previously disturbed, graded area within the District's operations yard, west of Lake 1. Staging areas for the Ray Stoyer WRF expansion, SHERF, AWTP Facility, and Residuals Bypass System lift station would be in previously disturbed areas within the District's property.

Construction staging for the EMGPS and WRFFM and Residuals Bypass System pipeline would be in previously disturbed areas within the existing EMGPS footprint, the Santee Lakes property, the right-of-way limits of Fanita Parkway, and in previously disturbed areas within the District's property near the Ray Stoyer WRF.

Staging areas for construction of the AWP pipeline from the AWTP facility to the dechlorination facility would be located within the rights-of-way and/or within previously disturbed areas along the roadway. The staging area for construction of the dechlorination facility would be the 1.54-acre property that contains the existing El Monte Pump Station which is owned by Helix Water District.

For AWP Pipeline work from the dechlorination facility to Lake Jennings and for construction of the Lake Jennings facilities, staging areas would include the 1.54-acre property that contains the existing El Monte Pump Station owned by Helix Water District and could also include areas within Helix Water District's R. M. Levy Water Treatment Plant, areas east of the plant in a vacant lot adjacent to the lake, disturbed areas on the east side of the lake near Hermit Cove, and/or the parking area near Eagle Point (refer to Figure 5 of the 2018 IS/MND).

Package 4

Staging and laydown areas for construction of the Package 4 components would be located at the EMGPS and within the rights-of-way and/or within previously disturbed areas along the roadway. Potential construction staging areas were identified and included within the 250-foot-wide biological study area and 150-foot-wide cultural Area of Potential Effects (APE). The locations of the potential construction staging areas are shown on Figures 8d-g. Staging and laydown areas may be located within private property if agreeable to the property owner. Temporary staging areas and equipment laydown for the work may occur in MTRP. Where possible, this work would be kept to within 10 feet of the paved trail limits within the park and would be within disturbed and/or developed areas; however, this distance may extend beyond 10 feet in certain locations where the disturbed and/or developed limits exceed 10 feet.

HELIX Environmental Planning

Typical Open-cut Trenching Construction

Figure 10

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Source: ORION Construction, 2021

HELIX Environmental Planning

Sliplining Work Area

Figure 11

HELIX Environmental Planning

Typical Sliplining Construction

Figure 12

HELIX Environmental Planning

Typical Trenchless Construction

Figure 13

EMGFM Drain Down

The wastewater in the existing EMFGM will be drained to assess the condition of the pipe prior to construction and clear the pipe of standing wastewater periodically throughout construction. Drain down activities may also be required for ongoing maintenance and operation of the facility following the completion of construction. The existing EMGFM contains five elevational low spots in which wastewater currently collects. This standing wastewater would be pumped out of the EMGFM via existing access holes and into nearby City of San Diego sewer access holes. Hoses used for drain down activities may be buried using shallow trenches in roadways; however, pumps and generators would be placed outside of roadways. Within MTRP, all pumps and generators will be placed within existing disturbed areas just east of FJST, hoses will be placed along the western edge of FJST, and a shallow trench will be utilized for the hose to cross FJST. Wastewater would be pumped to an existing sewer access hole at the north end of FJST.

Construction Schedule

Construction of the various Project components is anticipated to occur from June 2022 through December 2025. Sequencing and duration of individual components may vary depending on seasonal restrictions, environmental factors, and number of crews working simultaneously. The proposed construction schedule and equipment list for each Project component is provided in Table 1, *Anticipated Construction Schedule and Equipment*.

Table 1
ANTICIPATED CONSTRUCTION SCHEDULE AND EQUIPMENT

Project Component	Anticipated Equipment[1]	Anticipated Construction Period Start	Anticipated Construction Period End
Package 1			
Ray Stoyer WRF Expansion, SHERF, AWTP Facility, Pond C Reconfiguration	2 Excavator, 4 Tractor/Loader/Backhoe, 1 Skid-Steer Loader, 1 Paver, 2 Roller, 2 Crane, 2 Forklift, 3 Generator, 2 Air Compressor, 2 Plate Compactor, 2 Track Dozer, 3 Pump, 2 Scraper, 1 Off-Highway Truck	June 2022	May 2025
Package 2			
AWP Pipeline and Lake Jennings Inlet	1 Bore/Drill Rig, 1 Concrete Saw, 1 Crane, 3 Excavator, 1 Forklift, 1 Generator, 1 Pump, 2 Skid-Steer Loader, 2 Tractor/Loader/Backhoe, 1 Welder, 1 Paving Equipment, 5 Roller, 1 Street Sweeper	October 2022	March 2024
Dechlorination Facility	1 Crane, 1 Excavator, 1 Generator, 1 Grader, 1 Plate Compactor, 1 Paver, 1 Roller, 1 Skid-Steer Loader, 2 Tractor/Loader/Backhoe	July 2023	April 2024

Project Component	Anticipated Equipment[1]	Anticipated Construction Period Start	Anticipated Construction Period End
Package 3			
WRFFM/ Residuals Bypass System Pipeline	1 Bore/Drill Rig, 2 Tractor/Loader/Backhoe, 1 Excavator, 1 Concrete Saw, 1 Crane, 1 Generator, 1 Welder, 1 Plate Compactor, 1 Pump, 1 Paver, 1 Skid-Steer Loader, 2 Roller	August 2022	January 2025
Influent Pump Station	1 Crane, 1 Forklift, 1 Excavator, 1 Tractor/Loader/Backhoe	January 2023	October 2023
EMGPS	1 Crane, 1 Forklift, 1 Excavator, 1 Tractor/Loader/Backhoe	April 2023	January 2024
Residuals Bypass System Lift Station	1 Crane, 1 Excavator, 1 Forklift, 1 Generator, 1 Bore/Drill Rig, 1 Tractor/Loader/Backhoe	January 2024	December 2024
Package 4			
EMGPS Connection, Triple Alignment, Dual Alignment	1 Bore/Drill Rig, 1 Concrete Saw, 1 Crane, 1 Generator, 2 Excavator, 1 Paver, 1 Plate Compactor, 1 Pump, 2 Roller, 1 Skid-Steer Loader, 2 Tractor/Loader/Backhoe, 1 Vactor Truck, 1 Welder, 1 Wheel Loader, Dump Trucks	August 2024	December 2025
RBL Extension – Single Alignment	1 Bore/Drill Rig, 1 Concrete Saw, 1 Crane, 1 Forklift, 1 Generator, 2 Excavator, 1 Paver, 1 Plate Compactor, 1 Pump, 2 Roller, 1 Skid-Steer Loader, 2 Tractor/Loader/Backhoe, Dump Trucks	January 2025	December 2025
Mission Valley Lift Station	1 Concrete Saw, 1 Crane, 2 Excavator, 1 Forklift, 1 Generator, 2 Tractor/Loader/Backhoe, Dump Trucks	January 2025	December 2025

Construction Best Management Practices Included in Project

County of San Diego Vector Control Program

In accordance with the County of San Diego's Vector Control Program, the Project will:

- Be constructed in a manner to minimize standing water resulting from construction related depressions created by grading activities, vehicle tires, tree pits, and landscaping; and

- Ensure best management practices (BMPs) and drainage areas do not create a potential mosquito breeding source (an area capable of holding at least half an inch of water for more than 9 hours).

Hydrofracture Contingency Plan

If trenchless methods that may lead to hydrofracture[2] are used, a frac-out contingency plan will be prepared to reduce the potential for hydrofracture and inadvertent returns. The proposed Project includes the following BMPs:

- Sufficient earth cover to increase resistance to hydrofracture.
- Use of an adequate dense drilling fluid to avoid travel of drilling fluid in porous sands.
- Structurally stabilizing the bore hole to avoid collapse.
- Maintaining a low borehole pressure to avoid hydrofracture.
- Maintaining reaming and pullback rates slow enough to avoid over pressurization of the bore.
- Visually monitoring the surface above the vicinity of the drill head for surface evidence of hydrofracture.
- Modifying drilling methods to suit site conditions such that hydrofracture does not occur.
- Cleaning hydrofractures immediately after they occur.
- Keeping necessary response equipment readily accessible and in good working order.

Other Construction BMPs

Project construction also includes the following BMPs:

- Implement BMPs included in City of San Diego's *"Whitebook" – Standard Specifications for Public Works Construction* for work within the City of San Diego.
- Implement standard dust control measures in accordance with San Diego Air Pollution Control District (SDAPCD) Rule 55 – Fugitive Dust Control, such as watering two times daily during excavation.
- Implement a Storm Water Pollution Prevention Plan (SWPPP) and associated BMPs during construction.
- Divert construction and demolition waste (i.e., soil, rock, concrete, and asphalt) to other Project construction sites to be reused or to an appropriate facility as indicated on the City of San Diego's 2022 Certified Construction & Demolition Recycling Facility Directory (City of San Diego 2022), anticipated to be Hanson Aggregates West – Lakeside Plant and/or Hanson Aggregates West – Miramar.

[2] The unintended reversal of drilling fluid to the ground surface during trenchless operations.

Surrounding Land Uses

Package 1 (Ray Stoyer WRF, SHERF, and AWTP Facility)

The proposed Fanita Ranch development project would include approximately 3,000 residential units in an area located adjacent to the Package 1 site to the northeast, east, and southeast (refer to Figure 2). There are established residential areas, as well as new residential development, to the south of the Package 1 site. Schools in proximity to the Package 1 site include Sycamore Canyon Elementary School approximately 1.1 miles to the south, Carlton Hills Elementary School approximately 2.1 miles to the southeast, and West Hills High School approximately 2.1 miles to the southwest. Topographically, the Package 1 vicinity is bounded by a series of northwest-to-southeast trending ridgelines that create finger canyons. The Ray Stoyer WRF site is the most northerly developed area within the valley formed by these ridgelines. Immediately to the south of the Ray Stoyer WRF are three holding ponds A, B and C, which hold the treated Title 22 recycled water produced by the Ray Stoyer WRF until it is released into the Santee Lakes, a series of seven lakes to the south of the holding ponds.

Land immediately surrounding the Ray Stoyer WRF is currently undeveloped. The nearest developed land uses include single-family residential units located on the east side of Sycamore Canyon Road, with the northernmost houses located approximately adjacent to the southern end of the holding ponds. This is approximately 1,200 feet south of the proposed location for the AWTP Facility at Pond B. Camping at the Santee Lakes recreation area is located south of the holding ponds (on the west side of Sycamore Canyon Road). The northernmost camp site is located approximately 1,000 feet south of the southernmost holding pond.

Package 2 (AWP Pipeline to Lake Jennings, Dechlorination Facility, Inlet, and Air Curtain at Lake Jennings)

Land uses adjacent to the proposed AWP Pipeline alignment include open space, residential, commercial, and light industrial (refer to Figure 2). Schools within 0.25 mile of the AWP Pipeline alignment include Sycamore Canyon School (10201 Settle Road, Santee), Santee KinderCare (9735 Cuyamaca Street, Santee), Santana High School (9915 Magnolia Avenue, Santee), Hill Creek School (9665 Jeremy Street, Santee), the Learning Academy (11646 Riverside Drive, Lakeside), Lakeside Farms Elementary (11915 Lakeside Avenue, Lakeside), and Foothills Christian Elementary School (10404 Lake Jennings Park Road, Lakeside). Two public hiking trails, the Lake Loop Trail and Flume Trail, intersect the proposed AWP Pipeline alignment near where it would inlet to Lake Jennings.

Land surrounding the proposed dechlorination facility, inlet, and air curtain at Lake Jennings is primarily undeveloped open space. There is one single-family home located approximately 350 feet to the south of the El Monte Pump House, behind the Helix Water District Pump Station (refer to Figure 6 of the 2018 IS/MND). The Historic Flume Trail is a public hiking trail that begins at the El Monte Pump Station and follows a segment of an old flume that was built in the late 1800s. The Lake Jennings Trail is a public hiking trail that circles the lake and connects to the Lake Jennings Campground, which is located approximately 0.1 mile west of the lake near Half Moon Cove. The campground contains 91 campsites and provides outdoor recreation activities and access to the lake.

Package 3 (Influent Pump Station, EMGPS, WRFFM, and Residuals Bypass System)

The IPS is located on District property at the District's operations yard immediately south of the southernmost lake of the Santee Lakes (refer to Figure 2). The District's operations yard and IPS are

surrounded by single-family residential uses to the west, east, and south. Land uses surrounding the EMGPS include the SR 52 and SR 125 rights-of-way, open space, and commercial. Residential land uses are located approximately 1,500 feet to the south and southwest behind Philip Thearle's Autoworks auto body shop and El Monte RV Rentals on the south side of Mission Gorge Road. Land uses surrounding the proposed WRFFM alignment and Residuals Bypass System pipeline alignment include the existing EMGPS, open space, Carlton Oaks Golf Course, residential, the District's operations yard, and recreational uses at the Santee Lakes.

Package 4 (EMGFM, RBL, PD2FM, and Mission Valley Lift Station)

Land uses along the proposed triple alignment (EMGFM, RBL, and PD2FM) that would be within Mission Gorge Road include California Department of Transportation (Caltrans) right-of-way at SR 52 to the north of the alignment and commercial and residential uses to the south of the alignment (refer to Figures 8a and 8b). Land uses along the proposed dual alignment (rehabilitated EMGFM and RBL) include commercial, residential, industrial, Caltrans right-of-way at SR 52 and I-8, and open space and recreational uses within MTRP. Land uses along the RBL extension and potential lift station include commercial uses and Caltrans right-of-way at I-8 and I-15. Refer to Figures 7 and 8.

Agency Approvals

The JPA is both the Project proponent and the Lead Agency under CEQA. In its role as Lead Agency, the JPA is responsible for ensuring the adequacy of this IS/MND.

Public agencies, other than the Lead Agency, that have discretionary authority over a project, are considered responsible agencies. The City of San Diego, a responsible agency for the Project, has jurisdiction of the Package 4 pipeline infrastructure and the Mission Valley Lift Station and would, at a minimum, have discretionary authority over the Project through the authorization of funding for construction of the Project. Portions of the Project are within the City of San Diego's Multiple Species Conservation Program (MSCP) Subarea Plan and are therefore subject to the management directives and land use considerations of the Subarea Plan. Analysis and discussion on the Project modification's consistency with the MSCP Subarea Plan is provided in Section IV(f) of this IS/MND. Table 2, *Regulatory Permits and Approvals,* lists the applicable permits and approvals by other agencies applicable to the Project.

Table 2
PERMITS AND APPROVALS

Agency / Department	Permit / Approval
State Agencies	
California Department of Fish and Wildlife (CDFW)	California Endangered Species Act Take Permit (California Fish and Game Code Section 2081)
California Department of Transportation	Encroachment Permit (California Streets and Highways Code Sections 660 et seq.)
California State Historic Preservation Office	Review under Section 106 Consultation of the National Historic Preservation Act and California Office of Historic Preservation (California Public Resources Code Sections 5024, 5024.5, 21083.2 – 21084.1)

Agency / Department	Permit / Approval
State Water Resources Control Board (SWRCB)/ Regional Water Quality Control Board (RWQCB)	National Pollutant Discharge Elimination System (NPDES) General Construction Activity Storm Water Permit SWRCB Order No. 2009-0009 DWQ (as amended by 2010-0014-DWQ and 2012-0006-DWQ)
	Waste Discharge Requirements (Water Code 13000 et seq.) and/or National Pollutant Discharge Elimination System (NPDES) Permit
	NPDES Industrial Permit SWRCB Order No. 2014-0057-DWQ
	NPDES Groundwater Permit RWQCB Order No. R9-2015-0013
	401 Certification (CWA, 33 USC 1341, if the modifications require U.S. Army Corps of Engineers [USACE] 404 Permit)
	NPDES permit for discharge to Lake Jennings
SWRCB Division of Drinking Water	Domestic water supply permit for surface water augmentation using recycled water (SBDDW-16-02)
Local Agencies	
City of Santee	Encroachment Permit
City of San Diego	Right-of-Way Permit/Public Improvement Permit
	Right of Entry Permit
	Traffic Control Permit
	Site Development Permit[1]
	Design and Construction Agreements
	Acquisition Agreement (for the EMGFM and EMGPS)
	Non-Exclusive Easement (for EMGFM operations)
	Multiple Species Conservation Plan (MSCP) Consistency
County of San Diego	Encroachment Permit
	Memorandum of Understanding
	Water well permit (San Diego County Code, Sections 67.401 through 67.424)
Helix Water District	Memorandum of Understanding
Metropolitan Transit Systems (MTS)	Right of Entry Permit
San Diego Air Pollution Control District	Permit to Operate (for the RBL lift station)
San Diego Gas & Electric (SDG&E)	Encroachment permit (for pipeline construction and potential power pole relocation)

[1] May not be required if exemption can be demonstrated. The exemption does not apply if the Project would impact wetlands.

3.0 ENVIRONMENTAL INITIAL STUDY CHECKLIST

The lead agency has defined the column headings in the environmental checklist as follows:

A. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant.

B. "Less Than Significant with New Mitigation Incorporated" applies where the inclusion of new mitigation measures and/or Project elements have reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." All mitigation measures and Project

elements that reduce the potential effects of the Project are described, including a brief explanation of how the measures or elements reduce the effect to a less than significant level.

B. "Less Than Significant with Previous Mitigation Incorporated" applies where the inclusion of mitigation measures and/or Project elements from previous environmental documentation for the Project have reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." All mitigation measures and Project elements that reduce the potential effects of the Project are described, including a brief explanation of how the measures or elements reduce the effect to a less than significant level. Mitigation measures from earlier analyses may be cross-referenced.

C. "Less Than Significant Impact" applies where the Project does not create an impact that exceeds a stated significance threshold.

D. "No Impact" applies where the Project does not create an impact in that category.

The thresholds of significance applied in this section of the IS are based on Appendix G of the CEQA Guidelines.

I. Aesthetics

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the Project:					
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of aesthetics impacts is included on pages 19 through 23 of the 2018 IS/MND. The 2018 IS/MND concluded that implementation of the Project would result in less than significant impacts to scenic

vistas and no impacts to scenic resources within a state scenic highway. It was concluded that potentially significant impacts would occur related to visual character during construction and new sources of light. Implementation of mitigation measure CFMP Aes-1 would reduce impacts to visual character to a less-than-significant level by removing construction debris, limiting tree and vegetation removal, and restoring disturbed areas and roadways following construction. Implementation of mitigation measure CFMP Aes-1 would also reduce impacts associated with construction lighting and CFMP Aes-4 would reduce impacts associated with permanent sources of lighting by requiring lighting to be low-illumination, shielded, and/or directed away from neighboring occupied properties.

Analysis of the Proposed Modifications

a) Have a substantial adverse effect on a scenic vista?

Packages 1-3

Less Than Significant Impact. Construction activities for the Packages 1-3 modifications would temporarily alter the visual environment. This impact would be temporary and construction activities would not result in a significant impact on a scenic vista. Permanent aboveground components associated with the proposed modifications that would be visible upon the completion of construction activities include the expanded Package 1 site, reconfigured Pond C, the portion of the AWP Pipeline suspended over the Channel Road bridge, and water feature and associated interpretive site at Lake Jennings. The expanded Package 1 site would include the same components and general layout as analyzed in the 2018 IS/MND and would not result in new impacts to scenic vistas. The recontoured Pond C would be similar to existing conditions upon completion of construction and would not have the potential to affect scenic vistas. The portion of the AWP Pipeline suspended over the Channel Road bridge would be located on the side of the existing bridge and would not be highly visible from nearby public vantage points or represent a substantial change from existing conditions. The proposed water feature at Lake Jennings would be of smaller scale than the water feature analyzed in the 2018 IS/MND and would thus not result in new impacts to scenic vistas. Similarly, the proposed features at the interpretive site, including viewing platforms, a walking path, and a bridge, would be relatively small in scale and would be oriented in a manner that would not obstruct scenic vistas (i.e., they would be flat, horizontal features). Impacts to scenic vistas from implementation of the proposed modifications would be less than significant.

Package 4

Less Than Significant Impact. A portion of the dual alignment would traverse through MTRP (refer to Figures 7 and 8), which includes natural scenic vistas that can be afforded by park users. Other portions of the Package 4 alignment would occur in roadways within urbanized and developed areas that do not offer scenic vistas. Similarly, the proposed Mission Valley Lift Station would be in an urbanized area where there are no scenic vistas and would be amongst other structures of similar or larger size; therefore, it would not obstruct a scenic vista where one currently exists. During the temporary construction period, construction equipment and vehicles would be present along the dual alignment within MTRP, primarily at 500- to 900-foot intervals associated with sliplining activities at access pits. The construction equipment and vehicles would have the potential to be visible to nearby park users and could be located between the park users and scenic vistas within the park; however, the construction equipment and vehicles would be concentrated at one location along the linear alignment at a given time and would therefore not be present in a manner that would obstruct large portions of

scenic views. Further, construction activities and the presence of equipment and vehicles would be temporary. Once construction is complete the disturbed areas would be backfilled and restored to pre-existing conditions. The primary permanent facilities within MTRP would be below ground pipelines that would have no potential to result in long-term effects to scenic vistas. Aboveground components may include the replacement and expansion of small appurtenances (air-vacuum valves, blowoffs, etc.) which would be small, unmanned, enclosed structures that also would not have the potential to affect scenic vistas. As such, impacts would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Packages 1-3

No Impact. The CFMP PEIR determined that permanent visual impacts related to proposed CFMP projects would only occur from above-ground reservoirs or from temporary construction activities visible from a state scenic highway. The proposed Package 1-3 modifications do not propose an above-ground reservoir, nor would temporary construction activities be visible from a state scenic highway. The nearest designated state scenic highway is the segment of SR 52 from post mile 9.5 near Santo Road to post mile 13.0 near Mast Boulevard. No components would be visible from this segment of SR 52, and no other designated or eligible state scenic highways are located in the vicinity of the project; therefore, no related impact would occur.

Package 4

Less Than Significant Impact. With limited exception, the Package 4 alignment occurs within established roadways in urbanized areas where scenic resources would not be affected (refer to Figures 7 and 8). One portion of the Package 4 alignment, near the EMGFM, is located in proximity to SR 52. While a segment of SR 52 is an officially designated state scenic highway (from Mast Boulevard to Santo Road), the alignment is approximately two miles southeast of this location at its nearest point. It is also noted that a portion of SR 52 is considered eligible (from I-5 east of La Jolla to SR 67); this would include the area where the alignment crosses under SR 52. However, disturbance would occur within Mission Gorge Road and would not involve trees, rock outcroppings, or historic buildings, and once complete would be repaved and restored to a condition similar to existing conditions.

A portion of the dual alignment would occur within MTRP (refer to Figure 7). While a segment of SR 52 traverses the northern boundary of the park, it is approximately 0.6 mile north of the dual alignment at the nearest location. This distance, combined with intervening topography and vegetation within MTRP, would obscure views of the modifications. In addition, this portion of the alignment would be constructed with largely trenchless construction (i.e., sliplining) as described in Section I(a), above, which would result in intermittent sections of construction activity, with other areas not affected, thus minimizing visual effects (refer to Figure 11). Additionally, upon completion of construction activities, the sites would be restored to pre-existing conditions.

Once the alignment exits MTRP it would be located within established roadways and traverse through urbanized built-up areas that do not contain trees that would be considered scenic resources (i.e., interspersed ornamental landscaping trees), rock outcroppings, or historic buildings. Similarly, the proposed Mission Valley Lift Station would be in an urbanized area in proximity to existing buildings of similar or larger scale.

Thus, given that no portion of the Package 4 alignment occurs within or adjacent to a designated segment of a state scenic highway and that the proposed modifications would not damage scenic resources, impacts would be less than significant.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Packages 1-3

Less Than Significant with Mitigation Incorporated. Temporary visual impacts would occur from construction of the proposed Packages 1-3 modifications in association with the disturbance of ground cover, grading, excavation, material stockpiles, and the presence of construction equipment, all of which would temporarily degrade the existing visual character at the construction site and its surroundings. Implementation of mitigation measure CFMP Aes-1 would reduce potential significant impacts related to construction to a less-than-significant level through removing demolition debris in a timely manner, limiting vegetation removal, and restoring disturbed areas to original site conditions. Permanent aboveground components associated with the proposed Packages 1-3 modifications that would be visible upon the completion of construction activities include the expanded Package 1 site, reconfigured Pond C, the portion of the AWP Pipeline suspended over the Channel Road bridge, and water feature and associated interpretive site at Lake Jennings. As discussed above in Section I(a), these components would either not be substantially different from what was analyzed in the 2018 IS/MND (expanded Package 1 site), not substantially different from existing conditions (reconfigured Pond C and AWP Pipeline along Channel Road bridge), and/or be of scale or design that would substantially alter the visual character of the site (AWP Pipeline along the Channel Road bridge and water feature and interpretive site at Lake Jennings). Therefore, impacts related to visual character and quality would be less than significant.

Package 4

Less Than Significant with Mitigation Incorporated. As discussed in Section I(a), above, equipment and vehicles would be present along the Package 4 alignment during construction, but construction would be temporary and limited to individual work areas. The trenchless (i.e., sliplining) method of pipeline construction would minimize visual effects by avoiding much of the activity associated with typical open-cut pipeline construction. In addition, mitigation measure CFMP Aes-1 would be implemented to further reduce potential impacts to visual character during construction through removing demolition debris in a timely manner, limiting vegetation removal, and restoring disturbed areas to original site conditions. During operations, the Mission Valley Lift Station is a new permanent component. The Lift Station is a small structure that would look similar to surrounding development and would not substantially degrade visual character or quality of public views. As such, impacts would be less than significant.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Packages 1-3

Less Than Significant with Mitigation Incorporated. With limited exceptions, construction of the proposed Packages 1-3 modifications would occur during daylight hours when no lighting would be

required. Nighttime lighting, if required, would be directed to the work site to avoid unnecessary spill and would provide a level of lighting that is appropriate for work and safety for workers. The PEIR requires implementation of CFMP Aes-1, which specifies that construction lighting be shielded or directed away from adjacent residences to minimize lighting impacts during construction. Implementation of mitigation measure CFMP Aes-1 would reduce impacts related to nighttime construction lighting to a less-than-significant level. The proposed Packages 1-3 modifications would not include permanent lighting beyond what was evaluated in the 2018 IS/MND.

Package 4

Less Than Significant with Mitigation Incorporated. Construction of the proposed Package 4 modifications would primarily occur during daylight hours when no lighting would be required. Nighttime lighting, if required, would be directed to the work site to avoid unnecessary spill and would provide a level of lighting that is appropriate for work and safety for workers. Mitigation measure CFMP Aes-1 would be implemented, which specifies that construction lighting be shielded or directed away from adjacent residences to minimize lighting impacts during construction. No lighting would be required for operation of the proposed belowground pipelines and minimal lighting, likely limited to security lighting, would be required for the Mission Valley Lift Station. In accordance with the PEIR, mitigation measure CFMP Aes-4 would be implemented and would require security lighting to be low illumination, shielded, and directed downward to prevent light and glare from affecting neighboring properties, thus reducing potential significant impacts from security lighting to a less-than-significant level. The lift station would also be in an urbanized area where existing lighting is present. Additionally, the modifications would not include surface structures with the potential to generate substantial glare (e.g., higher profile glass or stainless-steel facilities). As a result, impacts related to light or glare would be less than significant.

Mitigation

The following mitigation measures are based on those identified in the CFMP PEIR to mitigate potentially significant impacts identified in this section to less than significant levels. Minor modifications have been made for clarity.

CFMP Aes-1 **Construction Visual Disturbance Minimization Measures**. The following measures would be incorporated into the design and construction of CFMP projects that involve ground disturbance to minimize potential effects on aesthetics to neighborhoods surrounding the projects:

- Demolition debris will be removed in a timely manner for off-site disposal.
- Tree and vegetation removal will be limited as needed for project construction and access to the site.
- Construction lighting will be shielded or directed away from adjacent residences.
- All roadway features (signs, pavement delineation, roadway surfaces, etc.) and structures will be protected, maintained in a temporary condition, or restored.
- Disturbed areas will be restored following construction consistent with original site conditions and surrounding vegetation. If removed vegetation included invasive

plant species, the restored area shall be revegetated with a mix of native, non-invasive plants that are compatible with the surrounding setting. If necessary for successful restoration, a temporary irrigation system will be installed and maintained by the District, or watering trucks will be used at a frequency to be determined by the District to maintain successful plant growth. For proposed CFMP pipeline projects that would require trenching or that would require the temporary removal of concrete or asphalt, the disturbed area will be repaved to be consistent with the existing material.

CFMP Aes-4 **Shielding for Security Lighting**. To reduce impacts related to creating a new source of lighting, new security lighting for the proposed Project will be low illumination, shielded, and directed downward to prevent light and glare from affecting neighboring properties.

II. Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non- forest use?	☐	☐	☐	☐	☒

Summary of the Analysis in the 2018 IS/MND

Analysis of agriculture and forestry resources impacts is included on pages 23 and 24 of the 2018 IS/MND. The 2018 IS/MND concluded that implementation of the Project would not result in impacts to

agriculture or forestry resources because the development footprint of the Project, in relation to the total District service area and the amount of farmland present within the service area, would not result in a significant direct or indirect conversion of agricultural or forestry resources.

Analysis of the Proposed Modifications

The following discussion addresses questions II(a), (b), (c), (d), and (e).

Packages 1-3

No Impact. The proposed Packages 1-3 modifications would involve a similar footprint to that analyzed in the 2018 IS/MND and would not result in a significant direct or indirect conversion of agricultural or forestry resources, or conflict with a Williamson Act contract. No forestry resources were identified in the Project area and the operation and maintenance of the Project would not conflict with or otherwise affect the operation of surrounding agricultural uses or preclude their use for agricultural purposes. Therefore, no significant agriculture and forestry resources impacts would occur as a result of the proposed modifications.

Package 4

No Impact. According to the California Department of Conservation's (DOC's; 2018) Farmland Mapping and Monitoring Program, the Package 4 alignment, including the proposed lift station, traverses land classified as Urban and Built-Up and Grazing Land and does not contain Prime Farmland or Farmland of Statewide Importance. The Urban Built Up Land designation applies to land that the DOC has identified as being used for a variety of urban uses and contains man-made structures or buildings under construction and the infrastructure required for development that are specifically designed to serve that land. Grazing Land is land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock. No agricultural resources or operations are located within the vicinity of the project area. Therefore, the Package 4 modification would not convert farmland to non-agricultural use, conflict with existing zoning for agricultural use, or conflict with a Williamson Act contract.

No forest land occurs within or adjacent to the Package 4 alignment. Moreover, there is no land zoned as forest land or timberland that exists within the alignment or within its vicinity. There are trees associated with the landscape of MTRP; however, this is land that is retained within an established regional park and is not available for timberland production. Within MTRP, the modification's area of disturbance would occur within the existing roadways and the park. Therefore, the proposed Package 4 modification would not conflict with existing zoning for forest land or timberland, and no impact would occur in relation to this issue.

III. Air Quality

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of air quality impacts is included on pages 24 through 32 of the 2018 IS/MND. The 2018 IS/MND concluded that implementation of the Project would result in less-than-significant impacts related to conflict with an air quality plan, sensitive receptors, and odors. It was concluded that potentially significant impacts would occur related to violation of air quality standards and cumulatively considerable net increase of criteria pollutants from blasting that may be required for construction along the AWP Pipeline Alignment. Implementation of mitigation measure CFMP Air-1, which involves a Project-specific analysis to quantify blasting emissions and identify emissions reductions measures as necessary, would reduce potential impacts to a less-than-significant level. Non-blasting maximum daily construction emissions and operational emissions would be below applicable thresholds.

Analysis of the Proposed Modifications

a) Conflict with or obstruct implementation of the applicable air quality plan?

Packages 1-4

Less Than Significant Impact. The Project is located within the San Diego Air Basin (SDAB) under the jurisdiction of the SDAPCD. The SDAPCD develops and administers local regulations for stationary air pollutant sources within the SDAB and develops plans and programs to meet attainment requirements for both the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the air plan for attainment and maintenance of ambient air quality standards in the SDAB. The regional air quality plan for the NAAQS is SDAPCD's 2020 Plan for

Attaining the National Ambient Air Quality Standards for Ozone in San Diego County (Attainment Plan; SDAPCD 2020). The regional air quality plan for the CAAQS is SDAPCD's 2016 Revision to the Regional Air Quality Strategy for San Diego County (RAQS; SDAPCD 2016). A 2022 update to the 2016 RAQS is currently in progress (SDACPD 2022). These plans address emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the NAAQS and CAAQS. Mobile sources are regulated by the U.S. Environmental Protection Agency (USEPA) and California Air Resources Board (CARB), and the emissions and reduction strategies related to mobile sources are considered in the Attainment Plan and RAQS.

The Attainment Plan and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with the growth anticipated by the local jurisdictions' general plans would be consistent with the Attainment Plan and RAQS.

The proposed modifications would occur in association with a project, as analyzed in the CFMP PEIR and 2018 IS/MND, that is based on the growth projected to occur by SANDAG in the District's service area analyzed in the regional land use and air plans. The modifications would not generate additional population or serve growth beyond the projected levels considered in the PEIR and regional land use and air quality plans. Therefore, the Project with the proposed modifications would not result in population growth that would exceed the population projections accounted for in the Attainment Plan RAQS. Impacts would be less than significant, as determined in the 2018 IS/MND.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?

Packages 1-4

Less Than Significant with Mitigation Incorporated. The proposed modifications would generate emissions of criteria pollutants during construction and operation. Criteria pollutants include carbon monoxide (CO), nitrogen oxides (NO_X), ozone, particulate matter less than 10 microns in diameter (PM_{10}), particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), sulfur dioxide (SO_2), and lead. In analyzing cumulative criteria pollutant emissions impacts from a project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SDAB is listed as nonattainment for the CAAQS and the NAAQS. The SDAB has been designated as a federal nonattainment area for ozone, and a State nonattainment area for ozone, PM_{10}, and $PM_{2.5}$ (SDACPD 2017). Since few sources emit ozone directly, and ozone is caused by complex chemical reactions, control of ozone is accomplished by the control of emissions of the precursors NO_X and volatile organic compounds (VOCs). By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development within the air basin. Thus, this regional impact is a cumulative impact, and projects would contribute to this impact only on a cumulative basis. If a project's emissions do not exceed identified screening level thresholds, its emissions would not result in a cumulatively considerable contribution to the significant cumulative impact.

Based on the cumulative nature of the impact, emissions associated with the overall Project, including the proposed modifications, were considered. To determine whether the Project would result in a cumulatively considerable increase of $PM_{2.5}$, PM_{10}, or exceed quantitative thresholds for ozone precursors (i.e., NO_X and VOCs), contribute substantially to a projected air quality violation, or have an adverse effect on human health, Project emissions were evaluated based on the quantitative emission thresholds established by the SDAPCD. As part of its air quality permitting process, the SDAPCD has established thresholds in Rules 20.2 and 20.3 for the preparation of Air Quality Impact Assessments. In the absence of a SDAPCD adopted threshold for $PM_{2.5}$, the South Coast Air Quality Management District's (SCAQMD) screening threshold of 55 pounds per day or 10 tons per year was used.[3]

The screening criteria were developed by SDAPCD and SCAQMD with the purpose of attaining the NAAQS and CAAQS. The NAAQS and CAAQS identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. Therefore, for CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality or have an adverse effect on human health. The screening thresholds used in this analysis are presented in Table 3, *Screening-level Thresholds for Air Quality Impact Analysis.*

Table 3
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Criteria Pollutant	Emission Threshold (pounds per day) Construction	Emission Threshold (pounds per day) Operation
Particulate Matter (PM_{10})	100	100
Particulate Matter ($PM_{2.5}$)	55	55
Oxides of Nitrogen (NO_X)	250	250
Oxides of Sulfur (SO_X)	250	250
Carbon Monoxide (CO)	550	550
Volatile Organic Compounds (VOCs)	75	75

Source: San Diego Air Pollution Control District Rules 20.2 and 20.3.

Construction

Project construction would result in emissions of criteria pollutants and ozone precursors during the various construction activities required for the Project components. Emissions would include those associated with heavy off-road equipment operation and earth movement at construction sites, the transport of construction materials and equipment to and from construction sites, and workers traveling to and from the sites. Generation of these emissions would be temporary.

Project construction emissions were originally assessed in the 2018 IS/MND. Emissions were reassessed in conjunction with the preparation of this IS/MND to incorporate the proposed modifications, update the construction schedule, and refine the anticipated equipment list.

Criteria pollutant and ozone precursor emissions from Project construction were assessed using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0. CalEEMod is a computer model developed by SCAQMD with the input of several air quality management and pollution control districts

[3] This is appropriate as the SDAB is located adjacent to and has similar attainment status as the South Coast Air Basin, which is under jurisdiction of the SCAQMD.

to estimate criteria air pollutant emissions from various urban land uses. Construction input data for CalEEMod include but are not limited to: (1) the anticipated start and finish dates of construction activity, (2) inventories of construction equipment to be used, (3) areas to be excavated and graded, and (4) volumes of materials to be exported from and imported to the Project area. Construction emission calculations presented herein assume the implementation of standard dust control BMPs, including watering two times daily during grading, ensuring that all exposed surfaces maintain a minimum soil moisture of 12 percent, and limiting vehicle speeds on unpaved roads to 15 miles per hour (mph). A complete listing of the assumptions used in the analysis and model output is provided in Appendix A.

The Project's estimated maximum daily emissions are shown in Table 4, *Estimated Maximum Daily Construction Emissions*. Maximum emissions would occur during project construction in 2024. While the Project may require blasting, Table 4 does not present emissions from blasting, as the specifics of blasting are unknown at the current level of Project design.

Table 4
MAXIMUM DAILY CONSTRUCTION EMISSIONS

Year	Pollutant Emissions (pounds/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2022	16	149	154	<0.5	9	7
2023	17	164	186	<0.5	10	8
2024	17	158	191	<0.5	9	7
2025	18	153	204	<0.5	9	6
Maximum Daily Emissions	**18**	**164**	**204**	**<0.5**	**10**	**8**
Significance Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)
VOC = volatile organic compounds, NO_X = nitrogen oxides, CO = carbon monoxide, SO_X = sulfur oxides,
PM_{10} = particulate matter of 10 micrometers or less in diameter,
$PM_{2.5}$ = particulate matter of 2.5 micrometers or less in diameter

As shown in Table 4, criteria pollutant and ozone precursor emissions would not exceed the respective screening thresholds during regular (i.e., non-blasting) construction. Therefore, construction of the Project would not result in a cumulatively considerable net increase of any criteria pollutant, contribute substantially to a project air quality violation, or have an adverse effect on human health. In addition, actual emissions could be less than those forecasted due to the conservative nature of the assumptions incorporated into the CalEEMod program regarding phasing. If construction is delayed or occurs over a longer time period, emissions could be reduced because of: (1) a more modern and cleaner-burning construction equipment fleet mix; and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval). As such, construction period impacts would be less than significant.

As assessed in the PEIR and 2018 IS/MND, blasting may be required for the proposed modifications, specifically along the AWP pipeline. Blasting involves drilling small holes into the rock and placing explosives. Flyrock protection is installed prior to blasting, and seismographs are placed to measure and record peak particle velocity and air blast levels at various distances from the blast site. However, the type and quantity of explosive material used, and the potential timing and need for blasts, cannot be determined at this time because this information depends on the site-specific conditions and requirements of each location. As such, details regarding blasting for project components are

unavailable at the current level of project design, and analysis of impacts associated with blasting would be speculative and likely inaccurate. Where blasting may be used, dust control measures would also be implemented and include a combination of steel plate covers, geo-textile fabric with chain link fence covering, and wetting of the blasting surface. In the event that blasting is utilized, the JPA or the blasting contractor would be required to obtain a blasting permit and explosive permit per the San Diego County Regulatory Ordinances. However, a site-specific analysis would be necessary to ensure that emissions from blasting activities would be within the daily SDAPCD emission limits. Therefore, impacts associated with blasting for the project are assessed as potentially significant. As part of mitigation measure CFMP Air-1 described below, a Project-specific analysis will be implemented. This analysis will identify blasting emissions compared to daily SDAPCD significance thresholds, and if blasting results are estimated to exceed thresholds, the analysis would identify additional measures to ensure that emissions from blasting activities would be within the daily SDAPCD emission limits.

