

OTAY WATER DISTRICT  
ENGINEERING, OPERATIONS & WATER RESOURCES COMMITTEE MEETING  
and  
SPECIAL MEETING OF THE BOARD OF DIRECTORS

2554 SWEETWATER SPRINGS BOULEVARD  
SPRING VALLEY, CALIFORNIA  
Board Room

**TUESDAY**  
**October 20, 2015**  
**12:00 P.M.**

This is a District Committee meeting. This meeting is being posted as a special meeting in order to comply with the Brown Act (Government Code Section §54954.2) in the event that a quorum of the Board is present. Items will be deliberated, however, no formal board actions will be taken at this meeting. The committee makes recommendations to the full board for its consideration and formal action.

**AGENDA**

1. ROLL CALL
2. PUBLIC PARTICIPATION – OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO SPEAK TO THE BOARD ON ANY SUBJECT MATTER WITHIN THE BOARD'S JURISDICTION BUT NOT AN ITEM ON TODAY'S AGENDA

**DISCUSSION ITEMS**

3. APPROVE A CONSTRUCTION CONTRACT WITH MONTGOMERY CONSTRUCTION SERVICES, INC. FOR THE OPERATIONS YARD PROPERTY ACQUISITION IMPROVEMENT PROJECT IN AN AMOUNT NOT-TO-EXCEED \$449,611.05 (BEPPLER) [5 minutes]
4. APPROVE TWO (2) AGREEMENTS FOR METERED EMERGENCY INTERCONNECTIONS BETWEEN OTAY AND THE HELIX WATER DISTRICT AT BLOSSOM LANE AND AT IVY STREET (BEPPLER) [5 minutes]
5. ADOPT THE MITIGATED NEGATIVE DECLARATION FOR THE CAMPO ROAD SEWER REPLACEMENT PROJECT (COBURN-BOYD) [5 minutes]
6. AUTHORIZE A STUDY FOR THE FEASIBILITY OF ENTERING INTO A WATER PURCHASE AGREEMENT BETWEEN THE DISTRICT AND CADIZ, INC. FOR THE PURCHASE OF 5,000 ACRE-FEET PER YEAR OF RAW WATER; AUTHORIZE THE NEGOTIATION AND ENTERING INTO A LETTER OF INTENT OR MEMORANDUM OF UNDERSTANDING; AND APPROVE THE CALIFORNIA ENVIRONMENTAL QUALITY ACT NOTICE OF EXEMPTION FOR THE POTENTIAL WATER PURCHASE (COBURN-BOYD) [5 minutes]

7. SAN DIEGO COUNTY WATER AUTHORITY UPDATE (WATTON) [10 minutes]

8. ADJOURNMENT

BOARD MEMBERS ATTENDING:

Gary Croucher, Chair

Tim Smith

All items appearing on this agenda, whether or not expressly listed for action, may be deliberated and may be subject to action by the Board.

The Agenda, and any attachments containing written information, are available at the District's website at [www.otaywater.gov](http://www.otaywater.gov). Written changes to any items to be considered at the open meeting, or to any attachments, will be posted on the District's website. Copies of the Agenda and all attachments are also available through the District Secretary by contacting her at (619) 670-2280.

If you have any disability that would require accommodation in order to enable you to participate in this meeting, please call the District Secretary at 670-2280 at least 24 hours prior to the meeting.

#### Certification of Posting

I certify that on October 16, 2015 I posted a copy of the foregoing agenda near the regular meeting place of the Board of Directors of Otay Water District, said time being at least 24 hours in advance of the meeting of the Board of Directors (Government Code Section §54954.2).

Executed at Spring Valley, California on October 16, 2015.

/s/ Susan Cruz, District Secretary

# AGENDA ITEM 3



## STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	November 4, 2015	
SUBMITTED BY:	Stephen Beppler Senior Civil Engineer	PROJECT:	P2537- 001102	DIV. NO.: 3
	Bob Kennedy Engineering Manager			
APPROVED BY:	<input checked="" type="checkbox"/> Rod Posada, Chief, Engineering <input checked="" type="checkbox"/> German Alvarez, Assistant General Manager <input checked="" type="checkbox"/> Mark Watton, General Manager			
SUBJECT:	Award of a Construction Contract to Montgomery Construction Services, Inc. for the Operations Yard Property Acquisition Improvements Project			

### **GENERAL MANAGER'S RECOMMENDATION:**

That the Otay Water District (District) Board of Directors (Board) award a construction contract to Montgomery Construction Services, Inc. (Montgomery Construction) and to authorize the General Manager to execute a construction contract with Montgomery Construction for the Operations Yard Property Acquisition Improvements Project in an amount not-to-exceed \$449,611.05 (see Exhibit A for Project location).

### **COMMITTEE ACTION:**

Please see Attachment A.

### **PURPOSE:**

To obtain Board authorization for the General Manager to enter into a construction contract with Montgomery Construction for the Operations Yard Property Acquisition Improvements Project in an amount not-to-exceed \$449,611.05.

**ANALYSIS:**

The District acquired the subject property adjacent to the Operations Yard in May 2009. The proposed parking lot will add 54 parking spaces and separate the employee vehicles from the District vehicles and equipment. This will also serve as a staging ground in case of a catastrophic event. The Project was designed in-house by District staff and an as-needed electrical consultant.

The Project consists of construction of an approximate 27,700 square-foot asphalt concrete parking lot, including site clearing, grading, preparation of subgrade, asphalt concrete pavement, striping, storm drainage facilities, chain link fence, area lighting, and all other appurtenant and associated work.

The Project was advertised on August 17, 2015 on the District's website and several other publications, including the San Diego Daily Transcript. A non-mandatory Pre-Bid Meeting was held on September 1, 2015, which was attended by seven (7) contractors, subcontractors, and suppliers. Two (2) addenda were sent out to all bidders and plan houses to address questions and clarifications to the contract documents during the bidding period. Bids were publicly opened on September 17, 2015, with the following results:

	<b>CONTRACTOR</b>	<b>TOTAL BID AMOUNT</b>	<b>CORRECTED BID AMOUNT</b>
1	Montgomery Construction Services, Inc. Spring Valley, CA	\$449,611.92	\$449,611.05
2	Whillock Contracting, Inc. La Mesa, CA	\$462,438.00	-
3	L.C. Paving & Sealing, Inc. San Marcos, CA	\$482,753.00	-
4	Kirk Paving, Inc. Lakeside, CA	\$485,207.00	-
5	Fordyce Construction, Inc. Santee, CA	\$514,520.00	\$524,520.00
6	George Weir Asphalt Construction, Inc. Escondido, CA	\$528,500.00	-
7	ABC Construction Co., Inc. San Diego, CA	\$532,400.00	-
8	S & B Engineering, Inc. Lakeside, CA	\$539,700.00	-
9	M.A. Stevens Construction, Inc. National City, CA	\$580,826.47	-

The Engineer's Estimate is \$440,000.00.

Staff reviewed the bids submitted for conformance with the contract requirements and determined that Montgomery Construction had a math error in Bid Item 16 that then impacted the Total Bid Amount. The resultant Total Bid Amount for Montgomery Construction was revised from \$449,611.92 to \$449,611.05. Upon review of the Bid package, it was also discovered that Montgomery Construction had not signed the Subcontractor information in Section 00440, List of Subcontractors - Form E. Upon consultation with the District's General Counsel, Montgomery Construction was advised of the missing certification (Exhibit B) and a signed Section 00440 was submitted (Exhibit C), with no changes to the Subcontractor information. Staff determined that Montgomery Construction was the lowest responsive and responsible bidder. Montgomery Construction holds a Class A Contractor's License, which meets the contract document's requirements, and is valid through January 31, 2017. The reference checks indicated a very good to excellent performance record on similar projects. An internet background search of the company was performed and revealed no outstanding issues with this company. Montgomery Construction is actively registered with the State of California's Department of Industrial Relations (DIR), as required by SB854. Montgomery Construction has not previously worked for the District.

District staff received a bid protest from the Law Office of Christina M. Finrow on behalf of the second low bidder, Whillock Contracting, Inc. (Exhibit D), based upon their inability to review the bids documents submitted for the Project. The letter also requested the right to submit a more specific bid protest after the bid documents were received. District staff and General Counsel analyzed the protest and determined that the protest was not valid. The District's response to the bid protest is provided as Exhibit E.

Staff verified that the bid bond provided by Montgomery Construction is valid. Staff will also verify that Montgomery Construction's Performance Bond and Labor and Materials Bond are valid prior to execution of the contract.

**FISCAL IMPACT:**      Joe Beachem, Chief Financial Officer

The total budget for CIP P2537, as approved in the FY 2016 budget, is \$775,000.00. Total expenditures, plus outstanding commitments and forecast, including this contract, are \$716,627.32. See Attachment B for the budget detail.

Based on a review of the financial budget, the Project Manager anticipates that the budget is sufficient to support the Project.

The Finance Department has determined that, under the current rate model, 100% of the funding will be available from the Betterment Fund for CIP P2537.

**STRATEGIC GOAL:**

This Project supports the District's Mission statement, "To provide high value water and wastewater services to the customers of the Otay Water District in a professional, effective, and efficient manner" and the General Manager's Vision, "A District that is at the forefront in innovations to provide water services at affordable rates, with a reputation for outstanding customer service."

**LEGAL IMPACT:**

None.

SB/BK:mlc

P:\WORKING\CIP P2537 - Property Acquisition\CIP P2479 Property Acquisition\Staff Reports\BD 11-07-15, Staff Report, Operations Yard Property Acquisition Improvements, Award Construction (SB-BK-RP).Docx

- Attachments:
- Attachment A - Committee Action
  - Attachment B - Budget Detail
  - Exhibit A - Location Map
  - Exhibit B - District Letter to Montgomery Construction
  - Exhibit C - Montgomery Construction Letter with Certified Form E
  - Exhibit D - Bid Protest from Whillock Contracting
  - Exhibit E - District Response to Bid Protest



## ATTACHMENT A

<b>SUBJECT/PROJECT:</b> P2537-001102	Award of a Construction Contract to Montgomery Construction Services, Inc. for the Operations Yard Property Acquisition Improvements Project
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### COMMITTEE ACTION:

The Engineering, Operations, and Water Resources Committee (Committee) reviewed this item at a meeting held on October 20, 2015. The Committee supported Staff's recommendation.

### NOTE:

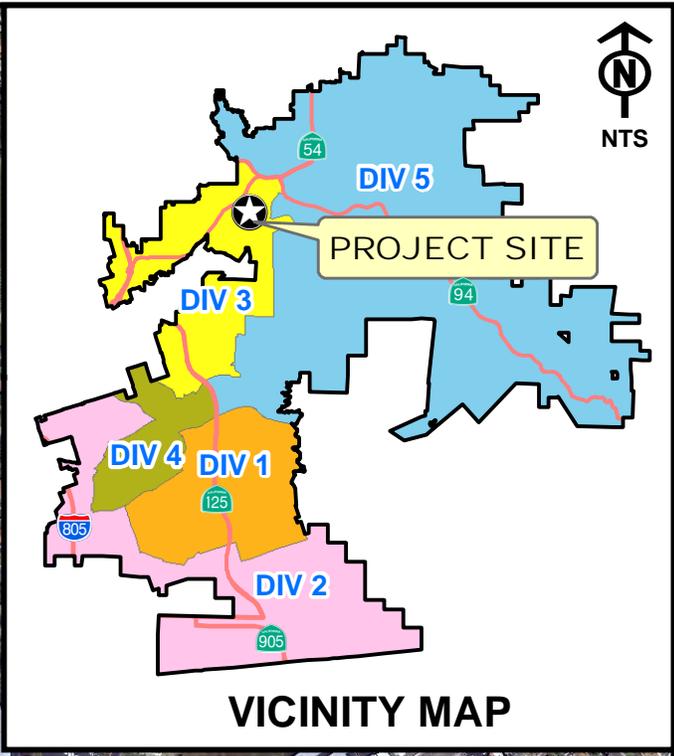
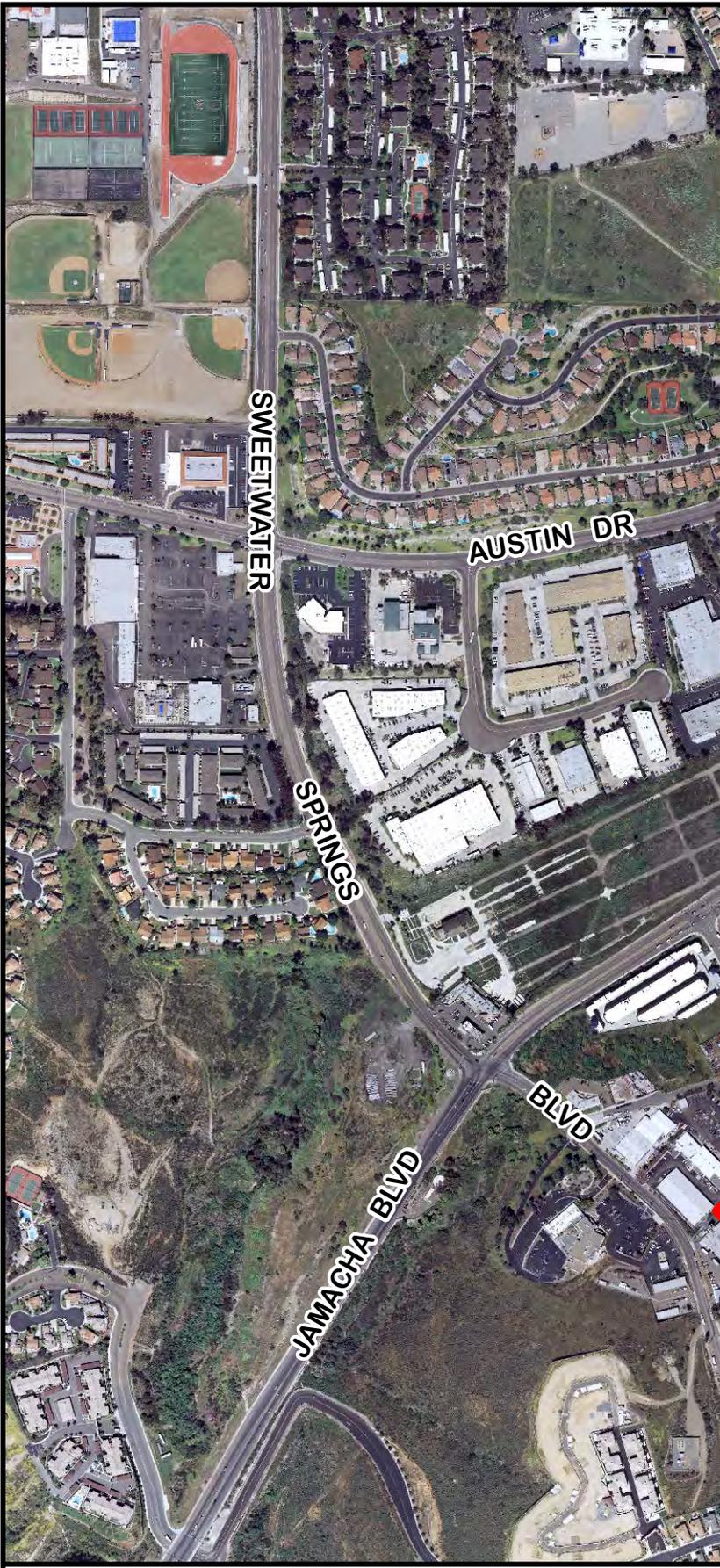
The "Committee Action" is written in anticipation of the Committee moving the item forward for Board approval. This report will be sent to the Board as a Committee approved item, or modified to reflect any discussion or changes as directed from the Committee prior to presentation to the full Board.



## ATTACHMENT B – Budget Detail

<b>SUBJECT/PROJECT:</b> P2537-001102	Award of a Construction Contract to Montgomery Construction Services, Inc. for the Operations Yard Property Acquisition Improvements Project
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Project Budget Detail						
P2537 - Operations Yard Property Acquisition Improvements						
Level	Title1	Committed	Expenditures	Outstanding Commitment	Projected Final Cost	Vendor
Budget	Budget Cost Type	\$0.00	\$0.00	\$0.00	\$0.00	
	Total	\$0.00	\$0.00	\$0.00	\$0.00	
Planning	Regulatory Agency Fees	\$50.00	\$50.00	\$0.00	\$50.00	
	Standard Salaries	\$15,218.91	\$15,218.91	\$0.00	\$15,218.91	
	Total	\$15,268.91	\$15,268.91	\$0.00	\$15,268.91	
Design	Consultant Contracts	\$15,560.00	\$7,740.00	\$7,820.00	\$15,560.00	BSE ENGINEERING INC
		\$8,674.82	\$8,674.82	\$0.00	\$8,674.82	SOUTHERN CALIFORNIA SOIL
	Regulatory Agency Fees	\$24.00	\$24.00	\$0.00	\$24.00	US BANK CORPORATE PAYMENT
	Service Contracts	\$2,394.49	\$1,289.49	\$1,105.00	\$2,394.49	MAYER REPROGRAPHICS INC
		\$94.05	\$94.05	\$0.00	\$94.05	SAN DIEGO DAILY TRANSCRIPT
	Standard Salaries	\$165,000.00	\$157,157.42	\$7,842.58	\$165,000.00	
	Total		\$191,747.36	\$174,979.78	\$16,767.58	\$191,747.36
Construction	Standard Salaries	\$40,000.00	\$800.56	\$39,199.44	\$40,000.00	
	Consultant Contracts	\$20,000.00	\$0.00	\$20,000.00	\$20,000.00	ALYSON CONSULTING
		\$449,611.05	\$0.00	\$449,611.05	\$449,611.05	MONTGOMERY CONSTRUCTION
	Total		\$509,611.05	\$800.56	\$508,810.49	\$509,611.05
Budget	\$775,000.00					
<b>Total</b>		\$716,627.32	\$191,049.25	\$525,578.07	\$716,627.32	



**PROJECT SITE**



# OTAY WATER DISTRICT

OPERATIONS YARD PROPERTY ACQUISITION IMPROVEMENTS  
LOCATION MAP



**CIP P2537**

P:\WORKING\P2537-Property Acquisition\CIP P2479\Graphics\Exhibits\Figures\Staff Report Exhibit A

# EXHIBIT B



...Dedicated to Community Service

2554 SWEETWATER SPRINGS BOULEVARD, SPRING VALLEY, CALIFORNIA 91978-2004  
TELEPHONE: 670-2222, AREA CODE 619

[www.otaywater.gov](http://www.otaywater.gov)

September 24, 2015

Sent via electronic mail and USPS  
Project No.: P2537-001102

Clifford Montgomery  
Montgomery Construction Services, Inc.  
123 Worthington Street, Suite 205  
Spring Valley, CA 91977

Subject: Operations Yard Property Acquisition Improvements (CIP P2537);  
Bid Proposal - Subcontractor Certification

Dear Mr. Montgomery:

The Otay Water District (District) has reviewed your bid proposal for the Operations Yard Property Acquisition Improvements (CIP P2537) submitted on September 17, 2015. The District has discovered that in Section 00440, List of Subcontractors - Form E, Page 00440-2, the Bidder, Signature, and Date lines are blank at the bottom of this page. Please provide certification that the two subcontractors and the information provided for each subcontractor listed in Form E are correct and the indicated work will be awarded in the event that you are awarded the contract. A copy of the submitted Form E is attached for your reference. Note that the District will not entertain changes to these subcontractors at this time.

Please do not hesitate to contact me at 619-670-2209 if you have any questions. Your timely response to this letter is greatly appreciated.

Sincerely,  
OTAY WATER DISTRICT

A handwritten signature in blue ink that reads "Stephen Beppler".

Stephen Beppler, PE  
Senior Civil Engineer

SB:jf

Attachment: Copy of Submitted Form E

cc: Rod Posada  
Bob Kennedy

**SECTION 00440  
LIST OF SUBCONTRACTORS  
(FORM E)**

The Bidder shall identify all proposed subcontractors and subconsultants who will be performing work that has a value in excess of one-half (0.5) of one (1) percent of the total amount of this proposal. The Bidder certifies that the following subcontracting firms or businesses will be awarded subcontracts for the indicated portions of the work in the event that the Bidder is awarded the contract.

The Bidder shall identify the type of work the subcontractor shall perform; include the specific bid item(s) that the subcontractor(s) will perform work on; and state the percent (%) of the bid item that the subcontractor will perform.

TYPE OF WORK:

\_\_\_\_\_ Surveying \_\_\_\_\_

2 \_\_\_\_\_ 86% \_\_\_\_\_  
Bid Item Percent

\_\_\_\_\_ J & B Engineers, Surveyors \_\_\_\_\_  
Name

13670 Danielson Street Suite G \_\_\_\_\_ Poway, CA 92064 \_\_\_\_\_  
Street City

License No. /Type 29118 / RCE \_\_\_\_\_

\*\*\*\*\*

TYPE OF WORK:

\_\_\_\_\_ Fine Grading, Aggregate Base, Asphalt Concrete \_\_\_\_\_

9,10 \_\_\_\_\_ 85% For Item 9 / 79% For Item 10 \_\_\_\_\_  
Bid Item Percent

\_\_\_\_\_ RAP Engineering, Inc. \_\_\_\_\_  
Name

503 E. Mission Road \_\_\_\_\_ San Marcos, CA 92069 \_\_\_\_\_  
Street City

License No. /Type 880956 / A \_\_\_\_\_

\*\*\*\*\*

TYPE OF WORK:

\_\_\_\_\_

\_\_\_\_\_ Bid Item Percent \_\_\_\_\_

\_\_\_\_\_ Name \_\_\_\_\_

\_\_\_\_\_ Street City \_\_\_\_\_

License No. /Type \_\_\_\_\_

TYPE OF WORK:

\_\_\_\_\_

\_\_\_\_\_  
Bid Item Percent

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City

\_\_\_\_\_  
License No. /Type

\*\*\*\*\*

TYPE OF WORK:

\_\_\_\_\_

\_\_\_\_\_  
Bid Item Percent

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City

\_\_\_\_\_  
License No. /Type

\*\*\*\*\*

TYPE OF WORK:

\_\_\_\_\_

\_\_\_\_\_  
Bid Item Percent

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street City

\_\_\_\_\_  
License No. /Type

BIDDER: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# EXHIBIT C

LIC# 928118

09/25/2015

Stephen Beppler  
Senior Civil Engineer  
Otay Water District  
2554 Sweetwater Springs Blvd  
Spring Valley, CA 91978

Re: Operations Yard Property Acquisition Improvements

Dear Stephen Beppler:

This letter is to inform you that subcontractors listed on Form E and submitted on September 17<sup>th</sup>, 2015 by Montgomery Construction Services, Inc. with the signature and date line blank will be awarded subcontracts to perform the work for the scope they are listed for. Along with this letter you will find Form E, provided with the addition of the signature and date needed, with the subcontractor's information unchanged. This letter and signed Form E is to certify that the information initially provided is true and correct and no changes will be made.

Sincerely,



Clifford J. Montgomery  
PM

**SECTION 00440  
LIST OF SUBCONTRACTORS  
(FORM E)**

The Bidder shall identify all proposed subcontractors and subconsultants who will be performing work that has a value in excess of one-half (0.5) of one (1) percent of the total amount of this proposal. The Bidder certifies that the following subcontracting firms or businesses will be awarded subcontracts for the indicated portions of the work in the event that the Bidder is awarded the contract.

The Bidder shall identify the type of work the subcontractor shall perform; include the specific bid item(s) that the subcontractor(s) will perform work on; and state the percent (%) of the bid item that the subcontractor will perform.

TYPE OF WORK:

\_\_\_\_\_ Surveying \_\_\_\_\_

2 \_\_\_\_\_ 86%  
Bid Item \_\_\_\_\_ Percent

\_\_\_\_\_ J & B Engineers, Surveyors \_\_\_\_\_  
Name

13670 Danielson Street Suite G \_\_\_\_\_ Poway, CA 92064  
Street \_\_\_\_\_ City

License No. /Type 29118 / RCE \_\_\_\_\_

\*\*\*\*\*

TYPE OF WORK:

\_\_\_\_\_ Fine Grading, Aggregate Base, Asphalt Concrete \_\_\_\_\_

9,10 \_\_\_\_\_ 85% For Item 9 / 79% For Item 10  
Bid Item \_\_\_\_\_ Percent

\_\_\_\_\_ RAP Engineering, Inc. \_\_\_\_\_  
Name

503 E. Mission Road \_\_\_\_\_ San Marcos, CA 92069  
Street \_\_\_\_\_ City

License No. /Type 880956 / A \_\_\_\_\_

\*\*\*\*\*

TYPE OF WORK:

\_\_\_\_\_

\_\_\_\_\_ \_\_\_\_\_  
Bid Item \_\_\_\_\_ Percent

\_\_\_\_\_ \_\_\_\_\_  
Name

\_\_\_\_\_ \_\_\_\_\_  
Street \_\_\_\_\_ City

License No. /Type \_\_\_\_\_

TYPE OF WORK:

\_\_\_\_\_

Bid Item \_\_\_\_\_ Percent \_\_\_\_\_

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_

License No. /Type \_\_\_\_\_

\*\*\*\*\*

TYPE OF WORK:

\_\_\_\_\_

Bid Item \_\_\_\_\_ Percent \_\_\_\_\_

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_

License No. /Type \_\_\_\_\_

\*\*\*\*\*

TYPE OF WORK:

\_\_\_\_\_

Bid Item \_\_\_\_\_ Percent \_\_\_\_\_

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_

License No. /Type \_\_\_\_\_

BIDDER: Montgomery Construction Services, Inc.

Signature: Clifford K. Montgomery

Date: 09/24/2015

# **EXHIBIT D**

## **THE LAW OFFICE OF CHRISTINA M. FINROW**

P.O. Box 2182

La Mesa, CA 91943

Telephone: (619) 277-7983

Facsimile: (619) 916-2468

Email: [cmfinrow@gmail.com](mailto:cmfinrow@gmail.com)

September 22, 2015

### **VIA ELECTRONIC MAIL AND FIRST CLASS MAIL**

Stephen Beppler  
Otay Water District  
2554 Sweetwater Springs Blvd.  
Spring Valley, CA 91978  
[Steve.beppler@otaywater.gov](mailto:Steve.beppler@otaywater.gov)

### **Re: BID PROTEST AND PUBLIC RECORDS ACT REQUEST**

### **Project: Operations Yard Property Acquisition Improvements, CIP P2537**

To whom it may concern,

This office represents Whillock Contracting, Inc. ("Whillock"). On Thursday, September 17, 2015, Otay Water District (the "District") bid the above referenced project. At the bid opening, the District announced that Montgomery Services was the apparent lowest bidder, and that Whillock was the apparent second lowest bidder.

Tarah Claret of Whillock asked to review the bid package of Montgomery Services at the bid opening. She was told that she could not do so. Since last Thursday, Ms. Claret has been calling the District inquiring about when Whillock will be permitted to review the bid documents. As of today, she is still being told that the District's counsel will not let anyone review the bid documents at this time.

I am hereby making a request pursuant to the California Public Records Act, California Government Code Section 6250 *et seq.*, for all bid documents submitted to the District on or before September 17, 2015, including but not limited to the entire bid package of Montgomery Services and the entire bid packages submitted by each and every contractor at the bid opening.

Further, I am hereby submitting this blanket bid protest on the grounds that Whillock has not been permitted to view the bid documents in order to determine if a protest is warranted. I am hereby reserving the right to submit a more specific bid protest after my client receives the documents requested herein.

If there is anything that I can do to assist you in this matter, please do not hesitate to call me or to email me at [cmfinrow@gmail.com](mailto:cmfinrow@gmail.com). If you are not the correct party to receive this, please immediately provide me with the correct contact information.

Thank you very much for your time.

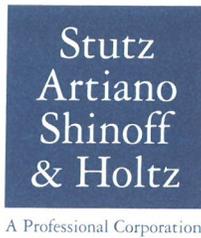
Very truly yours,



Christina M. Finrow  
Attorney for Whillock Contracting, Inc.

Cc: Whillock Contracting, Inc.

2488 Historic Decatur Road,  
Suite 200  
San Diego, CA 92106-6113  
Tel: (619) 232-3122  
Fax: (619) 232-3264  
www.stutzartiano.com



## EXHIBIT E

Richard E. Romero  
[rromero@sasblaw.com](mailto:rromero@sasblaw.com)

September 28, 2015

Christina M. Finrow  
The Law Office of Christina M. Finrow  
P.O. Box 2182  
La Mesa, CA 91943

**RE: California Public Records Act Request**  
**Project: Operations Yard Property Acquisition Improvements, CIP P2537**

Dear Ms. Finrow:

Please consider this correspondence to be the Otay Water District's ("District") response to your California Public Records Act request dated and received September 22, 2015 on behalf of Whillock Contracting, Inc. Your request sought "all bid documents submitted to the District on or before September 17, 2015" in connection with the above project. Please note, however, that the records requested are presently exempt from disclosure under Government Code section 6255 and will not be available for review until such time as the District has completed negotiations with the winning bidder. Pursuant to section 6255, the public interest in nondisclosure clearly outweighs the public interest in disclosure in order to preserve the integrity of the bid process, particularly in the event that the District Board of Directors ("Board") chose to reject all bids and start the bid process anew. (*See Gov. § 6255; see also Michaelis, Montanari & Johnson v Superior Court* (2006) 38 Cal. 4th 1065.)

Accordingly, the District will make such records available after negotiations are complete and before the Board finally approves the award of the contract.

Very truly yours,

STUTZ ARTIANO SHINOFF & HOLTZ  
*A Professional Corporation*

Richard E. Romero,  
Assistant General Counsel  
Otay Water District

# AGENDA ITEM 4



## STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	November 4, 2015
SUBMITTED BY:	Stephen Beppler Senior Civil Engineer	PROJECT NO:	P2551-001102 DIV. NO. 3 P2552-001102
	Bob Kennedy Engineering Manager		
APPROVED BY:	<input checked="" type="checkbox"/> Rod Posada, Chief, Engineering <input checked="" type="checkbox"/> German Alvarez, Assistant General Manager <input checked="" type="checkbox"/> Mark Watton, General Manager		
SUBJECT:	Approval of Two (2) Agreements between Otay Water District and Helix Water District for the Blossom Lane and Ivy Street Metered Emergency Interconnections		

### **GENERAL MANAGER'S RECOMMENDATION:**

That the Otay Water District (Otay) Board of Directors (Board) authorize the General Manager to execute two (2) Agreements for metered emergency interconnections between Otay and the Helix Water District (Helix) at Blossom Lane and at Ivy Street. The design of the metered emergency interconnections has been completed by Helix and are scheduled to be constructed by early 2016 (see Exhibits A and B, respectively, for Project locations).

### **COMMITTEE ACTION:**

Please see Attachment A.

### **PURPOSE:**

To obtain Board authorization for the General Manager to execute two (2) Agreements between Otay and Helix, one for the Blossom Lane metered emergency interconnection and a second for the Ivy Street (referred to as South Barcelona Street in the CIP 2552 title) metered emergency interconnection.

**ANALYSIS:**

For many years, Otay and Helix have mutually benefited from various interconnections between the two water districts for emergencies. These interconnections have provided increased reliability and flexibility during power outages and other disruptions in service.

To-date, Otay has thirty-one (31) emergency interconnections with various water purveyors, including Cal-Am, Sweetwater Authority, City of San Diego, and Helix. Eight (8) of these interconnections are between Otay and Helix, as summarized in the table below.

Inter-connection with Helix	Date Installed	Metered/Not Metered, Flow Direction	Agreement Status
1 Blossom Lane	2016	New metered, to/from Otay	Agreement attached
2 Grand Avenue	unknown	Not metered, from Otay	no agreement
3 Ivy Street at S. Barcelona Street	2016	New metered, to/from Otay	Agreement attached
4 Sir Francis Drake Drive/ Explorer Road	2010	Metered, to Otay	Executed 2008, amended in 2013
5 Canta Lomas/Vista Grande	2001	Metered, to/from Otay	Executed 2013
6 Sweetwater Springs Boulevard/ Loma Lane	2006	Metered, to/from Otay	Executed 2005, amended in 2013
7 Gillispie Drive	2011	Metered, to/from Otay	Combined agreement
8 Del Rio Road	2011	Metered, to/from Otay	executed 2012, amended in 2013

The emergency interconnection Agreements for Blossom Lane and Ivy Street are based upon the existing agreements already in place for the five metered interconnections listed in the table above. The Agreements have been reviewed by Otay and Helix staff and corresponding General Counsels. The Agreements do not have expiration dates, which saves staff time tracking expiration dates and renewing agreements and also to preventing the oversight of an expired agreement.

The proposed interconnections are located on Blossom Lane in Lemon Grove and on Ivy Street near South Barcelona Street in Spring Valley. The Projects consist of installing a vault, 8-inch bi-directional meter, blow-offs, new telemetry, and new SCADA equipment at each location. The interconnections will benefit both Helix and Otay by allowing water to be transferred interchangeably between each system in the event of an emergency situation. In previous outages and emergencies, similar interconnections have proven to provide increased reliability and flexibility.

Since the interconnections will benefit both Districts, the Agreements state that Helix and Otay will share equally the cost for design, construction, operation, and maintenance of the facilities. Helix is the lead agency for the planning, design and construction of these interconnections, with Otay reimbursing Helix.

**FISCAL IMPACT:**             Joe Beachem, Chief Financial Officer

The total budget for CIP P2551, as approved in the FY 2016 budget, is \$200,000.00. Total expenditures, plus outstanding commitments and forecast, are \$180,000. See Attachment B-1 for budget detail.

The total budget for CIP P2552, as approved in the FY 2016 budget, is \$200,000.00. Total expenditures, plus outstanding commitments and forecast, are \$180,000. See Attachment B-2 for budget detail.

The District will reimburse Helix for design and construction services at 50% of the total costs incurred, as indicated in the interconnection Agreements.

Based on a review of the financial two (2) budgets for CIPs P2551 and P2552, the Project Manager anticipates that each budget is sufficient to support the Project.

The Finance Department has determined that, under the current rate model, 100% of the funding will be available from the Betterment Fund for both CIPs P2551 and P2552.

**STRATEGIC GOAL:**

This Project supports the District's Mission statement, "To provide high value water and wastewater services to the customers of the Otay Water District in a professional, effective, and efficient manner" and the General Manager's Vision, "A District that is at the forefront in innovations to provide water services at affordable rates, with a reputation for outstanding customer service."

**LEGAL IMPACT:**

None.

SB/BK:mlc

P:\WORKING\CIP P2551 (Blossom Ln) & P2552 (S. Barcelona St.) Helix WD and Otay WD Interconnections\Staff Reports\BD 11-04-15, Staff Report, Helix-Otay Interconnections Agreements, (SB-BK).docx

Attachments: Attachment A - Committee Action  
Attachment B-1 - Budget Detail for CIP P2551  
Attachment B-2 - Budget Detail for CIP P2552  
Attachment C - CIP P2551 Blossom Lane Agreement for  
Emergency Interconnection  
Attachment D - CIP P2552 Ivy Street Agreement for  
Emergency Interconnection  
Exhibit A - Location Map for CIP P2551  
Exhibit B - Location Map for CIP P2552



## ATTACHMENT A

<b>SUBJECT/PROJECT:</b> P2551-001102 P2552-001102	Approval of Two (2) Agreements between Otay Water District and Helix Water District for the Blossom Lane and Ivy Street Metered Emergency Interconnections
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### **COMMITTEE ACTION:**

The Engineering, Operations, and Water Resources Committee (Committee) reviewed this item at a meeting held on October 20, 2015. The Committee supported Staff's recommendation.

### **NOTE:**

The "Committee Action" is written in anticipation of the Committee moving the item forward for Board approval. This report will be sent to the Board as a Committee approved item, or modified to reflect any discussion or changes as directed from the Committee prior to presentation to the full Board.



## ATTACHMENT B-1

<b>SUBJECT/PROJECT:</b> P2551-001102 P2552-001102	Approval of Two (2) Agreements between Otay Water District and Helix Water District for the Blossom Lane and Ivy Street Metered Emergency Interconnections
---	--

Project Budget Detail						
P2551 - Blossom Lane Helix WD and Otay WD Interconnection						
Level	Title1	Committed	Expenditures	Outstanding Commitment	Projected Final Cost	Vendor
Budget	Budget Cost Type	\$0.00	\$0.00	\$0.00	\$0.00	
	Total	\$0.00	\$0.00	\$0.00	\$0.00	
Design	Reimbursement to Helix	\$25,000.00	\$0.00	\$25,000.00	\$25,000.00	Helix Water District
	Standard Salaries	\$11,000.00	\$9,673.02	\$1,326.98	\$11,000.00	
	Total	\$36,000.00	\$9,673.02	\$26,326.98	\$36,000.00	
Construction	Reimbursement to Helix	\$130,000.00	\$0.00	\$130,000.00	\$130,000.00	Helix Water District
	Standard Salaries	\$14,000.00	\$155.86	\$13,844.14	\$14,000.00	
	Total	\$144,000.00	\$155.86	\$143,844.14	\$144,000.00	
Budget	\$200,000.00					
<b>Total</b>		<b>\$180,000.00</b>	<b>\$9,828.88</b>	<b>\$170,171.12</b>	<b>\$180,000.00</b>	



## ATTACHMENT B-2

<b>SUBJECT/PROJECT:</b> P2551-001102 P2552-001102	Approval of Two (2) Agreements between Otay Water District and Helix Water District for the Blossom Lane and Ivy Street Metered Emergency Interconnections
---	--

Project Budget Detail						
P2552 - S. Barcelona (Ivy St) Helix WD and Otay WD Interconnection						
Level	Title1	Committed	Expenditures	Outstanding Commitment	Projected Final Cost	Vendor
Budget	Budget Cost Type	\$0.00	\$0.00	\$0.00	\$0.00	
	Total	\$0.00	\$0.00	\$0.00	\$0.00	
Planning	Standard Salaries	\$114.28	\$114.28	\$0.00	\$114.28	
	Total	\$114.28	\$114.28	\$0.00	\$114.28	
Design	Reimbursement to Helix	\$25,000.00	\$0.00	\$25,000.00	\$25,000.00	Helix Water District
	Standard Salaries	\$10,885.72	\$9,386.50	\$1,499.22	\$10,885.72	
	Total	\$35,885.72	\$9,386.50	\$26,499.22	\$35,885.72	
Construction	Reimbursement to Helix	\$130,000.00	\$0.00	\$130,000.00	\$130,000.00	Helix Water District
	Standard Salaries	\$14,000.00	\$155.86	\$13,844.14	\$14,000.00	
	Total	\$144,000.00	\$155.86	\$143,844.14	\$144,000.00	
Budget	\$200,000.00					
<b>Total</b>		\$180,000.00	\$9,656.64	\$170,343.36	\$180,000.00	

# ATTACHMENT C

## OWD CIP P2551 / HELIX WO 4407 BLOSSOM LANE INTERCONNECTION

### AGREEMENT FOR EMERGENCY INTERCONNECTION BETWEEN OTAY WATER DISTRICT AND HELIX WATER DISTRICT

This Agreement is made and entered into as of \_\_\_\_\_, 2015 by and between Otay Water District, a Municipal Water District organized and existing pursuant to Water Code Section 71000 *et seq*, (hereinafter referred to as “Otay”) and Helix Water District, an Irrigation District organized and existing under the Irrigation District Law of the State of California, Water Code Section 20500 *et seq*, (hereinafter referred to as “Helix”). Otay and Helix are collectively referred to herein as the “Parties.”

#### RECITALS

- A. Otay and Helix are member agencies of the San Diego County Water Authority (hereinafter referred to as the “Authority”), and are retail water purveyors that receive water from the Authority.
- B. The Authority is the regional wholesale water purveyor organized and existing under the County Water Authority Act of the State of California (Chapter 45, Water Code-Appendix).
- C. Otay and Helix desire by this Agreement, to provide emergency water service connections to each other for purposes of providing emergency water supply to the other on an as-needed, as available basis. Such water service connections are not and shall not be used to provide a supplemental or additional water supply to meet the growth in demand not already addressed in the Water Resource Master Plans for either Party.

#### AGREEMENT

#### NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. Definitions. For purposes of this Agreement, the following words and phrases shall have the following meanings:
  - a. Emergency. "Emergency" shall mean any sudden unexpected occurrence that significantly reduces available water so as to jeopardize the public health or safety, or scheduled maintenance where the interconnection is deemed the only source of potable water.
  - b. Surplus Capacity. "Surplus capacity" shall mean that amount of water, as determined by the supplying Party, in excess of the amount necessary to meet the demand of its respective system.

2. Delivery. In emergency situations, as defined above in Section 1(a), Helix and Otay shall supply treated water through their facilities to the interconnection located at Blossom Lane, within the County of San Diego and City of Lemon Grove, as shown in Exhibit A, attached hereto and incorporated herein, when requested by either Party pursuant to the terms of this Agreement. Both Parties shall use their best efforts to provide 24 hours written advance notice of the need for such emergency interconnection, and in all cases shall notify the supplying Party prior to actual use. Each request shall include the date, time, and quantity of the requested delivery. The supplying Party shall operate the interconnection.
3. Ability to Supply Water. Neither Party guarantees that surplus capacity, as defined above in Section 1(b), will be available at the time an emergency occurs. To the extent that surplus capacity is available, in the sole discretion of the supplying Party with no undue burden on its water consumers, the receiving Party may utilize the interconnection described in Exhibit A to the extent of such availability. Water service connections provided hereunder shall not be used to provide supplemental or additional water supply to meet growth in demand not already addressed in the Water Resources Master Plan for either Party.
4. Design and Construction. Otay agrees that Helix shall initially fund all costs of the design and construction of the emergency interconnection, subject to reimbursement by Otay, in the proportion set forth below, upon completion of all work related to the interconnection as set forth herein. The design and specifications shall conform to the Water Agencies' Standards (WAS). Items that are not covered by the WAS shall be subject to Otay's and Helix's mutual approval. Helix shall act as the lead agency for purposes of the California Environmental Quality Act. Helix shall furnish all materials and hire a contractor to perform all construction work necessary to make all connections, in accordance with approved plans and specifications. Upon completion, Helix shall provide Otay with "As-built" record drawings of the interconnection and provide any amendments to these drawings as they are developed. Upon completion of the work, Helix shall bill Otay for 50% of all costs incurred. Payment shall be made by Otay within 30 days of receipt of invoice.
5. Estimate of Quantity of Water Delivered. If water is to be delivered under the terms of this Agreement, the estimated quantity of water to be delivered and duration shall be mutually agreed upon by the Parties prior to its delivery. Both Parties shall use their best efforts to not exceed ninety (90) days delivery of water through the agreed upon connection in the aggregate in any calendar year.
6. Payment for Water Delivered. If water is delivered under the terms of this Agreement, the supplying Party will report the amount of water that has been supplied through a meter to the receiving Party, and to the Authority for credit, within ten (10) calendar days of receipt of delivered water. The Parties agree to request that the Authority bill this amount to the receiving Party and credit this amount to the supplying Party. The cost of the water delivered through the emergency interconnection shall be the Authority's treated water rate in effect at the time of delivery.

7. Maintenance. Helix and Otay shall be responsible for the maintenance and operation costs of the valve(s) connecting to the Parties' respective systems as shown in Exhibit A. Helix and Otay shall be responsible for any costs associated with their respective pipelines leading up to the interconnection, and shall each be responsible for 50% of all costs of any repair, required future relocation, or modification of the connection itself (vault, meter, etc.). Maintenance and maintenance costs related to the cleanup of graffiti on the facilities and meter testing and/or calibration (performed in October of each year) will alternate each calendar year between the Parties. Otay will be responsible for the even years, while Helix will be responsible for the odd years. Helix and Otay shall promptly share test results.
8. Water Quality. Neither Party warrants the quality of treated water delivered through any emergency interconnection established pursuant to this Agreement. The receiving Party shall flush the connection at its own cost prior to providing service to its customers.
9. Access. During the term of this Agreement, authorized representatives of each Party shall be granted access to the facilities and property of the other Party for the purpose of establishing an emergency interconnection pursuant to this Agreement, provided that the Party desiring access will provide at least 24 hour notice of such access. Such notice may be oral or written.
10. Indemnification. Each Party shall be responsible for the willful misconduct and negligent acts or omissions of its officers, directors, agents, employees, and subcontractors. Each Party shall indemnify, hold harmless, and defend the other from and against all claims, demands, and liabilities for bodily injury, property damage, or other damages caused by the willful or negligent act or omission of the indemnifying party or its officers, directors, agents, employees or subcontractors.
11. Term. The term of this Agreement shall be from the date of its execution until terminated pursuant to the terms of this Agreement.
12. Integration. This Agreement, including any and all exhibits to it, represents the entire understanding of the Parties as to those matters contained herein, and supersedes and cancels any prior oral or written understandings, promises or representations with respect to those matters covered in it. This Agreement may not be modified or altered except in writing signed by both Parties.
13. Laws, Venue, and Attorneys' Fees. This Agreement shall be interpreted in accordance with the laws of the State of California. The Parties agree that if any dispute shall arise in relation to this Agreement, they will attempt to resolve such dispute informally, in good faith. If such good faith informal resolution does not resolve the issue, the Parties agree that the matter will be directed to the General Managers of both Parties for another good faith attempt at resolution. If that attempt does not resolve the issue, the Parties agree to mediation under the rules of the American Arbitration Association or any other neutral organization agreed upon before having recourse in a court of law. Any agreements resulting from

mediation shall be documented in writing by all Parties. All mediation results shall be “non-binding” and inadmissible for any purpose in any legal proceeding, unless all Parties otherwise agree in writing. If mediation is not successful, and an action is brought to interpret or enforce any term of this Agreement, the action shall be brought in a state or federal court situated in the County of San Diego, State of California. In the event of any such litigation between the Parties, the prevailing party shall be entitled to recover all reasonable costs incurred, including reasonable attorney’s fees, as determined by the court.

14. Termination. Either Party may terminate this Agreement upon ninety (90) days written notice to the other Party. In the event of termination, Helix and Otay will each be responsible for 50% of the costs of disconnecting or removing connections. Salvaged metering devices, valves and hardware shall remain the property of the Party that is responsible as shown on the approved improvement plans. The Party that retains shared components owned 50% by each Party (e.g., meter and vault) shall pay the other Party 50% of fair market salvage value of those shared components.
15. Notice. Proposed amendments to this Agreement will be delivered by United States Post Office, certified mail, and addressed to:

General Manager  
Otay Water District  
2554 Sweetwater Springs Blvd.  
Spring Valley, CA 91978-2004

General Manager  
Helix Water District  
7811 University Avenue  
La Mesa, CA 91941-4927

Any notice or instrument required to be given or delivered by this Agreement (e.g., flow reporting) may be given or delivered by regular or electronic mail addressed to the designated representative.

16. Severability. In the event any one of the provisions of this Agreement shall for any reason be held invalid, illegal or unenforceable, the remaining provisions of this Agreement shall be unimpaired, and the invalid, illegal or unenforceable provision(s) shall be replaced by a mutually acceptable provision, which being valid, legal and enforceable, comes closest to the intention of the Parties underlying the invalid, illegal or unenforceable provision.
17. Assignment. In no event shall this Agreement be assigned by either Party without first obtaining the prior written consent of the other Party.
18. Waiver. No covenant, term or condition of this Agreement shall be deemed to be waived by any Party hereto unless such waiver is in writing and executed by the Party making the waiver. No waiver of any breach of any of the terms, covenants, or conditions of this Agreement shall be construed or held to be a waiver of any

succeeding or preceding breach of the same or any other term, covenant or condition contained herein.

19. Execution of Agreement. This Agreement shall not be deemed to have been accepted and shall not be binding upon either Party until duly authorized officers of both Parties have executed it. This Agreement, including any and all exhibits to it, represents the entire understanding of both Parties as to those matters contained in it, and supersedes and cancels any prior oral or written understandings, promises or representations with respect to those matters covered in it. This Agreement may not be modified or altered except in writing, signed by both Parties.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first written above.

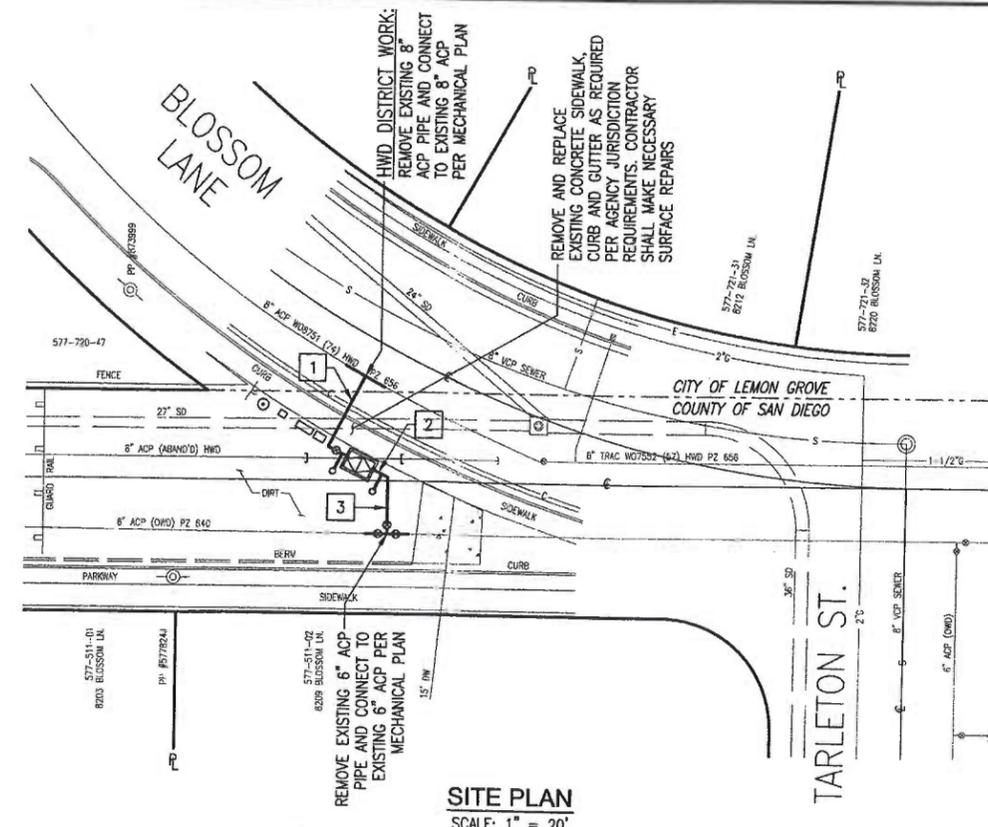
By: \_\_\_\_\_  
Mark Watton, General Manager  
Otay Water District

By: \_\_\_\_\_  
Carlos V. Lugo, General Manager  
Helix Water District

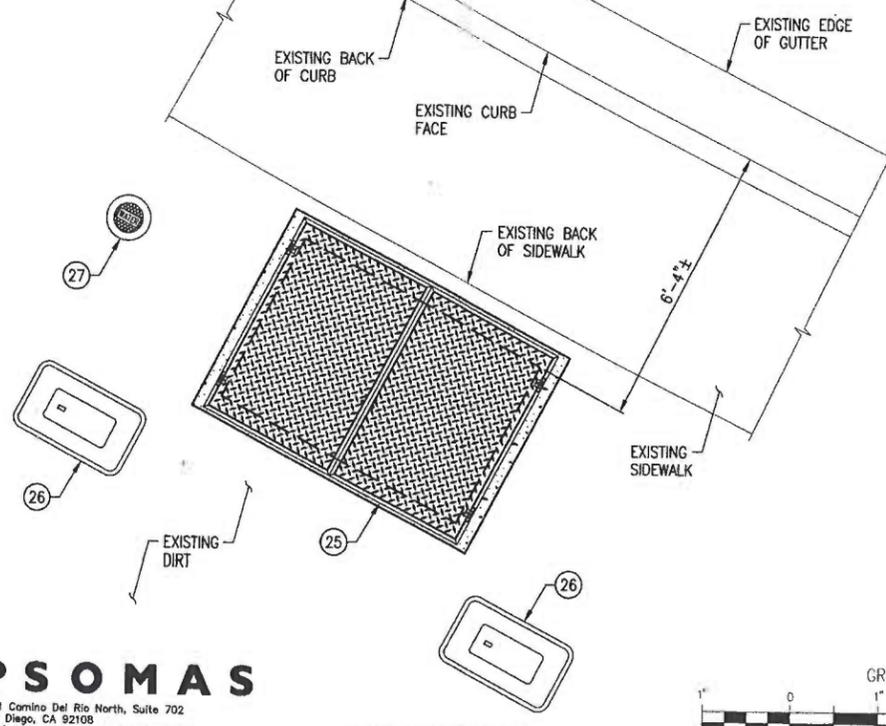
Approved as to form:

By: \_\_\_\_\_  
General Counsel  
Otay Water District

By: \_\_\_\_\_  
General Counsel  
Helix Water District



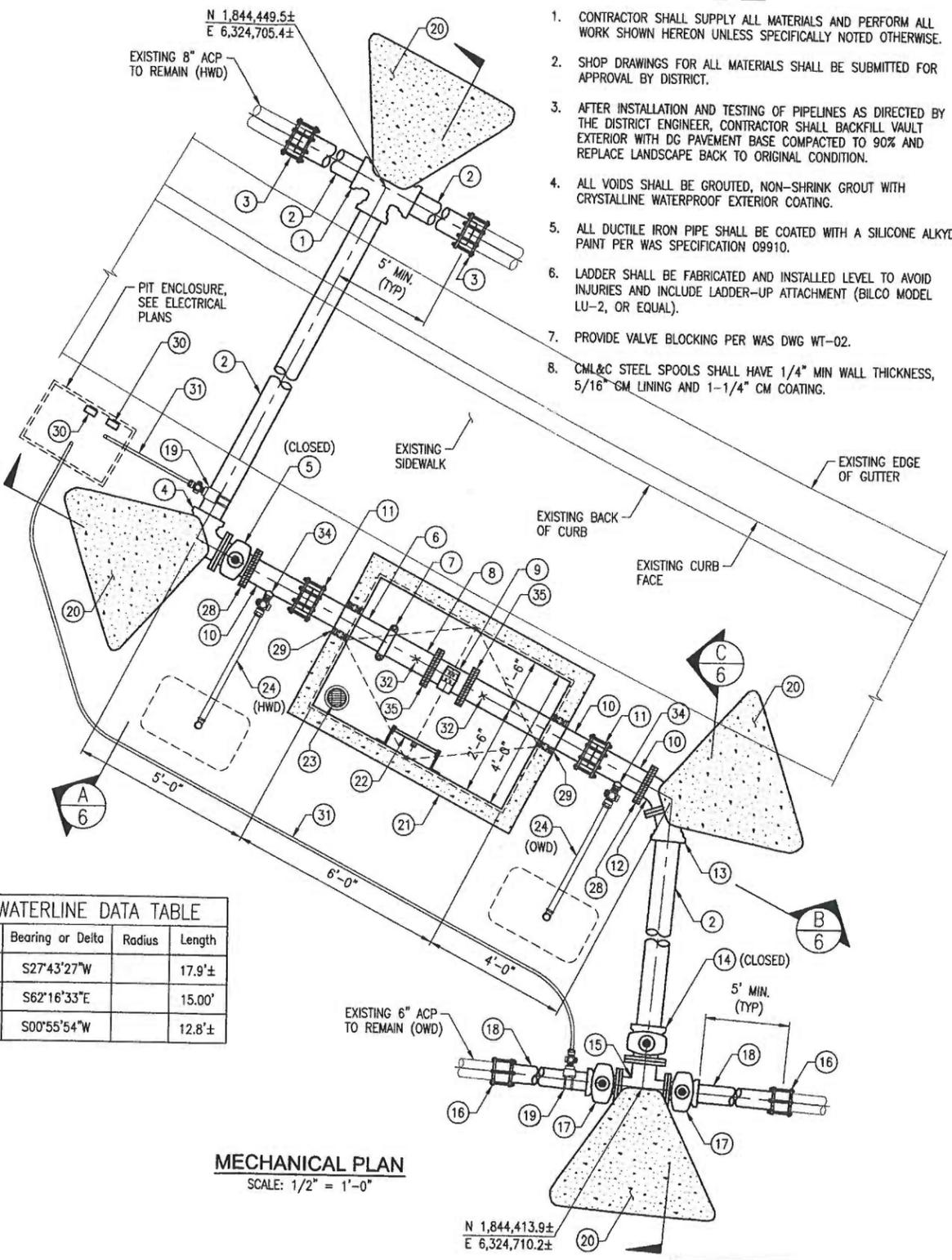
**SITE PLAN**  
SCALE: 1" = 20'



**TOP SLAB PLAN**  
SCALE: 1/2" = 1'-0"

#	Bearing or Delta	Radius	Length
1	S27°43'27"W	17.9'±	
2	S62°16'33"E	15.00'	
3	S00°55'54"W	12.8'±	

**MECHANICAL PLAN**  
SCALE: 1/2" = 1'-0"



**NOTES**

1. CONTRACTOR SHALL SUPPLY ALL MATERIALS AND PERFORM ALL WORK SHOWN HEREON UNLESS SPECIFICALLY NOTED OTHERWISE.
2. SHOP DRAWINGS FOR ALL MATERIALS SHALL BE SUBMITTED FOR APPROVAL BY DISTRICT.
3. AFTER INSTALLATION AND TESTING OF PIPELINES AS DIRECTED BY THE DISTRICT ENGINEER, CONTRACTOR SHALL BACKFILL VAULT EXTERIOR WITH DG PAVEMENT BASE COMPACTED TO 90% AND REPLACE LANDSCAPE BACK TO ORIGINAL CONDITION.
4. ALL VOIDS SHALL BE GROUTED, NON-SHRINK GROUT WITH CRYSTALLINE WATERPROOF EXTERIOR COATING.
5. ALL DUCTILE IRON PIPE SHALL BE COATED WITH A SILICONE ALKYD PAINT PER WAS SPECIFICATION 09910.
6. LADDER SHALL BE FABRICATED AND INSTALLED LEVEL TO AVOID INJURIES AND INCLUDE LADDER-UP ATTACHMENT (BILCO MODEL LU-2, OR EQUAL).
7. PROVIDE VALVE BLOCKING PER WAS DWG WT-02.
8. CML&C STEEL SPOOLS SHALL HAVE 1/4" MIN WALL THICKNESS, 5/16" GM LINING AND 1-1/4" CM COATING.

**MATERIALS LIST**

- 1 8" DI TEE (P0)
- 2 8" CLASS 305 PVC PIPE
- 3 8" TRANSITION COUPLING (ACxPVC)
- 4 8" DI 90° ELBOW (F,PO)
- 5 8" GATE VALVE (F) WITH BURIED OPERATOR
- 6 8" CML&C STEEL SPOOL (PE,GJ) LENGTH AS REQUIRED
- 7 8" VICTAULIC STYLE COUPLING, OR EQUAL
- 8 8" CML&C STEEL SPOOL (F,GJ) LENGTH AS REQUIRED
- 9 8" MAG METER (F) PER PROJECT SPECIFICATIONS
- 10 8" CML&C STEEL SPOOL (F,PE) LENGTH AS REQUIRED
- 11 8" FLEXIBLE COUPLING
- 12 8" DI 45° ELBOW (F)
- 13 8" DI 22-1/2° ELBOW (F,PO)
- 14 8" GATE VALVE (F,PO) WITH BURIED OPERATOR
- 15 6"x6"x8" DI BULLHEAD TEE (F)
- 16 6" TRANSITION COUPLING (ACxPVC)
- 17 6" GATE VALVE (F,PO) WITH BURIED OPERATOR
- 18 6" CLASS 305 PVC PIPE
- 19 1" SERVICE SADDLE PER WAS DWG WS-01
- 20 CONCRETE THRUST BLOCK PER WAS DWG WT-01, SEE SHEET 3
- 21 4'-0"x6'-0"x6'-6" DEEP PRECAST OR CAST-IN-PLACE CONCRETE VAULT
- 22 BILCO MODEL LU-2 (OR EQUAL) GALVANIZED STEEL LADDER-UP SAFETY DEVICE AND FRP LADDER WITH GALVANIZED STEEL HARDWARE
- 23 6" DIA. HOLE IN VAULT FLOOR WITH GRATE
- 24 2" BLOWOFF VALVE ASSEMBLY PER WAS DWG WB-01
- 25 4'-0"x6'-0" BILCO TYPE JD-AL (OR EQUAL) DOUBLE-LEAF HATCH (H20 RATED)
- 26 METER BOX AND LID PER WAS DWG WB-01
- 27 GATE VALVE WELL AND LID PER WAS DWG WV-01
- 28 BURIED INSULATING FLANGE KIT PER WAS DWG WC-05
- 29 WALL PENETRATION PER DETAIL 2/9
- 30 PRESSURE TRANSMITTER
- 31 1" TYPE K COPPER TO PRESSURE TRANSMITTER
- 32 ADJUSTABLE PIPE SUPPORT PER DETAIL 1/9
- 33 3/4" COMPACTED ROCK
- 34 2-1/2" WELDED COUPLING WITH NYLON BUSHING AND 2" CORP STOP
- 35 INSULATING FLANGE KIT PER WAS DWG WC-04

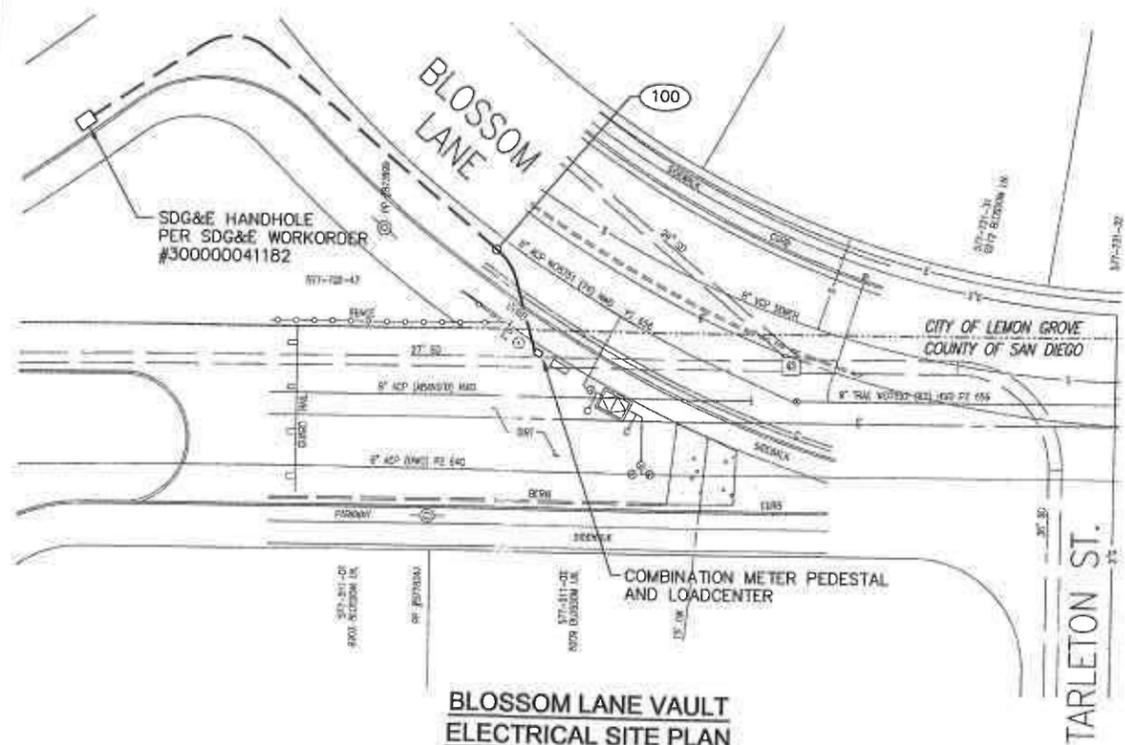
**PSOMAS**  
3111 Camino Del Rio North, Suite 702  
San Diego, CA 92108  
(619) 561-2800 (619) 961-2392 fax  
www.psomas.com



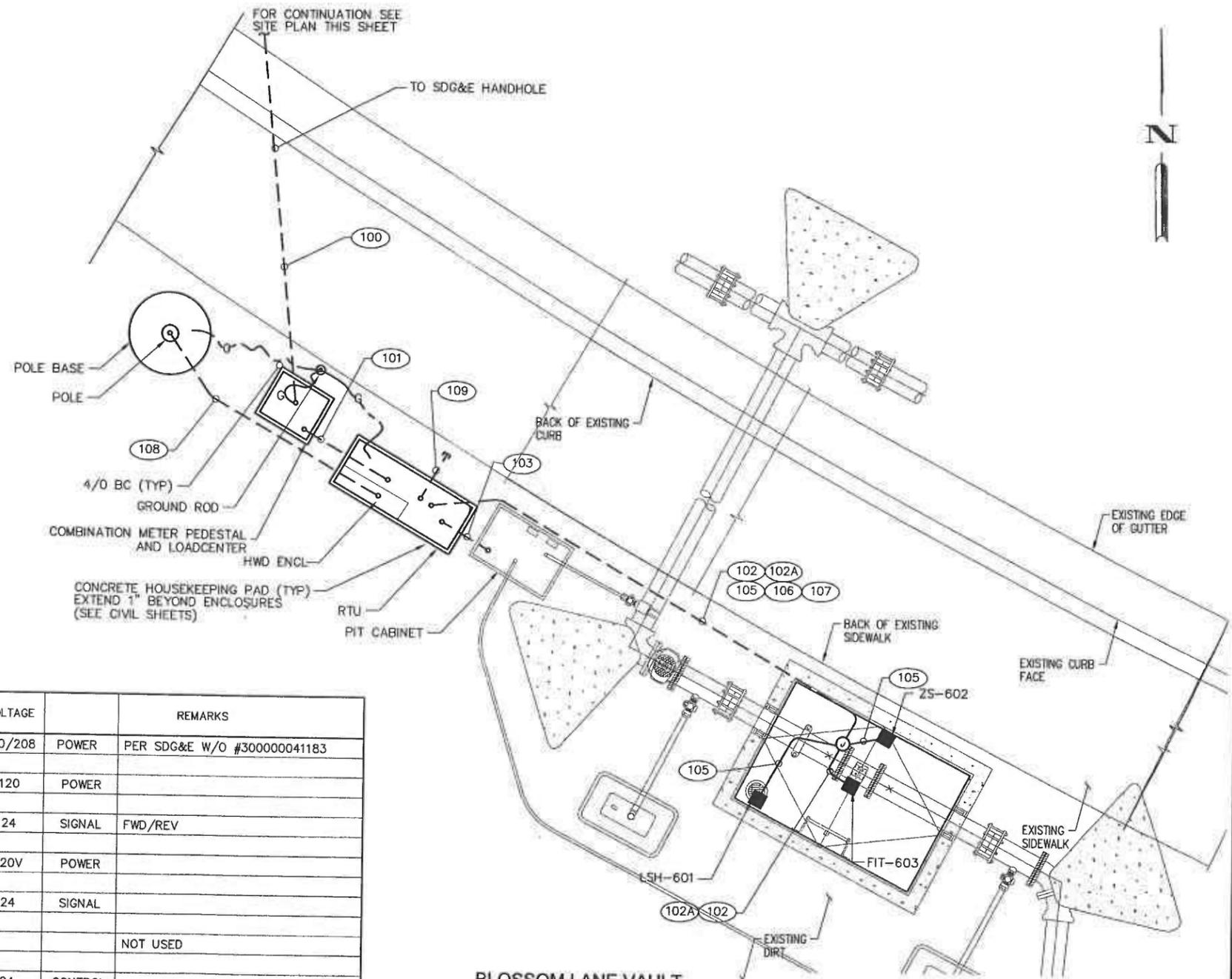
W.O. #: 4407 PLAT(S): \_\_\_\_\_ TB MAP: 1290 J1  
 CONTRACTOR: \_\_\_\_\_  
 PIPELINE DIA/WT/CLASS: \_\_\_\_\_  
 MFR PIPE/VALVE/FH: \_\_\_\_\_  
 INSPECTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 GIS COMPLETED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 AS CONSTRUCTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 REFERENCES: W0 7552, 8751  
 PRESSURE SYSTEMS: \_\_\_\_\_

**HELIX WATER DISTRICT**  
**INTERCONNECTION VAULT AT BLOSSOM LANE**  
 SURVEYED BY: E. BRISNDINE SCALE: AS SHOWN  
 DRAWN BY: M. RAMOS DATE: 3/23/2015  
 CHECKED BY: M. POLLARD  
 CIP ID: \_\_\_\_\_ SHEET 5 OF 19  
**W.O. 4407**

HELIX WATER DISTRICT - EMERGENCY INTERCONNECTION UPGRADES PROJECT 4407 - SOUTH BARCELONA STREET, BLOSSOM LANE



**BLOSSOM LANE VAULT ELECTRICAL SITE PLAN**  
SCALE: 1" = 20'



**BLOSSOM LANE VAULT ELECTRICAL PLAN**  
SCALE: 1/2" = 1'-0"



CONDUIT NO.	CONDUIT SIZE	FROM	TO	CABLE			VOLTAGE	REMARKS
				QTY.	SIZE	GND. *		
100	3"	SDG&E HANDHOLE	METER PEDESTAL	-	-	-	120/208 POWER	PER SDG&E W/O #300000041183
101	1"	METER PEDESTAL	RTU ENCLOSURE	10	#12	#8	120 POWER	
102	1"	RTU ENCLOSURE	FIT-603 FLOWMETER	2	#18TSP	#14	24 SIGNAL	FWD/REV
102A	1"	RTU ENCLOSURE	FIT-603 FLOWMETER	2	#12	#14	120V POWER	
103	1"	RTU ENCLOSURE	PIT ENCLOSURE	2	#18TSP	#14	24 SIGNAL	
104								NOT USED
105	1"	RTU ENCLOSURE	VAULT FLOODING / INTRUSION	4	#14	#14	24 CONTROL	
106	1"	RTU ENCLOSURE	VAULT					SPARE ANALOG
107	1"	RTU ENCLOSURE	VAULT					SPARE DISCRETE
108	1-1/2"	HWD ENCLOSURE INSIDE RTU	ANTENNA MAST	1	CAT6	#14		SIGNAL SHIELDED OUTDOOR CABLE
109	1"	RTU ENCLOSURE	STUB-UP					TERMINATE CONDUIT AT HWD ENCL
								SPARE

**PSOMAS** MORAES/PHAM & ASSOCIATES  
CONSULTING ELECTRICAL ENGINEERS  
3111 Camino Del Rio North, Suite 702  
San Diego, CA 92108  
(619) 961-3800 (619) 961-2392 fax  
www.psomas.com

2175 PALMDALE AVENUE, STE. 100  
CARLSBAD, CA 92001  
(760) 436-7177



**HELIX WATER DISTRICT**  
**BLOSSOM ELECTRICAL SITE PLAN - POWER - SIGNAL AND SCHEDULE**

SURVEYED BY: E. BRISSONNE	SCALE: AS SHOWN	REVIEWED:
DRAWN BY: CAD	DATE: 8/27/2015	
CHECKED BY: TAA		
DATE:		

W.O. 4407  
SHEET 12 OF 19

HELIX WATER DISTRICT - EMERGENCY INTERCONNECTION UPGRADES PROJECT 4407 - SOUTH BARCELONA STREET, BLOSSOM LANE

# ATTACHMENT D

## OWD CIP P2552 / HELIX WO 4407 IVY STREET INTERCONNECTION

### AGREEMENT FOR EMERGENCY INTERCONNECTION BETWEEN OTAY WATER DISTRICT AND HELIX WATER DISTRICT

This Agreement is made and entered into as of \_\_\_\_\_, 2015 by and between Otay Water District, a Municipal Water District organized and existing pursuant to Water Code Section 71000 *et seq*, (hereinafter referred to as “Otay”) and Helix Water District, an Irrigation District organized and existing under the Irrigation District Law of the State of California, Water Code Section 20500 *et seq*, (hereinafter referred to as “Helix”). Otay and Helix are collectively referred to herein as the “Parties.”

#### RECITALS

- A. Otay and Helix are member agencies of the San Diego County Water Authority (hereinafter referred to as the “Authority”), and are retail water purveyors that receive water from the Authority.
- B. The Authority is the regional wholesale water purveyor organized and existing under the County Water Authority Act of the State of California (Chapter 45, Water Code-Appendix).
- C. Otay and Helix desire by this Agreement, to provide emergency water service connections to each other for purposes of providing emergency water supply to the other on an as-needed, as available basis. Such water service connections are not and shall not be used to provide a supplemental or additional water supply to meet the growth in demand not already addressed in the Water Resource Master Plans for either Party.

#### AGREEMENT

#### NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. Definitions. For purposes of this Agreement, the following words and phrases shall have the following meanings:
  - a. Emergency. "Emergency" shall mean any sudden unexpected occurrence that significantly reduces available water so as to jeopardize the public health or safety, or scheduled maintenance where the interconnection is deemed the only source of potable water.
  - b. Surplus Capacity. "Surplus capacity" shall mean that amount of water, as determined by the supplying Party, in excess of the amount necessary to meet the demand of its respective system.

2. Delivery. In emergency situations, as defined above in Section 1(a), Helix and Otay shall supply treated water through their facilities to the interconnection located at Ivy Street, within the County of San Diego, as shown in Exhibit A, attached hereto and incorporated herein, when requested by either Party pursuant to the terms of this Agreement. Both Parties shall use their best efforts to provide 24 hours written advance notice of the need for such emergency interconnection, and in all cases shall notify the supplying Party prior to actual use. Each request shall include the date, time, and quantity of the requested delivery. The supplying Party shall operate the interconnection.
3. Ability to Supply Water. Neither Party guarantees that surplus capacity, as defined above in Section 1(b), will be available at the time an emergency occurs. To the extent that surplus capacity is available, in the sole discretion of the supplying Party with no undue burden on its water consumers, the receiving Party may utilize the interconnection described in Exhibit A to the extent of such availability. Water service connections provided hereunder shall not be used to provide supplemental or additional water supply to meet growth in demand not already addressed in the Water Resources Master Plan for either Party.
4. Design and Construction. Otay agrees that Helix shall initially fund all costs of the design and construction of the emergency interconnection, subject to reimbursement by Otay, in the proportion set forth below, upon completion of all work related to the interconnection as set forth herein. The design and specifications shall conform to the Water Agencies' Standards (WAS). Items that are not covered by the WAS shall be subject to Otay's and Helix's mutual approval. Helix shall act as the lead agency for purposes of the California Environmental Quality Act. Helix shall furnish all materials and hire a contractor to perform all construction work necessary to make all connections, in accordance with approved plans and specifications. Upon completion, Helix shall provide Otay with "As-built" record drawings of the interconnection and provide any amendments to these drawings as they are developed. Upon completion of the work, Helix shall bill Otay for 50% of all costs incurred. Payment shall be made by Otay within 30 days of receipt of invoice.
5. Estimate of Quantity of Water Delivered. If water is to be delivered under the terms of this Agreement, the estimated quantity of water to be delivered and duration shall be mutually agreed upon by the Parties prior to its delivery. Both Parties shall use their best efforts to not exceed ninety (90) days delivery of water through the agreed upon connection in the aggregate in any calendar year.
6. Payment for Water Delivered. If water is delivered under the terms of this Agreement, the supplying Party will report the amount of water that has been supplied through a meter to the receiving Party, and to the Authority for credit, within ten (10) calendar days of receipt of delivered water. The Parties agree to request that the Authority bill this amount to the receiving Party and credit this amount to the supplying Party. The cost of the water delivered through the emergency interconnection shall be the Authority's treated water rate in effect at the time of delivery.

7. Maintenance. Helix and Otay shall be responsible for the maintenance and operation costs of the valve(s) connecting to the Parties' respective systems as shown in Exhibit A. Helix and Otay shall be responsible for any costs associated with their respective pipelines leading up to the interconnection, and shall each be responsible for 50% of all costs of any repair, required future relocation, or modification of the connection itself (vault, meter, etc.). Maintenance and maintenance costs related to the cleanup of graffiti on the facilities and meter testing and/or calibration (performed in October of each year) will alternate each calendar year between the Parties. Otay will be responsible for the even years, while Helix will be responsible for the odd years. Helix and Otay shall promptly share test results.
8. Water Quality. Neither Party warrants the quality of treated water delivered through any emergency interconnection established pursuant to this Agreement. The receiving Party shall flush the connection at its own cost prior to providing service to its customers.
9. Access. During the term of this Agreement, authorized representatives of each Party shall be granted access to the facilities and property of the other Party for the purpose of establishing an emergency interconnection pursuant to this Agreement, provided that the Party desiring access will provide at least 24 hour notice of such access. Such notice may be oral or written.
10. Indemnification. Each Party shall be responsible for the willful misconduct and negligent acts or omissions of its officers, directors, agents, employees, and subcontractors. Each Party shall indemnify, hold harmless, and defend the other from and against all claims, demands, and liabilities for bodily injury, property damage, or other damages caused by the willful or negligent act or omission of the indemnifying party or its officers, directors, agents, employees or subcontractors.
11. Term. The term of this Agreement shall be from the date of its execution until terminated pursuant to the terms of this Agreement.
12. Integration. This Agreement, including any and all exhibits to it, represents the entire understanding of the Parties as to those matters contained herein, and supersedes and cancels any prior oral or written understandings, promises or representations with respect to those matters covered in it. This Agreement may not be modified or altered except in writing signed by both Parties.
13. Laws, Venue, and Attorneys' Fees. This Agreement shall be interpreted in accordance with the laws of the State of California. The Parties agree that if any dispute shall arise in relation to this Agreement, they will attempt to resolve such dispute informally, in good faith. If such good faith informal resolution does not resolve the issue, the Parties agree that the matter will be directed to the General Managers of both Parties for another good faith attempt at resolution. If that attempt does not resolve the issue, the Parties agree to mediation under the rules of the American Arbitration Association or any other neutral organization agreed upon before having recourse in a court of law. Any agreements resulting from

mediation shall be documented in writing by all Parties. All mediation results shall be “non-binding” and inadmissible for any purpose in any legal proceeding, unless all Parties otherwise agree in writing. If mediation is not successful, and an action is brought to interpret or enforce any term of this Agreement, the action shall be brought in a state or federal court situated in the County of San Diego, State of California. In the event of any such litigation between the Parties, the prevailing party shall be entitled to recover all reasonable costs incurred, including reasonable attorney’s fees, as determined by the court.

14. Termination. Either Party may terminate this Agreement upon ninety (90) days written notice to the other Party. In the event of termination, Helix and Otay will each be responsible for 50% of the costs of disconnecting or removing connections. Salvaged metering devices, valves and hardware shall remain the property of the Party that is responsible as shown on the approved improvement plans. The Party that retains shared components owned 50% by each Party (e.g., meter and vault) shall pay the other Party 50% of fair market salvage value of those shared components.
15. Notice. Proposed amendments to this Agreement will be delivered by United States Post Office, certified mail, and addressed to:

General Manager  
Otay Water District  
2554 Sweetwater Springs Blvd.  
Spring Valley, CA 91978-2004

General Manager  
Helix Water District  
7811 University Avenue  
La Mesa, CA 91941-4927

Any notice or instrument required to be given or delivered by this Agreement (e.g., flow reporting) may be given or delivered by regular or electronic mail addressed to the designated representative.

16. Severability. In the event any one of the provisions of this Agreement shall for any reason be held invalid, illegal or unenforceable, the remaining provisions of this Agreement shall be unimpaired, and the invalid, illegal or unenforceable provision(s) shall be replaced by a mutually acceptable provision, which being valid, legal and enforceable, comes closest to the intention of the Parties underlying the invalid, illegal or unenforceable provision.
17. Assignment. In no event shall this Agreement be assigned by either Party without first obtaining the prior written consent of the other Party.
18. Waiver. No covenant, term or condition of this Agreement shall be deemed to be waived by any party hereto unless such waiver is in writing and executed by the party making the waiver. No waiver of any breach of any of the terms, covenants, or conditions of this Agreement shall be construed or held to be a waiver of any

succeeding or preceding breach of the same or any other term, covenant or condition contained herein.

19. Execution of Agreement. This Agreement shall not be deemed to have been accepted and shall not be binding upon either Party until duly authorized officers of both Parties have executed it. This Agreement, including any and all exhibits to it, represents the entire understanding of both Parties as to those matters contained in it, and supersedes and cancels any prior oral or written understandings, promises or representations with respect to those matters covered in it. This Agreement may not be modified or altered except in writing, signed by both Parties.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first written above.

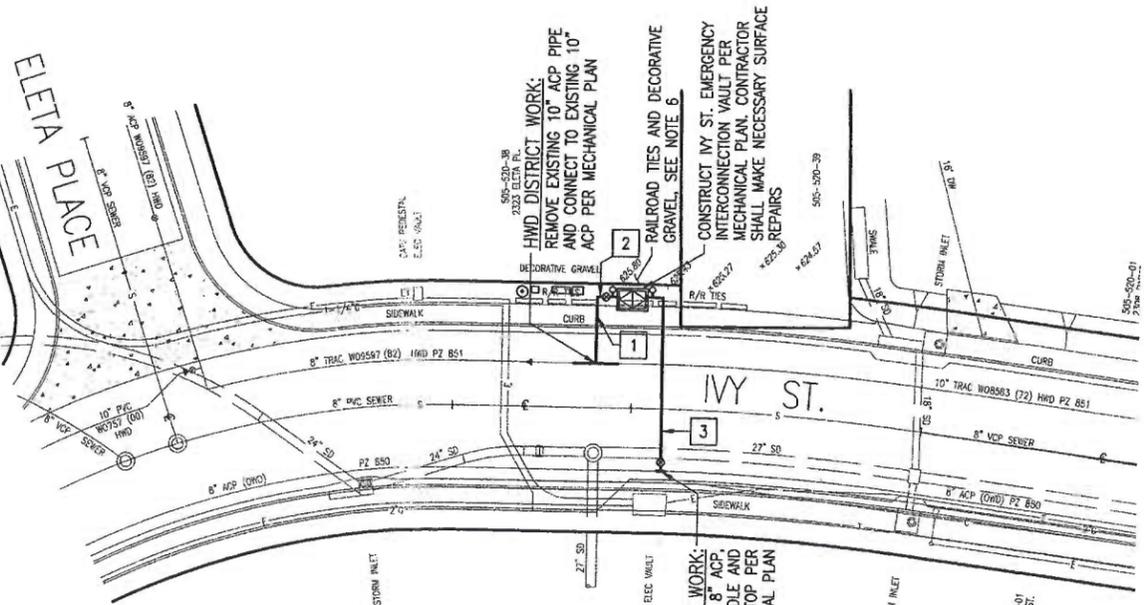
By: \_\_\_\_\_  
Mark Watton, General Manager  
Otay Water District

By: \_\_\_\_\_  
Carlos V. Lugo, General Manager  
Helix Water District

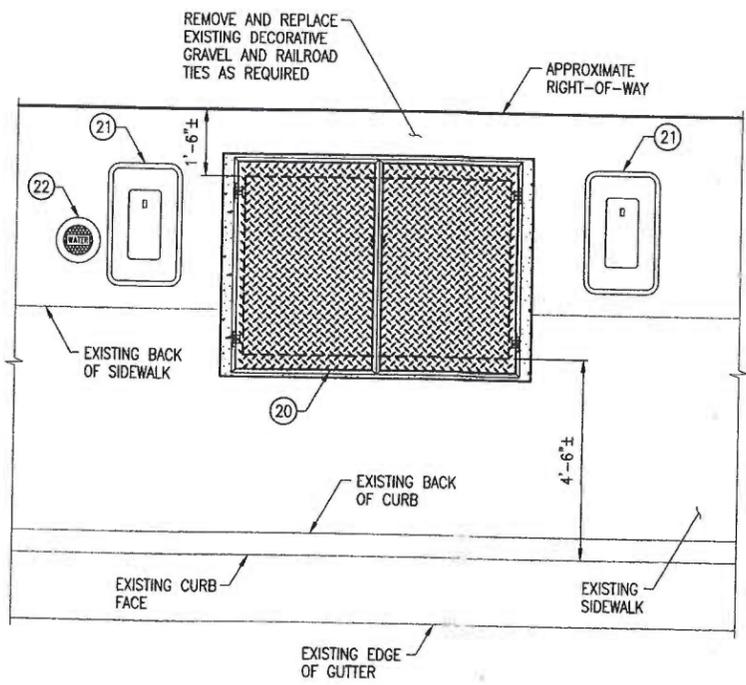
Approved as to form:

By: \_\_\_\_\_  
General Counsel  
Otay Water District

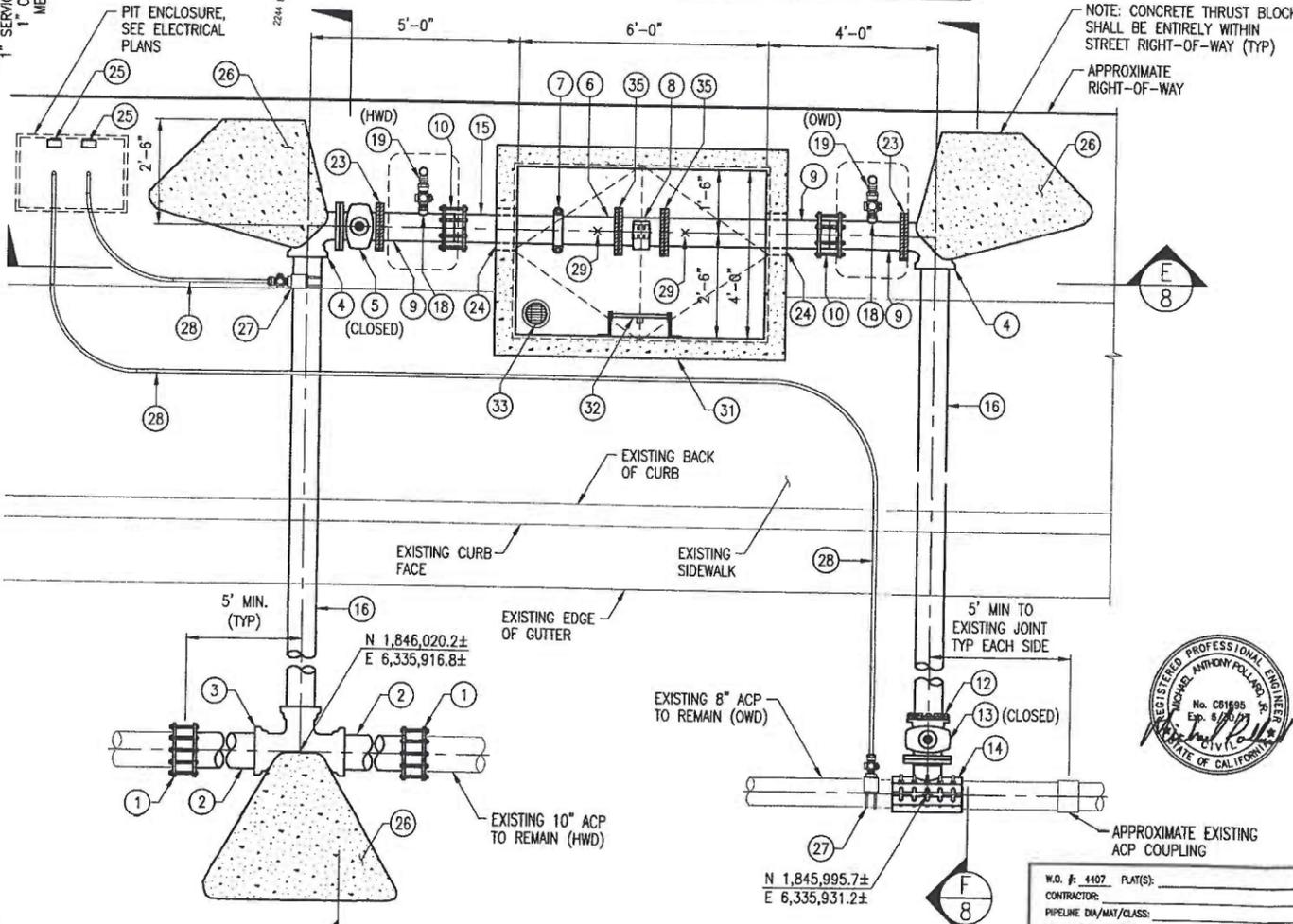
By: \_\_\_\_\_  
General Counsel  
Helix Water District



**SITE PLAN**  
SCALE: 1" = 20'



**TOP SLAB PLAN**  
SCALE: 1/2" = 1'-0"



**MECHANICAL PLAN**  
SCALE: 1/2" = 1'-0"

- NOTES**
- CONTRACTOR SHALL SUPPLY ALL MATERIALS AND PERFORM ALL WORK SHOWN HEREON UNLESS SPECIFICALLY NOTED OTHERWISE.
  - SHOP DRAWINGS FOR ALL MATERIALS SHALL BE SUBMITTED FOR APPROVAL BY DISTRICT.
  - AFTER INSTALLATION AND TESTING OF PIPELINES AS DIRECTED BY THE DISTRICT ENGINEER, CONTRACTOR SHALL BACKFILL VAULT EXTERIOR WITH DG PAVEMENT BASE COMPACTED TO 90% AND REPLACE LANDSCAPE BACK TO ORIGINAL CONDITION.
  - ALL VOIDS SHALL BE GROUTED, NON-SHRINK GROUT WITH CRYSTALLINE WATERPROOF EXTERIOR COATING.
  - LADDER SHALL BE FABRICATED AND INSTALLED LEVEL TO AVOID INJURIES AND INCLUDE LADDER-UP ATTACHMENT (BILCO MODEL LU-2, OR EQUAL).
  - REPLACE EXISTING RAILROAD TIES AND DECORATIVE GRAVEL AROUND NEW VAULT.
  - PROVIDE VALVE BLOCKING PER WAS DWG WT-02.
  - CML&C STEEL SPOOLS SHALL HAVE 1/4" MIN WALL THICKNESS, 5/16" CM LINING AND 1-1/4" CM COATING.

**WATERLINE DATA TABLE**

#	Bearing or Delta	Radius	Length
1	N01°28'41"E		15.0'±
2	S88°31'19"E		15.00'
3	S01°28'41"W		39'±

- MATERIALS LIST**
- 10" TRANSITION COUPLING (ACXPVC)
  - 10" CLASS 305 PVC PIPE
  - 10"x8" DI REDUCING TEE (PO)
  - 8" DI 90° ELBOW (F,PO)
  - 8" GATE VALVE (F) WITH BURIED OPERATOR
  - 8" CML&C STEEL SPOOL (F,GJ) LENGTH AS REQUIRED
  - 8" VICTAULIC STYLE COUPLING, OR EQUAL
  - 8" MAG METER (F) PER PROJECT SPECIFICATIONS
  - 8" CML&C STEEL SPOOL (F,PE) LENGTH AS REQUIRED
  - 8" FLEXIBLE COUPLING
  - 8" DI 11-1/4" ELBOW (PO)
  - 8" MECHANICAL JOINT RESTRAINT
  - 8" TAPPING VALVE (F,MJ) WITH BURIED OPERATOR
  - 8" TAPPING SLEEVE
  - 8" CML&C STEEL SPOOL (PE,GJ) LENGTH AS REQUIRED
  - 8" CLASS 305 PVC PIPE
  - 8" DI TEE (PO)
  - 2-1/2" WELDED COUPLING WITH NYLON BUSHING AND 2" CORP STOP
  - 2" BLOWOFF VALVE ASSEMBLY PER WAS DWG WB-01
  - 4'-0"x6'-0" BILCO TYPE JD-AL (OR EQUAL) DOUBLE-LEAF HATCH (H2O RATED)
  - METER BOX AND LID PER WAS DWG WB-01
  - GATE VALVE WELL AND LID PER WAS DWG WV-01
  - BURIED INSULATING FLANGE KIT PER WAS DWG WC-05
  - WALL PENETRATION PER DETAIL (2/9)
  - PRESSURE TRANSMITTER
  - CONCRETE THRUST BLOCK PER WAS DWG WT-01, SEE SHEET 3
  - 1" SERVICE SADDLE PER WAS DWG WS-01
  - 1" TYPE K COPPER TO PRESSURE TRANSMITTER
  - ADJUSTABLE PIPE SUPPORT PER DETAIL (1/9)
  - 3/4" COMPACTED ROCK
  - 4'-0"x6'-0"x6'-6" DEEP PRECAST OR CAST-IN-PLACE CONCRETE VAULT
  - BILCO MODEL LU-2 GALVANIZED STEEL LADDER-UP SAFETY DEVICE AND FRP LADDER WITH GALVANIZED STEEL HARDWARE
  - 6" DIA. HOLE IN VAULT FLOOR WITH GRATE
  - CONCRETE ANCHOR BLOCK PER WAS DWG WT-01
  - INSULATING FLANGE KIT PER WAS DWG WC-04

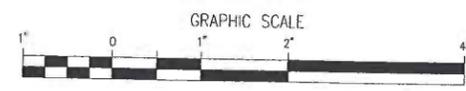


W.O. F. 4407 PLAT(S): \_\_\_\_\_ TB MAP: 1271 07  
 CONTRACTOR: \_\_\_\_\_  
 PIPELINE DIA/MAT/CLASS: \_\_\_\_\_  
 MFR PIPE/VALVE/TH: \_\_\_\_\_  
 INSPECTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CIS COMPLETED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 AS CONSTRUCTED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 REFERENCES: W0 757, 8583, 9597  
 PRESSURE SYSTEMS: \_\_\_\_\_

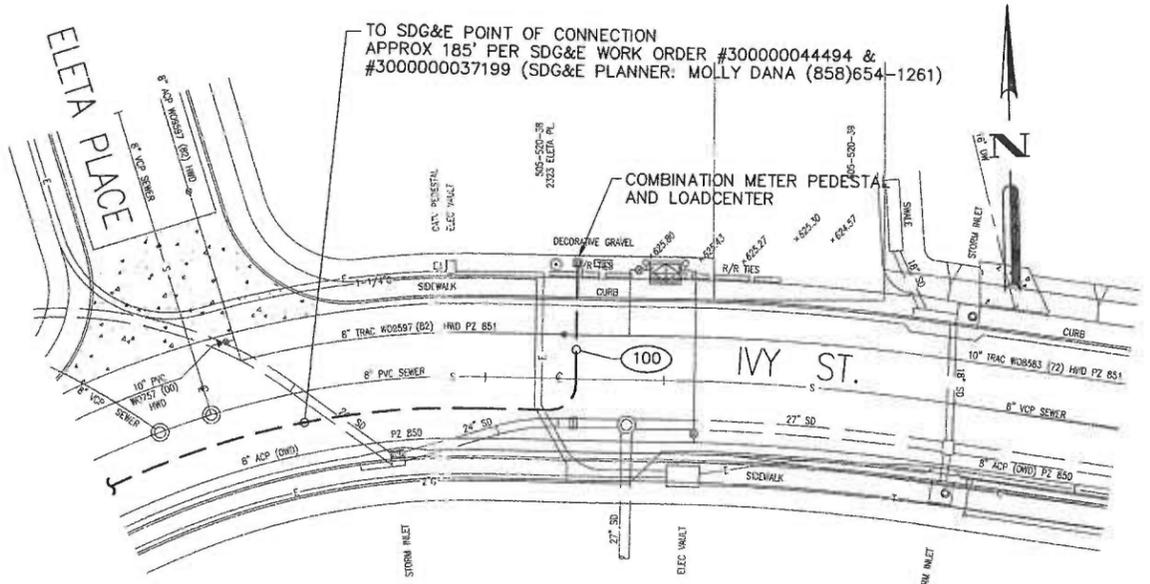
**HELIX WATER DISTRICT**  
**INTERCONNECTION VAULT AT IVY STREET**

SURVEYED BY: E. BRISNONE SCALE: AS SHOWN REVISIONS: \_\_\_\_\_  
 DRAWN BY: M. RAMOS DATE: 8/22/2018  
 CHECKED BY: M. POLLARD  
 CIP ID: \_\_\_\_\_ SHEET 7 OF 19 W.O. 4407

**PSOMAS**  
 3111 Camino Del Rio North, Suite 702  
 San Diego, CA 92108  
 (619) 861-2800 (619) 961-2392 fax  
 www.psomas.com

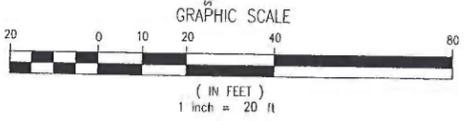


HELIX WATER DISTRICT - EMERGENCY INTERCONNECTION UPGRADES PROJECT 4407 - SOUTH BARCELONA STREET, BLOSSOM LANE

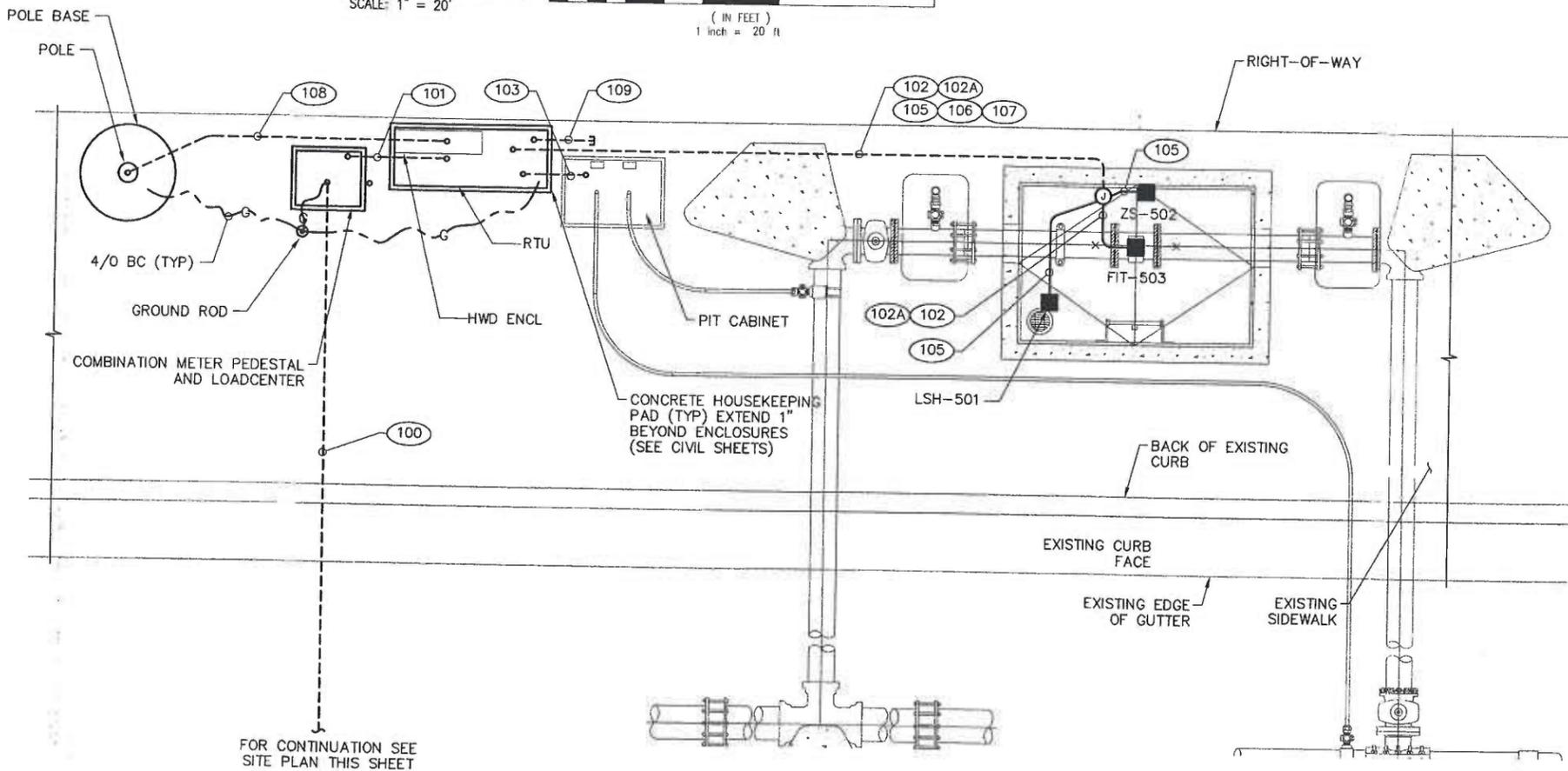


TO SDG&E POINT OF CONNECTION  
 APPROX 185' PER SDG&E WORK ORDER #300000044494 &  
 #3000000037199 (SDG&E PLANNER: MOLLY DANA (858)654-1261)

**IVY STREET VAULT  
 ELECTRICAL SITE PLAN**  
 SCALE: 1" = 20'

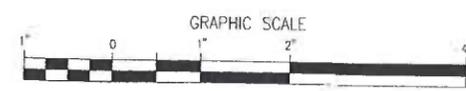


CONDUIT NO.	CONDUIT SIZE	FROM	TO	CABLE			VOLTAGE		REMARKS
				QTY.	SIZE	GND. *			
100	3"	SDG&E POINT OF CONNECTION	METER PEDESTAL	-	-	-	120/208	POWER	PER SDG&E WO#300000044494
101	1"	METER PEDESTAL	RTU ENCLOSURE	10	#12	#8	120	POWER	
102	1"	RTU ENCLOSURE	FIT-503 FLOWMETER	2	#18TSP	#14	24	SIGNAL	FWD/REV
102A	1"	RTU ENCLOSURE	FIT-503 FLOWMETER	2	#12	#14	120V	POWER	
103	1"	RTU ENCLOSURE	PIT ENCLOSURE	2	#18TSP	#14	24	SIGNAL	
104									NOT USED
105	1"	RTU ENCLOSURE	VAULT FLOODING / INTRUSION	4	#14	#14	24	CONTROL	
106	1"	RTU ENCLOSURE	VAULT						SPARE ANALOG
107	1"	RTU ENCLOSURE	VAULT						SPARE DISCRETE
108	1-1/2"	HWD ENCLOSURE INSIDE RTU	ANTENNA MAST	1	CAT6	#14		SIGNAL	SHIELDED OUTDOOR CABLE
109	1"	RTU ENCLOSURE	STUB-UP						TERMINATE CONDUIT AT HWD ENCL SPARE



FOR CONTINUATION SEE  
 SITE PLAN THIS SHEET

**IVY STREET VAULT  
 ELECTRICAL PLAN**  
 SCALE: 1/2" = 1'-0"



**PSOMAS**  
 3111 Camino Del Rio North, Suite 702  
 San Diego, CA 92108  
 (619) 961-2800 (619) 961-2392 fax  
 www.psomas.com

**MORAES/PHAM & ASSOCIATES**  
 CONSULTING ELECTRICAL ENGINEERS  
 2131 PALOMAR AIRPORT RD., STE. 120  
 CARLSBAD CA. 92011  
 (760) 431-7177



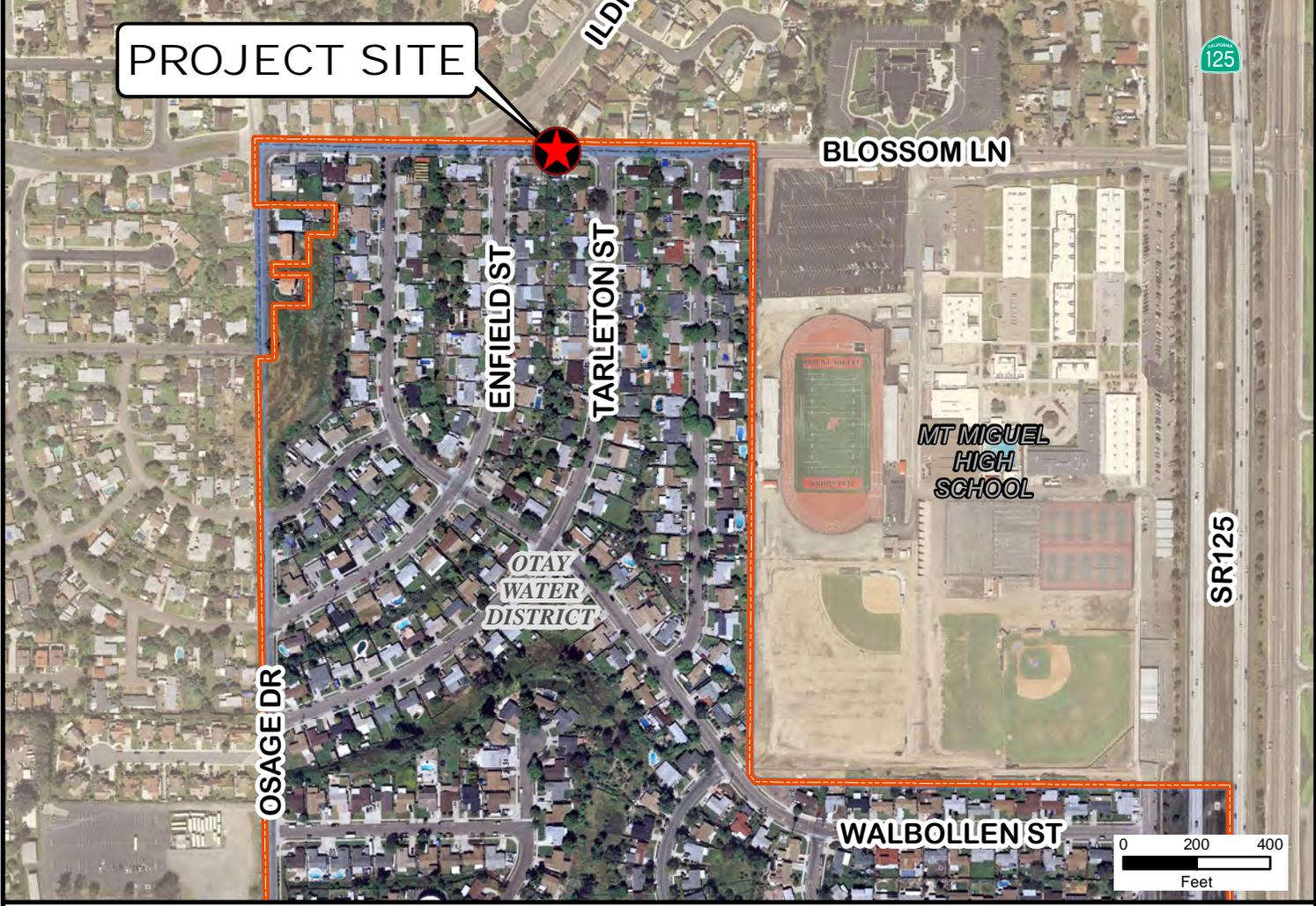
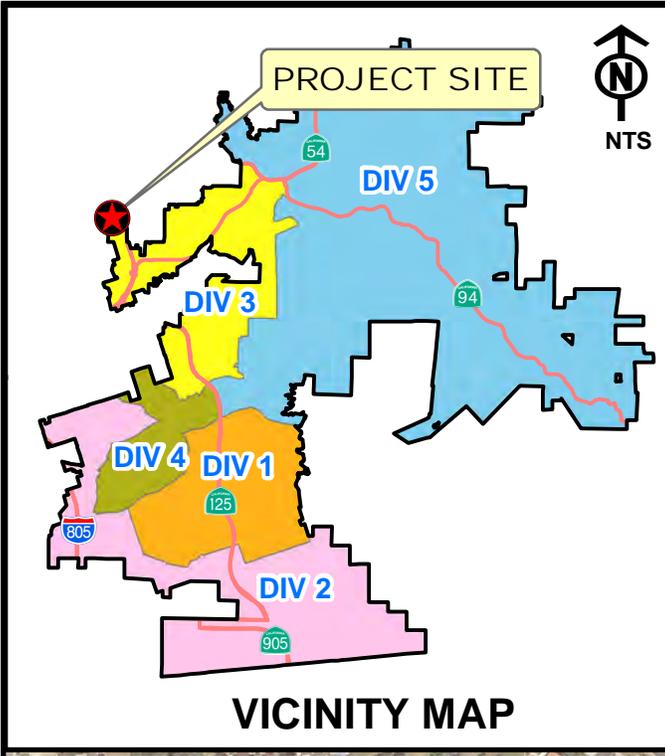
**HELIX WATER DISTRICT**  
**IVY ELECTRICAL SITE PLAN -  
 POWER - SIGNAL AND  
 SCHEDULE**

SURVEYED BY: E. BRISNDONE	SCALE: AS SHOWN	APPROVED:
DRAWN BY: CADD	DATE: 8/27/2015	
CHECKED BY: TAA		
CIP ID#:	SHEET 14 OF 19	W.O. 4407

**EXHIBIT A (2 OF 2)**

HELIX WATER DISTRICT - EMERGENCY INTERCONNECTION UPGRADES PROJECT 4407 - SOUTH BARCELONA STREET, BLOSSOM LANE

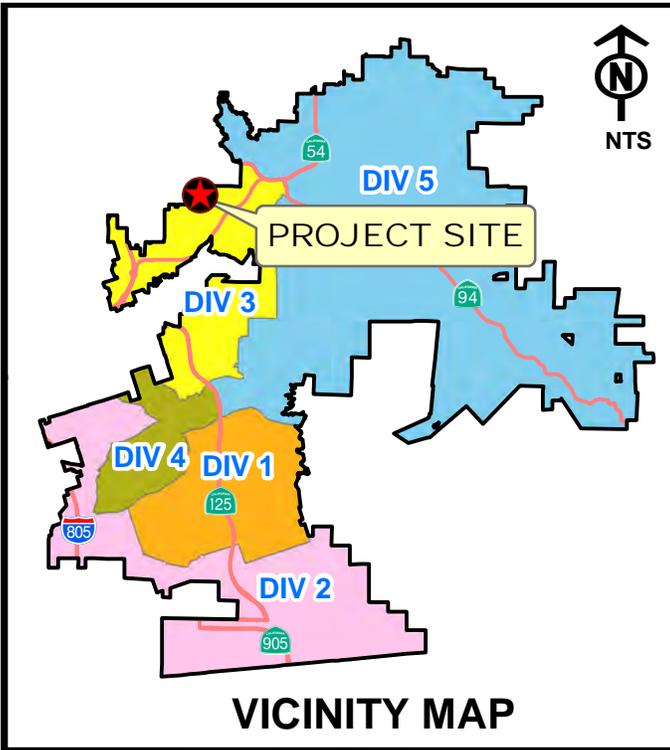
P:\WORKING\CIP P2551 (Blossom Ln) & P2552 (S. Barcelona St.) Helix WD and Otay WD Interconnections\Graphics\Exhibits-Figures\Exhibit A, Blossom Lane Interconnection Location Map.mxd



**OTAY WATER DISTRICT**  
BLOSSOM LANE INTERCONNECTION  
LOCATION MAP



P:\WORKING\CIP P2551 (Blossom Ln) & P2552 (S. Barcelona St.) Helix WD and Otay WD Interconnections\Graphics\Exhibits-Figures\Exhibit B, Ivy Street Interconnection Location Map.mxd



**OTAY WATER DISTRICT**  
 IVY STREET INTERCONNECTION  
 (aka S BARCELONA STREET INTERCONNECTION)  
 LOCATION MAP



# AGENDA ITEM 5



## STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	November 4, 2015
SUBMITTED BY:	Lisa Coburn-Boyd Environmental Compliance Specialist	PROJECT:	S2024- DIV. NO. 3 001101
	Bob Kennedy Engineering Manager		
APPROVED BY:	<input checked="" type="checkbox"/> Rod Posada, Chief, Engineering <input checked="" type="checkbox"/> German Alvarez, Assistant General Manager <input checked="" type="checkbox"/> Mark Watton, General Manager		
SUBJECT:	Adoption of a Mitigated Negative Declaration for the Campo Road Sewer Replacement Project		

### **GENERAL MANAGER'S RECOMMENDATION:**

That the Otay Water District (District) Board of Directors (Board) approves the adoption of a Mitigated Negative Declaration for the Campo Road Sewer Replacement Project (see Exhibit A for Project location).

### **COMMITTEE ACTION:**

Please see Attachment A.

### **PURPOSE:**

To obtain Board approval for the adoption of a Mitigated Negative Declaration (MND) for the Campo Road Sewer Replacement Project.

### **ANALYSIS:**

The Otay Water District (District) is proposing the replacement of an existing 10-inch sewer pipeline within and south of Campo Road between Avocado Boulevard and Singer Lane which is undersized to

handle current sewer flows. To accommodate current and future flows, an approximately 8,560-foot-long, 15-inch gravity sewer main will be installed to replace the existing 9,225-foot-long, 10-inch sewer main. The eastern terminus of the proposed pipeline will be located at the intersection of Avocado Boulevard/Rancho San Diego Village shopping center driveway and terminate in the Rancho San Diego Towne Center, where it will connect to the existing 27-inch sewer main within the shopping center's parking lot. Sewer laterals stemming from the existing pipe will be reconnected to the proposed pipeline. The majority of the pipeline will be installed with open trench construction except in two locations, a crossing of Campo Road and at the intersection of Campo Road/Jamacha Boulevard, where horizontal auger boring will be used. The existing sewer will be abandoned in place with the exception of a 210-foot-long section of aboveground pipeline and seven supporting pillars that will be removed.

Helix Environmental was hired as a subconsultant to the Project's design engineer, Rick Engineering, to prepare the initial study and MND for the Project. Based on the findings of these documents, and with proper mitigation measures taken, as outlined in the draft MND, the Project will not have a significant effect on the environment. The impacts that require mitigation are biological resources, cultural resources, and noise. The mitigation, monitoring, and reporting plan (MMRP), which details the measures that need to be taken for mitigation, is included with the Final MND (Attachment B).

During the 30 days notice period for the draft MND, four (4) comment letters were received from the County of San Diego, the San Diego County Archaeological Society, the State Water Resources Control Board, and Caltrans. The four letters and the responses to their comments are presented in the Final MND (Attachment B).

**FISCAL IMPACT:**             Joe Beachem, Chief Financial Officer

None.

**STRATEGIC GOAL:**

This Project supports the District's Mission statement, "To provide high value water and wastewater services to the customers of the Otay Water District in a professional, effective, and efficient manner" and the General Manager's Vision, "A District that is at the forefront in innovations to provide water services at affordable rates, with a reputation for outstanding customer service."

**LEGAL IMPACT:**

None.

LC-B/BK:mlc

P:\WORKING\CIP S2024 Campo Road Sewer Replacement\Staff Reports\BD 11-04-15, Staff Report, Campo Road Sewer Replacement Project MND.docx

Attachments:     Exhibit A - Project Location Map  
                     Attachment A - Committee Action  
                     Attachment B - Final MND and MMRP



## ATTACHMENT A

<b>SUBJECT/PROJECT:</b> S2024-001101	Adoption of a Mitigated Negative Declaration for the Campo Road Sewer Replacement Project
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### **COMMITTEE ACTION:**

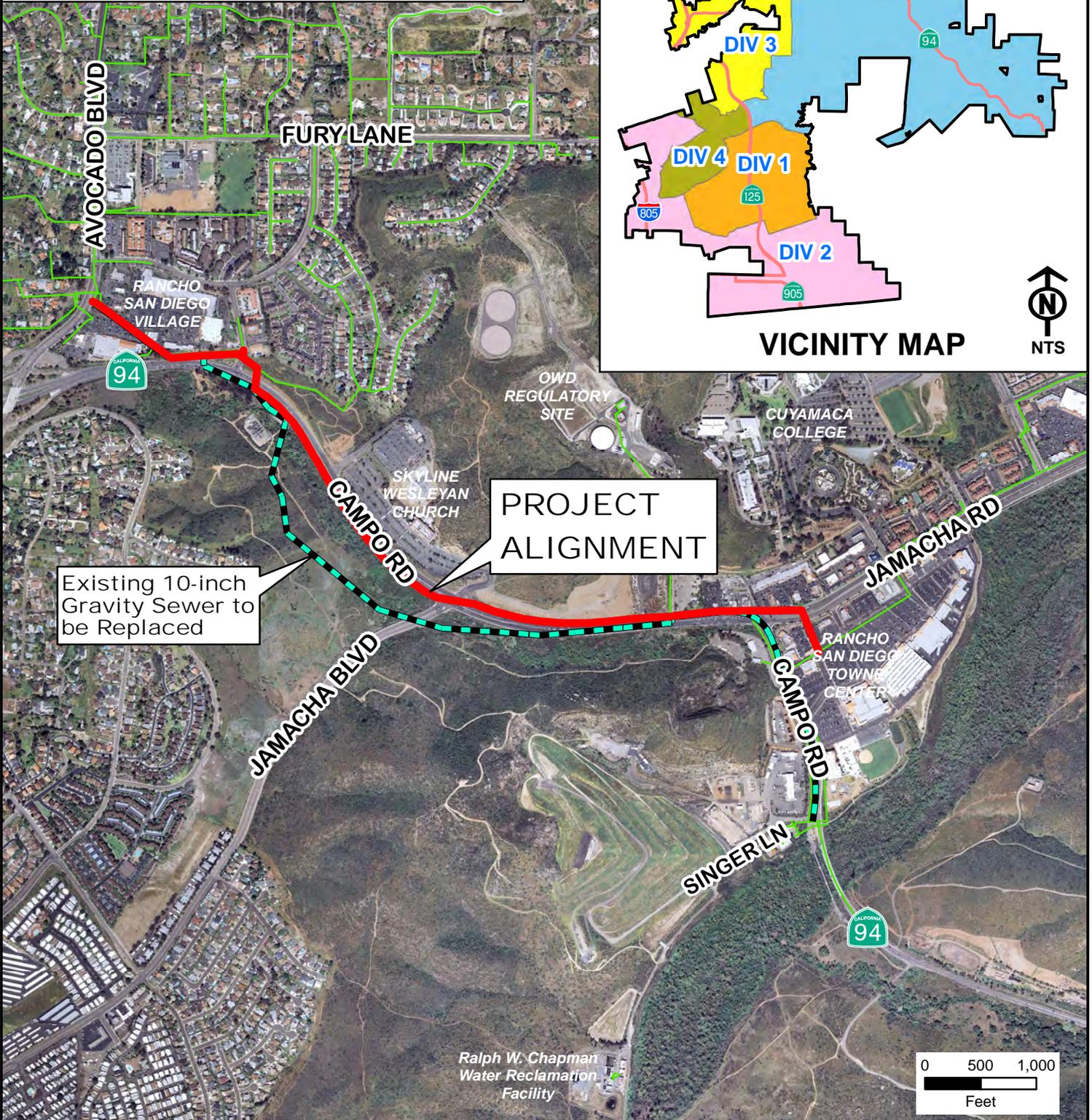
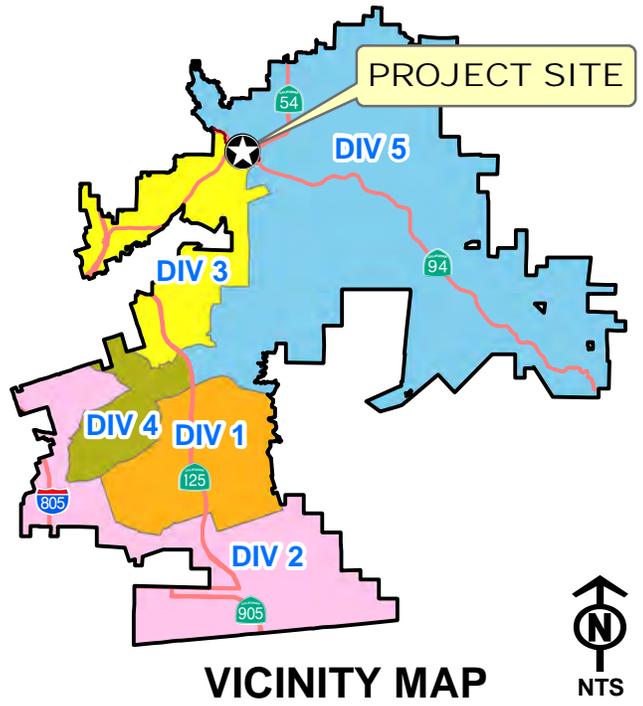
The Engineering, Operations, and Water Resources Committee (Committee) reviewed this item at a meeting held on October 20, 2015. The Committee supported Staff's recommendation.

### **NOTE:**

The "Committee Action" is written in anticipation of the Committee moving the item forward for Board approval. This report will be sent to the Board as a Committee approved item, or modified to reflect any discussion or changes as directed from the Committee prior to presentation to the full Board.

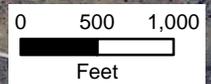
# Legend

- Proposed 15-Inch Sewer Main Alignment
- Existing 10-inch Gravity Sewer to be Replaced
- Existing Sewer Mains



# OTAY WATER DISTRICT

## CAMPO ROAD SEWER MAIN REPLACEMENT LOCATION MAP



P:\WORKING\CIP\_S2024\_Campo Road Sewer Replacement\Graphics\Exhibits\Figures\Exhibit A\_Location Map\_Oct 2015.mxd

**Final Mitigated Negative Declaration/  
Initial Study and Environmental Checklist  
for the  
Campo Road Sewer Replacement Project**

*Prepared for:*

**Otay Water District**  
2554 Sweetwater Springs Boulevard  
Spring Valley, CA 91978



*Prepared by:*

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

**September 30, 2015**



**Otay Water District**  
2554 Sweetwater Springs Boulevard  
Spring Valley, CA 91978  
Tel: (619) 670-2222

# **MITIGATED NEGATIVE DECLARATION**

## **CAMPO ROAD SEWER REPLACEMENT PROJECT**

### **PROJECT DESCRIPTION**

Otay Water District (District) has prepared an environmental Initial Study and Mitigated Negative Declaration to address the proposed construction and operation of its proposed Campo Road Sewer Replacement Project (herein referred to as “proposed project” or “project”). The District completed two studies to review the existing sewer system, and determined that the existing 10-inch sewer pipeline within and south of Campo Road between Avocado Boulevard and Singer Lane is undersized to handle current sewer flows. To accommodate current and future flows, the District is proposing to install an approximately 8,360-foot-long, 8- to 15-inch gravity sewer main to replace the existing 9,225-foot-long, 10-inch sewer main. The western terminus of the proposed pipeline would be located at the intersection of Avocado Boulevard/Rancho San Diego Village shopping center driveway. The pipeline would traverse southeast through the shopping center parallel to the existing pipe. At the southeastern end of the Rancho San Diego Village shopping center, the proposed alignment would proceed east across Via Mercado. East of Via Mercado, the alignment would continue south and cross under the right-of-way of Campo Road via horizontal auger boring. The alignment would then continue along the southern side of Campo Road in a southeasterly direction until the intersection of Campo Road/Jamacha Boulevard. At this intersection, the alignment would cross under this intersection to the northern side of Campo Road via horizontal auger boring. On the northern side, it would continue east along Campo Road to Jamacha Road, and then follow Jamacha Road for approximately 300 feet. The alignment would turn south and cross Jamacha Road into the Rancho San Diego Towne Center, where it would connect to the existing 27-inch sewer main within the shopping center’s parking lot. The 27-inch sewer main connects to additional pipelines at the intersection of Campo Road/Singer Lane near the Steele Canyon Lift Station. Existing sewer laterals stemming from the existing pipe would be reconnected to the proposed pipeline. All proposed pipelines would be made of polyvinyl chloride (PVC).

The proposed pipeline would be placed underground at approximate depths between 15 and 29 feet. The District anticipates that the proposed pipeline would be located within trenches with shoring approximately five to seven feet wide. Horizontal auger boring would be conducted in the locations where the pipeline would cross under Campo Road (at Jamacha Boulevard and near Via Mercado). The jacking shafts would be approximately 45 feet long by 12 feet wide and the receiving shafts would be approximately 10 feet by 10 feet in area. Following installation of this portion of pipeline, the jacking and receiving pits would be filled in and re-compacted to their existing contours. Spoil material from tunnel construction would be hauled to an approved off-site location.

The existing 10-inch sewer pipeline would be abandoned in place, except for a 210-foot-long section of aboveground pipeline and seven supporting pillars that would be removed. The sewer main pillars would be cut at the ground surface, with the exception of the second northernmost pillar, which would be cut above the existing ground level in order to avoid potential impacts to jurisdictional areas. The

foundations of the pillars would be abandoned in place to avoid disturbing the existing vegetation. In locations where the new alignment departs from the 10-inch pipe alignment, the manholes on the existing alignment would be abandoned per the Water Agencies' Standards (WAS) Standard Drawings for Sewer Facilities (Drawing No. SM-08). This would include removal of the manhole and cone, plugging the sewer pipe, and backfilling the manhole with sand. Pipe removal and manhole capping would be completed by hand or with small equipment so as not to impact the surrounding sensitive habitat.

Construction activities are expected to begin in fall 2016 and be completed by early 2018.

## **ENVIRONMENTAL DETERMINATION**

The attached Initial Study was prepared to assess the potential effects of the proposed project on the environment and the potential significance of those effects. Based on the Initial Study, the proposed project would have less-than-significant or no impacts in the following areas:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Geology/Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

The Initial Study indicates that the proposed project would have potentially significant impacts in the areas of:

- Biological Resources
- Cultural Resources
- Noise

Each identified impact can be mitigated to avoid the impact or reduce it to a less than significant level. If the proposed project is approved and constructed, the District will implement the following mitigation measures:

### **Biological Resources**

The following mitigation measures would reduce impacts to biological resources to less than significant levels:

**BIO-1** Temporary orange construction fencing shall be installed adjacent to the access road where Otay tarplant occurs and the contractors shall be informed regarding no-entry areas. The temporary construction fencing and contractor education shall occur prior to grubbing, clearing, and/or grading. A qualified biologist shall verify the location of the temporary fencing prior to construction activities within areas containing Otay tarplant. In addition, a biological monitor shall be present during construction activities within 25 feet of areas containing Otay tarplant to ensure that this species is not impacted. The fencing shall be removed upon completion of construction of the project.

**BIO-2** To ensure compliance with the MBTA, clearing of vegetation shall occur outside of the breeding season of most avian species (February 1 through September 15). Clearing during the breeding season of MBTA-covered species (migratory birds that are native to the United States or its

territories) could occur if it is determined that no nesting birds (or birds displaying breeding or nesting behavior) are present within 3 days prior to clearing. A pre-construction survey shall be conducted to determine if breeding or nesting avian species occurs within areas directly affected by vegetation removal or indirectly affected by noise. If any of these birds are observed nesting or displaying breeding/nesting behavior within the area, construction in the area shall be postponed until (1) the nest is abandoned or the young have fledged or (2) after September 15. The no-work buffer zone placed around the nest shall be determined by a qualified biologist at the time of discovery, and will vary based on site conditions and the type of work to be conducted. A qualified biologist shall monitor vegetation removal if conducted during the breeding season.

**BIO-3** No grubbing, clearing, or grading shall occur during the gnatcatcher breeding season (February 15 through August 15) within 500 feet of occupied Diegan coastal sage scrub in the central portion of the proposed pipeline alignment (south of the intersection of Campo Road/Jamacha Boulevard). As such, all project plans shall state the same.

If project construction would occur during the gnatcatcher breeding season in the central portion of the alignment and/or raptor breeding season, pre-construction surveys shall be conducted within three days prior to construction activities to determine if these species occur within the areas indirectly impacted by noise. If there are no gnatcatchers or raptors nesting (includes nest building or other breeding/nesting behavior) within this area, construction shall be allowed to proceed. However, if any gnatcatcher or raptors are observed nesting or displaying breeding/nesting behavior within the area, construction shall be postponed until (1) all nesting (or breeding/nesting behavior) has ceased or until after August 15; or (2) a temporary noise barrier or berm shall be constructed at the edge of the impact footprint to reduce noise levels below 60 dB  $L_{EQ}$  or ambient (if ambient is greater than 60 dB  $L_{EQ}$ ). Alternatively, construction equipment could be modified and/or the duration of construction equipment operation could be controlled to keep noise levels below 60 dB  $L_{EQ}$  or ambient in lieu of or in concert with a wall or other sound attenuation barrier.

**BIO-4** No clearing, grubbing, grading, or other construction activities shall occur within 300 feet of occupied least Bell's vireo habitat between March 15 to September 15, the breeding season of the least Bell's vireo. If construction activities must occur during the least Bell's vireo breeding season, nest surveys shall be conducted within 300 feet of all proposed activities. If active nests are encountered and construction activities must occur during the least Bell's vireo breeding season, noise levels from human activities at the nest shall be restricted to less than 60 dB  $L_{EQ}$  or the ambient noise level plus 3 dB (perceptible change threshold), whichever is greater. Noise levels shall be monitored, and monitoring reports shall be provided to the District to be included in the annual reports.

**BIO-5** Impacts to Diegan coastal sage scrub (including disturbed) shall be mitigated at a 1:1 ratio. Therefore, required mitigation would be 0.3 acre. The District shall debit credits from its San Miguel Habitat Management Area.