Operations

The Project's operational emission sources of criteria pollutants and ozone precursors primarily include mobile sources (vehicle trips), energy sources, and biogas emissions. The proposed modifications would not result in changes in operational emissions from the sources associated with Packages 1-3, which primarily include the Ray Stoyer WRF, SHERF, AWTP facilities, Influent Pump Station, Dechlorination facility, Lake Jennings blower, and the EMGPS. The proposed modifications would introduce a new source of operational emissions associated with Package 4: the Mission Valley Lift Station. Therefore, for this analysis, emissions from the Mission Valley Lift Station were estimated used CalEEMod and added to the operational emissions presented in the 2018 IS/MND.

For the Mission Valley Lift Station, mobile sources would include two daily maintenance trips (one to and one from) the site. Air pollutant emissions associated with energy sources are generally related to the on-site combustion of natural gas; the lift station would not involve the use of natural gas aside from the generator that is considered a stationary source. The natural gas backup generator was assumed to be tested for 15 minutes once per month. A complete listing of the assumptions used in the analysis and model output is provided in Appendix A.

The Project's estimated maximum daily operational emissions are shown in Table 5, *Maximum Daily Operational Emissions*.

Table 5
MAXIMUM DAILY OPERATIONAL EMISSIONS

Category	Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Energy	<0.5	3	2	<0.5	0	<0.5
Mobile	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Stationary	26	124	78	<0.5	8	8
Maximum Daily Emissions	**27**	**127**	**81**	**<0.5**	**8**	**8**
Significance Thresholds	*75*	*250*	*550*	*250*	*100*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Appendix A)
VOC = volatile organic compounds, NO_X = nitrogen oxides, CO = carbon monoxide, SO_X = sulfur oxides,
PM_{10} = particulate matter of 10 micrometers or less in diameter,
$PM_{2.5}$ = particulate matter of 2.5 micrometers or less in diameter

As shown in Table 5, criteria pollutant and ozone precursor emissions would not exceed the respective screening thresholds. Therefore, operation of the Project would not result in a cumulatively considerable net increase of any criteria pollutant, contribute substantially to a project air quality violation, or have an adverse effect on human health. As such, operational impacts would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Packages 1-4

Less Than Significant Impact. Sensitive receptors (i.e., children, senior citizens, and acutely or chronically ill people) are more susceptible to the effects of air pollution than the general population. Land uses considered sensitive uses are those that accommodate sensitive receptors on a regular basis and for extended periods of time and typically include residences, schools, playgrounds, childcare centers, hospitals, convalescent homes, and retirement homes. Sensitive receptor land uses in proximity to the Project include residential properties and schools.

Carbon Monoxide Hotspots

A CO hotspot is an area of localized CO pollution caused by severe vehicle congestion on major roadways, typically near intersections. The proposed modifications would not result in a substantial change to Project-generated vehicle trips from what was analyzed in the 2018 IS/MND. As analyzed therein, the Project's traffic volumes would be nominal compared to existing traffic volumes and would neither cause new severe congestion nor significantly worsen existing congestion. There would be no potential for a CO hotspot or exposure of sensitive receptors to substantial, Project-generated, local CO emissions. No impacts would occur.

Toxic Air Contaminants

Construction

Construction activities would result in short-term, Project-generated emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment used for the Project's various construction activities. CARB identified DPM as a toxic air contaminant (TAC) in 1998. The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual (MEI) are higher if a fixed exposure occurs over a longer time period. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project.

Receptors in proximity to Project components would have the potential to be exposed to DPM emissions; however, as presented above in Table 4, maximum daily particulate emissions, which include DPM, are estimated at 10 and 8 pounds per day for PM_{10} and $PM_{2.5}$, respectively, which are well below their respective SDAPCD screening-level thresholds of 100 pounds per day and 55 pounds per day. These totals for PM_{10} and $PM_{2.5}$ include emissions from various construction activities occurring simultaneously at numerous locations; emissions of PM_{10} and $PM_{2.5}$ at any one area would be much lower. Additionally, the construction period would be short (less than five years), when compared to 30-year exposure

duration period that typically requires a full health risk assessment. Combined with the highly dispersive properties of DPM, construction-related emissions of TACs would not expose sensitive receptors to substantial emissions of TACs. Construction impacts to sensitive receptors would be less than significant.

Operations

With regard to long-term operations, Project sources of TACs include boiling and flaring of biogas and backup emergency generators. The proposed modifications would not increase the effects of the boiling and flaring of biogas or the generators considered in the 2018 IS/MND, which were determined to result in no significant health risk from TACs. The proposed modifications would add a new backup generator at the Mission Valley Lift Station; however, this generator would use natural gas and would therefore not result in emissions of DPM. Further, as shown above in Table 5, particulate matter emissions associated with overall Project operations would be well below SDAPCD screening level thresholds of 100 pounds per day for PM_{10} and 55 pounds per day for $PM_{2.5}$. Operational impacts to sensitive receptors would be less than significant.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Packages 1-4

Less Than Significant Impact.

Construction

The proposed modifications would involve the same types of construction activities as analyzed in the 2018 IS/MND, which would not result in significant odor impacts due to low emissions of odorous sulfur oxides, the dissipative properties of odorous emissions, and the sporadic and temporary nature of construction activities.

Operations

The proposed modifications would not result in changes to operational sources of emissions associated with Packages 1-3, which were determined to have less-than-significant odor impacts. The currently proposed pipelines associated with Package 4 would include air valve odor control treatment along the alignment. Similarly, the Mission Valley Lift Station facilities would be enclosed and would include an odor control system to limit off-site odor impacts, which would likely include scrubbers and/or ferric chloride treatment methods. Potential accident conditions would be mitigated through implementation of mitigation measure CMFP Haz-1, presented in Section IX.

Additionally, as discussed in the 2018 IS/MND, SDAPCD Rule 51 prohibits nuisances, including objectionable odors. The SDAPCD responds to odor complaints by investigating the complaint and determining whether the odor violates SDAPCD Rule 51. The inspector takes enforcement action if the source is not in compliance with the SDAPCD rules and regulations. In the event of enforcement action, odor-causing impacts must be reduced by appropriate means to minimize or avoid the impacts to sensitive receptors. Such means may include shutdown of odor sources or requirements to control odors using add-on equipment.

Given the aforementioned Project design features and conformance with SDAPCD Rule 51, the proposed modifications would not result in significant objectionable odors and impacts would be less than significant.

Mitigation

The Project shall implement the following measure adapted from the CFMP PEIR to mitigate the potentially significant impacts associated with blasting to less than significant levels.

CFMP Air-1 **Site-Specific Air Quality Analysis Related to Blasting.** Prior to the commencement of blasting activities, the JPA shall require the preparation of a Project-specific air quality impact analysis by a qualified air quality consultant if Project construction involves blasting to verify that blasting emissions are less than the daily SDAPCD significance thresholds listed in Table 4.2-4 of the PEIR. If blasting results in exceedances of emissions thresholds, the JPA shall implement additional measures to reduce emissions to within SDAPCD daily screening level thresholds. These measures may include reducing the size, extent, or number of blasting events on a given day. The specific additional measures, if required, shall be determined by the qualified air quality consultant based on the results of the final air quality analysis. If the measures are unable to reduce emissions to within SDAPCD daily screening level thresholds, no blasting shall occur. In this scenario, any substitute method for blasting shall also have an air quality analysis performed as described above that demonstrates the emissions would be within SDAPCD screening level thresholds.

IV. Biological Resources

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:					
a) 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☒	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐	☐

		Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☒	☐	☐
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☒	☐	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of biological resources impacts is included on pages 32 through 49 of the 2018 IS/MND. The 2018 IS/MND concluded that implementation of the Project would result in potentially significant impacts to sensitive species, sensitive habitats, wetlands, and conflict with City of San Diego and County of San Diego MSCP Subarea Plans. Specifically, Project implementation could result in impacts to delicate clarkia (*Clarkia delicata*) and San Diego goldenstar (*Bloomeria clevelandii*) individuals, both of which are California Rare Plant Rank 1B plants; potential impacts would be avoided through implementation of mitigation measures ECAWP Bio--1 and CFMP Bio-1B. Direct and/or indirect impacts could also occur to coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), and nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game (CFG) Code; potential impacts would be avoided through implementation of mitigation measures ECAWP Bio-2, ECAWP Bio-3, ECAWP Bio-4, ECAWP Bio-5, ECAWP Bio-6, CFMP Bio-1F, CFMP Bio-1H, CFMP Bio-1I, CFMP Bio-1J. Direct impacts to the sensitive natural communities non-native grassland, Diegan coastal sage scrub, southern willow scrub, and open water would be mitigated in accordance with mitigation measures CFMP Bio-2A and ECAWP Bio-7. Potential indirect impacts to sensitive natural communities from construction activities would be avoided through implementation of mitigation measures CFMP Bio-1H, CFMP Bio-1J, and CFMP Bio-1K. Impacts to freshwater marsh at Lake Jennings would be compensated for, and appropriate permits would be obtained, through implementation of mitigation measures CFMP Bio-3B and CFMP Bio-3C. Implementation of the above-listed measures would also ensure consistency with the adopted City of San Diego and County MSCP Subarea Plans.

It was concluded that less-than-significant impacts would occur related to wildlife movement and that no impacts would occur related to conflict with local policies and ordinances.

Analysis of the Proposed Modifications

The following discussion is based on the Supplemental Biological Resources Report for the Packages 1-3 modifications (HELIX Environmental Planning, Inc. [HELIX]; 2022a; Appendix B) and the Biological Technical Report for the Package 4 modifications (HELIX 2022b; Appendix C). Coastal California

gnatcatcher and Quino checkerspot butterfly (*Euphydryas editha quino*) protocol-level surveys were conducted in 2018 in support of the 2018 IS/MND. To determine the presence of biological resources within the Packages 1-3 modification areas, HELIX completed updated general biological surveys and protocol-level surveys for the Quino checkerspot butterfly in 2021 which 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 for coastal California gnatcatcher and Quino checkerspot butterfly. To determine the presence of biological resources within the Package 4 study area, defined as the modification's direct impact area plus a 100-foot buffer, HELIX completed various biological surveys in accordance with the City of San Diego's Biology Guidelines during the spring and summer months of 2021. Surveys included a general biological survey, focused species surveys (for special status plant species, coastal California gnatcatcher [*Polioptila californica californica*], and least Bell's vireo [*Vireo bellii pusillus*]), and a preliminary jurisdictional assessment. Prior to conducting the surveys, HELIX performed an updated search of the California Natural Diversity Database (CNDDB; California Department of Fish and Wildlife [CDFW] 2021a-c), U.S. Fish and Wildlife Service (USFWS) Carlsbad Fish and Wildlife Offices Species Status Lists (USFWS 2021a), USFWS Critical Habitat Portal (USFWS 2021b), USFWS National Wetlands Inventory (USFWS 2021c), USFWS Information for Planning and Conservation (USFWS 2021d), and SanBIOS, database applications to obtain information regarding sensitive biological resources known to occur within the vicinity of the study area.

Additional biological data were utilized from recent efforts within the study area, including data from the North City Project Pure Water San Diego Program (City of San Diego 2018a) and Final PEIR for the MTRP Master Plan Update (City of San Diego 2019a). Sensitive biological resources within the study area are shown on Figures 14a-s, *Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands/Impacts.*

a) 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated. Special-status plant species are those listed as federally threatened or endangered by the USFWS; State listed as threatened or endangered or considered sensitive by the CDFW; considered sensitive or narrow endemic species by the City of San Diego (e.g., MSCP covered species); and/or are California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) List 1A, 1B, or 2 species, as recognized in the CNPS Inventory of Rare and Endangered Vascular Plants of California and consistent with the CEQA Guidelines. Special-status animal species are those listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS and considered sensitive animals by the CDFW, and/or the City of San Diego (e.g., MSCP covered and narrow endemic species).

Direct impacts include the direct take, removal, or displacement of special-status species and their habitat through activities such as clearing, grubbing, and other land disturbance activities. Removal of habitat could result in displacement of special-status wildlife and less habitat available within a species' range to carry out vital life history requirements such as breeding, foraging, dispersal, migration, aestivation (i.e., underground dormancy or torpor during the summer) and predator evasion. Indirect impacts could occur in cases where activities would not directly impact sensitive species or their habitat but could indirectly affect life history requirements (i.e., the growth, reproduction, and survivorship success of a species) through activities adjacent to occupied habitat, resulting in impacts such as additional noise, lighting, erosion/sedimentation, and fugitive dust.

Packages 1-3

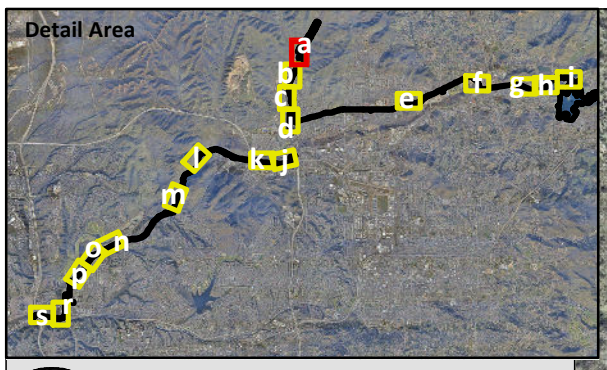
Special Status Plant Species

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 to achieve 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, 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 proposed modifications 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 modification 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 is determined to be absent. Regardless, mitigation measure ECAWP Bio-1 would be implemented to 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 construction to the extent feasible. Any inadvertent and unavoidable impacts shall be mitigated in accordance with the mitigation measure CFMP Bio-1B, which requires compensation for the loss of habitat.

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 (refer to Figure 14i). Package 2 Segment 10 of the original Project alignment included impacts to ashy spike-moss (*Selaginella cinerascens*), delicate (Campo) clarkia, 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. Because San Diego County viguiera is a CRPR 4 plant that is relatively widespread in the local and regional area, 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. Impacts to ashy spike-moss were previously determined to be less than significant and would remain as such with the proposed modifications. Impacts to delicate clarkia and San Diego goldenstar individuals would be avoided through implementation of mitigation measure ECAWP Bio-1, which involves showing the individuals on Project plans, delineating in the field prior to construction, and avoiding during construction to the extent feasible.

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.

East County Advanced Water Purification



Study Area

Modification Focus Area

Permanent Impact

Temporary Impact

Sensitive Animal Occurrence

Coastal California Gnatcatcher (*Polioptila californica californica*)

Copper's Hawk (*Accipiter cooperii*)

Uplands

Tier II

Diegan Coastal Sage Scrub

Diegan Coastal Sage Scrub - Disturbed

Baccharis Dominated Diegan Coastal Sage Scrub

Tier IIIB

Non-native Grassland

Tier IV

Developed

Disturbed Habitat

Non-Native Vegetation/Ornamental

Wetlands

Streambed

Mule Fat Scrub

Non-native Riparian

Southern Riparian Forest

Southern Riparian Forest - Disturbed

Southern Willow Scrub

Southern Willow Scrub - Disturbed

Potential Jurisdictional Resources

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0 200 Feet

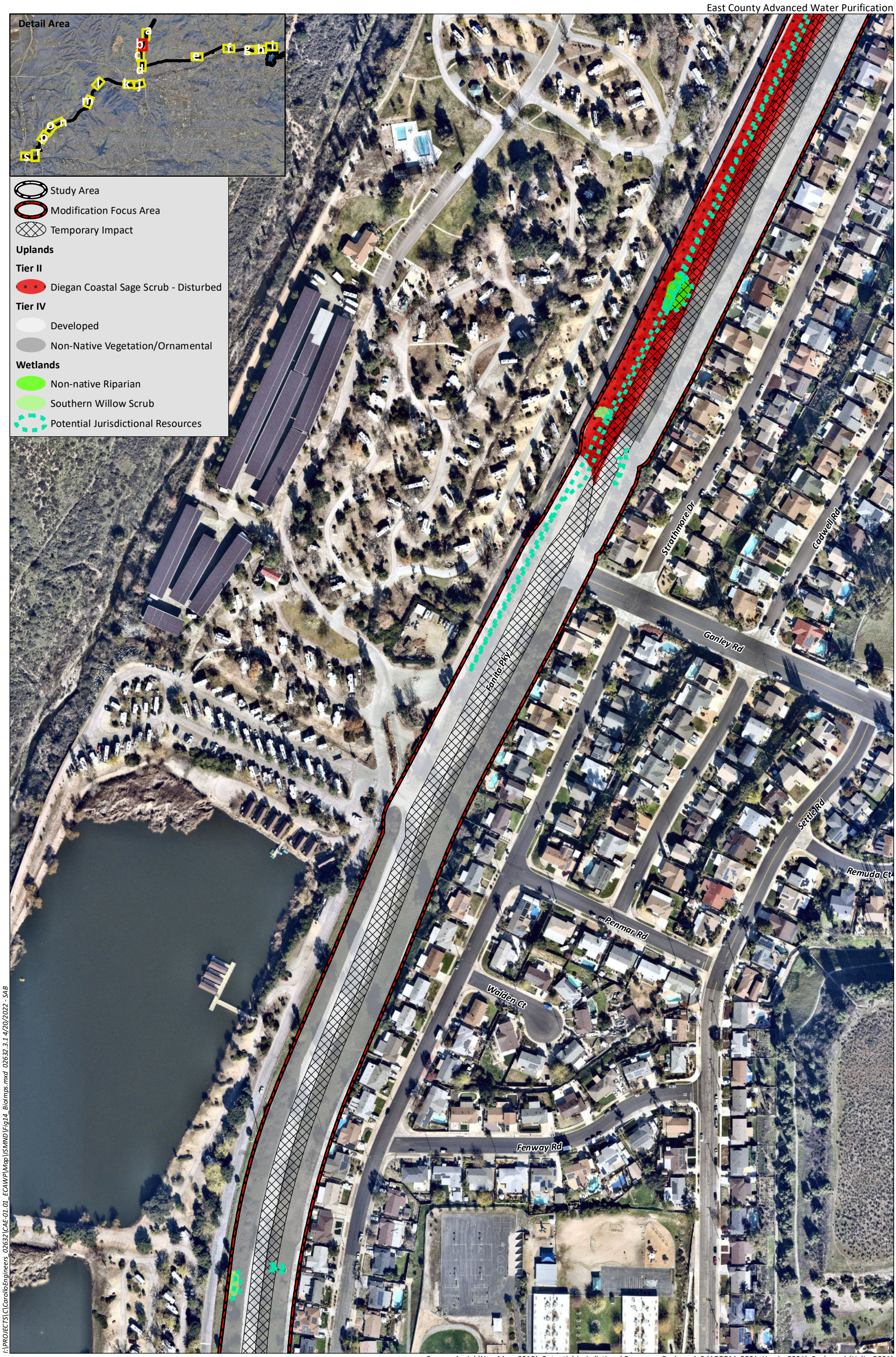
Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14a

East County Advanced Water Purification



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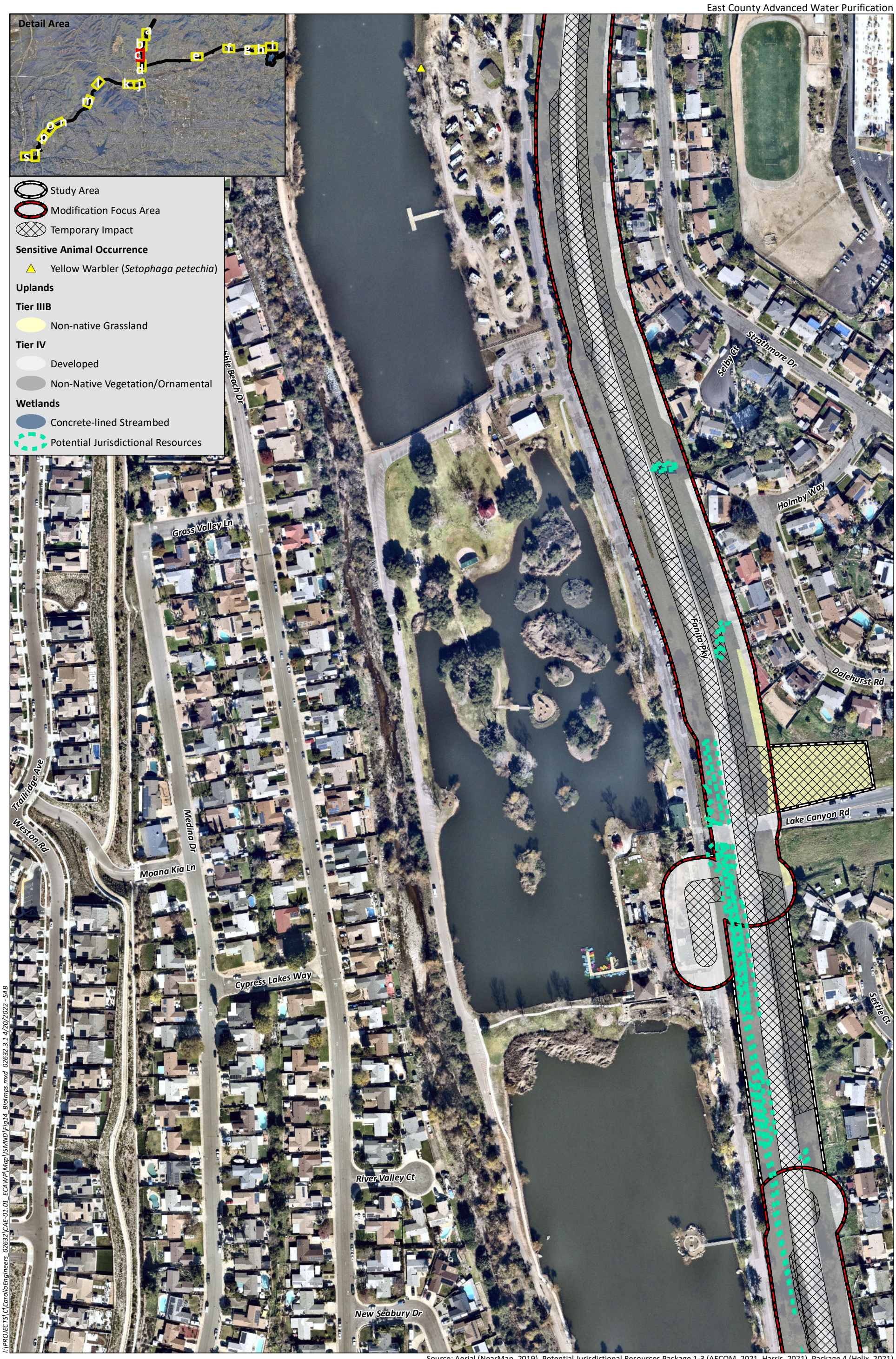
0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14b



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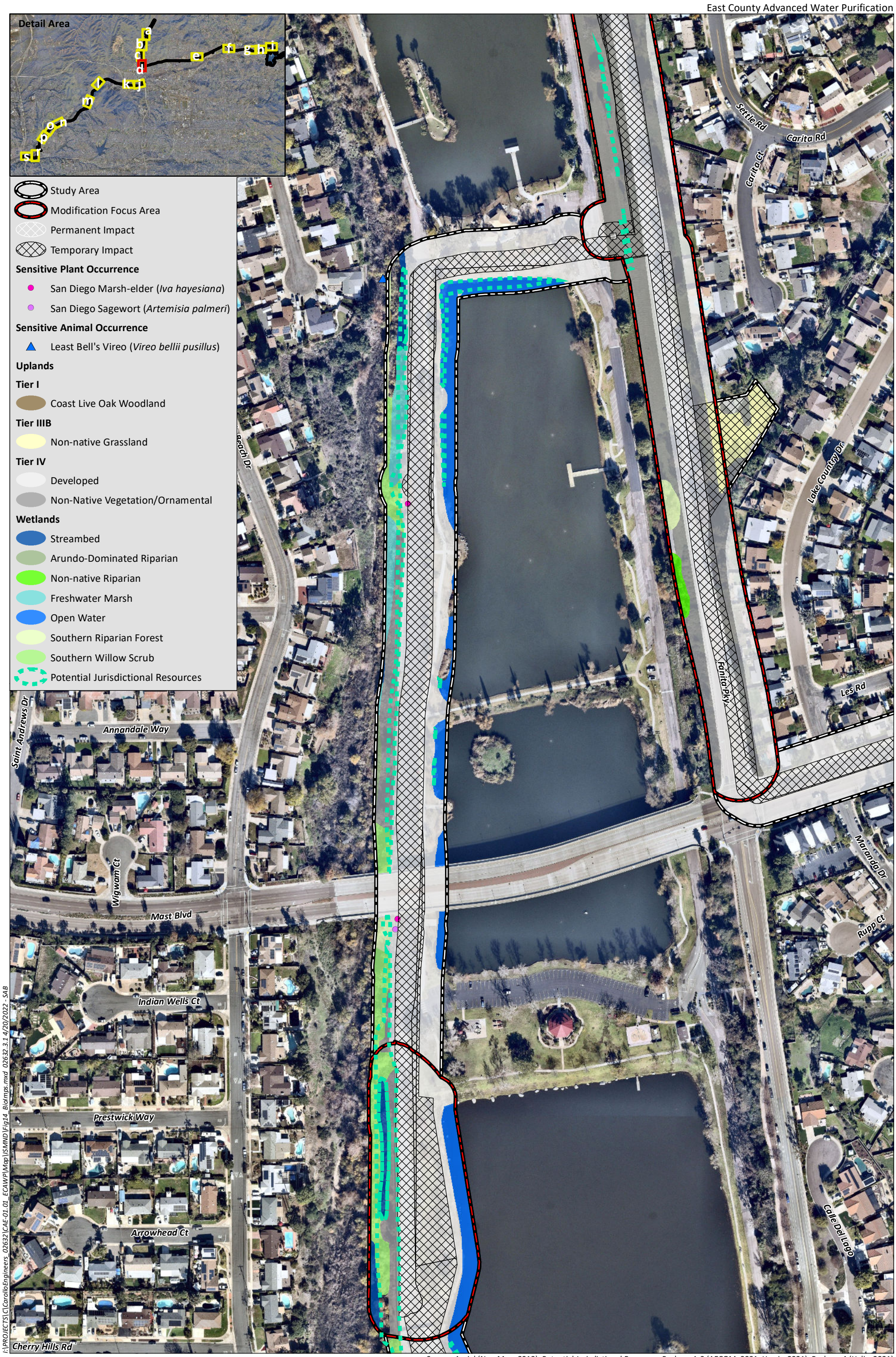
0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14c



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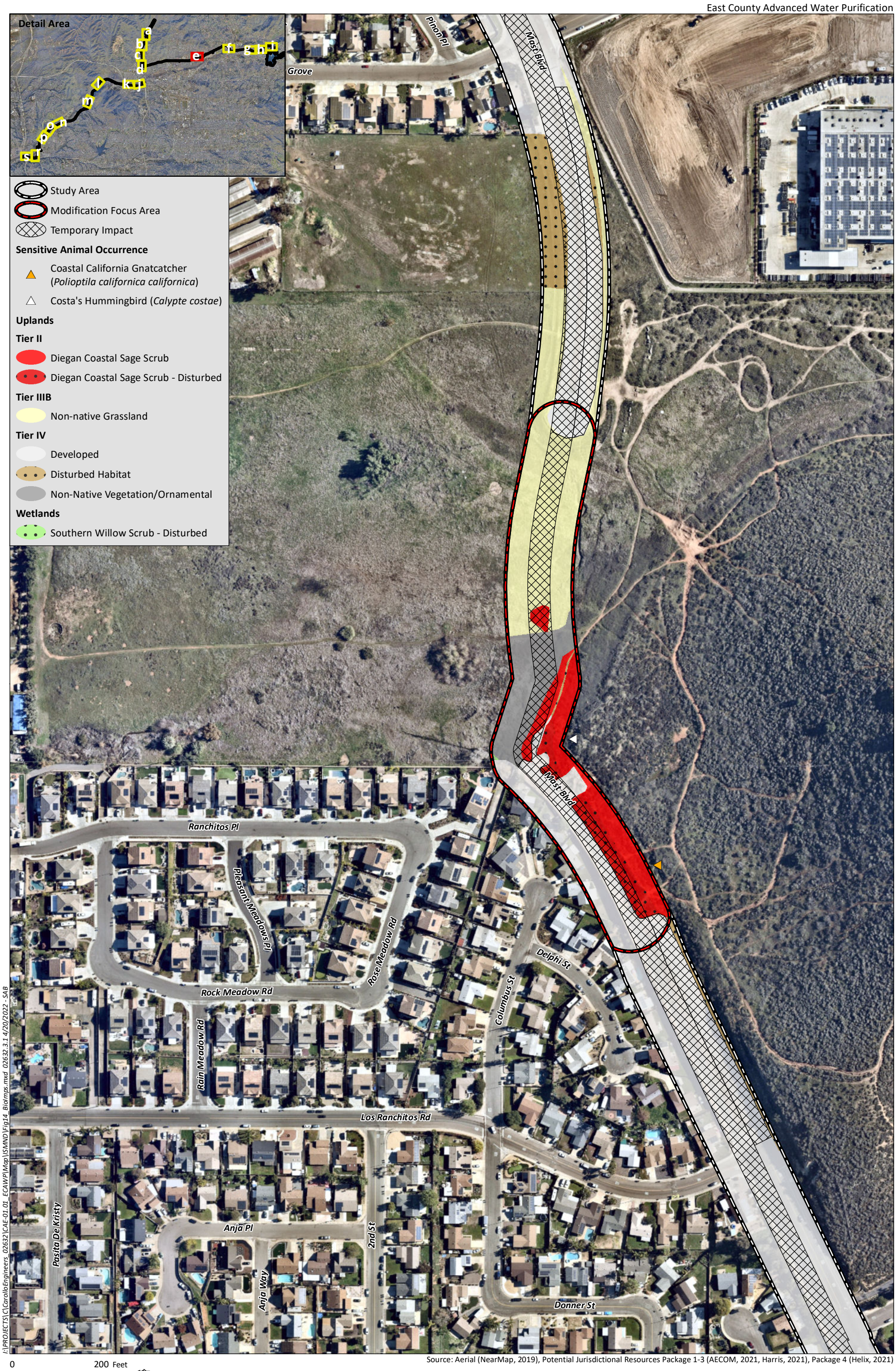
Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14d



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0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14e

East County Advanced Water Purification

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0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14f

East County Advanced Water Purification

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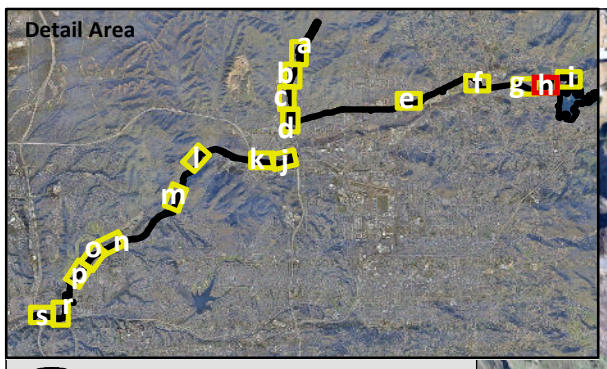
0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14g



Study Area

Modification Focus Area

Temporary Impact

Sensitive Animal Occurrence

Coastal California Gnatcatcher (*Polioptila californica californica*)

Copper's Hawk (*Accipiter cooperii*)

Uplands

Tier II

Diegan Coastal Sage Scrub

Diegan Coastal Sage Scrub - Disturbed

Tier IIIB

Non-native Grassland

Tier IV

Developed

Disturbed Habitat

Non-Native Vegetation/Ornamental

El Monte Rd

Vista Laurel Pl

Laurel Canyon Rd

Lake Jennings Park Rd

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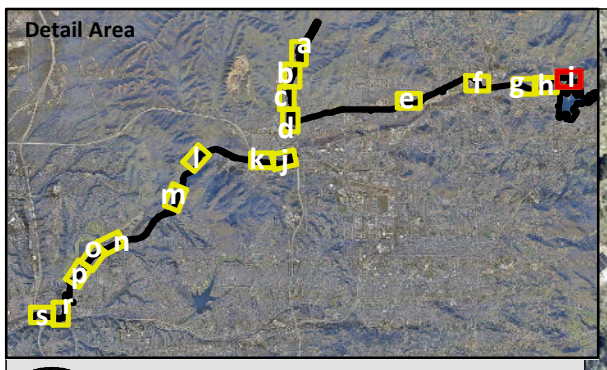
0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14h



Study Area

Modification Focus Area

Permanent Impact

Temporary Impact

Sensitive Plant Occurrence

San Diego County Sunflower (*Bahiopsis laciniata*)

Sensitive Animal Occurrence

Belding's Orange-throated Whiptail (*Aspidoscelis hyperythra beldingi*)

Coastal California Gnatcatcher (*Polioptila californica californica*)

Costa's Hummingbird (*Calypte costae*)

Least Bell's Vireo (*Vireo bellii pusillus*)

Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)

Uplands

Tier II

Diegan Coastal Sage Scrub

Diegan Coastal Sage Scrub - Disturbed

Tier IIIB

Non-native Grassland

Tier IV

Developed

Disturbed Habitat

Non-Native Vegetation/Ornamental

Wetlands

Open Water

Potential Jurisdictional Resources

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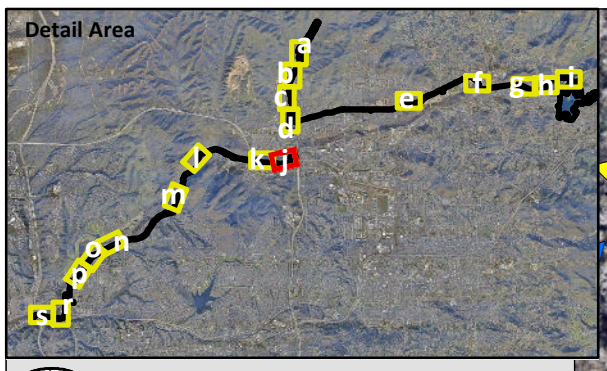
0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14i



Study Area

Modification Focus Area

Temporary Impact

Sensitive Plant Occurrence

San Diego Marsh-elder (*Iva hayesiana*)

Spiny Rush (*Juncus acutus*)

Sensitive Animal Occurrence

Least Bell's Vireo (*Vireo bellii pusillus*)

Yellow Warbler (*Setophaga petechia*)

Yellow-breasted Chat (*Icteria virens*)

Uplands

Tier II

Diegan Coastal Sage Scrub - Disturbed

Baccharis Dominated Diegan Coastal Sage Scrub

Tier IV

Developed

Disturbed Habitat

Non-Native Vegetation/Ornamental

Wetlands

Southern Riparian Forest

Southern Willow Scrub

Potential Jurisdictional Resources

Mission Gorge Rd

52

Armindo Cir

Marrokal Ln

Cherub Ct

Graham Ter

Mesa Rd

Forester Creek

I:\PROJECTS\C\CarolloEngineers_02632\CAE-01.01_ECAWP\Map\SMND\Fig14_BioImps.mxd 02632.3.1 4/20/2022 - SAB

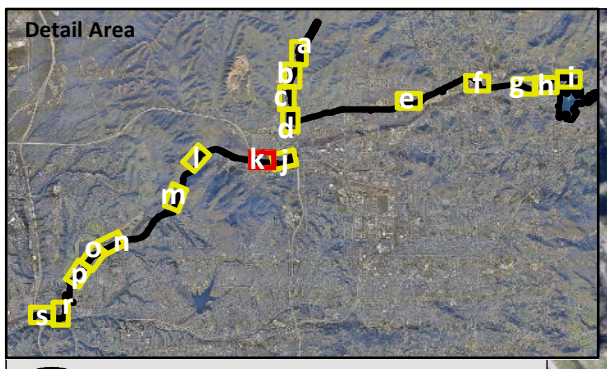
0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14j



Study Area

Modification Focus Area

Temporary Impact

Sensitive Plant Occurrence

San Diego Marsh-elder (*Iva hayesiana*)

Spiny Rush (*Juncus acutus*)

Sensitive Animal Occurrence

Western Bluebird (*Sialia mexicana*)

Uplands

Tier IIIB

Non-native Grassland

Tier IV

Developed

Disturbed Habitat

Non-Native Vegetation/Ornamental

Wetlands

Non-native Riparian

Southern Cottonwood-willow Riparian Forest

Potential Jurisdictional Resources

Mesa Rd
Inverness Rd
San Diego River
Forester Creek
52
Mission Gorge Rd
Little Rock Rd
Big Rock Rd
Paseo Bello
Crossway Ct
Arly Ct
Stella Ct
Barbados Ln
Trinidad Ct

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0 200 Feet

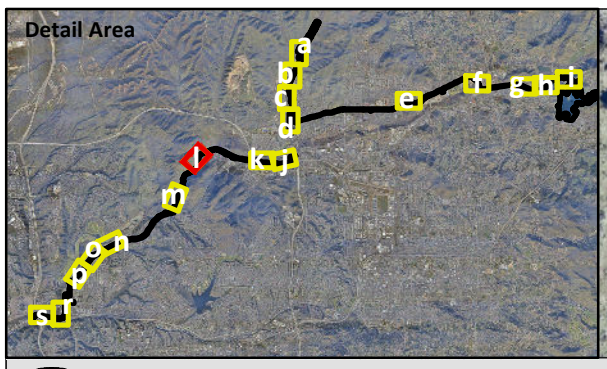
Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14k

East County Advanced Water Purification



San Diego River

Father Junipero Serra Trl

Study Area

Modification Focus Area

Temporary Impact

Sensitive Plant Occurrence

- Coulter's Matilija Poppy (*Romneya coulteri*)
- Decumbent Goldenbush (*Isocoma menziesii var. decumbens*)
- San Diego County Sunflower (*Bahiopsis laciniata*)
- Spiny Rush (*Juncus acutus*)

Sensitive Animal Occurrence

- Belding's Orange-throated Whiptail (*Aspidoscelis hyperythra beldingi*)
- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Costa's Hummingbird (*Calypte costae*)
- Least Bell's Vireo (*Vireo bellii pusillus*)
- Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*)
- Yellow Warbler (*Setophaga petechia*)
- Yellow-breasted Chat (*Icteria virens*)