In addition, in order to avoid impacts to adjacent sensitive habitat during construction, such habitat interfaces shall require temporary orange construction fencing that clearly delineates the edge of the approved limits of work and environmentally sensitive areas beyond. A biologist shall ensure that the fencing is properly installed prior to construction, and maintained for the duration of construction activity. The fencing shall be installed in a manner that does not impact habitats to be avoided. A biological monitor shall be present during construction activities adjacent to sensitive habitat. The fencing shall be removed upon completion of construction of the project.

## Cultural Resources

The following mitigation measures would reduce potential impacts to cultural and paleontological resources to less than significant levels:

- CUL-1** Trenching will be monitored by an archaeologist and a Native American monitor. Trenching below depths at which cultural material would reasonably be expected to occur will not require monitoring, but monitors should be present to observe trenching, grading, and other ground-disturbing activities in the upper few feet (as determined by the archaeologist) of soil. If cultural material is encountered, monitors will have the authority to temporarily halt or redirect work while the cultural material is documented and assessed. If significant deposits are found, additional data recovery will be conducted, as necessary, to adequately mitigate project impacts. Cultural material recovered will be curated at the San Diego Archaeological Center or other appropriate facility meeting federal curatorial standards.
- CUL-2** Trenching within Santiago Peak Volcanics will be monitored by a paleontologist. If paleontological resources are encountered, the monitor will have the authority to temporarily halt or redirect work while the paleontological resources are documented and assessed. If significant deposits are found, additional data recovery will be conducted, as necessary, in order to adequately mitigate project impacts. The fossil collection and all associated documentation will be legally transferred to a qualified repository within San Diego County.

## Noise

Potential impacts associated with construction noise would be mitigated to less than significant levels by implementation of the following measure:

- NOI-1** Trenching construction activities involving a dump truck and an excavator may generate significant noise impacts to sensitive habitat if operated within 210 feet of the habitat. If a dump truck and an excavator are operated within this distance during the breeding seasons of coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15), a temporary noise barrier between the construction equipment and the sensitive habitat shall be used to reduce noise impacts to baseline noise levels of 65.6 dBA  $L_{EQ}$ .

An 8-foot high temporary noise barrier meeting the specifications listed below (or of a STC 19 rating or better) would attenuate noise at the sensitive habitat to less baseline noise levels of 65.6 dBA  $L_{EQ}$ . The sound attenuation fence or wall must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are 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 and must be at least 3/4-inch total thickness or have a density of at least 3½ pounds per square foot.

- NOI-2** Construction activities for the western jacking pit involving a dump truck and an excavator may generate significant noise impacts to coastal California gnatcatcher habitat if operated within 210 feet of the sensitive habitat. Due to the close distance to sensitive habitat that a dump truck and excavator would have to operate for the western jacking pit, barrier mitigation to reduce noise impacts to sensitive habitat to less than significant levels would be infeasible. Therefore, if western jacking pit activities would occur during the breeding season for the coastal California gnatcatcher (February 15 to August 31), a qualified biologist shall conduct a study confirming the absence of coastal California gnatcatchers within 250 feet of the construction activities prior to start of work or, if work has already begun, prior to the breeding season. If coastal California

gnatcatchers are found to be present, construction activities shall cease until the close of the breeding season.

**NOI-3** Eastern jacking pit construction activities involving a dump truck and an excavator may generate significant noise impacts to sensitive habitat if operated within 210 feet of the habitat. If a dump truck and an excavator are operated within this distance during the breeding seasons of coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15), a temporary noise barrier between the construction equipment and the sensitive habitat shall be used to reduce noise impacts to existing ambient noise levels (65.6 dBA  $L_{EQ}$ ).

An 8-foot high barrier meeting a STC 19 rating or better would attenuate noise at the sensitive habitat to less than baseline noise levels of 65.6 dBA  $L_{EQ}$ . The sound attenuation fence or wall must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are 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 and must be at least 3/4-inch total thickness or have a density of at least 3½ pounds per square foot.

**NOI-4** Tunnel boring activities at the western jacking pit involving a generator may create significant noise impacts to coastal California gnatcatcher habitat if operated within 80 feet of the sensitive habitat. Due to the close distance that a generator would have to operate for tunnel boring construction activities, barrier mitigation to reduce noise impacts to sensitive habitat to less than significant levels would be infeasible. Therefore, if tunnel boring at the western jacking pit would occur during the breeding season for the coastal California gnatcatcher (February 15 to August 31), a qualified biologist shall conduct a study confirming the absence of coastal California gnatcatchers within 250 feet of tunneling construction work prior to start of work or, if work has already begun, prior to the breeding season. If coastal California gnatcatchers are found to be present, construction activities shall cease until the close of the breeding season.

**NOI-5** Dump trucks and front-end loaders shall not operate within 145 feet of the edge of occupied coastal California gnatcatcher habitat during the breeding season (February 15 to August 31).

**NOI-6** Due to the close distance that a jackhammer, an air compressor, and a skid steer would have to operate to remove each manhole's concrete dome, barrier mitigation to reduce noise levels to avoid impacts to sensitive habitat would be infeasible. Therefore, manhole removal activities shall not occur during the breeding seasons for the coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15).

**NOI-7** Due to the close distance to sensitive habitat that a crane would operate to remove the elevated pipeline, barrier mitigation to reduce noise levels to avoid impacts to sensitive habitat would be infeasible. Therefore, operation of a crane to remove the elevated pipeline shall not occur during the breeding seasons for the coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15).

## Summary

In light of the analysis in the Initial Study, and the mitigation measures identified therein (and listed above) for inclusion in the proposed project, the District finds that the Campo Road Sewer Replacement Project would not have a significant effect on the environment.

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## INITIAL STUDY AND ENVIRONMENTAL CHECKLIST

1. **Project title:** Campo Road Sewer Replacement Project
2. **Lead agency name and address:** Otay Water District  
2554 Sweetwater Springs Boulevard  
Spring Valley, CA 91978
3. **Contact person and phone number:** Lisa Coburn-Boyd, Environmental Compliance Specialist  
619-670-2219
4. **Project location:** The project would consist of construction and operation of a new gravity sewer main and abandonment of an existing sewer line, which has exceeded its capacity. The work would occur within the unincorporated County of San Diego community of Valle de Oro. The proposed pipeline would be primarily located within and along Campo Road (also known as State Route [SR] 94), between Avocado Boulevard and Jamacha Road (refer to “Description of Project” below for specific locations). The existing pipeline is located to the south of Campo Road in an open space area. The regional location of the project site is shown on Figure 1, and an aerial photograph of the site is shown on Figure 2.
5. **Project sponsor’s name and address:** Otay Water District  
2554 Sweetwater Springs Boulevard  
Spring Valley, CA 91978
6. **General plan designation:** *County of San Diego:* Land use designations within and immediately adjacent to the existing and proposed pipeline alignments include General Commercial, Open Space (Conservation), and Specific Plan Area.
7. **Zoning:** *County of San Diego:* Zoning designations within and immediately adjacent to the existing and proposed pipeline alignments include General Commercial (C36), Heavy Commercial (C37), Holding Area (S90), Limited Industrial (M52), Open Space (S80), Specific Plan (S88), and Transportation and Utility Corridor (S94).

### 8. Description of Project

Otay Water District (District) proposes the construction and operation of the Campo Road Sewer Replacement Project (herein referred to as “proposed project” or “project”).

#### Background

The District completed two studies to review the existing sewer system, and determined that the existing 10-inch sewer pipeline within and south of Campo Road between Avocado Boulevard and Singer Lane (refer to Figure 3) is undersized to handle current sewer flows. To accommodate current and future flows, the District is proposing to install an approximately 8,360-foot-long, 8- to 15-inch gravity sewer main to replace the existing 9,225-foot-long, 10-inch sewer main.

The existing pipeline was originally designed as a dual purpose force main and gravity sewer main but is undersized for existing gravity flows. The existing 10-inch main is comprised of polyvinyl chloride (PVC) pipe that transitions to metal piping with a tee at each manhole. From Avocado Boulevard, the existing sewer main traverses east through the Rancho San Diego Village shopping center to Campo Road. The existing pipeline then diverts from Campo Road and traverses east through an undeveloped area to the south of Campo Road. East of Jamacha Boulevard, the existing pipeline continues east and south within Campo Road and ends at Singer Lane, where the Steele Canyon Lift Station is located. The existing pipeline would be abandoned in place (as discussed in detail below).

### Proposed Pipeline

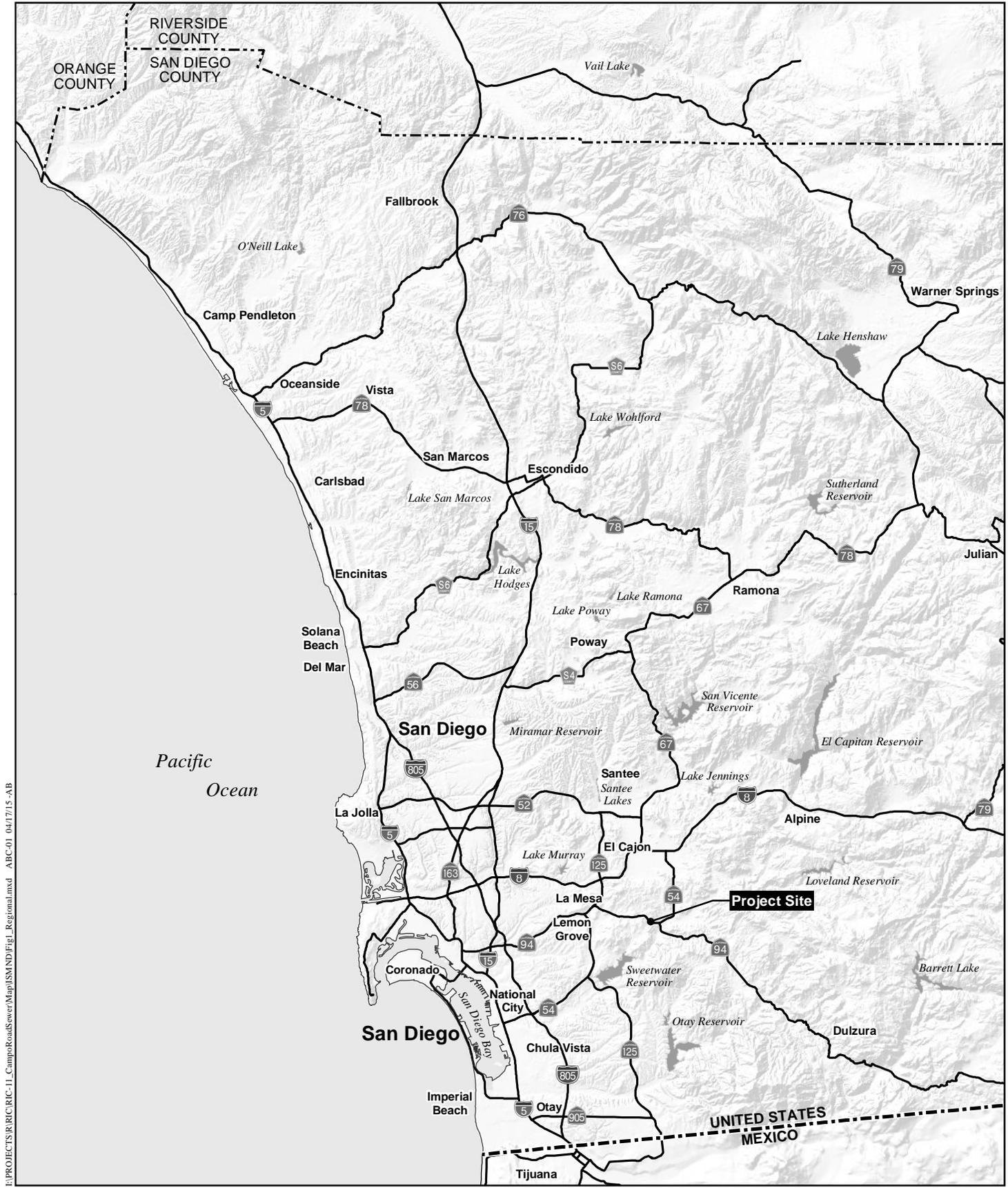
The western terminus of the proposed pipeline would be located at the intersection of Avocado Boulevard/Rancho San Diego Village shopping center driveway (Figure 3). The pipeline would traverse southeast through the shopping center parallel to the existing pipe. At the southeastern end of the Rancho San Diego Village shopping center, the proposed alignment would proceed east across Via Mercado. East of Via Mercado, the alignment would continue south and cross under the right-of-way (ROW) of Campo Road via horizontal auger boring. The alignment would then continue along the southern side of Campo Road in a southeasterly direction until the intersection of Campo Road/Jamacha Boulevard. At this intersection, the alignment would cross under this intersection to the northern side of Campo Road via horizontal auger boring. On the northern side, it would continue east along Campo Road to Jamacha Road, and then follow Jamacha Road for approximately 300 feet. The alignment would turn south and cross Jamacha Road into the Rancho San Diego Towne Center, where it would connect to the existing 27-inch sewer main within the shopping center's parking lot. The 27-inch sewer main connects to additional pipelines at the intersection of Campo Road/Singer Lane near the Steele Canyon Lift Station. Existing sewer laterals stemming from the existing pipe would be reconnected to the proposed pipeline. All proposed pipelines would be made of PVC.

### Pipeline Installation

The proposed 8- to 15-inch sewer main would be installed by open trench excavation and horizontal auger boring. Horizontal auger boring is a trenchless technique to install new pipe (as outlined below). Horizontal auger boring would be conducted in the locations where the pipeline would cross under Campo Road (at Jamacha Boulevard and near Via Mercado). Open trench excavation would be performed in all other sections.

Open trench excavation would consist of excavating down to the appropriate depth, installing the new pipe, and then backfilling the trench. If the trench is located under pavement, the existing pavement would be saw-cut and removed, the excavation filled with granular backfill, and the cut pavement replaced. Excess soil and cut pavement would be hauled from the site and disposed of at locations approved for such use. The proposed pipeline would be placed underground at approximate depths between 15 and 29 feet. The District anticipates that the proposed pipeline would be located within trenches with shoring approximately 5 to 7 feet wide.

Horizontal auger boring would simultaneously 'jack' the steel casing while rotating augers or cutting heads at the face of the tunnel to remove the spoil through the steel casing. The jacking shafts would be approximately 45 feet long by 12 feet wide and the receiving shafts would be approximately 10 feet by 10 feet in area. Following installation of this portion of pipeline, the jacking and receiving pits would be filled in and re-compacted to their existing contours. Spoil material from tunnel construction would be hauled to an approved off-site location.



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## Regional Location Map

CAMPO ROAD SEWER MAIN REPLACEMENT



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## Project Location

CAMPO ROAD SEWER MAIN REPLACEMENT



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### Proposed Project

CAMPO ROAD SEWER MAIN REPLACEMENT

### Abandonment of Existing Pipeline

The existing 10-inch sewer pipeline (Figure 3) would be abandoned in place, except for a 210-foot-long section of aboveground pipeline and seven supporting pillars that would be removed. The sewer main pillars would be cut at the ground surface, with the exception of the second northernmost pillar, which would be cut above the existing ground level in order to avoid potential impacts to jurisdictional areas. The foundations of the pillars would be abandoned in place to avoid disturbing the existing vegetation. In locations where the new alignment departs from the 10-inch pipe alignment, the manholes on the existing alignment would be abandoned per the Water Agencies' Standards (WAS) Standard Drawings for Sewer Facilities (Drawing No. SM-08). This would include removal of the manhole and cone, plugging the sewer pipe, and backfilling the manhole with sand. Pipe removal and manhole capping would be completed by hand or with small equipment so as not to impact the surrounding sensitive habitat.

### Construction Equipment

The District anticipates that a construction crew of approximately 8 to 10 workers would typically be present on site during active construction. The types of construction equipment projected to be required for pipeline installation include the following:

- Backhoe
- Pavement cutter
- Excavators (2)
- Crane
- Front-end loader
- Skid Steer
- Water truck (for dust control and compaction)
- Street sweeper
- Various hand-operated soil compaction equipment
- Pipe delivery truck
- Sand delivery truck
- Concrete truck
- Portable generator (diesel or gas driven)
- Horizontal auger

### Construction Staging

Construction-related equipment and materials storage and worker parking would occur in disturbed and developed areas along the project alignment that are approved by the California Department of Transportation (Caltrans) and the County of San Diego (County).

### Schedule and Construction Hours

Construction activities are expected to begin in fall 2016 and be completed by early 2018. In order to minimize disruptions to the local community, construction and equipment maintenance are anticipated to be limited to weekdays (excluding holidays) from 7:00 a.m. through 7:00 p.m. (in accordance with the County Noise Ordinance); however, if multiple lanes need to be closed on Campo Road or Jamacha Road for pipeline installation, Caltrans could require that such work occur only at night.

### Additional Project Design Features

The District would implement the following standard construction practices and design features to minimize impacts during construction of the project.

#### *Traffic Control*

During construction of the proposed pipeline, access along Campo Road, Avocado Boulevard, Via Mercado, and Jamacha Road, as well as access to the Rancho San Diego Village and Rancho San Diego Towne Center shopping centers, may be temporarily disrupted; however, a Traffic Management Plan (TMP) would be implemented. Roadways would remain open to traffic.

If possible, lane closures along Campo Road would be minimized to one lane closure per direction. During the permitting process for the proposed project, Caltrans would dictate hours of construction; this may include working at night. Proposed lane closures at the intersections would be phased so construction would not prohibit any movements at the intersections.

If project construction along the other roadways limits traffic to one lane, traffic would be directed by flagging around the work site.

#### *Air Quality*

The following measures would be implemented during construction to reduce impacts associated with air quality:

- Off-road construction equipment engines would utilize California Air Resources Board (CARB)/U.S. Environmental Protection Agency (USEPA) Certification Tier 2 or better engines, or other equivalent methods approved by CARB, to reduce air emissions.
- All construction equipment/vehicles would be maintained per the manufacturer's recommendations.
- The following dust control measures would be implemented:
  - Water or dust control agents would be applied to active excavated/disturbed areas, unpaved surfaces, and dirt stockpiles, as necessary (at least twice daily), to prevent or suppress particulate matter from becoming airborne. All soil to be stockpiled over four days would be protected with a secure tarp or chemical stabilizers to prevent windblown dust.
  - Graded slopes and soil stockpiles would be stabilized by chemical binders, tarps, fencing, and/or other erosion control measures.
  - All trucks hauling dirt, sand, soil, or other loose materials would be covered with a fabric cover and maintain a freeboard height of 12 inches.
  - A street sweeping program would clean local, paved streets a minimum of once every 14 days, with Rule 1186 compliant particles less than 10 micrometers in diameter (PM<sub>10</sub>) efficient vacuum units.

### *Biological Resources*

The following project design features would be implemented to minimize construction-related impacts to biological resources:

- In areas where construction has the potential to impact adjacent native habitat, temporary orange construction fencing would be used to clearly delineate the edge of the approved limits of work and environmentally sensitive areas beyond. The District would ensure that the fencing is properly installed prior to construction, and maintained for the duration of construction activity in that area. The fencing would be installed in a manner that does not impact habitats to be avoided. The fencing would be removed upon completion of construction of the project.
- A biological monitor would be present during construction activities occurring within 25 feet of environmentally sensitive areas.
- Restoration or landscaping efforts would involve only appropriate native plant species or non-invasive ornamental plant species. In particular, revegetation of areas currently supporting coastal sage scrub would consist entirely of appropriate native plant species.
- All equipment used in or near drainages within an approved construction zone would be clean and free of leaks and grease. Emergency provisions to contain and clean up unintentional fuel or oil spills would be in place prior to construction.
- Fueling of equipment would occur in designated fueling zones located at least 100 feet from drainages and wetland habitat.
- Construction personnel would park private vehicles outside areas supporting sensitive habitat.
- Drivers of construction-related vehicles on unpaved roads in native habitats would not exceed a speed of 15 miles per hour in order to avoid injury to animals and minimize dust generation.
- Pets of project personnel would not be allowed on the project site.
- Disposal or temporary placement of excess fill, brush, or other debris would not be allowed to enter waters of the U.S. (or their banks) from upstream storm water drainages.
- Night lighting of construction and staging areas would be of the lowest illumination necessary for human safety, selectively placed, shielded, and directed away from adjacent natural habitats.

### *Hazardous Materials*

The following project design features would minimize impacts related to hazardous materials:

- Standard Best Management Practices (BMPs) would be implemented to prevent impacts to the public through the transport, use, or disposal of any hazardous materials. Standard industry measures include, but are not limited to:
  - Hazardous materials used or stored on site would be restricted to areas at least 50 feet from storm drains and watercourses.
  - All hazardous materials would be covered or kept in enclosed facilities.

- A written inventory would be kept of all hazardous materials used or stored on site.
- In order to prevent discharge in the event of a spill, berms, ditches, and/or impervious liners (or other applicable methods) would be provided in material storage and vehicle/equipment storage areas to provide a containment volume of 1.5 times the volume of the stored/used materials.
- Agency telephone numbers and a summary guide of clean-up procedures would be posted in a conspicuous location at or near the job site trailer during construction.

### *Water Quality*

Implementation of the proposed project would require conformance with the National Pollution Discharge Elimination System (NPDES) General Construction Activity Permit, Order 2009-0009-DWQ, adopted in 2009 and amended in 2010 and 2012. Such conformance would entail implementation of a Storm Water Pollution Prevention Plan (SWPPP) to address the discharge of contaminants (including construction-related hazardous materials) and minimize runoff through appropriate BMPs.

Specific BMPs would be determined by the project contractor and engineer based on site-specific conditions. Such BMPs may include the following:

- Revegetation or repaving of disturbed areas as soon as feasible after completion of grading.
- Covering stockpiled excavated and/or fill materials to reduce potential off-site sediment transport.
- Use of erosion control devices, such as straw wattles, mulch, mats, and/or geotextiles.
- Use of sediment catchment structures such as hay bales, gravel or sand bags, silt fencing, fiber rolls, matting, berms, or similar devices along grading boundaries and drainage courses to prevent off-site sediment transport.
- Daily backfill, compaction, and/or covering of excavated trenches to minimize erosion potential.
- Regular inspection and maintenance of all erosion control and sediment catchment facilities to ensure proper function and effectiveness.

### *Noise*

The following project design features would be implemented to minimize noise generated during construction of the proposed project:

- Staging areas for construction equipment would be located as far as practicable from residences.
- Internal combustion engines would be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine would be operated without said muffler.
- Unnecessary idling of internal combustion engines within 100 feet of residences would be strictly prohibited.

## **9. Surrounding Land Uses and Setting**

The project site is located in the unincorporated community of Valle de Oro in the County. The proposed sewer main would be primarily located within existing roads. The beginning and end of the project site are within two shopping centers: Rancho San Diego Village and Rancho San Diego Towne Center. Open space is located to the south of the project alignment (where the existing sewer main alignment traverses), and a church, open space, and industrial and commercial uses are located to the north of the project alignment. The removal of the 210-foot-long, elevated sewer main and associated pillars and the capping and plugging of abandoned manholes would take place in the open space area to the south of Campo Road.

## **10. Other Public Agencies Whose Approval is Required**

- Caltrans: Encroachment Permit
- County of San Diego: Encroachment Permit, Excavation Permit, and Traffic Control Permit
- San Diego County Water Authority: Encroachment Permit

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**

None of the environmental factors checked below would (as mitigated) be significantly affected by this project, as indicated by the following checklist and as discussed in the Explanations of Environmental Impacts, later in this document.

✓ Aesthetics	✓ Agriculture & Forestry Resources	✓ Air Quality
✓ Biological Resources	✓ Cultural Resources	✓ Geology/Soils
✓ Greenhouse Gas Emissions	✓ Hazards & Hazardous Materials	✓ Hydrology/Water Quality
✓ Land Use/Planning	✓ Mineral Resources	✓ Noise
✓ Population/Housing	✓ Public Services	✓ Recreation
✓ Transportation/Traffic	✓ Utilities/Service Systems	✓ Mandatory Findings of Significance

**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.

Lisa Coburn-Boyd  
Signature

Oct. 1, 2015  
Date

Lisa Coburn-Boyd  
Printed Name

Otay Water District  
For

## ENVIRONMENTAL IMPACT CHECKLIST

This section provides a summary of the Initial Study evaluation of environmental impacts, based on the evaluation criteria set forth in the State CEQA Guidelines, as amended. Explanations of each checklist response are provided in the section that immediately follows this checklist.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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### I. AESTHETICS

Would the project:

- |  |                       |                       |                                     |                                     |
|--|-----------------------|-----------------------|-------------------------------------|-------------------------------------|
| a. Have a substantial adverse effect on a scenic vista?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>               | <input checked="" type="checkbox"/> |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>               | <input checked="" type="checkbox"/> |
| c. Substantially degrade the existing visual character or quality of the site and its surroundings?  | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> | <input type="radio"/>               |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?                                    | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> | <input type="radio"/>               |

#### Explanations of Environmental Impacts

- a. **No Impact.** The proposed project would consist of an underground pipeline that would not be visible once construction is complete. The project would also remove an existing section of aboveground pipeline along with supporting pillars, which would result in a visual improvement when compared to existing conditions. In addition, no designated scenic vistas have been identified within the project site or vicinity. Accordingly, no impacts to a scenic vista would occur.
  
- b. **No Impact.** The proposed project would include placement of pipelines beneath existing roadways or other disturbed/developed areas within and surrounded by urban development. The project would not result in impacts to trees, rock outcroppings, or historic buildings. In addition, SR 94 (Campo Road) is not designated as a scenic highway within the project limits. Accordingly, no impacts to scenic resources would occur.
  
- c. **Less than Significant Impact.** Short-term visual impacts would occur during construction due to trenching, stockpiling, and other construction-related activities. However, the project site would be restored to its current condition following installation of the pipeline. Disturbed areas would be revegetated with native plants. The proposed pipeline would not be visible following construction.

The project would also remove an existing section of aboveground pipeline along with supporting pillars, which would result in a visual improvement when compared to existing conditions. Accordingly, impacts to visual character and quality would be less than significant.

- d. **Less Than Significant Impact.** The proposed project would entail the installation of an underground pipeline that would not create a new permanent source of substantial light or glare. Pipeline installation, however, could occur during nighttime hours, which would require lighting of the proposed pipeline alignment. The project design features would require that night lighting be of the lowest illumination necessary for human safety, and selectively placed, shielded, and directed away from adjacent natural habitats. Accordingly, impacts would be less than significant.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**II. AGRICULTURE AND FORESTRY RESOURCES**

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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?                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ✓ |
| b. Conflict with existing zoning for agricultural use or a Williamson Act contract?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ✓ |
| c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ✓ |
| d. Result in the loss of forest land or conversion of forest land to non-forest use?   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ✓ |

- 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?

Explanations of Environmental Impacts

- a. **No Impact.** The project site is not within or near farmland (Prime Farmland, Unique Farmland, or Farmland of Statewide Importance). Therefore, the proposed project would not convert farmland (Prime Farmland, Unique Farmland, or Farmland of Statewide Importance) to non-agricultural uses. Accordingly, no impact to agricultural resources would occur.
- b. **No Impact.** The project site is not zoned for agricultural uses, and no Williamson Act contract land is present in the existing or proposed pipeline alignments. Accordingly, no impact to agricultural resources would occur.
- c. **No Impact.** The project site is not zoned as forest land or timberland. Therefore, implementation of the project would not conflict with existing zoning for such lands, and no impact would occur.
- d. **No Impact.** The project site is not within or near forest land. Accordingly, project construction and operation would not convert forest land to non-forest use, and no impact would occur.
- e. **No Impact.** The project would not involve changes in the existing environment which would result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. Accordingly, no impact would occur.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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### III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management 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?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>
c. 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>

#### Explanations of Environmental Impacts

- a. **No Impact.** The project site is located within the San Diego Air Basin (SDAB), which is currently classified as a nonattainment area under the California Ambient Air Quality Standards (CAAQS) for particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) and ozone (O<sub>3</sub>) identified in the California State Implementation Plan (SIP).

The San Diego County Air Pollution Control District (APCD) is responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the Basin. The APCD's Air Quality Management Plan (AQMP) contains a comprehensive list of pollution control strategies to reduce emissions, and achieve ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the San Diego Association of Governments (SANDAG), which is the regional planning agency for San Diego County.

The proposed project would result in the construction of a new underground sewer pipeline, and the abandonment of the existing sewer line, including the removal of a section of aboveground pipe

and capping existing manholes. The project would not result in population growth; it would instead serve the existing population and accommodate future growth. Because the proposed project is consistent with the regional growth forecasts, pursuant to APCD guidelines, it would be considered consistent with the region's AQMP. In addition, the proposed project would comply with all existing and new rules and regulations as they are implemented by the County, APCD, California Air Resources Board (CARB), and/or U.S. Environmental Protection Agency (USEPA) related to emissions generated during construction. Therefore, the proposed project would not conflict with the applicable air quality attainment plan, and no impact would occur.

- b. **Less Than Significant Impact.** Operation of the proposed pipeline would not emit any pollutants. Construction emissions were calculated by using California Emissions Estimator Model (CalEEMod) version 2013.2.2. CalEEMod is a computer program accepted by the South Coast Air Quality Management District (SCAQMD) that can be used to estimate anticipated emissions associated with land development projects in California. CalEEMod has separate databases for specific counties and air districts. The San Diego County database was used for the proposed project. The model calculates emissions of VOC, NO<sub>x</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, and CO. For this analysis, the results are expressed in pounds per day (lbs/day), and are compared with the mass daily emissions thresholds that were established by the APCD.

Construction emissions include exhaust emissions from off-road construction equipment, on-road haul trucks, and vehicles used by workers to commute to and from the site. The model also calculates particulate emissions from dust generated during grading activities and particulates in the exhaust of off-road and on-road vehicles. The analysis of construction emissions assumes watering active grading areas a minimum of twice daily to control dust. In addition, the analysis assumes the use of USEPA certified Tier 2 off-road equipment.

For the purposes of estimating emissions associated with construction activities, a timeframe of May 2016 through July 2017 was applied to the analysis. The District anticipates that a construction crew of approximately 8 to 10 workers would typically be present on site during active construction, and a total of 5,000 cubic yards of excavated soil would be hauled off site. The calculated daily construction emissions are shown in Table 1. Specific inputs to CalEEMod and details of the results are included in Appendix A. As shown in Table 1, the maximum daily construction emissions would be less than the APCD significance thresholds and, therefore, less than significant.

<b>Table 1 MAXIMUM DAILY ESTIMATED CONSTRUCTION EMISSIONS (pounds per day)</b>						
<b>Emissions/Thresholds</b>	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Maximum daily emissions	3	44	36	<0.5	5	3
<b>SDAPCD daily thresholds</b>	<b>75</b>	<b>250</b>	<b>550</b>	<b>250</b>	<b>100</b>	<b>55</b>
Exceeds threshold?	No	No	No	No	No	No

See Appendix A for model output data.

ROG = reactive organic gases; NO<sub>x</sub> = nitrogen oxides; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides;

PM<sub>10</sub> = respirable particulate matter; and PM<sub>2.5</sub> = fine particulate matter

- c. **Less Than Significant Impact.** The proposed project would be located within the SDAB, which is currently in attainment for all national and state Ambient Air Quality Standards except for federal and state one-hour ozone standards and state PM<sub>10</sub> and PM<sub>2.5</sub> standards. For the reasons described above in Item III.a, the proposed project would not result in a cumulatively considerable net

increase in any of these criteria pollutants, including precursors to ozone. In addition, daily emissions would be low, temporary in duration, and localized within the immediate project vicinity. Accordingly, cumulative impacts associated with air quality would be less than significant.

- d. **Less Than Significant Impact.** Sensitive receptors along the existing and proposed pipeline alignments include residences and a daycare center. For the reasons described for Item III.a, the proposed project would not generate substantial pollutant concentrations. Accordingly, impacts would be less than significant.
  
- e. **Less Than Significant Impact.** In the short term, diesel exhaust from construction equipment may create noticeable odors near the proposed pipeline alignment; however, the diesel exhaust odors would be temporary and minor, and would not affect a substantial number of people at any given time since the equipment location would change depending on which segment of the alignment is being constructed. The removal of the existing section of aboveground pipeline could result in odors due to residual sewage in the pipeline; however, this segment of existing pipeline is not near potential sensitive receptors. Operational emissions and odors associated with the proposed sewer pipeline would be minimal, and would not exceed those associated with the existing pipeline. Accordingly, impacts would be less than significant.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**IV. BIOLOGICAL RESOURCES**

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? | <input type="radio"/> | <input checked="" type="checkbox"/> | <input type="radio"/>               | <input type="radio"/>               |
| 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?   | <input type="radio"/> | <input checked="" type="checkbox"/> | <input type="radio"/>               | <input type="radio"/>               |
| c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?   | <input type="radio"/> | <input type="radio"/>               | <input type="radio"/>               | <input checked="" type="checkbox"/> |
| 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?   | <input type="radio"/> | <input type="radio"/>               | <input checked="" type="checkbox"/> | <input type="radio"/>               |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="radio"/> | <input type="radio"/>               | <input type="radio"/>               | <input checked="" type="checkbox"/> |
| 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?   | <input type="radio"/> | <input type="radio"/>               | <input type="radio"/>               | <input checked="" type="checkbox"/> |

## Explanations of Environmental Impacts

- a. **Less Than Significant Impact With Mitigation Incorporated.** A Biological Technical Report was prepared for the proposed project by HELIX Environmental Planning, Inc. (HELIX; 2015a; refer to Appendix B). Potential impacts to sensitive species within the project site and vicinity are presented below. Refer to Figure 4 for the location of sensitive biological resources in the project biological study area.

**Sensitive Plant Species:** One federal- and state-listed threatened or endangered plant species was observed within the study area during surveys: Otay tarplant (*Deinandra conjugens*). In addition, seven plant species considered sensitive by the California Native Plant Society (CNPS) were observed within the study area and include Palmer's goldenbush (*Ericameria palmeri* var. *palmeri*), ashy spike-moss (*Selaginella cinerascens*), San Diego sagewort (*Artemisia palmeri*), San Diego County viguiera (*Bahiopsis laciniata*), graceful tarplant (*Holocarpha virgata* ssp. *elongate*), southern California black walnut (*Juglans californica*), and southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*).

A total of 460 individuals of Otay tarplant occur along the alignment of the existing pipeline, including near existing manholes to be capped. Due to the relatively high number of Otay tarplant in the project area, some individuals of this species could be inadvertently impacted (e.g., by accidentally stepping or driving over them) during manhole capping. Impacts to this species would be significant. The following mitigation measure would reduce potential impacts to Otay tarplant to less than significant levels:

**BIO-1** Temporary orange construction fencing shall be installed adjacent to the access road where Otay tarplant occurs and the contractors shall be informed regarding no-entry areas. The temporary construction fencing and contractor education shall occur prior to grubbing, clearing, and/or grading. A qualified biologist shall verify the location of the temporary fencing prior to construction activities within areas containing Otay tarplant. In addition, a biological monitor shall be present during construction activities within 25 feet of areas containing Otay tarplant to ensure that this species is not impacted. The fencing shall be removed upon completion of construction of the project.

Critical habitat for Otay tarplant is designated approximately 200 feet south of the project study area. Accordingly, the proposed project would not result in impacts to Otay tarplant critical habitat.

One Palmer's goldenbush (a CNPS List 2.2) is located immediately adjacent to an existing manhole that would be capped. Capping of the manholes would be completed by hand or with small equipment so as not to impact habitat; however, if individuals of this species are inadvertently impacted, such impacts would be adverse but not significant due to the fact that only one could be affected and the species' low sensitivity.

Construction of the proposed pipeline could result in impacts to two San Diego County viguiera (a CNPS List 4.2 species). Two San Diego County viguiera are also located near the existing manholes and could be inadvertently impacted. One graceful tarplant and two San Diego sagewort (both CNPS List 4.2 species) could be inadvertently impacted by the capping of existing manholes. Given the low number affected and the low sensitivity, impacts to these individuals would be adverse but not significant.

The proposed project would not result in impacts to ashy spike-moss, southwestern spiny rush, and southern California black walnut as none are located within the project impact area.

**Sensitive Animal Species:** Six animal species considered sensitive by the resource agencies were observed or detected within the study area during surveys and include the federal- and state-listed as endangered least Bell's vireo and the federal-listed as threatened coastal California gnatcatcher, as well as orange-throated whiptail (*Aspidoscelis hyperythrus beldingi*), yellow warbler (*Dendroica petechia brewsteri*), yellow-breasted chat (*Icteria virens*), and Cooper's hawk (*Accipiter cooperii*). The proposed project would avoid direct impacts to the locations at which sensitive animal species were observed. In addition, the project impact footprint is located within and immediately adjacent to an existing roadway and areas disturbed by existing dirt paths and adjacent development. Therefore, the project would not result in direct impacts to habitat with potential to support the coastal California gnatcatcher, least Bell's vireo, yellow warbler, and yellow-breasted chat. Indirect impacts to sensitive avian species could potentially occur, as further discussed below.

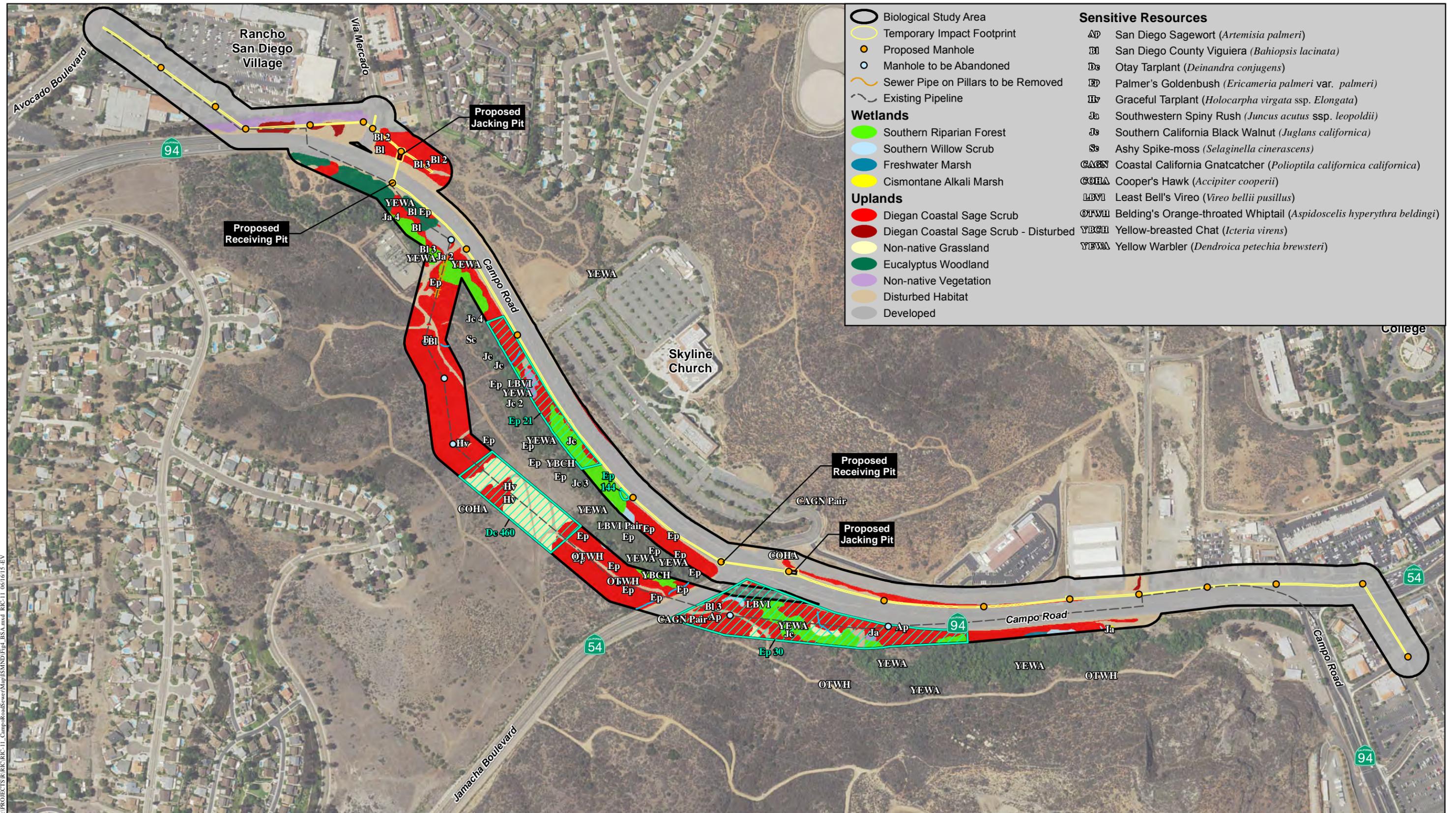
The proposed project would not result in impacts to coastal California gnatcatcher critical habitat as such habitat is not located within the impact area. Although critical habitat for least Bell's vireo occurs within the proposed pipeline alignment, this area is currently developed with the Rancho San Diego Towne Center. Because the shopping center does not provide primary constituent elements for least Bell's vireo habitat, impacts associated with construction of an underground pipeline to this portion of designated critical habitat would be less than significant.

Two Belding's orange-throated whiptails (a state species of special concern) were observed along an unpaved road to the south of the Campo Road along the existing pipeline alignment. Capping of the manholes would be completed by hand or with small equipment so as not to impact habitat; however, if individuals of this species are inadvertently impacted, such impacts would be adverse but not significant due to the low number affected and the low sensitivity.

Eucalyptus trees are located immediately south of Campo Road in the northern portion of the study area, and could potentially provide nesting sites for raptors. The proposed project would not require the removal of trees. Therefore, no direct impacts to raptors (including Cooper's hawk) would occur.

Sensitive animal species with a high potential to occur on site include Coronado skink (*Eumeces skiltonianus interparietalis*), northern red diamond rattlesnake (*Crotalus ruber ruber*), San Diego horned lizard (*Phrynosoma coronatum blainvillei*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), and San Diego desert woodrat (*Neotoma lepida intermedia*). Suitable habitats for these species occur within and adjacent to the study area. Construction of the proposed pipeline within Diegan coastal sage scrub located in the northern portion of the study area to the north of Campo Road could result in inadvertent impacts to these species, if present within the proposed trenching corridor. Capping of the manholes would be completed by hand or with small equipment so as not to impact sensitive biological resources; however, individuals of these species could be inadvertently impacted. Impacts to these species would be adverse but not significant, however, because due to their low sensitivity and the fact that these animals can move away from potential impact areas.

Sensitive animal species with a moderate to high potential to occur on site include Quino checkerspot butterfly (*Euphydryas editha quino*) and Hermes copper (*Lycaena hermes*). Both species have been previously mapped by others within the vicinity of the study area. Approximately 35 individuals of spiny redberry (*Rhamnus crocea*; the host plant for Hermes copper) are located under the eucalyptus trees in the northern portion of the study area immediately



**Biological Study Area**

CAMPO ROAD SEWER MAIN REPLACEMENT

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adjacent and south of Campo Road. There are also spiny redberry scattered throughout the Diegan coastal sage scrub, located along the existing pipeline alignment to the north and south of Jamacha Boulevard. No host plants for the Quino checkerspot butterfly were observed in the project study area during the surveys conducted in 2014 and 2015. Due to the proximity of Quino checkerspot butterfly and Hermes copper sightings and the presence of spiny redberry, these two sensitive butterfly species would be expected to occur near the existing pipeline alignment, to the south of drainage located immediately south of Campo Road. Quino checkerspot butterfly and Hermes copper would not be expected to occur along the proposed pipeline alignment because of the proximity to Campo Road. Construction of the proposed pipeline would occur mainly within existing developed areas and would impact a relatively small area (0.3 acre) of Diegan coastal sage scrub that is immediately adjacent to Campo Road. No host plants for Quino checkerspot butterfly or Hermes copper are present in the project footprint. In addition, host plants located under the eucalyptus trees in the northern portion of the study area immediately south of Campo Road are outside of the impact corridor for the proposed pipeline. Therefore, construction of the proposed pipeline is not anticipated to impact either sensitive butterfly species. In addition, capping of the existing pipeline is not anticipated to impact Quino checkerspot butterfly or Hermes copper because capping activities would be completed using hand tools and small equipment, no vegetation would be removed and no improvements to the existing dirt paths would occur. Therefore, no impacts to these species or their habitat are expected from manhole-capping activities.

**Nesting Migratory Birds:** All migratory bird species that are native to the United States or its territories are protected under the federal Migratory Bird Treaty Act (MBTA). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is now used to place restrictions on disturbance of active bird nests during the nesting season (generally February 1 to July 31). Clearing of vegetation during the breeding season of MBTA-covered species could affect nesting birds (or birds displaying breeding or nesting behavior). Such direct impacts would be considered significant. The following mitigation measure would reduce potential impacts to nesting migratory birds to less than significant levels:

**BIO-2** To ensure compliance with the MBTA, clearing of vegetation shall occur outside of the breeding season of most avian species (February 1 through September 15). Clearing during the breeding season of MBTA-covered species (migratory birds that are native to the United States or its territories) could occur if it is determined that no nesting birds (or birds displaying breeding or nesting behavior) are present within 3 days prior to clearing. A pre-construction survey shall be conducted to determine if breeding or nesting avian species occurs within areas directly affected by vegetation removal or indirectly affected by noise. If any of these birds are observed nesting or displaying breeding/nesting behavior within the area, construction in the area shall be postponed until (1) the nest is abandoned or the young have fledged or (2) after September 15. The no-work buffer zone placed around the nest shall be determined by a qualified biologist at the time of discovery, and will vary based on site conditions and the type of work to be conducted. A qualified biologist shall monitor vegetation removal if conducted during the breeding season.

**Indirect Impacts:** Potential indirect project impacts consist of secondary effects of the project, including habitat insularization, drainage/water quality, lighting, noise, exotic plant species, raptor foraging, and nuisance animal species.

Habitat insularization is the fragmentation of large habitat areas into smaller “islands” effectively isolated from one another. Such fragmentation presents barriers to wildlife movement and breeding, splits animal and plant populations, and increases edge effects. Often, habitat insularization is associated with local species extinctions, since smaller habitat areas support relatively fewer species than larger ones. The study area primarily consists of developed land with some areas of native vegetation. The proposed pipeline would primarily occur within existing roadways and paved parking lots. Impacts to sensitive vegetation communities would occur; however, these impacts are linear and minimal. No habitat insularization is anticipated. As such, the project would not isolate any habitat areas, and no impacts would occur.

Water quality could be adversely affected during construction by potential surface runoff, including sedimentation, fertilizers, and car petroleum products. Decreased water quality may adversely affect vegetation, aquatic animals, and terrestrial wildlife that depend upon these resources. Implementation of the proposed project would require conformance with the National Pollution Discharge Elimination System (NPDES) General Construction Activity Permit. Such conformance would entail implementation of a Storm Water Pollution Prevention Plan (SWPPP) to address the discharge of contaminants (including construction-related hazardous materials) and minimize runoff through appropriate BMPs, as discussed under “Additional Project Design Features” in Section 8, *Description of Project*. The project design would also comply with the Standard Urban Stormwater Management Plan and Municipal Stormwater Permit criteria of the State Water Resources Control Board. Therefore, indirect impacts resulting from drainage or impaired water quality would be less than significant.

Night lighting that extends from a developed area onto adjacent wildlife habitat can discourage nocturnal wildlife in habitat and can provide nocturnal predators with an unnatural advantage over their prey. The proposed project would entail the installation of underground pipelines. Project construction would be conducted during daylight hours; however, if multiple lanes need to be closed on Campo Road or Jamacha Road for pipeline installation, Caltrans could require that such work occur only at night. During such an event, artificial lighting could be required. Project design features discussed in Section 8, *Description of Project*, would require that night lighting of construction and staging areas would be of the lowest illumination necessary for human safety, selectively placed, shielded, and directed away from adjacent natural habitats. Therefore, indirect impacts resulting from night lighting with implementation of the proposed project would be less than significant.

Construction-related noise from sources such as clearing and grading would be a temporary impact to wildlife. Breeding birds and mammals may temporarily or permanently leave their territories to avoid disturbances from construction activities, which could lead to reduced reproductive success and increased mortality. Noise-related impacts would be considered significant if sensitive species such as coastal California gnatcatchers, least Bell’s vireo, and raptors were displaced from their nests or territories and failed to breed. The District does not have a Natural Community Conservation Program (NCCP) in place. As such, noise guidelines from the County of San Diego are applied as a guideline for identifying potential impacts. As stated above, the MBTA is now used to place restrictions on disturbance of active bird nests during the nesting season (generally February 1 to July 31). For purposes of this project, given that the District is not an NCCP participating entity, the most conservative dates compiled from the County of San Diego and MBTA are used in the discussion below.

Construction of the proposed project may create some elevated short-term construction noise impacts, particularly from trenching, as well as tunneling. Although some construction activity would likely result in noise levels above 75 decibels (dB), pipeline construction noise would be

temporary given that construction would occur in different locations along the corridor and no area supporting sensitive avian species would be exposed to elevated noise levels for the entire construction period. Therefore, associated noise exposure to any given sensitive avian species is generally estimated to last about five days.

Project construction would be restricted during the coastal California gnatcatcher breeding season (February 15 to August 15) in the central portion of the proposed pipeline alignment (south of the intersection of Campo Road/Jamacha Boulevard) to avoid indirect noise-related impacts to coastal California gnatcatcher. Project construction could potentially be restricted in the northern portion of the proposed pipeline alignment (northeast of the intersection of Campo Road/Via Mercado) to avoid indirect noise-related impacts to coastal California gnatcatcher during the coastal California gnatcatcher breeding season. If construction cannot be avoided in this area during the coastal California gnatcatcher breeding season, the following mitigation would be required:

**BIO-3** No grubbing, clearing, or grading shall occur during the gnatcatcher breeding season (February 15 through August 15) within 500 feet of occupied Diegan coastal sage scrub in the central portion of the proposed pipeline alignment (south of the intersection of Campo Road/Jamacha Boulevard). As such, all project plans shall state the same.

If project construction would occur during the gnatcatcher breeding season in the central portion of the alignment and/or raptor breeding season, pre-construction surveys shall be conducted within three days prior to construction activities to determine if these species occur within the areas indirectly impacted by noise. If there are no gnatcatchers or raptors nesting (includes nest building or other breeding/nesting behavior) within this area, construction shall be allowed to proceed. However, if any gnatcatcher or raptors are observed nesting or displaying breeding/nesting behavior within the area, construction shall be postponed until (1) all nesting (or breeding/nesting behavior) has ceased or until after August 15; or (2) a temporary noise barrier or berm shall be constructed at the edge of the impact footprint to reduce noise levels below 60 dB  $L_{EQ}$  or ambient (if ambient is greater than 60 dB  $L_{EQ}$ ). Alternatively, construction equipment could be modified and/or the duration of construction equipment operation could be controlled to keep noise levels below 60 dB  $L_{EQ}$  or ambient in lieu of or in concert with a wall or other sound attenuation barrier.

In the central portion of the proposed pipeline alignment where least Bell's vireo and other sensitive avian species were recorded, construction could potentially be restricted to avoid indirect noise related impacts to least Bell's vireo during the breeding season (March 15 to September 15). If construction cannot be avoided during the least Bell's vireo breeding season, the following mitigation would be required:

**BIO-4** No clearing, grubbing, grading, or other construction activities shall occur within 300 feet of occupied least Bell's vireo habitat between March 15 to September 15, the breeding season of the least Bell's vireo. If construction activities must occur during the least Bell's vireo breeding season, nest surveys shall be conducted within 300 feet of all proposed activities. If active nests are encountered and construction activities must occur during the least Bell's vireo breeding season, noise levels from human activities at the nest shall be restricted to less than 60 dB  $L_{EQ}$  or the ambient noise level plus 3 dB (perceptible change threshold), whichever is greater. Noise levels shall be monitored, and monitoring reports shall be provided to the District to be included in the annual reports.

Non-native plants could colonize in areas disturbed by construction and potentially spread into adjacent areas. Such invasions could (1) displace native plant species, (2) reduce diversity, (3) increase flammability and fire frequency, (4) change ground and surface water levels, and (5) adversely affect the native wildlife that are dependent on native vegetation. Non-native plants species occur within the study area; however, the temporary impact area to vegetated areas (to the north of Campo Road by the Rancho San Diego Village shopping center) would be reseeded with native plant species. As such, impacts from an increase in invasive species would be less than significant.

A Cooper's hawk was observed flying overhead during biological surveys. The project would not result in a loss of raptor foraging habitat given that impacts would only affect 0.3 acre of vegetation communities and no grasslands would be impacted by the project. Therefore, no impact to raptor foraging would occur.

The project has little potential for domestic animals (cats and dogs) to impact native wildlife given that the proposed project consists of installation of a pipeline. In addition, as part of the project design features, pets of project personnel would not be allowed on the project site. As such, no impact would occur as a result of nuisance animals.

- b. **Less Than Significant Impact With Mitigation Incorporated.** The biological study area supports nine vegetation communities: southern riparian forest, southern willow scrub, freshwater marsh, cismontane alkali marsh, Diegan coastal sage scrub (including disturbed), non-native grassland, eucalyptus woodland, non-native vegetation, and disturbed habitat. The study area also includes developed land. Construction of the proposed pipeline would be restricted mainly to paved roadways and parking lots; however, construction of this pipeline would result in direct temporary impacts to approximately 0.3 acre of sensitive vegetation (Diegan coastal sage scrub [including disturbed]). Such impacts to sensitive habitat would be significant. With regard to the existing pipeline, pipe removal and manhole capping in sensitive habitat would be completed by hand or with small equipment so as not to impact the habitat.

The following mitigation measure would reduce potential impacts to sensitive vegetation communities to less than significant levels:

**BIO-5** Impacts to Diegan coastal sage scrub (including disturbed) shall be mitigated at a 1:1 ratio. Therefore, required mitigation would be 0.3 acre. The District shall debit credits from its San Miguel Habitat Management Area.

In addition, in order to avoid impacts to adjacent sensitive habitat during construction, such habitat interfaces shall require temporary orange construction fencing that clearly delineates the edge of the approved limits of work and environmentally sensitive areas beyond. A biologist shall ensure that the fencing is properly installed prior to construction, and maintained for the duration of construction activity. The fencing shall be installed in a manner that does not impact habitats to be avoided. A biological monitor shall be present during construction activities adjacent to sensitive habitat. The fencing shall be removed upon completion of construction of the project.

- c. **No Impact.** U.S. Army Corps of Engineers (USACE) jurisdictional areas total 0.13 acre within the study area. In addition, 3.77 acres of California Department of Fish and Wildlife (CDFW) jurisdictional areas occur within the study area. Although the proposed pipeline alignment would be adjacent to jurisdictional areas, construction of the pipeline would not result in direct impacts to USACE or CDFW jurisdictional areas. With regard to the existing aboveground pipe that would be

removed as part of the project, the southern riparian forest habitat in which pillars are located is under the jurisdiction of CDFW. Pipe and pillar removal would be completed by hand or with small equipment so as not to impact the jurisdictional area (i.e., no fill would be placed within jurisdictional areas and no trees would be removed). In addition, the second northernmost pillar which is located directly adjacent to the channel/edge of a USACE jurisdictional area (on the south side of the channel), would be cut above the existing ground level in order to avoid potential impacts to this jurisdictional area. Therefore, impacts to jurisdictional areas not occur.

- d. **Less Than Significant Impact.** The Sweetwater River located approximately 0.25 mile south of the project study area acts as a regional wildlife corridor. In addition, the riparian corridor immediately south of Campo Road within the project area acts as a local wildlife movement area. The proposed project would consist of construction and operation of an underground pipeline within or adjacent to existing paved roadways and parking lots. The new sewer line would be located outside of the Sweetwater River and the riparian corridor used for wildlife movement.

With regard to the abandonment of the existing pipeline, removal of the existing aboveground pipe and capping of the existing manholes would be completed by hand or with small equipment so as not to impact the habitat. Nonetheless, such work could cause short-term disruption as wildlife may avoid the area during work. Due to the short duration of disruption, pipeline abandonment activities would not affect the Sweetwater River or the riparian corridor immediately south of Campo Road. Therefore, impacts to wildlife movement would be less than significant.

- e. **No Impact.** The proposed project consists of abandoning an existing pipeline, removing a section of aboveground pipeline, and constructing a new sewer pipeline within existing roads and other disturbed/developed areas. No trees would be removed to implement the proposed project. The project would not conflict with any local policies or ordinances protecting biological resources. Accordingly, no impact would occur.
- f. **No Impact.** The project is not subject to any adopted regional conservation plans. Accordingly, the project would not conflict with such plans, policies, or ordinances and no impact would occur.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**V. CULTURAL RESOURCES**

Would the project:

- |   |                       |                                  |                                  |                                  |
|---|-----------------------|----------------------------------|----------------------------------|----------------------------------|
| a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?    | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input checked="" type="radio"/> |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            |
| c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?       | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            |
| d. Disturb any human remains, including those interred outside of formal cemeteries?                          | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> | <input type="radio"/>            |

Explanations of Environmental Impacts

- a. **No Impact.** A Cultural Resources Study was prepared for the proposed project by HELIX (2015b; refer to Appendix C). A records search was conducted for the project study area and a 0.5-mile radius surrounding the study area. The records search indicated that no historical resources have been recorded within this area. In addition, no historical resources were found within the proposed or existing sewer alignments during the field survey for this project. Accordingly, no impacts would occur.
- b. **Less Than Significant Impact With Mitigation Incorporated.** A total of 22 archaeological sites and 1 isolated artifact have been recorded within the 0.5-mile radius around the project area, including 7 located within or adjacent to the project study area. Of these seven archaeological sites, two have been assessed as significant cultural sites (CA-SDI-4775 and CA-SDI-4782/8326), and one of the loci within site CA-SDI-4763 has been assessed as significant.

Site CA-SDI-4763 Locus 1 was previously impacted by the construction of the Skyline Wesleyan Church, and impacts were mitigated through a data recovery program. Accordingly, potential impacts to remaining portions of this locus would be less than significant, and no mitigation would be required. It is noted that a portion of Locus 2 is also significant; however, the portion of the locus that the proposed project would traverse is not significant. Therefore, impacts to Locus 2 by the project would be less than significant.

CA-SDI-4775 and CA-SDI-4782/8326 are crossed by the existing sewer alignment. In addition, CA-SDI-4782/8326 would be traversed by the proposed pipeline. Although these sites have been subject to impacts from the existing sewer pipeline, there is a potential for additional cultural material (artifacts and features) within the proposed pipeline alignment, which could be affected by

trenching associated with construction. In addition, there is a potential for additional cultural resources that have not been identified during the current survey and previous work in the area. Accordingly, significant impacts could occur to CA-SDI-4775 and CA-SDI-4782/8326, as well as unknown buried cultural resources. The following mitigation measure would reduce potential impacts to cultural resources to less than significant levels:

**CUL-1** Trenching will be monitored by an archaeologist and a Native American monitor. Trenching below depths at which cultural material would reasonably be expected to occur will not require monitoring, but monitors should be present to observe trenching, grading, and other ground-disturbing activities in the upper few feet (as determined by the archaeologist) of soil. If cultural material is encountered, monitors will have the authority to temporarily halt or redirect work while the cultural material is documented and assessed. If significant deposits are found, additional data recovery will be conducted, as necessary, to adequately mitigate project impacts. Cultural material recovered will be curated at the San Diego Archaeological Center or other appropriate facility meeting federal curatorial standards.

- c. **Less Than Significant Impact With Mitigation Incorporated.** The project site is underlain with young alluvial deposits, colluvial deposits, granitic rocks, and Santiago Peak Volcanics (Allied Geotechnical Engineers, Inc. [AGE] 2014). Granitic rocks are considered to have no paleontological resource sensitivity. Young alluvial and colluvial deposits are considered to have a low paleontological resource sensitivity. Santiago Peak Volcanics is considered to have a high paleontological resource sensitivity. With the proposed pipeline to be located 15 to 29 feet belowground, there is potential that the project could encounter paleontological resources when excavation extends into Santiago Peak Volcanics. Impacts to unknown paleontological resources could be significant. The following mitigation measure would reduce impacts to paleontological resources to less than significant levels:

**CUL-2** Trenching within Santiago Peak Volcanics will be monitored by a paleontologist. If paleontological resources are encountered, the monitor will have the authority to temporarily halt or redirect work while the paleontological resources are documented and assessed. If significant deposits are found, additional data recovery will be conducted, as necessary, in order to adequately mitigate project impacts. The fossil collection and all associated documentation will be legally transferred to a qualified repository within San Diego County.

- d. **Less Than Significant Impact.** None of the project components would be located within any formal cemeteries. The proposed pipeline would be installed within existing road rights-of-way and other disturbed/developed areas. As a result, it is not anticipated that the project would result in the intentional disturbance of human remains. However, in the unlikely event that human remains are encountered during ground-disturbing activities, all work would be halted in the vicinity of the discovery and the County Coroner would be contacted in accordance with Health and Safety Code 7050.5, CEQA 15064.5(e), and Public Resources Code 5097.98. The County Coroner would follow all appropriate procedures. In addition, the implementation of mitigation measure CUL-1, as described under Item V.b, above, would further ensure that any impacts to human remains would be less than significant.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**VI. GEOLOGY AND SOILS**

Would the project:

- |  |   |   |   |   |
|--|---|---|---|---|
| a. Expose people or structures to 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 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?   | ○ | ○ | ○ | ✓ |

## Explanations of Environmental Impacts

- a.i. **Less Than Significant Impact.** Seismically induced ground rupture is the physical displacement of faults during an earthquake event. Ground rupture and related effects such as lurching (i.e., the rolling motion of surface materials associated with passing seismic waves) can adversely affect surface and subsurface structures. The proposed pipeline would not traverse any known faults. The project area is within a broad seismically active region characterized by a series of northwest-trending fault zones associated with the San Andreas Fault System. No active or potentially active faults are mapped or known to occur within or adjacent to the proposed alignments. The nearest mapped major active fault to the project alignment is the Rose Canyon Fault Zone (RCFZ) located approximately 18 miles west of the project alignment. While the potential for on-site rupture cannot be completely discounted (e.g., unmapped faults could conceivably underlie the site), the likelihood for such an occurrence is considered low due to the absence of known faulting within or adjacent to the project area. Therefore, impacts to the proposed sewer line related to fault rupture would be less than significant.
- a.ii. **Less Than Significant Impact.** The project area is located in seismically active southern California, and is likely to be subjected to moderate to strong seismic ground shaking. Seismic shaking at the site could be generated by events on any number of known active and potentially active faults in the region, in particular the nearby San Andreas Fault Zone. An earthquake along any of the known active fault zones in the region could result in severe ground shaking and consequently that could potentially result in significant impacts to the proposed sewer line, including rupture or severing of the pipeline (depending on factors such as event duration, motion frequency, and underlying soil/geologic conditions). The project design, however, would incorporate measures to accommodate projected seismic loading, pursuant to existing guidelines such as the “Greenbook” Standard Specifications for Public Works Construction (Greenbook Committee of Public Works Standards, Inc. 2012), and the International Building Code (IBC; International Conference of Building Officials 2012). In addition, the project design would follow guidelines within the California Building Code (CBC; California Code of Regulations, Title 24, Part 2). Based on the incorporation of applicable measures into project design and construction, the potential impacts associated with strong seismic ground shaking would be less than significant.
- a.iii. **Less Than Significant Impact.** Liquefaction is the phenomenon whereby soils lose shear strength and exhibit fluid-like flow behavior. Severe or extended liquefaction can result in significant effects to surface and subsurface facilities through the loss of support and/or foundation integrity. Loose, granular soils are most susceptible to these effects, with liquefaction generally restricted to saturated or near-saturated soils at depths of less than 100 feet. The project alignment is primarily underlain by granitic and metavolcanic basement rock with a thin mantle of man-made fill, residual soil, colluvium, and younger alluvial deposits that are Holocene in age and younger. The deeper rock units are not considered susceptible to seismic-induced soil liquefaction or ground settlement. The young alluvial materials are considered to have a low potential for liquefaction, but their areal extent along the proposed pipeline alignment is limited. Given that the project does not include the construction of any habitable structures, and that the construction of the proposed pipelines would incorporate standard guidelines from the Greenbook, IBC, and CBC, impacts associated with liquefaction would be less than significant.
- a.iv. **No Impact.** There are no known (mapped) landslides in the immediate vicinity of the project site (Tan 2002 and Todd 2004). Accordingly, no impacts associated with landslides would occur.

- b. **Less Than Significant Impact.** The proposed project has a minor potential to increase wind or water erosion of soils on or off site during project construction, due to the presence of soil piles and exposed trenches. However, implementation of the project design features, identified earlier for water quality, would reduce the potential impacts to less than significant.
- c. **No Impact.** As discussed in Items VI.a.iii and VI.a.iv, above, the project area is not located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project. Therefore, no impacts related to unstable geologic units or soils would occur.
- d. **Less Than Significant Impact.** Expansive soils are generally high in clays or silts that shrink or swell with variation in moisture. Expansive (or shrink-swell) behavior is attributable to the water-holding capacity of clay minerals, and can adversely affect the structural integrity of facilities including underground pipelines. The majority of soil materials along the proposed pipeline corridor are considered non-expansive. Areas underlain by deeply weathered gabbro or rocks of Santiago Peak Volcanics are typically composed of clay-rich soils, which possess low to moderate expansion potential. The majority of the proposed pipeline alignment, however, would occur within existing roadways or other developed areas, which were designed and built to account for effects of expansive soils. Portions of the proposed pipelines to be placed in unpaved, non-engineered areas would incorporate standard engineering techniques in accordance with the IBC and CBC to avoid adverse effects of expansive soils. Therefore, impacts related to expansive soils would be less than significant.
- e. **No Impact.** The proposed project would involve installation of a new sewer pipeline and the abandonment of the existing pipeline. Septic tanks or other alternative wastewater disposal systems would not be a part of the proposed project. Accordingly, no impact would occur.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**VII. GREENHOUSE GAS EMISSIONS**

Would the project:

- |   |                       |                       |                                  |                       |
|---|-----------------------|-----------------------|----------------------------------|-----------------------|
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?       | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |
| b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> |

Explanations of Environmental Impacts

- a. **Less Than Significant Impact.** California Health and Safety Code Section 38505(g) defines greenhouse gas (GHG) emissions to include the following compounds: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). As individual GHGs have varying heat-trapping properties and atmospheric lifetimes, GHG emissions are converted to carbon dioxide equivalent (CO<sub>2</sub>e) units for comparison. The CO<sub>2</sub>e is a consistent methodology for comparing GHG emissions because it normalizes various GHG emissions to a consistent measure. The most common GHGs related to the project are CO<sub>2</sub> (CO<sub>2</sub>e = 1), CH<sub>4</sub> (CO<sub>2</sub>e = 21), and N<sub>2</sub>O (CO<sub>2</sub>e = 310).

The County utilizes a screening-level emission level of 900 metric tons (MT) CO<sub>2</sub>e to evaluate whether a project must conduct further analysis. This screening threshold is based on a report by the California Air Pollution Control Officers Association (CAPCOA) entitled “CEQA & Climate Change,” dated January 2008. The 900 MT CO<sub>2</sub>e per year screening threshold was developed by analyzing the capture of 90 percent or more of future discretionary development for residential and commercial projects. County guidance also recommends including construction emissions (amortized over a typical duration of 20 years) in the screening threshold.

The proposed project’s construction-related contribution to GHG emissions would primarily result from fuel combustion in construction equipment, construction worker commute trips, and hauling/delivery truck trips. Construction-related GHG emissions result from CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O that is released during the combustion of gasoline or diesel fuel in on- and off-road vehicles and equipment. Assumptions for project construction are described in greater detail in Section III.b. Estimated annual GHG emissions from construction activity are provided in Table 2, below.

<b>Table 2 CONSTRUCTION GHG EMISSIONS BY YEAR</b>	
<b>Construction Year</b>	<b>MT CO<sub>2</sub>e</b>
2016	374
2017	318
<b>Total</b>	<b>693</b>
<b>Annual Emissions<sup>1</sup></b>	<b>35</b>

<sup>1</sup> Combined total amortized over 20 years.

See Appendix A for output data.

Note: Totals may not add due to rounding.

As described in Section III.b, because the project is an upgrade and retrofit of an existing facility, operations-period emissions would not change, and the only source of GHG emissions would be construction. As shown in Table 2, the estimated increase in annual GHG emissions from amortized construction emissions would be 35 MTCO<sub>2</sub>e per year. This value is significantly less than the County's screening threshold of 900 MT CO<sub>2</sub>e per year. It is generally accepted as very unlikely that any individual development project would generate GHG emissions of a magnitude to directly impact global climate change; therefore, any impact would be considered on a cumulative basis. Because the proposed project's GHG emissions would be less than 900 MT CO<sub>2</sub>e per year, the emissions would not be cumulatively considerable. Therefore, the impact would be less than significant.

- b. **Less Than Significant Impact.** Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, established statutory limits on GHG emissions in California. Under AB 32, the California Air Resources Board (CARB) is responsible for adopting rules and regulations to reduce statewide GHG emissions to 1990 levels by the year 2020. The CARB's Climate Change Scoping Plan outlines the state's strategy to achieve the 2020 GHG emissions limit and future emissions reduction targets established by Executive Order (EO) S-3-05. The County guidelines were established for the purpose of reducing the emissions of GHGs to meet the state requirements of AB 32.

As discussed in Section VII.a, project-related GHG emissions would not exceed the regional significance threshold established by the County of San Diego. Therefore, the proposed project would not result in emissions that would adversely affect state-wide attainment of GHG emission reduction goals, as described in AB 32 and EO S-21-09. Emissions would therefore have a less than cumulatively considerable contribution to global climate change impacts, and the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**VIII. HAZARDS AND HAZARDOUS MATERIALS**

Would the project:

- |  |                       |                       |                                  |                                  |
|--|-----------------------|-----------------------|----------------------------------|----------------------------------|
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?  | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/>            |
| 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?  | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/>            |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?  | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/>            |
| 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?                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> |
| 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 for people residing or working in the project area? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> |
| f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> |
| g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> |



the contamination had not migrated off site, and is localized in the area of the former tanks. A corrective action plan was prepared in 2010; the remedial action chosen was natural attenuation. The Radius Map Report (EDR 2014) states that the residual petroleum hydrocarbons in the soil and groundwater did not present a significant risk to human health or the environment. The petroleum hydrocarbon dissolved concentrations were stable and decreasing. The County of San Diego's Department of Environmental Health concurred with a recommendation for No Further Action, and the case was closed in April 2011.

The other site on the Cortese list, located at 11928 Campo Road, was previously occupied by Atlas Rents, and is currently occupied by Eagle Auto Sales. Limited information is provided for this site. A case was opened in 1995 for a leaking underground storage tank containing gasoline. The case was closed in 1997, and the County of San Diego's Department of Environmental Health concurred with a recommendation for No Further Action.

As stated above, the two adjacent sites from the Cortese list have been closed. Although residual petroleum hydrocarbons are in the soil and groundwater of the site at 11900 Campo Road, there is no significant risk to human health or the environment. In addition, the hazardous materials are contained to the site. Accordingly, the construction and operation of a sewer pipeline within Campo Road would not result in an impact related to the Cortese list.

- e. **No Impact.** The closest airport to the project site is Gillespie Field, located approximately 5 miles south of the project site. The project site is outside the Airport Influence Area for this airport. The proposed project would consist of construction of an underground pipeline and the abandonment of an existing pipeline, and would not result in a safety hazard to the construction workers or people residing in the area. Accordingly, no impacts would occur.
- f. **No Impact.** The project site is not located within the vicinity of a private airstrip. In addition, the proposed project would consist of construction of an underground pipeline and the abandonment of an existing pipeline, and would not result in a safety hazard to the construction workers or people residing in the area. Accordingly, no impacts would occur.
- g. **No Impact.** The proposed project would not impair or physically interfere with an adopted emergency response or evacuation plan. A TMP would be implemented to ensure that roadways remain open and accessible during construction. As stated in the Project Description, if possible, lane closures along Campo Road would be minimized to one lane closure per direction. If project construction limits traffic to one lane along other project roadways, traffic would be flagged around the work site. Traffic would not be affected after pipeline installation is complete. Accordingly, no impact would occur.
- h. **No Impact.** The proposed project would not expose people or structures to a significant risk or loss, injury, or death involving wildland fires because it would consist of the construction and operation of an underground pipeline and the abandonment of an existing underground pipeline. Therefore, no impact related to wildland fires would occur.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**IX. HYDROLOGY AND WATER QUALITY**

Would the project:

a. Violate any water quality standards or waste discharge requirements?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
f. Otherwise substantially degrade water quality?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

- |    |   |                       |                       |                       |                                     |
|----|---|-----------------------|-----------------------|-----------------------|-------------------------------------|
| h. | Place within a 100-year flood hazard area structures which would impede or redirect flood flows?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |
| i. | Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |
| j. | Expose people or structures to inundation by seiche, tsunami, or mudflow?   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |

Explanations of Environmental Impacts

- a. **Less Than Significant Impact.** Potential water quality impacts associated with the proposed project would be limited to short-term construction-related erosion/sedimentation. As discussed in Section VIII, the project would include a number of design features to protect water quality. In addition, as required under the NPDES Construction General Permit (Order 2009-0009-DWQ), administered by RWQCB, a Storm Water Pollution Prevention Plan (SWPPP) would be created for the proposed project. The plan would address erosion control measures that would be implemented to avoid erosion impacts to exposed soil associated with construction activities. Therefore, water quality impacts would be less than significant.
- b. **No Impact.** Groundwater along the proposed pipeline alignment in Campo Road is anticipated to be at a relatively shallow depth near the existing creek bed. Therefore, ~~it is likely that~~ groundwater ~~would~~ may be encountered at approximate depths of 10 feet below Campo Road in the southeasterly portion of the pipeline alignment, south of Jamacha Boulevard near Rancho San Diego Towne Center. ~~However, throughout the project area,~~ localized perched groundwater at shallow depths can be expected to occur in overburden (fill, weathered rock zone, and alluvial/colluvial) materials above the contact with the underlying basement rocks, particularly during the wet (rainy) season. No groundwater has, however, been encountered in the borings completed to date for the project. Additionally, the permeability of the subsurface materials along the project alignment is low; therefore, if perched groundwater is encountered, volumes that would enter the excavation area are anticipated to be low. In the event that dewatering is necessary, the project would conform to applicable NPDES Permit (Permit No. CAG919002 [Order No. R9-2008-0002]) criteria prior to disposal of extracted groundwater. Specific requirements generally include: (1) implementing an appropriate sampling, analysis, and monitoring program; (2) providing at least 30 days notification to the appropriate local agency prior to discharging to a municipal storm drain system; (3) conforming with applicable water quality standards, including (but not limited to) the Basin Plan, Clean Water Act, and State Porter-Cologne Water Quality Control Act; and (4) submittal of applicable monitoring reports. While specific BMPs to address potential water quality concerns from disposal of extracted groundwater would be determined based on site-specific parameters, they would likely include standard measures from the Groundwater Permit(s), with typical requirements including:
- Use erosion and sediment controls for applicable areas/ conditions, such as disposal of extracted groundwater on slopes or graded areas (with these generally identified as similar erosion/sediment controls as required under the NPDES Construction General Permit).
  - Test extracted groundwater for appropriate contaminants prior to discharge.

- Treat extracted groundwater prior to discharge, if required, to provide conformance with applicable discharge criteria (e.g., through methods such as filtration, aeration, adsorption, disinfection, and/or conveyance to a municipal wastewater treatment plant).

Although groundwater ~~would likely~~ may be encountered during trenching activities, the proposed project would not deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Accordingly, no impact would occur.

- c. **No Impact.** Installation of an underground pipeline and abandonment of an existing pipeline would not affect local drainage patterns. No rivers or streams would be altered, and the proposed project would not result in substantial erosion or siltation. In addition, the project would implement construction BMPs to minimize erosion and runoff. Accordingly, no impact would occur.
- d. **No Impact.** Installation of an underground pipeline and abandonment of an existing pipeline would not affect local drainage patterns. The proposed project would not increase the rate or volume of surface runoff from the project area, primarily because it would not create new impervious surfaces. Therefore, no impact would occur.
- e. **Less Than Significant Impact.** As stated in the response to Item IX.d, above, the proposed project would not significantly increase the local surface runoff volumes. Accordingly, short-term pollutant generation would be less than significant.
- f. **No Impact.** No potential water quality impacts other than those described above in this section are anticipated.
- g. **No Impact.** The proposed project does not involve construction of residential units. Therefore, no impact would occur.
- h. **No Impact.** Based on Federal Emergency Management Agency (FEMA) maps (2012), the proposed sewer line is not within a mapped 100-year floodplain. Accordingly, no impact associated with flooding would occur.
- i. **No Impact.** The proposed project would include the installation and operation of an underground sewer pipeline and the abandonment of an existing pipeline. Therefore, the project would not cause people or structures to be located in an inundation risk area associated with a dam or levee, and no impact would occur.
- j. **No Impact.** The proposed project would include the installation and operation of an underground sewer pipeline and the abandonment of an existing pipeline. Therefore, the proposed project would not expose people or structures to an inundation risk area for seiches, tsunamis, or mudflows.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**X. LAND USE AND PLANNING**

Would the project:

- |   |                       |                       |                       |                                     |
|---|-----------------------|-----------------------|-----------------------|-------------------------------------|
| a. Physically divide an established community?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |
| b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |
| c. Conflict with any applicable habitat conservation plan or natural community conservation plan?   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |

Explanations of Environmental Impacts

- a. **No Impact.** Installation and operation of the proposed underground sewer pipeline within existing roadways and other disturbed/developed areas, and the abandonment of the existing pipeline would not divide an existing community. Specifically, construction would not result in physical barriers or road closures that would divide or prohibit access to the surrounding community. Accordingly, no associated impact would occur.
- b. **No Impact.** The proposed project would include the installation and operation of an underground sewer pipeline and abandonment of an existing pipeline. Land use designations from the County General Plan within and immediately adjacent to the existing and proposed pipelines include General Commercial, Open Space (Conservation), and Specific Plan Area. These land use designations do not preclude utility lines/facilities. Zoning designations within and immediately adjacent to the existing and proposed pipeline alignments include general Commercial (C36), Heavy Commercial (C37), Holding Areas (S90), Limited Industrial (M52), Open Space (280), Specific Plan (S88), and Transportation and Utility Corridor (S94). None of these zones precludes public utility corridors. The proposed project would, therefore, not conflict with zoning or general plan land use designations, and no impact would occur.
- c. **No Impact.** The project is not subject to any adopted regional conservation plans. Accordingly, the project would not conflict with such plans, policies, or ordinances and no impact would occur.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XI. MINERAL RESOURCES**

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?                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |

Explanations of Environmental Impacts

- a. **No Impact.** The proposed project would be constructed beneath existing roadways and other disturbed/developed areas. The project site is not currently used for mineral resource extraction, nor is it located in an area with the known potential for mineral resources. Accordingly, no impact to mineral resources would occur.
- b. **No Impact.** The proposed project would be constructed beneath existing streets, developed areas, and in disturbed areas. The project site is not currently used for mineral resource extraction, nor is it located in an area with the known potential for locally important mineral resources. Additionally, the site is not designated in the County General Plan as a mineral resource recovery site. Accordingly, no impact to mineral resources would occur.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XII. NOISE**

Would the project result in:

a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="radio"/>	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="radio"/>
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 expose people residing or working in the project area to excessive noise levels?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/>

Explanations of Environmental Impacts

- a. **Less Than Significant Impact With Mitigation Incorporated.** An Acoustical Analysis Report was prepared for the project by HELIX (2015c; refer to Appendix D) to analyze the project’s construction noise impacts. As described under Item XII.c, pipelines would not be a source of operational noise and are not analyzed further. The results and conclusions of the Acoustical Analysis Report are summarized herein.

## Fundamentals of Sound and Environmental Noise

Noise can be defined as unwanted sound. 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 dBs that are A-weighted (indicated by dBA) to correct for the relative frequency response of the human ear.

Since decibels are logarithmic units, sound pressure levels cannot be added or subtracted by ordinary arithmetic means. Typically, a doubling of sound volume will 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 scale for analyzing construction noise is the equivalent sound level ( $L_{EQ}$ ), which is based on dBA. The  $L_{EQ}$  represents the sound pressure level equivalent to the total sound energy over a given period of time.

## Sensitive Noise Receptors

Noise-sensitive land uses (NSLUs) are land uses that may be subject to stress and/or interference from excessive noise. NSLUs in the Project vicinity include a church, daycare center, and residences to the north of the Project alignment and sensitive habitat to the south of the Project alignment. The sensitive habitat may be used by federally listed avian species for nesting, such as least Bell's vireo in southern riparian forest and coastal California gnatcatcher in Diegan coastal sage scrub.

## Existing Noise Environment

The dominant noise source in the vicinity of the Project alignment is the traffic noise from SR 94. Based upon on-site noise measurements and traffic noise modeling, the following baseline noise levels were assumed:

- 65.6 dBA  $L_{EQ}$  for the sensitive habitat areas located up to 300 feet south of the SR 94 centerline;
- 60 dBA  $L_{EQ}$  for the sensitive habitat areas located further than 300 feet south of the SR 94 centerline and for the elevated pipeline removal; and
- 67.8 dBA  $L_{EQ}$  for the coastal California gnatcatcher habitat adjacent to Skyline Church's western driveway, located approximately 400 feet north of the SR 94 centerline.

## Regulatory Framework

Sections 36.401 through 36.423 of the San Diego County Municipal Code discusses County noise requirements. 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.

For multi-family residential zones, the exterior one-hour average limit is 50 dBA between 7 a.m. to 10 p.m. and 45 dBA between 10 p.m. and 7 a.m.

Sections 36.408 through 36.411 of the Noise Ordinance establish noise limitations for construction activities. Except for emergency work, it is unlawful for any person to operate or cause to be operated, construction equipment between 7:00 p.m. and 7:00 a.m., or that exceeds an average

sound level of 75 dB for an 8-hour period, 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.

Non-construction nighttime sound level limits are established for the property lines of various land uses in Section 36.404 of the County Noise Ordinance. The applicable hourly sound limit for sensitive receptors (multi-family residences) adjacent to the construction activities is 50 dBA  $L_{EQ}$  during nighttime hours (10 p.m. to 7 a.m.).

Regarding federally listed biological species, guidelines produced by the U.S. Fish and Wildlife Service (USFWS) require that project noise be limited to a level not to exceed 60 dBA  $L_{EQ}$  or, if the existing ambient noise level is above 60 dBA, increase the ambient noise level by 3 dBA at the edge of occupied habitat during the avian species breeding season.

### Project Construction Noise Impacts

Construction of the project would potentially result in temporary increases in noise levels from operation of the construction equipment. Construction activities would produce elevated short-term noise levels that would potentially impact NSLUs such as nearby residences, daycare center, church and sensitive habitat. For the purposes of noise planning, construction activities are split into four phases: trenching, tunneling, storage piles, and pipeline abandonment.

#### *Trenching*

During this phase, an excavator would move along the pipeline route digging the trench and loading the materials into a dump truck. Trenching would occur within the following distances to NSLUs: 130 feet to single-family residences, 50 feet to the daycare center off Via Mercado, 385 feet to Skyline Church, and 10 feet to coastal California gnatcatcher and least Bell's vireo habitat.

An excavator and a dump truck operating for 40 percent of an 8-hour construction day would generate a 75 dBA  $L_{EQ}$  noise contour of 75 feet. Therefore, trenching activities would not exceed the 75 dBA  $L_{EQ}$  noise limit for the residences or church. Although trenching activities would occur within the 75 foot noise contour of the daycare center, site-specific modeling determined that due to the noise-attenuating features of the center (e.g., the center has a retaining wall and is located at higher elevations than where construction would take place), trenching noise impacts at the center would not exceed the 75 dBA  $L_{EQ}$  noise limit and would be less than significant.

An excavator and a dump truck operating for 40 percent of an 8-hour construction day would generate a 65.6 dBA  $L_{EQ}$  noise contour of 210 feet. Therefore, as trenching construction activities would occur within 210 feet of sensitive habitat, impacts to sensitive habitat would be potentially significant. With the possibility of working as close as 10 feet from sensitive habitat, noise levels could be as high as 92.1 dBA  $L_{EQ}$ . The following mitigation measure would reduce potential impacts to sensitive habitat from trenching activities to less than significant levels:

**NOI-1** Trenching construction activities involving a dump truck and an excavator may generate significant noise impacts to sensitive habitat if operated within 210 feet of the habitat. If a dump truck and an excavator are operated within this distance during the breeding seasons of coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15), a temporary noise barrier between the construction equipment and the sensitive habitat shall be used to reduce noise impacts to baseline noise levels of 65.6 dBA  $L_{EQ}$ .

An 8-foot high temporary noise barrier meeting the specifications listed below (or of a STC 19 rating or better) would attenuate noise at the sensitive habitat to less baseline noise levels of 65.6 dBA  $L_{EQ}$ . The sound attenuation fence or wall must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are 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 and must be at least 3/4-inch total thickness or have a density of at least 3½ pounds per square foot.

At the easternmost extent of the Project alignment, open trenching across Jamacha Road would possibly require nighttime construction. At 1,000 feet to the multi-family apartments off Cuyamaca College Drive and assuming no intervening structures, an excavator and dump truck would generate a noise level of 52.1 dBA  $L_{EQ}$ . However, multiple structures would block the line of sight between the trenching construction activities and the apartments that would attenuate the noise level by at least 5 dBA  $L_{EQ}$ . Therefore, trenching would not exceed the nighttime property boundary noise limits in a multi-family zone of 50 dBA, and impacts would be less than significant.

### *Tunneling*

The loudest construction activities associated with tunneling would be the jacking pits and the tunnel boring. The jacking pits would require an excavator to dig the pit and a dump truck to load and haul the dug materials. Western jacking pit excavation would occur within the following distances to NSLUs: 190 feet to single-family residences, 125 feet to the daycare center off Via Mercado, and 10 feet to coastal California gnatcatcher habitat. Eastern jacking pit excavation would occur within 150 feet of coastal California gnatcatcher and least Bell's vireo habitat.

An excavator and a dump truck operating for 40 percent of an 8-hour construction day would generate a 75 dBA  $L_{EQ}$  noise contour of 75 feet. Therefore, western jacking pit activities would not exceed the 75 dBA  $L_{EQ}$  noise limit for the daycare center or residences.

An excavator and a dump truck operating for 40 percent of an 8-hour construction day would generate a 65.6 dBA  $L_{EQ}$  noise contour of 210 feet. Therefore, as both western and eastern jacking pit activities would occur within 210 feet of sensitive habitat, impacts to sensitive habitat would be potentially significant. With the possibility of working as close as 10 feet from coastal California gnatcatcher habitat, noise levels could be as high as 92.1 dBA  $L_{EQ}$  at the western jacking pit. Noise levels to sensitive habitat could be as high as 68.6 dBA  $L_{EQ}$  at the eastern jacking pit. The following mitigation measures would reduce potential impacts to sensitive habitat from jacking pits to less than significant levels:

**NOI-2** Construction activities for the western jacking pit involving a dump truck and an excavator may generate significant noise impacts to coastal California gnatcatcher habitat if operated within 210 feet of the sensitive habitat. Due to the close distance to sensitive habitat that a dump truck and excavator would have to operate for the western jacking pit, barrier mitigation to reduce noise impacts to sensitive habitat to less than significant levels would be infeasible. Therefore, if western jacking pit activities would occur during the breeding season for the coastal California gnatcatcher (February 15 to August 31), a qualified biologist shall conduct a study confirming the absence of coastal California gnatcatchers within 250 feet of the construction activities prior to start of work or, if work has already begun, prior to the breeding season. If coastal California gnatcatchers are found to be present, construction activities shall cease until the close of the breeding season.

**NOI-3** Eastern jacking pit construction activities involving a dump truck and an excavator may generate significant noise impacts to sensitive habitat if operated within 210 feet of the habitat. If a dump truck and an excavator are operated within this distance during the breeding seasons of coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15), a temporary noise barrier between the construction equipment and the sensitive habitat shall be used to reduce noise impacts to existing ambient noise levels (65.6 dBA L<sub>EQ</sub>).

An 8-foot high barrier meeting a STC 19 rating or better would attenuate noise at the sensitive habitat to less than baseline noise levels of 65.6 dBA L<sub>EQ</sub>. The sound attenuation fence or wall must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are 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 and must be at least 3/4-inch total thickness or have a density of at least 3½ pounds per square foot.

Tunnel boring would require the use of a horizontal auger that would be powered with either a diesel or electric motor. If powered by an electric motor, a generator would be used outside of the jacking pit that would generate loud noise. Tunnel boring would occur within the same distances to NSLUs as described above for the jacking pits.

The 75 dBA L<sub>EQ</sub> noise contour for a generator operating for 50 percent of an 8-hour construction day is approximately 30 feet. Therefore, tunnel boring activities would not exceed the 75 dBA L<sub>EQ</sub> noise limit for the daycare center or residences.

A generator operating for 50 percent of an 8-hour construction day would generate a 65.6 dBA L<sub>EQ</sub> noise contour of 80 feet. Therefore, western jacking pit activities would occur within 80 feet of sensitive habitat and impacts to sensitive habitat would be potentially significant. With the possibility of working as close as 10 feet from coastal California gnatcatcher habitat, noise levels could be as high as 83.8 dBA L<sub>EQ</sub> at the western jacking pit. The following mitigation measure would reduce potential impacts to sensitive habitat from tunnel boring to less than significant levels:

**NOI-4** Tunnel boring activities at the western jacking pit involving a generator may create significant noise impacts to coastal California gnatcatcher habitat if operated within 80 feet of the sensitive habitat. Due to the close distance that a generator would have to operate for tunnel boring construction activities, barrier mitigation to reduce noise impacts to sensitive habitat to less than significant levels would be infeasible. Therefore, if tunnel boring at the western jacking pit would occur during the breeding season for the coastal California gnatcatcher (February 15 to August 31), a qualified biologist shall conduct a study confirming the absence of coastal California gnatcatchers within 250 feet of tunneling construction work prior to start of work or, if work has already begun, prior to the breeding season. If coastal California gnatcatchers are found to be present, construction activities shall cease until the close of the breeding season.

#### *Storage Piles*

Storage piles would potentially be located at the staging locations and would be used as temporary placement for soil and other material. A potential location for a staging area would be to the west of the Skyline Church western driveway; this location would be adjacent to habitat that is assumed to be occupied by coastal California gnatcatchers. The loudest noise from storage pile-related

construction activities would be a dump truck and front end loader loading and unloading materials. A dump truck and front end loader operating simultaneously for 40 percent of an 8-hour construction day would generate a noise level of 67.8 dBA  $L_{EQ}$  at a distance of 145 feet. Therefore, if these pieces of equipment were operated within 145 feet of coastal California gnatcatcher habitat, impacts would be potentially significant. The following mitigation measure would reduce potential impacts to sensitive habitat from storage piles to less than significant levels:

**NOI-5** Dump trucks and front-end loaders shall not operate within 145 feet of the edge of occupied coastal California gnatcatcher habitat during the breeding season (February 15 to August 31).

#### *Pipeline Abandonment*

The seven manholes to be capped and plugged would first have their concrete dome demolished using a jackhammer, an air compressor, and a skid steer. These construction activities would occur as close as 5 feet to coastal California gnatcatcher habitat.

A jackhammer, air compressor, and skid steer were assumed to operate simultaneously and to be operating for 20 percent of an 8-hour construction day. The three manholes within 300 feet of the SR 94 centerline would fall under the 65.6 dBA  $L_{EQ}$  baseline noise level; the noise contour for a jackhammer, air compressor, and skid steer at this noise level is approximately 340 feet. Manhole construction activities at a distance of 5 feet from sensitive habitat would expose sensitive habitat to a noise level as high as 102.2 dBA  $L_{EQ}$ . Therefore, as the aforementioned manholes' construction activities would occur within 340 feet of sensitive habitat, impacts would be potentially significant. The four manholes further than 300 feet of the SR 94 centerline would fall under the 60 dBA  $L_{EQ}$  baseline noise level; the noise contour is approximately 650 feet. Therefore, as manhole removal activities would occur within 650 feet of sensitive habitat, impacts to sensitive habitat would be potentially significant. The following mitigation measure would reduce potential impacts to sensitive habitat from manhole removal activities to less than significant levels:

**NOI-6** Due to the close distance that a jackhammer, an air compressor, and a skid steer would have to operate to remove each manhole's concrete dome, barrier mitigation to reduce noise levels to avoid impacts to sensitive habitat would be infeasible. Therefore, manhole removal activities shall not occur during the breeding seasons for the coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15).

The 210-foot-long section of elevated pipeline would be removed with hand tools and a crane. The hand tools would cut the pipeline and the crane would lift the pipeline out of the creek area. A crane was assumed to be operated on the dirt road to the west of the elevated pipeline, at a distance of approximately 10 feet from least Bell's vireo and coastal California gnatcatcher habitat. The crane was assumed to be operating for 16 percent of an 8-hour construction day. The modeled 60 dBA  $L_{EQ}$  noise contour for a crane is approximately 215 feet. Elevated pipeline removal activities at a distance of 10 feet from sensitive habitat would expose the habitat to a noise level as high as 86.6 dBA  $L_{EQ}$ . Therefore, as the elevated pipeline removal activities would occur within 215 feet of sensitive habitat, impacts would be potentially significant. The following mitigation measure would reduce potential impacts to sensitive habitat from elevated pipeline removal activities to less than significant levels:

**NOI-7** Due to the close distance to sensitive habitat that a crane would operate to remove the elevated pipeline, barrier mitigation to reduce noise levels to avoid impacts to sensitive habitat would be infeasible. Therefore, operation of a crane to remove the elevated pipeline shall not occur during the breeding seasons for the coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15).

- b. **Less Than Significant Impact.** Ground-borne vibration is a concern for projects that require heavy construction activity such as blasting, pile-driving, and operating heavy earth-moving equipment. Ground-borne vibration can result in a range of impacts, from minor annoyances to people to major shaking that damages buildings. Typically, ground-borne vibration generated by man-made sources attenuates rapidly with distance from the source of vibration. Sensitive receptors for vibration include structures (especially older masonry structures), people (especially residents, the elderly and sick), and vibration-sensitive equipment.

Construction activities associated with the project have the potential to result in ground-borne vibration. Construction vibration would result in a potentially significant impact if it exceeds the "severe" criterion of 0.4 peak particle velocity (PPV) in inches per second (in/s), as specified by Caltrans (2013). Caltrans provides a vibration level of 0.089 PPV in/s at 25 feet for a large dozer or caisson drill. It is assumed that an excavator, horizontal auger, and a jackhammer would be the greatest vibration generators from project construction activities; an excavator and horizontal auger would have a lower vibration level than a large dozer or caisson drill. For a worst-case scenario, an excavator and horizontal auger are assumed to have the same vibration level as a large dozer or caisson drill. A jackhammer would have a vibration level of 0.035 PPV in/s at 25 feet.

The closest NSLU to the operation of an excavator would be the daycare center at an approximate distance of 50 feet. As an excavator is expected to generate vibration levels of 0.089 PPV in/s at 25 feet, it would not generate levels above the "severe" criterion at 50 feet.

The closest NSLU to the operation of a horizontal auger would be the daycare center at an approximate distance of 125 feet. As a horizontal auger is expected to generate vibration levels of 0.089 PPV in/s at 25 feet, it would not generate levels above the "severe" criterion at 125 feet.

The closest NSLU to the operation of a jackhammer would be single-family residences, located south of the open space area that is south of the project alignment, at an approximate distance of 450 feet. As a jackhammer is expected to generate vibration levels of 0.035 PPV in/s at 25 feet, it would not generate levels above the "severe" criterion at 450 feet.

As no construction activities would exceed the "severe" criterion for vibration levels, impacts would be less than significant.

- c. **No Impact.** Project-related noise generation would be primarily limited to short-term construction activities. Pipeline facilities, once installed, are passive and would not generate noise. Accordingly, no impact would occur.
- d. **Less Than Significant Impact With Mitigation.** Construction of the proposed project would create elevated short-term construction noise impacts that would be potentially significant to sensitive habitat. Such impacts, however, would be mitigated with NOI-1 through NOI-7, as discussed above in Item XII.a.

- e. **No Impact.** The proposed project consists of an underground pipeline and abandonment of an existing pipeline. The project would not include the construction of aboveground structures that would result in people being exposed to noise from a public airport. In addition, the project site is not located within the Airport Influence Area of a public airport.
  
- f. **No Impact.** The proposed project consists of an underground pipeline and abandonment of an existing pipeline. The project would not include the construction of aboveground structures that would result in people being exposed to noise from a private airstrip. In addition, the project site is not located within the Airport Influence Area of a private airstrip.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XIII. POPULATION AND HOUSING**

Would the project:

- |   |                       |                       |                       |                                     |
|---|-----------------------|-----------------------|-----------------------|-------------------------------------|
| a. Induce substantial 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)? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |
| b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |
| c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |

Explanations of Environmental Impacts

- a. **No Impact.** The proposed project would include the replacement of an existing 10-inch sewer pipeline with a 15-inch sewer pipeline. The existing pipeline is undersized for current gravity flows. The replacement sewer pipeline would, therefore, not be growth inducing, but rather, growth accommodating. The project would not extend sewer service to new areas or allow development of land that previously could not be developed due to sewer infrastructure constraints. Accordingly, no impact associated with population growth would occur.
- b. **No Impact.** The proposed project would not displace any housing. Accordingly, no impact would occur.
- c. **No Impact.** The proposed project would not displace any people. Accordingly, no impact would occur.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XIV. PUBLIC SERVICES**

a. Would the project result in substantial adverse physical impacts associated with the 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?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Police protection?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Schools?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Parks?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other public facilities?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Explanations of Environmental Impacts

a. **Fire Protection – Less Than Significant Impact.** The construction and operation of an underground sewer main would not generate a demand for increased fire protection services. During construction, fire protection may be required, but these would be short-term demands and would not require increases in the level of service offered or affect these agencies’ response times. Because of the low probability and short-term nature of potential fire protection needs during construction, the proposed project would result in less than significant impacts.

**Police Protection – Less Than Significant Impact.** Impacts to police protection would be less than significant for reasons similar to those provided for “Fire Protection,” above. Accordingly, the project would result in less than significant impacts.

**Schools – No Impact.** The proposed project would place no demand on school services because it would not involve the construction of facilities that would generate school-aged children, and would not involve the introduction of a temporary or permanent population into this area. Accordingly, the project would have no impact on schools.

**Parks – No Impact.** The proposed project would place no demand on parks for reasons similar to those provided for “Schools,” above. Accordingly, the project would have no impact on parks.

**Other Public Facilities – No Impact.** The proposed project would not involve the introduction of a temporary or permanent human population into this area. Accordingly, the proposed project would not result in any long-term impacts to other public facilities.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XV. RECREATION**

- |  |                       |                       |                       |   |
|--|-----------------------|-----------------------|-----------------------|---|
| a. Would the project 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? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ✓ |
| 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?                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | ✓ |

Explanations of Environmental Impacts

- a. **No Impact.** The proposed project would not generate any residents, who would require parks or other recreational facilities. Therefore, no impact would occur to such facilities.
- b. **No Impact.** The proposed project neither includes recreational facilities nor requires the construction or expansion of recreational facilities. Accordingly, no impact would occur.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XVI. TRANSPORTATION/TRAFFIC**

Would the project:

- |  |                       |                       |                                  |                                  |
|--|-----------------------|-----------------------|----------------------------------|----------------------------------|
| a. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/>            |
| b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standard established by the county congestion management agency for designated roads or highways?  | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/>            |
| c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> |
| d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> |
| e. Result in inadequate emergency access?  | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/>            |
| f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> |

Explanations of Environmental Impacts

- a. **Less Than Significant Impact.** The proposed project would not include any components that would result in long-term traffic generation. While construction activities would likely generate a small number of trips associated with construction equipment and worker vehicles, these trips would be limited to the construction period, and would not be considered substantial in relation to the existing traffic load in the project vicinity. Bike lanes are currently located along portions of

Campo Road and Jamacha Road within the proposed pipeline alignment. In addition, portions of the affected roadways have sidewalks. During construction, access along Campo Road, Avocado Boulevard, Via Mercado, and Jamacha Road, as well as access to the Rancho San Diego Village and Rancho San Diego Towne Center shopping centers, the use of roadways, sidewalks, and bike lanes may be temporarily disrupted. However, as stated in Section VIII, a TMP would be implemented during construction of the proposed project. Roadways would remain open to traffic. If project construction limits traffic to one lane, traffic would be flagged around the work site. In addition, pedestrian and bicyclist access along the affected roadways would be maintained. Therefore, impacts associated with temporary increases in traffic associated with construction would be less than significant.

Mass transit in the project area is provided by the San Diego Metropolitan Transit System. Bus Routes 856 and 894 travel through the project area along Campo Road and Jamacha Road. Two bus stops are located adjacent to the proposed pipeline alignment. Pedestrian and bus access to the two stops may be limited during the construction phase. However, the TMP that would be prepared for this project would address potential interruptions and obstructions to transit.

Following construction of the proposed project, vehicle trips would be nominal (approximately once per month), and limited only to routine maintenance activities.

The project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, including alternative modes of transportation. Accordingly, impacts would be less than significant.

- b. **Less Than Significant Impact.** See discussion of Item XVI.a, above. The proposed project would not conflict with an applicable congestion management program, and impacts would be less than significant.
- c. **No Impact.** The project would not include any aviation components or structures where height would be an aviation concern. Accordingly, no associated impact to traffic patterns would occur.
- d. **No Impact.** The proposed project would not include design features that would affect traffic safety, nor would it cause incompatible uses (such as tractors) on local roads. Accordingly, no associated impact would occur.
- e. **Less Than Significant Impact.** During construction of the proposed project, access along some local streets may be limited. The TMP for the project would include measures (such as flagging and detouring) that would divert traffic to an appropriate route. Except for brief periods, access would be maintained to commercial driveways along the proposed project alignment. Traffic would not be affected after project construction. Accordingly, impacts would be less than significant.
- f. **No Impact.** The proposed project would have no impact on alternative transportation plans.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
--------	--------------------------------	--	------------------------------	-----------

**XVII. UTILITIES AND SERVICE SYSTEMS**

Would the project:

- |   |                       |                       |                       |                                     |
|---|-----------------------|-----------------------|-----------------------|-------------------------------------|
| a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |
| b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |
| c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |
| d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |
| e. 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? | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |
| f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |
| g. Comply with federal, state, and local statutes and regulations related to solid waste?   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="checkbox"/> |

### Explanations of Environmental Impacts

- a. **No Impact.** Because it would not involve the construction of facilities that would generate sewage, the proposed project would not require the construction or expansion of any wastewater facilities or exceed applicable wastewater treatment requirements. Accordingly, no impact would occur.
- b. **No Impact.** The proposed project would provide the District with improved service capabilities and reliability. It would not, however, require or result in the construction of new water or wastewater facilities or the expansion of existing facilities. Accordingly, no associated impact would occur.
- c. **No Impact.** The proposed project would not require the construction or expansion of storm water drainage facilities. Accordingly, no associated impact would occur.
- d. **No Impact.** The project would not require new or expanded entitlements for water service. Accordingly, no associated impact would occur.
- e. **No Impact.** The proposed project would not require or result in the construction of new wastewater treatment facilities or the expansion of existing wastewater treatment facilities. Accordingly, no associated impact would occur.
- f. **No Impact.** Solid waste generation during pipeline construction would be short-term and minimal. Construction debris (e.g., asphalt, concrete) would be recycled, as feasible. Excess soil would be hauled from the site, and would be disposed of at locations approved for such use. Operation of the pipelines would not generate any solid waste or affect landfill capacities. Therefore, no associated impact would occur.
- g. **No Impact.** The proposed project would comply with all applicable, federal, state, and local statutes and regulations related to solid waste. Accordingly, no impact would occur.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE**

- |  |                       |                                  |                                  |                                  |
|--|-----------------------|----------------------------------|----------------------------------|----------------------------------|
| a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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? | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/>            |
| b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)   | <input type="radio"/> | <input type="radio"/>            | <input checked="" type="radio"/> | <input type="radio"/>            |
| c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?   | <input type="radio"/> | <input type="radio"/>            | <input type="radio"/>            | <input checked="" type="radio"/> |

Explanations of Environmental Impacts

- a. **Less Than Significant Impact with Mitigation Incorporated.** The project may potentially result in impacts to biological resources, as well as unknown cultural resources. Any degradation of the quality of the environment would be reduced to below a level of significance through implementation of the mitigation measures identified in Section IV, *Biological Resources*, and Section V, *Cultural Resources*.
- b. **Less Than Significant Impact.** Cumulative impacts are defined as two or more individual (and potentially less than significant) project effects that, when considered together or in concert with other projects combine to result in a significant impact within an identified geographic area. In order for a project to contribute to cumulative impacts, it must result in some level of impact on a project-specific level. As described in some detail above, many of the project effects are identified as “No Impact,” including most or all of the topic areas under aesthetics, agriculture and forestry resources, land use and planning, mineral resources, population and housing, recreation, and utilities and service systems. The following discussion looks only at those effects for which some level of potential impact was identified. This includes topics for which “Less Than Significant Impacts” were identified, as well as those for which the threshold question assumed some level of

impact (i.e., those for which consideration of a potential “substantial” or “significant” effect was considered, per CEQA Guidelines Section 15382).

Potential regional cumulative effects were considered for the topic of water quality for which the project was found to result in less than significant impacts. Potential water quality impacts associated with the proposed project would be limited to short-term construction-related erosion/sedimentation; no long-term impacts to water quality would occur. Implementation of project design features, as well as a SWPPP and BMPs in accordance with NPDES permit conditions, would effectively eliminate the potential for drainage- and water quality-related impacts; no cumulative impacts are anticipated.

Sensitive species are designated cumulatively significant because of their scarcity throughout their habitat ranges. The baseline cumulative impact to biological resources, therefore, is significant. Implementation of the proposed project would incrementally add to cumulative impacts to sensitive biological resources in the project vicinity. However, as a result of mitigation described in Section IV, the proposed project would not result in a cumulatively considerable contribution to biological resources impacts.

Potential regional cumulative effects were considered for cultural resources for which the project was found to result in less than significant impacts with mitigation incorporated. The project has the potential to encounter significant cultural resources during ground-disturbing activities; however, mitigation would preclude loss of such resources, and, thus, no cumulative impacts are anticipated.

With regard to hazards and hazardous materials, no regional problem is identified. In the event that the project would result in accidental discharge associated with transport, use, storage, and/or disposal of hazardous materials during construction of the proposed facility, there are prescribed activities to be conducted in accordance with NPDES Construction General Permit that would reduce impacts associated with the discharge of contaminants to less than a level of significance. As such, any contribution would be less than cumulatively considerable.

Geology/soils and noise impacts are inherently restricted to the project area, and would not contribute to cumulative impacts associated with other planned or proposed development. Therefore, it is not necessary to address this issue on a cumulative scale. Considering that noise impacts within the project vicinity are regulated by the County Noise Ordinance, the project would not incrementally contribute to a significant cumulative noise impact.

The last category of cumulative impacts is related to project-specific impacts that are not localized to the immediate project area. This includes topics such as air quality and greenhouse gas emissions, which disperse from their original source and affect entire air basins (or with global warming, potentially the entire world). For these issues, the baseline analysis often addresses the cumulative condition because it is the contribution to the larger picture that is assessed in analyses of consistency with regional air quality strategies and pollutant dispersal. As noted in discussion of Sections III and VII, the project’s contribution would be negligible and/or short-term, and not cumulatively considerable. As discussed in Section XVI, the project would result in short-term traffic impacts during construction. Therefore, the project would not contribute to a cumulatively considerable increase in traffic in the project area. The project would not induce population growth and thereby, directly or indirectly, contribute to cumulative impacts to public services.

For these reasons, impacts associated with cumulative effects would be less than significant.

- c. **No Impact.** The project would not consist of any use or any activities that would negatively affect any persons in the vicinity. In addition, all resource topics associated with the project have been analyzed in accordance with State CEQA Guidelines, and found to pose no impact, less than significant impact, or less than significant impact with mitigation. Consequently, the project would not result in any environmental effects that would cause substantial adverse effects on human beings directly or indirectly; therefore, no impact would occur.

## REFERENCES

### Allied Geotechnical Engineers, Inc. (AGE)

- 2014a Final Geotechnical Desktop Study – Campo Road Sewer Replacement Project, Otay Water District CIP S2024. December 19.
- 2014b Final Phase I Environmental Site Assessment – Campo Road Sewer Replacement Project, Otay Water District CIP S2024. December 19.

### California Department of Transportation (Caltrans)

- 2013 California Department of Transportation, Transportation and Construction-Induced Vibration Guidance Manual, Environmental Program, Noise, Vibration, and Hazardous Waste Management Office, September.

### County of San Diego (County)

- 2011a County of San Diego General Plan. August 3.
- 2011b Valle de Oro Community Plan. August 3.

### Deméré, Thomas A. and Stephen L. Walsh

- 1993 Paleontological Resources – County of San Diego.

### Federal Emergency Management Agency (FEMA)

- 2012 Flood Insurance Rate Map, San Diego County, California and Unincorporated Areas. Map number 06073C1927G. Revised May 16.

### HELIX Environmental Planning, Inc.

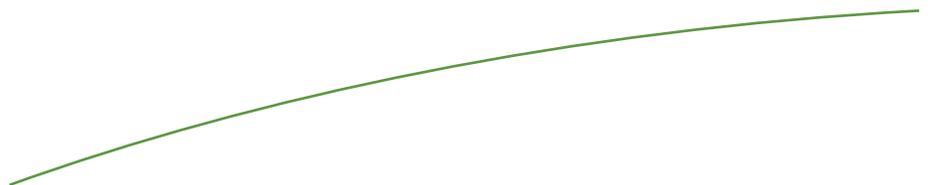
- 2015a Biological Technical Report for the Otay Water District Campo Road Sewer Replacement Project. July 9.
- 2015b Campo Road Sewer Replacement Project Cultural Resources Survey. January.
- 2015c Acoustical Analysis Report, Campo Road Sewer Replacement Project. July.

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# Appendix A

## AIR QUALITY MODELING



**OWD Campo Rd Sewer Line  
San Diego County, Winter**

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	8.56	User Defined Unit	4.50	0.00	0

### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2017
<b>Utility Company</b>					
<b>CO2 Intensity (lb/MWhr)</b>	0	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 8,560 linear feet, approximately 4.5 acres disturbed

Construction Phase - May 2016 through July 2017

Off-road Equipment - Based on PD

Grading -

Construction Off-road Equipment Mitigation - Tier 2 equipment and water twice per day

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	8.00	326.00
tblGrading	MaterialExported	0.00	5,000.00
tblLandUse	LotAcreage	0.00	4.50
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	WorkerTripNumber	23.00	20.00

## 2.0 Emissions Summary

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## 2.2 Overall Operational

### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.0000e-005	1.0000e-005	8.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8700e-003	1.8700e-003	1.0000e-005		1.9800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>9.0000e-005</b>	<b>1.0000e-005</b>	<b>8.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.8700e-003</b>	<b>1.8700e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.9800e-003</b>

### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.0000e-005	1.0000e-005	8.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8700e-003	1.8700e-003	1.0000e-005		1.9800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>9.0000e-005</b>	<b>1.0000e-005</b>	<b>8.9000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.8700e-003</b>	<b>1.8700e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.9800e-003</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/1/2016	7/31/2017	5	326	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 163

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Cranes	1	2.00	226	0.29
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Excavators	2	8.00	162	0.38
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	174	0.41

#### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	9	20.00	0.00	625.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

### 3.2 Grading - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5545	0.0000	6.5545	3.3678	0.0000	3.3678			0.0000			0.0000
Off-Road	4.8805	49.6184	34.0237	0.0427		2.8599	2.8599		2.6588	2.6588		4,381.971 2	4,381.971 2	1.2004		4,407.178 4
<b>Total</b>	<b>4.8805</b>	<b>49.6184</b>	<b>34.0237</b>	<b>0.0427</b>	<b>6.5545</b>	<b>2.8599</b>	<b>9.4143</b>	<b>3.3678</b>	<b>2.6588</b>	<b>6.0267</b>		<b>4,381.971 2</b>	<b>4,381.971 2</b>	<b>1.2004</b>		<b>4,407.178 4</b>

### 3.2 Grading - 2016

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0418	0.5546	0.4955	1.4300e-003	0.0553	7.3600e-003	0.0626	0.0145	6.7700e-003	0.0213		144.1545	144.1545	1.0400e-003		144.1764
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0741	0.0921	0.8693	1.9500e-003	0.1643	1.2300e-003	0.1655	0.0436	1.1300e-003	0.0447		163.1343	163.1343	8.7000e-003		163.3171
<b>Total</b>	<b>0.1159</b>	<b>0.6467</b>	<b>1.3647</b>	<b>3.3800e-003</b>	<b>0.2196</b>	<b>8.5900e-003</b>	<b>0.2282</b>	<b>0.0581</b>	<b>7.9000e-003</b>	<b>0.0660</b>		<b>307.2888</b>	<b>307.2888</b>	<b>9.7400e-003</b>		<b>307.4934</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9495	0.0000	2.9495	1.5155	0.0000	1.5155			0.0000			0.0000
Off-Road	2.6010	43.3377	34.8060	0.0427		1.6745	1.6745		1.6229	1.6229	0.0000	4,381.9712	4,381.9712	1.2004		4,407.1784
<b>Total</b>	<b>2.6010</b>	<b>43.3377</b>	<b>34.8060</b>	<b>0.0427</b>	<b>2.9495</b>	<b>1.6745</b>	<b>4.6240</b>	<b>1.5155</b>	<b>1.6229</b>	<b>3.1384</b>	<b>0.0000</b>	<b>4,381.9712</b>	<b>4,381.9712</b>	<b>1.2004</b>		<b>4,407.1784</b>

### 3.2 Grading - 2016

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0418	0.5546	0.4955	1.4300e-003	0.0553	7.3600e-003	0.0626	0.0145	6.7700e-003	0.0213		144.1545	144.1545	1.0400e-003		144.1764
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0741	0.0921	0.8693	1.9500e-003	0.1643	1.2300e-003	0.1655	0.0436	1.1300e-003	0.0447		163.1343	163.1343	8.7000e-003		163.3171
<b>Total</b>	<b>0.1159</b>	<b>0.6467</b>	<b>1.3647</b>	<b>3.3800e-003</b>	<b>0.2196</b>	<b>8.5900e-003</b>	<b>0.2282</b>	<b>0.0581</b>	<b>7.9000e-003</b>	<b>0.0660</b>		<b>307.2888</b>	<b>307.2888</b>	<b>9.7400e-003</b>		<b>307.4934</b>

### 3.2 Grading - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5545	0.0000	6.5545	3.3678	0.0000	3.3678			0.0000			0.0000
Off-Road	4.5596	46.1711	33.2360	0.0427		2.6282	2.6282		2.4425	2.4425		4,320.9571	4,320.9571	1.1945		4,346.0413
<b>Total</b>	<b>4.5596</b>	<b>46.1711</b>	<b>33.2360</b>	<b>0.0427</b>	<b>6.5545</b>	<b>2.6282</b>	<b>9.1827</b>	<b>3.3678</b>	<b>2.4425</b>	<b>5.8103</b>		<b>4,320.9571</b>	<b>4,320.9571</b>	<b>1.1945</b>		<b>4,346.0413</b>

### 3.2 Grading - 2017

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0391	0.4945	0.4754	1.4300e-003	0.0628	6.4700e-003	0.0693	0.0164	5.9500e-003	0.0223		141.6990	141.6990	1.0000e-003		141.7199
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0671	0.0837	0.7823	1.9500e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		156.8296	156.8296	8.0500e-003		156.9987
<b>Total</b>	<b>0.1062</b>	<b>0.5782</b>	<b>1.2577</b>	<b>3.3800e-003</b>	<b>0.2271</b>	<b>7.6600e-003</b>	<b>0.2347</b>	<b>0.0599</b>	<b>7.0500e-003</b>	<b>0.0670</b>		<b>298.5286</b>	<b>298.5286</b>	<b>9.0500e-003</b>		<b>298.7186</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.9495	0.0000	2.9495	1.5155	0.0000	1.5155			0.0000			0.0000
Off-Road	2.5531	42.6597	34.2617	0.0427		1.6420	1.6420		1.5929	1.5929	0.0000	4,320.9571	4,320.9571	1.1945		4,346.0413
<b>Total</b>	<b>2.5531</b>	<b>42.6597</b>	<b>34.2617</b>	<b>0.0427</b>	<b>2.9495</b>	<b>1.6420</b>	<b>4.5915</b>	<b>1.5155</b>	<b>1.5929</b>	<b>3.1084</b>	<b>0.0000</b>	<b>4,320.9571</b>	<b>4,320.9571</b>	<b>1.1945</b>		<b>4,346.0413</b>

### 3.2 Grading - 2017

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0391	0.4945	0.4754	1.4300e-003	0.0628	6.4700e-003	0.0693	0.0164	5.9500e-003	0.0223		141.6990	141.6990	1.0000e-003		141.7199
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0671	0.0837	0.7823	1.9500e-003	0.1643	1.1900e-003	0.1655	0.0436	1.1000e-003	0.0447		156.8296	156.8296	8.0500e-003		156.9987
<b>Total</b>	<b>0.1062</b>	<b>0.5782</b>	<b>1.2577</b>	<b>3.3800e-003</b>	<b>0.2271</b>	<b>7.6600e-003</b>	<b>0.2347</b>	<b>0.0599</b>	<b>7.0500e-003</b>	<b>0.0670</b>		<b>298.5286</b>	<b>298.5286</b>	<b>9.0500e-003</b>		<b>298.7186</b>

### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510423	0.073380	0.192408	0.132453	0.036550	0.005219	0.012745	0.022253	0.001862	0.002079	0.006550	0.000609	0.003468

### 5.0 Energy Detail

#### 4.4 Fleet Mix

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day											lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

### 5.2 Energy by Land Use - NaturalGas

#### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

#### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

### 6.0 Area Detail

#### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.0000e-005	1.0000e-005	8.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8700e-003	1.8700e-003	1.0000e-005		1.9800e-003
Unmitigated	9.0000e-005	1.0000e-005	8.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8700e-003	1.8700e-003	1.0000e-005		1.9800e-003

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	8.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8700e-003	1.8700e-003	1.0000e-005		1.9800e-003
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>9.0000e-005</b>	<b>1.0000e-005</b>	<b>8.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.8700e-003</b>	<b>1.8700e-003</b>	<b>1.0000e-005</b>		<b>1.9800e-003</b>

## 6.2 Area by SubCategory

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.0000e-005	1.0000e-005	8.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8700e-003	1.8700e-003	1.0000e-005		1.9800e-003
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>9.0000e-005</b>	<b>1.0000e-005</b>	<b>8.9000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.8700e-003</b>	<b>1.8700e-003</b>	<b>1.0000e-005</b>		<b>1.9800e-003</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## 10.0 Vegetation

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## OWD Campo Rd Sewer Line San Diego County, Annual

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	8.56	User Defined Unit	4.50	0.00	0

#### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.6	<b>Precipitation Freq (Days)</b>	40
<b>Climate Zone</b>	13			<b>Operational Year</b>	2017
<b>Utility Company</b>					
<b>CO2 Intensity (lb/MWhr)</b>	0	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 8,560 linear feet, approximately 4.5 acres disturbed

Construction Phase - May 2016 through July 2017

Off-road Equipment - Based on PD

Grading -

Construction Off-road Equipment Mitigation - Tier 2 equipment and water twice per day

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	8.00	326.00
tblGrading	MaterialExported	0.00	5,000.00
tblLandUse	LotAcreage	0.00	4.50
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	WorkerTripNumber	23.00	20.00

## 2.0 Emissions Summary

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**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>

## 2.2 Overall Operational

### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 3.0 Construction Detail

### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	5/1/2016	7/31/2017	5	326	

Acres of Grading (Site Preparation Phase): 0

**Acres of Grading (Grading Phase): 163**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Cranes	1	2.00	226	0.29
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Excavators	2	8.00	162	0.38
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	174	0.41

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	9	20.00	0.00	625.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

**3.2 Grading - 2016****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0684	0.0000	1.0684	0.5490	0.0000	0.5490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4270	4.3416	2.9771	3.7400e-003		0.2502	0.2502		0.2327	0.2327	0.0000	347.8350	347.8350	0.0953	0.0000	349.8359
<b>Total</b>	<b>0.4270</b>	<b>4.3416</b>	<b>2.9771</b>	<b>3.7400e-003</b>	<b>1.0684</b>	<b>0.2502</b>	<b>1.3186</b>	<b>0.5490</b>	<b>0.2327</b>	<b>0.7816</b>	<b>0.0000</b>	<b>347.8350</b>	<b>347.8350</b>	<b>0.0953</b>	<b>0.0000</b>	<b>349.8359</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5100e-003	0.0487	0.0401	1.3000e-004	4.7200e-003	6.4000e-004	5.3700e-003	1.2400e-003	5.9000e-004	1.8300e-003	0.0000	11.4584	11.4584	8.0000e-005	0.0000	11.4601
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-003	7.9300e-003	0.0756	1.7000e-004	0.0140	1.1000e-004	0.0141	3.7300e-003	1.0000e-004	3.8300e-003	0.0000	13.0779	13.0779	6.9000e-004	0.0000	13.0924
<b>Total</b>	<b>9.5100e-003</b>	<b>0.0566</b>	<b>0.1157</b>	<b>3.0000e-004</b>	<b>0.0188</b>	<b>7.5000e-004</b>	<b>0.0195</b>	<b>4.9700e-003</b>	<b>6.9000e-004</b>	<b>5.6600e-003</b>	<b>0.0000</b>	<b>24.5363</b>	<b>24.5363</b>	<b>7.7000e-004</b>	<b>0.0000</b>	<b>24.5526</b>

**3.2 Grading - 2016****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4808	0.0000	0.4808	0.2470	0.0000	0.2470	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2276	3.7920	3.0455	3.7400e-003		0.1465	0.1465		0.1420	0.1420	0.0000	347.8346	347.8346	0.0953	0.0000	349.8355
<b>Total</b>	<b>0.2276</b>	<b>3.7920</b>	<b>3.0455</b>	<b>3.7400e-003</b>	<b>0.4808</b>	<b>0.1465</b>	<b>0.6273</b>	<b>0.2470</b>	<b>0.1420</b>	<b>0.3890</b>	<b>0.0000</b>	<b>347.8346</b>	<b>347.8346</b>	<b>0.0953</b>	<b>0.0000</b>	<b>349.8355</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5100e-003	0.0487	0.0401	1.3000e-004	4.7200e-003	6.4000e-004	5.3700e-003	1.2400e-003	5.9000e-004	1.8300e-003	0.0000	11.4584	11.4584	8.0000e-005	0.0000	11.4601
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-003	7.9300e-003	0.0756	1.7000e-004	0.0140	1.1000e-004	0.0141	3.7300e-003	1.0000e-004	3.8300e-003	0.0000	13.0779	13.0779	6.9000e-004	0.0000	13.0924
<b>Total</b>	<b>9.5100e-003</b>	<b>0.0566</b>	<b>0.1157</b>	<b>3.0000e-004</b>	<b>0.0188</b>	<b>7.5000e-004</b>	<b>0.0195</b>	<b>4.9700e-003</b>	<b>6.9000e-004</b>	<b>5.6600e-003</b>	<b>0.0000</b>	<b>24.5363</b>	<b>24.5363</b>	<b>7.7000e-004</b>	<b>0.0000</b>	<b>24.5526</b>

**3.2 Grading - 2017****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0684	0.0000	1.0684	0.5490	0.0000	0.5490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3443	3.4859	2.5093	3.2200e-003		0.1984	0.1984		0.1844	0.1844	0.0000	295.9529	295.9529	0.0818	0.0000	297.6710
<b>Total</b>	<b>0.3443</b>	<b>3.4859</b>	<b>2.5093</b>	<b>3.2200e-003</b>	<b>1.0684</b>	<b>0.1984</b>	<b>1.2668</b>	<b>0.5490</b>	<b>0.1844</b>	<b>0.7334</b>	<b>0.0000</b>	<b>295.9529</b>	<b>295.9529</b>	<b>0.0818</b>	<b>0.0000</b>	<b>297.6710</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8300e-003	0.0375	0.0332	1.1000e-004	4.6300e-003	4.9000e-004	5.1100e-003	1.2100e-003	4.5000e-004	1.6600e-003	0.0000	9.7186	9.7186	7.0000e-005	0.0000	9.7200
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6900e-003	6.2200e-003	0.0588	1.5000e-004	0.0121	9.0000e-005	0.0122	3.2200e-003	8.0000e-005	3.3000e-003	0.0000	10.8484	10.8484	5.5000e-004	0.0000	10.8600
<b>Total</b>	<b>7.5200e-003</b>	<b>0.0437</b>	<b>0.0920</b>	<b>2.6000e-004</b>	<b>0.0167</b>	<b>5.8000e-004</b>	<b>0.0173</b>	<b>4.4300e-003</b>	<b>5.3000e-004</b>	<b>4.9600e-003</b>	<b>0.0000</b>	<b>20.5670</b>	<b>20.5670</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>20.5800</b>

### 3.2 Grading - 2017

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4808	0.0000	0.4808	0.2470	0.0000	0.2470	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1928	3.2208	2.5868	3.2200e-003		0.1240	0.1240		0.1203	0.1203	0.0000	295.9526	295.9526	0.0818	0.0000	297.6707
<b>Total</b>	<b>0.1928</b>	<b>3.2208</b>	<b>2.5868</b>	<b>3.2200e-003</b>	<b>0.4808</b>	<b>0.1240</b>	<b>0.6047</b>	<b>0.2470</b>	<b>0.1203</b>	<b>0.3673</b>	<b>0.0000</b>	<b>295.9526</b>	<b>295.9526</b>	<b>0.0818</b>	<b>0.0000</b>	<b>297.6707</b>

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8300e-003	0.0375	0.0332	1.1000e-004	4.6300e-003	4.9000e-004	5.1100e-003	1.2100e-003	4.5000e-004	1.6600e-003	0.0000	9.7186	9.7186	7.0000e-005	0.0000	9.7200
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6900e-003	6.2200e-003	0.0588	1.5000e-004	0.0121	9.0000e-005	0.0122	3.2200e-003	8.0000e-005	3.3000e-003	0.0000	10.8484	10.8484	5.5000e-004	0.0000	10.8600
<b>Total</b>	<b>7.5200e-003</b>	<b>0.0437</b>	<b>0.0920</b>	<b>2.6000e-004</b>	<b>0.0167</b>	<b>5.8000e-004</b>	<b>0.0173</b>	<b>4.4300e-003</b>	<b>5.3000e-004</b>	<b>4.9600e-003</b>	<b>0.0000</b>	<b>20.5670</b>	<b>20.5670</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>20.5800</b>

### 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510423	0.073380	0.192408	0.132453	0.036550	0.005219	0.012745	0.022253	0.001862	0.002079	0.006550	0.000609	0.003468

### 5.0 Energy Detail

#### 4.4 Fleet Mix

Historical Energy Use: N



### 5.2 Energy by Land Use - NaturalGas

#### Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>							

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

### 5.3 Energy by Land Use - Electricity

#### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

### 6.0 Area Detail

#### 6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004
Unmitigated	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004

### 6.2 Area by SubCategory

#### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004	
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>	

#### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	8.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5000e-004	1.5000e-004	0.0000	0.0000	1.6000e-004	
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.6000e-004</b>	

### 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## 7.2 Water by Land Use

### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## 9.0 Operational Offroad

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## **10.0 Vegetation**

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**OWD Campo Rd Sewer Line  
San Diego County, Mitigation Report**

**Construction Mitigation Summary**

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Grading	0.45	0.10	-0.03	0.00	0.40	0.37	0.00	0.00	0.00	0.00	0.00	0.00