Uplands

Tier I

- Coast Live Oak Woodland
- Southern Maritime Chaparral

Tier II

- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub - Disturbed

Tier IV

- Developed
- Disturbed Habitat

Wetlands

- Southern Riparian Woodland
- Potential Jurisdictional Resources

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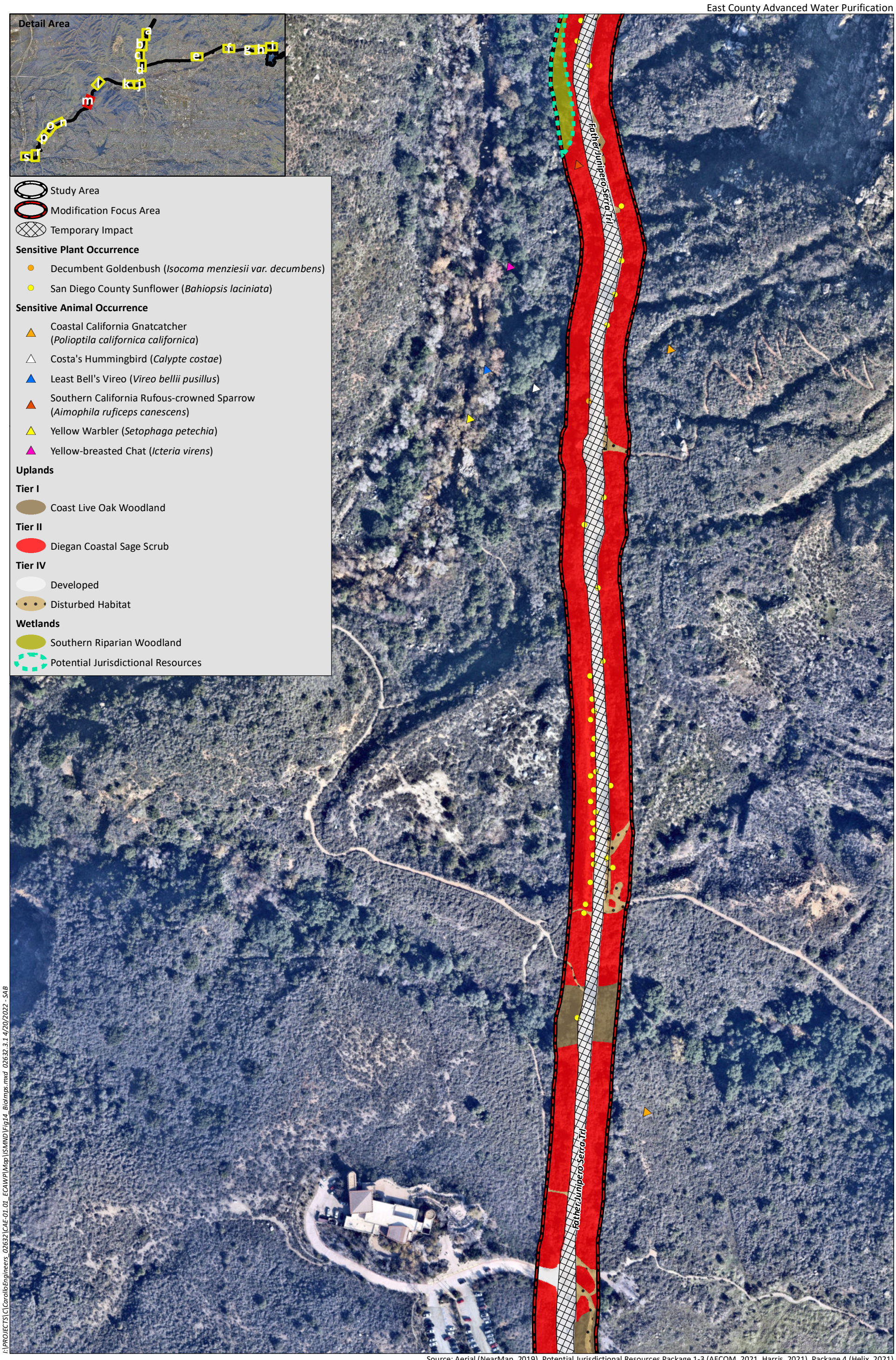
0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14l



I:\PROJECTS\C\CarolloEngineers_02632\CAE-01.01_ECAWP\Map\SMND\Fig14_Biolmps.mxd 02632.3.1 4/20/2022 - SAB

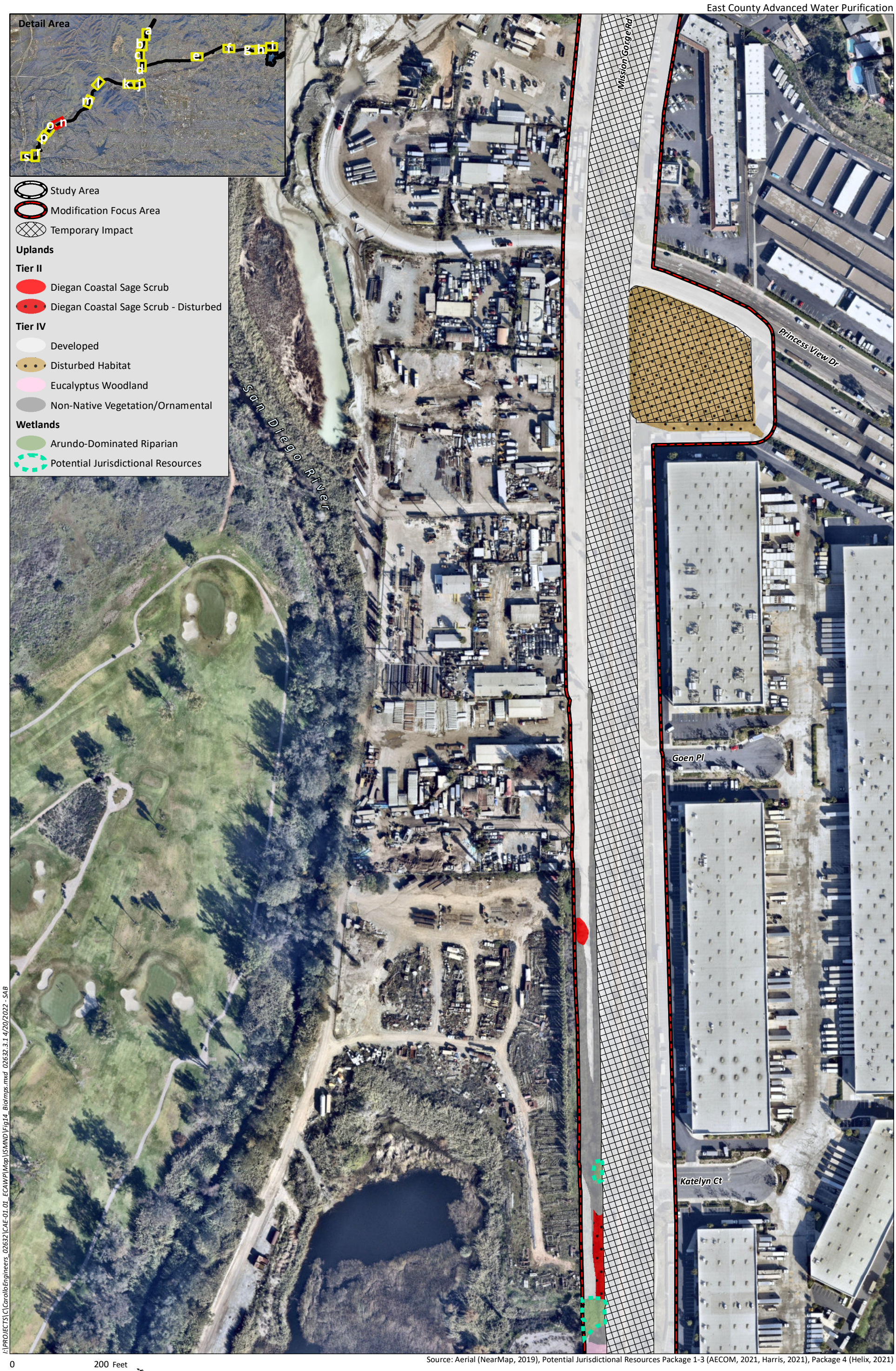
0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14m



I:\PROJECTS\C\CarolloEngineers_02632\CAE-01.01_ECAWP\Map\SMND\Fig14_BioImps.mxd 02632.3.1 4/20/2022 - SAB

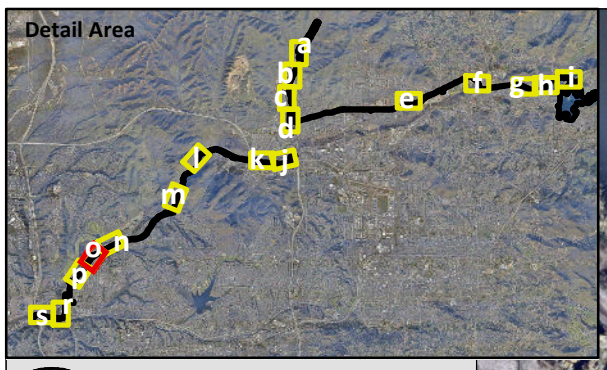
Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14n

East County Advanced Water Purification



Study Area

Modification Focus Area

Temporary Impact

Sensitive Animal Occurrence

Copper's Hawk (*Accipiter cooperii*)

Yellow Warbler (*Setophaga petechia*)

Uplands

Tier II

Diegan Coastal Sage Scrub

Diegan Coastal Sage Scrub - Disturbed

Tier IV

Developed

Disturbed Habitat

Eucalyptus Woodland

Non-Native Vegetation/Ornamental

Wetlands

Arundo-Dominated Riparian

Non-native Riparian

Potential Jurisdictional Resources

Mission Gorge Rd

Old Cliffs Rd

Clara Lee Ave

Alfred Ave

Millbrook St

Newberry St

Cartwright St

I:\PROJECTS\C\CarolloEngineers_02632\CAE-01.01_ECAWP\Map\SMND\Fig14_Biolmps.mxd 02632.3.1 4/20/2022 - SAB

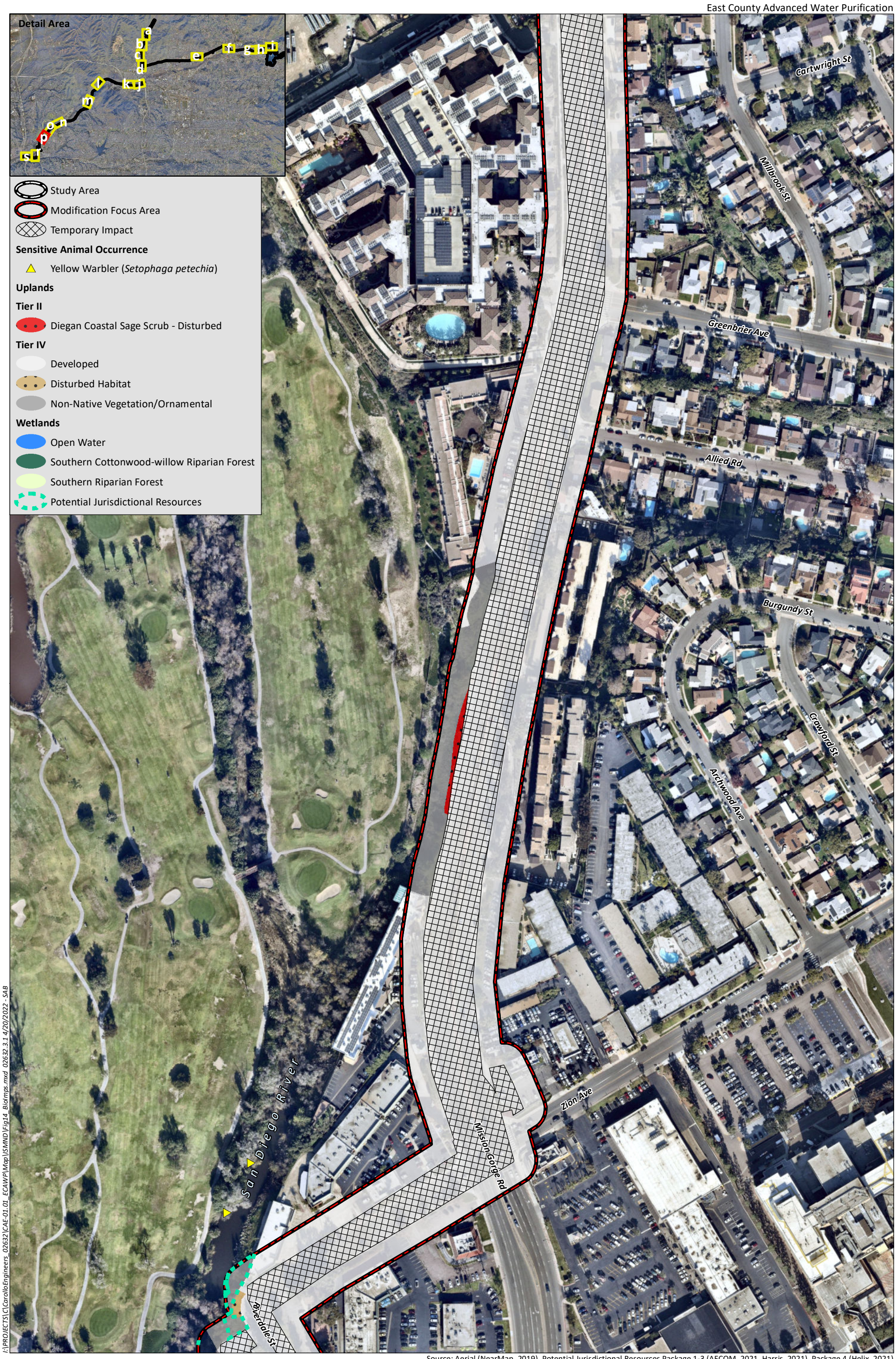
0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14o



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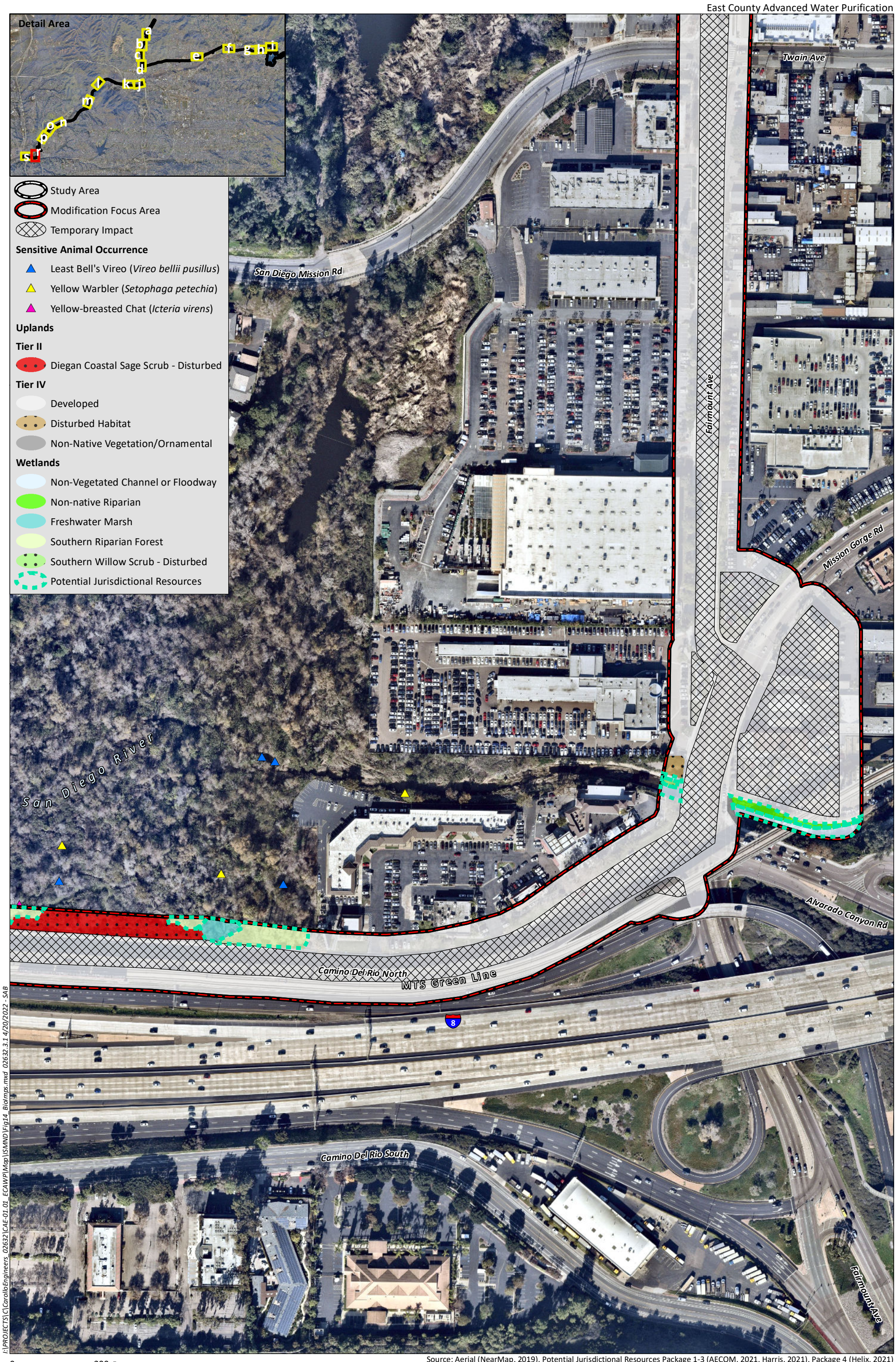
0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14p



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0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14r

0 200 Feet

Source: Aerial (NearMap, 2019), Potential Jurisdictional Resources Package 1-3 (AECOM, 2021, Harris, 2021), Package 4 (Helix, 2021)

HELIX Environmental Planning

Vegetation and Sensitive Resources/Potential Jurisdictional Waters and Wetlands Impacts

Figure 14s

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

Special Status Animal Species

Hermes Copper Butterfly

The USFWS listed the Hermes copper butterfly (*Lycaena hermes*) 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 acre of the Project are located within Hermes copper butterfly critical habitat. The portions of the Project within 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. 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.

Potentially suitable habitat for Hermes copper butterfly occurs only within Package 2 and Package 3 Segment 1 and Package 2 Segment 10, collectively totaling 0.13 acre of potentially suitable habitat. Of the 0.13 acre total, approximately 0.03 acre of potentially suitable habitat 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 were 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 (City of 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 low potential to occur within the study area.

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 (approximately 1,330 square feet) or two percent 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). Hermes copper butterfly have limited dispersal abilities and require unfragmented patches of suitable habitat for reproduction (USFWS 2021e). Extrapolating using the same population parameters of the 2004 study, the 0.03-acre of potential 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 potential 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 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 is 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 in the future and 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 coper butterfly and its critical habitat and that 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, resulting in impacts on potential host plants for the Quino checkerspot butterfly (refer to Figures 14a and 14b). 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 (refer to Figures 14g and 14h). Updated protocol-level surveys for the Quino checkerspot butterfly were completed in 2021; the 2021 survey results were negative, indicative of the continued absence of the species within the area. 2022 updated protocol-level surveys are currently underway and thus far 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 other 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, Costa's hummingbird (*Calypte costae*), double-crested cormorant (*Phalacrocorax auritus*), least Bell's vireo, 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 alignment during subsequent surveys, as shown on Figure 14f. 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 measure CFMP Bio-1F would reduce impacts to a less-than-significant level through limiting the removal and/or trimming of vegetation suitable for nesting birds to outside the general bird breeding season, to the extent feasible. If the activities cannot avoid the general bird breeding season, a qualified biologist would conduct pre-construction surveys to determine presence or absence of active bird nests. If no active bird nests are found by the qualified biologist, then the activities shall proceed with the reassurance that no violation to the MBTA and CFG Code would occur. If an active bird nest is found by the qualified biologist, then vegetation removal and/or trimming activities at the nest location shall not be allowed to occur until the qualified biologist has determined that the nest is no longer active.

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.

Package 4

Special Status Plant Species

Four special status plant species were observed in the Package 4 modification study area, including Coulter's matilija poppy (*Romneya coulteri*, CRPR List 4.2 CA-Endemic), decumbent goldenbush (*Isocoma menziesii* var. *decumbens*, CRPR List 1B.2), San Diego County viguiera (*Bahiopsis laciniata*, CRPR List 4.2), and San Diego sagewort (CRPR List 4.2). There are no other special status plant species with a high potential to occur on-site.

Coulter's matilija poppy, decumbent goldenbush, and San Diego County viguiera occur as natural populations in the habitat along FJST within MTRP, occur outside the Package 4 modification impact footprint, but some individuals overhang the asphalt of FJST (refer to Figures 14l and 14m). San Diego sagewort occurs immediately south of the San Diego River along Camino del Rio North, but outside of proposed impacts.

Potential impacts to Coulter's matilija poppy and San Diego County viguiera along the FJST, and San Diego sagewort along Camino del Rio North, would be less than significant. These species are CRPR 4 plants that are relatively widespread in the local and regional areas. The majority, all but four San Diego County viguiera, of the individuals observed in the study area and immediate vicinity (i.e., local populations) would be avoided by the Package 4 modification, maintaining the genetic diversity and reproduction potential of the species (refer to Figure 14). CRPR List 4.2 plant species are of limited distribution and moderately threatened within California; however, these species are locally common within San Diego County. Package 4 modification impacts would not jeopardize the long-term survival of either species, and impacts would be less than significant.

Two decumbent goldenbush individuals occur along the FJST in MTRP. While this species is not within the potential limits of disturbance for the Package 4 modification, these plants are CRPR 1B plants, which is a higher rank of sensitivity relative to other CRPR plants. In addition, this species is not near known populations of the same species, and isolated strands of sensitive species represent genetic gene pool diversity that is valued. Impacts to decumbent goldenbush would be considered significant absent mitigation. Implementation of mitigation measure ECAWP Bio-9 would be required to reduce potential impacts to decumbent goldenbush to less-than-significant levels through avoidance or compensation if avoidance isn't feasible.

Portions of the disturbance footprint for pipeline installation and construction activities at the north end of MTRP would occur within the designated critical habitat overlay for San Diego ambrosia (*Ambrosia pumila*). A rare plant survey was conducted along FJST in June 2021. Western ragweed was detected along the alignment; however, no San Diego ambrosia was detected within any portion of the study area. San Diego ambrosia is a perennial species that would have been detected if present, as the survey was conducted during the blooming period for this species. Furthermore, the known locations of San Diego ambrosia within MTRP are within grassy areas north and south of the Package 4 modification alignment. The impacts associated with these activities will be temporary, and new above-ground structures would be limited to air vents, if required. The activities would not result in adverse modification of critical habitat, and no impacts to San Diego ambrosia would occur. Regardless, mitigation measure ECAWP Bio-9 would be implemented to ensure impacts to San Diego ambrosia are avoided.

Special Status Animal Species

Coastal California Gnatcatcher

During surveys conducted for the Package 4 modification, coastal California gnatcatcher was incidentally detected in 2021 at one location along FJST within the study area adjacent to the potential direct disturbance limits for the Package 4 modification. Coastal California gnatcatcher was also confirmed during 2016 protocol surveys and incidentally detected during 2021 surveys outside of the study area, but within 500 feet of proposed impacts. Construction activities within 500 feet of these gnatcatcher locations include sliplining construction with interspersed excavations and trenchless construction for

pipeline installation. If construction activities at these locations occur during the gnatcatcher breeding season (March 1 to August 15), noise in excess of 60 A-weighted decibels (dBA) generated from construction work could adversely affect breeding gnatcatchers where existing ambient noise levels are not already in exceedance of 60 dBA. These potential indirect impacts would be considered significant absent mitigation. If activities within the City of San Diego cannot be restricted to periods outside of the gnatcatcher breeding season and construction-generated noise is confirmed to be in excess of 60 dBA at the edge of occupied habitat, then the JPA shall implement mitigation measure ECAWP Bio-10 to confirm presence or absence of the species. If the species is confirmed to be present within the habitat immediately adjacent to the construction activities, implementation of the remainder of mitigation measure ECAWP Bio-10, as well as mitigation measures ECAWP Bio-11, CFMP Bio-1H, and CFMP Bio-1K would require installation of temporary construction fencing, contractor training, biological monitoring, and noise monitoring to reduce impacts to a less-than-significant level. If activities within the City of Santee cannot be restricted to periods outside of the gnatcatcher breeding season and construction-generated noise is confirmed to be in excess of 60 dBA at the edge of occupied habitat, then the JPA shall consult with the USFWS and implement additional avoidance, minimization, and conservation measures in accordance with mitigation measure ECAWP Bio-12, and to comply with the regulatory standards of section 7(a)(2) and section 7(b)(4) of the Endangered Species Act (16 U.S.C. § 1536). Implementation of mitigation measure ECAWP Bio-12 would require a USFWS and CDFW-approved plan to avoid disturbance of nesting gnatcatchers and the implementation of noise attenuation measures, noise monitoring, and nest monitoring during construction to reduce impact to less than significant.

Package 4 modification construction would occur primarily within existing disturbed and developed areas adjacent to suitable gnatcatcher habitat, however, there is a potential for temporary impacts of areas less than 0.1 acre to Diegan coastal sage scrub immediately adjacent to FJST (refer to Figures 14l and 14m). Temporary impacts, anticipated to be less than 0.1 acre cumulatively, to sensitive vegetation communities, defined in the City of San Diego's Biology Guidelines, may occur during the implementation of the project. Vegetation clearing within these temporarily impacted areas will occur outside of the breeding season as specified in mitigation measures ECAWP Bio-10 and ECAWP Bio-14; therefore, direct impacts to gnatcatcher are not anticipated. No portion of the proposed Package 4 modification alignment would occur within or adjacent to areas designated as critical habitat for gnatcatcher; therefore, the activities would not result in adverse modification of designated coastal California gnatcatcher critical habitat.

Least Bell's Vireo

Least Bell's vireo was detected at two locations within the study area adjacent to the potential direct disturbance limits for the Package 4 modification (refer to Figure 14l). Additional habitat suitable for vireo occurs within the San Diego River and Forester Creek. Vireo was also confirmed outside of the study area, but within 500 feet. Construction activities within 500 feet of these vireo locations include open cut trenching, sliplining construction with interspersed excavations, and trenchless construction for pipeline installation. As required by USFWS, if construction activities at these locations begin during the vireo breeding season (March 15 to September 15), noise in excess of 60 dBA generated from construction work areas could adversely affect breeding vireos where existing ambient noise levels are not already in exceedance of 60 dBA. These potential indirect impacts would be considered significant absent mitigation. If activities within the City of San Diego cannot be restricted to periods outside of the gnatcatcher breeding season and construction-generated noise is confirmed to be in excess of 60 dBA at the edge of occupied habitat, then the JPA shall implement mitigation measure ECAWP Bio-13 to confirm presence or absence of the species. If the species is confirmed to be present within the habitat

within 500 feet of construction activities, implementation of the remainder of mitigation measure ECAWP Bio-13, as well as mitigation measures ECAWP Bio-11, CFMP Bio-1H, and CFMP Bio-1K would require installation of temporary construction fencing, contractor training, biological monitoring, and noise monitoring to reduce impacts to a less-than-significant level. If activities within the City of Santee cannot be restricted to periods outside of the vireo breeding season and construction-generated noise is confirmed to be in excess of 60 dBA at the edge of occupied habitat, then the JPA shall consult with the USFWS and implement additional avoidance, minimization, and conservation measures in accordance with mitigation measure ECAWP Bio-12. Implementation of mitigation measure ECAWP Bio-12 would require a USFWS and CDFW-approved plan to avoid disturbance of nesting vireo and the implementation of noise attenuation measures, noise monitoring, and nest monitoring during construction to reduce impact to less than significant.

Package 4 modification construction would occur primarily within existing disturbed and developed areas adjacent to suitable least Bell's vireo habitat (refer to Figures 14j, 14k, 14l, 14m, 14r, and 14s); however, no removal or direct impacts to suitable vireo habitat are proposed. Portions of the disturbance footprint for pipeline installation and construction activities within FJST and the northern portion of Mission Gorge Road would occur within the designated critical habitat overlay for vireo. The impacts associated with these activities would be temporary, and no additional above-ground structures are proposed. The activities would not result in adverse modification of designated least Bell's vireo critical habitat. As such, direct impacts to vireo are less than significant.

Other Special-Status Animals

Several other non-listed, special-status animal species have the potential to occur on and in the immediate vicinity of the project site. Some of these were observed within the study area or flying over during Package 4 modification surveys. The species include American peregrine falcon (*Falco peregrinus*), Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), Costa's hummingbird (*Calypte costae*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Cooper's hawk (*Accipiter cooperii*), yellow-breasted chat (*Icteria virens*), yellow warbler (*Setophaga petechia*), and western bluebird (*Sialia mexicana*). Potential impacts on these species would be limited to the temporary displacement of individuals during Package 4 modification construction. Potentially significant construction-period impacts to bird species would be minimized by avoiding the general avian and raptor breeding seasons (January 15 to September 15 and January 15 to August 31, respectively) or conducting a pre-construction nesting bird survey prior to the start of construction as required by mitigation measure ECAWP Bio-14. Potential impacts to bird species would be reduced to a less-than-significant level through implementation of mitigation measure ECAWP Bio-14.

MTRP occurs within the Quino checkerspot butterfly survey area and Quino checkerspot butterfly are known to occur within MTRP (City of San Diego 2019b); however, surveys were not conducted because impacts would be primarily restricted to existing disturbed and developed lands. The Package 4 modification study area does support potential Quino habitat as defined by the USFWS guidelines; however, dwarf plantain, the preferred host plant species of the Quino checkerspot butterfly, and other host plant species were not detected during project surveys. No direct or indirect impacts to the federally endangered Quino checkerspot butterfly are anticipated to occur as a result of the Project and the impacts of the Project modifications are less than significant.

The nearest known arroyo toad (*Anaxyrus californicus*) occurrence is approximately 18 miles upstream of the Package 4 alignment within the San Diego River. In addition, this species is not known to occur

downstream of El Capitan dam (i.e., within or adjacent to the alignment) but designated critical habitat for this species occurs upstream of the Project within the San Diego River. The Package 4 alignment is presumed to be unoccupied by arroyo toad due to the lack of historic occurrences and a physical barrier (i.e., El Capitan Dam), preventing territory expansion.

Portions of the disturbance footprint for pipeline installation and construction activities within FJST will occur within the designated critical habitat for Hermes copper butterfly. The impacts associated with these activities are primarily located within the existing asphalt FJST (refer to Figures 14l and 14m). Furthermore, impacts will be temporary in nature, and no new above-ground structures are proposed within the proposed critical habitat overlay for Hermes copper butterfly. No impacts to redberry, the Hermes copper butterfly host plant, or California buckwheat, the preferred nectar source for Hermes copper butterfly, are proposed. The activities would not result in modification of physical or biological features essential to the conservation of the Hermes copper butterfly.

The Package 4 modification would conduct open cut trenching, sliplining construction with interspersed excavations, and trenchless construction for pipeline installation. Open trenches and pits during open cut trenching and sliplining construction activities have the potential to entrap wildlife. Open trenches and pits would be covered when not in use to prevent wildlife entrapment. During trenchless activities, the use of a clay lubricant, specifically bentonite slurry, can potentially impact amphibians, aquatic reptiles, fish, and other aquatic species and their habitats when hydrofractures (commonly referred to as "frac-outs") occur. Bentonite is often considered non-toxic; however, benthic invertebrates, aquatic plants, fish, and their eggs can be smothered by fine particles of bentonite if it is discharged into waterways. Through the implementation of the Frac-Out Contingency Plan described above in Section 2.0, *Project Description,* the potential for hydrofractures and adverse effects from the hydrofractures would be minimized, and impacts would be less than significant.

In addition, portions of the disturbance footprint for pipeline installation and construction activities within FJST would occur within the designated critical habitat for the Hermes copper butterfly. The impacts associated with these activities are primarily located within the existing asphalt and dirt turnouts within FJST. Furthermore, impacts will be temporary, and no new above-ground structures are proposed within the designated critical habitat for Hermes copper butterfly. No impacts to redberry (*Rhamnus crocea*), the Hermes copper butterfly host plant; California buckwheat, the preferred nectar source for the Hermes copper butterfly; or any other Hermes nectar sources are proposed. The activities would not result in the adverse modification of physical or biological features essential to the conservation of the Hermes copper butterfly due to the fact that impacts are restricted to disturbed and developed areas that lack suitable habitat for the species and lack the physical and biological features associated with its designated critical habitat. Potential impacts would be less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Packages 1-3

Less Than Significant with Mitigation Incorporated. As with the originally proposed Project, the currently proposed Project with the Packages 1-3 modifications would result in impacts to sensitive natural communities and would require mitigation; however, Project grading and disturbance limits to

sensitive natural communities with the proposed Packages 1-3 modifications are, overall, less than the original Project, as illustrated in Table 6, *Impacts on Sensitive Natural Communities*.

Table 6
IMPACTS ON SENSITIVE NATURAL COMMUNITIES

Sensitive Natural Community[1]	Original Impacts[2]			Modified Impacts[2]			Difference in Impacts [2,3]		
	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)	**(1.91)**

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 (refer to Figure 14a). 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 (refer to Figure 14a and 14b). 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 (refer to Figure 14e). 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 (refer to

Figure 14f). 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 (refer to Figures 14g and 14h). The modified Package 2 Segment 10 and Lake Jennings interpretive site and the proposed water feature extends 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 (refer to Figure 14i). Overall, the modified Project would result in fewer impacts to sensitive natural communities as a result of the realignments and modifications (Table 6).

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 the 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 area, including the proposed modifications for Pond C; therefore, this Project modification would not result in additional significant impacts to sensitive natural communities (refer to Figure 14a). 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 (refer to Figures 14d).

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 (refer Figures 14a-i). However, mitigation measures CFMP Bio-1H, CFMP Bio-1J, CFMP Bio-1k, and CFMP Bio-2A would still be required to reduce potential impacts to less-than-significant levels through installing construction fencing, conduction construction monitoring, siting staging areas outside of sensitive habitat areas, performing contractor training, and compensating for loss of habitat.

Package 4

Less Than Significant with Mitigation Incorporated. A total of 17 vegetation communities occur within the Package 4 modification study area: Arundo-dominated riparian, coast live oak woodland, Diegan coastal sage scrub (including broom baccharis scrub and disturbed), eucalyptus woodland, freshwater marsh (including disturbed), non-native grassland, non-native riparian, non-native vegetation, non-vegetated channel or floodway (concrete-lined), open water, riparian scrub, southern cottonwood-willow riparian forest (including disturbed), southern maritime chaparral, southern riparian woodland and forest (including disturbed), southern willow scrub (including disturbed), disturbed land, and developed land.

The Package 4 modification has been planned to site elements outside of sensitive natural communities and other sensitive biological resources with the exception of potential air vents adjacent to FJST. Temporary impacts to sensitive vegetation communities may occur during the replacement and potential expansion of existing appurtenances and blowoffs, connection points in which the line can be drained, some of which are located adjacent to sensitive vegetation communities. These impacts are estimated to be less than 0.1 acre cumulatively, and therefore would not be significant pursuant to the

City of San Diego Biology Guidelines, which state that total upland impacts less than 0.1 acre to Tier I through IIIB habitats are not significant and do not require mitigation. Temporarily impacted sensitive vegetation communities would be revegetated in place in coordination with the MTRP staff and in compliance with the MTRP Natural Resources Management Plan (NRMP) and Updated Master Plan. Similarly, the locations for the potential Mission Valley Lift Station are within developed lands or previously disturbed areas consisting of either non-native vegetation or bare ground. The potential lift station would not result in impacts to sensitive biological resources. Construction staging and storage and access areas would be within the road rights-of-way, developed lands, or previously disturbed areas and would not result in direct impacts to sensitive biological resources; however, the majority of the alignment is adjacent to at least one sensitive natural community. If not properly contained and restricted to authorized work areas, inadvertent impacts to sensitive natural communities could occur. These impacts would be considered potentially significant. Implementation of mitigation measures CFMP Bio-1J, CFMP Bio-1K, and ECAWP Bio-11, which involve construction monitoring and contractor training, would be required to reduce potential impacts to a less-than-significant level.

As a standard construction practice and regulatory requirement, the JPA will implement the following BMPs during construction to minimize inadvertent impacts, which could include, but are not limited to:

- Maintaining the project area free of trash and debris;
- Employing appropriate standard spill prevention practices and clean-up materials;
- Installing and maintaining sediment and erosion control measures;
- Maintaining effective control of fugitive dust; and
- Properly storing, handling, and disposing of all toxins and pollutants, including waste materials.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Packages 1-3

Less than Significant with Mitigation Incorporated. As with the originally proposed Project, the currently proposed Project with the Packages 1-3 modifications 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 the Packages 1-3 Project modifications and further wetland avoidance, the modified Project would only result in 0.05 acre of temporary impacts to federally protected wetlands (Table 7, *Impacts on Potential Jurisdictional Resources*).

Table 7
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 less 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 (refer to Figure 14a). Package 2 and Package 3 Segment 1 would avoid impacts to mule fat 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 (refer to Figures 14a-d). 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 (refer Figure 14i).

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 U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (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 Clean Water Act (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 (SWRQCB 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, it 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 2 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 mitigation measures CFMP Bio-3B and CFMP Bio-3C 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 7 and on Figures 14a-i.

Package 4

No Impact. Potential waters of the U.S. under the jurisdiction of the USACE in the Package 4 modification study area include wetlands and other waters associated with the San Diego River, Forester Creek, and tributaries to these features. The waters of the U.S. preliminarily identified within the study area are also waters of the State subject to RWQCB jurisdiction pursuant to CWA Section 401. There are no waters of the State subject to exclusive RWQCB jurisdiction, pursuant to Porter-Cologne Water Quality Control Act. Streambed and riparian habitat under the jurisdiction of the CDFW within the study area consist of freshwater marsh, riparian scrub, non-native riparian, non-vegetated channel or floodway (concrete-lined), open water, southern cottonwood-willow riparian forest (including disturbed), southern riparian forest (including disturbed), and southern willow scrub (including disturbed), as presented in Table 8, *Potential Jurisdictional Waters and Wetlands*. These areas are also considered City of San Diego wetlands pursuant to the City of San Diego's Biology Guidelines. The Package 4 modification will avoid construction within and discharges to federally, state, and City protected wetlands and other potential jurisdictional features. No impacts to federally, state, or City protected wetlands or other potential jurisdictional features would occur.

Table 8
POTENTIAL JURISDICTIONAL WATERS AND WETLANDS

Potential Jurisdictional Resources[1]	Area (acres)[2]	
	Inside MHPA	Outside MHPA
Arundo-Dominated Riparian	--	0.10
Freshwater Marsh	0.08	--
–Non-Native Riparian	--	0.24
Non-Vegetated Channel or Floodway (concrete-lined)	--	0.20
Open Water	--	<0.01
Riparian Scrub	--	0.09
Southern Cottonwood-Willow Riparian Forest	--	0.13
Southern Riparian Woodland and Forest	20.06	1.45
Southern Willow Scrub (including disturbed)	1.32	0.27
TOTAL	**21.46**	**2.48**

[1] Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008). In some cases, vegetation names were modified by HELIX. All potential jurisdictional resources identified also represent potential City wetlands pursuant to the City of San Diego's Biology Guidelines (2018).
[2] Totals reflect rounding.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Packages 1-3

Less than Significant Impact. The proposed modified Package 1, Package 2, and Package 3 alignments and components are located adjacent to the original Project alignments; 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.

Package 4

Less Than Significant Impact. Wildlife corridors connect isolated habitat and allow movement or dispersal of plant materials and animals. Local wildlife corridors allow access to resources such as food, water, and shelter within the framework of the wildlife's daily routine and life history. For example, animals can use these corridors to travel between their riparian breeding habitats and their upland burrowing habitats. 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; it 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.

The San Diego River and Forester Creek, as well as MTRP, are considered MSCP Core Linkage Areas and likely function to facilitate amphibian, bird, and large mammal movement through the region. These areas provide habitat for both common and sensitive species, including least Bell's vireo and yellow warbler. These areas also function as important habitats that provide shelter and resources for breeding and rearing young, a year-round water source and prey items, and a linear corridor for dispersal and migration.

The Package 4 modification would not be constructed within the San Diego River or Forester Creek; therefore, wildlife movement within these corridors would not be restricted. Construction within MTRP is limited to existing developed land and would utilize slipline construction methods, which would minimize barriers and other impacts to wildlife. Impacts to wildlife movement would therefore be less than significant.

Construction has the potential to indirectly deter the movement of wildlife, but this impact would be temporary, and the installed Package 4 pipeline alignment would be located underground once complete. The Package 4 modification may include several aboveground components; however, these components would be small and would not present an impediment to wildlife movement. The Package 4 modification would not impede the movement of any native, resident, or migratory fish or wildlife species; interfere with established native, resident, or migratory wildlife corridors, including linkages identified in the City of San Diego's MSCP Subarea Plan; and would not impede the use of native wildlife nursery sites. Impacts to wildlife movement and nursery sites would be less than significant, and no mitigation is required.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Packages 1-3

No Impact. 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.