**OFFROAD Equipment Mitigation**

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Concrete/Industrial Saws	Diesel	Tier 2	1	1	No Change	0.00
Cranes	Diesel	Tier 2	1	1	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	Tier 2	1	1	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	Tier 2	3	3	No Change	0.00
Excavators	Diesel	Tier 2	2	2	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Concrete/Industrial Saws	1.00430E-001	7.26150E-001	6.13390E-001	1.02000E-003	5.35400E-002	5.35400E-002	0.00000E+000	8.76381E+001	8.76381E+001	8.12000E-003	0.00000E+000	8.78087E+001
Cranes	2.78000E-002	3.29660E-001	1.16550E-001	2.30000E-004	1.48400E-002	1.36600E-002	0.00000E+000	2.13768E+001	2.13768E+001	6.49000E-003	0.00000E+000	2.15132E+001
Excavators	1.22630E-001	1.38194E+000	1.11655E+000	1.73000E-003	6.80000E-002	6.25600E-002	0.00000E+000	1.61448E+002	1.61448E+002	4.90500E-002	0.00000E+000	1.62478E+002
Graders	1.61060E-001	1.63616E+000	7.96430E-001	1.02000E-003	9.19100E-002	8.45600E-002	0.00000E+000	9.52199E+001	9.52199E+001	2.89300E-002	0.00000E+000	9.58275E+001
Rubber Tired Dozers	1.98220E-001	2.20973E+000	1.66794E+000	1.45000E-003	1.02740E-001	9.45200E-002	0.00000E+000	1.35630E+002	1.35630E+002	4.12100E-002	0.00000E+000	1.36495E+002
Tractors/Loaders/Backhoes	1.61150E-001	1.54389E+000	1.17552E+000	1.52000E-003	1.17640E-001	1.08230E-001	0.00000E+000	1.42475E+002	1.42475E+002	4.32900E-002	0.00000E+000	1.43384E+002

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Concrete/Industrial Saws	3.91000E-002	8.07440E-001	6.28960E-001	1.02000E-003	3.26400E-002	3.26400E-002	0.00000E+000	8.76380E+001	8.76380E+001	8.12000E-003	0.00000E+000	8.78086E+001
Cranes	5.62000E-003	1.94200E-001	1.21670E-001	2.30000E-004	4.12000E-003	4.12000E-003	0.00000E+000	2.13767E+001	2.13767E+001	6.49000E-003	0.00000E+000	2.15131E+001
Excavators	6.72500E-002	1.47596E+000	1.30961E+000	1.73000E-003	4.53100E-002	4.53100E-002	0.00000E+000	1.61448E+002	1.61448E+002	4.90500E-002	0.00000E+000	1.62478E+002
Graders	3.89700E-002	8.55230E-001	7.58830E-001	1.02000E-003	2.62500E-002	2.62500E-002	0.00000E+000	9.52198E+001	9.52198E+001	2.89300E-002	0.00000E+000	9.58273E+001
Rubber Tired Dozers	1.98220E-001	2.20973E+000	1.66794E+000	1.45000E-003	1.02740E-001	9.45200E-002	0.00000E+000	1.35629E+002	1.35629E+002	4.12100E-002	0.00000E+000	1.36495E+002
Tractors/Loaders/Backhoes	7.11900E-002	1.47028E+000	1.14527E+000	1.52000E-003	5.94300E-002	5.94300E-002	0.00000E+000	1.42475E+002	1.42475E+002	4.32900E-002	0.00000E+000	1.43384E+002

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Concrete/Industrial Saws	6.10674E-001	-1.11947E-001	-2.53835E-002	0.00000E+000	3.90362E-001	3.90362E-001	0.00000E+000	1.14106E-006	1.14106E-006	0.00000E+000	0.00000E+000	1.25272E-006
Cranes	7.97842E-001	4.10908E-001	-4.39296E-002	0.00000E+000	7.22372E-001	6.98389E-001	0.00000E+000	1.40339E-006	1.40339E-006	0.00000E+000	0.00000E+000	1.39450E-006
Excavators	4.51602E-001	-6.80348E-002	-1.72908E-001	0.00000E+000	3.33676E-001	2.75735E-001	0.00000E+000	1.23879E-006	1.23879E-006	0.00000E+000	0.00000E+000	1.16939E-006
Graders	7.58040E-001	4.77294E-001	4.72107E-002	0.00000E+000	7.14395E-001	6.89570E-001	0.00000E+000	1.15522E-006	1.15522E-006	0.00000E+000	0.00000E+000	1.25225E-006
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17968E-006	1.17968E-006	0.00000E+000	0.00000E+000	1.17221E-006
Tractors/Loaders/Balckhoes	5.58238E-001	4.76783E-002	2.57333E-002	0.00000E+000	4.94815E-001	4.50892E-001	0.00000E+000	1.19319E-006	1.19319E-006	0.00000E+000	0.00000E+000	1.18562E-006

**Fugitive Dust Mitigation**

Yes/No Mitigation Measure Mitigation Input Mitigation Input Mitigation Input

No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	0.00		
Yes	Clean Paved Road	% PM Reduction	0.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Grading	Fugitive Dust	2.14	1.10	0.96	0.49	0.55	0.55
Grading	Roads	0.04	0.01	0.04	0.01	0.00	0.00

**Operational Percent Reduction Summary**

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Operational Mobile Mitigation**

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.00	0.15		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network			
No	Neighborhood Enhancements	Provide Traffic Calming Measures			
No	Neighborhood Enhancements	Implement NEV Network	0.00		
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00		
No	Parking Policy Pricing	Limit Parking Supply	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		
No	Transit Improvements	Provide BRT System	0.00		
No	Transit Improvements	Expand Transit Network	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		
	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.00		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"			
No	Commute	Workplace Parking Charge			
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00
No	Commute	Provide Ride Sharing Program			
	Commute	Commute Subtotal	0.00		

No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.00		

### Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
No	Use Low VOC Paint (Non-residential Interior)	250.00
No	Use Low VOC Paint (Non-residential Exterior)	250.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

### Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00

DishWasher		15.00
Fan		50.00
Refrigerator		15.00

**Water Mitigation Measures**

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

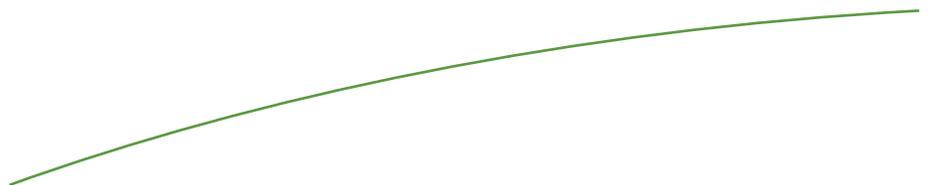
**Solid Waste Mitigation**

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	



Appendix B

BIOLOGICAL TECHNICAL REPORT



# Campo Road Sewer Replacement Project

Biological Technical Report

July 2015

Prepared for:  
**Otay Water District**  
2254 Sweetwater Springs Boulevard  
Spring Valley, CA 91978

Prepared by:  
**HELIX Environmental Planning, Inc.**  
7578 El Cajon Boulevard  
La Mesa, CA 91942

**Biological Resources Report**  
**Campo Road Sewer Replacement Project**

*Prepared for:*

**Otay Water District**  
2254 Sweetwater Springs Boulevard  
Spring Valley, CA 91978

*Prepared by:*

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

July 10, 2015

# TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
	<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	Project Location .....	1
1.2	Project Description.....	1
1.3	Physical Description and Land Use .....	3
<b>2.0</b>	<b>METHODS .....</b>	<b>4</b>
2.1	Literature Review.....	4
2.2	Biological Surveys .....	4
2.2.1	Rare Plant Survey .....	5
2.2.2	Coastal California Gnatcatcher Survey .....	5
2.2.3	Jurisdictional Delineation .....	5
2.3	Nomenclature .....	6
<b>3.0</b>	<b>RESULTS .....</b>	<b>6</b>
3.1	Vegetation Communities/Land Use .....	6
3.2	Jurisdictional Areas.....	10
3.2.1	Federal (USACE) Jurisdiction .....	10
3.2.2	State (CDFW) Jurisdiction .....	11
3.3	Plant Species Observed.....	11
3.4	Animal Species Observed or Detected .....	11
<b>4.0</b>	<b>SENSITIVE RESOURCES.....</b>	<b>11</b>
4.1	Sensitive Vegetation Communities.....	11
4.2	Sensitive Plant Species .....	11
4.2.1	Sensitive Plants Observed .....	11
4.2.2	Sensitive Plants With Potential to Occur.....	13
4.3	Sensitive Animal Species.....	13
4.3.1	Sensitive Animals Observed or Detected .....	13
4.3.2	Sensitive Animals With Potential to Occur .....	15
4.4	Wildlife Corridors .....	15
<b>5.0</b>	<b>REGIONAL AND REGULATORY CONTEXT .....</b>	<b>15</b>
5.1	Regulatory Issues .....	15
5.1.1	Federal Government .....	16
5.1.2	State Of California .....	17
5.1.3	Local .....	18

**TABLE OF CONTENTS (cont.)**

<b><u>Section</u></b>	<b><u>Title</u></b>	<b><u>Page</u></b>
<b>6.0</b>	<b>PROJECT IMPACTS .....</b>	<b>18</b>
6.1	Direct Impacts .....	19
6.1.1	Vegetation Communities .....	19
6.1.2	Jurisdictional Areas .....	20
6.1.3	Sensitive Plant Species .....	20
6.1.4	Sensitive Animal Species .....	20
6.1.5	Sensitive Plant and Animal Species With Potential to Occur .....	22
6.1.6	Nesting Birds .....	23
6.1.7	Wildlife Corridors.....	23
6.2	Indirect Impacts .....	23
6.2.1	Habitat Insularization.....	23
6.2.2	Drainage/Water Quality.....	24
6.2.3	Lighting .....	25
6.2.4	Noise.....	25
6.2.5	Exotic Plant Species .....	26
6.2.6	Raptor Foraging.....	26
6.2.7	Nuisance Animal Species .....	26
6.3	Cumulative Impacts .....	26
<b>7.0</b>	<b>MITIGATION MEASURES .....</b>	<b>27</b>
7.1	Mitigation for Direct Impacts .....	27
7.2	Mitigation for Indirect Impacts.....	28
<b>8.0</b>	<b>CERTIFICATION/QUALIFICATION .....</b>	<b>29</b>
<b>9.0</b>	<b>REFERENCES .....</b>	<b>30</b>

**APPENDICES**

- A Plant Species Observed
- B Animal Species Observed or Detected
- C Explanation of Status Codes for Plant and Animal Species
- D Sensitive Plant Species with Potential to Occur
- E Sensitive Animal Species with Potential to Occur

**TABLE OF CONTENTS (cont.)**

**LIST OF FIGURES**

<b><u>No.</u></b>	<b><u>Title</u></b>	<b><u>Follows Page</u></b>
1	Regional Location Map.....	2
2	USGS Location Map.....	2
3	Project Location .....	2
4	Proposed Project .....	2
5	Existing Vegetation Communities and Sensitive Species .....	6
6	Existing USACE Jurisdictional Areas .....	10
7	Existing CDFW Jurisdictional Areas.....	12
8	USFWS Critical Habitat .....	12
9	San Diego National Wildlife Refuge .....	16
10	Impacts to Vegetation Communities and Sensitive Species.....	20
11	Impacts to USACE Jurisdictional Areas.....	20
12	Impacts to CDFW Jurisdictional Areas .....	20

**LIST OF TABLES**

<b><u>No.</u></b>	<b><u>Title</u></b>	<b><u>Page</u></b>
1	Survey Information .....	4
2	Existing Vegetation Communities within the Study Area.....	7
3	Existing Jurisdictional Areas within the Study Area .....	10

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## EXECUTIVE SUMMARY

This biological resources study was conducted for the proposed Otay Water District (District) Campo Road Sewer Replacement project (herein referred to as “proposed project” or “project”) to provide the District, resource agencies, and the public with current biological data to satisfy review of the proposed project under the California Environmental Quality Act (CEQA) and to demonstrate compliance with federal and state regulations. This report describes current biological conditions, vegetation communities, and plant and wildlife species observed or detected during surveys within the project study area, and identifies those resources that are sensitive. It also identifies sensitive species with potential to occur within the study area. In addition, avoided resources are identified, project impacts are assessed, and mitigation is proposed to offset impacts to sensitive biological resources.

The proposed project would consist of construction and operation of a new gravity sewer main and abandonment of an existing sewer line that has exceeded its capacity. To accommodate current and future flows, the District is proposing to install an approximately 8,360-foot-long, 8- to 15-inch gravity sewer main to replace the existing 9,225-foot-long, 10-inch sewer main. The existing pipeline would be abandoned in place, except for a 210-foot-long section of aboveground pipeline and 7 supporting pillars that would be removed. The sewer main pillars would be cut at the ground surface, and the foundation would be abandoned in place to avoid disturbing the existing vegetation. In addition, the manholes of the existing pipeline would be abandoned, which would include removing the manhole and cone, plugging the sewer pipe, and backfilling the manhole with sand. Pipe removal and manhole capping would be completed by hand or with small equipment so as not to impact the surrounding sensitive habitat.

The study area supports 9 vegetation communities: southern riparian forest, southern willow scrub, freshwater marsh, cismontane alkali marsh, Diegan coastal sage scrub (including disturbed), non-native grassland, eucalyptus woodland, non-native vegetation, and disturbed habitat. The study area also includes developed land.

U.S. Army Corps of Engineers (USACE) jurisdictional areas total 0.13 acre within the study area. In addition, 3.77 acres of California Department of Fish and Wildlife (CDFW) jurisdictional areas occur within the study area.

One federal- and state-listed threatened or endangered plant species was observed within the study area during surveys: Otay tarplant (*Deinandra conjugens*). In addition, 7 plant species considered sensitive by the California Native Plant Society (CNPS) were observed within the study area and include: Palmer’s goldenbush (*Ericameria palmeri* var. *palmeri*), ashy spike-moss (*Selaginella cinerascens*), San Diego sagewort (*Artemisia palmeri*), San Diego County viguiera (*Bahiopsis laciniata*), graceful tarplant (*Holocarpha virgata* ssp. *elongate*), southern California black walnut (*Juglans californica*), and southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*).

Six animal species considered sensitive by the resource agencies were observed or detected within the study area during surveys and include the federal- and state-listed as endangered least Bell’s vireo, the federal-listed as threatened coastal California gnatcatcher, as well as orange-throated whiptail (*Aspidoscelis hyperythrus beldingi*), yellow warbler (*Dendroica*

*petechia brewsteri*), yellow-breasted chat (*Icteria virens*), and Cooper's hawk (*Accipiter cooperii*).

Construction of the proposed pipeline would be restricted mainly to paved roadways and parking lots; however, construction of this pipeline would result in direct temporary impacts to approximately 0.3 acre of sensitive vegetation (Diegan coastal sage scrub [including disturbed]). Such impacts to sensitive habitat would be significant. With regard to the existing pipeline, pipe removal and manhole capping in sensitive habitat would be completed by hand or with small equipment so as not to impact the habitat.

Although the proposed pipeline alignment would be adjacent to jurisdictional areas, construction of the pipeline would not result in direct impacts to USACE or CDFW jurisdictional areas. With regard to the existing aboveground pipe that would be removed as part of the project, the southern riparian forest habitat in which pillars are located is under the jurisdiction of CDFW. Pipe and pillar removal would be completed by hand or with small equipment so as not to impact the jurisdictional area (i.e., no fill would be placed within jurisdictional areas and no trees would be removed). In addition, the second northernmost pillar which is located directly adjacent to the channel/edge of a USACE jurisdictional area (on the south side of the channel), would be cut above the existing ground level in order to avoid potential impacts to this jurisdictional area. Therefore, no significant impacts would occur to jurisdictional areas.

A total of 460 individuals of Otay tarplant occur along the alignment of the existing pipeline, including near existing manholes to be capped. Due to the relatively high number of Otay tarplant in the project area, some individuals of this species could be inadvertently impacted (e.g., by accidentally stepping or driving over them) during manhole capping. Impacts to this species would be significant. The proposed project would not result in impacts to Otay tarplant critical habitat.

One Palmer's goldenbush and 2 San Diego County viguiera are located adjacent to the existing manholes that would be capped. Capping of the manholes would be completed by hand or with small equipment so as not to impact vegetation. In addition, construction of the proposed pipeline could result in impacts to 2 San Diego County viguiera. If individuals of these species are inadvertently impacted during project construction, such impacts would be adverse but not significant due to the low number affected and the low sensitivity.

The proposed project would not result in impacts to ashy spike-moss, southwestern spiny rush, and southern California black walnut.

The project would not result in direct impacts to coastal California gnatcatcher, least Bell's vireo, yellow warbler, or yellow-breasted, or habitat with potential to support these species. However, indirect impacts could potentially occur to avian species, as stated below.

Two Belding's orange-throated whiptails were observed along an unpaved road to the south of Campo Road along the existing pipeline alignment. Capping of the manholes would be completed by hand or with small equipment so as not to impact habitat; however, if individuals

of this species are inadvertently impacted, such impacts would be adverse but not significant due to the low number affected and the low sensitivity.

The proposed project would not require the removal of trees. Therefore, no direct impacts to raptors (including Cooper's hawk) would occur.

Although not observed within the study area during current biological surveys, Quino checkerspot butterfly and Hermes copper have a moderate to high potential to occur on site, as both species have been previously mapped by others within the vicinity of the study area. Construction of the proposed pipeline is not anticipated to impact either species. In addition, capping of the existing pipeline also is not anticipated to impact Quino checkerspot butterfly or Hermes copper because capping activities would be completed using hand tools and small equipment, no vegetation would be removed and no improvements to the existing dirt paths would occur. Therefore, no impacts to these species or their habitat are expected.

Indirect impacts related to habitat insularization, drainage/water quality, lighting, exotic plant species, raptor foraging, and nuisance animal species would be less than significant. Indirect project-related impacts from noise would occur.

Implementation of mitigation measures would ensure that significant impacts would be reduced to below a level of significance.

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## 1.0 INTRODUCTION

This biological resources study was conducted for the proposed Otay Water District (District) Campo Road Sewer Replacement project (herein referred to as “proposed project” or “project”) to provide the District, resource agencies, and the public with current biological data to satisfy review of the proposed project under the California Environmental Quality Act (CEQA) and to demonstrate compliance with federal and state regulations. This report describes current biological conditions, vegetation communities, and plant and wildlife species observed or detected during surveys within the project study area, and identifies those resources that are sensitive. It also identifies sensitive species with potential to occur within the study area. In addition, avoided resources are identified, project impacts are assessed, and mitigation is proposed to offset impacts to sensitive biological resources.

### 1.1 PROJECT LOCATION

The 58.9-acre study area (encompassing the existing and proposed pipeline alignment and a 100-foot wide buffer) is located within the unincorporated County of San Diego (County) community of Valle de Oro in southwestern San Diego County (Figure 1). The study area is located within the unsectioned land grant Jamacho of the U.S. Geological Survey (USGS) 7.5-minute Jamul Mountains quadrangle map (Figure 2).

The proposed pipeline would be primarily located within and along Campo Road (also known as State Route [SR] 94), between Avocado Boulevard and Jamacha Road (Figure 3). The existing pipeline to be abandoned is located to the south of Campo Road in an open space area. Refer to Section 1.2, *Project Description*, for more specific details regarding the project location.

### 1.2 PROJECT DESCRIPTION

The project would consist of construction and operation of a new gravity sewer main and abandonment of an existing sewer line that has exceeded its capacity. To accommodate current and future flows, the District is proposing to install an approximately 8,360-foot-long, 8- to 15-inch gravity sewer main to replace the existing 9,225-foot-long, 10-inch sewer main.

The eastern terminus of the proposed pipeline would be located at the intersection of Avocado Boulevard/Rancho San Diego Village shopping center driveway (Figure 4). The pipeline would traverse southeast through the shopping center parallel to the existing pipe. At the southeastern end of the Rancho San Diego Village shopping center, the proposed alignment would proceed east across Via Mercado. East of Via Mercado, the alignment would continue south and cross under the right-of-way (ROW) of Campo Road via horizontal auger boring. The alignment would then continue along the southern side of Campo Road in a southeasterly direction until the intersection of Campo Road/Jamacha Boulevard. At this intersection, the alignment would cross under this intersection to the northern side of Campo Road via horizontal auger boring. On the northern side, it would continue east along Campo Road to Jamacha Road, and then follow Jamacha Road for approximately 300 feet. The alignment would turn south and cross Jamacha Road into the Rancho San Diego Towne Center, where it would connect to the existing 27-inch sewer main within the shopping center’s parking lot. The 27-inch sewer main connects to

additional pipelines at the intersection of Campo Road/Singer Lane near the Steele Canyon Lift Station. Existing sewer laterals stemming from the existing pipe would be reconnected to the proposed pipeline.

The proposed 15-inch sewer main would be installed by open trench excavation and horizontal auger boring. Horizontal auger boring would be conducted in the locations where the pipeline would cross under Campo Road (at Jamacha Boulevard and near Via Mercado). Open trench excavation would be performed in all other sections. The proposed pipeline would be placed approximately 15 to 29 feet underground. The District anticipates that the proposed pipeline would be located within trenches with shoring approximately 5 to 7 feet wide. Horizontal auger boring would simultaneously 'jack' the steel casing while rotating augers or cutting heads at the face of the tunnel to remove the spoil through the steel casing. The jacking shafts would be approximately 45 feet long by 12 feet wide and the receiving shafts would be approximately 10 feet by 10 feet in area. Following installation of these portions of pipeline, the jacking and receiving pits would be filled in and re-compacted to their existing contours. Spoil material from construction would be hauled to an approved off-site location.

The existing 10-inch sewer pipeline would be abandoned in place, except for a 210-foot-long section of aboveground pipeline and 7 supporting pillars that would be removed. The sewer main pillars would be cut at the ground surface, with the exception of the second northernmost pillar, which would be cut above the existing ground level in order to avoid potential impacts to jurisdictional areas. The foundations of the pillars would be abandoned in place to avoid disturbing the existing vegetation. In locations where the new alignment departs from the 10-inch pipe alignment, the manholes on the existing alignment would be abandoned per the Water Agencies' Standards (WAS) Standard Drawings for Sewer Facilities (Drawing No. SM-08). This would include removing the manhole and cone, plugging the sewer pipe, and backfilling the manhole with sand. Pipe removal and manhole capping would be completed by hand or with small equipment so as not to impact the surrounding sensitive habitat.

Construction-related equipment and materials storage and worker parking would occur in disturbed and developed areas along the project alignment that are approved by the California Department of Transportation (Caltrans) and the County.

Construction activities are expected to begin in fall 2016 and be completed by early 2018. In order to minimize disruptions to the local community, construction and equipment maintenance are anticipated to be limited to weekdays (excluding holidays) from 7:00 a.m. through 7:00 p.m. (in accordance with the County Noise Ordinance); however, if multiple lanes need to be closed on Campo Road or Jamacha Road for pipeline installation, Caltrans could require that such work occur only at night.

The following design features would be implemented as part of the project to minimize construction-related impacts to biological resources:

- In areas where construction has the potential to impact adjacent native habitat, temporary orange construction fencing would be used to clearly delineate the edge of the approved limits of work and environmentally sensitive areas beyond. The District would ensure



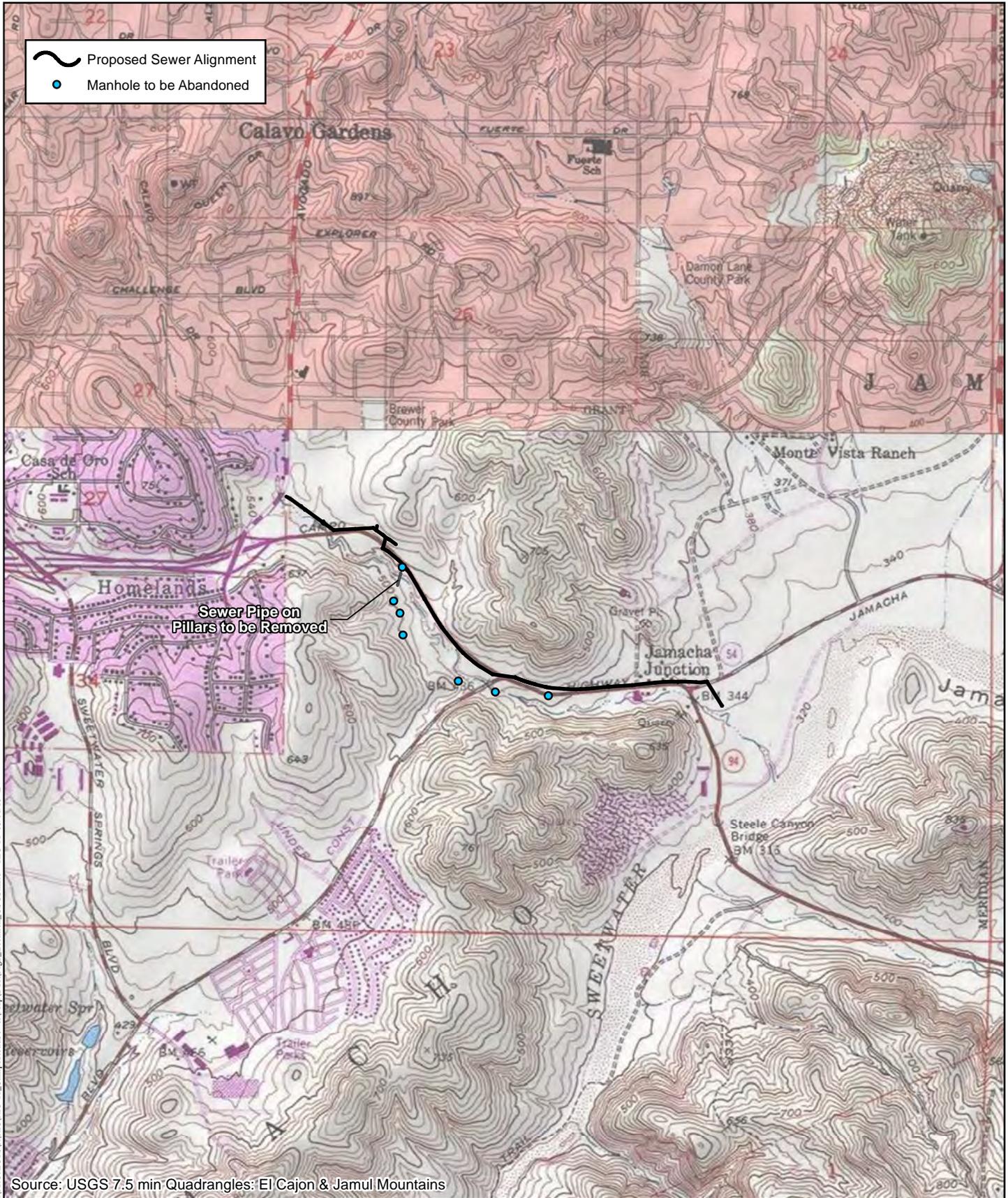
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## Regional Location Map

CAMPO ROAD SEWER MAIN REPLACEMENT



Figure 1



## USGS Location Map

CAMPO ROAD SEWER MAIN REPLACEMENT



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## Project Location

CAMPO ROAD SEWER MAIN REPLACEMENT



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### Proposed Project

CAMPO ROAD SEWER MAIN REPLACEMENT

that the fencing is properly installed prior to construction and maintained for the duration of construction activity in that area. The fencing would be installed in a manner that does not impact habitats to be avoided. The fencing would be removed upon completion of construction of the project.

- A biological monitor would be present during construction activities occurring within 25 feet of environmentally sensitive areas.
- Restoration or landscaping efforts would involve only appropriate native plant species or non-invasive ornamental plant species. In particular, revegetation of areas currently supporting coastal sage scrub would consist entirely of appropriate native plant species.
- All equipment used in or near drainages within an approved construction zone would be clean and free of leaks and grease. Emergency provisions to contain and clean up unintentional fuel or oil spills would be in place prior to construction.
- Fueling of equipment would occur in designated fueling zones located at least 100 feet from drainages and wetland habitat.
- Construction personnel would park private vehicles outside areas supporting sensitive habitat.
- Drivers of construction-related vehicles on unpaved roads in native habitats would not exceed a speed of 15 miles per hour in order to avoid injury to animals and minimize dust generation.
- Pets of project personnel would not be allowed on the project site.
- Disposal or temporary placement of excess fill, brush, or other debris would not be allowed to enter waters of the U.S. (or their banks) from upstream storm water drainages.
- Night lighting of construction and staging areas would be of the lowest illumination necessary for human safety, selectively placed, shielded, and directed away from adjacent natural habitats.

### **1.3 PHYSICAL DESCRIPTION AND LAND USE**

The proposed sewer main would be primarily located within existing roads. The beginning and end of the project site are within 2 shopping centers: Rancho San Diego Village and Rancho San Diego Towne Center. Open space is located to the south of the project alignment (where the existing sewer main alignment traverses), and a church, open space, and industrial and commercial uses are located to the north of the project alignment. The removal of the 210-foot-long, elevated sewer main and associated pillars and the capping and plugging of abandoned manholes would take place in the open space area to the south of Campo Road.

Elevation within the study area ranges between 340 and 545 feet above mean sea level. Six soil series occurs within the study area: Diablo-Urban land complex (clay), Friant rocky fine sandy loam, Las Posas fine sandy loam, Placentia sandy loam (including thick surface), and Visalia sandy loam (Bowman 1973).

## 2.0 METHODS

### 2.1 LITERATURE REVIEW

Prior to conducting field investigations, HELIX Environmental Planning, Inc. (HELIX) performed a review of existing literature, including a search of the California Department of Fish and Wildlife’s (CDFW) California Natural Diversity Database (CNDDDB; CDFW 2014) for information regarding sensitive species reported within 2 miles of the project study area. Additional sources include U.S. Fish and Wildlife Service (USFWS; 2014). Soils data were obtained from the U.S. Department of Agriculture (USDA) Web Soil Service (USDA 2014).

### 2.2 BIOLOGICAL SURVEYS

HELIX biologists Stacy Nigro and Laura Moreton conducted vegetation mapping and a general biological survey on August 14, 2014 (Table 1). Vegetation communities within the study area were mapped on an aerial photograph (1”=100’ scale) with overlaid topography. A list of all plant and animal species observed or detected within the study area was prepared (refer to Appendices A and B). Plant species were identified in the field or later in the laboratory with the aid of voucher specimens. Animals were identified in the field by direct visual observation with the aid of binoculars or indirectly by detection of calls, tracks, burrows, or scat.

**Table 1  
SURVEY INFORMATION**

<b>Date</b>	<b>Personnel</b>	<b>Survey Type</b>
August 14, 2014	Stacy Nigro, Laura Moreton	Vegetation mapping, general biological survey
April 9, 2015	George Aldridge	Rare plants survey
April 29, 2015	Erica Harris	Coastal California gnatcatcher survey No. 1
May 6, 2015	Erica Harris	Coastal California gnatcatcher survey No. 2
May 18, 2015	Erica Harris	Coastal California gnatcatcher survey No. 3
May 26, 2015	Stacy Nigro, Erica Harris	Jurisdictional delineation
May 27, 2015	Amy Mattson	Rare plants survey
June 1, 2015	Erica Harris	Coastal California gnatcatcher survey No. 4
June 8, 2015	Tara Baxter	Coastal California gnatcatcher survey No. 5
June 17, 2015	Tara Baxter	Coastal California gnatcatcher survey No. 6

### **2.2.1 Rare Plant Survey**

HELIX biologist George Aldridge conducted a spring rare plant survey on April 9, 2015 and HELIX biologist Amy Mattson conducted a summer rare plant survey on May 27, 2015. These surveys were conducted during the flowering period of sensitive plants with potential to occur in areas where the existing and proposed pipelines would cross habitat identified as the rare plant survey area. Developed land was excluded from the survey area. The surveys were conducted by walking transects within potential habitat only where the existing and proposed pipelines occur.

### **2.2.2 Coastal California Gnatcatcher Survey**

HELIX permitted biologists Erica Harris and Tara Baxter (TE 778195-12.2) conducted surveys for coastal California gnatcatcher (*Polioptila californica californica*) within potential coastal California gnatcatcher habitat (Diegan coastal sage scrub) within the study area, pursuant to the USFWS 1997 protocol (USFWS 1997). Appropriate habitat within the study area was surveyed during each visit on foot. Binoculars were used to aid in the identification of birds when necessary. Taped gnatcatcher vocalizations were played at irregular intervals to elicit an aural response in otherwise concealed birds. These vocalizations were played only sparingly to prevent disrupting normal behavior to the maximum extent possible.

### **2.2.3 Jurisdictional Delineation**

Prior to beginning fieldwork, recent aerial photographs (1"=100' scale), USGS topographical maps, and the Soil Survey of the San Diego Area (Bowman 1973) were reviewed to determine the location of potential jurisdictional areas that may be affected by the project. All areas with depressions, drainage channels, or wetland vegetation were evaluated for the presence of Waters of the U.S., including jurisdictional wetlands, on May 26, 2015 by Ms. Nigro.

#### **Federal (USACE) Jurisdictional Areas**

U.S. Army Corps of Engineers (USACE) wetland boundaries were determined using the three criteria (vegetation, hydrology, and soils) established for wetland delineations, as described within the Wetlands Delineation Manual (Environmental Laboratory 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Arid West Supplement; USACE 2008).

Areas were determined to be non-wetland Waters of the U.S. if there was evidence of regular surface flow (e.g., bed and bank) but the vegetation and/or soils criterion was not met. Jurisdictional limits for these areas were defined by the ordinary high water mark (OHWM), which is defined in 33 Code of Federal Regulations Section 329.11 as “that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas.” The USACE has issued further guidance on the

OHW (Riley 2005; Lichvar and McColley 2008), which also has been used for this delineation.

### **State (CDFW) Jurisdictional Areas**

The CDFW jurisdictional boundaries were determined based on the presence of riparian vegetation or regular surface flow. Streambeds within CDFW jurisdiction were delineated based on the definition of streambed as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports riparian vegetation” (Title 14, Section 1.72). This definition for CDFW jurisdictional habitat allows for a wide variety of habitat types to be jurisdictional, including some that do not include wetland species (e.g., oak woodland and alluvial fan sage scrub). Jurisdictional limits for CDFW streambeds were defined by the top of bank. Vegetated CDFW habitats were mapped at the limits of jurisdictional vegetation.

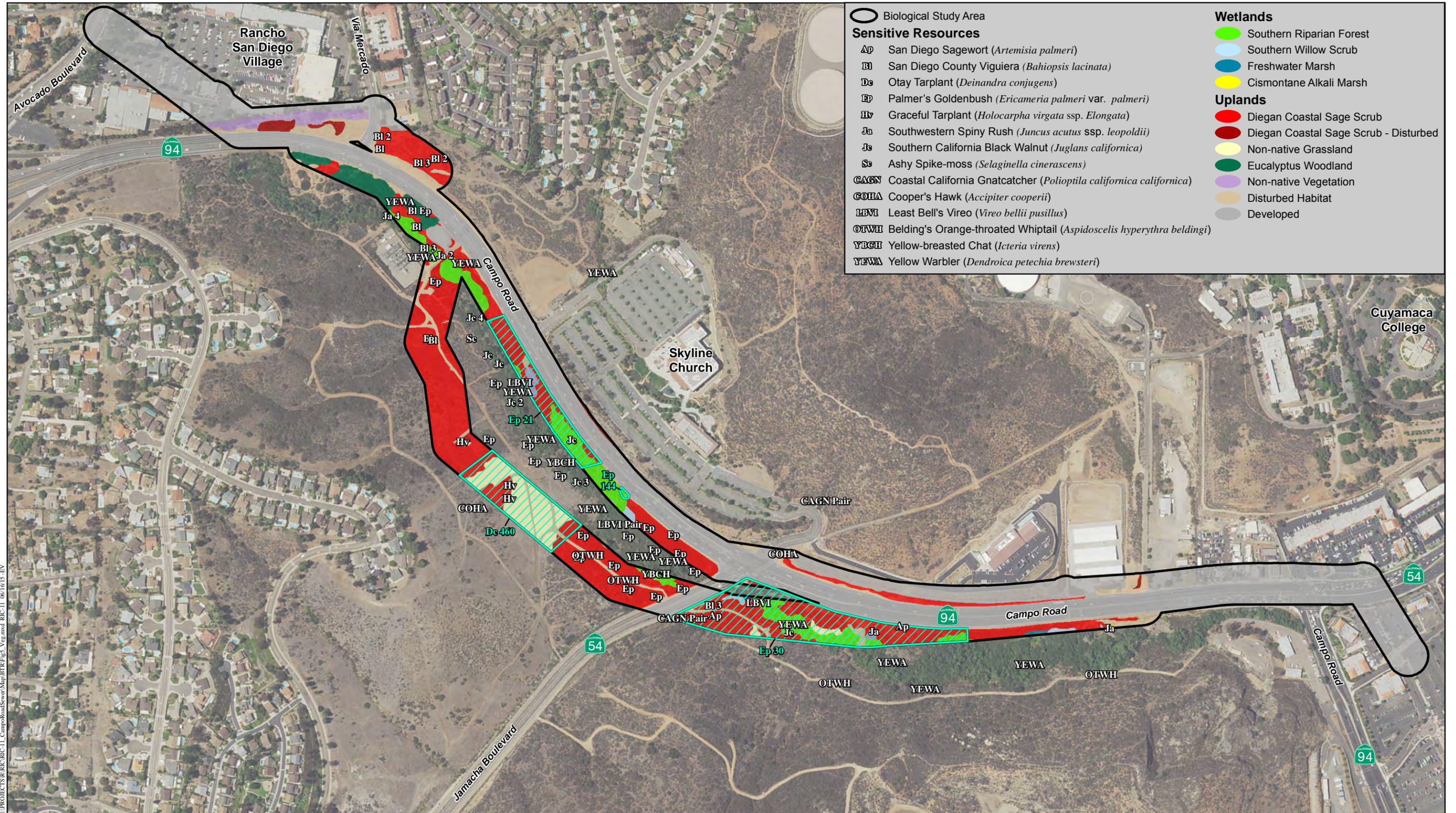
### **2.3 NOMENCLATURE**

Nomenclature for this report is taken from Holland (1986) and Oberbauer (2008) for vegetation communities, and Baldwin et al. (2012) or Rebman and Simpson (2006) for plants. Animal nomenclature is taken from American Ornithologists’ Union (2013) for birds, Baker et al. (2003) for mammals, and Collins and Taggart (2002) for reptiles. Sensitive plant species status follows the California Native Plant Society (CNPS; 2014) and sensitive animal species status follows the CDFW (2013).

## **3.0 RESULTS**

### **3.1 VEGETATION COMMUNITIES/LAND USE**

The study area supports 9 vegetation communities: southern riparian forest, southern willow scrub, freshwater marsh, cismontane alkali marsh, Diegan coastal sage scrub (including disturbed), non-native grassland, eucalyptus woodland, non-native vegetation, and disturbed habitat (Figure 5; Table 2). In addition, developed land occurs within the study area. A brief description of each community within the study area is provided below.



Existing Vegetation Communities and Sensitive Species

CAMPO ROAD SEWER MAIN REPLACEMENT

<b>Table 2 EXISTING VEGETATION COMMUNITIES WITHIN THE STUDY AREA</b>	
<b>Vegetation Community</b>	<b>Acreage*</b>
Southern riparian forest	3.32
Southern willow scrub	0.25
Freshwater marsh	0.07
Cismontane alkali marsh	0.01
Diegan coastal sage scrub (including disturbed)	16.2
Non-native grassland	2.0
Eucalyptus woodland	1.2
Non-native vegetation	1.0
Disturbed habitat	4.5
Developed	30.3
<b>TOTAL</b>	<b>58.9</b>

\* Wetland acreages are rounded to the nearest 0.01, while upland acreages are rounded to the nearest 0.1; thus, total reflects rounding.

### **Southern Riparian Forest**

Southern riparian woodlands and forests are composed of winter-deciduous trees that require water near the soil surface. Willow (*Salix* sp.), cottonwood (*Populus* sp.), and western sycamore (*Platanus racemosa*) form a dense medium height woodland or forest in moist canyons and drainage bottoms. Associated understory species include mule fat (*Baccharis salicifolia*), stinging nettle (*Urtica dioica* ssp. *holosericea*), and wild grape (*Vitis girdiana*; Beauchamp 1986). The differences between woodlands and forests are physiognomic rather than compositional. Woodlands have less canopy cover than forests. In forests, the canopies of individual tree species do overlap so that a canopy cover exceeding 100 percent may occur in the upper tree stratum. In woodlands, there may be large canopy gaps within the upper tree stratum.

Southern riparian forest occurs within the central portion of the study area to the south of Campo Road. Dominant species within this vegetation community in the study area include arroyo willow (*Salix lasiolepis*) and red willow (*S. laevigata*). Southern riparian forest covers approximately 3.32 acres of the study area.

### **Southern Willow Scrub**

Southern willow scrub consists of dense, broadleaved, winter-deciduous stands of trees dominated by shrubby willows in association with mule fat, and with scattered emergent cottonwood (*Populus fremontii*) and western sycamores. This vegetation community appears as a single layer; it lacks separate shrub and tree layers and generally appears as a mass of short trees or large shrubs. It occurs on loose, sandy or fine gravelly alluvium deposited near stream channels during flood flows. Frequent flooding maintains this early seral community, preventing succession to a riparian woodland or forest (Holland 1986). In the absence of periodic flooding, this early seral type would be succeeded by southern cottonwood or western sycamore riparian

forest, provided the requisite hydrology is present to support the greater water needs of those habitats.

Southern willow scrub occurs within the central and southern portions of the study area to the south of Campo Road. Dominant species within this vegetation community in the study area include arroyo willow and red willow. Southern willow scrub covers approximately 0.25 acre of the study area.

### **Freshwater Marsh**

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

Freshwater marsh occurs in 2 patches within the central and southern portions of the study area. Dominant species within this vegetation community in the study area include cattails. Freshwater marsh covers approximately 0.07 acre of the study area.

### **Cismontane Alkali Marsh**

Cismontane alkali marsh is characterized by wet or inundated areas dominated by emergents, but often with an understory of grasses or sedges. Standing water or saturated soil is present during all or most of the year. High evaporation and low input of fresh water result in high salinity, especially during the summer (Holland 1986). Characteristic species include yerba mansa (*Anemopsis californica*), salt grass (*Distichlis spicata* var. *stricta*), cattails, and rush (*Juncus* sp.).

Cismontane alkali marsh occurs in 2 patches within the central and southern portions of the study area. The dominant species within this vegetation community in the study area is southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*). Cismontane alkali marsh covers approximately 0.01 acre of the study area.

### **Diegan Coastal Sage Scrub (including Disturbed)**

Coastal sage scrub is one of the two major shrub types that occur in southern California, occupying xeric sites characterized by shallow soils (the other is chaparral). Four distinct coastal sage scrub geographical associations (northern, central, Venturan, and Diegan) are recognized along the California coast. Diegan coastal sage scrub may be dominated by a variety of species depending upon soil type, slope, and aspect. Typical species found within Diegan coastal sage scrub include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* ssp. *fasciculatum*), laurel sumac (*Malosma laurina*), and black sage (*Salvia mellifera*).

Diegan coastal sage scrub occurs throughout the study area. Patches of disturbed Diegan coastal sage scrub are located in the northern and southern portions of the study areas to the north of Campo Road. Dominant species within this vegetation community in the study area include broom baccharis (*Baccharis sarothroides*), box springs goldenbush (*Ericameria palmeri* var. *pachylepis*), and California sagebrush. Diegan coastal sage scrub (including disturbed) covers approximately 16.2 acres of the study area.

### **Non-native Grassland**

Non-native grassland is a dense to sparse cover of annual grasses, often associated with numerous species of showy-flowered native annual forbs. This association occurs on gradual slopes with deep, fine-textured, usually clay soils. Characteristic species include oats (*Avena* spp.), red brome (*Bromus rubens*), ripgut (*B. diandrus*), ryegrass (*Festuca* sp.), and mustard (*Brassica* sp.). Most of the annual introduced species that comprise the majority of species and biomass within the non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California. These 2 factors, in addition to intensive grazing and agricultural practices in conjunction with severe droughts, contributed to the successful invasion and establishment of these species and the replacement of native grasslands with an annual-dominated non-native grassland (Jackson 1985).

Non-native grassland occurs along the alignment of the existing pipeline in the central portion of the study area. Dominant species within this vegetation community in the study area include oats, fennel (*Foeniculum vulgare*), ripgut, compact brome (*B. madritensis* ssp. *madritensis*), and cardoon (*Cynara cardunculus*). Non-native grassland covers approximately 2.0 acres of the study area.

### **Eucalyptus Woodland**

Eucalyptus woodland is dominated by eucalyptus (*Eucalyptus* sp.), an introduced genus that has often been planted purposely for wind blocking, ornamental, and hardwood production purposes. Most groves are monotypic, with the most common species being either the blue gum (*Eucalyptus globulus*) or river red gum (*E. camaldulensis*). The understory within well-established groves is usually very sparse due to the closed canopy and allelopathic nature of the abundant leaf and bark litter. If sufficient moisture is available, this species becomes naturalized and is able to reproduce and expand its range. The sparse understory offers only limited wildlife habitat; however, as a wildlife habitat, these woodlands provide excellent nesting sites for a variety of raptors.

Eucalyptus woodland occurs in the northern portion of the study area to the south of Campo Road. Eucalyptus woodland covers approximately 1.2 acres of the study area.

### **Non-native Vegetation**

Non-native vegetation is a category describing stands of naturalized trees and shrubs (e.g., acacia [*Acacia* spp.], peppertree [*Schinus* spp.]), many of which are also used in landscaping.

Non-native vegetation occurs in the northern portion of the study area, adjacent to the Rancho San Diego Village shopping center, as well as in small patches in the central portion of the study area to the south of Campo Road. Species within this vegetation community in the study area include Peruvian pepper tree (*Schinus molle*) and olive (*Olea europaea*). Non-native vegetation covers approximately 1.0 acre of the study area.

### **Disturbed Habitat**

Disturbed habitat includes land cleared of vegetation (e.g., dirt roads), land containing a preponderance of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present animal usage that removes any capability of providing viable habitat.

Disturbed habitat occurs throughout the study area, consists primarily of dirt roads and trails, and covers approximately 4.5 acres of the study area.

### **Developed**

Developed land is where permanent structures and/or pavement have been placed, which prevents the growth of vegetation, or where landscaping is clearly tended and maintained.

Developed land within the study area consists primarily of roadways and parking lots, and covers approximately 30.3 acres of the study area.

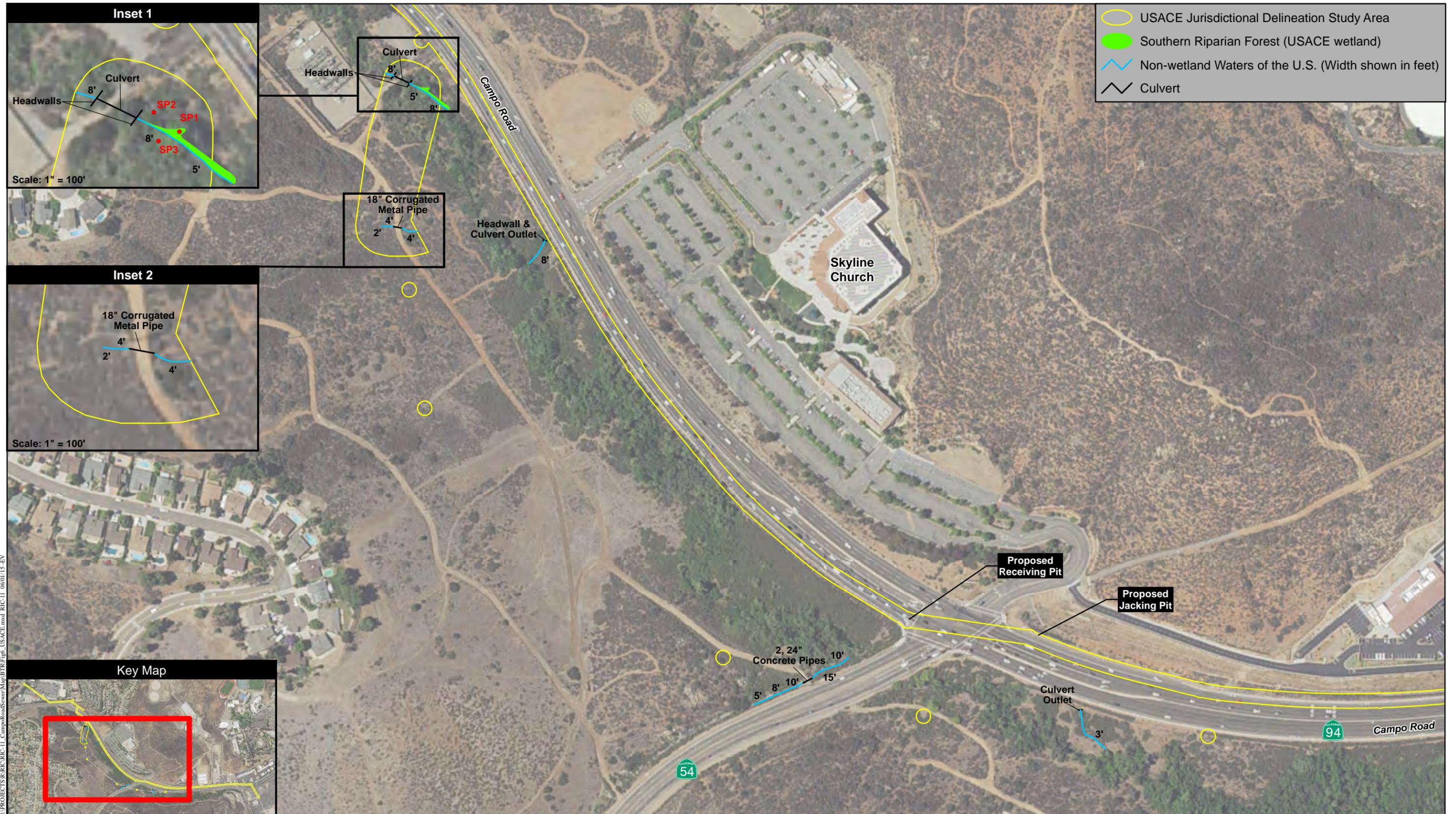
## **3.2 JURISDICTIONAL AREAS**

### **3.2.1 Federal (USACE) Jurisdiction**

Approximately 0.13 acre of USACE jurisdictional wetlands (southern riparian forest) and non-wetland waters of the U.S. occur within the USACE jurisdictional delineation study area (Figure 6; Table 3).

<b>Table 3 EXISTING JURISDICTIONAL AREAS WITHIN THE STUDY AREA (acre)</b>		
<b>Habitat</b>	<b>USACE</b>	<b>CDFW</b>
<b>Wetlands</b>		
Southern riparian forest	0.02	3.32
Southern willow scrub	--	0.25
Freshwater marsh	--	0.07
Cismontane alkali marsh	--	0.01
<b>Non-wetlands</b>		
Drainage/streambed	0.11	0.12
<b>TOTAL</b>	<b>0.13</b>	<b>3.77</b>

\* Wetland and non-wetland acreages are rounded to the nearest 0.01; thus, totals reflect rounding.



**Existing USACE Jurisdictional Areas**

CAMPO ROAD SEWER MAIN REPLACEMENT

### **3.2.2 State (CDFW) Jurisdiction**

Approximately 3.77 acres of CDFW jurisdictional wetlands (southern riparian forest, southern willow scrub, freshwater marsh, and cismontane alkali marsh) and streambed occur within the CDFW jurisdictional delineation study area (Figure 7; Table 3).

### **3.3 PLANT SPECIES OBSERVED**

A total of 74 plant species were observed within the study area (Appendix A).

### **3.4 ANIMAL SPECIES OBSERVED OR DETECTED**

A total of 58 animal species were observed or detected within the study area, including 8 invertebrate, 3 reptile, 43 bird, and 4 mammal species (Appendix B).

## **4.0 SENSITIVE RESOURCES**

### **4.1 SENSITIVE VEGETATION COMMUNITIES**

Sensitive vegetation communities are those that are considered rare within the region or sensitive by CDFW (Holland 1986). These communities are considered sensitive because they have been historically depleted, are naturally uncommon, or support sensitive species. The study area supports 6 sensitive vegetation communities: southern riparian forest, southern willow scrub, freshwater marsh, cismontane alkali marsh, Diegan coastal sage scrub (including disturbed), and non-native grassland.

### **4.2 SENSITIVE PLANT SPECIES**

#### **4.2.1 Sensitive Plants Observed**

Sensitive plant species may be considered rare, a characteristic that may be based on 3 distributional traits: geographic range, habitat specificity, or population size (Rabinowitz et al. 1986). A species that exhibits a small or restricted geographic range (such as those endemic to the San Diego region) are geographically rare. A species may be more or less abundant but occur only in very specific habitats. Lastly, a species may be widespread but exist naturally in small populations. High-interest plants include those listed by CNPS (2014).

One federal- and state-listed threatened or endangered plant species was observed within the study area during surveys: Otay tarplant (*Deinandra conjugens*). In addition, 7 plant species considered sensitive by the CNPS were observed within the study area and include: Palmer's goldenbush (*Ericameria palmeri* var. *palmeri*), ashy spike-moss (*Selaginella cinerascens*), San Diego sagewort (*Artemisia palmeri*), San Diego County viguiera (*Bahiopsis laciniata*), graceful tarplant (*Holocarpha virgata* ssp. *elongate*), southern California black walnut (*Juglans californica*), and southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*). These species are further discussed below and are listed in order of sensitivity. When sensitivity is the same,

species are listed alphabetically by scientific name. An explanation of status codes can be found in Appendix C.

**Otay tarplant (*Deinandra conjugens*)**

**Listing:** FT/SE

**Distribution:** Southern San Diego County and northwestern Baja California, Mexico. In San Diego County, found in scattered localities from the vicinity of Sweetwater Reservoir south to the Mexico border.

**Habitat:** Fractured clay soils in grasslands or lightly vegetated coastal sage scrub

**Status on site:** An area containing 460 Otay tarplant is located in the central portion of the study area along the existing pipeline alignment. In addition, critical habitat for Otay tarplant is designated approximately 200 feet south of the project study area (Figure 8).

**Palmer's goldenbush (*Ericameria palmeri* var. *palmeri*)**

**Listing:** --/--; CNPS List 2.2

**Distribution:** Southern San Diego County and Baja California, Mexico below approximately 660 feet in elevation. Known in California from only 6 occurrences.

**Habitat:** This sizeable shrub grows along coastal drainages, in mesic chaparral sites, or rarely in Diegan coastal sage scrub. Occasionally occurs as a hillside element (usually at higher elevations inland on north-facing slopes).

**Status on site:** A total of 214 individuals, mainly found within 3 large stands, were observed in the central portion of the study area to the south of Campo Road.

**Ashy spike-moss (*Selaginella cinerascens*)**

**Listing:** --/--; CNPS List 4.1

**Distribution:** Orange and San Diego counties; northwestern Baja California, Mexico

**Habitat:** Flat mesas in coastal sage scrub and chaparral. A good indicator of site degradation, as it rarely inhabits disturbed soils.

**Status on site:** One individual was observed in the south of Campo Road between the proposed and existing pipeline alignments.

**San Diego sagewort (*Artemisia palmeri*)**

**Listing:** --/--; CNPS List 4.2

**Distribution:** Coastal San Diego County; Baja California, Mexico

**Habitat:** Stream courses, often within coastal sage scrub and southern mixed chaparral

**Status on site:** Two individuals were observed in the central portion of the study area along the existing pipeline alignment.

**San Diego County viguiera (*Bahiopsis laciniata*)**

**Listing:** --/--; CNPS List 4.2

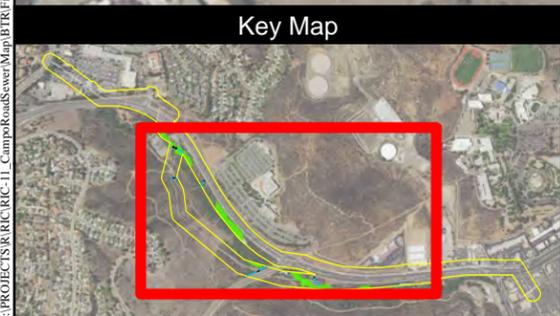
**Distribution:** San Diego and Orange County; Baja California, Mexico

**Habitat:** Diegan coastal sage scrub. Generally, shrub cover is more open than at mesic, coastal locales supporting sage scrub. Occurs on a variety of soil types.

**Status on site:** Ten individuals were found to the south of Campo Road and 8 individuals were observed to the north of Campo Road within the northern portion of the study area.

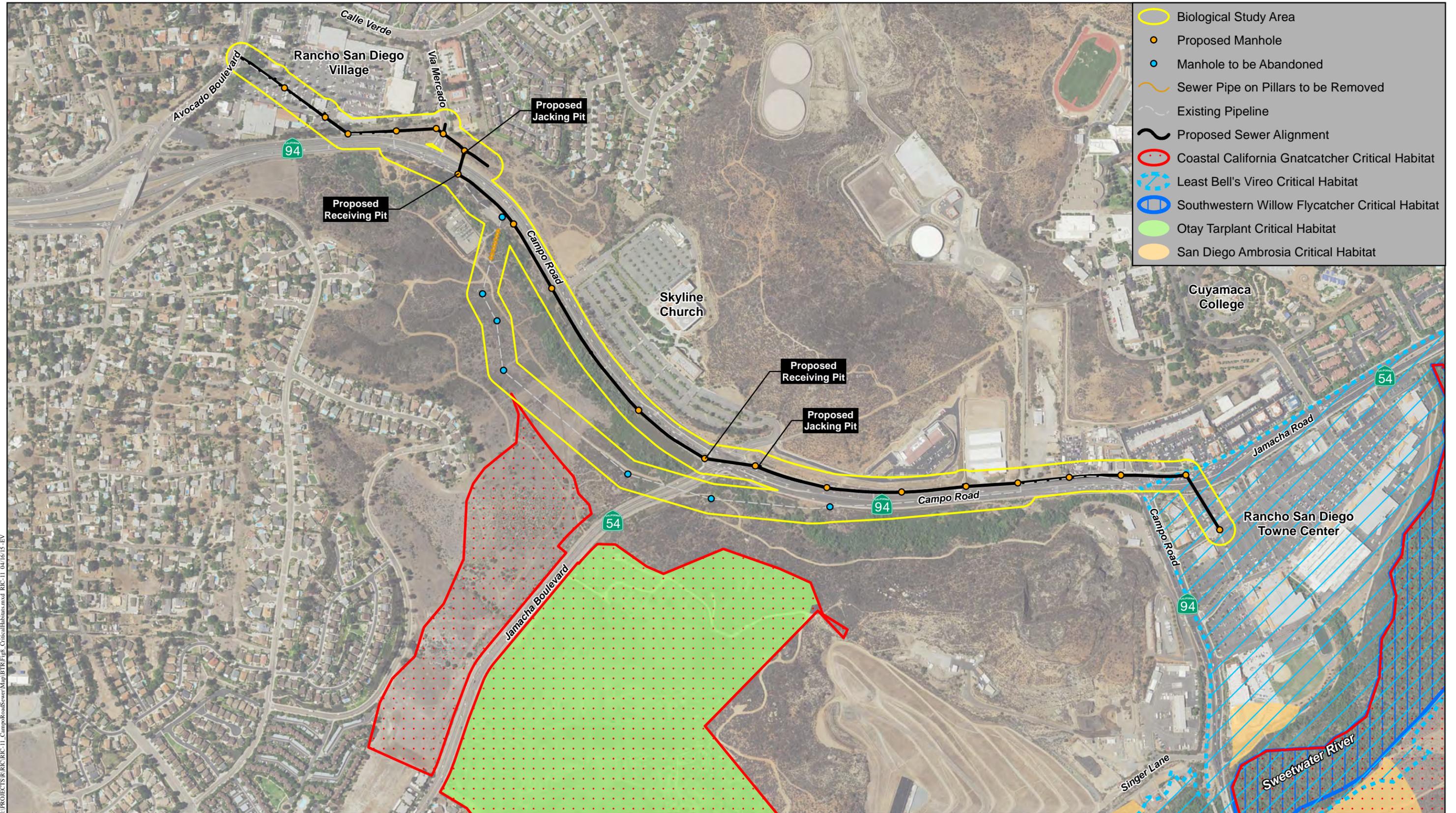


- CDFW Jurisdictional Delineation Study Area
- CDFW Wetlands and Waterways**
- Southern Riparian Forest
- Southern Willow Scrub
- Freshwater Marsh
- Cismontane Alkali Marsh
- CDFW Stream Channel (Width shown in feet)



**Existing CDFW Jurisdictional Areas**

CAMPO ROAD SEWER MAIN REPLACEMENT



**USFWS Critical Habitat**

CAMPO ROAD SEWER MAIN REPLACEMENT

**Graceful tarplant (*Holocarpha virgata* ssp. *elongata*)**

**Listing:** --/--; CNPS List 4.2; CA Endemic

**Distribution:** San Diego, Orange, and Riverside counties

**Habitat:** Coastal mesas and foothills with grassland habitats

**Status on site:** Three individuals were found within the central portion of the study area along the existing pipeline alignment.

**Southern California black walnut (*Juglans californica*)**

**Listing:** --/--; CNPS List 4.2; CA Endemic

**Distribution:** Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, and Ventura counties

**Habitat:** This tree grows between 20 and 50 feet tall in open savannah, often in habitat best labeled walnut woodland. May be more tolerant of clay soils than most native trees and shrubs. Shows preference for deep alluvial soils with high water-retention capacity and tends to grow in creekbeds, alluvial terraces, and north-facing slopes.

**Status on site:** A total of 13 individuals were observed in the central portion of the study area to the south of Campo Road.

**Southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*)**

**Listing:** --/--; CNPS List 4.2

**Distribution:** Los Angeles, San Bernardino, San Luis Obispo, Ventura, and San Diego counties; Baja California, Mexico

**Habitat:** Moist, saline, or alkaline soils in coastal salt marshes and riparian marshes

**Status on site:** Eight individuals of this species were observed throughout the study area to the south of Campo Road.

**4.2.2 Sensitive Plants with Potential to Occur**

Sensitive plant species that were not observed but have potential to occur within the rare plant survey area are described in Appendix C.

**4.3 SENSITIVE ANIMAL SPECIES**

**4.3.1 Sensitive Animals Observed or Detected**

Six animal species considered sensitive by the resource agencies were observed or detected within the study area during surveys and include the federal- and state-listed as endangered least Bell's vireo, the federal-listed as threatened coastal California gnatcatcher, as well as orange-throated whiptail (*Aspidoscelis hyperythrus beldingi*), yellow warbler (*Dendroica petechia brewsteri*), yellow-breasted chat (*Icteria virens*), and Cooper's hawk (*Accipiter cooperii*).

A brief description of each sensitive animal species observed or detected within the study area is provided below. An explanation of status codes can be found in Appendix C.

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

**Status:** FE, BCC/SE

**Distribution:** Observed throughout much of San Diego County in the breeding season but in smaller numbers in foothills and mountains

**Habitat:** Mature riparian woodland

**Status on site:** The least Bell's vireo was detected in a total of 3 locations within the southern riparian forest habitat located south of Campo Road. Observations included 2 singing males and 1 pair. In addition, critical habitat for least Bell's vireo is designated within the southern portion of the project survey area (within Rancho San Diego Towne Center; Figure 8).

**Coastal California gnatcatcher (*Polioptila californica californica*)**

**Status:** FT/SSC

**Distribution:** In San Diego County, occurs throughout coastal lowlands

**Habitat:** Coastal sage scrub

**Status on site:** A coastal California gnatcatcher pair was observed to the south of Campo Road and east of Jamacha Boulevard during the fifth focused species survey. The pair was observed flying between patches of coastal sage scrub at the southern portion of the study area. An additional pair of gnatcatcher was observed approximately 250 feet to the north of the central portion of the study area. In addition, critical habitat for coastal California gnatcatcher is designated immediately south of the central portion of the project survey area (Figure 8).

**Belding's orange-throated whiptail (*Aspidoscelis hyperythrus beldingi*)**

**Status:** --/SSC

**Distribution:** Southern Orange County and southern San Bernardino County, south through Baja California

**Habitat:** Coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include open, sunny areas, shaded areas, and abundant insect prey base, particularly termites (*Reticulitermes* sp.).

**Status on site:** Two individuals were detected along an unpaved road to the south of the Campo Road along the existing pipeline alignment.

**Yellow warbler (*Dendroica petechia brewsteri*)**

**Status:** --/SSC

**Distribution:** Observed throughout much of San Diego County during the breeding season with rare sightings in winter

**Habitat:** Riparian woodland

**Status on site:** Multiple individuals were detected singing within the southern riparian forest habitat to the south of Campo Road.

**Yellow-breasted chat (*Icteria virens*)**

**Status:** --/SSC

**Distribution:** Occurs throughout San Diego County's coastal lowlands in the breeding season

**Habitat:** Mature riparian woodland

**Status on site:** The yellow-breasted chat was detected singing in 2 locations within the southern riparian forest habitat located to the south of Campo Road.

**Cooper's hawk (*Accipiter cooperii*)**

**Status:** --/WL

**Distribution:** Occurs year-round throughout San Diego County's coastal slope where stands of trees are present

**Habitat(s):** Oak groves, mature riparian woodlands, and eucalyptus stands or other mature forests

**Status on site:** An individual was observed flying over the project study area to the north and south of Campo Road.

**4.3.2 Sensitive Animals with Potential to Occur**

Sensitive animal species that were not observed or detected but have potential to occur within the study area are listed in Appendix E. Sensitive animal species with a high potential to occur on site include Coronado skink (*Eumeces skiltonianus interparietalis*), northern red diamond rattlesnake (*Crotalus ruber ruber*), San Diego horned lizard (*Phrynosoma coronatum blainvillei*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), and San Diego desert woodrat (*Neotoma lepida intermedia*). Sensitive animal species with a moderate to high potential to occur on site include Quino checkerspot butterfly (*Euphydryas editha quino*) and Hermes copper (*Lycaena hermes*).

**4.4 WILDLIFE CORRIDORS**

Wildlife corridors can be local or regional in scale; their functions may vary temporally and spatially based on conditions and species presence. Wildlife corridors represent areas where wildlife movement is concentrated due to natural or anthropogenic constraints. Local corridors provide access to resources such as food, water, and shelter. Animals use these corridors, which are often hillsides or tributary drainages, to move between different habitats. Regional corridors provide these functions and link 2 or more large habitat areas. They provide avenues for wildlife dispersal, migration, and contact between otherwise distinct populations.

As previously stated, the Sweetwater River located approximately 0.25 mile south of the project study area acts as a regional wildlife corridor. In addition, the riparian corridor immediately south of Campo Road within the project area acts as a local wildlife movement area.

**5.0 REGIONAL AND REGULATORY CONTEXT**

**5.1 REGULATORY ISSUES**

Laws and regulations that apply include the federal and state Endangered Species Acts (ESA), Clean Water Act, Porter-Cologne Act, CEQA, and Migratory Bird Treaty Act (MBTA). Under CEQA, impacts associated with a proposed project are assessed with regard to significance criteria determined by the CEQA Lead Agency (in this case, the District) and pursuant to CEQA and the State CEQA Guidelines.

### **5.1.1 Federal Government**

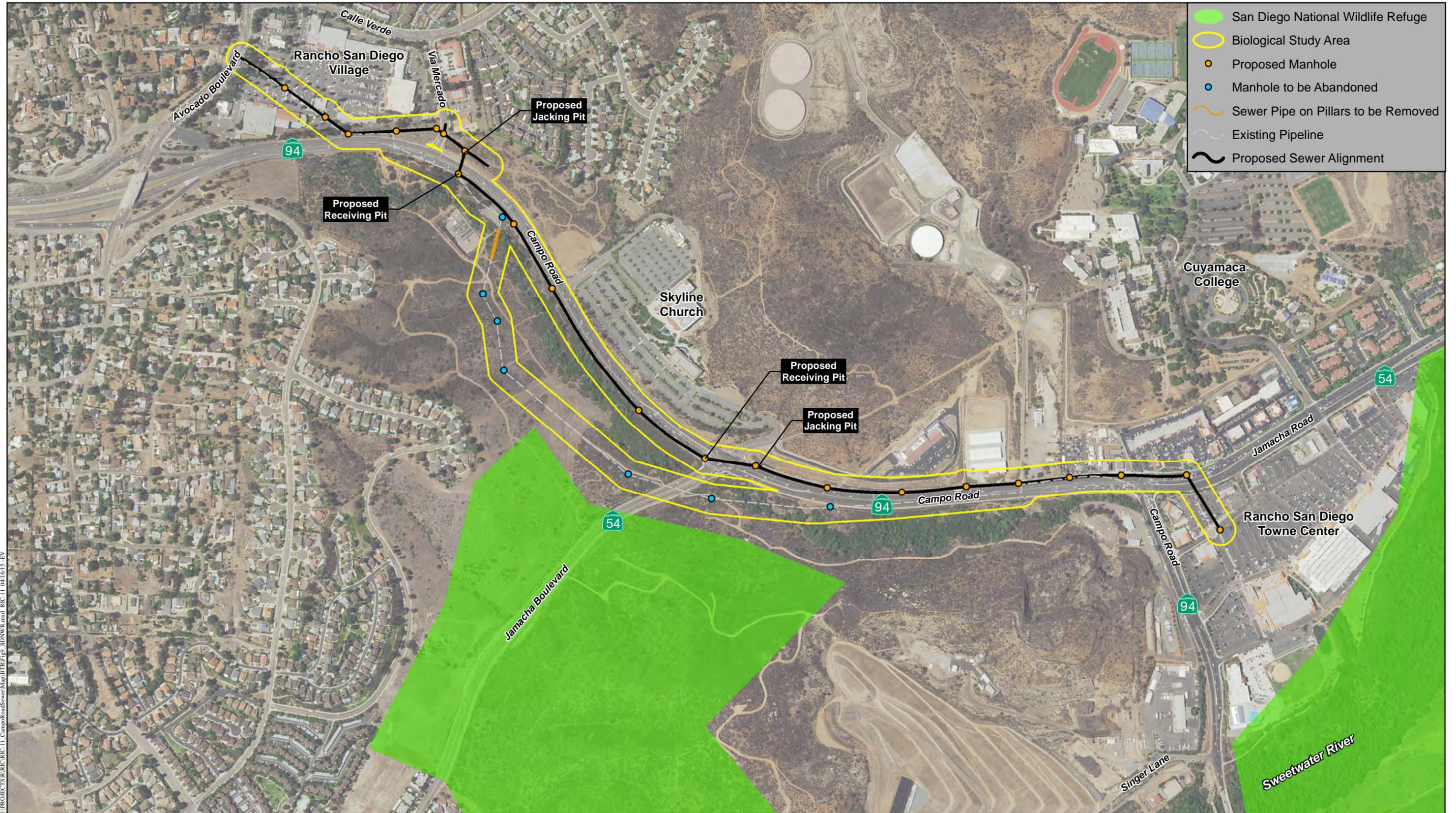
Administered by the USFWS, the federal ESA provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a ‘take’ under the ESA. Section 9(a) of the ESA defines take as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” ‘Harm’ and ‘harass’ are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species’ behavioral patterns.

Sections 7 and 10(a) of the federal ESA regulate actions that could jeopardize endangered or threatened species. Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect listed species. A biological assessment is required for any major construction activity if it may affect listed species. In this case, take is authorized via a letter of biological opinion, issued by the USFWS for non-marine related listed species issues. A Section 7 consultation (formal or informal) is required when there is a nexus between endangered species’ (in this case, the coastal California gnatcatcher and least Bell’s vireo) use of the site and impacts to USACE jurisdictional areas. Section 10(a) allows issuance of permits for incidental take of endangered or threatened species with preparation of a habitat conservation plan (HCP). The term “incidental” applies if the taking of a listed species is incidental to, and not the purpose of, an otherwise lawful activity. An HCP demonstrating how the taking would be minimized and how steps taken would ensure the species’ survival must be submitted for issuance of Section 10(a) permits.

The USFWS identifies critical habitat for endangered and threatened species. Critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitat so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the federal ESA, all federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in destruction or adverse modification of the critical habitat. The project study area is adjacent to critical habitat for the coastal California gnatcatcher and Otay tarplant (Figure 8); however, the project would not impact these areas. Although critical habitat for least Bell’s vireo occurs within the proposed pipeline alignment, this area is currently developed with the Rancho San Diego Towne Center. Because the shopping center does not provide primary constituent elements for the least Bell’s vireo (as described in 59 Federal Register 4845-4867), impacts associated with construction of an underground pipeline to this portion of designated critical habitat would not require Section 7 consultation with the USFWS.

The project study area is also adjacent to the San Diego National Wildlife Refuge (Figure 9); however, the proposed project would not result in impacts to the refuge.

All migratory bird species that are native to the United States or its territories are protected under the federal MBTA. The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is now used to place restrictions on disturbance of active bird nests during the nesting season (generally February 1 to



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**San Diego National Wildlife Refuge**

CAMPO ROAD SEWER MAIN REPLACEMENT

July 31). In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the Clean Water Act. The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of all Waters of the U.S. Permitting for projects filling Waters of the U.S. (including wetlands) is overseen by the USACE under Section 404 of the Clean Water Act. Projects could be permitted on an individual basis or be covered under one of several approved Nationwide Permits. Individual Permits are assessed individually based on the type of action, amount of fill, etc. and typically require substantial time (often longer than 6 months) to review and approve, while Nationwide Permits are pre-approved if a project meets appropriate conditions. However, it is assumed that a Section 404 Permit would not be required for the proposed project because no impacts to USACE jurisdictional areas are anticipated.

### **5.1.2 State of California**

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

The California ESA is similar to the federal ESA in that it contains a process for listing of species and regulating potential impacts to listed species. California ESA Section 2081 authorizes the CDFW to enter into a memorandum of agreement for the take of listed species for scientific, educational, or management purposes.

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates collection, transport, and commerce in plants that are listed. The California ESA followed the NPPA and covers both plants and animals determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were also designated rare under the California ESA.

Under Section 401 of the Clean Water Act, an applicant for a Section 404 permit must obtain a certificate from the Regional Water Quality Control Board (RWQCB) prior to issuance of the Section 404 permit pursuant to the Porter-Cologne Water Quality Control Act. However, because the proposed project would not require a Section 404 permit, no Section 401 water quality certification would be required for the project.

The California Fish and Game Code (Sections 1600 through 1603) requires a CDFW agreement for projects affecting riparian and wetland habitats through issuance of a Streambed Alteration Agreement. It is assumed that the proposed project would not require a 1602 Agreement from the CDFW because the project would not impact CDFW jurisdictional areas.

Raptors (birds of prey) and owls and their active nests are protected by California Fish and Game Code 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by CDFW.

### **5.1.3 Local**

#### **County of San Diego Multiple Species Conservation Plan (MSCP)**

The California Natural Communities Conservation Planning (NCCP) Act of 1991 (Section 2835) allows the CDFW to authorize take of species covered by plans in agreement with NCCP guidelines. A Natural Communities Conservation Program initiated by the State of California focuses on conserving coastal sage scrub, and in concert with the USFWS and the federal ESA, is intended to avoid the need for future federal and state listing of coastal sage scrub dependent species.

The County's MSCP Subarea Plan (County 1997) has been prepared to meet the requirements of the California NCCP, federal ESA, and California ESA. It is a comprehensive, long-term habitat conservation plan that addresses the needs of multiple species by identifying key areas for preservation as open space in order to link core biological areas into a regional wildlife preserve. The County's MSCP Subarea Plan implements the MSCP within the unincorporated areas under County jurisdiction. The County of San Diego considers construction noise effects significant if construction noise levels exceed a 60 decibel (dB) hourly average or ambient noise adjacent to nesting during the breeding season of coastal California gnatcatcher (March 1 to August 15), least Bell's vireo (March 15 to September 15), raptors (January 15 to July 15), and/or migratory birds (February 1 to September 15).

The existing pipeline alignment is immediately adjacent to County conserved lands in the southern portion of the study area. No direct impacts to conserved land would occur as a result of the proposed project. Potential indirect noise impacts are described in Section 6.2.4, *Noise*, and subject to mitigation as described in Section 7.2. In addition, land identified as Minor Amendment Area occurs within the existing pipeline alignment, including where 2 existing manholes occur. The proposed project would include removing the manhole and backfilling it with sand; however, manhole capping would be completed by hand or with small equipment so as not to impact the surrounding sensitive habitat. Therefore, the project would not conflict with Habitat Conservation Plans (HCPs), NCCP, or other approved local, regional, or state habitat conservation plan.

## **6.0 PROJECT IMPACTS**

This section presents an impact analysis for the proposed project. Impacts are either direct or indirect. An impact is direct when the primary effect is removal of existing habitat, often replacing it with developed area. An indirect impact consists of secondary effects of a project (such as noise) that leads to habitat degradation. The magnitude of an indirect impact may be the same as a direct impact; however, the effect usually takes a longer time to become apparent.

## **CRITERIA FOR DETERMINING IMPACT SIGNIFICANCE**

The criteria listed below were used to determine if the proposed project would result in significant impacts to biological resources pursuant to CEQA (Environmental Checklist Form, Appendix G of the State CEQA Guidelines). Will the proposed project:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?
2. 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 CDFW or USFWS?
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
4. 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?
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
6. Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan?

### **6.1 DIRECT IMPACTS**

#### **6.1.1 Vegetation Communities**

Construction of the proposed pipeline would result in direct temporary impacts to approximately 0.3 acre of sensitive vegetation (Diegan coastal sage scrub [including disturbed]), as well as 0.1 acre of disturbed habitat and 1.1 acres of developed land (Figure 10). Such impacts to sensitive habitat would be significant. With regard to the existing pipeline, pipe removal and manhole capping in sensitive habitat would be completed by hand or with small equipment so as not to impact the habitat.

The proposed project would not conflict with any tree preservation ordinance or other local policies as the District does not have an established tree preservation policy. The proposed project would occur primarily within existing roadways. A portion of the existing aboveground section of pipe to be removed is adjacent to trees; however, the project would not include removal of those trees. As such, the project would not conflict with any tree preservation ordinance or other local policies.

## **6.1.2 Jurisdictional Areas**

### **Federal (USACE) Jurisdiction**

Although the proposed pipeline alignment would be adjacent to jurisdictional areas, construction of the pipeline would not result in direct impacts to USACE jurisdictional areas (Figure 11). Impacts associated with construction of the proposed pipeline would be restricted mainly to paved roadways and parking lots, as well as limited amounts (0.3 acre) of Diegan coastal sage scrub.

With regard to the existing aboveground pipe that would be removed as part of the project, all of its pillars within southern riparian forest habitat are located outside of areas under USACE jurisdiction. All but one of the pillars are sufficiently situated away from the creek channel so that removal would not affect USACE jurisdictional areas; however, the second northernmost pillar is located directly adjacent to the channel/edge of a USACE jurisdictional area (on the south side of the channel). Therefore, this pillar would be cut above the existing ground level in order to avoid potential impacts to this jurisdictional area. Pipe and pillar removal would be completed by hand or with small equipment so as not to impact the jurisdictional area (i.e., no fill would be placed within jurisdictional areas and no trees would be removed).

Similarly, manhole capping of the existing pipeline within sensitive habitat would be completed by hand or with small equipment and so as not to impact USACE jurisdictional areas.

### **State (CDFW) Jurisdiction**

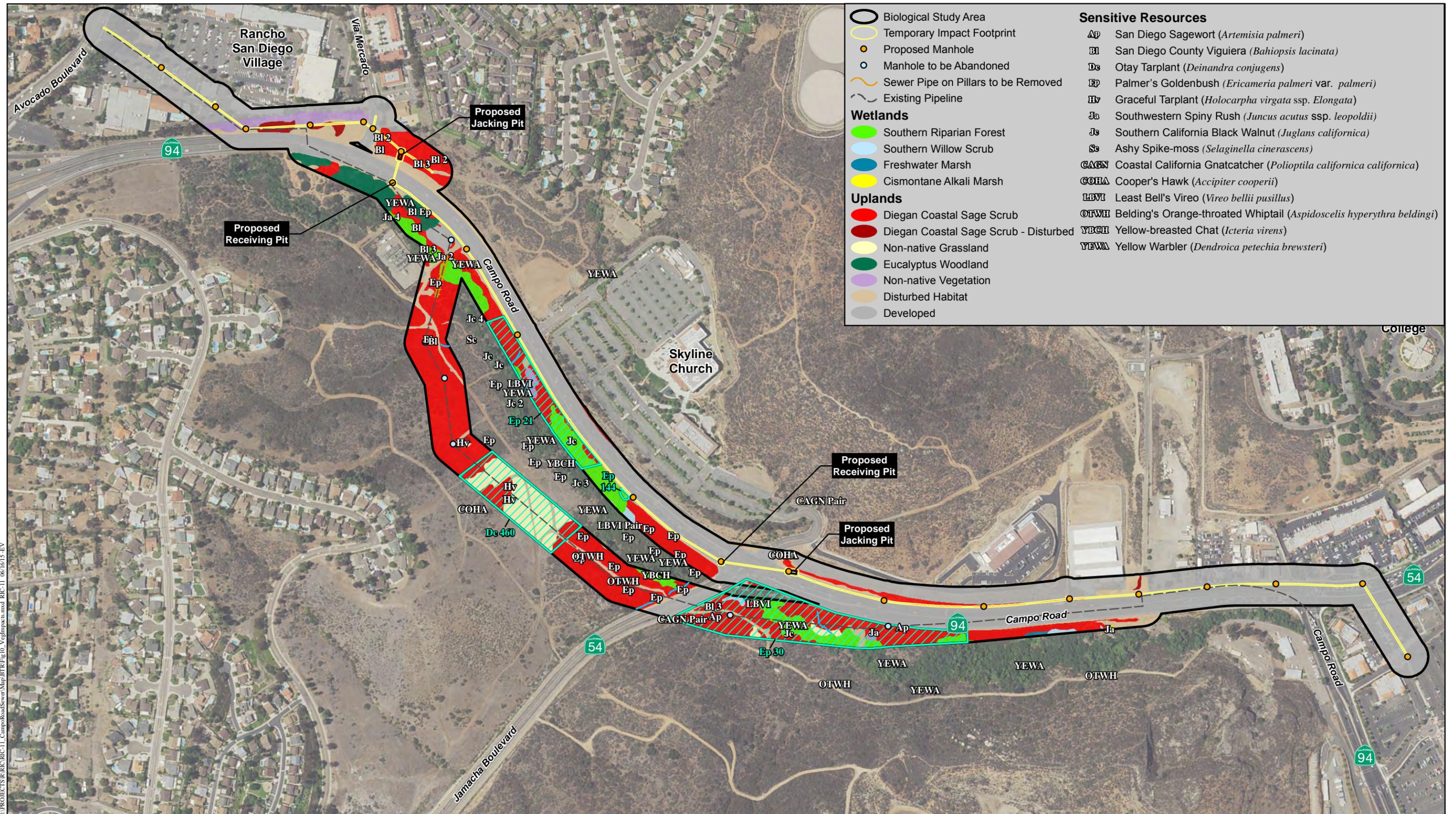
Although the proposed pipeline alignment would be adjacent to jurisdictional areas, construction of the pipeline would not result in direct impacts to CDFW jurisdictional areas (Figure 12); as stated above, impacts associated with construction of the proposed pipeline would be restricted mainly to paved roadways and parking lots, as well as limited amounts (0.3 acre) of Diegan coastal sage scrub.

With regard to the existing aboveground pipe that would be removed as part of the project, the southern riparian forest habitat in which pillars are located is under the jurisdiction of CDFW. Pipe and pillar removal would be completed by hand or with small equipment, however, so as not to impact the jurisdictional area (i.e., no fill would be placed within jurisdictional areas and no trees would be removed). Therefore, potential impacts to CDFW jurisdictional areas would be avoided.

Similarly, manhole capping of the existing pipeline within sensitive habitat would be completed by hand or with small equipment so as not to impact CDFW jurisdictional areas.

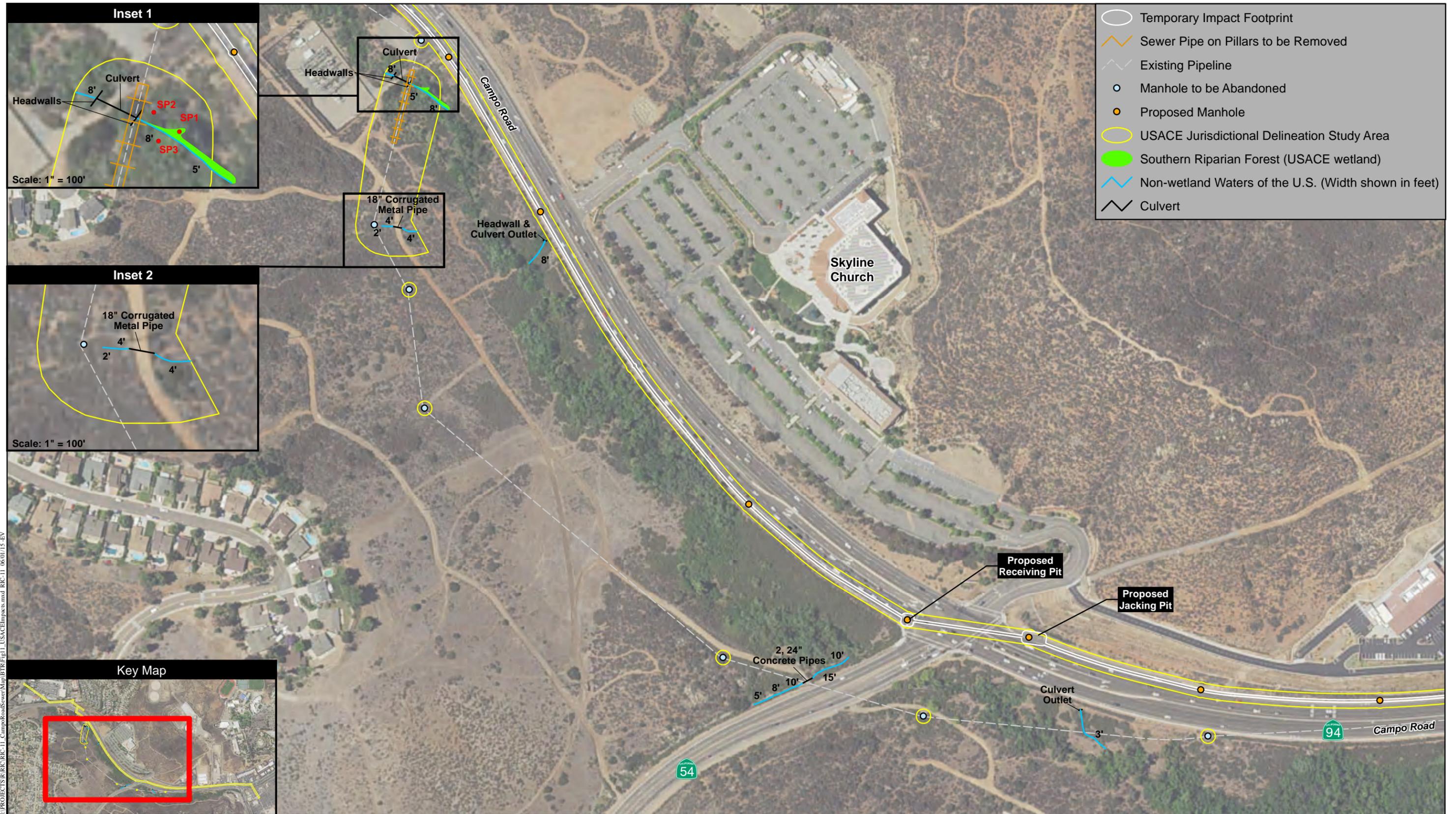
## **6.1.3 Sensitive Plant Species**

As stated above, 8 sensitive plant species (Otay tarplant, Palmer's goldenbush, ashy spike-moss, San Diego sagewort, San Diego County viguiera, graceful tarplant, southern California black walnut, and southwestern spiny rush) occur within the rare plant survey area. A number of Otay



Impacts to Vegetation Communities and Sensitive Species

CAMPO ROAD SEWER MAIN REPLACEMENT



### Impacts to USACE Jurisdictional Areas

CAMPO ROAD SEWER MAIN REPLACEMENT



### Impacts to CDFW Jurisdictional Areas

CAMPO ROAD SEWER MAIN REPLACEMENT

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tarplant occur along the alignment of the existing pipeline, including near existing manholes to be capped. Due to the relatively high number of Otay tarplant (460 individuals) in the project study area, some individuals of this species could be inadvertently impacted (e.g., by accidentally stepping or driving over them) during manhole capping. Impacts to this species would be significant.

The proposed project would not result in impacts to Otay tarplant critical habitat as such habitat is not located within the impact area (Figure 8).

One Palmer's goldenbush (a CNPS List 2.2) is located immediately adjacent to an existing manhole that would be capped. Capping of the manholes would be completed by hand or with small equipment so as not to impact habitat; however, if individuals of this species are inadvertently impacted, such impacts would be adverse but not significant due to the fact that only one could be affected and the species' low sensitivity.

Construction of the proposed pipeline could result in impacts to 2 San Diego County viguiera (a CNPS List 4.2 species). Two San Diego County viguiera are also located near the existing manholes and could be inadvertently impacted. One graceful tarplant and 2 San Diego sagewort (both CNPS List 4.2 species) could be inadvertently impacted by the capping of existing manholes. Given the low number affected and the low sensitivity, impacts to these individuals would be adverse but not significant.

The proposed project would not result in impacts to ashy spike-moss, southwestern spiny rush, and southern California black walnut.

#### **6.1.4 Sensitive Animal Species**

As stated above, 6 sensitive animal species (least Bell's vireo, coastal California gnatcatcher, Belding's orange-throated whiptail, yellow warbler, yellow-breasted chat, and Cooper's hawk) were observed or detected within the study area. The proposed project would avoid direct impacts to the locations at which sensitive animal species were observed. In addition, the project impact footprint is located within and immediately adjacent to an existing roadway and areas disturbed by existing dirt paths and adjacent development. Therefore, the project would not result in direct impacts to habitat with potential to support the coastal California gnatcatcher, least Bell's vireo, yellow warbler, and yellow-breasted chat. Indirect impacts to sensitive avian species could potentially occur, as further discussed below in Section 6.2.4, *Noise*.

The proposed project would not result in impacts to coastal California gnatcatcher critical habitat as such habitat is not located within the impact area (Figure 8). Although critical habitat for least Bell's vireo occurs within the proposed pipeline alignment, this area is currently developed with the Rancho San Diego Towne Center. Because the shopping center does not provide primary constituent elements for least Bell's vireo habitat, impacts associated with construction of an underground pipeline to this portion of designated critical habitat would be less than significant.

Two Belding's orange-throated whiptails (a state species of special concern) were observed along an unpaved road to the south of the Campo Road along the existing pipeline alignment.

Capping of the manholes would be completed by hand or with small equipment so as not to impact habitat; however, if individuals of this species are inadvertently impacted, such impacts would be adverse but not significant due to the low number affected and the low sensitivity.

Eucalyptus trees are located immediately south of Campo Road in the northern portion of the study area, and could potentially provide nesting sites for raptors. The proposed project would not require the removal of trees. Therefore, no direct impacts to raptors (including Cooper's hawk) would occur.

### **6.1.5 Sensitive Plant and Animal Species with Potential to Occur**

As shown in Appendix D, the potential for additional sensitive plant species (that were not discussed in Section 6.1.3, above) to occur within the study area is none to moderate based on field surveys and existing habitat. Therefore, no impact is anticipated to occur to other sensitive plant species within the study area.

As shown in Appendix E, sensitive animal species with a high potential to occur on site include Coronado skink, northern red diamond rattlesnake, San Diego horned lizard, San Diego black-tailed jackrabbit, and San Diego desert woodrat (all of which are state species of special concern). Suitable habitats for these species occur within and adjacent to the study area. Construction of the proposed pipeline within Diegan coastal sage scrub located in the northern portion of the study area to the north of Campo Road could result in inadvertent impacts to these species, if present within the proposed trenching corridor. Capping of the manholes would be completed by hand or with small equipment so as not to impact sensitive biological resources; however, individuals of these species could be inadvertently impacted. Impacts to these species would be adverse but not significant, however, because due to their low sensitivity and the fact that these animals can move away from potential impact areas.

Sensitive animal species with a moderate to high potential to occur on site include Quino checkerspot butterfly and Hermes copper. Both species have been previously mapped by others within the vicinity of the study area. Approximately 35 individuals of spiny redberry (*Rhamnus crocea*; the host plant for Hermes copper) are located under the eucalyptus trees in the northern portion of the study area immediately adjacent and south of Campo Road. There are also spiny redberry scattered throughout the Diegan coastal sage scrub, located along the existing pipeline alignment to the north and south of Jamacha Boulevard. No host plants for the Quino checkerspot butterfly were observed in the project study area during any of the surveys conducted in 2014 and 2015.

Due to the proximity of Quino checkerspot butterfly and Hermes copper sightings and the presence of spiny redberry, these two sensitive butterfly species would be expected to occur near the existing pipeline alignment, to the south of drainage located immediately south of Campo Road. Quino checkerspot butterfly and Hermes copper would not be expected to occur along the proposed pipeline alignment because of the proximity to Campo Road.

Construction of the proposed pipeline would occur mainly within existing developed areas and would impact a relatively small area (0.3 acre) of Diegan coastal sage scrub that is immediately

adjacent to Campo Road. No host plants for Quino checkerspot butterfly or Hermes copper are present in the project footprint. In addition, host plants located under the eucalyptus trees in the northern portion of the study area immediately south of Campo Road are outside of the impact corridor for the proposed pipeline. Therefore, construction of the proposed pipeline is not anticipated to impact either sensitive butterfly species.

Capping of the existing pipeline also is not anticipated to impact Quino checkerspot butterfly or Hermes copper because capping activities would be completed using hand tools and small equipment, no vegetation would be removed and no improvements to the existing dirt paths would occur. Therefore, no impacts to these species or their habitat are expected.

### **6.1.6 Nesting Birds**

Clearing of vegetation during the breeding season of MBTA-covered species (migratory birds that are native to the United States or its territories) could affect nesting birds (or birds displaying breeding or nesting behavior). Such direct impacts would be considered significant.

### **6.1.7 Wildlife Corridors**

As previously stated, the Sweetwater River located approximately 0.25 mile south of the project study area acts as a regional wildlife corridor. In addition, the riparian corridor immediately south of Campo Road within the project area acts as a local wildlife movement area. The proposed project would consist of construction and operation of an underground pipeline within or adjacent to existing paved roadways and parking lots. The new sewer line would be located outside of the Sweetwater River and the riparian corridor used for wildlife movement.

With regard to the abandonment of the existing pipeline, removal of the existing aboveground pipe and capping of the existing manholes would be completed by hand or with small equipment so as not to impact the habitat. Nonetheless, such work could cause short-term disruption as wildlife may avoid the area during work. Due to the short duration of disruption, pipeline abandonment activities would not affect the Sweetwater River or the riparian corridor immediately south of Campo Road. Therefore, impacts to wildlife movement would be less than significant.

## **6.2 INDIRECT IMPACTS**

Potential indirect project impacts consist of secondary effects of the project, including habitat insularization, drainage/water quality, lighting, noise, exotic plant species, raptor foraging, and nuisance animal species.

### **6.2.1 Habitat Insularization**

Habitat insularization is the fragmentation of large habitat areas into smaller “islands” effectively isolated from one another. Such fragmentation presents barriers to wildlife movement and breeding, splits animal and plant populations, and increases edge effects. Often, habitat insularization is associated with local species extinctions, since smaller habitat areas support

relatively fewer species than larger ones. The study area primarily consists of developed land with some areas of native vegetation. The proposed pipeline would primarily occur within existing roadways and paved parking lots. Impacts to sensitive vegetation communities would occur; however, these impacts are linear and minimal. No habitat insularization is anticipated. As such, the project would not isolate any habitat areas, and no impacts would occur.

### **6.2.2 Drainage/Water Quality**

Water quality could be adversely affected during construction by potential surface runoff, including sedimentation, fertilizers, and car petroleum products. Decreased water quality may adversely affect vegetation, aquatic animals, and terrestrial wildlife that depend upon these resources.

Implementation of the proposed project would require conformance with the National Pollution Discharge Elimination System (NPDES) General Construction Activity Permit. Such conformance would entail implementation of a Storm Water Pollution Prevention Plan (SWPPP) to address the discharge of contaminants (including construction-related hazardous materials) and minimize runoff through appropriate best management practices (BMPs). Specific BMPs would be determined by the project contractor and engineer based on site-specific conditions. Such BMPs may include the following:

- Revegetation or repaving of disturbed areas as soon as feasible after completion of grading;
- Covering stockpiled excavated and/or fill materials to reduce potential off-site sediment transport;
- Use of erosion control devices, such as straw wattles, mulch, mats, and/or geotextiles;
- Use of sediment catchment structures such as hay bales, gravel or sand bags, silt fencing, fiber rolls, matting, berms, or similar devices along grading boundaries and drainage courses to prevent off-site sediment transport;
- Daily backfill, compaction, and/or covering of excavated trenches to minimize erosion potential; and/or
- Regular inspection and maintenance of all erosion control and sediment catchment facilities to ensure proper function and effectiveness.

The project design would also comply with the Standard Urban Stormwater Management Plan and Municipal Stormwater Permit criteria of the State Water Resources Control Board. Therefore, indirect impacts resulting from drainage or impaired water quality would be less than significant.

### 6.2.3 Lighting

Night lighting that extends from a developed area onto adjacent wildlife habitat can discourage nocturnal wildlife in habitat and can provide nocturnal predators with an unnatural advantage over their prey. The proposed project would entail the installation of underground pipelines. Project construction would be conducted during daylight hours; however, if multiple lanes need to be closed on Campo Road or Jamacha Road for pipeline installation, Caltrans could require that such work occur only at night. During such an event, artificial lighting could be required. Project design features discussed in Section 1.2, *Project Description*, would require that night lighting of construction and staging areas would be of the lowest illumination necessary for human safety, selectively placed, shielded, and directed away from adjacent natural habitats. Therefore, indirect impacts resulting from night lighting with implementation of the proposed project would be less than significant.

### 6.2.4 Noise

Construction-related noise from sources such as clearing and grading would be a temporary impact to wildlife. Breeding birds and mammals may temporarily or permanently leave their territories to avoid disturbances from construction activities, which could lead to reduced reproductive success and increased mortality. Noise-related impacts would be considered significant if sensitive species such as coastal California gnatcatchers, least Bell's vireo, and raptors were displaced from their nests or territories and failed to breed. The District does not have a Natural Communities Conservation Plan (NCCP) in place. As such, noise guidelines from the County of San Diego are applied as a guideline for identifying potential impacts. As stated above, the MBTA is now used to place restrictions on disturbance of active bird nests during the nesting season (generally February 1 to July 31). For purposes of this project, given that the District is not an NCCP participating entity, the most conservative dates compiled from the County and MBTA are used in the discussion below.

Construction of the proposed project may create some elevated short-term construction noise impacts, particularly from trenching, as well as tunneling. Although some construction activity would likely result in noise levels above 75 dB, pipeline construction noise would be temporary given that construction would occur in different locations along the corridor and no area supporting sensitive avian species would be exposed to elevated noise levels for the entire construction period. Therefore, associated noise exposure to any given sensitive avian species is generally estimated to last about 5 days.

Project construction would be restricted during the coastal California gnatcatcher breeding season (February 15 to August 15) in the central portion of the proposed pipeline alignment (south of the intersection of Campo Road/Jamacha Boulevard) to avoid indirect noise-related impacts to coastal California gnatcatcher. Project construction could potentially be restricted in the northern portion of the proposed pipeline alignment (northeast of the intersection of Campo Road/Via Mercado) to avoid indirect noise-related impacts to coastal California gnatcatcher during the coastal California gnatcatcher breeding season. If construction cannot be avoided in this area during the coastal California gnatcatcher breeding season, pre-construction surveys and (if gnatcatchers are present) noise control would be required.

In the central portion of the proposed pipeline alignment where least Bell's vireo and other sensitive avian species were recorded, construction could potentially be restricted to avoid indirect noise related impacts to least Bell's vireo during the breeding season (March 15 to September 15). If construction cannot be avoided during the least Bell's vireo breeding season, pre-construction surveys and (if vireo are present) noise control would be required.

#### **6.2.5 Exotic Plant Species**

Non-native plants could colonize in areas disturbed by construction and potentially spread into adjacent areas. Such invasions could (1) displace native plant species, (2) reduce diversity, (3) increase flammability and fire frequency, (4) change ground and surface water levels, and (5) adversely affect the native wildlife that are dependent on native vegetation. Non-native plants species occur within the study area; however, the temporary impact area to vegetated areas (to the north of Campo Road by the Rancho San Diego Village shopping center) would be reseeded with native plant species. As such, impacts from an increase in invasive species would be less than significant.

#### **6.2.6 Raptor Foraging**

A Cooper's hawk was observed flying overhead during biological surveys. The project would not result in a loss of raptor foraging habitat given that impacts would only affect 0.3 acre of vegetation communities and no grasslands would be impacted by the project. Therefore, no impact to raptor foraging would occur.

#### **6.2.7 Nuisance Animal Species**

The project has little potential for domestic animals (cats and dogs) to impact native wildlife given that the proposed project consists of installation of a pipeline. In addition, as part of the project design features, pets of project personnel would not be allowed on the project site. As such, no impact would occur as a result of nuisance animals.

### **6.3 CUMULATIVE IMPACTS**

Although impacts to sensitive biological resources may not be significant when considered independently, when multiple impacts such as from several development projects within an area are combined, they may be cumulatively significant. In particular, sensitive species are designated as such because of their scarcity throughout their habitat ranges. The baseline cumulative impact, therefore, is significant. Implementation of the proposed project would incrementally add to cumulative impacts to sensitive biological resources in the project vicinity. However, as a result of mitigation described in Section 7.0, the proposed project would not result in a cumulatively considerable contribution.

## 7.0 MITIGATION MEASURES

### 7.1 MITIGATION FOR DIRECT IMPACTS

#### **Vegetation Communities**

Impacts to Diegan coastal sage scrub (including disturbed) shall be mitigated at a 1:1 ratio. Therefore, required mitigation would be 0.3 acre. The District shall debit credits from its San Miguel Habitat Management Area.

In addition, in order to avoid impacts to adjacent sensitive habitat during construction, such habitat interfaces shall require temporary orange construction fencing that clearly delineates the edge of the approved limits of work and environmentally sensitive areas beyond. A biologist shall ensure that the fencing is properly installed prior to construction, and maintained for the duration of construction activity. The fencing shall be installed in a manner that does not impact habitats to be avoided. A biological monitor shall be present during construction activities adjacent to sensitive habitat. The fencing shall be removed upon completion of construction of the project.

#### **Otay Tarplant**

Temporary orange construction fencing shall be installed adjacent to the access road where Otay tarplant occurs and the contractors shall be informed regarding no-entry areas. The temporary construction fencing and contractor education shall occur prior to grubbing, clearing, and/or grading. A qualified biologist shall verify the location of the temporary fencing prior to construction activities within areas containing Otay tarplant. In addition, a biological monitor shall be present during construction activities within 25 feet of areas containing Otay tarplant to ensure that this species is not impacted. The fencing shall be removed upon completion of construction of the project.

#### **Nesting Birds**

To ensure compliance with the MBTA, clearing of vegetation shall occur outside of the breeding season of most avian species (February 1 through September 15). Clearing during the breeding season of MBTA-covered species (migratory birds that are native to the United States or its territories) could occur if it is determined that no nesting birds (or birds displaying breeding or nesting behavior) are present within 3 days prior to clearing. A pre-construction survey shall be conducted to determine if breeding or nesting avian species occurs within areas directly affected by vegetation removal or indirectly affected by noise. If any of these birds are observed nesting or displaying breeding/nesting behavior within the area, construction in the area shall be postponed until (1) the nest is abandoned or the young have fledged or (2) after September 15. The no-work buffer zone placed around the nest shall be determined by a qualified biologist at the time of discovery, and will vary based on site conditions and the type of work to be conducted. A qualified biologist shall monitor vegetation removal if conducted during the breeding season.

## 7.2 MITIGATION FOR INDIRECT IMPACTS

### Coastal California Gnatcatcher/Raptors

No grubbing, clearing, or grading shall occur during the gnatcatcher breeding season (February 15 through August 15) within 500 feet of occupied Diegan coastal sage scrub in the central portion of the proposed pipeline alignment (south of the intersection of Campo Road/Jamacha Boulevard). As such, all project plans shall state the same.

If project construction would occur during the gnatcatcher breeding season in the central portion of the alignment and/or raptor breeding season, pre-construction surveys shall be conducted within 3 days prior to construction activities to determine if these species occur within the areas indirectly impacted by noise. If there are no gnatcatchers or raptors nesting (includes nest building or other breeding/nesting behavior) within this area, construction shall be allowed to proceed. However, if any gnatcatcher or raptors are observed nesting or displaying breeding/nesting behavior within the area, construction shall be postponed until (1) all nesting (or breeding/nesting behavior) has ceased or until after August 15; or (2) a temporary noise barrier or berm shall be constructed at the edge of the impact footprint to reduce noise levels below 60 dB  $L_{EQ}$  or ambient (if ambient is greater than 60 dB  $L_{EQ}$ ). Alternatively, construction equipment could be modified and/or the duration of construction equipment operation could be controlled to keep noise levels below 60 dB  $L_{EQ}$  or ambient in lieu of or in concert with a wall or other sound attenuation barrier.

### Least Bell's Vireo/Other Sensitive Avian Species

No clearing, grubbing, grading, or other construction activities shall occur within 300 feet of occupied least Bell's vireo habitat between March 15 to September 15, the breeding season of the least Bell's vireo. If construction activities must occur during the least Bell's vireo breeding season, nest surveys shall be conducted within 300 feet of all proposed activities. If active nests are encountered and construction activities must occur during the least Bell's vireo breeding season, noise levels from human activities at the nest shall be restricted to less than 60 dB  $L_{EQ}$  or the ambient noise level plus 3 decibels (perceptible change threshold), whichever is greater. Noise levels shall be monitored, and monitoring reports shall be provided to the District to be included in the annual reports.

## 8.0 CERTIFICATION/QUALIFICATION

The following individuals contributed to the fieldwork and/or preparation of this report.

George Aldridge	Ph.D., Biology, University of California, Irvine, 2005 B.S., Botany, Humboldt State University, 1998 B.A., Political Science, University of California, Santa Barbara, 1985
Tara Baxter	B.A., Ecology and Evolutionary Biology, University of Colorado, Boulder, 2009
Erica Harris	B.S., Biology with an emphasis in Zoology, San Diego State University, 2009
Shelby Howard	M.S., Biology, San Diego State University, 2004 B.S., Biology, University of Texas, El Paso, 1999
Amy Mattson	M.S., Marine Biology, Scripps Institution of Oceanography, 1999 B.S., Biology, with a Marine Biology concentration, University of California, Los Angeles, 1994
Laura Moreton	M.S., Biodiversity Survey, University of Sussex, England 2007 B.S., Biology, San Diego State University, CA 2006
Stacy Nigro	B.S., Forest Resources and Conservation (emphasis Wildlife Ecology) University of Florida-Gainesville, 1994
Aleksandra Richards	M.A., International Relations, University of San Diego, 2010 B.A., Communications with an emphasis in Print Journalism, California State University Fullerton, 2008
Elizabeth Venz	M.B.A., Business, Geographic Information Systems, University of Redlands, 2006 B.A., Geography, Methods of Analysis, San Diego State University, 2000
Melissa Whittemore*	B.S., Biology with an emphasis in Ecology, San Diego State University, 2001 Graduate Certificate in National Environmental Policy Act, Utah State University, 2003

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\*Primary report author

## 9.0 REFERENCES

- American Ornithologists' Union. 2013. Fifty-First Supplement to the American Ornithologists' Union *Check-List of North American Birds*. Available at:  
[http://www.aou.org/checklist/suppl/AOU\\_checklist\\_suppl\\_51.pdf](http://www.aou.org/checklist/suppl/AOU_checklist_suppl_51.pdf).
- Baker, R.J., L.C. Bradley, R.D. Bradley, J.W. Dragoo, M.D. Engstrom, R.S. Hoffmann, C.A. Jones, F. Reid, D.W. Rice, and C. Jones. 2003. Revised checklist of North American mammals north of Mexico. Occasional Papers of the Museum, Texas Tech University 223.
- Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken (eds.). 2012. The Jepson manual: vascular plants of California, second edition. Berkeley, CA: University of California Press.
- Beauchamp, R.M. 1986. *A Flora of San Diego County, California*. Sweetwater Press, National City, California, 241 pp.
- Bowman, R. 1973. Soil Survey of the San Diego Area. USDA in cooperation with the USDI, UC Agricultural Experiment Station, Bureau of Indian Affairs, Department of the Navy, and the U.S. Marine Corps.
- California Department of Fish and Wildlife (CDFW). 2014. California Natural Diversity Data Base (CNDDB). RareFind 3.
2013. State and Federally Listed Endangered and Threatened Animals of California. January.
- California Native Plant Society (CNPS). 2014. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Available at: <http://www.rareplants.cnps.org>.
- Collins, Joseph T. and Travis W. Taggart. 2002. Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodylians, 5<sup>th</sup> Edition. Publication of The Center for North American Herpetology, Lawrence, Kansas. iv + 44 pp.
- Environmental Laboratory. 1987. Army Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi. 100 pp. with Appendices.
- Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. State of California, The Resources Agency, 156 pp.

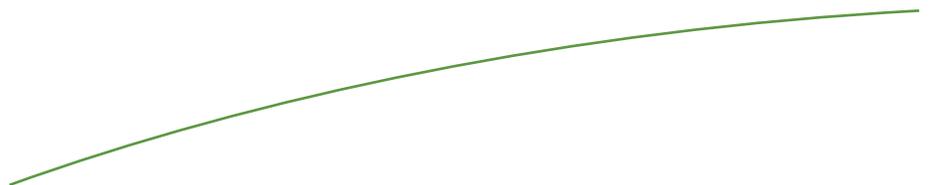
- Lichvar, R.W. and S.M. McColley. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TR-08-12. Hanover, NH. U.S. Army Engineer Research and Development Center. August.
- Oberbauer, T. 2008. Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions. July. Revised from 1996 and 2005.
- Rabinowitz, D., S. Cairns, and T. Dillon. 1986. Seven forms of rarity and their frequency in the flora of the British Isles. Conservation Biology: The Science of Scarcity and Diversity. Ed. M. Soulé. Sinauer, Sunderland, MA, USA. pp. 182-204.
- Rebman, Jon P. and Michael G. Simpson. 2006. Checklist of the Vascular Plants of San Diego County. 4<sup>th</sup> Edition. San Diego Natural History Museum, San Diego, California. 100 pp.
- Riley, D.T. 2005. Ordinary High Water Mark Identification. RGL No. 05-05. December 5. 4 pp.
- U.S. Army Corps of Engineers (USACE). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). Eds. J.S. Wakely, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS; U.S. Army Engineer Research and Development Center.
- U.S. Department of Agriculture (USDA). 2014. Web Soil Survey. Natural Resources Conservation Service. Available at:  
<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>.
- U.S. Fish and Wildlife Service (USFWS). 2014. Occurrence Information for Multiple Species within Jurisdiction of the Carlsbad Fish and Wildlife Office (CFWO). Available at:  
<http://www.fws.gov/carlsbad/gis/cfwogis.html>.
1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol. 5pp.

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# Appendix A

## PLANT SPECIES OBSERVED



**Appendix A**  
**PLANT SPECIES OBSERVED**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<u>FAMILY</u>	<u>SPECIES NAME</u>	<u>COMMON NAME</u>
Adoxaceae	<i>Sambucus nigra</i> ssp. <i>caerulea</i>	black elderberry
Aizoaceae	<i>Mesembryanthemum nodiflorum</i> *	slender-leaved iceplant
Anacardiaceae	<i>Malosma laurina</i>	laurel sumac
	<i>Rhus integrifolia</i>	lemonadeberry
	<i>Rhus ovata</i>	sugar bush
	<i>Schinus molle</i>	Peruvian pepper tree
	<i>Schinus terebinthifolius</i>	Brazilian pepper tree
	<i>Toxicodendron diversilobum</i>	poison oak
Apiaceae	<i>Foeniculum vulgare</i> *	fennel
Apocynaceae	<i>Funastrum cynanchoides</i> var. <i>hartwegii</i>	Hartweg's milkvine
Arecaceae	<i>Phoenix canariensis</i> *	Canary Island date palm
Asteraceae	<i>Artemisia californica</i>	California sagebrush
	<i>Artemisia dracunculus</i>	tarragon
	<i>Baccharis salicifolia</i>	mule fat
	<i>Baccharis sarothroides</i>	broom baccharis
	<i>Bahiopsis laciniata</i> †	San Diego County viguiera
	<i>Centaurea melitensis</i> *	star thistle
	<i>Corethrogyne filaginifolia</i>	California-aster
	<i>Cynara cardunculus</i> *	cardoon
	<i>Deinandra conjugens</i> †	Otay tarplant
	<i>Encelia farinosa</i>	brittlebush
	<i>Ericameria palmeri</i> var. <i>palmeri</i> †	Palmer's goldenbush
	<i>Erigeron canadensis</i>	horseweed
	<i>Gutierrezia sarothrae</i>	San Joaquin matchweed
	<i>Helminthotheca echioides</i> *	bristly ox-tongue
	<i>Heterotheca grandiflora</i>	telegraph weed
<i>Isocoma menziesii</i>	goldenbush	
<i>Xanthium strumarium</i>	cocklebur	
Boraginaceae	<i>Heliotropium curassavicum</i> var. <i>occulatum</i>	salt heliotrope
Brassicaceae	<i>Brassica nigra</i> *	black mustard
	<i>Hirschfeldia incana</i> *	perennial mustard
Cactaceae	<i>Cylindropuntia prolifera</i>	coastal cholla
	<i>Opuntia littoralis</i>	coastal prickly pear
Chenopodiaceae	<i>Salsola tragus</i> *	Russian thistle
Convolvulaceae	<i>Cuscuta californica</i>	dodder

**Appendix A (cont.)**  
**PLANT SPECIES OBSERVED**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<u>FAMILY</u>	<u>SPECIES NAME</u>	<u>COMMON NAME</u>
Cyperaceae	<i>Carex spissa</i>	San Diego sedge
Dipsacaceae	<i>Dipsacus sativus</i> *	Fuller's teasel
Euphorbiaceae	<i>Ricinus communis</i> *	castor-bean
Fabaceae	<i>Acacia cyclops</i> *	coastal wattle
	<i>Acmispon glaber</i>	deerweed
	<i>Gleditsia triacanthos</i> *	honeylocust
	<i>Parkinsonia aculeate</i> *	Mexican palo verde
Fagaceae	<i>Quercus agrifolia</i>	coast live oak
Juglandaceae	<i>Juglans californica</i> †	southern California black walnut
Juncaceae	<i>Juncus acutus</i> ssp. <i>leopoldii</i> †	southwestern spiny rush
Lamiaceae	<i>Salvia apiana</i>	white sage
	<i>Salvia mellifera</i>	black sage
Moraceae	<i>Ficus carica</i> *	edible fig
Myrsinaceae	<i>Anagallis arvensis</i> *	scarlet pimpernel
Oleaceae	<i>Fraxinus uhdei</i> *	shamel ash
Phrymaceae	<i>Mimulus aurantiacus</i>	monkey-flower
Platanaceae	<i>Platanus racemosa</i>	western sycamore
Poaceae	<i>Arundo donax</i> *	giant reed
	<i>Avena</i> sp.*	wild oat
	<i>Bromus diandrus</i> *	common ripgut grass
	<i>Bromus madritensis</i> *	foxtail chess
	<i>Cortaderia selloana</i> *	pampas grass
	<i>Cynodon dactylon</i> *	Bermuda grass
	<i>Stipa</i> sp.	needlegrass
Polygonaceae	<i>Eriogonum fasciculatum</i>	buckwheat
	<i>Rumex crispus</i> *	curly dock
Rhamnaceae	<i>Rhamnus crocea</i>	spiny redberry
Rosaceae	<i>Heteromeles arbutifolia</i>	toyon
	<i>Rosa californica</i>	California rose
Salicaceae	<i>Salix gooddingii</i>	Goodding's black willow
	<i>Salix laevigata</i>	red willow
	<i>Salix lasiolepis</i>	arroyo willow
Saururaceae	<i>Anemopsis californica</i>	yerba mansa
Selaginellaceae	<i>Selaginella cinerascens</i> †	ashy spike-moss

**Appendix A (cont.)  
 PLANT SPECIES OBSERVED  
 OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b><u>FAMILY</u></b>	<b><u>SPECIES NAME</u></b>	<b><u>COMMON NAME</u></b>
Solanaceae	<i>Datura wrightii</i>	jimson weed
	<i>Nicotiana glauca</i> *	tree tobacco
Tamaricaceae	<i>Tamarix ramosissima</i> *	French tamarisk
Typhaceae	<i>Typha latifolia</i>	broad-leaved cattail
Vitaceae	<i>Vitis girdiana</i>	desert wild grape

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\* non-native species

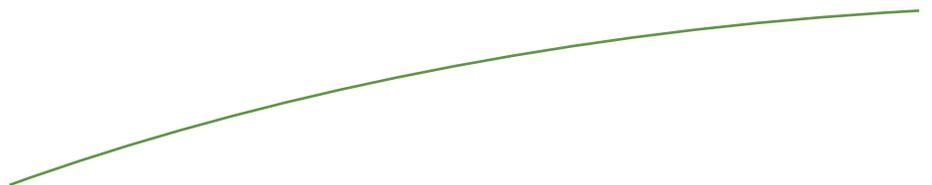
† sensitive species

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## Appendix B

# ANIMAL SPECIES OBSERVED OR DETECTED



**Appendix B**  
**ANIMAL SPECIES OBSERVED OR DETECTED**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<u>TAXON</u>		<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
<b>INVERTEBRATES</b>			
<u>Order</u>	<u>Family</u>		
Hymenoptera	Pompilidae	<i>Pepsis</i> sp.	tarantula hawk
Lepidoptera	Lycaenidae	<i>Strymon melinus pudica</i>	gray hairstreak
	Nymphalidae	<i>Danaus plexippus</i>	monarch
<i>Limenitis lorquini</i>		Lorquin's admiral	
<i>Nymphalis antiopa</i>		mourning cloak	
Pieridae		<i>Colias</i> sp.	unidentified sulphur
		<i>Pontia protodice</i>	checkered white
	Riodinidae	<i>Apodemia mormo virgulti</i>	Behr's metalmark

**VERTEBRATES**

**Reptiles**

<u>Order</u>	<u>Family</u>		
Squamata	Phrynosomatidae	<i>Sceloporus occidentalis</i>	western fence lizard
		<i>Uta stansburiana</i>	common side-blotched lizard
	Teiidae	<i>Aspidoscelis hyperythrus beldingi</i> †	Belding's orange-throated whiptail

**Birds**

<u>Order</u>	<u>Family</u>		
Accipitriformes	Accipitridae	<i>Accipiter cooperii</i> †	Cooper's hawk
		<i>Buteo jamaicensis</i>	red-tailed hawk
		<i>Buteo lineatus</i>	red-shouldered hawk
Apodiformes	Apodidae	<i>Aeronautes saxatalis</i>	white-throated swift
	Trochilidae	<i>Calypte anna</i>	Anna's hummingbird
		<i>Calypte costae</i>	Costa's hummingbird
Columbiformes	Columbidae	<i>Zenaida macroura</i>	mourning dove

**Appendix B (cont.)**  
**ANIMAL SPECIES OBSERVED OR DETECTED**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<u>TAXON</u>		<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
<b>Birds (cont.)</b>			
Galliformes	Odontophoridae	<i>Callipepla californica</i>	California quail
Passeriformes	Aegithalidae	<i>Psaltriparus minimus</i>	bushtit
	Bombycillidae	<i>Bombycilla cedrorum</i>	cedar waxwing
	Cardinalidae	<i>Passerina caerulea</i>	blue grosbeak
		<i>Pheucticus melanocephalus</i>	black-headed grosbeak
	Corvidae	<i>Aphelocoma californica</i>	western scrub-jay
		<i>Corvus brachyrhynchos</i>	American crow
	Emberizidae	<i>Melospiza melodia</i>	song sparrow
		<i>Melospiza crissalis</i>	California towhee
		<i>Pipilo maculatus</i>	spotted towhee
	Fringillidae	<i>Haemorhous mexicanus</i>	house finch
		<i>Spinus psaltria</i>	lesser goldfinch
	Hirundinidae	<i>Petrochelidon pyrrhonota</i>	cliff swallow
		<i>Stelgidopteryx serripennis</i>	northern rough-winged swallow
	Icteridae	<i>Icterus cucullatus</i>	hooded oriole
	Mimidae	<i>Mimus polyglottos</i>	northern mockingbird
		<i>Toxostoma redivivum</i>	California thrasher
	Parulidae	<i>Cardellina pusilla</i>	Wilson's warbler
		<i>Geothlypis trichas</i>	common yellowthroat
		<i>Icteria virens</i> †	yellow-breasted chat
		<i>Oreothlypis celata</i>	orange-crowned warbler
		<i>Setophaga petechia</i> †	yellow warbler
	Poliioptilidae	<i>Poliioptila californica</i>	coastal California
		<i>californica</i> †	gnatcatcher
	Sturnidae	<i>Sturnus vulgaris</i>	European starling
	Sylviidae	<i>Chamaea fasciata</i>	wrentit
	Troglodytidae	<i>Thryomanes bewickii</i>	Bewick's wren
		<i>Troglodytes aedon</i>	house wren
	Turdidae	<i>Sialia mexicana</i>	western Bluebird

**Appendix B (cont.)**  
**ANIMAL SPECIES OBSERVED OR DETECTED**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<u>TAXON</u>		<u>SCIENTIFIC NAME</u>	<u>COMMON NAME</u>
<b>Birds (cont.)</b>			
Passeriformes	Tyrannidae	<i>Contopus sordidulus</i>	western wood-pewee
		<i>Empidonax difficilis</i>	Pacific-slope flycatcher
		<i>Myiarchus cinerascens</i>	ash-throated flycatcher
		<i>Sayornis nigricans</i>	black phoebe
		<i>Sayornis saya</i>	Say's phoebe
		<i>Tyrannus vociferans</i>	Cassin's kingbird
		Vireonidae	<i>Vireo bellii pusillus</i> †
Piciformes	Picidae	<i>Picoides nuttallii</i>	Nuttall's woodpecker
<b><u>Mammals</u></b>			
<u>Order</u>	<u>Family</u>		
Carnivora	Canidae	<i>Canis latrans</i>	coyote
Lagomorpha	Leporidae	<i>Sylvilagus audubonii</i>	desert cottontail
Rodentia	Muridae	<i>Neotoma</i> sp.	woodrat
	Sciuridae	<i>Spermophilus beecheyi</i>	California ground squirrel

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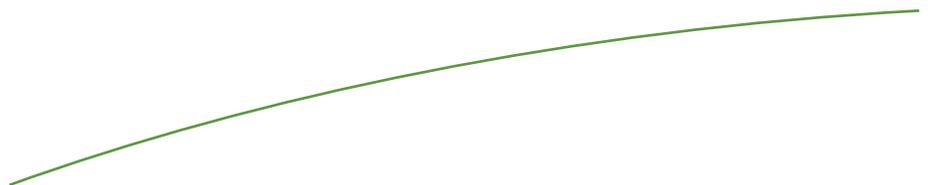
† sensitive species

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Appendix C

EXPLANATION OF STATUS CODES FOR  
PLANT AND ANIMAL SPECIES



**Appendix C**  
**EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES**

**FEDERAL AND STATE CODES**

**U.S. Fish and Wildlife Service (USFWS)**

FE	Federally listed endangered
FT	Federally listed threatened
FC	Federal candidate species
BCC	Birds of Conservation Concern (discussed in more detail, below)
BGEPA	Bald and Golden Eagle Protection Act (discussed in more detail below)

**California Department of Fish and Wildlife (CDFW)**

SE	State listed endangered
SR	State listed rare
ST	State listed threatened
SSC	State species of special concern
WL	Watch List
Fully Protected	Fully Protected species refer to all vertebrate and invertebrate taxa of concern to the Natural Diversity Data Base regardless of legal or protection status. These species may not be taken or possessed without a permit from the Fish and Game Commission and/or CDFW.

**OTHER CODES AND ABBREVIATIONS**

**USFWS Bald and Golden Eagle Protection Act (BGEPA)**

In 1782, Continental Congress adopted the bald eagle as a national symbol. During the next one and a half centuries, the bald eagle was heavily hunted by sportsmen, taxidermists, fisherman, and farmers. To prevent the species from becoming extinct, Congress passed the Bald Eagle Protection Act in 1940. The Act was extremely comprehensive, prohibiting the take, possession, sale, purchase, barter, or offer to sell, purchase, or barter, export or import of the bald eagle “at any time or in any manner.”

In 1962, Congress amended the Eagle Act to cover golden eagles, a move that was partially an attempt to strengthen protection of bald eagles, since the latter were often killed by people mistaking them for golden eagles. The golden eagle, however, is accorded somewhat lighter protection under the Act than the bald eagle. Another 1962 amendment authorizes the Secretary of the Interior to grant permits to Native Americans for traditional religious use of eagles and eagle parts and feathers.

**Appendix C (cont.)**  
**EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES**

**OTHER CODES AND ABBREVIATIONS (cont.)**

**USFWS Birds of Conservation Concern (BCC)**

This report from 2002 aims to identify accurately the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent USFWS' highest conservation priorities and draw attention to species in need of conservation action. USFWS hopes that by focusing attention on these highest priority species, the report will promote greater study and protection of the habitats and ecological communities upon which these species depend, thereby ensuring the future of healthy avian populations and communities. The report is available online at <http://migratorybirds.fws.gov/reports/bcc2002.pdf>.

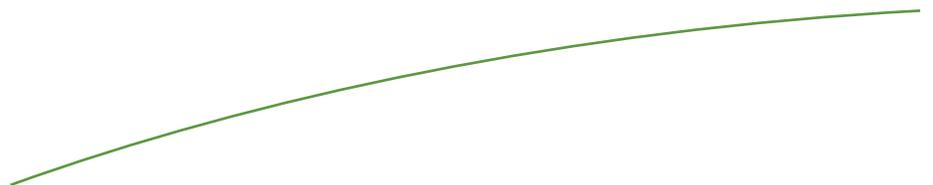
**California Native Plant Society (CNPS) Ranks**

<b>Ranks</b>	<b>Threat Ranks</b>
1A Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere	0.1 Seriously threatened in California (over 80 percent of occurrences threatened / high degree and immediacy of threat)
1B Plants Rare, Threatened, or Endangered in California and Elsewhere	0.2 Moderately threatened in California (20 to 80 percent occurrences threatened / moderate degree and immediacy of threat)
2A Plants Presumed Extirpated in California, But Common Elsewhere	0.3 Not very threatened in California (less than 20 percent of occurrences threatened / low degree and immediacy of threat or no current threats known)
2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere	A "CA Endemic" entry corresponds to those taxa that only occur in California.
3 Plants About Which More Information is Needed	All List 1A (presumed extinct in California) and some List 3 (need more information; a review list) plants lacking threat information receive no extension. Threat Code guidelines represent only a starting point in threat level assessment. Other factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Code.
4 Plants of Limited Distribution	



Appendix D

SENSITIVE PLANT SPECIES WITH  
POTENTIAL TO OCCUR



**Appendix D**  
**SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b>COMMON NAME</b>	<b>SPECIES NAME</b>	<b>STATUS*</b>	<b>HABITAT ASSOCIATIONS</b>	<b>POTENTIAL TO OCCUR</b>
San Diego thorn-mint	<i>Acanthomintha ilicifolia</i>	FT/SE CNPS List 1B.1	Annual herb. Occurs on clay soils near vernal pools and in grassy openings in coastal sage scrub and chaparral. Elevation range 0-914 meters. Flowering period Apr - Jun.	<b>None.</b> Clay soils do not occur on site. Vernal pools do not occur within the study area.
California adolphia	<i>Adolphia californica</i>	--/-- CNPS List 2B.1	Shrub. Occurs in sage scrub but occasionally occurs in peripheral chaparral habitats, particularly hillsides near creeks. Usually associated with xeric locales where shrub canopy reaches 4-5 feet. Elevation range 45-740 meters. Flowering period Dec. - Apr.	<b>Low.</b> Suitable sage scrub habitat occurs within the study area. However, species was not observed during rare plant surveys conducted in 2015, and would likely have been observed if present.
San Diego bur-sage	<i>Ambrosia chenopodiifolia</i>	--/-- CNPS List 2B.1	Shrub. Occurs in low-growing, fairly open Diegan coastal sage scrub. Elevation range 55-155 meters. Flowering period Apr. - Jun.	<b>Moderate.</b> Suitable sage scrub habitat occurs within the study area.
Singlewhorl burrobrush	<i>Ambrosia monogyra</i>	--/-- CNPS List 2B.2	Shrub. Occurs in arid, low-growing, fairly open Diegan coastal sage scrub. Olivenhain cobbly loam is the soil type mapped for the San Ysidro population. Elevation 10 – 500 meters. Flowering period August - November.	<b>Moderate.</b> Suitable sage scrub habitat occurs within the study area.