Package 4

Less Than Significant with Mitigation Incorporated. The proposed Package 4 modification is a collaboration between the East County AWP JPA, the City of San Diego, and the District; therefore, the project is subject to the City of San Diego MSCP. The Package 4 modification is designed to limit construction to disturbed and developed lands with the exception of potential air vents adjacent to FJST.

The central portion of the Package 4 alignment passes through the City of San Diego Multi-Habitat Planning Area (MHPA) and is subject to the MHPA land use adjacency guidelines. Impacts within the MHPA will be restricted to disturbed and developed lands. Furthermore, construction within the MHPA is proposed using a sliplining operation with interspersed launching and receiving pits at specific locations; therefore, direct impacts to MHPA are not anticipated. Implementation of mitigation measures CFMP Bio-1H, CFMP Bio-1J, CFMP Bio-1K, ECAWP Bio-9, ECAWP Bio-10, ECAWP Bio-11,

ECAWP Bio-13, and ECAWP Bio-14 would ensure consistency with the adopted City MSCP Subarea Plan (1997), as described in further detail below. No other adopted HCP, Special Area Management Plan, Watershed Plan, or other regional planning efforts are applicable to the Package 4 modification.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Packages 1-3

Less Than Significant with Mitigation Incorporated. 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 Project modifications have been planned to locate improvements 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 herein would ensure consistency with the adopted City and County MSCP Subarea Plans and result in less-than-significant impacts.

Package 4

Less Than Significant with Mitigation Incorporated. In July 1997, the USFWS, CDFW, and City of San Diego adopted the MSCP and associated Implementing Agreement. The MSCP is a regional program that provides for the long-term conservation of identified Covered Species and allows the incidental take of threatened and endangered and other Covered Species conserved by the MSCP in compliance with the measures in the MSCP. The MSCP designates regional preserves and restricts development activities in the regional preserves. The MSCP allows certain development of other areas subject to the requirements of the MSCP. Impacts to biological resources are regulated by the City of San Diego's Environmentally Sensitive Lands (ESL) Regulations. The City of San Diego's MSCP Subarea Plan (1997) was adopted to meet the requirements of the California Natural Communities Conservation Planning Act of 1992. This Subarea Plan describes how the City of San Diego's portion of the MSCP Preserve, the MHPA, will be implemented.

The following sections detail the Package 4 modification's consistency with the City of San Diego's MSCP Subarea Plan applicable guidelines, management directives, and policies.

Land Use Adjacency Guidelines – Section 1.4.3 of the MSCP

The City of San Diego's MSCP Subarea Plan addresses indirect impacts to preserve areas from adjacent development in Section 1.4.3, Land Use Adjacency Guidelines (LUAGs). The MHPA LUAGs provide requirements for land uses adjacent to the habitat preserve to minimize indirect impacts from drainage, toxics, lighting, noise, barriers, invasive species, brush management, and grading to the sensitive resources contained therein. Projects that are within or adjacent to the MHPA must demonstrate compliance with the LUAGs.

The Package 4 modification would not introduce land use within an area adjacent to the MHPA that would result in adverse edge effects. No lighting is proposed that would adversely affect adjacent

habitat, and no landscaping related to the modification is proposed. Project components would be primarily underground and inaccessible to the public once construction is completed. Aboveground components include the replacement and possible expansion of small appurtenances (air-vacuum valves, blowoffs, etc.) which would be small, unmanned, enclosed structures that would not introduce a new land use within an area adjacent to the MHPA. None of the potential lift station locations are within or adjacent to the MHPA and are therefore not subject to MHPA LUAGs. Implementation of mitigation measure ECAWP Bio-14 would ensure that no direct or indirect impacts occur to nesting birds and raptors.

The coastal California gnatcatcher and least Bell's vireo have the potential to nest off-site within 500 feet of Package 4 construction as well as within the MHPA. Avoidance is required, as explained in the Mission Trails Regional Park Area Specific Management Directives below. Potential noise-related indirect impacts during construction would be considered significant if sensitive species become displaced from their nests and fail to breed. If construction would take place during the breeding season for sensitive species, including the coastal California gnatcatcher (March 1 to August 15) and least Bell's vireo (March 15 to September 15), then the standard City of San Diego noise mitigation is required. Implementation of mitigation measures ECAWP Bio-10, ECAWP Bio-12, and ECAWP Bio-13 ensure that no significant indirect impacts occur to coastal California gnatcatcher or least Bell's vireo during Package 4 construction.

The central portion of the alignment within the Mission Trails Open Space Area is in the City of San Diego's MHPA (Figure 7). Compliance with the City of San Diego's MHPA LUAGs is summarized below:

Drainage

All new and proposed parking lots and development areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials, and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA.

The proposed Package 4 modification will be below ground with the exception of potential air vents adjacent to FJST. If new aboveground components are required within or adjacent to the MHPA, the components are limited to less than 0.1 acre cumulatively, and would be within existing disturbed or developed habitats; therefore, the Package 4 modification will not increase impervious substrate or have effects on drainage.

Toxins

Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, that are potentially toxic or harmful to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA.

The proposed Package 4 modification does not involve agriculture or the creation of recreational areas such as playing fields or any other uses that would introduce toxins; therefore, there would not be an impact due to toxins.

Lighting

Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting.

No construction or operational lighting is expected. In the unlikely event that nighttime construction is required and construction lighting be necessary, lighting would be directed away from the MHPA and, if necessary, adequately shielded to protect the MHPA and sensitive species from night lighting.

Noise

Uses in or adjacent to the MHPA must be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.

The MHPA, as well as suitable Diegan coastal sage scrub habitat and riparian habitats, are within 500 feet of the Package 4 alignment. Construction noise has the potential to create a significant impact to coastal California gnatcatcher, least Bell's vireo, and/or other sensitive species known to occur in the area. In addition, raptors have the potential to nest within 500 feet of the proposed Package 4 alignment and could be impacted by construction noise. Implementation of mitigation measures ECAWP Bio-10, ECAWP Bio-13, and ECAWP Bio-14 will reduce this potential impact to a less than significant level.

Barriers to Incursion

New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.

The Package 4 modification proposes no barriers to incursion and would be predominately underground. If other aboveground components are required within or adjacent to the MHPA, the components will be less than 0.1 acre cumulatively, and would be within existing disturbed or developed habitats.

Invasive Species

No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.

No landscaping is proposed. BMPs implemented during construction would include measures to avoid the introduction of invasive plants into the construction site by equipment.

Brush Management

New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on

the development pad and outside of the MHPA. Zones 2 and 3 will be combined into one zone (Zone 2) and may be located in the MHPA upon granting of an easement to the City of San Diego (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the MHPA.

This measure is not applicable as the Package 4 modification does not include any new residential development or brush management.

Grading/Land Development

Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.

This measure is not applicable as the Package 4 modification does not propose the construction of manufactured slopes.

General Management Directives – Section 1.5.2 of the MSCP

Package 4 modification impacts to sensitive vegetation communities would be mitigated in accordance with the ratios provided in Table 3 of the City of San Diego's ESL Regulations and Biology Guidelines (City of San Diego 2018b) through off-site preservation of existing habitat.

General Planning Policies and Design Guidelines – Section 1.4.2 of the MSCP

The MSCP establishes specific guidelines that limit activities that occur within the MHPA. In general, activities occurring within the MHPA must conform to these guidelines and, wherever feasible, should be located in the least sensitive areas. Utility lines (e.g., sewer, water, etc.), limited water facilities, and other essential public facilities in compliance with policies found in Section 1.4.2 of the City of San Diego's MSCP Subarea Plan are considered conditionally compatible with the biological objectives of the MSCP and are thus allowed within the City of San Diego's MHPA.

The Package 4 modification avoids and limits impacts to ESL, including the MHPA, and sensitive biological resources. The proposed Package 4 alignment is primarily within existing disturbed or developed lands (Figures 8a-p).

Mission Trails Regional Park Area Specific Management Directives for Covered Sensitive Species

The MTRP NRMP establishes specific Area Specific Management Directives (ASMD) that limit the types of activities authorized to occur within MTRP. In general, activities occurring within the MTRP must conform to these ASMDs. A total of seven MSCP-covered species with ASMDs (one reptile and six birds) were observed within the Package 4 modification area and an additional two mammal MSCP-covered species with ASMDs were determined to have a high potential to occur. The MSCP includes conditions for coverage for these species. Each of these species is listed below along with a summary of the MSCP conditions of coverage and the Package 4 modification's consistency with these conditions.

Belding's Orange-Throated Whiptail

ASMDs must address potential edge effects. The avoidance of new trail construction within or near guild boundaries, proposed and weed control actions will serve to protect this species against detrimental edge effects.

Existing development, including roads and trails, within the Package 4 vicinity already results in numerous areas of interface between development and adjacent habitats in the area that contributes to potential edge effects. Implementation of the Package 4 modification would not substantially add to edge effects already present in the existing condition in the project area and the project does not propose the construction of new trails. Nonetheless, the Package 4 modification would adhere to the City of San Diego's MHPA LUAGs, as detailed above, and implement standard construction BMPs, as needed, to minimize indirect impacts to this species and the introduction of invasive species during work activities.

Coastal California Gnatcatcher

ASMDs must include measures to reduce edge effects and minimize disturbance during the nesting period, fire protection measures to reduce the potential for habitat degradation due to unplanned fire, and management measures to maintain or improve habitat quality including vegetation structure. Additionally, no clearing of occupied habitat within the City of San Diego MHPA or County's Biological Core Resource Areas between March 1 and August 15.

Trail closure and minimization via rerouting within guild boundaries will reduce edge effects and disturbance in California gnatcatcher habitat. In addition, the control of artichoke thistle, an aggressive weed within coastal sage scrub, will expand available habitat for the species.

Existing development, including roads and trails, within the Package 4 vicinity already results in numerous areas of interface between development and adjacent habitats in the area that contributes to potential edge effects. The Package 4 modification does not propose the construction of new trails or the permanent closure of existing trails and would be constructed within existing disturbed and developed lands; therefore, implementation of the Package 4 modification would not substantially add to edge effects already present in the existing condition in the project area. The Package 4 modification would incorporate appropriate measures during construction to minimize disturbance during the nesting period for coastal California gnatcatcher. Specifically, vegetation clearing activities under the project will occur outside of the coastal California gnatcatcher breeding season (March 1 through August 15), and the Package 4 modification would adhere to the City of San Diego's MHPA LUAGs to reduce potential indirect noise impacts to occupied gnatcatcher habitat in the MHPA and the introduction of invasive species.

Cooper's Hawk

ASMDs must include 300-foot impact avoidance areas around the active nests, and minimization of disturbance in oak woodlands and oak riparian forests. The avoidance of new trail construction and the control of invasive species within guild boundaries minimize disturbance within oak woodlands and, thereby, satisfy this condition.

The Package 4 modification would incorporate mitigation measures requiring pre-construction nesting surveys and 300-foot construction setbacks from active Cooper's hawk nests. Proposed activities associated with the Package 4 modification have been designed to be the minimum necessary to achieve the Project goals. Impacts to oak woodlands and oak riparian forests have been avoided and the Package 4 modification does not propose the construction of new trails. Nonetheless, the Package 4 modification would adhere to the City of San Diego LUAGs, as detailed above in Section 6.1, and implement standard construction BMPs, as needed, to minimize indirect impacts to this species and the introduction of invasive species during work activities.

Least Bell's Vireo

ASMDs must include measures to provide appropriate successional habitat, upland buffers for all known populations, cowbird control, and specific measures to protect against detrimental edge effects to this species. Additionally, clearing of occupied habitat must occur between September 15 and March 15 (i.e., outside of the nesting period).

Breeding populations of least Bell's vireo have grown from 1978 to 2010. A total of 16 breeding pairs of least Bell's vireo were observed during surveys in 2010. The avoidance of new trail construction within or near (within 300 feet) guild boundaries, proposed continuance of cowbird control, and weed control actions will serve to protect this species against detrimental edge effects.

Existing development, including roads and trails, within the Package 4 vicinity already results in numerous areas of interface between development and adjacent habitats in the area that pose potential edge effects. The Package 4 modification does not propose the construction of new trails and would be constructed primarily within existing disturbed and developed lands; therefore, implementation of the Package 4 modification would not substantially add to edge effects already present in the existing condition in the area. The Package 4 modification would not result in conditions attractive to brown-headed cowbird (*Molothrus ater*), a nest parasite of least Bell's vireo, such as the creation of pastures with horses or cattle. The Package 4 modification will incorporate measures during construction to minimize disturbance during the nesting period for least Bell's vireo. Specifically, vegetation clearing activities under the Package 4 modification would occur outside of the least Bell's vireo breeding season (March 15 through September 15), and the Package 4 modification would adhere to the City of San Diego's MHPA LUAGs to reduce potential indirect noise impacts to occupied vireo habitat and the introduction of invasive species.

Peregrine Falcon

There are no ASMDs or conditions for coverage for this species; therefore, the Package 4 modification is consistent with the MTRP NRMP and MSCP.

Southern California Rufous-crowned Sparrow

ASMDs must include maintenance of dynamic processes, such as fire, to perpetuate some open phases of coastal sage scrub with herbaceous components.

Impacts and/or maintenance of coastal sage scrub habitats are not proposed; therefore, the Package 4 modification is consistent with MTRP NRMP and MSCP.

Western Bluebird

There are no ASMDs or conditions for coverage for this species; therefore, the Package 4 modification is consistent with the MTRP NRMP and MSCP.

Mule Deer

There are no ASMDs or conditions for coverage for this species; therefore, the Package 4 modification is consistent with the MTRP NRMP and MSCP.

Mountain Lion

There are no ASMDs or conditions for coverage for this species; therefore, the Package 4 modification is consistent with the MTRP NRMP and MSCP.

Vernal Pool Habitat Conservation Plan Consistency

In October 2009, the USFWS and City of San Diego entered into a Planning Agreement for the development of the City of San Diego's Vernal Pool Habitat Conservation Plan (VPHCP) covering vernal pool habitats and associated species in the City of San Diego (City of San Diego 2019c). This plan allows for the incidental take of the following seven threatened and endangered species (VPHCP covered species) that do not have federal coverage under the City of San Diego's MSCP Subarea Plan:

- San Diego fairy shrimp (*Branchinecta sandiegonensis*)
- San Diego button-celery (*Eryngium aristulatum* var. *parishii*)
- San Diego Mesa mint (*Pogogyne abramsii*)
- Spreading navarretia (*Navarretia fossalis*)
- California Orcutt grass (*Orcuttia californica*)
- Otay Mesa mint (*Pogogyne nudiuscula*)
- Riverside fairy shrimp (*Streptocephalus woottoni*)

The VPHCP is compatible with the MSCP and expands upon the City of San Diego's existing MHPA with the conservation of additional lands that support vernal pools and vernal pool covered species. The City of San Diego's Vernal Pool Management and Monitoring Plan outlines the VPHCP management and monitoring strategy and how it will be implemented by the City of San Diego (City of San Diego 2020). It provides a framework plan that outlines site-specific management and monitoring actions for the vernal pool complexes that will be managed as part of the MHPA to achieve the VPHCP objectives.

The proposed Package 4 modification is outside of the VPHCP Preserve. Furthermore, no vernal pools or VPHCP covered species occur within the Package 4 modification study area. The entire proposed Package 4 alignment is within existing paved roads. The proposed Package 4 modification would not result in any impacts to vernal pools, VPHCP covered species, or VPHCP preserve areas.

VPHCP Avoidance and Minimization Measures

The City of San Diego's Revised Final VPHCP (City of San Diego 2019c) includes measures to avoid or minimize impacts to conserved vernal pools adjacent to development in Section 5.2.1, Avoidance and Minimization Measures. These measures provide requirements for land uses adjacent to the habitat preserve (VPHCP Hardline and MHPA) in order to minimize indirect impacts to the VPHCP covered species contained therein. The proposed Package 4 modification does not occur within or adjacent to VPHCP preserve areas or vernal pool resources; therefore, these measures are not applicable to the Package 4 modification.

Mitigation

The following mitigation measures from the PEIR and 2018 IS/MND would reduce potential impacts related to biological resources to a less than significant level.

CFMP Bio-1F **Avoidance of Nesting Birds and Raptors.** To prevent direct impacts to nesting birds, including raptors, protected under the federal MBTA and CFG Code, the JPA shall enforce the following:

Project activities requiring the removal and/or trimming of vegetation suitable for nesting birds shall occur outside of the general bird breeding season (January 15 to September 15) to the extent feasible. If the activities cannot avoid the general bird breeding season, a qualified biologist shall be retained to conduct a pre-activity nesting bird survey within seven days prior to the activities to confirm the presence or absence of active bird nests. If no active bird nests are found by the qualified biologist, then the activities shall proceed with the reassurance that no violation to the MBTA and CFG Code would occur. If an active bird nest is found by the qualified biologist, then vegetation removal and/or trimming activities at the nest location shall not be allowed to occur until the qualified biologist has determined that the nest is no longer active. Avoidance buffers should start at 300 feet for passerine birds and 500 feet for raptors. However, buffers could be reduced at the discretion of the qualified biologist depending on the bird species and project activities required in the vicinity of the active nest.

CFMP Bio-1H **Orange Construction Fencing and Construction Monitoring**. The JPA shall retain a qualified biologist to monitor construction activities and supervise the installation of temporary orange construction fencing, which clearly delineates the edge of the approved limits of grading and clearing, and the edges of environmentally sensitive areas that occur beyond the approved limits. This fencing shall be installed prior to construction and maintained for the duration of construction activity. Fencing shall be installed in a manner that does not impact habitats to be avoided. Once fencing is installed, the JPA and qualified biologist shall determine the need for additional inspections and monitoring activities throughout the duration of construction. If determined necessary by the JPA and qualified biologist, monitoring shall include inspection of construction work areas, including staging and storage areas, to confirm that activities are kept within the approved limits and that Best Management Practices are in place to prevent incidental animal entrapment and burrow and nest establishment within equipment and staged materials. If work occurs beyond the fenced or demarcated limits of impact, or if a trapped animal or burrow or nest is found, work in the affected areas shall cease until the problem has been remedied and mitigation identified by the JPA and qualified biologist. Temporary orange fencing shall be removed upon completion of construction of the project. Implementation of this measure shall be verified by the JPA prior to and concurrent with construction.

CFMP Bio-1J **Construction Staging Areas.** The JPA shall design final project construction staging areas such that no staging areas shall be located within sensitive habitat areas. The construction contractor shall receive approval by the JPA prior to mobilization and staging of equipment outside of the project boundaries.

CFMP Bio-1K **Contractor Training.** The JPA shall retain a qualified biologist to attend pre-construction meetings to inform construction crews of the sensitive resources and associated avoidance and/or minimization requirements.

CFMP Bio-2A **Compensatory Mitigation for Impacts to Sensitive Natural Communities**. The JPA shall compensate the loss of habitat according to the ratios provided in the table below, which could be adjusted depending on where the compensatory mitigation would be located and whether the impacted habitat supports special-status species or other sensitive resources.

MITIGATION RATIOS FOR IMPACTS TO SENSITIVE NATURAL COMMUNITIES

Sensitive Natural Community	Mitigation Ratio
Non-native grassland	0.5:1
Diegan coastal sage scrub	2:1
Southern willow scrub	3:1
Open water	1:1

[1] Freshwater Marsh impacts are limited to the Lake Jennings shoreline, which is primarily inundated and characterized by partially submerged vegetation (*Typha* sp., *Scirpus* sp.) and as such will be mitigated in accordance with ratios assigned to Open Water.

CFMP Bio-3B **Regulatory Permitting**. Potentially significant temporary impacts to jurisdictional waters and/or wetlands would occur at Lake Jennings as a result of the installation of the Lake Jennings inlet and aeration blower components of the project; therefore, the JPA shall complete the following:

- Prepare and submit notification to the USACE for unavoidable impacts to Waters of the U.S. pursuant to the Clean Water Act Section 404;
- Prepare and submit a Clean Water Act Section 401 Request for Water Quality Certification or State Porter-Cologne Water Quality Control Act Report of Waste Discharge to the RWQCB for unavoidable impacts to Waters of the State; and
- Prepare and submit a CFG Code Section 1602 Notification of Lake or Streambed Alteration to the CDFW for unavoidable impacts to jurisdictional streambed and riparian habitat.
- The JPA shall mitigate impacts to jurisdictional waters and wetland in accordance with mitigation measure CFMP Bio-3C, unless otherwise specified in USACE, RWQCB, and/or CDFW regulatory permits.

CFMP Bio-3C **Compensatory Mitigation for Impacts to Jurisdictional Resources**. The JPA shall implement compensatory mitigation at a minimum ratio of 1:1, which could be adjusted during permitting with the USACE, RWQCB, and CDFW, for the unavoidable loss of jurisdictional waters and wetlands, which would include one or a combination of the following measures:

- Purchase of preservation, establishment, re-establishment, rehabilitation and/or enhancement credits from a mitigation bank approved by the USACE and CDFW, such as the San Luis Rey Mitigation Bank or another approved mitigation bank in the region.

- Implement Permittee-responsible preservation, establishment, re-establishment, rehabilitation and/or enhancement at an on- or off-site location approved by the USACE, RWQCB, and/or CDFW, including preparation and implementation of a conceptual mitigation plan, habitat mitigation monitoring plan, restoration plan, and/or long-term management plan, unless otherwise specified by the USACE, RWQCB, and/or CDFW.

- Plans for restoration or revegetation should include, at a minimum: (a) the location of the mitigation site; (b) the plant species to be used, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation.

- A conservation easement, restrictive covenant, or other protection shall be recorded over the mitigation area and the area shall be managed in perpetuity in accordance with the long-term management plan, unless otherwise specified by the USACE, RWQCB, and/or CDFW.

ECAWP Bio-1 **Avoidance of Rare Plants.** Prior to initiating construction activities, the JPA shall require that the delicate clarkia and/or San Diego goldenstar locations depicted on Figure 14 are clearly shown on final construction plans. The JPA shall further require that the locations are demarcated in the field by a qualified biologist and protected-in-place through the installation of temporary construction fencing or alternative means that are approved by the qualified biologist. The qualified biologist shall monitor construction activities, as appropriate, to help ensure avoidance of the areas. A final compliance report shall be prepared by the qualified biologist and submitted to the JPA for record verifying that no impacts occurred to the species. Any inadvertent and unavoidable impacts shall be mitigated in accordance with mitigation measure CFMP Bio-1B from the PEIR.

The following new mitigation measures have been included to address potential impacts associated with the proposed modifications.

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 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 within 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 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 designated critical habitat, then the measures described below shall be implemented.

The JPA and/or federal action agency shall complete 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 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 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 critical habitat in the region.

Restoration and establishment or re-establishment mitigation shall include 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; 5-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 Plan 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 establishment of a non-wasting endowment or other funding mechanism to ensure management activities are adequately funded in perpetuity.

ECAWP Bio-9 **Avoidance of Rare Plants in the City of San Diego.** Prior to initiating construction activities, the JPA shall require that the decumbent goldenbush locations depicted on Figure 14l and 14m in this report and San Diego ambrosia are clearly shown on final construction plans. The JPA shall further require that the locations are demarcated in the field by a Qualified Biologist and protected-in-place through the installation of temporary construction fencing or alternative means that are approved by the Qualified Biologist. The Qualified Biologist shall monitor construction activities, as appropriate, to help ensure avoidance of the areas. A final compliance report shall be prepared by the Qualified Biologist and submitted to the JPA for record verifying that no impacts occurred to the species.

Mitigation for any inadvertent and unavoidable impacts shall include one or a combination of the following, and occur at a 1:1 to 3:1 ratio, as approved by the City of San Diego and depending on the sensitivity of the species and population size, as determined by the JPA-retained Qualified Biologist:

(A) Purchase of preservation credits of occupied habitat from a conservation bank approved by the USFWS and CDFW;

(B) Acquisition and preservation of off-site mitigation land containing occupied habitat; and/or

(C) Preparation and implementation of a rare plant salvage and relocation plan, to include the following requirements, at a minimum:

(1) Evaluation of options for plant salvage and relocation, including native plant mulching, selective soil salvaging, application of plant materials on manufactured slopes, and application/relocation of resources within existing or proposed preserved lands;

(2) Seed collection and/or transplantation to a suitable receptor site based on the most reliable methods of successful relocation;

(3) Recommendation for the method of salvage and relocation/application based on feasibility of implementation and likelihood of success; and

(4) Implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures.

ECAWP Bio-10 **Avoidance of Coastal California Gnatcatcher in the City of San Diego.** The City of San Diego Manager (or appointed designee) shall verify that the MHPA boundaries and the following Project requirements regarding the coastal California gnatcatcher are shown on the construction plans:

No clearing, grubbing, or other construction activities shall occur within gnatcatcher habitat between March 1 and August 15, the breeding season of the coastal California gnatcatcher, until the following requirements have been met to the satisfaction of the City of San Diego Manager:

(A) If construction activities are planned to occur during the coastal California gnatcatcher breeding season (March 1 to August 15), then prior to initiating construction activities within 500 feet of off-site coastal California gnatcatcher locations, a Qualified Biologist (possessing a valid Endangered Species Act Section 10(a)(1)(A) Recovery Permit), shall survey those habitat areas within the MHPA that would be subject to construction noise levels exceeding 60 dBA hourly average for the presence of coastal California gnatcatcher. The surveys shall begin a maximum of seven days prior to project construction, and one survey shall be conducted the day immediately prior to the initiation of work. If gnatcatchers are confirmed to be absent within 500 feet of planned construction areas, then no additional measures shall be required. If gnatcatchers are present, then the following conditions must be met:

(1) Between March 1 and August 15, no clearing, grubbing, or ground disturbance of occupied gnatcatcher habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; and

(2) Between March 1 and August 15, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied gnatcatcher habitat. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a qualified acoustician (possessing current noise engineer license of registration with monitoring noise level experience with listed animal species) and approved by the City of San Diego Manager at least two weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; or

(3) At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dBA hourly average at the edge of habitat occupied by the coastal California gnatcatcher. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (August 16).

* Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the City of San Diego Manager, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

(B) If coastal California gnatcatcher are not detected during the protocol survey, the Qualified Biologist shall submit substantial evidence to the City of San Diego Manager and applicable resource agencies which demonstrates whether or not mitigation measures such as noise walls are necessary between March 1 and August 15 as follows:

(1) If this evidence indicated the potential is high for coastal California gnatcatcher to be present based on historical records or site conditions, then condition A.III shall be adhered to as specified above.

(2) If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

ECAWP Bio-11 Biological Construction Monitoring in the City of San Diego. The City of San Diego Manager (or appointed designee) shall verify that the following project requirements are shown on the construction plans:

I. Prior to Construction

A. Biologist Verification – The owner/permittee shall provide a letter to the City of San Diego's Mitigation Monitoring Coordination (MMC) section stating that a Project Biologist (Qualified Biologist) as defined in the City of San Diego Biology Guidelines (2018b), has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project.

B. Pre-construction Meeting – The Qualified Biologist shall attend the pre-construction meeting, discuss the project's biological monitoring program, and arrange to perform any follow-up mitigation measures and reporting, including site-specific monitoring, restoration or revegetation, and additional fauna/flora surveys/salvage.

C. Biological Documents – The Qualified Biologist shall submit all required documentation to MMC verifying that any special mitigation reports including but not limited to, maps, plans, surveys, survey timelines, or buffers are completed or scheduled per City of San Diego Biology Guidelines, Multiple Species Conservation Program, ESL Regulations, project permit conditions; CEQA; endangered species acts (ESAs); and/or other local, state, or federal requirements.

D. Biological Construction Mitigation/Monitoring Exhibit (BCME) – The Qualified Biologist shall present a BCME, which includes the biological documents in C above. In addition, include: restoration/revegetation plans, plant salvage/relocation requirements (e.g., coastal cactus wren plant salvage, burrowing owl exclusions, etc.), avian or other wildlife surveys/survey schedules (including general avian nesting and USFWS protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the City of San Diego Assistant Deputy Director/MMC. The BCME shall include a site plan, a written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by MMC and referenced in the construction documents.

E. Avian Protection Requirements – To avoid direct impacts to nesting birds protected under the Migratory Bird Treaty Act (MBTA) or California Fish and Game (CFG) Code, no clearing, grubbing, or ground disturbance shall occur during the general avian breeding season (January 15 to September 15) or raptor breeding season (January 15 to August 31) without a pre-construction nesting bird survey. If grubbing, clearing, or ground disturbance would occur during the general avian or raptor breeding seasons, a Qualified Biologist shall

survey the project area no more than seven days prior to the commencement of the activities to determine if active bird nests belonging to migratory birds and raptors afforded protection under the MBTA and CFG Code are present in the affected areas. If the Qualified Biologist determines that no active migratory bird or raptor nests occur, the activities shall be allowed to proceed. If the Qualified Biologist determines that an active migratory bird or raptor nest is present, appropriate setbacks shall be implemented as specified by the City of San Diego's Biology Guidelines or determined by a Qualified Biologist if no defined setback is provided in the Biology Guidelines. No impacts shall occur until the young have fledged the nest and the nest is confirmed to no longer be active, as determined by the Qualified Biologist. The results of the pre-construction nesting bird survey shall be reported to the City of San Diego in a brief memorandum.

F. Resource Delineation – Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats and verify compliance with any other project conditions as shown on the BCME. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora & fauna species, including nesting birds) during construction. Appropriate steps/care should be taken to minimize the attraction of nest predators to the project site.

G. Education – Prior to the commencement of construction activities, the Qualified Biologist shall meet with the owner/permittee or designee and the construction crew and conduct an on-site area educational session regarding the need to avoid impacts outside of the approved construction area and to protect sensitive flora and fauna (e.g., explain the avian and wetland buffers, flag system for removal of invasive species or retention of sensitive plants, and clarify acceptable access routes/methods and staging areas, etc.).

II. During Construction

A. Monitoring – All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed, as shown on "Exhibit A", and/or the BCME. The Qualified Biologist shall monitor construction activities as needed to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the pre-construction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record. The Consultant Site Visit Record shall be e-mailed to MMC on the first day of monitoring, the first week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.

B. Subsequent Resource Identification – The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna on-site (e.g., flag plant specimens for avoidance during access, etc.). If active nests or other

previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species specific local, state, or federal regulations have been determined and applied by the Qualified Biologist.

III. Post Construction Measures

A. In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City of San Diego Biology Guidelines, ESL Regulations, MSCP, VPHCP, CEQA, and other applicable local, state, and federal law. The Qualified Biologist shall submit a final BCME/report to the satisfaction of the City of San Diego Assistant Deputy Director/MMC within 30 days of construction completion.

ECAWP Bio-12 **USFWS and CDFW Consultation and Conservation Measures.** Prior to the commencement of activities located within the City of Santee that have the potential to directly and adversely affect the coastal California gnatcatcher and/or least Bell's vireo, the JPA shall consult with the USFWS and CDFW to obtain concurrence on the implementation of avoidance measures prescribed in MM-BIO-2 and MM-BIO-6 for activities within the City of Santee boundaries. At a minimum, the following conservation measures shall be included in the concurrence and implemented by the JPA:

- Prepare and implement a USFWS and CDFW-approved plan to avoid disturbing nesting gnatcatchers and/or vireos, including construction and implementation of noise attenuation (e.g., sound walls, berms, blankets, etc.), monitoring noise levels to ensure that they are less than 60 dBA, and nest monitoring;

- Retain a USFWS and CDFW-approved biological monitor to conduct contractor training, monitor construction activities, and oversee installation and inspection of temporary fencing and erosion control measures; halt work, if necessary, and confer with the USFWS and CDFW to ensure the proper implementation of species and habitat protection measures; and submit monthly reports (including photographs of impact areas) via regular mail or email to the USFWS and CDFW during monitoring.

ECAWP Bio-13 **Avoidance of Least Bell's Vireo in the City of San Diego.** Prior to the issuance of any grading permits, the City of San Diego Manager (or appointed designee) shall verify the following project requirements regarding the least Bell's vireo are shown on the construction plans:

No clearing, grubbing, or other construction activities shall occur between March 15 and September 15, the breeding season of the least Bell's vireo, until the following requirements have been met to the satisfaction of the City of San Diego Manager:

(A) If construction activities are planned to occur during the least Bell's vireo breeding season (March 15 to September 15), then prior to initiating construction activities in any project construction areas within 500 feet of least Bell's vireo critical habitat or suitable habitat, a Qualified Biologist (possessing a valid endangered species act section 10(a)(1)(A) Recovery Permit), shall survey those suitable habitat areas that

would be subject to construction noise levels exceeding 60 dBA hourly average for the presence of least Bell's vireo. The surveys shall begin a maximum of seven days prior to project construction, and one survey shall be conducted the day immediately prior to the initiation of work. If vireos are confirmed to be absent within 500 feet of planned construction areas, then no additional measures shall be required. If vireo are confirmed to be present, then the following conditions must be met:

(1) Between March 15 and September 15, no clearing, grubbing, or ground disturbance of occupied least Bell's vireo habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; and

(2) Between March 15 and September 15, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied least Bell's vireo habitat. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a qualified acoustician (possessing current noise engineer license of registration with monitoring noise level experience with listed animal species) and approved by the City of San Diego Manager at least two weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; or

(3) At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dBA hourly average at the edge of habitat occupied by the least Bell's vireo. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16).

* Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the City of San Diego Manager, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

(B) If least Bell's vireo are not detected during the protocol survey, the Qualified Biologist shall submit substantial evidence to the City of San Diego Manager and applicable resource agencies which demonstrates whether or not mitigation measures such as noise walls are necessary between March 15 and September 15 as follows:

(1) If this evidence indicated the potential is high for least Bell's vireo to be present based on historical records or site conditions, then condition A.III shall be adhered to as specified above.

(2) If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

ECAWP Bio-14 **Avoidance of Nesting Birds and Raptors in the City of San Diego.** No clearing, grubbing, or ground disturbance shall occur during the general avian breeding season (January 15 to September 15) or raptor breeding season (January 15 to August 31) without a pre-construction nesting bird survey. If grubbing, clearing, or ground disturbance would occur during the general avian or raptor breeding seasons, a Qualified Biologist shall survey the project area no more than seven days prior to the commencement of the activities to determine if active bird nests belonging to migratory birds and raptors afforded protection under the MBTA and CFG Code are present in the affected areas. If the Qualified Biologist determines that no active migratory bird or raptor nests occur, the activities shall be allowed to proceed. If the Qualified Biologist determines that an active migratory bird or raptor nest is present, appropriate setbacks shall be implemented as specified by the City of San Diego's Biology Guidelines, or determined by a Qualified Biologist if no defined setback is provided in the Biology Guidelines. No impacts shall occur within the setback area until the young have fledged the nest and the nest is confirmed to no longer be active, as determined by the Qualified Biologist. The results of the pre-construction nesting bird survey shall be reported to the City of San Diego in a brief memorandum.

V. Cultural Resources

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of cultural resources impacts is included on pages 49 through 56 of the 2018 IS/MND. The 2018 IS/MND concluded that implementation of the Project would result in potentially significant impacts to historical resources and archaeological resources but would have a less-than-significant impact on human remains. One historical resource, the San Diego Flume, may be affected by the Project. Implementation of mitigation measure ECAWP Cul-1 would reduce potential impacts to a less-than-significant level by ensuring the Project be designed in coordination with a qualified Historic Preservation Specialist and the California State Historic Preservation Officer (SHPO) and measures following the Secretary of the Interior's Standards for the Treatment of Historic Properties be followed. It was determined that while the Project would not directly impact known archaeological resources, the project is sensitive for cultural resources and there is potential for previously unknown buried cultural resources to be encountered during ground-disturbing activities; impacts would be potentially significant. Implementation of mitigation measure ECAWP Cul-2 would reduce impacts to a less-than-significant level because any previously unidentified cultural material will be documented and assessed for significance, and treated appropriately, as applicable.

Analysis of the Proposed Modifications

The proposed modifications result in approximately 46 acres for Packages 1-3 and 212 acres for Package 4 being added to the Project's APE over what was considered in the 2018 IS/MND. The APE is the geographic area within which an undertaking may directly or indirectly alter the character or use of historic properties. Potential impacts to cultural resources within the modified APE are considered herein. The following discussion is based on the Supplemental Cultural Resources Inventory and Assessment for the Packages 1-3 modifications (HELIX 2022c; Appendix D) and the Cultural Resources Technical Report for the Package 4 modifications (HELIX 2021; Appendix E).

Cultural resources are frequently defined in terms of tangible materials attributed to a culture. These include districts, sites, structures, artifacts, and other evidence of human use considered important to a culture or community for scientific, traditional, religious, or other reasons. Resources may be historical, archaeological, architectural, or archival in nature. Cultural resources may also consist of less tangible attributes, such as landscapes considered sacred to particular groups. These resources can provide clues about prehistoric and historic era human behaviors, and provide scientific, religious, and other valuable educational information about the cultural past.

To determine the potential presence of cultural resources, cultural resources studiers, including records searches, Sacred Lands File (SLF) searches, Native American outreach, review of historic aerial photographs and maps, and field surveys, were conducted for the modified APEs.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Historical resource is a term with a defined statutory meaning (refer to PRC Section 21084.1 and CEQA Guidelines, Section 15064.5(a) and (b)). The term applies to any resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR). The CRHR includes California resources listed in or formally determined eligible for listing in the National Register of Historic Places (NRHP), as well as certain California Historical Landmarks and California Points of Historical Interest. The CRHR criteria for listing define historical resources as any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant, or is significant in the

architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California; and meets any of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history (CEQA Guidelines, Section 15064.5(a)(3)).

Packages 1-3

No Impact. The records search results indicated that a total of 43 cultural resources have been previously recorded within a half-mile of the Packages 1-3 modified APE, two of which are within the APE. No additional cultural resources were identified during the field surveys of the APE conducted by a HELIX archaeologist and a Native American monitor.

The resources documented within the Packages 1-3 modified APE include two historic resources: the Fanita Rancho (P-37-037786) and the Ray Stoyer Water Recycling Facility (P-37-038827). The Fanita Rancho (P-37-037786) was initially recorded in 2018 as consisting of the remnants of seven historic-era features: a stone dam, an asphalt paved road, a refuse scatter, a quarry, a swing gate, a post hole, and a post. An isolated metal wheel and a metal appliance were also recorded. Following its recordation, it was determined that Fanita Rancho was not eligible for listing in the NRHP/CRHR because it lacked integrity in location, setting, design, materials, workmanship, association, and feeling and because the resource has not yielded, and is not likely to yield, information important to history or prehistory. The Ray Stoyer Water Recycling Facility (P-37-038827) was recorded in 2019 as consisting of various buildings, auxiliary structures, and three storage ponds. This portion of the Santee Water Reclamation Plant, now known as the Ray Stoyer WRF, was originally constructed in two phases, the first in 1967 and the second in 1968, and has been updated, changed, and modified since then. The facility was not extant during the period of significance of the Santee County Water District, is not considered historically significant, and therefore was determined to not be eligible for listing in the NRHP/CRHR. Additionally, as the facility does not embody the distinctive characteristics of a method of construction or work of a master and does not have the potential to yield new information regarding water reclamation and recycling facilities, it was determined that this resource was not eligible for the NRHP/CRHR. As such, no impacts to historical resources from the Packages 1-3 modifications would occur. The resources located within the Packages 1-3 modifications APE are included in Table 9, *Cultural Resources within the Packages 1-3 Modified APE.*

Table 9
CULTURAL RESOURCES WITHIN THE PACKAGES 1-3 MODIFIED APE

Resource Number	Description	Location	Eligibility Status
P-37-037786 (CA-SDI-22504)	The remains of the Fanita Rancho. Elements include a stone dam, an asphalt-paved road, refuse scatter, quarries, gates and fence posts.	Within APE	Not Eligible
P-37-038827	The Ray Stoyer Water Recycling Facility. Elements include various buildings, auxiliary structures, and three storage ponds.	Within APE	Not Eligible

Package 4

No Impact. The records search results indicated that a total of 70 cultural resources have been previously recorded within a half-mile of the Package 4 modified APE, 10 of which are mapped as within or adjacent to the Package 4 alignment. No additional cultural resources were identified during the field surveys of the APE conducted by a HELIX archaeologist and a Native American monitor.