**Appendix D (cont.)**  
**SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b>COMMON NAME</b>	<b>SPECIES NAME</b>	<b>STATUS*</b>	<b>HABITAT ASSOCIATIONS</b>	<b>POTENTIAL TO OCCUR</b>
San Diego ambrosia	<i>Ambrosia pumila</i>	FE/-- CNPS List 1B.1	Perennial herb. Occurs in grasslands, valley bottoms and dry drainages, also can occur on slopes, disturbed places, and in coastal sage scrub. Elevation 20-415 meters. Flowering period Apr. – Oct.	<b>Low.</b> Soils and habitat within the study area are suitable; however, this species was not observed during 2015 biological surveys and is very rare, known from fewer than 20 locations.
Aphanisma	<i>Aphanisma blitoides</i>	--/-- CNPS List 1B.2	Annual herb. Occurs in coastal bluffs near the ocean and beach dunes. Elevation 1-305 meters. Flowering period Mar. – Jun.	<b>None.</b> Study area is not on a coastal bluff. Species may be extirpated in San Diego County.
San Diego sagewort	<i>Artemisia palmeri</i>	--/-- CNPS List 4.2	Shrub. Typically occurs along streams with riparian habitat, and may be found in sage scrub or mesic chaparral adjacent to these areas. Elevation 15-915 meters. Flowering period May – Sep.	<b>Present.</b> Observed during 2015 biological surveys in the central portion of the study area along the existing pipeline alignment.
Western spleenwort	<i>Asplenium vespertinum</i>	--/-- CNPS List 4.2	Herb. Found at the shaded base of overhanging boulders. Preferred habitats are chaparral, woodland, coastal sage scrub, and rocky areas with semi-shaded but seasonally arid conditions. Elevation 180-1,000 meters. Flowering period February – June.	<b>Low.</b> Suitable sage scrub habitat present within the study area; however, the study area is outside the known elevation range.

**Appendix D (cont.)**  
**SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b>COMMON NAME</b>	<b>SPECIES NAME</b>	<b>STATUS*</b>	<b>HABITAT ASSOCIATIONS</b>	<b>POTENTIAL TO OCCUR</b>
Dean's milk-vetch	<i>Astragalus deanei</i>	--/-- CNPS List 1B.1	Perennial herb. Occurs on dry hillsides in open coastal sage scrub, chaparral, or southern oak woodland. Elevation 75-695 meters. Flowering period Feb. - May.	<b>Low.</b> Open coastal sage scrub occurs on site. Known from fewer than 15 occurrences.
Coulter's saltbush	<i>Atriplex coulteri</i>	--/-- CNPS List 1B.2	Perennial herb. Preferred habitat is coastal bluff scrub. Elevation 3-460 meters. Flowering period Mar. – Oct.	<b>Low.</b> Preferred habitat does not occur within the study area.
South coast saltscale	<i>Atriplex pacifica</i>	--/-- CNPS List 1B.2	Annual herb. Occurs in xeric, often mildly disturbed locales of coastal bluff scrub. Usually the surrounding habitat is an open Diegan coastal sage scrub, although it is found on alkaline flats in areas devoid of taller shrubs. Elevation 0-140 meters. Flowering period Mar. – Oct.	<b>None.</b> Coastal bluff scrub does not occur within the study area.
Encinitas baccharis	<i>Baccharis vanessae</i>	FT/SE CNPS List 1B.1	Perennial herb. Occurs in mature but relatively low-growing chaparral, southern maritime and southern mixed chaparrals. Elevation 50-465 meters. Flowering period Aug. – Nov.	<b>None.</b> Chaparral does not occur within the study area.

**Appendix D (cont.)**  
**SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b>COMMON NAME</b>	<b>SPECIES NAME</b>	<b>STATUS*</b>	<b>HABITAT ASSOCIATIONS</b>	<b>POTENTIAL TO OCCUR</b>
San Diego County viguiera	<i>Bahiopsis laciniata</i>	--/-- CNPS List 4.2	Medium shrub. Occurs in coastal sage scrub, often at high density. Elevation range 0-3,000 ft. Flowering period Feb – Aug, but identifiable year-round by leaves.	<b>Present.</b> Species found within the northern portion of the study area.
San Diego goldenstar	<i>Bloomeria clevelandii</i>	--/-- CNPS List 1B.1	Perennial herb. Occurs on clay soils in grasslands and coastal sage scrub. Elevation range 0-2,000 ft. Flowering period Apr – May.	<b>None.</b> Clay soils do not occur within the study area.
Orcutt's brodiaea	<i>Brodiaea orcuttii</i>	--/-- CNPS List 1B.1	Perennial herb. Occurs in vernal moist grasslands, mima mound topography, and vernal pool periphery. Elevation 30-1,692 meters. Flowering period May - Jul.	<b>None.</b> Vernal pools and moist grasslands do not occur within the study area.
Brewer's calandrinia	<i>Calandrinia breweri</i>	--/-- CNPS List 4.2	Annual herb. Occurs in chaparral and coastal scrub; burned areas. Elevation 10-1,220 meters. Flowering period Mar. – Jun.	<b>Low.</b> Potentially suitable sage scrub habitat occurs within the study area; however, this species is a fire-following annual, and the site has not recently burned.
Round-leaved filaree	<i>California macrophylla</i>	--/-- CNPS List 1B.1	Annual herb. Occurs in clay soils in open areas of grassland or sage scrub in coastal valleys. Elevation 15-1,200 meters. Flowering period Mar. – May.	<b>None.</b> Clay soils do not occur within the study area.

**Appendix D (cont.)**  
**SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b>COMMON NAME</b>	<b>SPECIES NAME</b>	<b>STATUS*</b>	<b>HABITAT ASSOCIATIONS</b>	<b>POTENTIAL TO OCCUR</b>
Dunn's mariposa lily	<i>Calochortus dunnii</i>	--/CR CNPS List 1B.2	Perennial herb. Occurs in dry, stony ridges and fire breaks in chaparral or grassland/chaparral exotone. Elevation 185-1,830 meters. Flowering period Feb. - Jun.	<b>None.</b> Chaparral does not occur within the study area.
Lewis' evening-primrose	<i>Camissoniopsis lewisii</i>	--/-- CNPS List 3	Annual herb. Occurs in very sandy substrates near the beach, typically on beach bluffs. Elevation 0-300 meters. Flowering period Mar. - Jun.	<b>None.</b> Study area is not near the beach and does not support very sandy substrates.
Payson's jewel-flower	<i>Caulanthus simulans</i>	--/-- CNPS List 4.2	Annual herb. Occurs in chaparral or pinyon-juniper woodland. Elevation 90-2,200 meters. Flowering period Feb. - Jun.	<b>None.</b> Chaparral and pinyon-juniper woodland do not occur within the study area.
Smooth tarplant	<i>Centromadia pungens</i> ssp. <i>laevis</i>	--/-- CNPS List 1B.1	Annual herb. Occurs in valley and foothill grasslands, particularly near alkaline locales. Elevation 0-640 meters. Flowering period Apr. - Sep.	<b>Low.</b> The study area supports very little grassland, and does not have alkaline soils.
Long-spined spineflower	<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	--/-- CNPS List 1B.2	Annual herb. Occurs in lenses largely devoid of shrubs, occasionally seen on vernal pool and montane meadows peripheries near vernal seeps. Elevation 30-1,530 meters. Flowering period Apr. - Jul.	<b>None.</b> Vernal pools do not occur on site.

**Appendix D (cont.)**  
**SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b>COMMON NAME</b>	<b>SPECIES NAME</b>	<b>STATUS*</b>	<b>HABITAT ASSOCIATIONS</b>	<b>POTENTIAL TO OCCUR</b>
San Miguel savory	<i>Clinipodium chandleri</i>	--/-- CNPS List 1B.2	Shrub. Occurs on gabbro and metavolcanic soils in interior foothills, chaparral, and oak woodland. Elevation 120-1,075 meters. Flowering period Mar. - Jul.	<b>Low.</b> Site does not support oak woodland or chaparral habitats.
Summer holly	<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>	--/-- CNPS List 1B.2	Shrub. Occurs on mesic north-facing slopes in southern mixed chaparral. Rugged steep drainages seem to be a preferred location for isolated shrubs. Elevation 30-790 meters. Flowering period April - June.	<b>Low.</b> Chaparral is not present within the study area.
Small-flowered morning-glory	<i>Convolvulus simulans</i>	--/-- CNPS List 4.2	Annual herb. Occurs in coastal clay areas in openings of chaparral, sage scrub, and grasslands. Elevation 30-700 meters. Flowering period Mar. - July.	<b>None.</b> Clay soils do not occur within the study area.
Snake cholla	<i>Cylindropuntia californica</i> var. <i>californica</i>	--/-- CNPS 1B.1	Stem succulent. Occurs in Diegan coastal sage scrub on xeric hillsides. Elevation 30-150 meters. Flowering period Apr. – May.	<b>Moderate.</b> Suitable sage scrub habitat occurs on site. Species was not detected during the 2015 biological surveys and would have most likely been detected if present within the study area.

**Appendix D (cont.)**  
**SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b>COMMON NAME</b>	<b>SPECIES NAME</b>	<b>STATUS*</b>	<b>HABITAT ASSOCIATIONS</b>	<b>POTENTIAL TO OCCUR</b>
Otay tarplant	<i>Deinandra conjugens</i>	FT/CE CNPS List 1B.1	Annual herb. Occurs in fractured clay soils in grasslands or lightly vegetated coastal sage scrub. Elevation 25-300 meters. Flowering period May – Jun.	<b>Present.</b> Species observed throughout central portion of the study area.
Paniculate tarplant	<i>Deinandra paniculata</i>	--/-- CNPS List 4.2	Annual herb. Occurs in sparsely vegetated grasslands or open sage scrub in arid cismontane regions, grows on hard packed soils. Elevation 25-940 meters. Flowering period Apr. – Nov.	<b>Moderate.</b> Suitable sage scrub occurs within the study area. Species not documented in the project vicinity and most records are from northern San Diego County and Riverside County.
Western dichondra	<i>Dichondra occidentalis</i>	--/-- CNPS List 4.2	Mat-forming herb. Occurs on sandy banks in coastal sage scrub, chaparral, and oak woodland, often after fire. Elevation range 0-2000 ft. Flowering period Mar. - Jul.	<b>Moderate.</b> Suitable sage scrub habitat occurs within the study area, with some exposed sandy loam soils. Not observed during 2015 rare plant surveys.
Variegated dudleya	<i>Dudleya variegata</i>	--/-- CNPS List 1B.2	Perennial herb. Occurs on clay soils near vernal pools, and on metavolcanic rocky soils in open coastal sage scrub, chaparral, and grasslands. Elevation 3-580 meters. Flowering period Apr. - Jun.	<b>None.</b> No vernal pool habitat or clay soils occur within the study area.

**Appendix D (cont.)**  
**SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b>COMMON NAME</b>	<b>SPECIES NAME</b>	<b>STATUS*</b>	<b>HABITAT ASSOCIATIONS</b>	<b>POTENTIAL TO OCCUR</b>
Palmer's goldenbush	<i>Ericameria palmeri</i> var. <i>palmeri</i>	--/-- CNPS List 1B.1	Shrub. Occurs in coastal drainages, in mesic chaparral sites, or rarely in Diegan coastal sage scrub. Occasionally occurs as a hillside element (usually at higher elevations inland on north-facing slopes). Elevation 30-600 meters. Flowering period Jul. – Nov.	<b>Present.</b> Species found in large stands within the central portion of the study area south of Campo Road.
San Diego button-celery	<i>Eryngium aristulatum</i> var. <i>parishii</i>	FE/CE CNPS List 1B.1	Annual/perennial herb. Occurs in vernal pools or mima mound areas with vernal moist conditions. Elevation 20-620 meters. Flowering period Apr. – Jun.	<b>None.</b> Vernal pools do not occur within the study area.
San Diego barrel cactus	<i>Ferocactus viridescens</i>	--/-- CNPS List 2B.1	Stem succulent. Occurs in Diegan coastal sage scrub hillsides, often at the crest of slopes and growing among cobbles. Occasionally found on vernal pool periphery and mima mound topography. Elevation 3-450 meters. Flowering period May – Jun.	<b>Low.</b> Suitable sage scrub habitat occurs within the study area. Species would likely have been observed during rare plant surveys if present.
Palmer's grapplinghook	<i>Harpagonella palmeri</i>	--/-- CNPS List 4.2	Annual herb. Occurs on clay soils in annual grasslands and coastal sage scrub. Elevation 20-955 meters. Flowering period Mar. - May.	<b>None.</b> Clay soils do not occur within the study area.

**Appendix D (cont.)**  
**SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b>COMMON NAME</b>	<b>SPECIES NAME</b>	<b>STATUS*</b>	<b>HABITAT ASSOCIATIONS</b>	<b>POTENTIAL TO OCCUR</b>
Graceful tarplant	<i>Holocarpha virgata</i> <i>ssp. elongata</i>	--/-- CNPS List 4.2 CA Endemic	Annual herb. Occurs on coastal mesas and foothills with grassland habitats. Elevation 60-1,100 meters. Flowering period Jul. - Nov.	<b>Present.</b> Observed during 2015 rare plant surveys in the central portion of the study area along the existing pipeline alignment.
Decumbent goldenbush	<i>Isocoma menziessi</i> var. <i>decumbens</i>	--/-- CNPS List 1B.2	Shrub. Presumed to utilize coastal sage scrub habitat intermixed with grassland. More partial to clay soils than other closely related varieties. Elevation 10 – 135 meters. Flowering period April - November.	<b>Moderate.</b> Suitable habitat is present within the study area. This species was not observed during 2015 rare plant surveys.
San Diego marsh-elder	<i>Iva hayesiana</i>	--/-- CNPS List 2B.2	Herb. Occurs in creeks of intermittent streambeds. Typically found in open riparian canopies. Sandy alluvial embankments with cobbles are frequently utilized. Elevation 10 – 500 meters. Flowering period April – October.	<b>Moderate.</b> Low quality riparian habitat present within the study area. Species was not observed during the 2015 rare plant surveys.
Southern California black walnut	<i>Juglans californica</i>	--/-- CNPS List 4.2 CA Endemic	Tree. Found in open savannah. May be more tolerant of clay soils than most native trees and shrubs. Shows preference for deep alluvial soils with high water-retention capacity and tends to grow in creekbeds, alluvial terraces, and north-facing slopes. Elevation 50 - 900 meters. Flowering period March – August.	<b>Present.</b> Species found within the study area.

**Appendix D (cont.)**  
**SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b>COMMON NAME</b>	<b>SPECIES NAME</b>	<b>STATUS*</b>	<b>HABITAT ASSOCIATIONS</b>	<b>POTENTIAL TO OCCUR</b>
Southwestern spiny rush	<i>Juncus acutus</i> ssp. <i>leopoldii</i>	--/-- CNPS List 4.2	Herb. Occurs within moist, saline, or alkaline soils in coastal salt marshes and riparian marshes. Elevation 3-900 meters. Flowering period March – June.	<b>Present.</b> Species observed throughout the study area to the south of Campo Road.
Robinson's pepper-grass	<i>Lepidium virginicum</i> var. <i>robinsonii</i>	--/-- CNPS List 4.3	Annual herb. Occurs in openings in chaparral and sage scrub at the coastal and foothill elevations. Elevation 1-885 meters. Flowering period Jan. – Jul.	<b>Low.</b> Soils and habitat within the study area are suitable. This species was not observed during 2015 rare plant surveys.
California box-thorn	<i>Lycium californicum</i>	--/-- CNPS List 4.2	Shrub. Occurs in coastal bluffs and coastal sage scrub. Elevation 5-150 meters. Flowering period Dec. – Aug.	<b>Low.</b> Suitable coastal sage scrub is present within the study area are suitable. This species was not observed during 2015 rare plant surveys.
Small-flowered microseris	<i>Microseris douglasii</i> ssp. <i>platycarpha</i>	--/-- CNPS List 4.2	Annual herb. Occurs in clay soils in perennial grasslands, on vernal pools periphery, or in broad openings in sage scrub. Elevation 15-1,070 meters.	<b>None.</b> Clay soils do not occur within the study area.
Willowy monardella	<i>Monardella viminea</i>	FE/CE CNPS List 1B.1	Perennial herb. Occurs in riparian scrub, usually at sandy locales in seasonally dry washes. Elevation 50-225 meters. Flowering period Jun. – Aug.	<b>Low.</b> Low quality riparian habitat present within the study area.

**Appendix D (cont.)**  
**SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b>COMMON NAME</b>	<b>SPECIES NAME</b>	<b>STATUS*</b>	<b>HABITAT ASSOCIATIONS</b>	<b>POTENTIAL TO OCCUR</b>
Dehesa nolina	<i>Nolina interrata</i>	--/SE CNPS List 1B.1	Perennial herb. Occurs in association with gabbro or peridotite soils, open southern mixed chaparral and chamise chaparral. Elevation 200 – 700 meters. Flowering period June - July.	<b>None.</b> Chaparral does not occur within the study area.
Golden-rayed pentachaeta	<i>Pentachaeta aurea ssp. aurea</i>	--/-- CNPS List 4.2	Annual herb. Occurs in mesic montane grasslands and sage scrub. Elevation 80-1,850 meters. Flowering period Mar – Jun.	<b>Moderate.</b> Habitat within the study area is suitable. This species was not observed during 2015 rare plant surveys.
Nuttall's scrub oak	<i>Quercus dumosa</i>	--/-- CNPS List 1B.1	Shrub. Occurs in chaparral with a relatively open canopy cover, on north-facing slopes, may grow in dense monotypic stands, sandy or clay loam soils. Elevation 15-400 meters. Flowering period Feb. - Apr.	<b>None.</b> Chaparral does not occur on site. This species would have been observed during rare plant surveys if present within the study area.
Coulter's matilija poppy	<i>Romneya coulteri</i>	--/-- CNPS List 4.2	Perennial herb. Occurs in dry washes and canyons in chaparral and coastal sage scrub communities, often areas that have been burned, open or mildly disturbed terrain, and mature chaparral or sage scrub. Elevation 20-1,200 meters. Flowering period Mar. – Jul.	<b>Moderate.</b> Suitable coastal sage scrub habitat occurs within the study area. This species was not observed during 2015 rare plant surveys.

**Appendix D (cont.)**  
**SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b>COMMON NAME</b>	<b>SPECIES NAME</b>	<b>STATUS*</b>	<b>HABITAT ASSOCIATIONS</b>	<b>POTENTIAL TO OCCUR</b>
Munz's sage	<i>Salvia munzii</i>	--/-- CNPS List 2B.2	Shrub. Occurs in chaparral and Diegan coastal sage scrub. Elevation 120-1,065 meters. Flowering period Feb. – Apr.	<b>Low.</b> Although suitable sage scrub habitat is present within the study area, this species is known primarily from areas south of the site around Lower Otay Lake and the Jamul Mountains. Species was not observed during rare plant surveys and would likely have been observed if present.
Ashy spike-moss	<i>Selaginella cinerascens</i>	--/-- CNPS List 4.1	Perennial herb. Occurs in flat mesas in coastal sage scrub and chaparral. Elevation 20-640 meters. No flowering period, as it is not a flowering plant. Above-ground all year.	<b>Present.</b> Species observed in the south of Campo Road between the proposed and existing pipeline alignments.
San Diego County needle grass	<i>Stipa diegoensis</i>	--/-- CNPS List 4.2	Perennial herb/tall bunchgrass. Occurs in chaparral and sage scrub ecotone, closely associated with metavolcanic soils and can be found in fine sandy loam and rocky silt loams. Peaks and upper ridgelines of mountains appear the preferred microhabitat. Elevation 10-800 meters. Flowering period Feb. – Jun.	<b>Low.</b> Soils and habitats within the study area are marginally suitable. The study area does not contain ridgelines or mountains. Not observed during rare plant surveys.

**Appendix D (cont.)**  
**SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

<b>COMMON NAME</b>	<b>SPECIES NAME</b>	<b>STATUS*</b>	<b>HABITAT ASSOCIATIONS</b>	<b>POTENTIAL TO OCCUR</b>
Parry's tetracoccus	<i>Tetracoccus dioicus</i>	--/-- CNPS List 1B.2	Shrub. Occurs on gabbro soils in low growing chamise chaparral. Elevation 165-1,000 meters. Flowering period Apr. – May.	<b>None.</b> Chaparral does not occur within the study area.

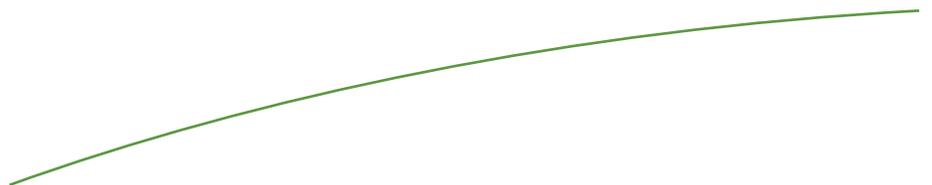
\* Status codes are as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; R = Rare  
 CNPS = California Native Plant Society Rare Plant Rank: 1A – presumed extirpated in California and either rare or extinct elsewhere; 1B – rare, threatened, or endangered in California and elsewhere; 2A – presumed extirpated in California but common elsewhere; 2B – rare, threatened, or endangered in California but more common elsewhere; 3 – more information needed; 4 – watch list for species of limited distribution. Extension codes: .1 – seriously threatened in California; .2 – moderately endangered in California; .3 – not very endangered in California.

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Appendix E

SENSITIVE ANIMAL SPECIES WITH  
POTENTIAL TO OCCUR



**Appendix E**  
**SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

COMMON NAME	SPECIES NAME	STATUS*	HABITAT ASSOCIATIONS	POTENTIAL TO OCCUR
<b>Insects</b>				
Hermes copper	<i>Lycaena hermes</i>	FC/--	Southern mixed chaparral and coastal sage scrub at western edge of Laguna mountains. Requires host plant <i>Rhamnus crocea</i> in close proximity to <i>Eriogonum fasciculatum</i> or other nectar sources.	<b>Moderate to high.</b> Suitable host plant associations occur on the site, and the site is within the species' range.
Quino checkerspot butterfly	<i>Euphydryas editha quino</i>	FE/--	Sunny openings within chaparral and coastal sage shrublands. Host plants include <i>Plantago erecta</i> , <i>Cordylanthus rigidus</i> , <i>Collinsia</i> spp., <i>Plantago patagonica</i> , <i>Antirrhinum coulterianum</i> , and <i>Castilleja exserta</i> .	<b>Moderate to high.</b> Although much of the sage scrub on site is considered too dense to support this species, some suitable habitat occurs within the study area.

**Appendix E (cont.)**  
**SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

COMMON NAME	SPECIES NAME	STATUS*	HABITAT ASSOCIATIONS	POTENTIAL TO OCCUR
<b>Reptiles and Amphibians</b>				
Coast patch-nosed snake	<i>Salvadora hexalepis virgulata</i>	--/SSC	Semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains.	<b>Moderate.</b> Suitable brushy habitat occurs within the study area, with a few rock outcrops.
Coronado skink	<i>Eumeces skiltonianus interparietalis</i>	--/SSC	Found in most terrestrial habitats except the desert. Often in more open habitats under rocks, logs, and debris. Habitats include grassland, sage scrub, chaparral, pinyon-juniper woodland, and pine-oak forests.	<b>High.</b> Suitable sage scrub habitat occurs on site.
Northern red diamond rattlesnake	<i>Crotalus ruber ruber</i>	--/SSC	Chaparral, coastal sage scrub, along creek banks, particularly among rock outcrops or piles of debris with a supply of burrowing rodents for prey.	<b>High.</b> Suitable habitat and prey resources occur on the site.
Orange-throated whiptail	<i>Cnemidophorus hyperythrus</i>	--/SSC	Coastal scrub, chaparral, and valley and foothill hardwood habitats. Prefers washes and sandy areas with patches of brush and rocks. Perennial plants required to support its primary prey termites.	<b>Present.</b> Species observed to the south of Campo Road along the existing pipeline alignment in the central portion of the study area.
San Diego horned lizard	<i>Phrynosoma coronatum blainvillei</i>	--/SSC	Coastal sage scrub and chaparral in arid and semiarid climate conditions.	<b>High.</b> Suitable coastal sage scrub habitat occurs within the study area.

**Appendix E (cont.)**  
**SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

COMMON NAME	SPECIES NAME	STATUS*	HABITAT ASSOCIATIONS	POTENTIAL TO OCCUR
<b>Reptiles and Amphibians (cont.)</b>				
Silvery legless lizard	<i>Anniella pulchra pulchra</i>	--/SSC	Areas with loose soil, particularly in sand dunes and or otherwise sandy soil. Generally found in leaf litter, under rocks, logs, or driftwood in oak woodland, chaparral, sage scrub, and pinyon-juniper woodland. Some reports have occurred in desert flats, as well as dunes and beaches under sparse vegetation.	<b>Moderate.</b> Suitable sage scrub habitat and sandy loam soils occur on site.
Two-striped garter snake	<i>Thamnophis hammondi</i>	--/SSC	Occurs along permanent and intermittent streams bordered by dense riparian vegetation, but occasionally associated with vernal pools or stock ponds.	<b>Low.</b> Low quality habitat occurs within the study area.
Western spadefoot	<i>Scaphiopus hammondi</i>	--/SSC	Burrows in loose soils 1 meter in depth. Requires temporary rainpools and vernal pools (for breeding) lasting three weeks with cool to warm temperatures and absence of predators (crayfish, bullfrogs, etc.).	<b>None.</b> No vernal pools or basins are present within the study area.

**Appendix E (cont.)**  
**SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

COMMON NAME	SPECIES NAME	STATUS*	HABITAT ASSOCIATIONS	POTENTIAL TO OCCUR
<b>Birds</b>				
Bell's sage sparrow	<i>Amphispiza belli belli</i>	BCC/WL	Chaparral and sage scrub with modest leaf litter on the ground (e.g., after a fire or in gabbro-based soil areas).	<b>Low.</b> Coastal sage scrub habitat occurs on the site, but there is no recent history of fire, and soils within the study area are not gabbroic.
Burrowing owl	<i>Athene cunicularia</i>	BCC/SSC	Grassland or open scrub habitats with sufficient small mammal prey and mammal burrows.	<b>Low.</b> Very little grassland habitat and open scrub habitat present within the study area.
Coastal cactus wren	<i>Campylorhynchus brunneicapillus sandiegensis</i>	BCC/SSC	Habitat consists of cactus thickets in coastal lowlands of San Diego County.	<b>Low.</b> Cactus thickets occur within the study area. Species would have been observed during surveys if present.
Coastal California gnatcatcher	<i>Polioptila californica californica</i>	FT/SSC	Coastal sage scrub below 2500 ft in southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	<b>Present.</b> One pair of California gnatcatchers were documented within the study area.
Cooper's hawk	<i>Accipiter cooperi</i>	--/SSC	(Nesting) Open, uninterrupted, or marginal woodland. Nest sites mainly found in riparian growths of deciduous trees, live oaks.	<b>Present.</b> Species has been documented flying overhead on site.

**Appendix E (cont.)**  
**SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

COMMON NAME	SPECIES NAME	STATUS*	HABITAT ASSOCIATIONS	POTENTIAL TO OCCUR
<b>Birds (cont.)</b>				
Golden eagle	<i>Aquila chrysaetos</i>	--/FP	(Nesting and Wintering) Rolling foothills and mountain areas, juniper-sage flats, and deserts. Primarily associated with cliff-walled canyons and large trees in open habitats for nesting.	<b>None.</b> No suitable nesting habitat occurs on the site. The site does not contain mountain areas or large trees for nesting. The site is adjacent to dense development, which is typically avoided by this species.
California horned lark	<i>Eremophila alpestris actis</i>	--/WL	Coastal strand, arid grasslands, and sandy desert floors.	<b>Low.</b> Grassland habitat is limited within the study area.
Least Bell's vireo	<i>Vireo bellii pusillus</i>	FE, BCC/SE	Riparian woodland, typically with a dense understory.	<b>Present.</b> Species detected in several locations within the study area.
Loggerhead shrike	<i>Lanius ludovicianus</i>	BCC/SSC	Grassland, open sage scrub, chaparral, and desert scrub.	<b>Moderate.</b> Some open sage scrub occurs within the study area.
Northern harrier	<i>Circus cyaneus hudsonius</i>	--/SSC	Coastal salt and freshwater marsh. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	<b>Low.</b> No marsh habitat or extensive grasslands occur within the study area.

**Appendix E (cont.)**  
**SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

COMMON NAME	SPECIES NAME	STATUS*	HABITAT ASSOCIATIONS	POTENTIAL TO OCCUR
<b>Birds (cont.)</b>				
Sharp-shinned hawk	<i>Accipiter striatus</i>	--/WL	Winter visitor to San Diego County. Usually observed in areas with tall trees or other vegetative cover but can be observed in a variety of habitats.	<b>Moderate.</b> Suitable foraging habitat present within the study area.
White-tailed kite	<i>Elanus leucurus</i>	--/FP	Riparian woodlands and oak or sycamore groves adjacent to grassland.	<b>Moderate.</b> Low quality habitat present within the study area.
Yellow-breasted chat	<i>Ictera virens</i>	--/SSC	Mature riparian woodland.	<b>Present.</b> Species detected within the study area
Yellow warbler	<i>Dendroica petechial brewsteri</i>	--/SSC	Found in riparian woodlands.	<b>Present.</b> Multiple individuals detected within the study area.
<b>Mammals</b>				
American badger	<i>Taxidea taxus</i>	--/SSC	Open plains and prairies, farmland, and sometimes edges of woods.	<b>None.</b> Suitable habitat not present within the study area.
Big free-tailed bat	<i>Nyctinomops macrotis</i>	--/SSC	Rocky areas, in day they roost in rocky cliffs, sometimes caves, buildings, or tree holes.	<b>Low.</b> Suitable cliff habitat for roosting does not occur within the study area.
Dulzura pocket mouse	<i>Chaetodipus californicus femoralis</i>	--/SSC	Variety of habitats including coastal scrub, chaparral, and grasslands in San Diego County. Associated with grass-chaparral edges.	<b>Moderate.</b> Suitable grassland and coastal sage scrub habitat occurs on the site.

**Appendix E (cont.)**  
**SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

COMMON NAME	SPECIES NAME	STATUS*	HABITAT ASSOCIATIONS	POTENTIAL TO OCCUR
<b>Mammals (cont.)</b>				
Mexican long-tongued bat	<i>Choeronycteris mexicana</i>	--/SSC	Arid scrub, mixed forest, and canyons in mountain ranges rising from the desert. By day, usually in caves and mines, but sometimes in buildings.	<b>None.</b> No arid scrub, mixed forest, or mountain canyons occur within the study area.
Northwestern San Diego pocket mouse	<i>Chaetodipus fallax fallax</i>	--/SSC	Open areas of coastal sage scrub and weedy growth, often on sandy substrates.	<b>Moderate.</b> Suitable coastal sage scrub and weedy habitats occur on site.
Pocketed free-tailed bat	<i>Nyctinomops femorosaccus</i>	--/SSC	Semiarid desert lands. Day-roosts in caves, crevices in cliffs, and under the roof tiles of buildings. Uses a variety of arid habitats in southern California: pine-juniper woodlands, desert scrub, palm oases, desert wash, desert riparian, etc. Prefers rocky areas with high cliffs.	<b>None.</b> Suitable desert habitats do not occur on the site.
San Diego black-tailed jackrabbit	<i>Lepus californicus bennettii</i>	--/SSC	Primarily in open habitats including coastal sage scrub, chaparral, grasslands, croplands, and open, disturbed areas if there is at least some shrub cover present.	<b>High.</b> Suitable coastal sage scrub and grassland habitats occur within the study area.

**Appendix E (cont.)**  
**SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR**  
**OTAY WATER DISTRICT CAMPO ROAD SEWER REPLACEMENT PROJECT**

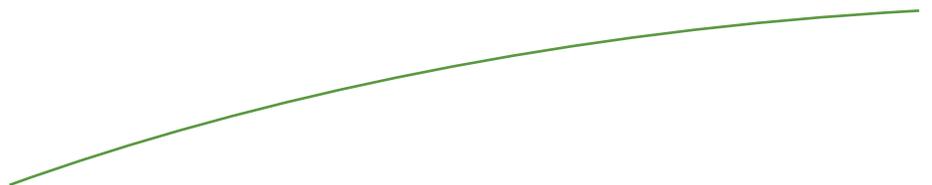
COMMON NAME	SPECIES NAME	STATUS*	HABITAT ASSOCIATIONS	POTENTIAL TO OCCUR
San Diego desert woodrat	<i>Neotoma lepida intermedia</i>	--/SSC	Open chaparral and coastal sage scrub, often building large, stick nests in rock outcrops or around clumps of cactus or yucca.	<b>High.</b> Suitable coastal sage scrub habitat with some rock outcrops occurs within the study area.
<b>Mammals (cont.)</b>				
Western red bat	<i>Lasiurus blossevillii</i>	--/SSC	Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. Possible association with intact riparian habitat (particularly willows, cottonwoods, oaks, walnuts, and sycamores).	<b>Moderate.</b> Low quality habitat present within the study area.

\* Listing codes are as follows: FE = Federally Endangered; FT = Federally Threatened; BCC = Birds of Conservation Concern; SE = State of California Endangered; FP = State of California Fully Protected; WL = State of California Watch List; SSC = State of California Species of Special Concern.



Appendix C

CULTURAL RESOURCES SURVEY



HELIX Environmental Planning, Inc.  
7578 El Cajon Boulevard  
La Mesa, CA 91942  
619.462.1515 tel  
619.462.0552 fax  
www.helixepi.com



January 6, 2015

Christopher McGrath  
Rick Engineering  
5620 Friars Road  
San Diego, CA 92110

Subject: **Campo Road Sewer Replacement Project Cultural Resources Survey  
(HELIX Job No. RIC-11)**

Dear Mr. McGrath:

HELIX Environmental Planning, Inc. (HELIX) cultural resources staff conducted a cultural resources survey for the Campo Road Sewer Replacement Project. Much of the work was completed while the cultural resources staff were still part of Affinis; the Cultural Resources Division of Affinis became part of HELIX on September 2, 2014. Several archaeological sites have been recorded previously within the Project area. Due to a combination of dense vegetation and past disturbances in the Project area, no evidence of the previously recorded resources was found during the current survey. However, there is a potential for buried cultural resources, as well as resources that could not be seen due to the dense vegetation at the time of the survey. This letter report summarizes the methods and results of the cultural resources survey, as well as recommendations.

### **Project Location and Description**

The Campo Road Sewer Replacement Project is located in the Rancho San Diego area of San Diego County (Figure 1). The Project is mainly located along State Route 94 (SR-94)/Campo Road, between Alvarado Boulevard on the west and the junction of SR 94/Campo Road and SR 54/Jamacha Road on the east (Figure 2). The Project is located in an unsectioned portion of Township 16 South, Range 1 West, on the USGS 7.5' Jamul Mountains quadrangle (Figure 2).

The Project, which is proposed by the Otay Water District, includes the replacement of approximately 9,225 linear feet of 10-inch gravity sewer with a new 15-inch gravity sewer system. This portion of the project will start at manhole MH-342-094, near the east entrance to the Rancho San Diego Village Shopping Center, and convey sewer flows to MH-331-046, near the intersection of SR-94 /Campo Road and Singer Lane. Figure 3 shows the location of the existing 10-inch sewer pipeline and several conceptual replacement sewer alignments. Additionally, the Project includes the repair/replacement of four segments of 8-inch gravity sewer to rectify existing deficiencies. These pipelines are located along Avocado Boulevard, Campo Road at Via Mercado, and the Rancho San Diego Village Shopping Center (see Figure 3).

## Methods

In June 2014, a records search was conducted at the South Coastal Information Center (SCIC) at San Diego State University for the Project area (including the existing alignment and alignment alternatives, as shown in Figure 3) and ½ mile around it. Twenty-two archaeological sites and one isolated artifact have been recorded within ½ mile of the Project area, as summarized in Table 1 and discussed under Results.

The Native American Heritage Commission (NAHC) was contacted on June 13, 2014 for a Sacred Lands File search and a list of Native American contacts. Notification letters were sent to the contacts listed by the NAHC on July 21, 2014. Native American correspondence, including responses to the notification letters, is included as Confidential Attachment A to this letter report.

A field survey was conducted on August 15, 2014 by Andrew Giletti of HELIX and Gabe Kitchen from Red Tail Monitoring and Research (Native American monitor). To the extent feasible the Project study area (encompassing the existing alignment and the conceptual alternatives shown in Figure 3) was walked in parallel transects spaced approximately 10 meters apart. A combination of thick vegetation and steep slopes made this transect interval nearly impossible in some areas. A concentrated effort was made to find evidence of the previously recorded archaeological sites mapped within or adjacent to the Project study area. Exposed bedrock was examined for milling features, and any open ground was examined.

## Results

Twenty-two archaeological sites and one isolated artifact have been recorded within ½ mile of the Project area, including seven sites recorded within or adjacent to the Project study area (see Tables 1 and 2). The cultural resources sites in the vicinity include bedrock milling stations, scatters of flaked stone and ground stone tools, and habitation locations that contain midden deposits as well as artifacts and bedrock milling. The sites are probably associated with the ethnohistoric Kumeyaay village of Jamacha. Several of the sites contain artifacts or produced radiocarbon dates indicating use of the sites several thousand years ago in addition to Late Prehistoric or Contact Period use. The sites recorded within the Project study area (CA-SDI-4763, -4766, -4775, -4780, -4783, -5066, and -8326) are described below; their locations are shown in Figure 4 (Confidential Attachment B). No archaeological material was observed during the current survey, but dense vegetation obscured the ground surface over the majority of the study area, and much of the study area has been paved. Subsurface deposits have been identified at some sites; so, buried cultural material is present some areas.

CA-SDI-4763 consists of three loci with a complicated history of mapping and significance assessments. Locus 1 is located on a knoll north of Campo Road. A cultural deposit with a wide range of artifact types was identified, and the locus was determined to be a significant resource under the California Environmental Quality Act (CEQA) (Kyle et al. 1988; Kyle and Gallegos 1995). A data recovery program was proposed in order to mitigate impacts from development of the Skyline Wesleyan Church project (Kyle and Gallegos 1995). No report of the data recovery program was available at SCIC, but it is assumed that it was undertaken, as it was a condition of

development of the church project. Conceptual alignment alternative A1 crosses the CA-SDI-4763 Locus 1.

CA-SDI-4763 Locus 2 was studied by Caltrans archaeologists in conjunction with improvements to SR 94/Campo Road. This locus was described as a Late Prehistoric seasonal campsite or satellite to the village of Jamacha. The locus was assessed as not eligible for the National Register of Historic Places (NRHP); however, additional testing was conducted at Locus 2 in conjunction with development of the Skyline Wesleyan Church project, in order to address significance under CEQA. The portion of the locus within the church project area was interpreted as “an Early Period habitation site on the basis of two radiocarbon dates circa 3,000 years ago” (Kyle and Gallegos 1995:4-3). A portion of the locus within the church project site was identified as the primary site area and determined to be a significant resource. The remaining area of Locus 2 was determined not to be significant under CEQA. The majority of Locus 2 within the church project was placed in open space and capped in order to preserve it. A portion of the locus was capped with up to 12 feet of fill to allow for construction of a parking lot. Alternative Alignment A2 crosses the portion of Locus 2 on the north side of Campo Road, and Alignment B crosses the portion of the site that is mapped within/beneath Campo Road.

CA-SDI-4763 Locus 3 consists of a bedrock milling feature and several associated flakes. The locus was tested in 1979 and determined not to be a significant resource (see Kyle and Gallegos 1995). Alignment Alternative A1 is just south of the mapped location of this locus.

CA-SDI-4766 is a milling station with bedrock milling features, ground stone implements, flaked stone artifacts, and ceramics. There is no record that the site has been assessed to evaluate significance. The site is upslope from Campo Road and upslope from the existing sewer alignment. It would not be crossed by any of the proposed alignment alternatives.

CA-SDI-4775 was described as “a small habitation site which may be associated the Village of Jamacha.” The report excerpt with the site record indicates that patination on the artifacts suggests Early Period use, and the two ceramic sherds collected may be intrusive or indicative of multi-component site. CA-SDI-4775 was tested and determined to be a significant cultural resource (Kyle and Gallegos 1995). The site is crossed by the existing sewer, but would not be crossed by any of the proposed alternative alignments.

CA-SDI-4780 was described simply as scattered flakes; the site appears to have been destroyed by construction of Campo Road (Kyle and Gallegos 1995). The existing sewer alignment crosses the site, but none of the proposed alignment alternatives are in proximity to it.

CA-SDI-4783 was described as a flat above the stream, with flakes, tools, and manos. The site was tested and determined not to be a significant resource (McCoy 1979, cited in Kyle and Gallegos 1995). CA-SDI-4783 is mapped as immediately adjacent to Campo Road; the northernmost portion of the site as mapped is crossed by Alignment C.

Site CA-SDI-5066 is recorded as a large site on both sides of Campo Road. Ground stone artifacts, flaked stone tools, and Native American ceramics were noted at the site, which was originally described as a “tool bearing area with a deflated midden.” A 1982 site record noted

“diffuse subsurface deposit with a low density of artifacts,” based on excavation conducted by Caltrans archaeologists. Based on this, the site was determined not eligible for the National Register of Historic Places (Rosen 1982, cited in Kyle and Gallegos 1995). Additional testing was conducted at the portion of CA-SDI-5066 within the Skyline Wesleyan Church project; this portion of the site was again determined not to be a significant resource (Kyle and Gallegos 1995). The site is crossed by the four conceptual alignments studied.

CA-SDI-8326 is a large site described as a Late Prehistoric camp and milling area. Prehistoric artifacts were found imbedded in the foundation of a historic house built atop the pre-contact site. It was mapped as contiguous with CA-SDI-4782, and together they were noted as possibly the Kumeyaay village of Jamacha. Although a portion of CA-SDI-4782/8326 has been destroyed by roadway and commercial development, an intact portion of the site was identified and assessed as a significant resource (Kyle and Gallegos 1995). The site is adjacent to and partially within Campo Road and is crossed by the existing sewer alignment.

### **Native American Concerns**

The NAHC was contacted for a Sacred Lands File search and list of Native American contacts. Notification letters were sent to the contacts identified by the NAHC. The Sacred Lands File search did not identify any Native American traditional sites/places within the Project area. One written response was received; the Viejas Band of Kumeyaay Indians indicated that the area has cultural significance or ties to Viejas and recommended that a Native American monitor be present for all initial ground disturbance. Mr. Jesse Pinto, Sr. of Jamul Indian Village left a phone message indicating that the area is of cultural importance, and the Jamul people are aware of sites in the vicinity. HELIX archaeologists attempted to contact Mr. Pinto to arrange a field visit with a representative of Jamul Indian Village but were unable to reach him after several attempts. The Native American correspondence is included as Confidential Attachment A to this report.

### **Impacts and Recommendations**

As addressed above and summarized in Table 2, seven archaeological sites have been recorded within or adjacent to the Project study area. Six of these sites are crossed by the existing sewer alignment or by one or more of the conceptual alternative alignments. CA-SDI-4766 is upslope from the existing sewer alignment and all the proposed alternatives; it would not be subject to impacts from the project. Three sites (CA-SDI-4780, CA-SDI-4783, and CA-SDI-5066) have been determined not to be significant cultural resources (see Kyle and Gallegos 1995). In addition, Locus 3 of CA-SDI-4763 is not a significant resource (Kyle and Gallegos 1995). Therefore, impacts to these sites would not constitute significant effects, and no mitigation measures are required for them.

CA-SDI-4763 Locus 1 was identified as a significant resource, but impacts to that site from the Skyline Wesleyan Church project were mitigated through a data recovery program. Based on this, potential impacts to any remaining portion of this locus would not be significant, and no mitigation measures are required.

CA-SDI-4775 and CA-SDI-4782/8326 have been identified as significant cultural resources; both sites are crossed by the existing sewer alignment. Although these sites have been subject to impacts from the existing sewer pipeline, there is a potential for additional cultural material (artifacts and features) within the pipeline corridor, which could be affected by trenching associated with the sewer replacement. Therefore, there is a potential for significant impacts to these two sites. Because these sites have already been affected by the existing sewer and CA-SDI-4782/8326 is beneath a paved road, a monitoring program is recommended, rather than a pre-trenching data recovery program. The monitoring recommendations are described below.

A portion of CA-SDI-4763 Locus 2 has been identified as a significant resource; it was capped and the majority left in open space. Alternative Alignment A2 is shown crossing this sensitive locus. If trenching would reach a depth below the fill soils used to cap this site, impacts would be significant. If impacts cannot be avoided, a data recovery program would be required prior to trenching, in order to mitigate these impacts to below a level of significance. The portion of Locus 2 that would be crossed by Alignment B was determined not to be a significant resource, so no mitigation measures would be required in that area.

Due to the limited ground visibility over much of the Project study area, there is a potential for additional cultural resources that have not been identified during the current survey and previous work in the area, which has focused on SR 94/Campo Road. Given this and the culturally sensitive nature of the general area due to the proximity of the ethnohistoric village of Jamacha, it is recommended that all trenching be monitored by an archaeologist and a Native American monitor. Trenching below depths at which cultural material would reasonably be expected to occur would not require monitoring, but monitors should be present to observe trenching, grading, and other ground-disturbing activities in the upper few feet of soil. If cultural material is encountered, monitors would have the authority to temporarily halt or redirect work while the cultural material is documented and assessed. If significant deposits are found, additional data recovery might be necessary in order to adequately mitigate project impacts. All cultural material recovered should be curated at the San Diego Archaeological Center or other appropriate facility meeting federal curatorial standards.

If you have any questions, please contact Mary Robbins-Wade at (619) 462-1515 or [maryrw@helixepi.com](mailto:maryrw@helixepi.com).



Mary Robbins-Wade, RPA  
Director of Cultural Resources



Andrew Giletti  
Field Director

<b>Table 1</b>		
<b>Previously Recorded Cultural Resources Within 1/2 Mile of Project Study Area</b>		
<b>Site Number (CA-SDI-#)</b>	<b>Description</b>	<b>Recorder, Date</b>
186	Original site record just location, no description. Flaked and ground stone scatter with bedrock milling (slicks and one mortar)	Treganza, n.d.; Charles Bull, 1972
4757	Large grinding site (bedrock milling) with extensive lithics (ground stone and flaked stone), no ceramics; rock shelter	“SAC” (Sue Ann Cupples?), 1972
4763	Original site record notes “Not described”; three artifacts noted. Three loci identified, apparently “associated with Late Period Village of Jamacha,” but testing at Loci 1 and 2 in 1995 indicated Early Period occupation. Locus 1 and a portion of Locus 2 determined significant. Extensive disturbance noted in 2008	G.R. Fink, 1972; Carolyn Kyle, Kirsten Collins, Larry Tift, Ed Baker, Steve Briggs, Sinead Ni Ghabhláin, Greg Trent, 1995; Dave Iversen, 2008
4766	Milling station with bedrock milling, ground stone, flaked stone, and ceramics	S.A. Cupples, 1972
4768	“Flake scatter over whole hillside, concentration in 20-foot circle”	S.A. Cupples, 1972; T. Gross, 1974
4775	Original site record notes “Not described”; six artifacts noted. Described in later report (no reference) as “a small habitation site which may be associated the Village of Jamacha,” but patination suggests Early Period use. Ceramics may be intrusive or indicative of multi-component site	S.A. Cupples, 1972
4780	Scattered flakes	Tim Gross, 1972
4781	“Flake scatter” with projectile points, “blade sections,” and other tools listed under artifacts	GRF (Gary R. Fink?), 1972; T. Gross, 1974
4782	“Very large area of lithic material, small area in south part of site showing ceramic.” 1979 update states, “Large midden area underneath stables, possible adobe structure. Possibly village at Jamacha”; cremation reported by local collectors, as well as steatite artifacts, effigy forms, and dated Spanish coin or Phoenix button. 1992 update noted Locus II disturbed but Locus III intact, although covered by “horse-related debris and clutter.” Six isolated manos found during monitoring	C. Bull, 1972; Tim Gross, 1974; Shackley, 1979; A. Pignuolo, C. Schultze, and T. Webb, 1992; Kraft, 2011
4783	“Flat above stream” with flakes, tools, manos	T. Gross, 1974
5064	Bedrock milling (slicks) with no artifacts	Richard L. Carrico, 1977
5065	Bedrock milling (slicks) with no artifacts	Richard L. Carrico, 1977

<b>Table 1</b>		
<b>Previously Recorded Cultural Resources Within 1/2 Mile of Project Study Area</b>		
<b>Site Number (CA-SDI-#)</b>	<b>Description</b>	<b>Recorder, Date</b>
5066	“Tool bearing area with a deflated midden” with ground stone, flaked stone, and ceramics; “probably part of SDi-4783.” 1995 update indicated no pottery or small projectile points, “therefore identifying it as an Early Period site.” One large flake and one mano fragment found during monitoring of temporary fencing for staging area (area had already been cleared with a grader)	Richard L. Carrico, 1977; Carolyn Kyle, Kirsten Collins, Larry Tift, Ed Baker, Steve Briggs, Sinead Ni Ghabhláin, Greg Trent, 1995; Bowden-Renna, 2010
8326	Late Prehistoric camp and milling area; prehistoric artifacts found imbedded in foundation of building	Heuett, n.d.
10962	Milling station with slicks, no artifacts	Ken Hedges, Sarah Kennington, Robin Bicknell, and Anna Noah, 1978
12822	Series of bedrock milling features (slicks) and one utilized flake	D. James, Schultze, Rotermund, Hintzman, Texier, 1992
12823	Series of bedrock milling features (slicks) with a possible hearth ring	D. James, Hintzman, Schultze, Rotermund, Texier, 1992
12824	Series of bedrock milling features (slicks) with no artifacts	D. James, Schultze, Rotermund, Hintzman, Texier, 1992
12825	Series of bedrock milling features (slicks) with one associated artifact (metate fragment)	D. James, Schultze, Rotermund, Hintzman, Texier, 1992
14767	Historic site with four elements: stone and cement mortar structure with adjoining cement holding tank; small stone building; welded galvanized tank; flume traces	D. Hanna, S. Helm, K. Fleming, 1997
16186	Lithic scatter of 25 flakes	Andrew R. Pignoli, 2001
18576	Small milling area with scattered midden and flakes, bedrock milling (slicks and basins)	G.R. Fink, 1975
<b>Site Number (P-37-#)</b>	<b>Description</b>	<b>Recorder, Date</b>
024412	Isolate – flake	Andrew R. Pignoli, 2001

<b>Table 2 Cultural Resources Within Project Study Area</b>		
<b>Site Number (CA-SDI-#)</b>	<b>Significant?</b>	<b>Crossed by Which Alignment(s)</b>
4763	Locus 1: Yes (Kyle and Gallegos 1995) Locus 2: Yes, a portion (Kyle and Gallegos 1995) Locus 3: No (Rosen 1982; Kyle and Gallegos 1995)	Locus 1: A1 Locus 2: A2, B Locus 3: A1
4766	Unknown	None; in proximity to existing sewer alignment
4775	Yes (Kyle and Gallegos 1995)	Existing
4780	No; destroyed (Kyle and Gallegos 1995)	Existing
4782/8326	Yes (Kyle and Gallegos 1995)	Existing
4783	No (Kyle and Gallegos 1995)	Existing
5066	No (Kyle and Gallegos 1995; Rosen 1982)	A1, A2, B, C

## REFERENCES

Kyle, Carolyn, and Dennis R. Gallegos

1995 *Cultural Resource Extended Test and Survey Report for the Skyline Wesleyan Church Project, San Diego County, California*. Gallegos & Associates, Carlsbad. Report submitted to County of San Diego Department of Planning and Land Use. Report on file at South Coastal Information Center.

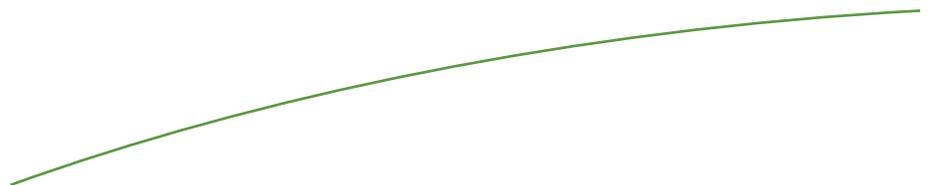
Kyle, Carolyn, Dennis Gallegos, and Richard L. Carrico

1988 *Cultural Resource Survey and Testing for the Skyline Wesleyan Church Project, San Diego, California*. WESTEC Services, San Diego. Report submitted to County of San Diego Department of Planning and Land Use. Report on file at South Coastal Information Center.



Appendix D

# ACOUSTICAL ANALYSIS REPORT



# Campo Road Sewer Replacement Project

Acoustical Analysis Report

July 2015

Prepared for:  
**Otay Water District**  
2254 Sweetwater Springs Boulevard  
Spring Valley, CA 91978

Prepared by:  
**HELIX Environmental Planning, Inc.**  
7578 El Cajon Boulevard  
La Mesa, CA 91942

**Acoustical Analysis Report**  
**Campo Road Sewer Replacement Project**

*Prepared for:*

**Otay Water District**  
2254 Sweetwater Springs Boulevard  
Spring Valley, CA 91978

*Prepared by:*

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

July 2015

# TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>EXECUTIVE SUMMARY</b>	.....	<b>1</b>
<b>1.0 INTRODUCTION</b>	.....	<b>1</b>
1.1	Project Location .....	1
1.2	Project Description.....	1
1.2.1	Proposed Pipeline Alignment .....	1
1.2.2	Pipeline Installation .....	1
1.2.3	Abandonment of Existing Pipeline .....	2
1.3	Noise Reduction Construction Best Management Practices.....	2
1.4	Noise and Sound Level Descriptors and Terminology.....	3
1.4.1	Descriptors .....	3
1.4.2	Terminology.....	3
1.4.3	Noise-Sensitive Land Uses .....	4
1.5	Regulatory Framework .....	4
1.5.1	County of San Diego Municipal Code - Noise Ordinance .....	4
1.5.2	Federally Listed Biological Species.....	5
<b>2.0 ENVIRONMENTAL SETTING</b>	.....	<b>5</b>
2.1	Surrounding Land Uses.....	5
2.2	Existing Noise Environment.....	5
2.2.1	Ambient Noise Survey.....	5
<b>3.0 ANALYSIS METHODOLOGY AND ASSUMPTIONS</b>	.....	<b>7</b>
3.1	Methodology.....	7
3.1.1	Ambient Noise Survey.....	7
3.1.2	Noise Modeling Software .....	7
3.2	Assumptions.....	7
3.2.1	Construction Equipment, Staging, and Schedule.....	7
3.2.2	Site Conditions.....	9
3.2.3	Vibration .....	10
<b>4.0 IMPACTS</b>	.....	<b>11</b>
4.1	Guidelines for the Determination of Significance .....	11
4.2	Construction Noise Impacts.....	11
4.2.1	Trenched Pipeline .....	11
4.2.2	Tunneling.....	13
4.2.3	Storage Piles.....	16
4.2.4	Pipeline Abandonment.....	17
4.2.5	Construction Traffic.....	19
4.3	Construction Vibration Impacts.....	19
4.3.1	Trenched Pipeline .....	19
4.3.2	Tunneling.....	19
4.3.3	Pipeline Abandonment.....	19

**TABLE OF CONTENTS (cont.)**

<b><u>Section</u></b>	<b><u>Title</u></b>	<b><u>Page</u></b>
5.0	LIST OF PREPARERS.....	20
6.0	REFERENCES.....	21

**APPENDICES**

A Noise Measurement Sheets

**LIST OF FIGURES**

<b><u>No.</u></b>	<b><u>Name</u></b>	<b><u>Follows Page</u></b>
1	Regional Location Map.....	2
2	Project Location .....	2
3	Proposed Project Alignment and Noise Measurement Locations.....	2
4	Sensitive Species Construction Noise Limits .....	12

**LIST OF TABLES**

<b><u>No.</u></b>	<b><u>Name</u></b>	<b><u>Page</u></b>
2-1	Noise Measurement Results.....	6
3-1	Modeled Existing Traffic Ambient Noise Levels – South of Proposed Pipeline .....	9
3-2	Modeled Existing Traffic Ambient Noise Levels – Near Construction Staging Area.....	10

## GLOSSARY OF TERMS AND ACRONYMS

A-Weighted Sound Levels	Decibels (referenced to 20 micro-Pascals) as measured with an A-weighting network of standard sound level meter, abbreviated dB(A)
ANSI	American National Standards Institute
CAD	Computer Aided (engineering and architectural) Design
CadnaA	Computer Aided Noise Abatement
Caltrans	California Department of Transportation
County	County of San Diego
CNEL	Community Noise Equivalent Level: A 24-hour average, where sound levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dB weighting, and sound levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dB weighting.
dB	Decibel
dBA	A-weighted decibels
District	Otay Water District
Evening	The period from 7:00 p.m. to 10:00 p.m.
Hz	Hertz
kHz	kilohertz
$L_{EQ}$	The equivalent sound level, or the continuous sound level, that represents the same sound energy as the varying sound levels, over a specified monitoring period.
mPa	micro-Pascals
mph	miles per hour
Noise	Any audible sound that has the potential to annoy or disturb humans, or to cause an adverse psychological or physiological effect in humans.

## GLOSSARY OF TERMS AND ACRONYMS (cont.)

Noise Level Measurements	Unless otherwise indicated, measurements that include the use of A-weighting and “slow” response of instrument that complies with at least Type 2 requirements of latest revision of American National Standard Institute (ANSI) S1.4. Specification for Sound Level Meters.
Noise-sensitive land use (NSLU)	A location where particular sensitivities to noise exist, such as residential areas, institutions, hospitals, parks, or other environmentally sensitive areas.
PPV	peak particle velocity
Project	Campo Road Sewer Replacement Project
RCNM	Roadway Construction Noise Model
SANDAG	San Diego Association of Governments
Sound pressure level (SPL)	The observable effect of acoustic energy radiation, quantifying sound level as perceivable by the receiver. When Sound Pressure is used to describe a noise source, the distance between source and receiver must be known in order to yield useful information about the power rating of the source.
Sound power level ( $S_{WL}$ )	A specialized analytical metric that is used to fully quantify the acoustic energy emitted by a source and is complete without accompanying information on the position of measurement relative to the source. It may be used to calculate the sound pressure level at any desired distance.
SR	State Route
TNM	Traffic Noise Model
USFWS	U.S. Fish and Wildlife Service

## EXECUTIVE SUMMARY

This report presents an assessment of potential construction and operational noise impacts associated with the proposed Otay Water District (District) Campo Road Sewer Replacement Project (Proposed Project or Project). The Proposed Project includes replacement of an existing 10-inch sewer main with a proposed 8- to 15-inch sewer main within an unincorporated portion of the County of San Diego (County) in the communities of Rancho San Diego and Casa De Oro-Mount Helix. The majority of the pipeline replacement would be conducted through open trenching; two areas that cross State Route (SR) 94 (also known as Campo Road) would use tunneling to install the pipeline. The proposed pipeline alignment would follow SR 94 between Via Mercado and Jamacha Road, whereas the existing pipeline travels within an open space area. In this open space area, the existing manholes would be demolished, capped, and plugged and a 210-foot stretch of elevated pipeline would be removed.

The Project's loudest construction activities would include excavators and dump trucks for open trenching; an excavator, a dump truck, and a generator for tunneling; a jackhammer, skid steer, and air compressor for the manhole removal; and a crane for the elevated pipeline removal.

Noise-sensitive land uses (NSLUs) near proposed construction activities include single- and multi-family residential, a daycare center, Skyline Church, and sensitive species habitat (coastal California gnatcatcher and least Bell's vireo). Construction activities would not exceed the 75 dBA  $L_{EQ}$  construction noise threshold for single- and multi-family residential areas, for Skyline Church, and for the daycare center. In addition, construction would not exceed the 50 dBA  $L_{EQ}$  nighttime noise limit for multi-family residential areas.

Open trenching construction activities would occur as close as 10 feet to habitat for nesting sensitive birds (coastal California gnatcatcher and least Bell's vireo). Construction activities for trenching and tunneling would exceed the baseline noise level of 65.6 dBA  $L_{EQ}$  by at least 3 dBA if operated within 210 feet of habitat for nesting sensitive birds. If construction activities would occur within this distance during the breeding seasons of coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15), an 8-foot-high temporary noise barrier shall be used between the construction equipment and the habitat to reduce noise impacts to baseline noise levels of 65.6 dBA  $L_{EQ}$ .

Construction activities for storage piles in the staging location adjacent to Skyline Church would exceed the baseline noise level of 67.8 dBA  $L_{EQ}$  if operated within 145 feet of coastal California gnatcatcher habitat. As mitigation, dump trucks and front-end loaders shall not operate within 145 feet of the edge of occupied gnatcatcher habitat during the breeding season.

Construction activities would exceed the 60 dBA  $L_{EQ}$  construction noise limit for sensitive species habitat near the elevated pipeline and manhole removal construction activities. Due to the proximity to sensitive species habitat, use of a barrier for noise mitigation is infeasible. Therefore, as mitigation, removal activities shall only be performed outside of the breeding seasons for coastal California gnatcatcher and least Bell's vireo.

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## 1.0 INTRODUCTION

### 1.1 Project Location

The Otay Water District's (District) proposed Campo Road Sewer Replacement Project (Proposed Project or Project) consists of the current and proposed alignments of a gravity sewer main within an unincorporated portion of the County of San Diego in the communities of Rancho San Diego and Casa De Oro-Mount Helix. The proposed pipeline alignment would be primarily located within and along State Route (SR) 94 (also known as Campo Road), between Avocado Boulevard and Singer Lane (Figure 1, *Regional Location Map*, and Figure 2, *Project Location*).

### 1.2 Project Description

The existing 10-inch main is comprised of polyvinyl chloride (PVC) pipe that transitions to metal piping with a tee at each manhole. From Avocado Boulevard, the existing sewer main traverses east through the Rancho San Diego Village shopping center to SR 94. The existing pipeline then diverts from SR 94 and traverses east through an undeveloped area to the south of SR 94. East of Jamacha Boulevard, the existing pipeline continues east and south within SR 94 and ends at Singer Lane, where the Steele Canyon Lift Station is located. The existing pipeline would be abandoned in place (as discussed in detail below). The proposed pipeline alignment would completely avoid the open space containing sensitive habitat and species by traversing along SR 94.

#### 1.2.1 Proposed Pipeline Alignment

The western terminus of the proposed pipeline would be located at the intersection of Avocado Boulevard/Rancho San Diego Village shopping center driveway (Figure 3, *Proposed Project Alignment and Noise Measurement Locations*). The pipeline would traverse southeast through the shopping center parallel to the existing pipe. At the southeastern end of the Rancho San Diego Village shopping center, the proposed alignment would proceed east across Via Mercado. East of Via Mercado, the alignment would continue south and cross under the right-of-way of SR 94 via auger boring. The alignment would then continue along the southern side of SR 94 in a southeasterly direction until the intersection of SR 94/Jamacha Boulevard. At this intersection, the alignment would cross under this intersection to the northern side of SR 94 via auger boring. On the northern side, it would continue east along SR 94 to Jamacha Road, and then follow Jamacha Road for approximately 300 feet. The alignment would turn south and cross Jamacha Road into the Rancho San Diego Towne Center, where it would connect to the existing 27-inch sewer main within the shopping center's parking lot. The 27-inch sewer main connects to additional pipelines at the intersection of SR 94/Singer Lane near the Steele Canyon Lift Station. Existing sewer laterals stemming from the existing pipe would be reconnected to the proposed pipeline. All proposed pipelines would be made of PVC.

#### 1.2.2 Pipeline Installation

The proposed 8- to 15-inch gravity sewer main would be installed by open trench excavation and horizontal auger boring (i.e., tunneling). Horizontal auger boring is a trenchless technique to

install new pipe (as outlined below). Horizontal auger boring would be conducted in the locations where the pipeline would cross under SR 94 (at Jamacha Boulevard and near Via Mercado). Open trench excavation would be performed in all other sections.