The resources documented within the Package 4 modified APE include six prehistoric occupation/habitation areas (P-37-004505, P-37-009242, P37009243, P-37-010148, P-37-011607, and P-37-011608), two bedrock milling feature sites (P-37-005688 and P-37-011609), and two historic resources (the Old Mission Dam and Flume [P-37-006658] and the historic Highway 395 [P-37-033557]). Six of the resources have been previously evaluated for significance for inclusion in the CRHR or NRHP: P-37-009242 and P-37-011607 have been previously determined to be not eligible for either the NRHP or the CRHR. The portion of P-37-010148 within City of San Diego jurisdiction has been determined to be a significant resource and impacts to the site as a result of the development of the EMGPS and EMGFM have been mitigated by a data recovery program. The remainder of the site has been previously determined to be not eligible for either the NRHP or the CRHR. P-37-009243 and Old Mission Dam and Flume (P-37-006658) have been determined to be eligible for listing in the NRHP and CRHR, but the site boundaries for these resources are mis-plotted at the South Coastal Information Center (SCIC) and the sites are situated outside of the project APE. As such, no impact to these two resources would occur as a result of the proposed Project, if constructed within the proposed alignment. Highway 395 (P-37-033557) has been evaluated as eligible for the NRHP under Criterion A and CRHR under Criterion 1 for association with significant events; however, within the APE, the highway was demolished in the 1960s from the construction of I-15. The remaining four resources have not been evaluated for inclusion in the NRHP or CRHR. Of these resources, P-37-005688, was determined to be outside of the APE as a result of this study, and no impact to the site will occur as a result of the proposed project. The remaining three resources, P-37-004505, P-37-011608, and P-37-011609, are within the APE, but outside of the roadway and the existing EMGFM alignment where sliplining would occur. As long as Project construction occurs within the existing EMGFM alignment as proposed, and these resources are avoided, no impacts to historical resources would occur. The resources within the Package 4 modified APE are included in Table 10, *Cultural Resources within the Package 4 Modified APE.*

Table 10
CULTURAL RESOURCES WITHIN THE PACKAGE 4 MODIFIED APE

Resource Number	Description	Location	Eligibility Status
P-37-004505 (CA-SDI-4505)	Prehistoric habitation site; large lithic scatter with milling features and pictographs.	At edge of APE; outside of existing EMGFM alignment	Not Evaluated
P-37-005688 (CA-SDI-5688)	A prehistoric bedrock milling station with 15 slicks and basins.	Outside of APE	Not Evaluated
P-37-006658 (CA-SDI-6658H)	The Mission Dam, built between 1807 and 1815 or 1816.	Outside of APE	Eligible
P-37-009242 (CA-SDI-9242)	Prehistoric occupation site with a light, highly dispersed lithic scatter.	At edge of APE; outside of existing EMGFM alignment	Not Eligible
P-37-009243 (CA-SDI-9243)	Prehistoric village/occupation site.	Outside of APE	Eligible; data recovery has occurred for portions of the site.
P-37-010148 (CA-SDI-10148)	Prehistoric habitation site.	Within APE at EMGPS and along existing EMGFM alignment	Eastern portion of the site within the City of Santee and Caltrans right-of-way determined not eligible; western portion within City of San Diego evaluated as not significant and later changed to significant/important under CEQA and City of San Diego guidelines. A data recovery program has mitigated the impacts to the site from the construction of the EMGPS and EMGFM.
P-37-011607 (CA-SDI-11607)	A limited or temporary prehistoric occupation area with debitage and stone tools.	Within APE along existing EMGFM alignment	Not Eligible
P-37-011608 (CA-SDI-11608)	A prehistoric occupation area with lithic and ground stone artifacts.	Within APE; outside of existing EMGFM alignment	Not Evaluated
P-37-011609 (CA-SDI-11609)	A prehistoric bedrock milling station with two flakes and a mano fragment.	Within APE; outside of existing EMGFM alignment	Not Evaluated
P-37-033557	Historic Route 395, built between 1926 and 1933 and designated in 1935.	Within APE; perpendicular to RBL alignment extension	Eligible

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Packages 1-3

Less Than Significant with Mitigation Incorporated. No archaeological resources were identified in the Packages 1-3 modified APE during the records search or pedestrian survey; however, much of the APE was paved or landscaped, had been disturbed by nineteenth- and twentieth-century irrigation systems, dirt road formation, and transportation and utility installation, or covered with dense native and non-native vegetation. Therefore, there is potential for Project construction activities to affect unknown archaeological resources. Mitigation measure ECAWP Cul-2 would be implemented to reduce potential impacts to a less-than-significant level through monitoring of ground disturbance by an archaeologist and Native American monitor, halting or redirecting ground-disturbance activities if cultural material is encountered, assessing the significance of the material, and properly curating the material.

Package 4

Less Than Significant with Mitigation Incorporated. As disclosed above in Section V(a), eight previously identified prehistoric resources are mapped within the Package 4 modified APE. Two of these resources have been determined to be outside of the APE. The Project will avoid those resources that are present within the APE, as the Project in these areas will occur along and within the existing EMGFM. However, a majority of the APE is covered by modern development in the form of roadways and commercial/ industrial structures and dense vegetation within the San Diego River valley, and much of the original ground surface could not be observed during pedestrian surveys conducted for the Project (refer to Figures 8a-p). Additionally, the results of the records search identified other cultural resources within a half-mile radius of the Package 4 modified alignment, and much of the alignment is within the San Diego River valley, which is sensitive for prehistoric cultural resources in general and contains alluvial soils, where buried cultural resources may exist. Based on this, there is a potential for buried cultural resources to be present along the Package 4 modified APE, including within areas previously excavated for the existing EMGFM, where soil with cultural material may have been redeposited. As such, the Project will result in potentially significant impacts to archaeological resources. Mitigation measure ECAWP Cul-2 will be implemented for ground-disturbing activities within the city of Santee and mitigation measure ECAWP Cul-3 will be implemented for ground-disturbing activities within the city of San Diego. These measures would reduce potentially significant impacts to a less-than-significant level through monitoring of ground disturbance during construction, halting or diverting ground-disturbance activities if cultural material is discovered, assessing the significance of the materials, and properly curating the material.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Packages 1-4

Less Than Significant with Mitigation Incorporated. No formal cemeteries are known to occur within the Project APE based on the results of the records search. It is therefore not expected that the Project's construction activities would disturb formal cemeteries. However, ground-disturbing activities associated with Project construction would have the potential to disturb previously undiscovered human remains. The disturbance of human remains is considered a significant impact, regardless of archaeological significance or association. During construction activities, the JPA would comply with PRC

Section 5097.98 and California State HSC 7050.5 upon unintentional discovery or disturbance of human remains. With regulatory compliance, the proposed Project would result in less than significant impacts to human remains. For work within the city of San Diego, compliance with mitigation measure ECAWP Cul-3 would be required to reduce impacts to a less-than-significant level by halting work if human remains are discovered, isolating the discovery site, and determining if the remains are Native American. If so, the NAHC and Most Likely Descendent (MLD) would be contacted and proper disposition determined. If not, the Medical Examiner would coordinate with the Principal Investigator and City of San Diego to determine the appropriate course of action.

Mitigation

The following mitigation measure shall be implemented for work outside the city of San Diego to reduce potential impacts to archaeological resources to a less-than-significant level.

ECAWP Cul-2 **Construction Monitoring and Recovery of Cultural Resources.** During Project construction activities, the JPA's construction manager shall retain a qualified archaeologist and Native American monitor. The archaeologist and the Native American monitor shall be present to monitor initial ground disturbance for the project for all open-cut trenching activities and excavations for the launching and receiving pits for trenchless construction methods. If it is determined by the archaeologist and Native American monitor that past grading and other disturbances have removed soils with a reasonable potential for containing cultural material, monitoring can be discontinued. If cultural material is encountered, the archaeologist and the Native American monitor shall have the authority to temporarily halt or redirect ground-disturbing activity while the cultural material is documented and assessed. If cultural resources are encountered, the JPA shall comply with Assembly Bill (AB) 52, and State CEQA Guidelines Section 15064.5, as applicable. If discovered cultural resources are potential historical resources, the JPA shall comply with State CEQA Guidelines Section 15064.5.

Recovered artifactual materials shall be cataloged and analyzed. The JPA shall comply with State CEQA Guidelines Section 15064.5. A report shall be completed by the qualified archaeologist describing the methods and results of the monitoring and data recovery program. The report shall be submitted to the JPA for review and approval. Artifacts collected (if any) shall be curated with accompanying catalog to current professional repository standards and transferred to an appropriate curating facility within San Diego County.

The following new mitigation measure shall be implemented for work within the city of San Diego to reduce potential impacts to archaeological resources to a less-than-significant level.

ECAWP Cul-3 **Construction Monitoring and Recovery of Cultural Resources within the City of San Diego**

I. Prior to Permit Issuance or Bid Opening/Bid Award

A. Entitlements Plan Check

1. Prior to permit issuance or Bid Opening/Bid Award, whichever is applicable, the Assistant Deputy Director (ADD) Environmental designee shall verify

that the requirements for Archaeological Monitoring and Native American monitoring have been noted on the applicable construction documents through the plan check process.

B. Letters of Qualification have been submitted to ADD

1. Prior to Bid Award, the applicant shall submit a letter of verification to MMC identifying the Principal Investigator (PI) for the project and the names of all persons involved in the archaeological monitoring program, as defined in the City of San Diego Historical Resources Guidelines (HRG). If applicable, individuals involved in the archaeological monitoring program must have completed the 40-hour HAZWOPER training with certification documentation.

2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the archaeological monitoring of the project meet the qualifications established in the HRG.

3. Prior to the start of work, the applicant must obtain written approval from MMC for any personnel changes associated with the monitoring program.

II. Prior to Start of Construction

A. Verification of Records Search

1. The PI shall provide verification to MMC that a site specific records search (¼-mile radius) has been completed. Verification includes, but is not limited to a copy of a confirmation letter from South Coastal Information Center, or, if the search was in-house, a letter of verification from the PI stating that the search was completed.

2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or ground disturbing activities.

3. The PI may submit a detailed letter to MMC requesting a reduction to the 1/4 mile radius.

B. PI Shall Attend Preconstruction Meetings

1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Preconstruction Meeting that shall include the PI, Native American consultant/monitor (where Native American resources may be impacted), Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified Archaeologist and Native American Monitor shall attend any trenching/excavation related Preconstruction Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor.

a. If the PI is unable to attend the Preconstruction Meeting, the Applicant shall schedule a focused Preconstruction Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.

2. Acknowledgement of Responsibility for Curation (CIP or Other Public Projects). The applicant shall submit a letter to MMC acknowledging their responsibility for the cost of curation associated with all phases of the archaeological monitoring program.

3. Identify Areas to be Monitored

   a. Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based on the appropriate construction documents (reduced to 11x17) to MMC identifying the areas to be monitored including the delineation of trenching/excavation limits.

   b. The AME shall be based on the results of a site-specific records search as well as information regarding the age of existing pipelines, laterals and associated appurtenances and/or any known soil conditions (native or formation).

   c. MMC shall notify the PI that the AME has been approved.

4. When Monitoring Will Occur

   a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.

   b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate conditions such as age of existing pipe to be replaced, depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.

5. Approval of AME and Construction Schedule

   After approval of the AME by MMC, the PI shall submit to MMC written authorization of the AME and Construction Schedule from the CM.

III. During Construction

A. Monitor Shall be Present During Grading/Excavation/Trenching

1. The Archaeological Monitor shall be present full-time during all soil disturbing and excavation/trenching activities which could result in impacts to archaeological resources as identified on the AME. The Construction Manager is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the AME.

2. The Native American consultant/monitor shall determine the extent of their presence during soil disturbing and excavation/trenching activities based on the AME and provide that information to the PI and MMC. If prehistoric resources are encountered during the Native American consultant/monitor's absence, work shall stop and the Discovery Notification Process detailed in Section III.B-C and IV.A-D shall commence.

3. The PI may submit a detailed letter to MMC during construction requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous ground disturbing /trenching activities, presence of fossil formations, or when native soils are encountered that may reduce or increase the potential for resources to be present.

4. The archaeological and Native American consultant/monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (Notification of Monitoring Completion), and in the case of ANY discoveries. The RE shall forward copies to MMC.

B. Discovery Notification Process

1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil disturbing activities, including but not limited to digging, trenching, excavating or ground disturbance activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate.

2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.

3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.

4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered.

C. Determination of Significance

1. The PI and Native American consultant/monitor, where Native American resources are discovered shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section IV below.

    a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.

    b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) and obtain written approval of the program from MMC, CM and RE. ADRP and any mitigation must be approved by MMC, RE and/or CM before ground disturbing activities in the area of discovery will be allowed to resume. Note: If a unique archaeological site is also an historical resource as defined in CEQA Section 15064.5, then the limits on the amount(s) that a project applicant may be required to pay to cover mitigation costs as indicated in CEQA Section 21083.2 shall not apply.

        (1) Note: For pipeline trenching and other linear projects in the public Right-of-Way, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under “D.”

    c. If the resource is not significant, the PI shall submit a letter to MMC indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that that no further work is required.

        (1) Note: For Pipeline Trenching and other linear projects in the public Right-of-Way, if the deposit is limited in size, both in length and depth; the information value is limited and is not associated with any other resource; and there are no unique features/artifacts associated with the deposit, the discovery should be considered not significant.

        (2) Note, for Pipeline Trenching and other linear projects in the public Right-of-Way, if significance cannot be determined, the Final Monitoring Report and Site Record (DPR Form 523A/B) shall identify the discovery as Potentially Significant.

D. Discovery Process for Significant Resources - Pipeline Trenching and other Linear Projects in the Public Right-of-Way

The following procedure constitutes adequate mitigation of a significant discovery encountered during pipeline trenching activities or for other linear project types within the Public Right-of-Way including but not limited to excavation for jacking pits, receiving pits, laterals, and manholes to reduce impacts to below a level of significance:

1. Procedures for documentation, curation and reporting

    a. One hundred percent of the artifacts within the trench alignment and width shall be documented in-situ, to include photographic records, plan view of the trench and profiles of side walls, recovered, photographed after cleaning and analyzed and curated. The remainder of the deposit within the limits of excavation (trench walls) shall be left intact.

    b. The PI shall prepare a Draft Monitoring Report and submit to MMC via the RE as indicated in Section VI-A.

    c. The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) the resource(s) encountered during the Archaeological Monitoring Program in accordance with the City of San Diego's Historical Resources Guidelines. The DPR forms shall be submitted to the South Coastal Information Center for either a Primary Record or SDI Number and included in the Final Monitoring Report.

    d. The Final Monitoring Report shall include a recommendation for monitoring of any future work in the vicinity of the resource.

IV. Discovery of Human Remains

If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains; and the following procedures as set forth in CEQA Section 15064.5(e), the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) shall be undertaken:

A. Notification

1. Archaeological Monitor shall notify the RE or BI as appropriate, MMC, and the PI, if the Monitor is not qualified as a PI. MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS) of the Development Services Department to assist with the discovery notification process.

2. The PI shall notify the Medical Examiner after consultation with the RE, either in person or via telephone.

B. Isolate discovery site

1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner in consultation with the PI concerning the provenience of the remains.

2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenience.

3. If a field examination is not warranted, the Medical Examiner will determine with input from the PI, if the remains are or are most likely to be of Native American origin.

C. If Human Remains ARE determined to be Native American

1. The Medical Examiner will notify the Native American Heritage Commission (NAHC) within 24 hours. By law, ONLY the Medical Examiner can make this call.

2. NAHC will immediately identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information.

3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with CEQA Section 15064.5(e), the California Public Resources and Health & Safety Codes.

4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods.

5. Disposition of Native American Human Remains will be determined between the MLD and the PI, and, if:

a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being notified by the Commission, OR

b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner, THEN

c. To protect these sites, the landowner shall do one or more of the following:

(1) Record the site with the NAHC;
(2) Record an open space or conservation easement; or
(3) Record a document with the County.

d. Upon the discovery of multiple Native American human remains during a ground disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and items associated and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c., above.

D. If Human Remains are NOT Native American

1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.

2. The Medical Examiner will determine the appropriate course of action with the PI and City of San Diego staff (PRC 5097.98).

3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for internment of the human remains shall be made in consultation with MMC, EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of Man.

V. Night and/or Weekend Work

A. If night and/or weekend work is included in the contract

1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the preconstruction meeting.

2. The following procedures shall be followed.

a. No Discoveries. In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit to MMC via fax or email by 8AM of the next business day.

b. Discoveries. All discoveries shall be processed and documented using the existing procedures detailed in Sections III – During Construction,

and IV – Discovery of Human Remains. Discovery of human remains shall always be treated as a significant discovery.

c. Potentially Significant Discoveries. If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section III - During Construction and IV-Discovery of Human Remains shall be followed.

d. The PI shall immediately contact the RE and MMC, or by 8AM of the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of construction

1. The Construction Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.

2. The RE, or BI, as appropriate, shall notify MMC immediately.

C. All other procedures described above shall apply, as appropriate.

VI. Post Construction

A. Submittal of Draft Monitoring Report

1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Historical Resources Guidelines (Appendix C/D) which describes the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program (with appropriate graphics) to MMC via the RE for review and approval within 90 days following the completion of monitoring. It should be noted that if the PI is unable to submit the Draft Monitoring Report within the allotted 90-day timeframe as a result of delays with analysis, special study results or other complex issues, a schedule shall be submitted to MMC establishing agreed due dates and the provision for submittal of monthly status reports until this measure can be met.

a. For significant archaeological resources encountered during monitoring, the Archaeological Data Recovery Program or Pipeline Trenching Discovery Process shall be included in the Draft Monitoring Report.

b. Recording Sites with State of California Department of Parks and Recreation

The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program in accordance with the City of San

Diego's Historical Resources Guidelines, and submittal of such forms to the South Coastal Information Center with the Final Monitoring Report.

2. MMC shall return the Draft Monitoring Report to the PI via the RE for revision or, for preparation of the Final Report.

3. The PI shall submit revised Draft Monitoring Report to MMC via the RE for approval.

4. MMC shall provide written verification to the PI of the approved report.

5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Artifacts

1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued

2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.

C. Curation of artifacts: Accession Agreement and Acceptance Verification

1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with MMC and the Native American representative, as applicable.

2. When applicable to the situation, the PI shall include written verification from the Native American consultant/monitor indicating that Native American resources were treated in accordance with state law and/or applicable agreements. If the resources were reinterred, verification shall be provided to show what protective measures were taken to ensure no further disturbance occurs in accordance with Section IV – Discovery of Human Remains, Subsection C.

3. The PI shall submit the Accession Agreement and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to MMC.

4. The RE or BI, as appropriate shall obtain signature on the Accession Agreement and shall return to PI with copy submitted to MMC.

5. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.

D. Final Monitoring Report(s)

1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to MMC (even if negative), within 90 days after notification from MMC of the approved report.

2. The RE shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

VI. Energy

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☐	☒

Summary of the Analysis in the 2018 IS/MND

Analysis specific to energy impacts was not included in the 2018 IS/MND; however, the PEIR determined that construction of CFMP projects would not result in wasteful, inefficient, or unnecessary consumption of energy as there are no unusual characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in other parts of the region and the state. The PEIR also determined that operationally the AWP Project would result in a net benefit on electricity demand due to the provision of potable water and subsequent displacement of electricity associated with water consumption. The 2018 IS/MND included a similar discussion, indicating that the overall Project would produce up to 11.5 mgd of potable water, which would reduce reliance on imported water, thereby reducing energy usage associated with water consumption. If a biosolids cogeneration facility is constructed, savings of 9,600 megawatt-hours per year would be achieved through the biosolids cogeneration facility. In addition, criteria air pollutant emissions considered in the 2018 IS/MND were calculated to be below screening level thresholds for both construction and operations, thus demonstrating that energy consumption would be relatively low.

Analysis of the Proposed Modifications

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Packages 1-4

Less Than Significant Impact. Construction of the proposed modifications would consume energy, primarily in the form of the petroleum-based fuels (i.e., gasoline and diesel). Heavy-duty off-road construction equipment, haul trucks delivering and removing construction materials, and worker commute vehicles would consume these fuels. Project-related consumption of such energy resources for construction would be temporary, typical for this type of construction, and cease upon the completion of construction. In addition, diesel-powered mobile off-road equipment and on-road vehicle energy usage during construction would be minimized as the Project would comply with the CARB's Regulation for In-Use Off-Road Diesel-Fueled Fleets (13 CCR §2449) and Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Vehicle Idling (13 CCR §2484), which restrict idling diesel equipment and vehicles, respectively, to five minutes.

The Packages 1-3 modifications would not result in changes in operational energy usage as the energy-consuming components, including the Ray Stoyer WRF, SHERF, AWTP facilities, Influent Pump Station, Dechlorination facility, Lake Jennings blower, and the EMGPS, would not be modified in a way that would alter energy usage. The proposed Mission Valley Lift Station would consume energy during operations to pump wastewater. Additional minor sources of operational energy consumption would include a natural gas-powered emergency generator that would be used for backup power in the instance of main power failure at the lift station, and occasional maintenance worker trips. Overall, the use of energy would be limited to necessary operations. The modifications would therefore not use energy in a wasteful, inefficient, or unnecessary manner, and impacts would be less than significant.

Further, as discussed above and in the 2018 IS/MND, the overall Project would produce up to 11.5 mgd of potable water, which would reduce reliance on imported water, thereby reducing energy usage associated with water consumption. If a biosolids cogeneration facility is constructed, savings of 9,600 megawatt-hours per year would be achieved through the biosolids cogeneration facility.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Packages 1-4

No Impact. The proposed Packages 1-4 modifications would be constructed and operated in accordance with applicable regulations, including, but not limited to, CARB regulations (as mentioned in Section VI[a]). Construction equipment and operational equipment would be maintained to allow for continuous energy-efficient operations. Accordingly, the modifications would not conflict with or obstruct plans for renewable energy or energy efficiency, and no impact would occur.

VII. Geology and Soils

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	☐
iv. Landslides?	☐	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of geology and soils impacts is included on pages 56 through 62 of the 2018 IS/MND. The 2018 IS/MND concluded that potentially significant impacts would result from implementation of the Project as related to fault rupture, seismic ground shaking, seismic-related ground failure, landslides, geologic unit instability, and expansive soils. Such potential impacts would be reduced to a less-than-significant level through a site-specific geotechnical investigation required by mitigation measure CFMP Geo-1. It was determined that potentially significant impacts could also occur related to erosion and loss of

topsoil, but that implementation of construction BMPs per mitigation measure ECAWP Geo-1 would reduce impacts to a less-than-significant level. No impacts related to septic tanks or alternative wastewater disposal systems would occur.

Impacts to paleontological resources (assessed in the 2018 IS/MND in the Cultural Resources section [pages 49 through 56]) would be potentially significant for work at the Ray Stoyer WRF site due to underlying Tertiary sedimentary rocks that exhibit moderate to high paleontological resource sensitivity. Implementation of mitigation measure CFMP Pal-1 would reduce potential impacts to less than significant.

Analysis of the Proposed Modifications

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

    i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

Packages 1-4

Less Than Significant with Mitigation Incorporated. The Project area, like much of southern California, is within a broad, seismically active region characterized by a series of northwest-trending faults associated with the San Andreas Fault System. The closest mapped active faults are associated with the Rose Canyon Fault Zone to the west and the Elsinore Fault Zone to the east. The areas within the vicinity of the project modifications are not underlain by known active or potentially active faults and are not located within an Alquist-Priolo Earthquake Fault Zone delineated by the California Geological Survey. Accordingly, the potential for earthquake-related ground rupture and/or related effects is considered generally low, although such potential cannot be completely eliminated.

Assessment of potential site-specific ground rupture hazards would be assessed as part of the initial Project-specific screening conducted by the JPA. However, prior to initial Project-level ground rupture risk screening, impacts are conservatively assessed as potentially significant absent mitigation. This impact would be mitigated through implementation of PEIR mitigation measure CFMP Geo-1, which involves completion of a site-specific geotechnical investigation and subsequent incorporation of recommendations into design and construction documents to address identified geologic and soil hazards.

    ii. Strong seismic ground shaking?

Packages 1-4

Less Than Significant with Mitigation Incorporated. The principal seismic hazard that could affect the proposed modifications is moderate to severe seismic ground shaking associated with earthquake events along one or more regional active faults in the area. Ground shaking would have the potential to affect the integrity of Project facilities; therefore, the proposed modifications would potentially be subject to moderate to severe ground shaking hazards from earthquake events along major regional faults. Accordingly, ground shaking could potentially result in significant impacts to the proposed

facilities such as structures and pipelines. This impact would be mitigated through implementation of mitigation measure CFMP Geo-1, which involves completion of a site-specific geotechnical investigation and subsequent incorporation of recommendations into design and construction documents to address identified geologic and soil hazards.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant with Mitigation Incorporated. Liquefaction is the phenomenon whereby soils subjected to seismic (or other) ground shaking effects exhibit a loss of shear strength and demonstrate fluid-like flow behavior due to excess pore pressure. Loose, granular (low clay/silt content) and saturated soils with relative densities of less than approximately 70 percent are most susceptible to these effects, with liquefaction potential greatest at depths of less than approximately 50 feet. Surface and near surface manifestations from these events can include loss of support for structures/ foundations, pavement, and utilities; dynamic settlement (including volume reductions in dry soils); lateral spreading (i.e., horizontal displacement on sloped surfaces as a result of underlying liquefaction), and ground lurching (a permanent displacement or shift of the ground surface).

Packages 1-3

The Packages 1-3 modifications would occur in the same general areas as assessed in the 2018 IS/MND. According to Figure 4.6-4a of the PEIR, the proposed modifications, except for the Package 2 Segment 10 modification, would be located in potential liquefaction areas. Proposed facilities in these areas may be at risk for liquefaction, and related impacts would be potentially significant; implementation of PEIR mitigation measure CFMP Geo-1 would reduce potential impacts to a less-than-significant level through completion of a site-specific geotechnical investigation and subsequent incorporation of recommendations into design and construction documents to address identified geologic and soil hazards.

Package 4

According to the City of San Diego's Seismic Safety Study Geologic Hazards and Faults maps (City of San Diego 2008a), portions of the Package 4 alignment, most notably along the San Diego River corridor, are subject to high liquefaction potential due to the presence of shallow groundwater, major drainages, and hydraulic fills. Proposed project facilities in these areas may be at risk for liquefaction, which could result in damage to the facilities and related impacts would be potentially significant; implementation of PEIR mitigation measure CFMP Geo-1 would reduce potential impacts to a less-than-significant level through completion of a site-specific geotechnical investigation and subsequent incorporation of recommendations into design and construction documents to address identified geologic and soil hazards.

iv. Landslides?

The occurrence of landslides and other types of slope failures (e.g., rock falls and mudflows) is influenced by a number of factors, including slope grade, geologic and soil characteristics, moisture levels and vegetation cover. Landslides can be triggered by a variety of potentially destabilizing conditions or events, such as gravity, fires, precipitation, and seismic activity. Landslide risk would be increased in areas where slopes exceed 25 percent.

Packages 1-3

Less Than Significant with Mitigation Incorporated. The Packages 1-3 modifications would occur in the same general areas as assessed in the 2018 IS/MND. According to Figure 4.6-4a of the PEIR, the Package 2 Segment 4 and Package 2 Segment 10 modifications would occur within or adjacent to areas where slopes exceed 25 percent. Facilities in the areas would be at risk for landslides and impacts would be potentially significant. This impact would be mitigated through implementation of mitigation measure CFMP Geo-1, which involves completion of a site-specific geotechnical investigation and subsequent incorporation of recommendations into design and construction documents to address identified geologic and soil hazards.

Package 4

Less Than Significant with Mitigation Incorporated. Based on the sloped topography along portions of the project alignment, most notably along the portion adjacent to the San Diego River corridor within MTRP, project facilities would be at risk of landslides; therefore, impacts would be potentially significant. This impact would be mitigated through implementation of mitigation measure CFMP Geo-1, which involves completion of a site-specific geotechnical investigation and subsequent incorporation of recommendations into design and construction documents to address identified geologic and soil hazards.

b) Result in substantial soil erosion or the loss of topsoil?

Packages 1-4

Less Than Significant with Mitigation Incorporated. Implementation of the proposed modifications would increase the potential for erosion, soil loss, and sedimentation both within and downstream of the site during construction. Specifically, proposed activities would involve: (1) removal of surface stabilizing features (e.g., pavement); (2) excavation of compacted materials; and (3) redeposition of excavated and/or imported material as backfill in proposed facility installation areas. While graded/excavated areas and fill materials would ultimately be stabilized through efforts such as compaction and installation of pavement and landscaping, erosion potential would be higher in the short-term than for existing conditions. Developed areas would be especially susceptible to erosion between the beginning of excavation/construction and the installation of pavement or establishment of permanent cover in landscaped areas. The off-site transport of sediment could also potentially result in effects to downstream receiving water quality, such as increased turbidity and the provision of a transport mechanism for other contaminants that tend to adhere to sediment particles (e.g., hydrocarbons), and impacts would be potentially significant. Implementation of erosion control BMPs contained in the City of San Diego's *"Whitebook" – Standard Specifications for Public Works Construction* for work within the city of San Diego would reduce the potential for off-site transport of sediment and related effects. In addition, implementation of project-level mitigation measure ECAWP Geo-1 would reduce potential impacts to a less-than-significant level by requiring the implementation of BMPs during construction to reduce the potential for erosion and sedimentation.

Also, since the area of ground disturbance would be greater than one acre, the JPA would obtain permit coverage under the National Pollutant Discharge Elimination System (NPDES) and State Water Resources Control Board (SWRCB), as required by the CWA for construction-related stormwater discharges.

Compliance with the NPDES permit would include implementation of a SWPPP that incorporates sediment control and erosion control measures.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Packages 1-4

Less Than Significant with Mitigation Incorporated. As described in Section VII(a), all or portions of the proposed modifications would be located in areas with risk of fault rupture, seismic ground shaking, liquefaction, and/or landslides, and impacts would be potentially significant. Implementation of mitigation measure CFMP Geo-1 would reduce potential impacts related to unstable soils to a less-than-significant level through completion of a site-specific geotechnical investigation and subsequent incorporation of recommendations into design and construction documents to address identified geologic and soil hazards.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Packages 1-4

Less Than Significant with Mitigation Incorporated. Expansive (or shrink-swell) behavior in soils is attributable to the water-holding capacity of clay minerals and can adversely affect the integrity of facilities such as foundations, pavement, and underground pipelines. A number of native topsoils within the Project area exhibit moderate or high expansion potential (refer to Figures 4.6-4a of the PEIR). The Package 2 Segment 8 modification would be located in an area mapped as having potential for expansive soils. In addition, clay soils are present along portions of the Package 4 alignment (Natural Resources Conservation Service 2019), and facilities could therefore be subject to risks from expansive soils; therefore, impacts would be potentially significant. This impact would be mitigated through implementation of mitigation measure CFMP Geo-1, which involves completion of a site-specific geotechnical investigation and subsequent incorporation of recommendations into design and construction documents to address identified geologic and soil hazards.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Packages 1-4

No Impact. The proposed modifications would occur in relation to new infrastructure and would not involve the use of or need for septic tanks or and other alternative wastewater disposal systems. Implementation of the modifications would not affect existing sewer service. No impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Packages 1-3

Less Than Significant with Mitigation Incorporated. According to CFMP PEIR Figure 4.6-1, proposed modifications associated with Packages 1-3 near the Package 1 footprint are located in an area under

Tertiary sedimentary rock, which is considered to exhibit moderate to high paleontological sensitivity. As such, impacts to paleontological resources in this area are considered potentially significant and implementation of mitigation measure CFMP PEIR Pal-1 would be required to reduce impacts to a less-than-significant level by preparing a Paleontological Resources Mitigation and Monitoring Plan that would include pre-ground disturbance meetings, monitoring during the original cutting of previously undisturbed sediments of moderate-to-high resource sensitivity formation, and the recovery and deposition of recovered fossils.

Package 4

Less Than Significant with Mitigation Incorporated. Portions of the Package 4 alignment are within areas considered to exhibit high paleontological resource sensitivity, such as the Friars Formation (California Geological Survey 2008; refer to Figure 15, *Package 4 Geologic Formations*). For work within the City of San Diego, the Project would be required to comply with San Diego Municipal Code Section 142.0151 (Paleontological Resources Requirements for Grading Activities), which requires paleontological monitoring for ground disturbance that extends 10 feet or greater in depth, and involves 1,000 cubic yards or more in a High Resource Potential Geologic Deposit/Formation/Rock Unit and/or 2,000 cubic yards or more in a Moderate Resource Potential Geologic Deposit/Formation/Rock Unit. Compliance would avoid potential impacts to paleontological resources. However, because portions of the Package 4 alignment occur outside the City of San Diego, the modifications would have the potential to affect paleontological resources, and impacts to paleontological resources are therefore considered potentially significant. This impact would be mitigated to a less-than-significant level through implementation of mitigation measure CFMP PEIR Pal-1, which would entail preparing a Paleontological Resources Mitigation and Monitoring Plan that would include pre-ground disturbance meetings, monitoring during the original cutting of previously undisturbed sediments of moderate-to-high resource sensitivity formation, and the recovery and deposition of recovered fossils.

Mitigation

The following mitigation measures identified in the PEIR and 2018 IS/MND would mitigate the potentially significant impacts identified in to less than significant levels.

CFMP Geo-1 **Conduct Site-specific Geotechnical Investigation**. Site-specific geotechnical investigations will be completed to identify site-specific criteria related to considerations such as grading, excavation, fill, and structure/facility design. All applicable results and recommendations from the geotechnical investigations will be incorporated into the associated individual project design and construction documents to address identified potential geologic and soil hazards, including but not necessarily limited to: (1) seismic hazards including ground rupture, ground acceleration (ground shaking), soil liquefaction (and related issues such as dynamic settlement and lateral spreading), landslides/slope instability, and seiche effects; and (2) non-seismic hazards including manufactured slope instability, subsidence/compressible soils, expansive or corrosive soils, and trench/excavation instability. The final project design and construction documents will also encompass applicable standard design and construction practices from established regulatory/industry sources including the California Building Code (CBC), International Building Code (IBC), California Geological Society (CGS), Greenbook and District standards, as well as the results/ recommendations of geotechnical review and field observations/testing to be

- Package 2 Alignment
- Package 3 Alignment
- Package 4 Alignment
- Potential Lift Station Location
- East Mission Gorge Pump Station

Geologic Age and Constituent (2008)

Holocene and Late Pleistocene

- Qls - Landslide deposits, undivided
- Qya - Young alluvial flood-plain deposits
- Qyc - Young colluvial deposits

Late to Middle Pleistocene

- Qoa - Old alluvial flood-plain deposits, undivided
- Qop2-4 - Old paralic deposits, Units 2-4

Middle to Early Pleistocene

- Qvop4 - Very old paralic deposits, Unit 4
- Qvop5 - Very old paralic deposits, Unit 5
- Qvop6 - Very old paralic deposits, Unit 6
- Qvop7 - Very old paralic deposits, Unit 7
- Qvop8 - Very old paralic deposits, Unit 8

Early Pleistocene and Late Pliocene

- Tsd - San Diego Formation

Middle Eocene

- Tf - Friars Formation
- Tmv - Mission Valley Formation
- Tp - Pomerado Conglomerate
- Tst - Stadium Conglomerate
- Tt - Torrey Sandstone

Mesozoic

- Mzu - Metamorphosed and unmetamorphosed volcanic and sedimentary rocks, undivided

Mid-cretaceous

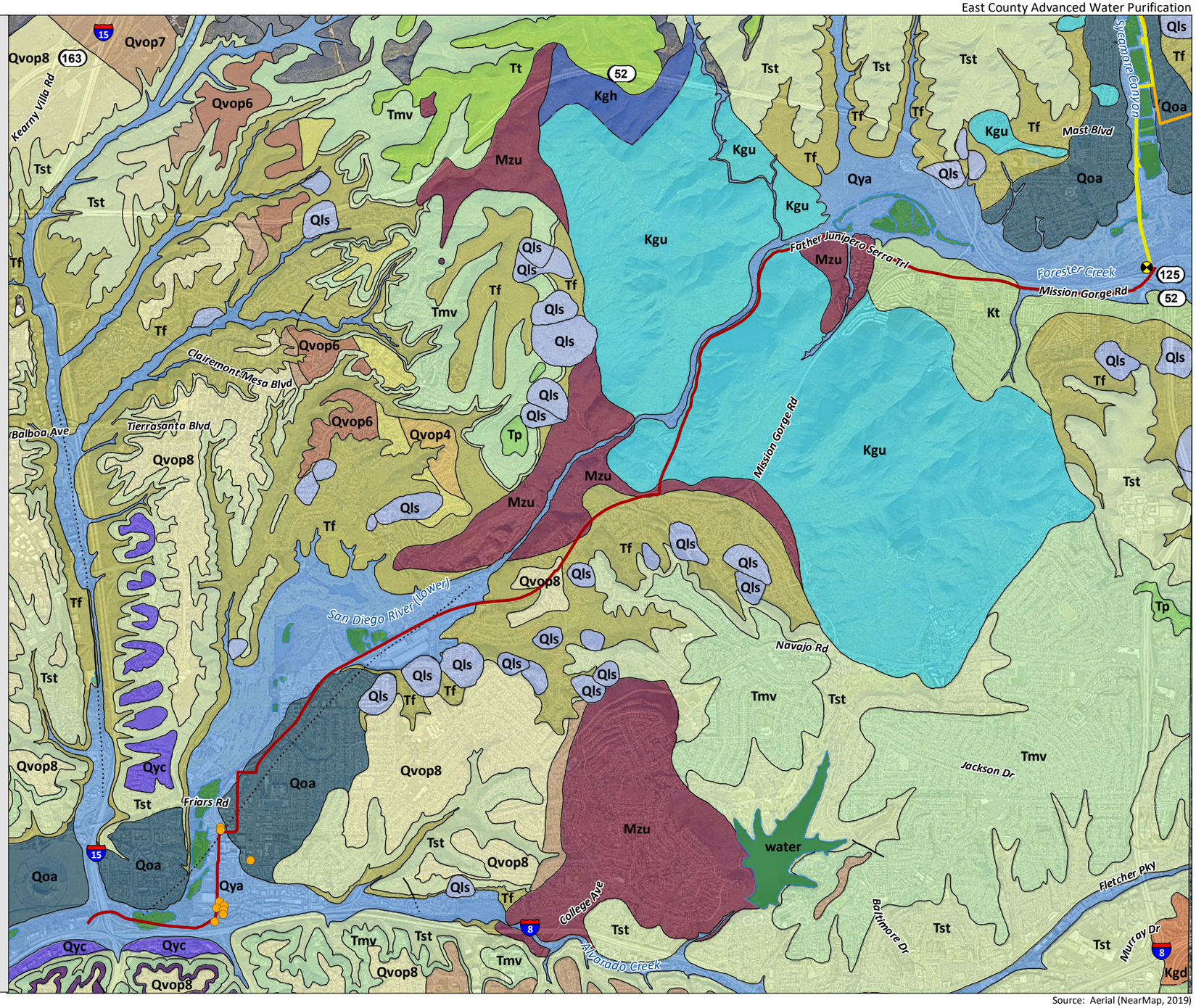
- Kgd - Granodiorite, undivided
- Kgh - Hypabyssal rocks, undivided
- Kgu - Granodiorite and tonalite, undivided
- Kt - Tonalite, undivided

Other Geologic Units

- Water

Geologic Edges

- contact, approx. located
- contact, certain
- fault, certain
- fault, concealed
- map boundary
- water boundary



0 3,500 Feet

Source: Aerial (NearMap, 2019)

HELIX Environmental Planning

Package 4 Geologic Formations

Figure 15

conducted during project excavation, grading and construction activities (with all related requirements to be included in applicable engineering/design drawings and construction contract specifications). A summary of the types of remedial measures typically associated with identified potential seismic hazards, pursuant to applicable regulatory and industry standards, is provided below. The remedial measures identified/ recommended as part of the described site-specific geotechnical investigations will take priority over the more general types of standard regulatory/industry measures provided herein.

- Ground Rupture: (1) Locate (or relocate) applicable facilities away from known active (or potentially active) faults and outside of associated CGS Earthquake Fault Zones; and (2) require appropriate (typically 50-foot) building exclusion buffers (setbacks) on either side of applicable fault traces.

- Ground Acceleration (Ground Shaking): (1) Incorporate applicable seismic loading factors (e.g., IBC/CBC/CGS criteria) into the design of facilities such as structures, foundations/slabs, pavement, pipelines, utilities, manufactured slopes, retaining walls and drainage facilities; (2) use remedial grading techniques where appropriate (e.g., removing/replacing and/or reconditioning unsuitable soils); and (3) use properly engineered fill per applicable industry/regulatory standards (e.g., IBC/CBC/CGS), including criteria such as appropriate fill composition, placement methodology, compaction levels, and moisture content.

- Liquefaction and Related Effects: (1) Remove unsuitable soils and replace with engineered fill (as previously described), per applicable regulatory/industry standards (e.g., IBC/CBC/CGS); (2) employ measures such as deep soil mixing (i.e., introducing cement to consolidate loose soils) or use of subsurface structures (e.g., stone columns or piles) to provide support (i.e., by extending structures into competent underlying units); (3) use appropriate surface drainage and/or subdrains in applicable areas to avoid or reduce near-surface saturation; and (4) design for potential settlement of liquefiable materials through means such as use of post-tensioned foundations and/or flexible couplings for utility connections.

- Landslides/Slope Instability: (1) Construct properly drained shear keys and/or replace susceptible deposits with manufactured buttress fills where appropriate; (2) employ applicable slope laybacks (i.e., shallower slopes) and/or structural setbacks; (3) incorporate structures such as retaining walls and stability fills where appropriate to provide support; (4) provide protective walls or other barriers in areas susceptible to landslides; and (5) implement proper slope drainage and landscaping where applicable per established regulatory/industry standards (e.g., IBC/CBC/CGS).

- Seiche Effects: Implement scour protection measures such as appropriate pipeline depths, and use of armoring (e.g., concrete or riprap covers) or other protection devices (e.g., barriers) for applicable projects that cross drainages and rivers.

- Manufactured Slope Instability: (1) Limit slope grades to 2:1 (horizontal to vertical) or other applicable ratios based on site-specific conditions and the results of slope

stability analyses (if recommended as part of the geotechnical analyses); (2) employ similar strategies regarding slope laybacks, structure setbacks and support/ protective structures as outlined above under the discussion of Landslides/Slope Instability; (3) provide appropriate short- and long-term drainage control, such as slope drains and/or brow ditches to avoid/minimize runoff on slopes; and (4) utilize native and/or drought-tolerant landscaping varieties, as well as "smart" irrigation systems (e.g., appropriate water schedules and rain/pressure-sensitive sensors/ shutoff devices) to minimize irrigation and associated runoff.

- Subsidence/Compression: (1) Use standard efforts such as over-excavation and recompaction or replacement of unsuitable materials with engineered fill, and enhanced foundation design in applicable areas (e.g., post-tensioned or mat slab foundations); (2) use engineered fill, subdrains, surcharging (i.e., loading prior to construction to induce settlement) and/or settlement monitoring (e.g., through the use of settlement monuments) in appropriate areas; (3) implement groundwater withdrawal monitoring/restrictions per established legal/regulatory/industry standards (if applicable).

- Collapsible Soils: (1) Over-excavation and recompaction or replacement of unsuitable materials with engineered fill; (2) deep soil mixing, use of subsurface structures to provide support, and proper surface drainage/subdrains (as described above under Liquefaction); and (3) surcharging (as described above under Subsidence/Compression).

- Expansive Soils: (1) Replace and/or mix expansive materials with non-expansive fill; and (2) cap expansive soils in place with an appropriate thickness of non-expansive fill per established regulatory/industry standards (e.g., IBC/CBC).

- Corrosive Soils: (1) Remove unsuitable deposits and replace with non-corrosive fill; (2) use corrosion-resistant construction materials (e.g., corrosion-resistant concrete and coated or non-metallic facilities); or (3) install cathodic protection devices (e.g., use of a more easily corroded "sacrificial metal" to serve as an anode and draw current away from the structure to be protected) per established regulatory/industry standards (e.g., IBC/CBC).

- Trench/Excavation Instability: (1) Limit trench and other excavation depths and side slope grades to the minimum feasible levels; (2) provide shoring and/or other protective systems (e.g., benching and shielding) for applicable trenches/ excavations, pursuant to associated regulatory standards (e.g., OSHA and Cal-OSHA); (3) restrict heavy equipment/vehicle access and material/soil stockpiles near trenches/excavations; and (4) inspect trenches/excavations and related conditions/ facilities at the start of each shift and after precipitation (or other water intrusion) events.

ECAWP Geo-1 **Construction Best Management Practices.** The following best management practices (BMPs) will be implemented, as appropriate, during project construction to reduce potential for erosion soil loss, and/or sedimentation to a less than significant level:

- Sediment shall be retained on the site.
- Sediment basins, traps, or similar control measures shall be installed at the time of clearing and grading operations.
- Native vegetation is to be retained if possible, but if it must be removed, shall be done in such a way as to minimize erosive effects.
- Per the City of Santee Municipal Code Chapter 15, slopes shall be no steeper than 2:1 and fills shall be no steeper than 2:1.
- Earth or paved interceptors and diversions shall be installed at the top of cut or fill slopes where there is a potential for surface runoff.
- Temporary mulching, seeding, or other suitable stabilization measures shall be used to protect exposed critical areas during construction or other land disturbance.

CFMP Pal-1 **Paleontological Resources Mitigation and Monitoring Plan.** A Paleontological Resources Mitigation and Monitoring Plan shall be prepared prior to construction of portions of the Project that could directly affect geologic formations with moderate or high paleontological resource sensitivity. A qualified paleontologist shall be retained by the JPA to carry out and manage the plan. Fieldwork may be carried out by a qualified paleontological monitor working under the direction of the paleontologist. Components of the Paleontological Resources Mitigation and Monitoring Plan shall include, but not be limited to:

1. The paleontologist shall attend all pre-ground disturbance meetings to inform the trench and excavation contractors of the paleontological resource mitigation program and shall consult with them with respect to its implementation.
2. The paleontological monitor shall be on site at all times during the original cutting of previously undisturbed sediments of Moderate-to-High resource sensitivity formation to inspect cuts for contained fossils.
3. If fossils are discovered, the paleontologist or monitor shall recover them. In instances where recovery requires an extended salvage time, the paleontologist or monitor shall be allowed to temporarily direct, divert, or halt ground disturbance to allow recovery of fossil remains in a timely manner. Where deemed appropriate by the paleontologist or monitor, a screen-washing operation for small fossil remains shall be set up.
4. Recovered fossils, along with copies of pertinent field notes, photographs, and maps, shall be deposited (with the JPA's permission) in a scientific institution with paleontological collections. A final summary report that outlines the results of the mitigation program shall be completed. This report shall include discussion of the methods used, stratigraphy exposed, fossils collected, and significance of recovered fossils.

VIII. Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of greenhouse gas (GHG) emissions impacts is included on pages 63 through 66 of the 2018 IS/MND. The 2018 IS/MND concluded that impacts related to GHG emissions would be less than significant as emissions would be below the applicable SCAQMD threshold with the reduction that would result from the lower GHG emissions associated with locally produced potable water when compared to imported water. It was concluded that impacts related to conflicts with GHG reduction plans and policies would also be less than significant.

Analysis of the Proposed Modifications

Global climate change refers to changes in average climatic conditions, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone, and certain hydro-fluorocarbons. These gases, known as GHGs, allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. GHGs are emitted by both natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the Earth's temperature. Emissions of GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect and contributing to what is termed "global warming," the trend of warming of the Earth's climate from anthropogenic activities. Global climate change impacts are by nature cumulative, as direct impacts cannot be evaluated due to the fact that the impacts themselves are global rather than localized impacts.

California Health and Safety Code Section 38505(g) defines GHGs to include the following compounds: CO_2, CH_4, N_2O, ozone, chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). As individual GHGs have varying heat-trapping properties and atmospheric lifetimes, GHG emissions are converted to carbon dioxide equivalent (CO_2e) units for comparison. The CO_2e is a consistent methodology for comparing GHG emissions because it normalizes various GHG

emissions to a consistent measure.[4] The most common GHGs related to the project are those primarily related to energy usage: CO_2, CH_4, and N_2O.

State legislation AB 32 (the California Global Warming Solutions Act of 2006) and SB 32 (Amendments to the California Global Warming Solutions Act of 2006) establish statewide GHG emission reduction goals. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020. SB 32 requires further reductions of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. AB 32 and SB 32 are implemented through CARB's Scoping Plan (most recently updated in 2017 [CARB 2017]) and regulations adopted by CARB, by plans and programs adopted by local and state agencies, and by CEQA. In San Diego County, SANDAG has adopted a Regional Transportation Plan/Sustainable Communities Strategy (Regional Plan) to achieve the GHG emission reduction goals established by CARB applicable to transportation sources in San Diego County. The City of San Diego's Climate Action Plan (CAP) includes strategies and measures applicable to projects within its jurisdiction. The Project's consistency with the SANDAG Regional Plan and the City of San Diego's CAP is discussed below.

The CEQA Guidelines identify the following factors that a lead agency should consider when determining the significance of impacts from GHG emissions:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. (CEQA Guidelines, § 15064.4(b).

CEQA Guidelines factors 1 and 2 are addressed below in Section VIII(a) and factor 3 is addressed below in Section VIII(b).

The CEQA Guidelines provide, in part, that a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including, but not limited to, plans or regulations for the reduction of greenhouse gas emissions) that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located. (CEQA Guidelines, §15064(3).)

[4] The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere and is expressed as a function of how much warming would be caused by the same mass of CO_2. For instance, CH_4 has a global warming potential of 21, meaning that 1 gram of CH_4 traps the same amount of heat as 21 grams of CO_2. N_2O has a global warming potential of 310.

a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Packages 1-4

Increase in GHGs Over Existing Conditions

Less than Significant Impact. A San Diego regional emissions inventory was prepared by the USD School of Law, Energy Policy Initiative Center that took into account the unique characteristics of the region. Their 2016 emissions inventory for the San Diego region is duplicated below in Table 11, *San Diego Region Greenhouse Gas Emissions by Sector*.

Table 11
SAN DIEGO REGION GREENHOUSE GAS EMISSIONS
BY SECTOR (MT CO_2e)

Sector	2016
On-road Transportation	10,500,000
Electricity	5,300,000
Natural Gas	3,100,000
Industrial	2,100,000
Heavy-Duty Trucks and Vehicles	1,800,000
Other Fuels	1,100,000
Off-Road Transportation	620,000
Solid Waste	590,000
Water	240,000
Aviation	210,000
Rail	110,000
Wastewater	70,000
Agriculture	50,000
Marine Vessels	50,000
Soil Management	50,000
TOTAL	**26,000,000**

Source: San Diego Association of Governments 2021

This inventory is used as the basis of the existing environmental setting as related to GHG emissions. The Project's emissions, assessed below, are compared to this baseline. Based on the cumulative nature of potential GHG impacts, emissions associated with the overall Project, including the proposed modifications, are considered.

Construction Emissions

Project construction would generate GHG emissions associated with heavy off-road equipment operation and earth movement at construction sites, the transport of construction materials and equipment to the sites, and worker vehicles traveling to and from the sites. CO_2 from gasoline and diesel fuel combustion would be the primary GHG emission during the construction period. Generation of these emissions would be temporary.

As discussed in Section III(b), Project construction emissions were originally assessed in the 2018 IS/MND. Emissions were reassessed in conjunction with the preparation of this IS/MND to incorporate

the proposed modifications, update the construction schedule, and refine the anticipated equipment list.

Total GHG emissions from Project construction are presented in Table 12, *Total Estimated Construction Greenhouse Gas Emissions*. As shown in Table 12, the proposed construction activities are estimated to contribute a total of 13,222 metric tons (MT) of CO_2e. Amortized over 30 years, the proposed construction activities are estimated to contribute approximately 441 MT CO_2e per year.

Table 12
TOTAL ESTIMATED CONSTRUCTION GREENHOUSE GAS EMISSIONS

Year	Emissions (MT CO_2e)
2022	1,717
2023	4,188
2024	3,907
2025	3,410
Total Construction Emissions	**13,222**
Amortized Construction Emissions	***441***

CalEEMod outputs provided in Appendix A.
MT = metric tons; CO_2e = carbon dioxide equivalent

Operational Emissions

Operational sources of emissions from the Project include: (1) energy use (electricity and natural gas); (2) vehicle use; (3) solid waste generation; and (4) stationary sources (emergency generators). The proposed modifications would not result in changes in operational emissions from the sources associated with Packages 1-3, which primarily include the Ray Stoyer WRF, SHERF, AWTP facilities, Influent Pump Station, Dechlorination facility, Lake Jennings blower, and the EMGPS. The proposed modifications would introduce a new source of operational emissions associated with Package 4: the Mission Valley Lift Station. Therefore, for this analysis, emissions from the Mission Valley Lift Station were estimated using CalEEMod and added to the operational emissions presented in the 2018 IS/MND.

The primary source of GHG emissions from operation of the Mission Valley Lift Station would be energy use (electricity) to power the lift station pumps. The lift station is anticipated to require 395 kilowatt-hours (kWh) of electricity per day. Energy-related emissions would also occur from testing of the natural gas-powered backup generator and its use to power the lift station in the instance of electrical failure. An additional source of emissions would be from operational maintenance vehicle trips (anticipated to be one visit to and from the site per day).

As discussed in the 2018 IS/MND, the AWTP would produce up to 11.5 mgd of potable water, which would reduce reliance on imported water, thereby reducing GHG emissions associated with water consumption. If a biosolids cogeneration facility is constructed, savings of 9,600 megawatt-hours per year would be achieved through the biosolids cogeneration facility. The scenario without the cogeneration savings was considered in addition to the scenario with cogeneration.

Table 13, *Total Estimated Operational Greenhouse Gas Emissions*, presents the total GHG emissions by source with the amortized construction emissions. Without cogeneration the Project would result in annual GHG emissions of 7,576 MT CO_2e, and with cogeneration the Project would result in annual GHG emissions of 4,429 MT CO_2e. This would represent increases of 0.03 percent and 0.02 percent,

respectively, over the existing conditions baseline presented above in Table 11, resulting in less-than-significant impacts.

Table 13
TOTAL ESTIMATED OPERATIONAL GREENHOUSE GAS EMISSIONS

Emission Sources	Emissions (MT CO_2e)
Without Cogeneration	
Energy Sources	18,066
Vehicular (Mobile) Sources	28
Stationary Sources	2,808
Solid Waste Sources	1,529
Water Sources	(15,295)
Operational Subtotal – without cogeneration	7,135
Construction (amortized over 30 years)	441
TOTAL OPERATIONAL EMISSIONS – without cogeneration	**7,576**
With Cogeneration	
Energy Sources	14,918
Vehicular (Mobile) Sources	28
Stationary Sources	2,808
Solid Waste Sources	1,529
Water Sources	(15,295)
Operational Subtotal – with cogeneration	3,988
Construction (amortized over 30 years)	441
TOTAL OPERATIONAL EMISSIONS – with cogeneration	**4,429**

Source: CalEEMod (output data is provided in Appendix A of Appendix B to this IS/MND)
Note: Totals may not add up exactly due to rounding.

Exceedance of Threshold

Less than Significant Impact. The SCAQMD proposed Tier 3 screening threshold for industrial projects of 10,000 MT CO_2e (SCAQMD 2010) is the appropriate threshold for determining the significance of the Project's direct and indirect GHG emission impacts. As detailed above, the Project would result in annual GHG emissions of 7,576 MT CO_2e without cogeneration and 4,429 MT CO_2e with cogeneration, both of which would be below the 10,000 MT CO_2e threshold. Therefore, impacts associated with GHG emissions generation would be less than significant.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

Packages 1-4

Less Than Significant Impact. The proposed modifications would occur as part of the overall Project, which is being implemented to provide East San Diego County with a local, sustainable, reliable, and drought-proof drinking water supply. It is the JPA's goal that the Project ultimately produce up to 30 percent of East San Diego County's potable water supply, which would reduce reliance on imported water and provide a drought resistant and locally controlled water supply. By providing a local, reliable source of potable water, the Project would reduce GHG emissions associated with energy use embedded in imported water and help local municipalities increase water, wastewater, and energy

independence consistent with the goals set forth by the City of San Diego CAP, City of Sustainable Santee Plan (City of Santee 2019), and the statewide goals associated with Assembly Bill 32 or Senate Bill (SB) 32.

SANDAG's Regional Plan primarily considers emissions reductions efforts associated with transportation sources of GHG emissions. The Project's vehicular trip generation would be limited to temporary construction vehicles and operational worker trips and material/chemical deliveries. As noted in the 2018 IS/MND, Project operations would not generate a significant volume of new vehicle trips. In addition, the Project has been sized to accommodate projected population growth that has been accounted for, and evaluated in, the Regional Plan. Therefore, the Project would not conflict with SANDAG's Regional Plan.

Because the majority of the Package 4 modified alignment occurs within the jurisdiction of the City of San Diego, this portion of the Project is assessed for consistency with the strategies of the City of San Diego CAP (City of San Diego 2015a). The CAP includes the following five strategies developed to reduce City-wide GHG emissions and to achieve GHG reduction targets for the years 2020 and 2035 (City of San Diego 2015a):

1. Energy- and Water-Efficient Buildings
2. Clean and Renewable Energy
3. Bicycling, Walking, Transit, and Land Use
4. Zero Waste (Gas and Waste Management)
5. Climate Resiliency

Each of the City of San Diego's CAP strategies includes goals and ways to reduce GHG emissions. The Package 4 modification's (the portion within the city of San Diego) consistency with the applicable strategies is discussed below.

Strategy 1: Energy- and Water-Efficient Buildings

The CAP's first strategy is aimed at energy- and water-efficient buildings. The City of San Diego's goals under Strategy 1 include reducing residential building and municipal energy consumption, and reducing daily per-capita water consumption. Actions to reduce energy consumption include consideration of a residential Energy Conservation and Disclosure Ordinance and a Municipal Energy Strategy and Implementation Plan. Actions related to water efficiency include implementing new water rates and billing structure, consideration of a Water Conservation and Disclosure Ordinance, and implementation of an Outdoor Landscaping Ordinance requiring weather-based irrigation controllers. Strategy 1 actions are directed at City staff and City Council to adopt ordinances, plans, and supporting City requirements to achieve the City's targets.

The Package 4 modification would not include any new residential buildings; therefore, it would not conflict with the City of San Diego's ability to implement the actions identified in the CAP related to energy and water efficient residential buildings. The Package 4 modification would be consistent with the applicable CAP goals and actions identified in Strategy 1.

Strategy 2: Clean and Renewable Energy

Strategy 2 focuses on clean and renewable energy. Strategy 2 goals of transitioning to 100 percent renewable energy on the City-wide electrical grid by 2035, increasing municipal zero-emissions vehicles, and converting existing diesel municipal solid waste collection trucks to compressed natural gas or other alternative low-emissions fuels would be implemented by the City of San Diego and would not apply to the Project.

The Package 4 modification's operational energy demand would be limited to that required for necessary lift station operations. The Package 4 modification would not conflict with the City of San Diego's ability to implement the actions identified in Strategy 2.

Strategy 3: Bicycling, Walking, Transit, and Land Use

Strategy 3 outlines goals and actions related to bicycling, walking, transit, and land use. Strategy 3 goals include increasing the use of mass transit, increasing commuter walking and bicycling opportunities, reducing vehicle fuel consumption, and promoting effective land use to reduce VMT.

The Package 4 modification would not include new employees and would not result in additional growth that would generate permanent regular vehicular trips or demand for vehicle/bicycle parking or mass transit; therefore, the Package 4 modification would not conflict with the applicable CAP goals and actions identified in Strategy 3.

Strategy 4: Zero Waste (Gas and Waste Management)

Strategy 4, which focuses on zero waste, includes the goal of diverting solid waste and capturing landfill CH_4 gas emissions, and capturing CH_4 gas from wastewater treatment.

Both of the Strategy 4 goals would be implemented by various City of San Diego departments and the proposed Project would not conflict with implementation of the actions required to meet the City of San Diego's targets. In addition, the Package 4 modification's waste generation would be limited to temporary construction and demolition. Construction and demolition waste would primarily include excavated soil, rock, concrete, and asphalt. Excavated soil would be reused as backfill for the Package 4 modification, transported to another Project construction site for use as backfill, and/or hauled from the site to a facility listed in the City of San Diego's 2022 Certified Construction & Demolition Recycling Facility Directory (City of San Diego 2022) where it could be recycled. Similarly, rock, concrete, and asphalt would be transported to and recycled at a facility listed in the directory. This reuse and/or recycling would divert the materials from the landfill, consistent with the Strategy 4 goals.

Strategy 5: Climate Resiliency

The fifth and last strategy relates to climate resiliency and includes the goal of increasing tree canopy coverage. The action under this goal includes consideration of a City-wide Urban Tree Planting Program, which would incorporate water conservation measures and prioritization of drought-tolerant and native trees and plantings in areas with recycled water.

The Package 4 modification would be constructed within disturbed and developed lands and would not require the removal of trees. Strategy 5 is not directly applicable to the Package 4 modification and the Package 4 modification does not include additional planting of canopy trees or other vegetation that

would support this strategy. However, the Package 4 modification would not conflict with the City of San Diego's actions to increase tree canopy coverage through a planting program and supporting measures.

As discussed above, these CAP strategies were developed to reduce City-wide GHG emissions and to achieve GHG reduction targets for the years 2020 and 2035. The Package 4 modification's consistency with these strategies ensures that its incremental contribution to the cumulative GHG effect is not cumulatively considerable. As such, impacts are considered less than significant.

IX. Hazards and Hazardous Materials

		Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:						
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒	☐
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐	☐
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of hazards and hazardous materials impacts is included on pages 66 through 71 of the 2018 IS/MND. The 2018 IS/MND concluded that the Project would result in potentially significant impacts

related to the routine transport, use, and disposal of hazardous materials, and possible accident conditions associated with sewage spills. This impact would be mitigated through mitigation measure CFMP Haz-1, which would require sewage pump safety features to minimize potential public exposure to sewage spills. Impacts related to handling hazardous materials near a school would be less than significant through compliance with applicable regulations. It was concluded that excavation for the WRFFM and Residuals Bypass System pipelines within the District's operations yard and installation of portions of the AWP Pipeline in Mast Boulevard would likely occur within the area of contaminated soils, and impacts would be potentially significant. Implementation of mitigation measure ECAWP Haz-1 would reduce potential impacts to a less-than-significant level by requiring DEH-approved Community Health & Safety and Soil Management Plans for the safe handling of contaminated soils. No impacts related to airport safety hazards would occur as the Project would not be located near a public or private airstrip. The IS/MND determined that the Project could result in potentially significant impacts related to interference with an emergency response or evacuation plan from construction within roadways requiring road closures or detours; mitigation measure ECAWP Tra-1 would involve a Traffic Management Plan that would reduce impacts to a less than significant level. Portions of the Project would be located within High or Very High Fire Hazard Severity Zones (VHFHSZ) and mitigation measure CFMP Haz-3 would be required to reduce potential impacts from wildfires to a less-than-significant level.

Analysis of the Proposed Modifications

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Packages 1-4

Less Than Significant with Mitigation Incorporated. The proposed modifications would involve similar construction activities to those evaluated in the 2018 IS/MND, which would have the potential to generate small amounts of hazardous materials and wastes, primarily waste oil and oil-saturated materials from construction equipment. Hazardous materials and waste would be managed and used in accordance with all applicable federal, state, and local laws and regulations, and construction-period impacts would be less than significant. The proposed modifications would not involve new operational uses beyond what was considered in the IS/MND that would require the transport and use of hazardous materials. As determined in the IS/MND, mitigation measure CFMP Haz-1 would be implemented to reduce potential impacts associated with sewer facility failure to a less-than-significant level through incorporation of standard safety features into design and implementation of a Sewer System Management Plan that includes contingency measures in the event of emergency leaks or spills.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Packages 1-3

Less Than Significant Impact. As discussed in the 2018 IS/MND, there are seven schools within 0.25 mile of the AWP Pipeline. The proposed modifications, specifically the realignment of Package 2 Segment 8 into Lake Jennings Park Road, would result in the alignment occurring adjacent to Foothills Christian Elementary School (10404 Lake Jennings Park Road, Lakeside), whereas the alignment considered in the

IS/MND was approximately 750 feet away from the school. However, similar to what was analyzed in the IS/MND, compliance with applicable regulations would minimize foreseeable risks of an accident during construction that could create a hazard to the public or environment. Following construction, operation of the proposed Project would also comply with all applicable regulations and would not result in the release of hazardous materials to an existing or proposed school. Impacts would be less than significant. No new significant impacts or a substantial increase in previously identified impacts would occur as a result of the proposed modifications.

Package 4

Less Than Significant Impact. Two schools are within 0.25 mile of the Package 4 alignment: Chet F. Harritt School, along Arlette Street approximately 0.22 mile south of the closest point of the project alignment, and the Stein Education Center, along Decena Drive approximately 0.18 mile southeast of the closest point of the project alignment and 0.10 mile from potential lift station location G. As discussed in Section IX(a-b) above, the transport, use, and disposal of hazardous materials would generally be limited to the construction period and occur in association with typical equipment use and maintenance. These materials would be handled in accordance with federal, state, and local regulations and would not represent a risk to the schools. Following construction, Package 4 components near the schools would consist of belowground pipelines that would not represent a hazardous materials risk. Therefore, impacts are less than significant in relation to this issue.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Packages 1-3

Less Than Significant with Mitigation Incorporated. With the proposed Packages 1-3 modifications, the Project alignment would continue to be located within 50 feet of the listed hazardous materials sites identified in the 2018 IS/MND. The proposed realignment of Package 2 Segment 6 into Channel Road would result in the alignment being located within 50 feet of an additional leaking underground storage tank (LUST) cleanup site (Anderson Drilling [Site ID T0607302648] at 10303 Channel Road, Lakeside). The cleanup for this site has been completed and the case was closed in 2001. As determined in the 2018 IS/MND, excavation for portions of the project would have the potential to occur in contaminated soils; therefore, implementation of mitigation measure ECAWP Haz-1 would be implemented to reduce potential impacts to a less-than-significant level through preparation and implementation of a Community Health and Safety Plan for the handling of potentially contaminated soils that would include remediation efforts, as necessary.

Package 4

Less Than Significant with Mitigation Incorporated. A review of databases of sites within 50 feet of the proposed Package 4 alignment that generate, store, treat, or dispose of hazardous materials, or sites for which a hazardous materials release or incident has occurred, was conducted by HELIX in September 2021. Specifically, this included a review of the California Department of Toxic Substances Control (DTSC) EnviroStor database (DTSC 2021) and the SWRCB GeoTracker database (SWRCB 2021). The EnviroStor database is a geographic information system that lists Federal Superfund Sites; State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School Cleanup

sites. The GeoTracker database is a data management system for tracking potential impacts to groundwater and activities that involve groundwater cleanup, such as remediation for LUSTs. The results of the identified database searches are listed in Table 14, *Listed Hazardous Materials Sites within 50 Feet of the Package 4 Alignment*, and are summarized below.

There are numerous LUST cleanup sites and cleanup program sites within 50 feet of the Package 4 alignment; all but one of these cleanups have been completed, the cases have been closed, and these sites would not create a significant hazard to the public or the environment during Project construction. One cleanup program site, Former ARCO #1790 (Site ID T10000001809), is currently listed by the SWRCB as open in association with a site assessment for potential gasoline contamination of groundwater (other than drinking water) and soil. This same site is listed by the SWRCB as a LUST cleanup site for potential contamination of an aquifer used for drinking water supply (Site ID T0607300655; case closed as of September 8, 2005) and by the DTSC as an evaluation (Site ID 60001297). This site is within the boundary of potential Mission Valley Lift Station site G. Based on the past and current listing of this site in association with soil and groundwater contamination from gasoline, there is potential to encounter contaminated soils during construction of the lift station, if the lift station is built at site G. Impacts are therefore considered potentially significant and ECAWP Haz-1 would be required for construction of the lift station at site G. ECAWP Haz-1 would reduce impacts to a less-than-significant level through preparation and implementation of a Community Health and Safety Plan for the handling of potentially contaminated soils that would include remediation efforts, as necessary.

One additional site, Camp La Mesa (Site ID 80000215), is currently listed as inactive and needing evaluation. This is a Formerly Used Defense Site (FUDS) that encompasses 50 acres and overlaps the Package 4 alignment. The potential contaminants of concern are unexploded ordinances (UXO) and munitions and explosives of concern (MEC) associated with the past use of the area as a firing range (DTSC 2021). An Archives Search Report prepared for the site determined that the site is "uncontaminated" and therefore not at risk from UXO or MEC (USACE 1999). Impacts associated with this site are therefore considered less than significant.

Table 14
LISTED HAZARDOUS MATERIALS SITES WITHIN 50 FEET OF THE PACKAGE 4 ALIGNMENT

Site ID	Name	Address	Site Type	Status
T0607300648	Texaco	8111 Mission Gorge Road	LUST Cleanup Site	Completed – Case Closed
T0607302829	Texaco	8111 Mission Gorge Road	Cleanup Program Site	Completed – Case Closed
T0607300415	Caltrans	13940 FJST	LUST Cleanup Site	Completed – Case Closed
T0607302385	Rentx	7585 Mission Gorge Road	LUST Cleanup Site	Completed – Case Closed
T0608168195	Mission Gorge Development Company	7400 Mission Gorge Road	Cleanup Program Site	Completed – Case Closed
T0607301751	San Diego Equipment Rentals	6990 Mission Gorge Road	LUST Cleanup Site	Completed – Case Closed
T0607301332	Texaco USA	6605 Mission Gorge Road	LUST Cleanup Site	Completed – Case Closed
T0607302798	Seenes Automotive Service Inc.	6267 Riverdale Street	Cleanup Program Site	Completed – Case Closed
T0607303056	Kaiser Medical Offices	4405 Vandever Avenue	LUST Cleanup Site	Completed – Case Closed
T0607301027	Jones Portable Welding	6061 Fairmont Avenue	LUST Cleanup Site	Completed – Case Closed
T0607302722	Tires Plus	5805 Mission Gorge Road	Cleanup Program Site	Completed – Case Closed
T0607303146	Sparklett's Drinking Water Corp	5930 Mission Gorge Road	LUST Cleanup Site	Completed – Case Closed
T0607302784	A.S.&R./Shell	5820 Mission Gorge Road	LUST Cleanup Site	Completed – Case Closed
T0607302525	Cush Honda of San Diego	5812 Mission Gorge Road	LUST Cleanup Site	Completed – Case Closed
80000215	Camp La Mesa	50-acre site overlapping project alignment	Military Evaluation	Inactive – Needs Evaluation as of 12/11/2015
T0607300655	ARCO AM/PM Mini Market #1790	6110 Mission Gorge Road	LUST Cleanup Site	Completed – Case Closed as of 9/8/2005
60001297	Former ARCO	6110 Mission Gorge Road	Evaluation	Refer: 1248 Local Agency as of 1/13/2010
T10000001809	Former ARCO #1790	6110 Mission Gorge Road	Cleanup Program Site	Open – Site Assessment as of 2/8/2010
T0607301524	COSBY OIL CORP	6220 Fairmount Avenue	LUST Cleanup Site	Completed – Case Closed

Sources: GeoTracker 2021 and DTSC 2021
LUST = leaking underground storage tank

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?

Package 1-3

No Impact. With the proposed modifications, the Project would not be located within the Airport Influence Area for the Gillespie Field Airport or within two miles of any other public airport, as identified in the 2018 IS/MND. No associated impacts would occur.

Package 4

Less Than Significant Impact. Airports in the vicinity of the Package 4 alignment include Gillespie Field (1.4 miles to the east), Montgomery-Gibbs Executive Airport (2.3 miles to the west), and Marine Corps Air Station (MCAS) Miramar (4.9 miles to the northwest). The northeastern-most portion of the Package 4 alignment is within Airport Influence Area (AIA) Review Area 2 of Gillespie Field and the southwestern portion of the Package 4 alignment is within AIA Review Area 2 of Montgomery-Gibbs Executive Airport (County of San Diego Airport Land Use Commission [ALUC] 2010a and 2010b). No portion of the Package 4 alignment is within the AIA of MCAS Miramar (County ALUC 2008). As it relates to safety hazards, Review Area 2 requires limits on heights of structures. The Package 4 modifications do not propose structures with heights that could pose a safety hazard. The Package 4 alignment is not within the 60 Community Noise Equivalent Level (CNEL) contours of any of these three airports (County of San Diego ALUC 2008, 2010a, and 2010b). As such, the Package 4 modifications would not result in a safety hazard or excessive noise for people residing or working in the Project area as it relates to aircraft, and impacts would be less than significant.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Packages 1-4

Less Than Significant with Mitigation Incorporated. Interference with an adopted emergency response or evacuation plan would result in an adverse physical effect to people or the environment by potentially increasing the loss of life and property in the event of a disaster. The San Diego County Multi-Jurisdictional Hazard Mitigation Plan evaluates risks associated with coastal storms, erosion, and tsunami, dam failure, earthquakes, floods, rain-induced landslides, liquefaction, structure/wildfire fires and manmade hazards and provides goals, objectives and actions to reduce impacts from these hazards. The PEIR determined that excavation and trenching construction activities associated with CFMP projects that are within roadway rights-of-way may result in temporary, construction-related interferences with emergency plans and procedures as a result of lane and road closures or detours.

Components of the proposed Project modifications would be located within roadways and may require road closures or detours during construction. However, with implementation of mitigation measure ECAWP Tra-1, which includes preparation of a Traffic Management Plan (TMP), as described in Section XVII, construction of the proposed modifications would not result in a potentially significant impact associated with impairment or interference with emergency response or evacuation plans.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The California Department of Forestry and Fire Protection (CAL FIRE) classifies lands in accordance with whether a very high fire hazard is present so that public officials are able to identify measures that will suppress the rate of fire spread and reduce the intensity of uncontrolled fire through vegetation management and building standards. The designation of being within a high or VHFHSZ is based upon a combination of fuels, terrain, weather, and other relevant factors.

Packages 1-3

Less Than Significant with Mitigation Incorporated. With the proposed Packages 1-3 modifications, portions of the Project would remain in High or Very High Fire Hazard Severity Zones (refer to CFMP PEIR Figure 4.8-1) and mitigation measure CFMP Haz-3 would be implemented to reduce potential wildland fire impacts to a less-than-significant level through avoiding construction in areas of dense foliage during dry conditions, as feasible, and/or incorporating brush fire prevention and management practices.

Package 4

Less Than Significant with Mitigation Incorporated. The majority of the Package 4 dual alignment as it traverses through MTRP and then along Mission Gorge Road is classified as a VHFHSZ (refer to Figure 16, *Package 4 Fire Hazard Severity Zones*). The Package 4 modifications do not involve habitable structures or facilities that would include occupants. Further, upon completion of construction, most of the facilities would be located belowground. The proposed aboveground lift station would be enclosed and would not represent a fire risk. During construction, construction equipment with combustion engines would have the potential to represent a fire risk; therefore, construction period impacts are considered potentially significant absent mitigation. This impact would be mitigated through implementation of mitigation measure CFMP Haz-3, which would involve avoiding construction in areas of dense foliage during dry conditions, as feasible, and/or incorporating brush fire prevention and management practices. The Project would also be required to comply with Chapter 33, Fire Safety During Construction and Demolition, of the California Fire Code, which outlines the required protocols for fire prevention during construction. Among other procedures, Chapter 33 identifies the standards for emergency fore access, water supply, motorized construction equipment, and portable fire extinguishers.

Mitigation

The following PEIR measures would mitigate the potentially significant impacts related to sewer facility failures and wildland fire to less-than-significant levels.

CFMP Haz-1 **Sewage Pump Station Safety Features.** Sewage pump stations shall incorporate standard safety features, including an emergency generator on the site in case of electrical failure, and sufficient sewage detainment capacity in the event of generator and/or pump mechanism failure to allow time for repair and/or emergency conveyance of the sewage. Portable emergency generators may be used for pump stations that cannot be equipped with an on-site generator. Each sewage pump station and treatment facility would implement a Sewer System Management Plan that includes contingency measures in the event of emergency leaks or spills.

CFMP Haz-3 **Fire Safety Plan.** To minimize the risk of losses resulting from wildfire, the following measures shall be implemented during project construction for the project:

- Construction within areas of dense foliage during dry conditions will be avoided, when feasible.

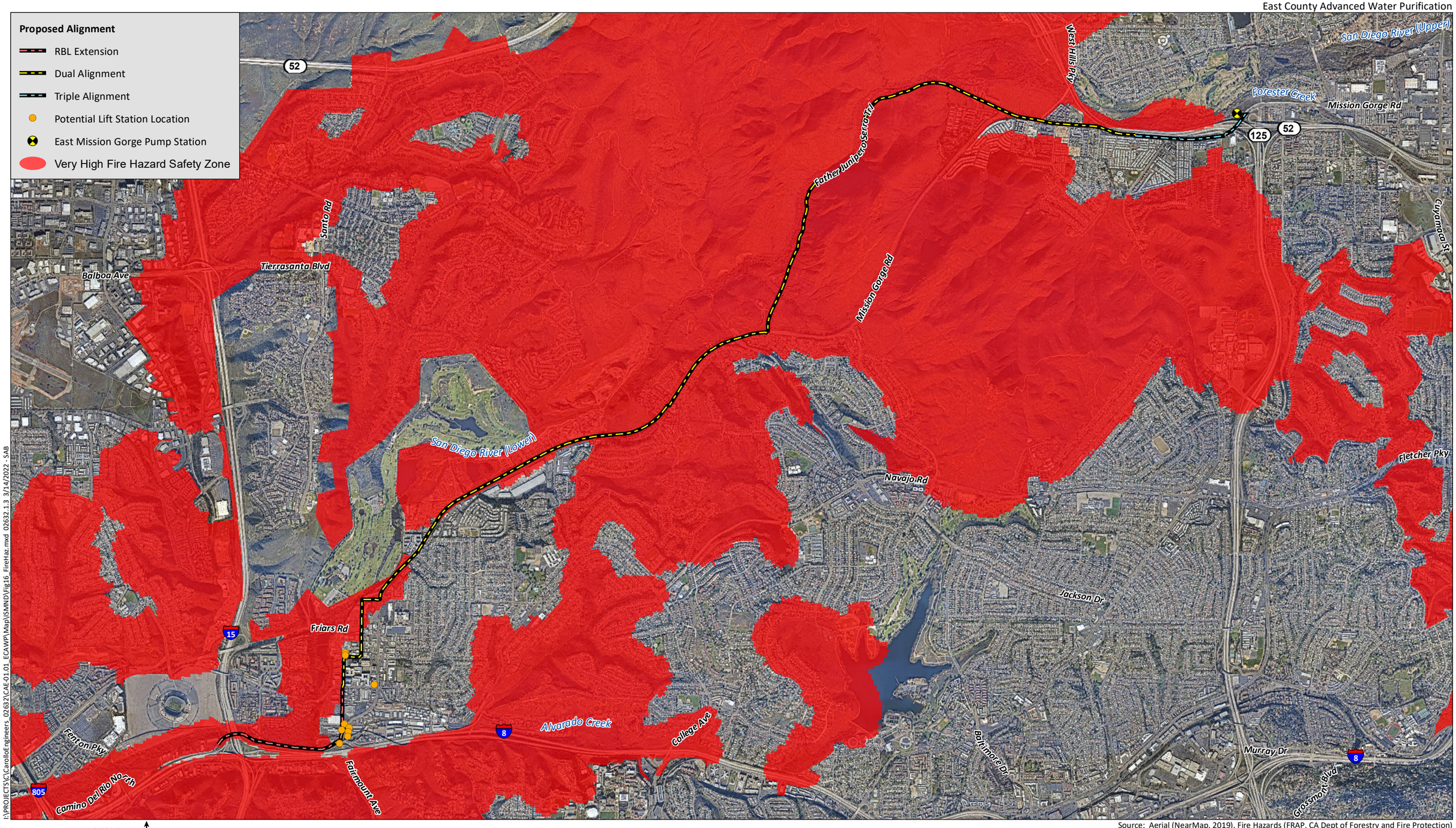
In cases where avoidance is not feasible, brush fire prevention and management practices will be incorporated. Specifics of the brush management program will be incorporated into project construction documents.

Mitigation measure ECAWP Haz-1 from the 2018 IS/MND has been modified to address a newly identified hazardous materials site, located at potential lift station site G of the Package 4 modification, and to provide clarity.

ECAWP Haz-1 **Health and Safety Plan for Handling of Contaminated Soils.** Prior to ground-disturbing activity related to pipeline installation within the District's Operations Yard or related to construction of the Mission Valley Lift Station at lift station site G, the contractor shall develop a Community Health and Safety Plan for the handling of potentially contaminated soils, which shall be reviewed and approved by San Diego County Department of Environmental Health. The Safety Plan will include measures for remediation of contaminated soils to comply with applicable standards governing remediation of contaminated soils and may include removal and proper disposal of contaminated materials or on-site treatment and reuse, if applicable.

X. Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:					
i. Result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?	☐	☐	☒	☐	☐



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0 3,000 Feet

Source: Aerial (NearMap, 2019), Fire Hazards (FRAP, CA Dept of Forestry and Fire Protection)

HELIX Environmental Planning

Package 4 Fire Hazard Severity Zones

Figure 16

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?	☐	☐	☒	☐	☐
iv. Impede or redirect flood flows?	☐	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of hydrology and water quality impacts is included on pages 71 through 81 of the 2018 IS/MND. The 2018 IS/MND concluded that construction period water quality impacts would be less than significant through conformance with SWPPP/NPDES requirements and implementation of associated BMPs. Potential operation period water quality impacts would be reduced to a less-than-significant level through completion of a site-specific water quality investigation per mitigation measure CFMP Hyd-1. Similarly, potential impacts associated with alteration of drainage patterns and increases in runoff would be addressed through completion of a site-specific hydrologic investigation per mitigation measure CFMP Hyd-2. It was concluded that the Project would result in less-than-significant impacts related to interfering with groundwater supply, placing structures in a flood hazard area, exposing people or structures to risk of flooding from dam failure, and exposing people to structures to inundation by seiche, tsunami, or mudflow. No impacts were determined to occur related to placing housing within a flood hazard area.

Analysis of the Proposed Modifications

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Packages 1-4

Less Than Significant with Mitigation Incorporated. The proposed modifications would involve the same type of construction activities as analyzed in the 2018 IS/MND and would result in potential water quality impacts related to erosion/ sedimentation, the use and storage of construction-related hazardous materials (e.g., fuels), generation of debris from demolition activities, and disposal of extracted groundwater (i.e., construction-related dewatering, if required). As assessed in the 2018 IS/MND, potential impacts would be addressed through JPA requirements, NPDES Construction General Permit requirements, SWPPP BMPs, and NPDES Groundwater Permit requirements. The proposed Packages 1-3 modifications would not involve new operational uses beyond what was considered in the 2018 IS/MND that would have the potential to violate water quality standards or waste discharge

requirements. The Package 4 pipelines would be located belowground and would not involve regular activities that would have the potential to violate water quality standards or waste discharge requirements. While the new lift station would be above ground, its operation would not involve activities that have the potential to violate water quality standards or waste discharge requirements. Mitigation measure CFMP Hyd-1 would be required to address potential water quality impacts from an increase in impervious surfaces associated with proposed permanent facilities. This measure would reduce such potential impacts to a less-than-significant level through completion of a site-specific water quality investigation and implementation of recommendations from the investigation, such as low impact design (LID)/site design BMPs, source control BMPs, and/or pollutant control BMPs, to address potential long-term water quality issues.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Packages 1-4

Less Than Significant Impact. As analyzed in the IS/MND, the proposed Project modifications do not entail the long-term withdrawal or other use of groundwater. In the unlikely event that shallow groundwater is encountered during construction, temporary dewatering efforts would be implemented in conformance with applicable NPDES requirements. While the modifications include the expansion of the Package 1 footprint and development of a new lift station, which could result in a slight increase in impervious surfaces over what was previously analyzed, the impacts to existing on-site groundwater recharge capacity would be less than significant based on the minor extent of the area.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

    i. Result in substantial erosion or siltation on- or off-site?

    ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?

    iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?

Packages 1-4

Less Than Significant with Mitigation Incorporated. Similar to what was analyzed in the 2018 IS/MND, the proposed modifications would not substantially increase the rate or amount of surface runoff because the components primarily consist of underground pipelines, improvements to existing facilities, and relatively small new above-ground structures that would generally not result in substantial areas of new impervious surfaces. Accordingly, associated increases in runoff rates and amounts would be minor, and substantial effects related to erosion, flooding, and stormwater drainage system exceedance are not expected. However, because the potential effects are unknown, mitigation measure CFMP Hyd-2 would be required. CFMP Hyd-2 would involve a site-specific hydrologic investigation and implementation of the recommendations from the investigation to address potential hydrologic concerns, including, but not necessarily limited to drainage alteration, runoff rates/amounts, storm

water management and hydromodification, and flood hazards, which would reduce potential impacts to a less-than-significant level.

iv. Impede or redirect flood flows?

Packages 1-3

Less Than Significant Impact. With the proposed modifications to Packages 1-3, the portion of the AWP Pipeline crossing the San Diego River along Channel Road would be suspended along the Channel Road bridge. The area along the San Diego River is considered a flood hazard area. However, because the pipeline would be along the existing bridge structure, it would not represent a new structure that would impede or redirect flood flows. It would be elevated and not likely to come in contact with flood flows. Impacts would therefore be less than significant. As analyzed in the 2018 IS/MND, other Project components within a flood hazard area would be underground pipelines. The Project will comply with existing local and state regulatory standards and permit requirements, including implementation of post-construction BMPs, the proposed modifications would not substantially impede or redirect flood flows. Impacts would be less than significant.

Package 4

Less Than Significant Impact. Portions of the Package 4 alignment, particularly in areas where it runs adjacent/near the San Diego River, are within the 100-year floodway and/or the 100-year or 500-year flood plain (San Diego Geographic Information Source [SanGIS] 2012; refer to Figure 17, *Package 4 Federal Emergency Management Agency Flood Plain*); however, with the exception of the proposed lift station and above ground appurtenances, the proposed facilities would be located belowground and would not impede or redirect flood flows. Although the proposed lift station would be above ground, it would not have the potential to substantially impede or redirect flood flows based on its relatively small size, especially in comparison to surrounding development. As such, impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Packages 1-3

Less Than Significant Impact. The proposed Packages 1-3 modifications would not involve new structures that would be at risk of flooding or tsunamis over what was considered in the 2018 IS/MND. The proposed interpretive site would be located near Lake Jennings and has the potential to be at risk from a seiche event. However, as assessed in the 2018 IS/MND, potential seiche-related impacts are expected to be minor based on the low probability of seiche events. Impacts would be less than significant.

Package 4

Less Than Significant Impact. The Package 4 alignment is approximately 8 miles east of the Pacific Ocean at the nearest location and approximately 2.5 miles northwest of Lake Murray, which is the nearest standing body of water. Due to distance and topography, the alignment is not likely to experience flooding from a tsunami or seiche. In relation to a flood hazard, please see response to Section X(c)(iv), above. Impacts would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Packages 1-4

Less Than Significant Impact. Refer to Sections X(a) through X(d). The Project would comply with applicable storm water quality standards during construction and operation, which would involve the implementation of appropriate BMPs to address potential water quality impacts and comply with State water quality standards. In addition, no sustainable groundwater management plan has been prepared for the Project area. In San Diego County, Groundwater Sustainability Plans have been prepared for the Borrego Valley Groundwater Basin, San Luis Rey Groundwater Basin, and San Pasqual Groundwater Basin, which have been designated by the State as medium- or high-priority basins and subject to the Sustainable Groundwater Management Act. None of these three basins overlap or are adjacent to the Project area. Therefore, the Project modifications would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan, and impacts would be less than significant.

Mitigation

The following PEIR mitigation measures, with minor modifications incorporated herein for clarity, would reduce potential impacts related to hydrology and water quality to a less than significant level.

CFMP Hyd-1 **Conduct Site-Specific Water Quality Investigations.** A site-specific water quality investigation will be completed prior to approval of final Project design. All applicable results and recommendations from this investigation will be incorporated into the final Project design documents to address identified potential long-term water quality issues related to conditions such as: anticipated and potential pollutants to be used, stored or generated on-site; the location and nature (e.g., impaired status) of on-site and downstream receiving waters; and Project design features to avoid/address potential pollutant discharges. The final Project design documents will also encompass standard design practices to comply with State water quality standards including NPDES criteria and other applicable regulatory standards (with all related requirements to be included in engineering/design drawings and construction contract specifications). A summary of the types of BMPs associated with identified potential water quality concerns, pursuant to applicable regulatory and industry standards (as noted), is provided below. The BMPs identified/recommended as part of the described site-specific water quality investigations will take priority over the more general types of standard regulatory/industry measures listed below:

- Low Impact Development (LID)/Site Design BMPs: LID/site design BMPs are intended to avoid, minimize, and/or control post development runoff, erosion potential, and pollutant generation to the maximum extent practicable by mimicking the natural hydrologic regime. The LID process employs design practices and techniques to effectively capture, filter, store, evaporate, detain, and infiltrate runoff close to its source through efforts such as: (1) minimizing developed/ disturbed areas to the maximum extent feasible; (2) utilizing natural and/or unlined drainage features in on-site storm water systems; (3) disconnecting impervious surfaces to slow concentration times, and directing flows from impervious surfaces

East County Advanced Water Purification

Proposed Alignment

- RBL Extension
- Dual Alignment
- Triple Alignment
- Potential Lift Station Location
- East Mission Gorge Pump Station

FEMA Flood Plain

- 100-yr Flood Plain
- 100-yr Floodway
- 500-yr Flood Plain

52
Santo Rd
Tierrasanta Blvd
Balboa Ave
Father Junipero Serra Trl
Mission Gorge Rd
West Hills Pky
Forester Creek
Mission Gorge Rd
125
52
San Diego River (Lower)
Navajo Rd
Fletcher Pky
Jackson Dr
Friars Rd
15
Alvarado Creek
College Ave
Baltimore Dr
Murray Dr
Grossmont Blvd
8
Fenton Pky
Camino Del Rio North
Fairmount Ave
805
8

0 3,000 Feet

N

Source: Aerial (NearMap, 2019)

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HELIX Environmental Planning

Package 4 Federal Emergency Management Agency Flood Plain

Figure 17

into landscaped or vegetated areas; and (4) using pervious surfaces in developed areas to the maximum extent feasible.

- Source Control BMPs: Source control BMPs are intended to avoid or minimize the introduction of pollutants into storm drains and natural drainages by reducing on-site pollutant generation and off-site pollutant transport through measures such as: (1) installing "no dumping" stencils/tiles and/or signs with prohibitive language at applicable locations such as drainages and storm drain inlets to discourage illegal dumping; (2) designing trash storage areas to reduce litter/pollutant discharge through methods such as paving with impervious surfaces, installing screens or walls to prevent trash dispersal, and providing attached lids and/or roofs for trash containers; (3) designing site landscaping to maximize the retention of native vegetation and use of appropriate native, pest-resistant, and/or drought-tolerant varieties to reduce irrigation and pesticide application requirements; and (4) providing secondary containment (e.g., enclosed structures, walls, or berms) for applicable areas such as trash or hazardous material use/storage.

- Pollutant Control BMPs: Pollutant control BMPs are designed to remove pollutants from runoff to the maximum extent practicable through means such as filtering, treatment, or infiltration. Pollutant control BMPs are required to address applicable pollutants, and include efforts such as: (1) providing water quality treatment and related facilities such as sediment basins, vegetated swales, infiltration basins, filtration devices, and velocity dissipators to treat appropriate runoff flows and reduce volumes prior to off-site discharge (per applicable regulatory requirements); (2) creating a construction spill contingency plan in accordance with DEH regulations and retaining a copy of the plan on- site by the construction manager; and (3) conducting regular inspection, maintenance, and as-needed repairs of pertinent facilities and structures.

CFMP Hyd-2 **Conduct Site-Specific Hydrologic Investigation.** A site-specific investigation shall be conducted for the Project to determine the site-specific hydrological conditions, related potential impacts, and requirements. All applicable results and recommendations from this investigation shall be incorporated into the associated final design documents to address identified potential hydrologic concerns, including, but not necessarily limited to drainage alteration, runoff rates/amounts, storm water management and hydromodification, and flood hazards. The final Project design documents shall also encompass applicable standard design and construction practices to comply with State water quality standards including NPDES (with related requirements to be included in applicable engineering/design drawings and/or construction contract specifications). A summary of the types of remedial measures typically associated with identified potential hydrologic concerns, pursuant to applicable regulatory and industry standards (as noted), is provided below. The remedial measures identified/recommended as part of the described site-specific hydrologic investigations will take priority over the more general types of standard regulatory/industry measures listed below.

- Drainage Alteration: (1) locate applicable facilities outside of surface drainage courses and drainage channels; (2) re-route surface drainage around applicable facilities, with such re-routing to be limited to the smallest area feasible and

re-routed drainage to be directed back to the original drainage course at the closest feasible location (i.e., the closest location to the point of diversion); and (3) use drainage structures to convey flows within/through development areas and maintain existing drainage patterns, where appropriate and feasible.

- Runoff Rates/Amounts, Storm Water Management and Hydromodification: (1) minimize the installation of new impervious surfaces (e.g., by surfacing with pervious pavement, gravel or decomposed granite); (2) use flow regulation facilities (e.g., detention/retention basins) and velocity control structures (e.g., riprap dissipation aprons at drainage outlets), to maintain pre-development runoff rates and amounts for design storm events, if applicable; and (3) utilize additional and/or enlarged drainage facilities to ensure adequate on- and off-site storm drain system capacity, if applicable.

- Flood Hazards: (1) locate proposed facilities outside of mapped 100-year floodplain boundaries wherever feasible; (2) based on technical analyses such as Hydrologic Engineering Center-River Analysis System (HEC-RAS) studies, restrict facility locations to avoid adverse impacts related to impeding or redirecting flood waters; (3) based on HEC-RAS studies, use measures such as raised fill pads to elevate proposed structures above calculated flood levels, and/or utilize protection/ containment structures (e.g., berms, barriers or water-tight doors) to avoid flood damage; and (4) if Project-related activities/facilities result in applicable proposed changes to mapped FEMA floodplains, obtain an approved Conditional Letter of Map Revision (CLOMR) and/or Letter of Map Revision (LOMR) from FEMA, as applicable.

XI. Land Use and Planning

		Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:						
a)	Physically divide an established community?	☐	☐	☐	☐	☒
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☒	☒	☐	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of land use and planning impacts is included on pages 81 through 83 of the 2018 IS/MND. The 2018 IS/MND concluded that the Project would not physically divide an established community and no associated impact would occur. As related to conflict with a land use plan, the Project is exempt from the cities of Santee and San Diego and the County of San Diego zoning ordinances and the Project would not result in change to land use; however, the Project could result in potential land use compatibility impacts related to noise and traffic. To address potential noise generated in excess of jurisdictional

noise limits, mitigation measures CFMP Noi-1 through CFMP Noi-5 and ECAWP Noi-1 through ECAWP Noi-7 would be implemented. Potential impacts from roadway closures would be addressed through a Traffic Management Plan per mitigation measure ECAWP Tra-1. To avoid impacts to biological resources and thereby be consistent with the goals of the local and regional habitat conservation plans, the Project would implement mitigation measures CFMP Bio-1B, CFMP Bio-1F, CFMP Bio-1H, CFMP Bio-1I, CFMP Bio-1J, CFMP Bio-1K, CFMP Bio-2A, CFMP Bio-3B, CFMP Bio-3C, and ECAWP Bio-1 through ECAWP Bio-7.

Analysis of the Proposed Modifications

a) Physically divide an established community?

Packages 1-4

No Impact. The proposed modifications would not result in a new feature that would cause a permanent obstruction to a roadway or other access route or create a physical barrier (such as a highway) that would result in physical division of an established community. No impact would occur.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Packages 1-3

Less Than Significant with Mitigation Incorporated. The proposed Packages 1-3 modifications would not introduce new permanent aboveground components in locations that were not previously assessed in the 2018 IS/MND and would therefore not result in new potential impacts associated with conflict with the City of Santee and County zoning ordinances.

As evaluated above in Section IV, the proposed Package 1-3 modifications could result in potential impacts to biological resources. Implementation of PEIR mitigation measures CFMP Bio-1F, CFMP Bio-1H, CFMP Bio-1J, CFMP Bio-1K, CFMP Bio-2A, CFMP Bio-3B, CFMP Bio-3C, and 2018 IS/MND mitigation measure ECAWP Bio-1 would reduce or avoid construction- and operation-related impacts that have the potential to affect biologically sensitive habitat, which would be consistent with the goals of the local and regional habitat conservation plans.

As evaluated in Sections XIII and XVII, the proposed Packages 1-3 modifications could result in potential impacts related to noise and traffic. The proposed Packages 1-3 modifications would involve the same type of construction activities as those analyzed in the 2018 IS/MND, including facility construction, trenching, jack and bore, horizontal directional drilling, and rock crushing, and within the same jurisdictions. The potential to exceed applicable limits for human receptors and sensitive habitat would remain the same as analyzed in the 2018 IS/MND, and mitigation measures CFMP Bio-1I, CFMP Noi-4, CFMP Noi-5, ECAWP Noi-5, ECAWP Noi-6, and ECAWP Noi-7 would be required to reduce potential impacts to a less-than-significant level and ensure consistency with local policies related to noise. Similarly, implementation of ECAWP Tra-1 would be implemented to reduce potential construction-period traffic impacts to a less than significant level, which would ensure consistency with local policies related to traffic.

Package 4

Less Than Significant with Mitigation Incorporated. The Package 4 modifications would primarily occur within public roadway rights-of-way where existing underground utilities are located in the cities of San Diego and Santee. The proposed Mission Valley Lift Station would be constructed on one of nine potential sites in the city of San Diego. According to the City of San Diego's Navajo Community Plan (City of San Diego 2015b), all but one of the potential lift station sites are located on parcels with land use designations of either Urban Village, Community Village, Community Commercial-Residential, or Community Commercial. Lift station site C is within the roadway right-of-way.

Lift station sites D, E, and F are on parcels within the Grantville Trolley Station/Alvarado Creek Revitalization Study area (City of San Diego 2017). The conceptual recommendations included in the study show sites D and E with an Urban Village designation and site F with a Community Commercial designation. The future Alvarado Road realignment is shown to cross through portions of each of these three parcels; however, the proposed lift station would not occupy the entire area of the parcel and would not necessarily conflict with the roadway realignment plans. The JPA will coordinate with the City of San Diego as appropriate to ensure compatibility between the roadway realignment and the proposed lift station. The Alvarado Creek channel realignment recommended in the study does not impede upon these parcels.

When a local agency is directly and immediately engaged in "the production, generation, storage, treatment, or transmission of water," the agency has an absolute exemption from complying with local building and zoning ordinance for the location or construction of facilities (Government Code, §53091, subds. (d), (e)). The proposed modifications would involve facilities directly and immediately engaged in the production, generation, treatment, and transmission of water and would be exempt from local zoning ordinances.

As discussed in Section IV, the Package 4 modifications are subject to the City of San Diego MSCP. The central portion of the alignment passes through MTRP and City of San Diego MHPA and would be subject to land use adjacency guidelines, as well as ASMDs established in the MTRP NRMP. Impacts within the MHPA would primarily be restricted to disturbed and developed lands. In addition, construction within the MHPA is proposed using a sliplining operation with interspersed launching and receiving pits at specific locations; therefore, direct impacts to MHPA are not anticipated. Implementation of previous mitigation measures CFMP Bio-1H, CFMP Bio-1J, and CFMP Bio-1K and new mitigation measures ECAWP Bio-9 through ECAWP Bio-11 and ECAWP Bio-13 would ensure consistency with the adopted City MSCP Subarea Plan (1997). No other adopted HCP, Special Area Management Plan, Watershed Plan, or other regional planning efforts are applicable to the proposed modifications.

Similarly, through the use of sliplining construction methods in FJST within MTRP, FJST would remain open except for at the active excavation work area location. Upon completion of work at each excavation area, the roadway would be restored to pre-existing conditions. A given portion of FJST would not be closed for an extended period of time as construction would continuously progress along the linear alignment. No permanent impacts within MTRP that would conflict with the City of San Diego MTRP Master Plan Update (City of San Diego 2019b) would occur from the proposed modifications.

Construction and operation activities would have the potential to generate noise levels that exceed the noise limits of local jurisdictions. Implementation of mitigation measure CFMP Noi-4, CFMP Noi-5 and ECAWP Noi-8, as described below in Section XIII, will ensure that construction/operation noise levels do

not exceed the limits established by Santee and San Diego. Implementation of these measures would ensure consistency with local policies related to noise.

The Package 4 pipelines would be installed within public rights-of-way in existing roads. Construction would result in potential incompatibilities with surrounding land uses if it requires roadway closures. Mitigation measure ECAWP Tra-1, which involves preparation of a Traffic Management Plan (TMP), would be implemented during construction. Implementation of a TMP would ensure consistency with local policies related to traffic.

The proposed modifications would not result in changes to land use and would not result in other land use conflicts.

XII. Mineral Resources

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of mineral resources impacts is included on page 83 of the 2018 IS/MND. The 2018 IS/MND determined that the Project would be located in areas designated as Mineral Resource Zone (MRZ-) 3 and MRZ-2, which indicate that mineral resources are potentially present; however, it was concluded that impacts related to mineral resources would be less than significant as the Project would involve small development footprints primarily within roadway rights-of-way, on disturbed sites, or at existing facilities and would therefore not result in a significant loss of availability of mineral resources.

Analysis of the Proposed Modifications

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

Packages 1-4

Less Than Significant Impact. The proposed Packages 1-3 modifications would be located in similar locations as those analyzed in the 2018 IS/MND, which are in areas where mineral resources are

potentially present. According to the City of San Diego's General Plan Figure CE-6, Generalized Mineral Land Classification, the proposed Package 4 alignment would be located in areas designated as Mineral Resource Zone (MRZ-) 2 and MRZ-3 (City of San Diego 2008b), which indicate that mineral resources are potentially present. There are known sand and gravel deposits along the San Diego River, and three active quarries are located near the Project in the city of Lakeside, as depicted in Figure 3 of the County of San Diego Mineral Resources Guidelines (County 2008). However, the proposed modifications would be constructed within roadway rights-of-way, on developed/disturbed sites, or at existing facilities and would not preclude mineral extraction. Due to the small development footprints associated with the modifications, implementation of the modifications would not result in a significant loss of availability of mineral resources. Additionally, the modifications consist of public utilities infrastructure that would not be considered incompatible land uses that would preclude areas surrounding the projects from being used for mineral extraction. Impacts related to mineral resources would be less than significant.

XIII. Noise

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project result in:					
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐	☒

Summary of the Analysis in the 2018 IS/MND

Analysis of noise impacts is included on pages 84 through 102 of the 2018 IS/MND. The 2018 IS/MND concluded that construction of the Project would result in temporary increases in ambient noise levels that could exceed applicable limits for human receptors and sensitive habitat. Implementation of mitigation measures CFMP Bio-1I, CFMP Noi-4, CFMP Noi-5, ECAWP Noi-5, ECAWP Noi-6, and ECAWP Noi-7 would reduce potential impacts to a less-than-significant level. Operation of the Ray Stoyer WRF, SHERF, and AWTP facilities and the EMGPS would have the potential to generate noise in excess of applicable limits for human receptors and/or sensitive habitat. Implementation of mitigation measures CFMP Noi-2 and ECAWP Noi-1 through Noi-4 would reduce potential impacts through the use of noise attenuating design features, and impacts would be less-than-significant. Impacts related to vibration from blasting were considered potentially significant; mitigation measure CFMP Noi-3 would reduce

impacts to a less-than-significant level. The Project is not located in proximity to a public or private airport that would result in exposure of people residing or working in the Project area to excessive noise levels.

Analysis of the Proposed Modifications

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The proposed modifications would generate noise during construction and operation that would have the potential to affect nearby noise sensitive land uses (NSLUs), which include single-family and multi-family residential properties, as well as schools and sensitive habitat. The following includes background information on noise terminology and metrics, a summary of applicable regulations, and analysis of potential construction and operation noise impacts.

Fundamentals of Sound and Environmental Noise

Noise can be defined as unwanted sound. Sound (and therefore noise) consists of energy waves that people receive and interpret. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep.

Sound intensity or acoustic energy is measured in decibels (dBs) that are A-weighted (indicated by dBA) to correct for the relative frequency response of the human ear. Unlike linear units (inches or pounds), decibels are measured on a logarithmic scale, representing points on a sharply rising curve.

Since decibels are logarithmic units, sound pressure levels cannot be added or subtracted by ordinary arithmetic means. Typically, a doubling of sound volume would increase a noise level by 3 dBA. A 3 dBA change in sound is the level where humans generally notice a barely perceptible change in sound and a 5 dBA change is generally readily perceptible.

The predominant rating scales for human communities are the L_{EQ}, the Community Noise Equivalent Level (CNEL), and the Day-Night Average Sound Level (L_{DN}), all of which are based on dBA. The L_{EQ} is the total sound energy of time-varying noise over a sample period. The CNEL is the average equivalent A-weighted sound level during a 24-hour day, obtained after addition of 5 decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of ten decibels to sound levels in the night from 10:00 p.m. to 7:00 a.m.

Regulatory Framework

<u>City of San Diego Noise Ordinance</u>

Regarding construction noise, Chapter 5, Article 9.5, Division 4, §59.5.0404 of the City of San Diego Municipal Code states that it shall be unlawful for any person, between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays, or on Sundays, to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator. The code also states that it shall be unlawful for any person, including the City of San Diego, to conduct any construction activity so as to cause, at or beyond the property lines of

any property zoned residential, an average sound level greater than 75 dBA during the 12-hour period from 7:00 a.m. to 7:00 p.m., unless the work is considered emergency work.

Regarding operational noise, Chapter 5, Article 9.5, Division 4, §59.5.0401, Sound Level Limits of the City of San Diego Municipal Code states that it shall be unlawful for any person to cause noise by any means to the extent that the one-hour average sound level exceeds the applicable limit given in Table 15, *City of San Diego Operational Noise Limits*, at any location in the City of San Diego on or beyond the boundaries of the property on which the noise is produced. The noise subject to these limits is that part of the total noise at the specified location that is due solely to the action of said person. In addition, the sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts.

Table 15
CITY OF SAN DIEGO OPERATIONAL NOISE LIMITS

Land Use Zone	Time of Day	One-hour Average Sound Level (dBA)
Single Family Residential	7:00 a.m. to 7:00 p.m.	50
	7:00 p.m. to 10:00 p.m.	45
	10:00 p.m. to 7:00 a.m.	40
Multi-Family Residential (up to a maximum density of 1/2000)	7:00 a.m. to 7:00 p.m.	55
	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
All other Residential	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
Commercial	7:00 a.m. to 7:00 p.m.	65
	7:00 p.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	60
Industrial or Agricultural	anytime	75

Source: City of San Diego Municipal Code, Chapter 5, Article 9.5, Division 4, §59.5.0401, Sound Level Limits

City of Santee Noise Ordinance

The City of Santee's Noise Ordinance is in Chapter 5.04 of the Santee Municipal Code. Section 5.04.040, which establishes the City's noise regulation, generally prohibits nuisance noise and states that it is unlawful for any person to make, continue, or cause to be made or continued within the City limits any disturbing, excessive, or offensive noise that causes discomfort or annoyance to reasonable persons of normal sensitivity residing in the area. This section details several specific sources of nuisance noise and outlines how it may be determined that the noise is in violation of the code.

Section 5.04.090 pertain to construction equipment and states that is unlawful for any person to operate any single or combination of powered construction equipment at any construction site on Mondays through Saturdays except between the hours of 7:00 a.m. and 7:00 p.m., or at any time on Sundays and holidays, unless expressly approved by the Director of Development Services. Construction equipment with a manufacturer's noise rating of 85 dBA L_{MAX} or greater may only operate at a specific location for 10 consecutive workdays. If work involving such equipment would involve more than 10 consecutive workdays, a notice must be provided to all property owners and residents within

300 feet of the site no later than 10 days before the start of construction. The notice must be approved by the City and describe the proposed project and the expected duration of work and provide a point of contact to resolve noise complaints.

County of San Diego Noise Ordinance

Sections 36.401 through 36.423 of the County of San Diego Municipal Code discuss further County noise requirements. The purpose of the Noise Ordinance is to regulate noise in the unincorporated area of the County to promote the public health, comfort and convenience of the County's inhabitants and its visitors.

The Noise Ordinance sets limits pertaining to the generation of exterior noise. It is unlawful for any person to cause or allow the creation of any noise to the extent that the one-hour average sound level at any point on or beyond the boundaries of the property will exceed the applicable limits in Table 16, *County of San Diego Municipal Code Exterior Sound Level Limits*.

Table 16
COUNTY OF SAN DIEGO MUNICIPAL CODE EXTERIOR SOUND LEVEL LIMITS

	Zone	Time	One-Hour Average Sound Level Limits (dBA)
(1)	R-S, R-D, R-R, R-MH, A-70, A-72, S-80, S-81, S-87, S-90, S-92 and R-V and R-U with a density of less than 11 dwelling units per acre.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	50 45
(2)	R-R-O, R-C, R-M, S-86, V5 and R-V and R-U with a density of 11 or more dwelling units per acre.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	55 50
(3)	S-94, V4 and all other commercial zones.	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	60 55
(4)	V1, V2	7 a.m. to 7 p.m.	60
	V1, V2	7 p.m. to 10 p.m.	55
	V1	10 p.m. to 7 a.m.	55
	V2	10 p.m. to 7 a.m.	50
	V3	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	70 65
(5)	M-50, M-52 and M-54	Anytime	70
(6)	S-82, M-56 and M-58	Anytime	75
(7)	S-88 (see subsection (c) below)	-	-

Source: County of San Diego Municipal Code Section 36.404.
Zoning Code Definitions: R-S = Single-Family Residential; R-D = Duplex Residential; R-R = Rural Residential; R-MH = Mobile home Residential; A-70 = Limited Agriculture; A-72 = General Agriculture; S-80 = Open Space; S-90 = Holding Area; S-92 = General Rural; S-94 = Transportation and Utility Corridor; R-V = Variable-Family Residential; R-R-O = Residential Recreation Oriented; R-C = Residential-Commercial; R-M = Multi-Family Residential; S-86 = Parking; R-U = Urban Residential; V1, V2, V3, V4, and V5 = Village Designations; M-50 = Basic Industrial; M-52 = Limited Industrial; M-54 = General Impact Industrial; S-82 = Extractive Use; M-56 = Mixed Industrial; M-58 = High-Impact Industrial; S-88 = Specific Plan

- If the measured ambient level exceeds the applicable limit noted above, the allowable one-hour average sound level shall be the ambient noise level, plus 3 dBA. The ambient noise level shall be measured when the alleged noise violation source is not operating.

- The sound level limit at a location on a boundary between two zones is the arithmetic mean of the respective limits for the two zones; provided however, that the one-hour average sound level limit applicable to extractive industries, including but not limited to borrow pits and mines, shall be 75 dBA at the property line regardless of the zone which the extractive industry is actually located.

- S-88 zones are Specific Planning Areas that allow for different uses. The sound level limits in Table 14 above that apply in an S-88 zone depend on the use being made of the property. The limits in Table 14, subsection (1) apply to property with a residential, agricultural, or civic use. The limits in subsection (5) apply to property with an industrial use that would only be allowed in an M-50, M-52, or M-54 zone. The limits in subsection (6) apply to all property with an extractive use or a use that would only be allowed in an M-56 or M-58 zone.

- A fixed-location public utility distribution or transmission facility located on or adjacent to a property line shall be subject to the sound level limits of this section, measured at or beyond six feet from the boundary of the easement upon which the facility is located.

Section 36.409, Construction Noise

Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated, that exceeds an average sound level of 75 dBA for an eight-hour period, between 7:00 a.m. and 7:00 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

Section 36.410, Impulsive Noise

Section 36.410 provides additional limitation on construction equipment beyond Section 36.404 pertaining to impulsive noise. Except for emergency work or work on a public road project, no person shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 17, *County of San Diego Maximum Sound Levels (Impulsive)*, when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period.

Table 17
COUNTY OF SAN DIEGO MAXIMUM SOUND LEVELS
(IMPULSIVE)

Occupied Property Use	dBA L_{MAX}
Residential, village zoning or civic use	82
Agricultural, commercial or industrial use	85

Source: County of San Diego Municipal Code Section 36.410

The minimum measurement period for any measurements is one hour. During the measurement period, a measurement must be conducted every minute from a fixed location on an occupied property. The

measurements must measure the maximum sound level during each minute of the measurement period. If the sound level caused by construction equipment or the producer of the impulsive noise exceeds the maximum sound level for any portion of any minute, it will be deemed that the maximum sound level was exceeded during that minute.

County Consolidated Fire Code (Section 96.1.5601.2)

Blasting activities are regulated by the County Consolidated Fire Code within Section 96.1.5601.2. A blasting permit must be issued by the Sheriff prior to commencement of any blasting operations. Per Section 5601.2.6, blasting is only allowed Monday through Saturday, between the hours of 7:00 a.m. and 6:00 p.m. or ½ hour before sunset, whichever occurs first, unless special circumstances requiring other time or days is approved by the County. The County code also specifies requirements of noticing for surrounding property owners and the completion of pre- and post-blasting inspection reports.

Packages 1-3

Less than Significant with Mitigation Incorporated. The proposed Packages 1-3 modifications would involve the same general construction activities as those analyzed in the 2018 IS/MND, including facility construction, trenching, jack and bore, horizontal directional drilling, and rock crushing, and within the same jurisdictions. The potential to exceed applicable limits for human receptors and sensitive habitat would remain the same as analyzed in the 2018 IS/MND, and mitigation measures CFMP Bio-1I, CFMP Noi-4, CFMP Noi-5, ECAWP Noi-5, ECAWP Noi-6, and ECAWP Noi-7 would be implemented to reduce potential impacts to a less-than-significant level through compliance with local noise ordinances, the incorporation of noise reduction measures during construction activities, and implementation of a construction traffic plan to minimize disturbance to noise-sensitive receptors. The proposed Packages 13 modifications would not result in a change in operational noise impacts as the primary noise-generating components, including the Ray Stoyer WRF, SHERF, and AWTP facilities and the EMGPS, would remain as analyzed in the 2018 IS/MND.

Package 4

Construction

Less Than Significant with Mitigation Incorporated. The Package 4 modification would occur within the jurisdictions for the noise regulations for the City of San Diego and City of Santee. As specified above, the City of San Diego Noise Ordinances limits construction noise at residential properties to 75 dBA L_{EQ} between the hours of 7:00 a.m. and 7:00 p.m. The City of Santee does not set a numeric limit on construction noise; therefore, given construction occurs between the hours of 7:00 a.m. and 7:00 p.m., construction noise impacts for Package 4 construction within the city of Santee would be less than significant.

Construction of the Package 4 dual alignment within portions of Mission Gorge Road and Fairmont Avenue within the city of San Diego would occur adjacent to residential properties (as close as 25 feet) and would have the potential to result in excessive noise levels at the residential properties. Lift station site G would also be located in proximity to multi-family residential land uses, but at a distance greater than 25 feet (approximately 90 feet). The primary noise-generating activities associated with construction of the dual alignment include pavement removal; open-cut trenching, pipe installation, and backfill; slipline pit excavation and backfill; slipline pipe installation; pressure test/valve installation; connection to existing facilities; and paving. The primary noise-generating activities associated with

construction of the lift station include site demolition, grading, and grubbing; utility installation; and foundation and building construction. As mentioned above, construction activities are anticipated to occur as close as 25 feet from residential properties. Noise levels at 25 feet generated by construction equipment anticipated to be used for the modifications' various construction activities are shown in Table 18, *Construction Equipment Noise Levels.*

Table 18
CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Noise Level @ 25 feet (dBA L_{EQ})
Concrete Saw	88.6
Excavator	82.8
Backhoe	79.6
Loader	81.2
Tractor	86.0
Generator	83.6
Welder	76.0
Pump	84.0
Crane	78.6
Plate Compactor	82.3
Paver	80.2
Skid-steer Loader	77.0
Roller	79.0

Source: RCNM

As shown in Table 18, noise levels from the operation of individual pieces of construction equipment would exceed 75 dBA L_{EQ} at residential properties. In addition, there is potential for multiple pieces of equipment to operate simultaneously at a given location and thus generate combined noise at residential land uses. As such, impacts are considered potentially significant and mitigation measures CFMP Noi-4 and CFMP Noi-5 would be implemented to reduce impacts to a less-than-significant level. Mitigation measure CFMP Noi-4 requires that construction activities comply with local noise ordinances to the extent feasible, which for Package 4 construction would be the City of San Diego's 75-dBA (12-hour L_{EQ}) limit between 7:00 a.m. and 7:00 p.m. To comply with this limit in areas where construction activities would exceed the limit at residential receptor properties, construction noise reduction measures would be implemented per mitigation measure CFMP Noi-5.

Construction traffic noise would be generated by commuting construction workers and by trucks hauling material and equipment to and from the work sites, which would generate noise. Work sites would predominantly consist of excavation areas for sliplining access and receiving pits at intermittent locations along the alignment. Based on the relatively small footprints and associated activity at each excavation area, it is not anticipated that a substantial number of vehicles would travel to and from the site each day. Traffic levels on local roadways would not substantially increase in a manner that would result in increased noise levels over existing traffic noise conditions. Impacts from construction roadway traffic noise would be less than significant.

Operations

Less Than Significant with Mitigation Incorporated. The Package 4 modification operational sources of noise would be limited to the proposed Mission Valley Lift Station. The lift station would be located at one of nine potential sites (depicted as sites A through G, H1, and H2 on Figures 8n and 8o) within the city of San Diego. Noise generated by the lift station would therefore be subject to the property line noise level limits established in the City of San Diego Municipal Code and shown in Table 15. Sites, A, B, D, E, F, and G are within and surrounded by parcels zoned as commercial; the lift station at these sites would thus be subject to a 65 dBA L_{EQ} (1-hour) limit from 7:00 a.m. to 7:00 p.m. and a 60 dBA L_{EQ} (1-hour) limit from 7:00 p.m. to 7:00 a.m. Site C is within and surrounded by parcels zoned as single-family residential; the lift station at this site would be subject to a 50 dBA L_{EQ} (1-hour) limit from 7:00 a.m. to 7:00 p.m., a 45 dBA L_{EQ} (1-hour) limit from 7:00 p.m. to 10:00 p.m., and a 40 dBA L_{EQ} (1-hour) limit from 10:00 p.m. to 7:00 a.m. Sites H1 and H2 are within parcels zoned as commercial with adjacent parcels to the north, east, and south zoned commercial and adjacent parcels to the west zoned multi-family residential; the lift station at these sites would thus be subject to a 65 dBA L_{EQ} (1-hour) limit from 7:00 a.m. to 7:00 p.m. and a 60 dBA L_{EQ} (1-hour) limit from 7:00 p.m. to 7:00 a.m. at its northern, eastern, and southern property lines and a 60 dBA L_{EQ} (1-hour) limit from 7:00 a.m. to 7:00 p.m., a 55 dBA L_{EQ} (1-hour) limit from 7:00 p.m. to 10:00 p.m., and a 52.5 dBA L_{EQ} (1-hour) limit from 10:00 p.m. to 7:00 a.m. at its western property line.

The lift station would generate noise primarily from its pump motors, air supply/ventilation system, backup generator, and transformer. Exterior noise levels generated by the lift station components would depend on numerous factors including specific equipment types and sizes, equipment locations, and structure layout, as well as potential noise dampening features such as insulation, filters, baffles/silencers, acoustic panels and liners, and mufflers, which are typical for current lift station construction. Such design details are not available at this stage in the planning process; therefore, it is not practical to accurately estimate noise levels associated with lift station operations. However, based on the anticipated size and operational characteristics, it is likely that noise levels would exceed applicable property line noise level limits set forth in the City of San Diego Municipal Code. For example, a standard natural gas generator of similar type and size anticipated to be required for the modifications generates a noise level of 70 dB at 23 feet. This component alone would thus have the potential to exceed applicable noise limits, and impacts from noise associated with operation of the proposed lift station are considered potentially significant. Mitigation measure ECAWP Noi-8 would be implemented and would reduce impacts to a less-than-significant level by requiring compliance with the applicable property line noise limits set forth in the City of San Diego Municipal Code. Compliance would be achieved through incorporation of noise attenuating features as part of design of the lift station.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Packages 1-4

Construction

Less Than Significant with Mitigation Incorporated. An excavator would be expected to create the highest vibration levels during demolition and excavation. Per Caltrans guidance, an excavator is expected to generate vibration levels of 0.089 inches per second peak particle velocity (PPV) at 25 feet. The closest vibration sensitive land uses from trenching would be the numerous single-family and/or multi-family residences along various portions of the AWP pipeline and Package 4 alignment, located as close as 25 feet from work areas. Therefore, as the excavator's vibration would be below Caltrans'

strongly perceptible vibration annoyance criteria of 0.1 inches per second PPV (Caltrans 2020), vibration impacts from an excavator would be less than significant.

A vibratory roller would be expected to create the highest vibration levels during fill compaction and paving. Per Caltrans guidance, a vibratory roller is expected to generate vibration levels of 0.210 inches per second PPV at 25 feet. The closest vibration sensitive land uses would be the numerous single-family and multi-family residences along the alignments, located as close as 25 feet from work areas. Therefore, the vibratory roller's vibration would have the potential to exceed the criteria of 0.1 inches per second PPV; however, exposure for individual residences to vibration would be limited to very short durations. A vibratory roller moves at a speed of approximately two miles per hour, which equates to 176 feet per minute. Assuming a standard residential frontage length of 50 feet, a vibratory roller would be adjacent to a given residence for approximately 17 seconds during a single pass, which would not result in excessive vibration exposure. As such, vibration impacts from a vibratory roller would be less than significant.

As assessed in the 2018 IS/MND, blasting may occur for the proposed modifications, specifically along portions of the AWP pipeline. At the current stage of planning, exact blasting requirements are unknown, including the associated quantities of blasts, blast fuel, holes per blast and area per blast. However, if blasting is to occur, it could cause damage due to the vibration generated, and impacts are conservatively assessed as potentially significant. Implementation of mitigation measure CFMP Noi-3 would require a blasting and geotechnical consultant to prepare a plan and monitor activities to reduce any damage caused by vibration. This would reduce potential impacts to a less-than-significant level.

Operations

Less Than Significant Impact. The modifications do not propose equipment that would generate substantial vibration. Operational vibration impacts are less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

Packages 1-3

No Impact. The Packages 1-3 modifications are not located within the 60 CNEL noise contour for Gillespie Field or within two miles of the airport (County of San Diego ALUC 2010a). There are no private airstrips in the vicinity of the modifications. Therefore, the modifications would not expose people residing or working in the Project area to excessive noise levels associated with a private airstrip. No impact would occur.

Package 4

No Impact. Airports in the vicinity of the Package 4 alignment include Gillespie Field (1.4 miles to the east), Montgomery-Gibbs Executive Airport (2.3 miles to the west), and MCAS Miramar (4.9 miles to the northwest). The alignment is not within the 60 CNEL contours of any of these three airports (County of San Diego ALUC 2008, 2010a, and 2010b). As such, while distant aircraft may be audible along the alignment, the Package 4 modification would not expose Project-related construction personnel to excessive noise levels. As related to non-Project people residing or working in the Project area, the modification would not alter existing noise levels associated with aircraft utilizing one of these three

airports and would therefore not expose people residing or working in the Project area to excessive noise levels. No impact would occur.

Mitigation

The following mitigation measure from the PEIR is required for potential blasting activities:

CFMP Noi-3 **Construction Vibration Control Measures**. The following measures shall be implemented during construction of CFMP projects to minimize vibration effects to surrounding noise- and vibration-sensitive land uses:

- For any construction activities that include blasting, a qualified blasting consultant and geotechnical consultant shall prepare all required blasting plans and monitor all blasting activities in conformance with the standards of the State of California, Department of Mines.

- Noticing for blasting shall be provided between two and four weeks prior to construction to all residents or property owners within 600 feet of the alignment. The announcement shall state specifically where and when construction will occur in the area. If construction delays of more than seven days occur, an additional notice shall be made, either in person or by mail.

The following mitigation measures from the PEIR and 2018 IS/MND would be implemented to reduce construction-related noise impacts to less-than-significant levels.

CFMP Noi-4 **Construction Noise Limits**. Construction activities shall comply with the following local noise ordinances, where feasible:

- **City of Santee:** No construction shall occur on Sundays, major holidays, and between 7:00 p.m. to 7:00 a.m. Monday through Saturday.

- **City of San Diego:** A noise level limit of 75 dBA (12-hour L_{EQ}) between 7:00 a.m. to 7:00 p.m., and no construction on Sundays, major holidays, and between 7:00 p.m. to 7:00 a.m. Monday through Saturday.

- **County of San Diego:** A noise level limit of 75 dBA (8-hour L_{EQ}) between 7 a.m. to 7 p.m.

If noise levels fail to comply with the local ordinances, the JPA shall implement sound control methods that reduce the noise levels to the specified limits, including those listed below in measure CFMP Noi-5.

CFMP Noi-5 **Construction Noise Reduction Measures**. The following measures shall be implemented during Project construction:

- Heavy equipment shall be repaired at sites as far as practical from nearby residences.

- Construction equipment, including vehicles, generators, and compressors, shall be maintained in proper operating condition and shall be equipped with manufacturers' standard noise control devices or better (e.g., mufflers, acoustical lagging, and/or engine enclosures).

- Electrical power shall be supplied from commercial power supply, wherever feasible, in order to avoid or minimize the use of engine-driven generators.

- Paging and alarm systems used by the JPA shall be installed so that noise emissions are directed away from, and shielded from, sensitive receptors. Personal paging systems and light alarms shall be used where feasible.

- Staging areas for construction equipment shall be located as far as practicable from residences.

- If lighted traffic control devices are to be located within 500 feet of residences, the devices shall be powered by batteries, solar power, or similar sources, and not by an internal combustion engine.

- The JPA or their construction contractors shall provide advance notice, between two and four weeks prior to construction, by mail to residents and property owners within 300 feet of the construction work areas. The announcement shall state specifically where and when construction would occur in the area. If construction delays of more than seven days occur, an additional notice shall be made, either in person or by mail.

- Nighttime construction work shall be avoided where possible. Should nighttime construction work be necessary in areas that may affect residential or hotel/motel land uses, the JPA's contractor shall ensure that nighttime construction noise levels do not exceed a one-hour limit of 70 dBA L_{EQ} for more than five consecutive days. In addition to the above noise minimization measures, temporary sound barriers may be installed as appropriate between the construction work area and affected noise-sensitive land uses.

- The JPA shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring residents about noise and other construction disturbance. The JPA shall also establish a program for receiving questions or complaints during construction and develop procedures for responding to callers. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public in accordance with the information above.

ECAWP Noi-5 **Trenching, Jack and Bore, and Horizontal Directional Drilling Noise Reduction Measures.** For construction operations that would occur at movable locations along the pipeline alignment, the following setback distances would be necessary to maintain noise levels to within local standards.

- For construction within the City of Santee or County of San Diego, construction noise shall not exceed 75 dBA L_{EQ} (8 hour) as measured at the nearest NSLU.

- During trenching activities in the City of Santee or County of San Diego, a noise barrier may be required. The height would be dependant on the proximity of construction to the nearest NSLU: 6-foot noise barrier within 49 feet of a NSLU, or an 8-foot noise barrier within 34 feet of a NSLU. The barrier shall be placed between the noise-generating equipment and NSLU.

- During jack and bore construction in the City of Santee or County of San Diego, a noise barrier may be required. The height would be dependant on the proximity of construction to the nearest NSLU: a 6--foot noise barrier within 55 feet of a NSLU, an 8-foot noise barrier within 27 feet of a NSLU, or a 10-foot noise barrier within 15 feet of an NSLU. The barrier shall be placed between the noise-generating equipment and NSLU.

- During horizontal directional drilling requiring the use of a generator and diesel engine in the City of Santee or County of San Diego, a noise barrier would be required. The height would be dependant on the proximity of construction to the nearest NSLU: a 6--foot noise barrier within 67 feet of a NSLU, an 8-foot noise barrier within 34 feet of a NSLU, or a 10-foot noise barrier within 19 feet of an NSLU. The barrier shall be placed between the noise-generating equipment and NSLU.

- If a temporary barrier is used, all barriers shall be solid and constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, with no cracks or gaps through or below the wall. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove or close butted seams and must be at least ¾-inch thick or have a surface density of at least 3.5 pounds per SF. Sheet metal of 18 gauge (minimum) may be used, if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. Noise blankets, hoods, or covers also may be used, provided they are appropriately implemented to provide the required sound attenuation. The noise control barrier enclosures may be as an elongated “U” shape, with the elongated sides parallel to the pipeline.

ECAWP Noi-6 **Rock Crushing Noise Reduction Measures**. If on-site use of a rock crusher is required, it shall be located more than 500 feet from the nearest residence. If located within this distance, a temporary sound barrier shall be placed around the rock crusher which shields nearby residences. The barrier should stand at least as tall as the highest part of the crusher, at a minimum of eight feet.

ECAWP Noi-7 **Lake Jennings Construction Traffic Plan**. If construction traffic is required to be routed via Bass Road or Bass Drive around Lake Jennings to the site of the proposed water feature near Half Moon Cove, the District shall implement a construction traffic plan, in coordination with Helix Water District, to minimize disturbance to noise-sensitive recreational users and nearby residents. This may be accomplished through the incorporation of measures including, but not limited to the restriction of haul trips per hour such that construction traffic does not increase hourly average ambient noise

levels by 3 dBA L_{EQ} or more; restricting trips to mid-day hours to minimize campground visitors' and nearby residents' sleep disturbance; or restricting construction activity to a season and/or day when the campground is not at peak use.

The following new mitigation measure has been included to address potential operational noise impacts associated with the proposed Mission Valley Lift Station.

ECAWP Noi-8 **Mission Valley Lift Station Operation Noise Attenuation.** Noise generated by operation of the lift station shall comply with applicable property line noise limits sets forth in City of San Diego Municipal Code, Chapter 5, Article 9.5, Division 4, §59.5.0401, Sound Level Limits. To adequately reduce noise levels, noise attenuating equipment and/or acoustical shielding shall be incorporated into project design. Such features may include, but not be limited to, acoustical louvers, in-line silencers, and/or noise walls. Prior to building plan approval, planning for the lift station noise sources shall be required to show noise compliance with the applicable limit at the property lines. A final operational test shall be required with the pumps and ventilation system in operation to ensure noise levels are below the required standards.

XIV. Population and Housing

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:					
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐	☒

Summary of the Analysis in the 2018 IS/MND

Analysis of population and housing impacts is included on page 103 of the 2018 IS/MND. The 2018 IS/MND concluded that the Project would not directly induce population growth because no new homes or businesses are proposed and would not indirectly induce population growth because the Project has been developed to provide a sustainable local water supply for the region's existing and projected population in approved local and regional land use plans. The Project would also not displace housing or people. No impacts related to population and housing would occur.

Analysis of the Proposed Modifications

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Packages 1-4

No impact. The proposed Project modifications do not involve new homes or businesses and would not directly induce population growth. Additionally, implementation of the modifications in association with the overall Project would not indirectly induce population growth because the CFMP projects have been developed to provide a sustainable local water supply for the region's existing and projected population through 2040 in approved local and regional land use plans. Therefore, the projected population growth of the region that would be accommodated by the proposed Project was based upon existing and planned land use data for the Project area. The proposed modifications would not result in population growth and no impacts would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Packages 1-4

No impact. The proposed modifications would not displace people or housing or necessitate the construction of replacement housing. No impacts would occur.

XV. Public Services

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
a) Fire protection?	☐	☐	☐	☐	☒
b) Police protection?	☐	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☐	☒

Summary of the Analysis in the 2018 IS/MND

Analysis of public services impacts is included on page 104 of the 2018 IS/MND. The 2018 IS/MND concluded that the Project involves the construction and operation of recycled water facilities and does not include residential or other land uses that would result in an increased demand for fire services, police protection, schools, parks, or other public facilities. As such, the Project would not require the provision of new or physically altered fire, police, school, park, or other public facilities, the construction of which could cause significant environmental impacts and no related impacts would occur.

Analysis of the Proposed Modifications

a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services (fire protection, police protection, schools, parks, other public facilities)?

Packages 1-4

No Impact. The proposed Project modifications are associated with recycled water facilities and would not include residential land uses that would result in an increased demand for public services or require the provision of new or physically altered facilities. No impacts would occur.

XVI. Recreation

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐	☐
b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of recreation impacts is included on page 105 of the 2018 IS/MND. The 2018 IS/MND concluded that because the Project involves the construction and operation of recycled water facilities and does not contain residential or other land uses that would introduce new residents to the area, the Project would not result in increased use of recreational facilities. Construction of the portion of the AWP pipeline near the Historic Flume Trail would require temporary closure of the public trail and trailhead parking facility for approximately six months. However, upon completion of that component, public

access to the trail would be restored. The Project would not require the construction or expansion of recreational facilities, and no impact would occur.

Analysis of the Proposed Modifications

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Packages 1-4

Less Than Significant with Mitigation Incorporated. The proposed modifications are associated with recycled water facilities and would not include residential land uses that would result in an increased use of recreational facilities. The proposed Packages 1-3 modifications would not result in changes to the previous analysis as related to the temporary closure of the Historic Flume Trail. Construction of the Package 4 modifications would occur along FJST within MTRP and would require temporary closure of portions of this roadway. This could potentially also result in temporary inaccessibility to trailheads located along FJST. Construction within FJST would involve intermittently spaced (typically at 500- to 900-foot intervals) excavation areas for sliplining access pits. The majority of FJST would remain open during work at a given excavation area location. Upon completion of work at each excavation area, the roadway would be restored to pre-existing conditions. A given portion of FJST would not be closed for an extended period of time as construction would continuously progress along the linear alignment. No permanent impacts related to access along FJST (including trailheads) would occur from the modifications. As discussed in Section XVII, a TMP would be implemented per mitigation measure ECAWP Tra-1, which would ensure that construction activities within FJST in MTRP would not result in safety hazards to recreational users. With implementation of a mitigation measure ECAWP Tra-1, impacts would be less than significant.

XVII. Transportation

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in inadequate emergency access?	☐	☐	☒	☐	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of transportation/traffic impacts is included on pages 106 through 115 of the 2018 IS/MND. The 2018 IS/MND concluded that Project-generated traffic and lane closures during construction could result in potentially significant impacts to the circulation system. Implementation of a traffic management plan per mitigation measure ECAWP Tra-1 would reduce potential impacts to a less-than-significant level. Implementation of a traffic management plan per mitigation measure ECAWP Tra-1 would also reduce potential impacts related to traffic hazards, inadequate emergency access, and conflict with alternative transportation plans to a less-than-significant level. No impacts related to changes in air traffic patterns would occur.

Analysis of the Proposed Modifications

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Packages 1-3

Less Than Significant with Mitigation Incorporated. With the proposed Packages 1-3 modifications, Project construction would continue to occur in various roadways and result in lane closures. The modifications would not result in a considerable change in construction vehicle trips from what was analyzed in the 2018 IS/MND. While construction with the proposed modifications would occur along portions of roadways not considered in the 2018 IS/MND (e.g., Channel Road south of Lakeside Avenue, Mapleview Street west of Vine Street, and Lake Jennings Park Road south of Mapleview Street) the overall potentially significant impact related to affecting the local circulation system would remain the same and mitigation measure ECAWP Tra-1 would still be required. This measure would involve preparing and implementing a comprehensive TMP that would include provisions to allow for continued function of the circulation system through traffic management measures, which would reduce impacts to a less-than-significant level.

Package 4

Less Than Significant with Mitigation Incorporated. The proposed Package 4 alignment would occur within numerous roadways, including Mission Gorge Road, FJST, Zion Avenue, Riverdale Street, Vandever Avenue, Fairmont Avenue, and Camino Del Rio North. Bicycle and pedestrian facilities are located along numerous portions of these roadways, most notably Mission Gorge Road and FJST. Impacts to the circulation system would have the potential to occur during construction from (1) the generation of construction traffic on the roadways and (2) physical construction within the roadways.

Construction traffic would be generated by commuting construction workers and by trucks hauling material and equipment to and from the work sites. Work sites would predominantly consist of excavation areas for sliplining access and receiving pits at intermittent locations along the Package 4

dual alignment, as well as sections of open-cut trenching and the construction site for the Mission Valley Lift Station. Based on the relatively small footprints of each excavation area (e.g., sliplining launching pits would be 40 feet by 10 feet) and the fact that not all excavated material would be exported due to use as backfill, traffic levels on local roadways would not substantially increase in a manner that would cause congestion or decrease the performance of the circulation system. In addition, work at each site would be short-term as construction would continuously progress along the linear alignment.

Physical construction within the roadways would include open-cut trenching, sliplining, and other trenchless methods. These activities within the roadways would require partial and/or full traffic lane closures, bicycle lane closures, and/or pedestrian facility closures. Lane closures at a given location would be temporary as construction would continuously progress along the linear alignment, and disturbed roadways and sidewalks would be restored to pre-existing conditions; however, impacts are considered potentially significant during construction and mitigation measure ECAWP Tra-1 would be required. Mitigation measure ECAWP Tra-1 would involve preparing and implementing a comprehensive TMP that would include provisions to allow for continued function of the circulation system through traffic management measures, which would reduce impacts to a less-than-significant level.

Upon the completion of construction, the proposed pipelines will be located below ground and would not have a significant effect on the circulation system. The aboveground component, the Mission Valley Lift Station, will not be located within a roadway right-of-way. In addition, aside from occasional maintenance trips, operations will not generate vehicular traffic. As such, operations would not result in impacts to the circulation system.

b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Packages 1-4

Less Than Significant Impact. CEQA Guidelines Section 15064.3 subdivision (b) sets forth specific criteria for determining the significance of transportation impacts. Subdivision (b) pertains to land use projects and describes factors that may indicate whether the amount of a land use project's vehicle miles traveled may be significant or not. As discussed above in Section XVII(a), Project modification-related trip generation would be limited to a relatively small number of trips during the temporary construction period and occasional trips for maintenance purposes during operations. The modifications do not propose a land use that would generate substantial vehicle miles traveled, and they would therefore not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b); impacts would be less than significant.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Packages 1-4

Less Than Significant with Mitigation Incorporated. Portions of construction of the proposed modifications would occur within public roadway rights-of-way and would therefore result in partial and/or full lane closures and the presence of construction equipment and workers, which could result in hazardous roadway conditions; therefore, traffic hazard impacts from construction of the modifications would be potentially significant. Mitigation measure ECAWP Tra-1 would reduce potentially significant impacts to less than significant through implementation of a comprehensive TMP that would include measures to address potential traffic hazards, such as installing appropriate barriers between work

zones and transportation facilities, placement of appropriate signage, use of traffic control devices, provision of detours, and enforcement of speed limits. Following the completion of construction, the components would be either below ground or not within a roadway right-of-way and would therefore not create hazardous roadway conditions. No operational impacts related to hazardous roadway conditions would occur.

d) Result in inadequate emergency access?

Packages 1-4

Less Than Significant with Mitigation Incorporated. Emergency access could be temporarily affected if roadway lane closures restrict access to the areas surrounding the construction sites; therefore, emergency access impacts from construction of the proposed modifications would be potentially significant. Implementation of mitigation measure ECAWP Tra-1 would reduce potentially significant impacts to less than significant through implementation of a comprehensive TMP that would include measures to address emergency access, such as notifying emergency response providers of road closures and implementing construction schedules and techniques that minimize roadway closures. Following the completion of construction, the components would be either below ground or not within a roadway right-of-way and would therefore not affect emergency access.

Mitigation

Mitigation measure CFMP Tra-1 from the PEIR was superseded by mitigation measure ECAWP Tra-1 in the 2018 IS/MND, which incorporates specific, project-level recommendations for preparation of a traffic management plan. Mitigation measure ECAWP Tra-1 has been revised herein to require compliance with City of San Diego and Caltrans requirements.

ECAWP Tra-1 **Traffic Management Plan.** Prior to construction, the JPA shall prepare a comprehensive Traffic Management Plan (TMP) for the proposed Project. The TMP shall be prepared in accordance with all applicable requirements of the City of San Diego, City of Santee, County of San Diego, and Caltrans encroachment permits and applicable plans, ordinances, and policies. The JPA shall submit the TMP to the City of San Diego, City of Santee, County of San Diego, and Caltrans (as applicable) for review, comment, and approval. The TMP may include, but not be limited to, provisions for the following:

- Scheduling the timing and duration of work to avoid the peak commuter hours of 7:00-9:00 am and 4:00-6:00 pm;
- Coordinating with public transit providers (where necessary);
- Providing off-site construction worker parking areas and shuttles for workers to/from the job site;
- Implementing standard safety practices, including installing appropriate barriers between work zones and transportation facilities, placement of appropriate signage, and use of traffic control devices;
- Coordinating with the jurisdictions prior to construction to determine specific traffic handling layouts;

- Protecting traffic by using flaggers, warning signs, lights, and barricades to guide vehicles through or around construction zones;
- Restoring roadway capacity to the extent feasible during hours when construction activities are not occurring, which could include the use of road plates or temporary paving;
- Cleaning and restoring roadways upon completion of work;
- Repair of asphalt and other road damage (e.g., curb and gutter damage) caused by construction vehicles. Documentation of original conditions and repair shall be submitted to the lead agencies for review and verification within 30 days of repair completion;
- Avoiding roads operating at LOS E or worse through the use of alternate traffic routes and construction personnel carpools and/or shuttles;
- Limiting the length of open trenches to the length allowed by County and City encroachment permits;
- Implementing construction schedules and techniques that minimize roadway closures, including the number of cross streets and side streets that may be blocked or otherwise impacted by construction activities;
- Detours for cyclists and pedestrians when bike lanes or sidewalks must be closed;
- Installing steel plates over open trenches in inactive construction areas to maintain existing bicycle and pedestrian access after construction hours;
- Implementing construction phasing or techniques to maintain access through intersections where no alternative routes are available;
- Coordinate with local schools prior to construction within close proximity of school property to ensure entryways are not blocked during peak drop off and pick up times;
- Enforcing speed limits of construction vehicles on all roads, including unpaved access roads within District property;
- Notify emergency response providers of road closures at least one week prior to closures and include the location, date, time, and duration of the closure; and
- Abiding by encroachment permit conditions, which shall supersede conflicting provisions in the TMP.

XVIII. Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:					
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☒	☐	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of tribal and cultural resources impacts is included on pages 116 and 177 of the 2018 IS/MND. The 2018 IS/MND concluded that due to the cultural sensitivity of the area, the Project has the potential to encounter tribal cultural resources (TCRs), and impacts were therefore assessed as potentially significant. Implementation of mitigation measure CFMP Cul-2 would reduce impacts to TCRs to a less-than-significant level.

Analysis of the Proposed Modifications

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

   i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

State AB 52, effective July 1, 2015, introduced the TCR as a class of cultural resource and additional considerations relating to Native American consultation in CEQA. As defined in PRC Section 21074, TCRs are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the CRHR or included in a local register of historical resources as defined in subdivision (k) of PRC Section 5020.1.P.

Packages 1-3

Less Than Significant with Mitigation Incorporated. The NAHC was contacted in January 2018 for a SLF search and list of Native American contacts for the original Project alignment. The NAHC responded in February 2018 that the El Cajon quadrangle is sensitive for cultural resources and provided a list of Tribal Contacts to contact for additional information about the alignment. Letters were sent to these contacts in March 2018. The Viejas Band of Kumeyaay Indians responded in March 2018 – the tribe requested a Kumeyaay Cultural Monitor be on-site for ground-disturbing activities to inform them of any inadvertent discovery of cultural artifacts, cremation sites, or human burials. Due to the potential to encounter TCRs, impacts are conservatively assessed as potentially significant. Mitigation measure ECAWP Cul-2, described above in Section V, would be implemented to reduce impacts to TCRs to a less than significant level.

Package 4

Less Than Significant with Mitigation Incorporated. The NAHC was contacted on May 28, 2021, for a SLF search and a list of Native American contacts for the Package 4 alignment. The NAHC indicated in a response dated June 21, 2021, that the results of the search were positive and that the Kumeyaay Cultural Repatriation Committee should be contacted for further information. Outreach letters were sent on July 6, 2021, to Native American representatives and interested parties identified by the NAHC. To date, one response has been received: The San Pasqual Band of Mission Indians (San Pasqual) stated in a letter dated July 14, 2021, that the Package 4 alignment is located within the Tribe's Traditional Use Area. Because of this, the Tribe requests consultation, as well as access to any cultural resource reports that have been or will be generated during the environmental review process.

Consultation letters were sent via certified mail on November 15, 2021, and follow-up emails were sent on November 18, 2021, to Native American representatives identified by the NAHC. Four responses were received requesting consultation from the Campo Band of Diegueno Mission Indians (Campo), Jamul Indian Village (Jamul), San Pasqual, and Viejas Band of Kumeyaay Indians (Viejas). In addition, Iipay Nation of Santa Ysabel responded that they had no comments or concerns related to the Project. Virtual meetings were held with representatives from Campo, Jamul, San Pasqual, and Viejas between January 10 and 18, 2022. Campo notes that there are many known cultural resources throughout the Project area and that there is potential for additional buried cultural resources or human remains to be present and requested that cultural monitors be present for the entire Package 4 alignment and for all ground disturbance. Jamul, San Pasqual, and Viejas also requested that cultural monitoring occur for the

Project. Jamul also requested on April 8, 2022 specific cultural resources information, which was provided on the same day via email. To date, no additional responses have been received.

Due to the potential to encounter TCRs during ground-disturbing construction activities, impacts associated with the Package 4 modifications are conservatively assessed as potentially significant. Mitigation measures ECAWP Cul-2 and ECAWP Cul-3, described above in Section V, will be implemented to reduce impacts to TCRs to a less-than-significant level.

XIX. Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:					
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☒	☐	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒	☐

Summary of the Analysis in the 2018 IS/MND

Analysis of utilities and service systems impacts is included on pages 117 through 120 of the 2018 IS/MND. The 2018 IS/MND concluded that because the Project involves the expansion and construction of water and wastewater facilities to provide water and recycled water service, it would not result in the need for additional new or expanded water or sewer facilities. Environmental impacts associated with the construction and operation of the Project's water and wastewater facilities are described throughout the IS/MND; implementation of mitigation measures identified in the IS/MND would reduce such impacts to a less-than-significant level. While the Project could result in modification of existing

drainage patterns, implementation of mitigation measure CFMP Hyd-2 would reduce potential impacts related to storm water drainage facilities to a less-than-significant level. The Project's construction waste would be properly handled and disposed of in accordance with federal, state, and local laws and regulations. While long-term operation of the Project would generate some solid waste, the proposed SHERF would provide on-site treatment and conversion of solid wastes into energy in the proposed cogeneration plant. Solid waste from the SHERF would consist of Class B biosolids and would be transported to an appropriate facility to be utilized as land cover. Therefore, impacts to landfills and solid waste would be less than significant.

Analysis of the Proposed Modifications

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Packages 1-4

Less Than Significant with Mitigation Incorporated. The proposed modifications involve the expansion, construction, and rehabilitation of wastewater conveyance facilities, including pipelines and a lift station. The environmental impacts of implementation of the modifications are analyzed throughout this IS. As analyzed herein, the modifications would result in potentially significant impacts related to aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, transportation, TCRs, and wildfire. Mitigation measures identified in the IS would reduce potentially significant impacts to these resource areas to less-than-significant levels.

Due to existing utility congestion within the northeastern portion of the Package 4 alignment in Mission Gorge Road, existing utilities may need to be relocated during implementation of the modifications. The relocations would occur within the same roadway (Mission Gorge Road) and would therefore not result in additional off-site environmental impacts not considered for the proposed project. As such, impacts are considered less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Packages 1-4

No Impact. The proposed modifications would occur as part of the overall Project that would involve the expansion and construction of water and wastewater facilities. A primary purpose of the Project is to ensure adequate, effective, reliable, equitable and fiscally sound water and recycled water service to current and projected customers. The proposed Project responds to projected growth to meet both existing and projected demand. Implementation of the Project, with the proposed modifications, would not result in the need for additional new or expanded water or sewer facilities by introducing people or development to an area. No related impacts would occur.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

Packages 1-4

No Impact. As discussed above, the proposed modifications would occur as part of the overall Project that would involve the expansion and construction of water and wastewater facilities. The rehabilitated EMGFM modification component is proposed specifically to be able to continue to reliably convey intermittent wastewater flows that exceed the capacity of the City of San Diego's MGTS during wet weather high flow events in the existing condition. The construction of the RBL would also divert flows from the MGTS, thus further improving capacity of the MGTS. As such, the proposed modifications would not result in detrimental impacts related to wastewater capacity.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Packages 1-4

Less Than Significant Impact. The proposed modifications would generate solid waste during construction and demolition activities, which would be short-term and temporary. Construction and demolition waste would primarily include excavated soil, rock, concrete, and asphalt. Excavated soil would be reused as backfill at individual construction sites, transported to another Project construction site for use as backfill, and/or hauled from the site to an appropriate facility to be recycled. Similarly, rock, concrete, and asphalt would be transported to and recycled at an appropriate facility. Potential recycling facilities are listed in the City of San Diego's 2022 Certified Construction & Demolition Recycling Facility Directory (City of San Diego 2022). Facilities anticipated to be used for the Project include the Hanson Aggregates West – Lakeside Plant, which recycles asphalt and concrete, and the Hanson Aggregates West – Miramar site, which recycles asphalt, concrete, and soil. This reuse and/or recycling would divert the materials from the landfill. Operation of proposed modifications would not generate solid waste or affect landfill capacities. As such, impacts would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Packages 1-4

Less Than Significant Impact. As discussed above in Section XIX(d), the proposed modifications' waste generation would be limited to construction and demolition and would include materials such as soil, rock, concrete, and asphalt. AB 341 and the City of San Diego Construction and Demolition Debris Deposit Ordinance require projects to divert 75 percent of construction and demolition waste from landfills. As discussed above, excavated soil would be reused as backfill, transported to another Project construction site for use as backfill, and/or hauled from the site to a facility listed in the City of San Diego's 2022 Certified Construction & Demolition Recycling Facility Directory (City of San Diego 2022) where it could be recycled. Similarly, rock, concrete, and asphalt would be transported to and recycled at a facility listed in the directory. Through this reuse and recycling, the modifications would divert its waste from the landfill and would thereby comply with AB 341 and the City of San Diego Construction and Demolition Debris Deposit Ordinance. As such, impacts would be less than significant.

XX. Wildfire

	Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐	☐

Summary of the Analysis in the 2018 IS/MND

Analysis specific to wildfire impacts was not included in the 2018 IS/MND; however, within the Hazards and Hazardous Materials section of the 2018 IS/MND (pages 66 through 71) it was determined that portions of the Project would be located within High or Very High Fire Hazard Severity Zones and mitigation measure CFMP Haz-3 would be required to reduce potential impacts from wildfires to a less-than-significant level.

Analysis of the Proposed Modifications

As discussed above in Section IX(g), CAL FIRE classifies lands in accordance with whether a very high fire hazard is present so that public officials are able to identify measures that will suppress the rate of fire spread and reduce the intensity of uncontrolled fire through vegetation management and building standards. The designation of being within a very high or high fire severity hazard zone is based upon a combination of fuels, terrain, weather, and other relevant factors. Portions of the proposed modifications are within land classified as VHFHSZ, specifically the Package 2 Segment 1, Segment 4, Segment 8, and Segment 10 modifications and along the Package 4 dual alignment as it traverses through MTRP.

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Packages 1-4

Less Than Significant with Mitigation Incorporated. As discussed in Section XVII(d), construction of the proposed modifications would occur within public roadway rights-of-way and would therefore result in partial and/or full lane closures, which could interfere with emergency access and/or evacuation along roadways within which construction is occurring and along connecting roadways; therefore, emergency access and evacuation impacts from construction of the proposed modifications would be potentially significant. Implementation of mitigation measure ECAWP Tra-1 would reduce potentially significant impacts to less than significant through implementation of a comprehensive TMP that would include measures to address emergency access, such as notifying emergency response providers of road closures and implementing construction schedules and techniques that minimize roadway closures. Following the completion of construction, the components would be either below ground or not within a roadway right-of-way and would therefore not affect emergency access. No operational impacts related to emergency access would occur.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Packages 1-4

Less Than Significant with Mitigation Incorporated. As discussed in Section IX(g), the use of construction equipment with combustion engines during construction of the proposed modifications would have the potential to exacerbate wildfire risks in areas mapped as VHFHSZs; however, this impact would be mitigated through implementation of mitigation measure CFMP Haz-3, which would involve avoiding construction in areas of dense foliage during dry conditions, as feasible, and/or incorporating brush fire prevention and management practices. With mitigation, the modifications would not exacerbate wildfire risks in a manner that would expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Packages 1-4

No Impact. The Project modifications would involve the construction of infrastructure in the form of belowground pipelines. The modifications would not require the installation or maintenance of infrastructure that may exacerbate fire risk or result in temporary or ongoing impacts to the environment. No impacts would occur.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant with Mitigation Incorporated. As discussed in Section X(c)(iv), facilities associated with the proposed modifications that are located in flood hazard areas are primarily belowground pipelines that would not be at risk from downstream flooding. Although the proposed Mission Valley Lift

Station would be above ground, it would not include regular occupants that would be at risk of downstream flooding. As discussed in Section VII(a)(iv), portions of the facilities associated with the proposed modifications would be in areas with the potential for landslides; implementation of CFMP Geo-1, which involves completion of a site-specific geotechnical investigation and subsequent incorporation of recommendations into design and construction documents to address identified geologic and soil hazards, would reduce potentially significant impacts to a less than significant level.

XXI. Mandatory Findings of Significance

		Potentially Significant Impact	Less Than Significant with New Mitigation Incorporated	Less Than Significant with Previous Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Does the Project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☒	☐	☐
b)	Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?	☐	☐	☒	☐	☐
c)	Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☒	☐	☐

Summary of the Analysis in the 2018 IS/MND

Analysis on mandatory findings of significance is included on pages 120 through 123 of the 2018 IS/MND. The 2018 IS/MND concluded that biological resources impacts would occur to special status species and sensitive habitats and cultural resources impacts would occur to archaeological and historical resources. Impacts would be reduced to a less-than-significant level through implementation of mitigation measures CFMP Bio-1B, CFMP Bio-1F, CFMP Bio-1H, CFMP Bio 1I, CFMP Bio-1J, CFMP Bio-1K, CFMP Bio 2A, CFMP Bio-3B, CFMP Bio-3C, ECAWP Bio-1 through ECAWP Bio-7, CFMP Pal-1, ECAWP Cul-1, and ECAWP Cul-2. Potential cumulative noise, traffic, and hydrology impacts would be reduced to a less-than-significant level through mitigation measures CFMP Bio-1I, CFMP Noi-2, CFMP Noi-4, CFMP Noi-5, ECAWP Noi-1 through Noi-7, ECAWP Tra-1, and CFMP Hyd-1. Potentially substantial adverse effects to human beings related to exposure to hazardous materials would be mitigated to

below a level of significance with implementation of mitigation measures CFMP Haz-1, CFMP Haz-3, and ECAWP Haz-2.

Analysis of the Proposed Modifications

a) Does the Project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Packages 1-4

Less Than Significant with Mitigation Incorporated. Refer to Section IV with regard to biological resources and to Section V with regard to cultural resources. As described in Section IV, potentially significant biological resources impacts from implementation of the proposed modifications would occur to special status species, sensitive habitats, and sensitive vegetation communities absent mitigation; however, impacts would be mitigated to less-than-significant levels through implementation of mitigation measures CFMP Bio-1F, CFMP Bio-1H, CFMP Bio-1KJ, CFMP Bio-1K, CFMP Bio-2A, CFMP Bio-3B, CFMP Bio-3C, ECAWP Bio-1, and ECAWP Bio-9 through ECAWP Bio-14. As described in Section V, potentially significant cultural resources impacts from implementation of the proposed modifications would occur to archaeological and human remains absent mitigation; however, potential impacts would be mitigated to below a level of significance with the implementation of mitigation measures ECAWP Cul-2 and ECAWP Cul-3.

b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?

Packages 1-4

Less Than Significant with Mitigation Incorporated. The proposed modifications would occur as part of the overall Project, cumulative impacts of which were considered in the 2018 IS/MND. As assessed therein, potential cumulative impacts could occur related to noise and transportation from potential concurrent development of the Project with the Fanita Ranch development, El Monte Sand Mining Project, and City of San Diego's Pure Water Program. Impacts would be reduced to a less-than-significant level through mitigation measures CFMP Bio-1I, CFMP Noi-2, CFMP Noi-4, CFMP Noi-5, ECAWP Noi-1 through Noi-7, and ECAWP Tra-1. Additional cumulative impacts could occur related to air quality, GHG emissions, and hydrology at a regional level. Incremental water quality impacts would be reduced through implementation of NPDES requirements and associated BMPs (mitigation measure CFMP Hyd-1). Construction air quality and GHG emissions would be incremental but temporary as they would only occur during the short-term Project construction period. The Project would implement mitigation measure CFMP Air-1 to minimize construction-related blasting impacts.

The proposed modifications would not result in substantially increased impacts related to air quality, GHG emissions, hydrology, noise, or traffic that would contribute to new cumulative impacts not previously identified in the 2018 IS/MND. Mitigation measures identified herein would ensure impacts

to these resource areas are reduced to less-than-significant levels. As such, implementation of the Project would not result in impacts that are individually limited, but cumulatively considerable.

c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Packages 1-4

Less Than Significant with Mitigation Incorporated. The proposed modifications could potentially result in substantial adverse effects to human beings as related to exposure to hazardous materials, interference with emergency access and evacuation, exposure to wildfire, and exposure to excessive noise levels. However, potential impacts would be mitigated to below a level of significance through implementation of mitigation measures CFMP Haz-1, CFMP Haz-3, ECAWP Haz-1, ECAWP Tra-1, CFMP Noi-4, CFMP Noi-5, ECAWP Noi-5, ECAWP Noi-6, ECAWP Noi-7, and ECAWP Noi-8.

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