Open trench excavation consists of excavating down to the appropriate depth, installing a new pipe or repairing/replacing an existing pipe, and then backfilling the trench. If the trench is located under pavement, the existing pavement would be saw-cut and removed, the excavation filled with granular backfill, and the cut pavement replaced. Excess soil and cut pavement would be hauled from the site and disposed of at locations approved for such use. The proposed pipeline would be placed underground at approximate depths between 15 and 29 feet. The District anticipates that the proposed pipeline would be located within trenches with shoring approximately 5 to 7 feet wide.

Horizontal auger boring is a method that simultaneously ‘jacks’ the steel casing while rotating augers or cutting heads at the face of the tunnel remove the spoil through the steel casing. The jacking shafts would be approximately 45 feet long by 12 feet wide and the receiving shafts would be approximately 10 feet by 10 feet in area. Following installation of this portion of pipeline, the jacking and receiving pits would be filled in and re-compacted to their existing contours. Spoil material from tunnel construction would be hauled to an approved off-site location.

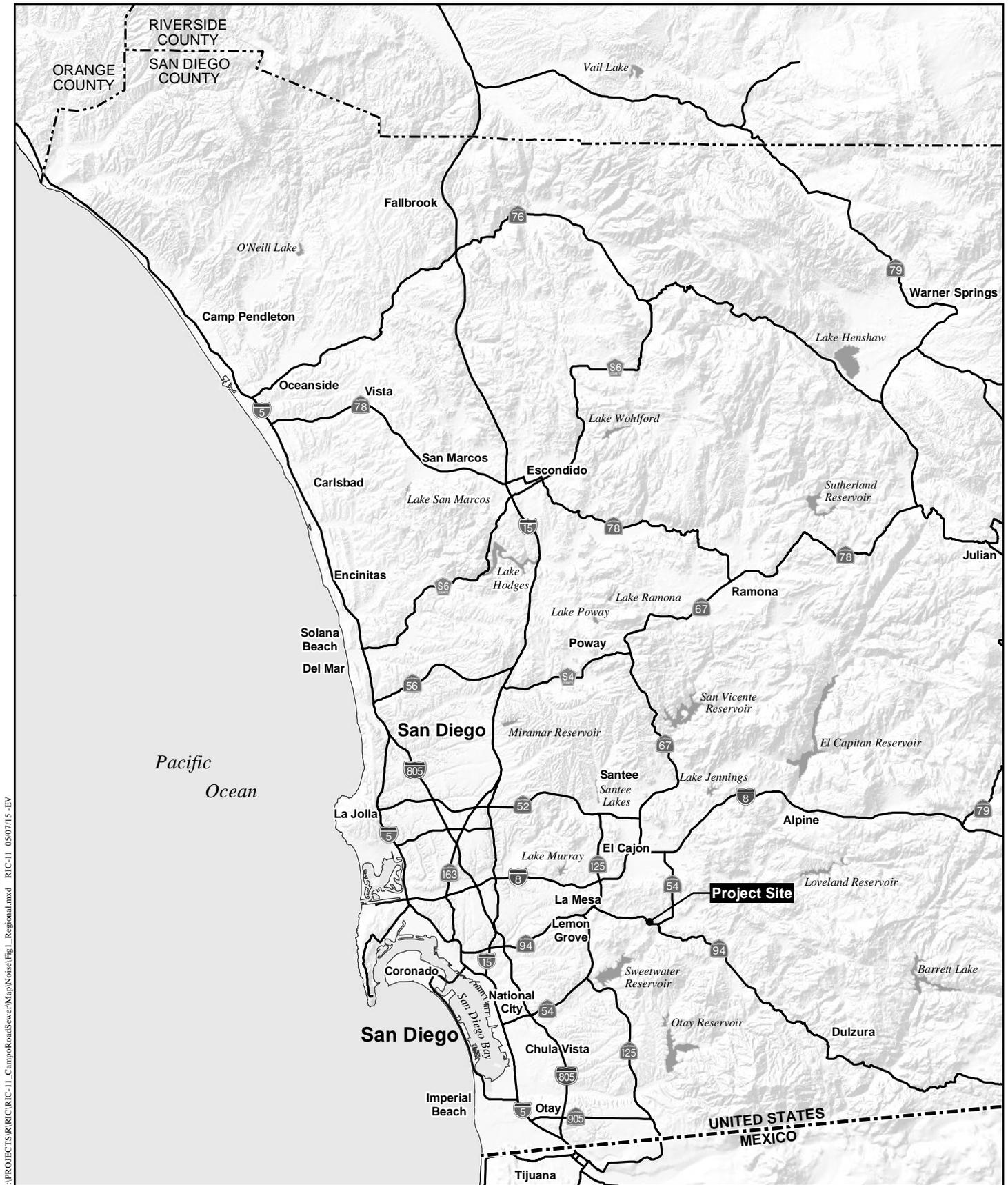
### **1.2.3 Abandonment of Existing Pipeline**

The existing 10-inch sewer pipeline would be abandoned in place, except for a 21-foot long section of aboveground pipeline and seven supporting pillars that would be removed. The sewer main pillars would be cut at the ground surface, with the exception of the second northernmost pillar, which would be cut above the existing ground level in order to avoid potential impacts to jurisdictional areas. The foundations of the pillars would be abandoned in place to avoid disturbing the existing vegetation. In locations where the new alignment departs from the 10-inch pipe alignment, the abandoned manholes on the existing alignment would be abandoned per the Water Agencies’ Standards (WAS) Standard Drawings for Sewer Facilities (Drawing No. SM-08). This would include removal of the manhole and cone, plugging the sewer pipe, and backfilling the manhole with sand. Pipe removal and manhole capping would be completed by hand or with small equipment so as not to impact the surrounding sensitive habitat.

### **1.3 Noise Reduction Construction Best Management Practices**

The following Best Management Practices would be implemented to minimize noise generated during construction of the Proposed Project:

- Staging areas for construction equipment would be located as far as practicable from residences.
- Internal combustion engines would be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine would be operated without said muffler.



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## Regional Location Map

CAMPO ROAD SEWER MAIN REPLACEMENT



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## Project Location

CAMPO ROAD SEWER MAIN REPLACEMENT



**Proposed Project Alignment and Noise Measurement Locations**

CAMPO ROAD SEWER MAIN REPLACEMENT

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- Unnecessary idling of internal combustion engines within 100 feet of residences would be prohibited.

## **1.4 Noise and Sound Level Descriptors and Terminology**

### **1.4.1 Descriptors**

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol  $L_{EQ}$ , with a specified duration. The Community Noise Equivalent Level (CNEL) is a 24-hour average, where noise levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dB weighting, and sound levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dB weighting. Sound levels expressed in CNEL are always based on dBA. These metrics are used to express noise levels for both measurement and municipal regulations, as well as for land use guidelines and enforcement of noise ordinances.

### **1.4.2 Terminology**

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is defined as loud, unexpected, or annoying sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Because decibels are logarithmic units, sound levels cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3 dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than from one source under the same conditions. For example, if one automobile produces 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB—rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level 5 dB louder than one source.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels, when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency (1,000 to 8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. It is widely accepted, however, that people begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5 dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness.

No known studies have directly correlated the ability of a healthy human ear to discern specific levels of change in traffic noise over a 24-hour period. Many ordinances, however, specify a

change of 3 CNEL as the significant impact threshold. This is based on the concept of a doubling in noise energy resulting in a 3-dBA change in noise (which is the amount of change in noise necessary for the increase to be perceptible to the average healthy human ear).

### **1.4.3 Noise-Sensitive Land Uses**

Noise-sensitive land uses (NSLUs) are land uses that may be subject to stress and/or interference from excessive noise, including residences, daycare centers, schools, churches, hotels, resorts, libraries, sensitive wildlife habitat, or similar facilities where quiet is an important attribute of the environment. Noise receptors are individual locations that may be affected by noise. NSLUs in the Project vicinity include a church and a daycare center to the north of the Project alignment and sensitive habitat to the south of the Project alignment. The sensitive habitat includes southern riparian forest and Diegan coastal sage scrub. These types of habitats may be used by federally listed avian species for nesting, such as least Bell's vireo in southern riparian forest and coastal California gnatcatcher in Diegan coastal sage scrub.

## **1.5 Regulatory Framework**

The District is not subject to local regulations or ordinances; however, the following is provided for informational purposes.

### **1.5.1 County of San Diego Municipal Code - Noise Ordinance**

Sections 36.401 through 36.423 of the San Diego County Municipal Code discusses County noise requirements. 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.

County of San Diego zoning designations within and immediately adjacent to the Proposed Project include General Commercial (C36), Heavy Commercial (C37), Holding Area (S90), Limited Industrial (M52), Open Space (S80), Specific Plan (S88), Village Residential (VR24), and Transportation and Utility Corridor (S94).

Non-construction nighttime sound level limits are established for the property lines of various land uses in Section 36.404 of the County Noise Ordinance. The applicable hourly sound limit for sensitive receptors (multi-family residences) adjacent to the construction activities is 50 dBA  $L_{EQ}$  during nighttime hours (10:00 p.m. to 7:00 a.m.).

Sections 36.408 through 36.411 of the Noise Ordinance establish noise limitations for construction activities. Except for emergency work, it is unlawful for any person to operate or cause to be operated, construction equipment between 7:00 p.m. and 7:00 a.m., or that exceeds an average sound level of 75 dB for an 8-hour period, 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.

## 1.5.2 Federally Listed Biological Species

Some studies, such as that completed by the Bioacoustics Research Team (1997), have concluded that 60 dBA is a single, simple criterion to use as a starting point for passerine impacts until more specific research is done. Associated guidelines produced by the U.S. Fish and Wildlife Service (USFWS) require that project noise be limited to a level not to exceed 60 dBA  $L_{EQ}$  or, if the existing ambient noise level is above 60 dBA, increase the ambient noise level by 3 dBA at the edge of occupied habitat during the avian species breeding season.

## 2.0 ENVIRONMENTAL SETTING

### 2.1 Surrounding Land Uses

Most of the Project is located in the unincorporated community of Rancho San Diego in the County, with the westernmost portion of the Project area located in the unincorporated community of Casa de Oro-Mount Helix. The proposed sewer main would be primarily located within existing roads. The beginning and end of the Project site are within two shopping centers: Rancho San Diego Village and Rancho San Diego Towne Center. Open space is located to the south of the Project alignment (where the existing sewer main alignment traverses), and a church, open space, and industrial and commercial uses are located to the north of the Project alignment. The removal of the 210-foot-long elevated sewer main and associated pillars and the capping and plugging of abandoned manholes would take place in the open space area to the south of SR 94.

### 2.2 Existing Noise Environment

The dominant noise source in the vicinity of the Project alignment is the traffic noise from SR 94.

#### 2.2.1 Ambient Noise Survey

Nine locations were measured for fifteen minutes during the ambient noise survey, as can be seen in Table 2-1, *Noise Measurement Results*. Noise measurement locations are shown on Figure 3. These sites were chosen as they represent where construction would occur within the vicinity of NSLUs (residential, daycare, sensitive habitat, and a church). Six of the nine measurements were taken adjacent to or within sensitive habitat. The highest measurements (Measurements 1, 3, and 8) were taken adjacent to SR 94. For additional information, see Appendix A, *Noise Measurement Sheets*.

**Table 2-1  
NOISE MEASUREMENT RESULTS**

<b>Measurement</b>	<b>Location</b>	<b>Nearest NSLU</b>	<b>Conditions</b>	<b>Time</b>	<b>dBA L<sub>EQ</sub></b>	<b>Notes</b>
1	Near 3754 Avocado Boulevard	Residential	75°F, 2-3 miles per hour (mph) wind, 9 percent humidity	9:56-10:11 a.m.	71.1	Medium traffic
2	90 feet east from Via Mercado centerline, south of daycare center	Daycare/ Habitat	76°F, 2-3 mph wind, 9 percent humidity	10:24-10:39 a.m.	64.8	Medium traffic, but slow due to intersection; noise from children playing at daycare
3	50 feet southwest from SR 94 centerline, near driveway to SDG&E substation	Habitat	79°F, 4-5 mph wind, 6 percent humidity	11:08-11:23 a.m.	76.1	Medium traffic
4	Near elevated pipeline, south of creek	Habitat	80°F, 5-6 mph wind, 5 percent humidity	11:28-11:43 a.m.	53.6	Birds chirping
5	Manhole south of Measurement 4	Habitat	80°F, 4-5 mph wind, 7 percent humidity	12:36-12:52 p.m.	48.7	Birds chirping; airplane overhead at 14 <sup>th</sup> minute for 15 seconds
6	Sewer manhole off trail	Habitat	81°F, 5-6 mph wind, 7 percent humidity	12:10-12:25 p.m.	45.7	Birds chirping
7	Manhole 200 foot west of Jamacha Boulevard	Habitat	80°F, 8 mph wind, 8 percent humidity	1:07-1:22 p.m.	50.8	Birds chirping
8	60 feet from SR 94 centerline, approximately 1,000 feet west of the Campo Road and Jamacha Road intersection	Habitat	82°F, 10-13 mph wind, 9 percent humidity	2:16-2:31 p.m.	76.2	Medium to high traffic
9	Skyline Church parking lot, approximately 275 feet northeast of SR 94 centerline	Church	81°F, 12 mph wind, 9 percent humidity	2:46-3:01 p.m.	53.3	Leaves rustling; vehicle noise from Jamacha Boulevard

## 3.0 ANALYSIS METHODOLOGY AND ASSUMPTIONS

### 3.1 Methodology

#### 3.1.1 Ambient Noise Survey

The following equipment was used to measure existing noise levels at the Project site:

- Larson Davis System LxT Integrating Sound Level Meters
- Larson Davis Model CA250 Calibrator
- Windscreen and tripod for the sound level meter
- Digital camera

The sound level meters were field-calibrated immediately prior to the noise measurements to ensure accuracy. All sound level measurements conducted and presented in this report were made with a sound level meter that conforms to the American National Standards Institute (ANSI) specifications for sound level meters (ANSI S1.4-1983 R2001). All instruments were maintained with National Bureau of Standards traceable calibration per the manufacturers' standards.

#### 3.1.2 Noise Modeling Software

Project construction noise was modeled using the Roadway Construction Noise Model (RCNM; U.S. Department of Transportation 2008), which utilizes estimates of sound levels from standard construction equipment. Modeling of the noise barriers was accomplished using Computer Aided Noise Abatement (CadnaA) version 4.4.145 and modeling of the ambient noise was accomplished with Traffic Noise Model (TNM) version 2.5. CadnaA is a model-based computer program developed by DataKustik for predicting noise impacts in a wide variety of conditions. CadnaA assists in the calculation, presentation, assessment, and mitigation of noise exposure. It allows for the input of project-related information, such as noise source data, barriers, structures, and topography to create a detailed CadnaA model, and uses the most up-to-date calculation standards to predict outdoor noise impacts. CadnaA traffic noise prediction is based on the data and methodology used in TNM. TNM was last updated in February 2004 by the U.S. Department of Transportation, and calculates the daytime average hourly  $L_{EQ}$  from three-dimensional model inputs and traffic data (Caltrans 2004). Modeling in this analysis was based on Computer Aided Design (CAD) plans provided by the Project Applicant.

### 3.2 Assumptions

#### 3.2.1 Construction Equipment, Staging, and Schedule

In this report, construction is analyzed in three main phases: pipeline trenching, pipeline tunneling, and pipeline abandonment.

### **3.2.1.1 Construction Equipment**

The District anticipates that a construction crew of approximately 8 to 10 workers would typically be present on-site during active construction. The types of construction equipment projected to be required for the construction activities include the following:

- Pipeline Trenching
- Pavement cutter
- Excavators (2)
- Crane
- Front end loader
- Skid Steer
- Water truck (for dust control and compaction)
- Street sweeper
- Various hand-operated soil compaction equipment
- Pipe delivery truck
- Sand delivery truck
- Concrete truck
- Portable generator (diesel or gas driven)
- Horizontal auger
- Jackhammer
- Air compressor

### **3.2.1.2 Construction Staging**

Construction-related equipment and materials storage and worker parking would occur in disturbed and developed areas along the Project alignment that are approved by the Caltrans and the County. Possible staging locations include the flat area adjacent to Skyline Church's western driveway and the parking lots at the Rancho San Diego Shopping Center and the Rancho San Diego Towne Center.

### **3.2.1.3 Construction Schedule**

Construction activities are expected to begin in fall 2016 and be completed by early 2018. In order to minimize disruptions to the local community, construction and equipment maintenance are anticipated to be limited to weekdays (excluding holidays) from 7:00 a.m. through 7:00 p.m.; however, if multiple lanes needed to be closed on SR 94 or Jamacha Road for pipeline installation, Caltrans could require that such work occur only at night.

As mentioned earlier, the breeding season for federally listed avian species located in sensitive habitat near the construction would be February 15 to August 31 for coastal California gnatcatcher and March 15 to September 15 for least Bell's vireo. Therefore, construction may occur within the breeding seasons; for the purposes of a conservative analysis, it is assumed that construction would coincide with the breeding seasons.

### 3.2.2 Site Conditions

The Project site includes topographical conditions that may affect noise generation or control planning. South of the proposed pipeline alignment along SR 94, the elevation drops approximately 10 feet within the adjacent creek (which contains least Bell’s vireo habitat). Further south, the elevation increases above the proposed pipeline alignment elevation. Where appropriate, the noise-control planning described in this report is based on site topography.

For the purposes of this analysis, it was assumed that the southern riparian forest was occupied with least Bell’s vireos and the Diegan coastal sage scrub was occupied by coastal California gnatcatchers.

To estimate the ambient noise levels from existing traffic near the sensitive habitat areas, traffic data was obtained from San Diego Association of Governments’ (SANDAG’s) 2020 traffic forecasts for SR 94 between Via Mercado and Jamacha Boulevard, which forecasts 49,200 average daily trips (ADT) for this section of roadway (SANDAG 2011). Ambient noise through the adjacent creek was then modeled using TNM assuming 9 percent of trips for peak hour, with 95 percent of peak hour trips being automobiles (4,162 trips), 4 percent of peak hour trips being medium trucks (177 trips), and 1 percent of peak hour trips being heavy trucks (89 trips). The speed limit in this section of SR 94 is 55 mph. The depths of the adjacent creek and the associated distances from the SR 94 centerline were estimated based upon elevations in Google Earth. Results of the modeling are shown in Table 3-1, *Modeled Existing Traffic Ambient Noise Levels – South of Proposed Pipeline*.

<b>Distance from SR 94 Centerline (feet)</b>	<b>Height Relative to SR 94 Centerline (feet)</b>	<b>Existing Traffic Noise Level (dBA L<sub>EQ</sub>)</b>
50	0	79.0
70	-2.5	73.7
90	-5	71.2
110	0	65.6
130	-5	70.2
150	-2.5	73.2
170	0	72.9
190	2.5	71.6
210	5	67.8

The topography north of SR 94 near the proposed staging area is different than south of the roadway; the ground in this area slopes steadily upwards (based on Google Earth). Modeling results near this area are shown in Table 3-2, *Modeled Existing Traffic Ambient Noise Levels – Near Construction Staging Area*. The sensitive habitat for the coastal California gnatcatcher begins at approximately 400 feet north of the SR 94 centerline in this area.

<b>Table 3-2</b> <b>MODELED EXISTING TRAFFIC AMBIENT NOISE LEVELS –</b> <b>NEAR CONSTRUCTION STAGING AREA</b>		
<b>Distance from</b> <b>SR 94 centerline (feet)</b>	<b>Height Relative to SR 94</b> <b>centerline</b> <b>(feet)</b>	<b>Ambient Noise</b> <b>Level</b> <b>(dBA L<sub>EQ</sub>)</b>
50	0	79.0
100	0	75.7
150	1	73.6
200	3	71.9
250	9	70.7
300	12	69.6
350	15	68.7
400	17	67.8
450	22	67.0
500	22	66.3

The results in Table 3-1 and Table 3-2 generally correlate with the measured ambient noise levels in Table 2-1. However, at the farther distances south of the pipeline alignment, measured field ambient noise levels are lower than the modeled noise levels. This is likely due to the sound attenuation provided by the ground, which acts as a natural berm; the thick vegetation within the creek, which blocks the line of sight from SR 94 in most locations; and the soft groundcover, which attenuates the sound at a faster rate than a hard surface.

For the purposes of noise impact analysis, the modeled ambient noise levels south of the proposed Project area were used for the area within 300 feet of the SR 94 centerline, which generally encompasses least Bell’s vireo habitat and some coastal California gnatcatcher habitat. The lowest modeled ambient existing traffic noise level, 65.6 dBA L<sub>EQ</sub>, is assumed to be the baseline for assessing construction noise impacts in sensitive habitat. In locations further than 300 feet from the SR 94 centerline, baseline noise levels are assumed not to exceed 60 dBA L<sub>EQ</sub>. Therefore, a 60 dBA L<sub>EQ</sub> threshold is assumed beyond 300 feet. The limits used for sensitive habitat construction noise are shown on Figure 4, *Sensitive Species Construction Noise Limits*.

### 3.2.3 Vibration

Construction vibration for the Project may be caused by excavators working on open trenching or jacking and receiving pits and the use of a horizontal auger for tunnel boring. Caltrans provides a vibration level of 0.089 peak particle velocity (PPV) in inches per second (in/s) for a large dozer or caisson drill and 0.035 PPV in/s for a jackhammer (Caltrans 2013). It is assumed that an excavator or a horizontal auger would produce a lower PPV than a large dozer or caisson drill. Therefore, as a conservative measure, dozer and caisson drill vibration levels are used as a proxy for excavator and horizontal auger levels.

## 4.0 IMPACTS

### 4.1 Guidelines for the Determination of Significance

The District is not subject to County regulations or ordinances. However, for the purposes of this analysis, County guidelines are used to assess impacts. Therefore, construction noise impacts are considered significant if:

- Construction equipment noise exceeds an average sound level of 75 decibels for an 8-hour period (75 dBA  $L_{EQ}$  [8-hour]), 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.
- Construction equipment is operated between 7:00 p.m. and 7:00 a.m. and exceeds the County's property line (non-construction) sound level standards.
- Construction traffic noise would exceed 60 CNEL if existing conditions are below 60 CNEL, or would increase noise by 3 CNEL if existing conditions are over 60 CNEL.
- Generate construction noise that exceeds 60 dBA  $L_{EQ}$  or, if the existing ambient noise level is above 60 dBA, increase the ambient noise level by 3 dBA at the edge of sensitive biological habitat during the breeding season (February 15 to August 31 for coastal California gnatcatcher and March 15 to September 15 for least Bell's vireo).
- Construction vibration shall not exceed the "severe" criterion, as specified by Caltrans (2013), for residences of 0.4 in/s PPV.

### 4.2 Construction Noise Impacts

Construction of the Project would generate elevated noise levels that may disrupt nearby noise sensitive receptors. The magnitude of the impact would depend on the type of construction activity, equipment, duration of each construction phase, distance between the noise source and receiver, and any intervening structures.

#### 4.2.1 Trenched Pipeline

##### 4.2.1.1 *Residential, Daycare, and Church Impacts*

Trenching would be performed along the entire Project alignment, except for the two tunneling sections under SR 94 (described below under 4.2.2, Tunneling). NSLUs would be located along much of the alignment, including:

- Single-family residences, off Avocado Boulevard, approximately 130 feet to the west of the westernmost extent of the Project alignment;
- A daycare center, off Via Mercado, approximately 50 feet to the east;
- Single-family residences, off Via Mercado, approximately 190 feet to the northeast;

- Skyline Church, off SR 94, approximately 385 feet north; and
- Multi-family residences approximately 1,000 feet to the northeast from the easternmost extent of the Project alignment (where nighttime construction may occur).

The loudest noise from trenching would be generated from an excavator digging the trench and a dump truck loading and hauling the dug material. As a reasonable worst-case scenario, the two pieces of equipment were assumed to operate simultaneously and to be operating for 40 percent of an 8-hour construction day. The modeled 75 dBA  $L_{EQ}$  noise contour for a dump truck and excavator operating under these conditions is approximately 75 feet. Therefore, as open trenching construction activities would not operate within 75 feet of single-family residences and Skyline Church, impacts to the NSLUs would be less than significant.

Although trenching construction activities would be conducted within 75 feet of the daycare center, noise levels would not exceed the 75 dBA  $L_{EQ}$  threshold. Site-specific modeling was conducted that accounted for the daycare center's higher elevation than construction activities and the center's 3- to 5-foot retaining wall. When accounting for these noise attenuating factors, the operation of a dump truck and an excavator would be reduced to 73 dBA  $L_{EQ}$ . Therefore, trenching noise impacts to the daycare center would be less than significant.

At the easternmost extent of the Project alignment, open trenching across Jamacha Road would possibly require nighttime construction. At 1,000 feet to the multi-family apartments off Cuyamaca College Drive and assuming no intervening structures, an excavator and dump truck would generate a noise level of 52.1 dBA  $L_{EQ}$ . However, multiple structures would block the line of sight between the trenching construction activities and the apartments that would attenuate the noise level by at least 5 dBA  $L_{EQ}$ . Therefore, trenching would not exceed the nighttime property boundary noise limits in a multi-family zone of 50 dBA, and impacts would be less than significant.

#### **4.2.1.2 Sensitive Habitat Impacts**

Sensitive habitat for nesting birds would be located along much of the planned trenching areas, from where the alignment crosses SR 94 east of Via Mercado to just before where the alignment enters Jamacha Road. All southern riparian forest in the area is assumed to have least Bell's vireo present and all Diegan coastal sage scrub is assumed to have coastal California gnatcatcher present during the breeding seasons.

Based upon the modeled ambient noise levels within the sensitive habitat area from Table 3-1, the existing ambient noise level was assumed to be 65.6 dBA  $L_{EQ}$ . Open trenching construction activities would occur as close as 10 feet to sensitive habitat. As noted earlier, impacts would be significant if construction noise exceeds this level by 3 dBA.

The loudest noise from trenching would be generated from an excavator digging the trench and a dump truck loading and hauling the dug material. As a reasonable worst-case scenario, the two pieces of equipment were assumed to operate simultaneously and to be operating for 40 percent of an 8-hour construction day. The modeled 65.6 dBA  $L_{EQ}$  noise contour for a dump truck and excavator is approximately 210 feet (in other words, noise levels within 210 feet would exceed



I:\PROJECTS\BIC\BIC-11\_CampoRoadSewerMain\Noise\Fig4\_NML\_MRB.mxd BIC-11\_05/08/15\_EV

## Sensitive Species Construction Noise Limits

CAMPO ROAD SEWER MAIN REPLACEMENT

this volume). Therefore, as open trenching construction activities would occur within 210 feet of sensitive habitat, impacts to sensitive habitat would be potentially significant. With the possibility of working as close as 10 feet from sensitive habitat, noise levels could be as high as 92.1 dBA  $L_{EQ}$ . With implementation of Mitigation Measure M-Noi-1, impacts would be less than significant.

#### **4.2.1.3 Mitigation**

**M-Noi-1 Temporary Noise Barriers for Trenching Construction Activities.** Trenching construction activities involving a dump truck and an excavator may generate significant noise impacts to sensitive habitat if operated within 210 feet of the habitat. If a dump truck and an excavator are operated within this distance during the breeding seasons of coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15), a temporary noise barrier between the construction equipment and the sensitive habitat shall be used to reduce noise impacts to baseline noise levels of 65.6 dBA  $L_{EQ}$ .

An 8-foot high temporary noise barrier meeting the specifications listed below (or of a STC 19 rating or better) would attenuate noise at the sensitive habitat to less than baseline noise levels of 65.6 dBA  $L_{EQ}$ . The sound attenuation fence or wall must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are 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 and must be at least 3/4-inch total thickness or have a density of at least 3½ pounds per square foot.

#### **4.2.1.4 Significance After Mitigation**

With implementation of Mitigation Measure M-Noi-1, noise impacts to sensitive habitat from trenching construction activities would be reduced to less than significant levels.

#### **4.2.2 Tunneling**

Tunneling activities would result in noise impacts at the locations of the jacking and receiving pits and at the tunnel boring locations, as described below.

##### **4.2.2.1 Residential and Daycare Impacts**

There would be two jacking pits: one located just east of Via Mercado (western jacking pit) and one located near the southern driveway for Skyline Church (eastern jacking pit). The NSLUs near the western jacking pit would be the daycare center, at an approximate distance of 125 feet to the north, single-family residences, at an approximate distance of 190 feet to the north, and coastal California gnatcatcher habitat at an approximate distance of 10 feet. The closest NSLU to the eastern jacking pit would be sensitive habitat at an approximate distance of 150 feet to the south.

Prior to work within the pit, an excavator with a drill attached would install soldier pilings to reinforce the pit. The jacking pits would then be dug with an excavator and a dump truck. As a

reasonable worst-case scenario, the two pieces of equipment were assumed to operate simultaneously and to be operating for 40 percent of an 8-hour construction day. The modeled 75 dBA  $L_{EQ}$  noise contour for a dump truck and excavator operating under these conditions is approximately 75 feet. Therefore, as the jacking and receiving pits construction activities would not operate within 75 feet of single-family residences and the daycare center, impacts to the NSLUs would be less than significant.

Tunnel boring would occur in the same location as the jacking pits. The horizontal auger would be run with either a diesel-powered motor or an electric-powered motor. The diesel-powered motor would be operated fully within the jacking pit; therefore, it would not generate significant noise outside of the pit. The electric-powered motor would require a generator outside of the pit that would generate noise.

As a reasonable worst-case scenario, the generator was assumed to operate for 50 percent of an 8-hour construction day. The modeled 75 dBA  $L_{EQ}$  noise contour for a generator operating under these conditions is approximately 30 feet and the 60 dBA  $L_{EQ}$  noise contour is approximately 155 feet. Therefore, as the tunnel boring construction activities would not operate within 30 feet of single-family residences and the daycare center impacts to those NSLUs would be less than significant.

#### **4.2.2.2 Sensitive Habitat Impacts**

Based upon the modeled ambient noise levels within the sensitive habitat area from Table 3-1, the ambient noise level is conservatively assumed to be 65.6 dBA  $L_{EQ}$ . The closest sensitive habitat to the western jacking pit would be coastal California gnatcatcher habitat, which would surround the pit at an approximate distance of 10 feet. The closest sensitive habitat to the eastern jacking pit would be coastal California gnatcatcher and least Bell's vireo habitat at an approximate distance of 150 feet to the south.

The loudest noise from jacking and receiving pits construction activities would be generated from an excavator and a dump truck. As a reasonable worst-case scenario, the two pieces of equipment were assumed to operate simultaneously and to be operating for 40 percent of an 8-hour construction day. The modeled 65.6 dBA  $L_{EQ}$  noise contour for a dump truck and excavator is approximately 210 feet. For the western jacking pit, with the possibility of working as close as 10 feet from coastal California gnatcatcher habitat, noise levels could be as high as 92.1 dBA  $L_{EQ}$ . The habitat in this area is disturbed, surrounded by development, and next to a high traffic roadway (SR 94). In addition, no coastal California gnatcatcher surveys have identified a gnatcatcher in this area. However, the possibility of a nesting coastal California gnatcatcher still exists. Therefore, as jacking and receiving pits construction activities would occur within 210 feet of sensitive habitat, impacts would be potentially significant.

For the eastern jacking pit, with the possibility of working as close as 150 feet from sensitive habitat, noise levels could be as high as 68.6 dBA  $L_{EQ}$ . Therefore, as jacking and receiving pits construction activities would occur within 210 feet of sensitive habitat, impacts would be potentially significant.

At the tunnel boring location, the modeled 65.6 dBA  $L_{EQ}$  noise contour is approximately 80 feet. Impacts from tunnel boring at the eastern jacking pit would not occur within 80 feet of sensitive habitat and would be less than significant. However, tunnel boring would occur at an approximate distance of 10 feet from coastal California gnatcatcher habitat at the western jacking pit. At a distance of 10 feet, noise levels could be as high as 83.8 dBA  $L_{EQ}$ . The habitat in this area is disturbed, surrounded by development, and next to a high traffic roadway (SR 94). In addition, no coastal California gnatcatcher surveys have identified presence of the species in this area. However, the possibility of a nesting coastal California gnatcatcher still exists. Therefore, as tunnel boring construction activities would occur within 80 feet of sensitive habitat, impacts would be potentially significant.

#### **4.2.2.3 Mitigation**

**M-Noi-2 Preconstruction Survey for Western Jacking Pit Construction Activities.** Construction activities for the western jacking pit involving a dump truck and an excavator may generate significant noise impacts to coastal California gnatcatcher habitat if operated within 210 feet of the sensitive habitat. Due to the close distance to sensitive habitat that a dump truck and excavator would have to operate for the western jacking pit, barrier mitigation to reduce noise impacts to sensitive habitat to less than significant levels would be infeasible. Therefore, if western jacking pit activities would occur during the breeding season for the coastal California gnatcatcher (February 15 to August 31), a qualified biologist shall conduct a study confirming the absence of coastal California gnatcatchers within 250 feet of the construction activities prior to start of work or, if work has already begun, prior to the breeding season. If coastal California gnatcatchers are found to be present, construction activities shall cease until the close of the breeding season.

**M-Noi-3 Temporary Noise Barriers for Eastern Jacking Pit Construction Activities.** Eastern jacking pit construction activities involving a dump truck and an excavator may generate significant noise impacts to sensitive habitat if operated within 210 feet of the habitat. If a dump truck and an excavator are operated within this distance during the breeding seasons of coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15), a temporary noise barrier between the construction equipment and the sensitive habitat shall be used to reduce noise impacts to baseline noise levels (65.6 dBA  $L_{EQ}$ ).

An 8-foot high barrier meeting a STC 19 rating or better would attenuate noise at the sensitive habitat to less than baseline noise levels of 65.6 dBA  $L_{EQ}$ . The sound attenuation fence or wall must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are 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 and must be at least 3/4-inch total thickness or have a density of at least 3½ pounds per square foot.

**M-Noi-4 Preconstruction Survey for Western Tunnel Boring Construction Activities.** Tunnel boring activities at the western jacking pit involving a generator may create significant noise impacts to coastal California gnatcatcher habitat if operated within 80 feet of the sensitive habitat. Due to the close distance that a generator would have to operate for tunnel boring construction activities, barrier mitigation to reduce noise impacts to sensitive habitat to less than significant levels would be infeasible. Therefore, if tunnel boring at the western jacking pit would occur during the breeding season for the coastal California gnatcatcher (February 15 to August 31), a qualified biologist shall conduct a study confirming the absence of coastal California gnatcatchers within 250 feet of tunneling construction work prior to start of work or, if work has already begun, prior to the breeding season. If coastal California gnatcatchers are found to be present, construction activities shall cease until the close of the breeding season.

#### ***4.2.2.4 Significance After Mitigation***

With implementation of Mitigation Measures M-Noi-2, M-Noi-3, and M-Noi-4, noise impacts to sensitive habitat from the jacking pits and tunnel boring construction activities would be reduced to less than significant levels.

### **4.2.3 Storage Piles**

#### ***4.2.3.1 Residential and Church Impacts***

Storage piles would potentially be located at the staging locations and would be used as temporary placement for soil and other material. The two staging locations within the shopping centers would not be located near any NSLUs and no impacts from these locations would occur. The staging location next to the Skyline Church's western driveway would be located approximately 500 feet from church buildings. The loudest noise from storage pile-related construction activities would be a dump truck and front-end loader loading and unloading materials. These pieces of equipment operating simultaneously for 40 percent of an 8-hour construction day would generate a noise level of 57.0 dBA  $L_{EQ}$  at 500 feet. Impacts to the church from storage piles would be less than significant.

#### ***4.2.3.2 Sensitive Habitat Impacts***

The staging location next to Skyline Church would be adjacent to Diegan coastal sage scrub, which is assumed to be occupied by coastal California gnatcatchers. The staging location would be located in a flat area that begins approximately 70 foot north of the SR 94 centerline and extends approximately 400 feet north of the SR 94 centerline and 300 feet west of the church's driveway.

Based upon the modeled ambient noise levels within the Diegan coastal sage scrub from Table 3-2, the baseline ambient noise level is assumed to be 67.8 dBA  $L_{EQ}$  at 400 feet from the SR 94 centerline.

A dump truck and front-end loader operating simultaneously for 40 percent of an 8-hour construction day would generate a noise level of 67.8 dBA  $L_{EQ}$  at a distance of 145 feet.

Therefore, if these pieces of equipment were operated within 145 feet of coastal California gnatcatcher habitat, impacts would be potentially significant.

#### **4.2.3.3 Mitigation**

**M-Noi-5 Storage Pile Operation Setbacks During Breeding Season.** Dump trucks and front-end loaders shall not operate within 145 feet of the edge of occupied coastal California gnatcatcher habitat (as shown on Figure 4) during the breeding season (February 15 to August 31).

#### **4.2.3.4 Significance After Mitigation**

With implementation of Mitigation Measure M-Noi-5, noise impacts to sensitive habitat from the storage piles at the staging location near Skyline Church would be reduced to less than significant levels through storage pile setbacks from the coastal California gnatcatcher habitat.

#### **4.2.4 Pipeline Abandonment**

Activities that may generate noise during pipeline abandonment include manhole capping/plugging and removal of the elevated pipeline, as described below.

##### **4.2.4.1 Residential Impacts**

Pipeline abandonment activities would be located at a minimum of 450 feet from the nearest residential land uses. At this distance, noise levels would not exceed 63.1 dBA  $L_{EQ}$  and impacts would not be significant.

##### **4.2.4.2 Sensitive Habitat Impacts**

The seven manholes to be capped and plugged would first have their concrete dome demolished using a jackhammer, an air compressor, and a skid steer. Based upon the modeled ambient noise levels within the sensitive habitat area from Table 3-1, the ambient noise level where manhole construction activities would take place within 300 feet of the SR 94 centerline is conservatively assumed to be 65.6 dBA  $L_{EQ}$ . The northernmost manhole and the two easternmost manholes to be capped and plugged would be within this distance. As discussed in Section 3.2.2, for distances beyond 300 feet from SR 94, the noise limit is assumed to be 60 dBA  $L_{EQ}$ . These construction activities would occur as close as 5 feet to coastal California gnatcatcher habitat.

As a reasonable worst-case scenario, a jackhammer, air compressor, and skid steer were assumed to operate simultaneously and to be operating for 20 percent of an 8-hour construction day. For the three manholes within 300 feet of the SR 94 centerline, the modeled 65.6 dBA  $L_{EQ}$  noise contour for a jackhammer, air compressor, and skid steer is approximately 340 feet. Manhole construction activities at a distance of 5 feet from sensitive habitat would expose sensitive habitat to a noise level as high as 102.2 dBA  $L_{EQ}$ . Therefore, as the aforementioned manhole construction activities would occur within 340 feet of sensitive habitat, impacts would be potentially significant.

For the four manholes further than 300 feet of the SR 94 centerline, the 60 dBA  $L_{EQ}$  noise contour is approximately 650 feet. Therefore, as manhole removal activities would occur within 650 feet of sensitive habitat, impacts to sensitive habitat would be potentially significant.

The 210-foot long section of elevated pipeline would be removed with hand tools and a crane. The hand tools would cut the pipeline and the crane would lift the pipeline out of the creek area.

The elevated pipeline is located approximately 190 feet from the SR 94 centerline; the modeled ambient noise for this location was approximately 71.6 dBA  $L_{EQ}$ . However, the ambient noise measured in this location was 53.6 dBA  $L_{EQ}$ . The measured noise is likely attenuated to a greater degree than modeled as in the area the ground acts as a natural berm, the thick vegetation within the creek blocks the line of sight from SR 94 in most locations, and the soft groundcover attenuates the sound at a faster rate than a hard surface. Therefore, a significant noise impact to sensitive habitat would occur if elevated pipeline construction activities exceed 60 dBA  $L_{EQ}$ .

A crane was assumed to be operated on the dirt road to the west of the elevated pipeline, at a distance of approximately 10 feet from least Bell's vireo and coastal California gnatcatcher habitat. The crane was assumed to be operating for 16 percent of an 8-hour construction day. The modeled 60 dBA  $L_{EQ}$  noise contour for a crane is approximately 215 feet. Elevated pipeline removal activities at a distance of 10 feet from sensitive habitat would expose the habitat to a noise level as high as 86.6 dBA  $L_{EQ}$ . Therefore, as the elevated pipeline removal activities would occur within 215 feet of sensitive habitat, impacts would be potentially significant.

#### **4.2.4.3 Mitigation**

**M-Noi-6 Manhole Removal Activity Restrictions.** Due to the close distance that a jackhammer, an air compressor, and a skid steer would have to operate to remove each manhole's concrete dome, barrier mitigation to reduce noise levels to avoid impacts to sensitive habitat would be infeasible. Therefore, manhole removal activities shall not occur during the breeding seasons for the coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15).

**M-Noi-7 Elevated Pipeline Removal Restrictions.** Due to the close distance to sensitive habitat that a crane would operate to remove the elevated pipeline, barrier mitigation to reduce noise levels to avoid impacts to sensitive habitat would be infeasible. Therefore, operation of a crane to remove the elevated pipeline shall not occur during the breeding seasons for the coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15).

#### **4.2.4.4 Significance After Mitigation**

With implementation of Mitigation Measures M-Noi-6 and M-Noi-7, noise impacts to sensitive habitat from the manhole and elevated pipeline removal would be reduced to less than significant levels through restricting removal activities to outside of the breeding seasons for coastal California gnatcatcher and least Bell's vireo.

#### **4.2.5 Construction Traffic**

As described in Section 3.2.3, the 2020 traffic forecasts for SR 94 in the Project area are for 49,200 ADT. A general rule of thumb is that the doubling of ADT would cause a doubling in noise (a 3 dBA increase), which would be considered a significant increase. As the Project would have 8 to 10 workers that would generate an estimated 16 to 20 ADT, the increase in traffic from the Project would have a negligible impact on noise. Therefore, impacts from construction traffic are less than significant.

### **4.3 Construction Vibration Impacts**

#### **4.3.1 Trenched Pipeline**

An excavator would be expected to create the highest vibration levels during trenched pipeline construction. Per Caltrans guidance provided in Section 3.2.3, an excavator is expected to generate vibration levels of 0.089 PPV in/s at 25 feet. The closest vibration-sensitive land use from trenching would be the daycare center, located approximately 50 feet north. Therefore, as the excavator's vibration would be below the criterion of 0.4 PPV in/s at 25 feet, vibration impacts would be less than significant at the daycare center.

#### **4.3.2 Tunneling**

An excavator would be expected to create the highest vibration levels during jacking and receiving pits construction. Per Caltrans guidance provided in Section 3.2.3, an excavator is expected to generate vibration levels of 0.089 PPV in/s at 25 feet. The closest vibration-sensitive land use from jacking and receiving pits would be the daycare center, located approximately 125 feet north. Therefore, as the excavator's vibration would be below the criterion of 0.4 PPV in/s at 25 feet, vibration impacts would be less than significant at the daycare center.

A horizontal auger would be expected to create the highest vibration levels during tunnel boring. Per Caltrans guidance provided in Section 3.2.3, a horizontal auger is expected to generate vibration levels of 0.089 PPV in/s at 25 feet. The closest vibration-sensitive land use from tunnel boring would be the daycare center, located approximately 125 feet north. Therefore, as the horizontal auger's vibration would be below the criterion of 0.4 PPV in/s at 25 feet, vibration impacts would be less than significant at the daycare center.

#### **4.3.3 Pipeline Abandonment**

Caltrans provides vibration levels for a jackhammer of 0.035 PPV in/s at 25 feet. The closest vibration-sensitive land use from trenching would be single-family residences, located approximately 450 feet south of the manhole where noise measurement M6 was taken. Therefore, as the jackhammer's vibration would be below the criterion of 0.4 PPV in/s at 25 feet, vibration impacts would be less than significant at the single-family residences.

## 5.0 LIST OF PREPARERS

Charles Terry, Senior Acoustics Specialist

Bill Vosti, Environmental Planner

Joanne M. Dramko, AICP, GISP, Senior Environmental Planner, Quality Assurance Reviewer

Melissa Whittemore, Project Manager

Ana Stuewe, Word Processing and Document Production

HELIX Environmental Planning, Inc.

7578 El Cajon Boulevard

La Mesa, CA 91942

## 6.0 REFERENCES

### Bioacoustics Research Team

- 1997 Environmental Effects of Transportation Noise, A Case Study: Noise Criteria for Protection of Endangered Passerine Birds. University of California, Davis, Transportation Noise Control Center Technical Report 97-001.

### California Department of Transportation (Caltrans)

- 2013 Transportation and Construction Vibration Guidance Manual. California Department of Transportation Division of Environmental Analysis, Environmental Engineering, Hazardous Waste, Air, Noise, Paleontology Office. September.
- 2004 Traffic Noise Model (TNM).

### County of San Diego

- 2009 County of San Diego, County of San Diego Guidelines for Determining Significance – Noise.

### San Diego Association of Governments (SANDAG)

- 2011 Series 12 2020 Traffic Volume Forecast.

### U.S. Department of Transportation

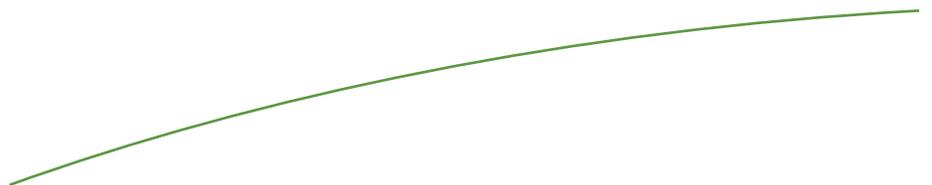
- 2008 Roadway Construction Noise Model.

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Appendix A

**NOISE MEASUREMENT SHEETS**



## Site Survey

Job # RIC-11

Project Name: Campo Road Sewer Main Replace

Date: 4/16/2015

Site #: 1

Engineer: Bill Vosti

Address: 3754 Avocado Blvd

Meter: LxT

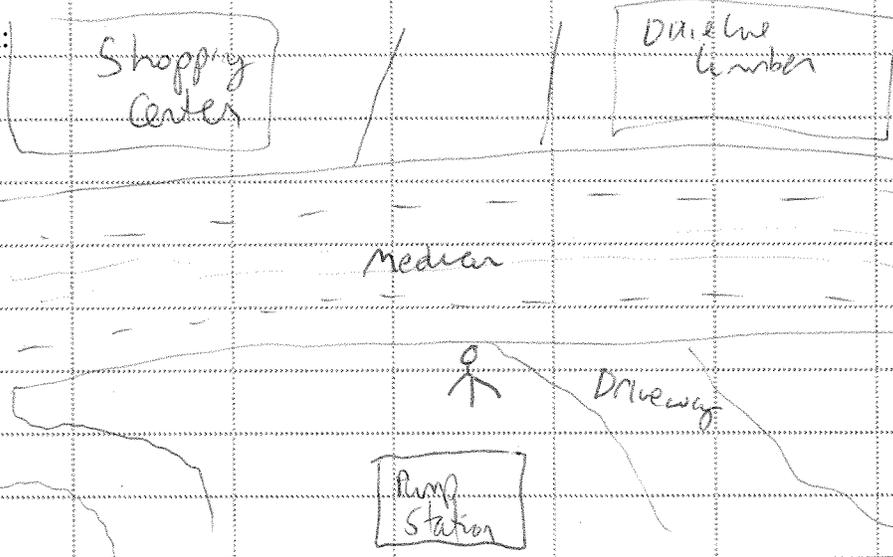
Serial #: 00090

Calibrator: CAS250

Serial #: 2621

Notes: Medium traffic

Sketch:



Temp: ~~75~~ 75°

Wind Spd: 2-3 mph, <sup>5 mph</sup> gusts

Humidity: 9 %

Start of Measurement: 9:55

End of Measurement: 10:11

71.1 dBA L<sub>EQ</sub>

Cars (tally per 5 cars)	Medium Trucks (MT)	Heavy Trucks (HT)
<div style="text-align: center; font-size: 2em; opacity: 0.5;">X</div>	<div style="text-align: center; font-size: 2em; opacity: 0.5;">X</div>	<div style="text-align: center; font-size: 2em; opacity: 0.5;">X</div>
Noise Measurement for Information Only		
No Through Roadways		
No Calibration Analysis Will Be Provided		

831 - Data 072

### Site Survey

Job # RIC-11

Project Name: Campo Road Sewer Main Replace

Date: 4/16/2015

Site #: 2

Engineer:

Bill Vosti

Address: Via Mercado

Meter: GXT

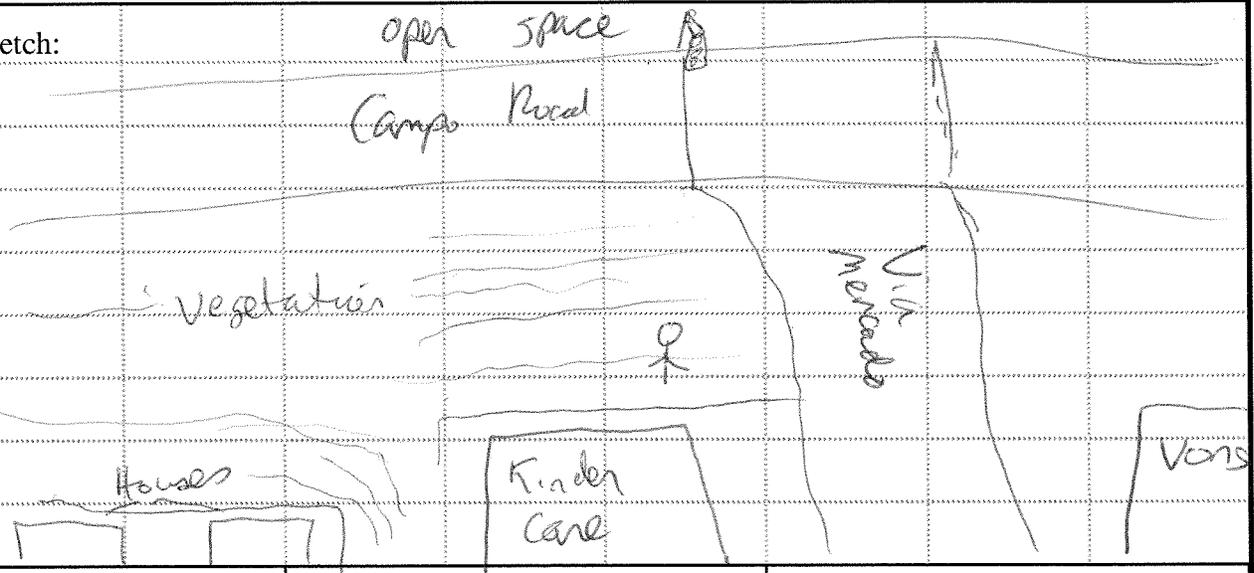
Serial #: 000390

Calibrator: CA250

Serial #: 2621

Notes: Medium traffic, but slow due to intersection.  
Children playing from daycare

Sketch:



Temp: 76°

Wind Spd: 2-3 mph

Humidity: 9 %

Start of Measurement: 10:24

End of Measurement: 10:39

64.8 dBA L<sub>EQ</sub>

Cars (tally per 5 cars)	Medium Trucks (MT)	Heavy Trucks (HT)
<div style="text-align: center;">Noise Measurement for Information Only</div> <div style="text-align: center;">No Through Roadways</div> <div style="text-align: center;">No Calibration Analysis Will Be Provided</div>	X	X

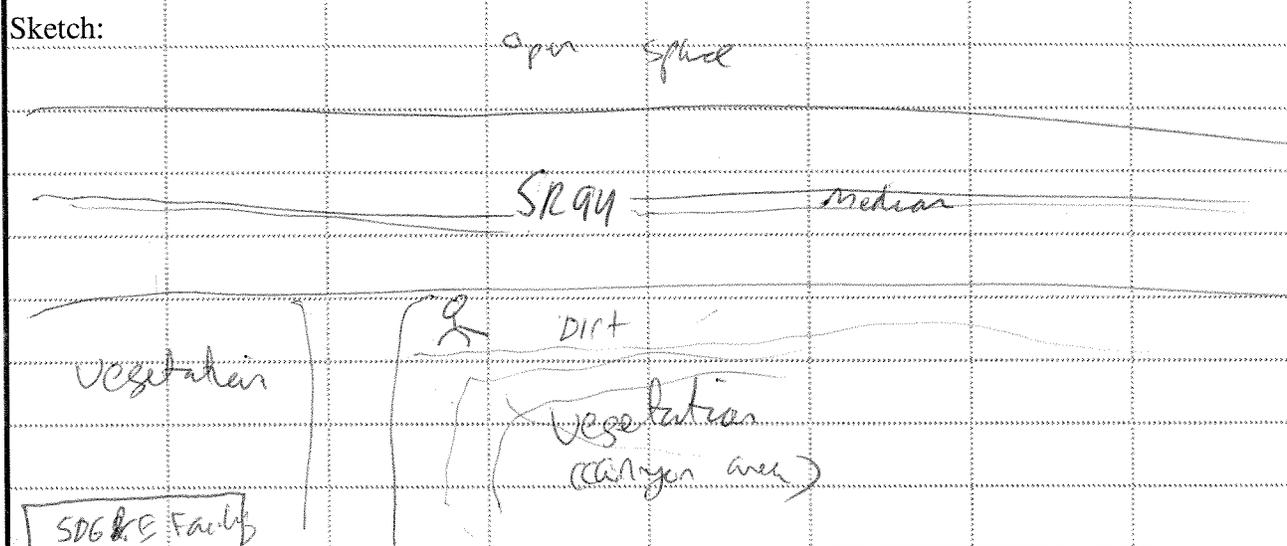
32.75N  
-116.96E

831-Data.073

### Site Survey

Job # RIC-11	Project Name: Campo Road Sewer Main Replace		
Date: 4/16/2015	Site #: 3	Engineer: Bill Vosti	
Address: 32.749 <sup>th</sup> St, -116.956/69° E off SR 94/Campo Rd			
Meter: LxT	Serial #: 001390	Calibrator: CA250	Serial #: 2621

Notes: Medium traffic



Temp: 79°	Wind Spd: 4-5 mph	Humidity: 6 %
Start of Measurement: 11:08	End of Measurement: 11:23	76.1 dBA L <sub>EQ</sub>

Cars (tally per 5 cars)	Medium Trucks (MT)	Heavy Trucks (HT)
	X	X
Noise Measurement for Information Only		
No Through Roadways		
No Calibration Analysis Will Be Provided		

831 - Data. 079

### Site Survey

Job # RIC-11

Project Name: Campo Road Sewer Main Replace

Date: 4/16/2015

Site #: 4

Engineer:

Bill Vosti

Address: Near elevated pipeline, 32.743851°N, -116.486618°W

Meter: LxT

Serial #: 001390

Calibrator: CA250

Serial #: 2621

Notes:

Sketch:



Temp: 80°

Wind Spd: 5-6 mph

Humidity: 5 %

Start of Measurement: 11:28

End of Measurement:

83.6 dBA L<sub>EQ</sub>

Cars (tally per 5 cars)

Medium Trucks (MT)

Heavy Trucks (HT)

Noise Measurement for Information Only

No Through Roadways

No Calibration Analysis Will Be Provided

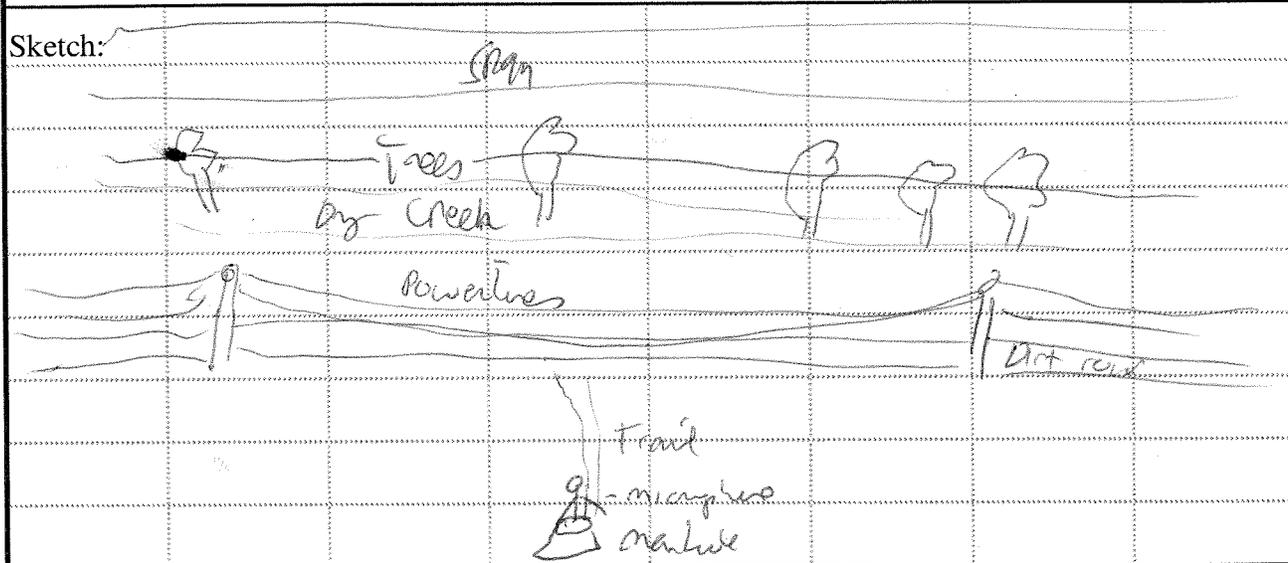
BSI-datas 075

### Site Survey

Job # RIC-11		Project Name: Campo Road Sewer Main Replace	
Date: 4/16/2015	Site #: 5	Engineer:	Bill Vosti
Address: Sewer manhole, N 32.741665°, E - 116.956423			
Meter: LxT	Serial #: 001390	Calibrator: CA250	Serial #: 2621

Notes:

Sketch:



Temp: 81°	Wind Spd: 5-6 mph	Humidity: 7 %
Start of Measurement: 12:10	End of Measurement: 12:25	45.7 dBA L <sub>EQ</sub>

Cars (tally per 5 cars)	Medium Trucks (MT)	Heavy Trucks (HT)
	X	X
Noise Measurement for Information Only		
No Through Roadways		
No Calibration Analysis Will Be Provided		

.076

### Site Survey

Job # RIC-11

Project Name: Campo Road Sewer Main Replace

Date: 4/16/2015

Site #: 6

Engineer:

Bill Vosti

Address: Mantoloking, N 32.747533° E - 116.956345°

Meter: Lxt

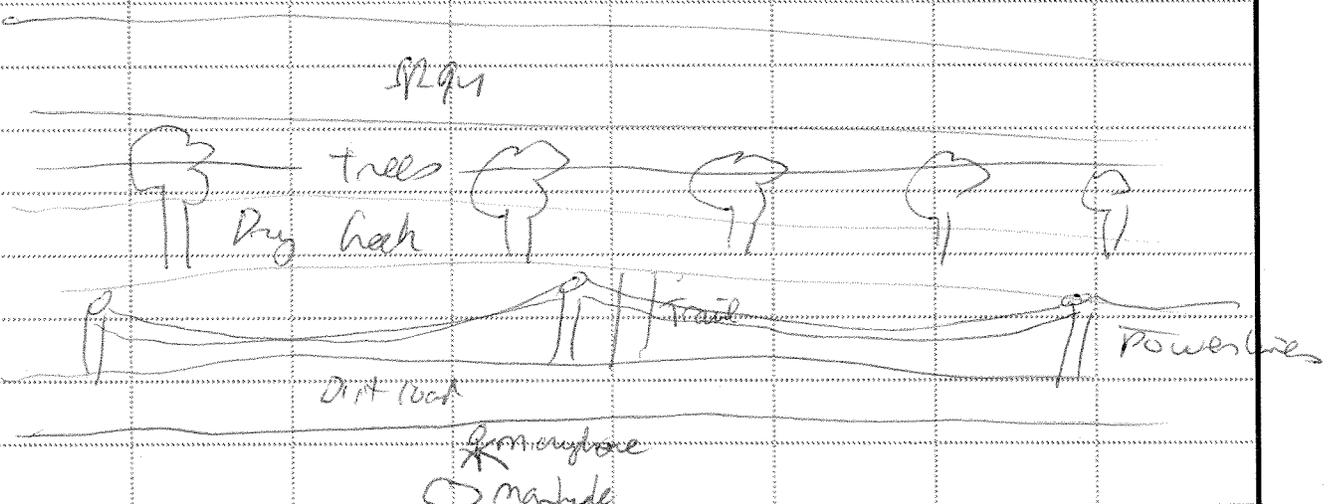
Serial #: 001390

Calibrator: CA250

Serial #: 2621

Notes: Birds chirping; airplane overhead @ 19:30

Sketch:



Temp: 80°

Wind Spd: 4-5

mph

Humidity: 7%

Start of Measurement: 12:36

End of Measurement: 12:52

48.7 dBA L<sub>EQ</sub>

Cars (tally per 5 cars)

Medium Trucks (MT)

Heavy Trucks (HT)

Noise Measurement for Information Only

No Through Roadways

No Calibration Analysis Will Be Provided

831 - Data. 77

## Site Survey

Job # RIC-11

Project Name: Campo Road Sewer Main Replace

Date: 4/16/2015

Site #: 7

Engineer:

Bill Vosti

Address:

Manhole <sup>west of</sup> ~~open~~ ~~San~~ Jacinto Blvd; N 32.73912°; E -116.9539054

Meter:

LxT

Serial #:

001390

Calibrator:

CA250

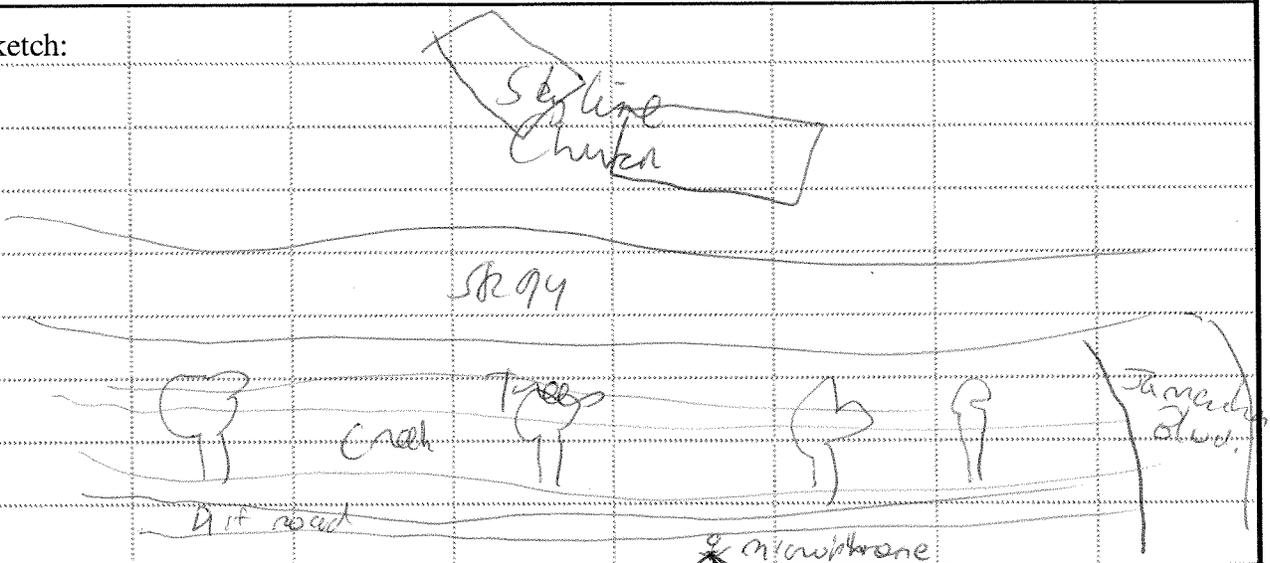
Serial #:

2621

Notes:

Birds chirping

Sketch:



Temp:

80

Wind Spd:

8

mph

Humidity:

8

%

Start of Measurement:

1:07

End of Measurement:

1:22

50.8

dBA L<sub>EQ</sub>

Cars (tally per 5 cars)

Medium Trucks (MT)

Heavy Trucks (HT)

Noise Measurement for Information Only

No Through Roadways

No Calibration Analysis Will Be Provided

831 - Data, D78

## Site Survey

Job # RIC-11

Project Name: Campo Road Sewer Main Replace

Date: 4/16/2015

Site #: 8

Engineer: Bill Vosti

Address: Near Jamacha Rd & Campo Rd intersection, N 32.73325° E-116.9

Meter: LxT

Serial #: 001390

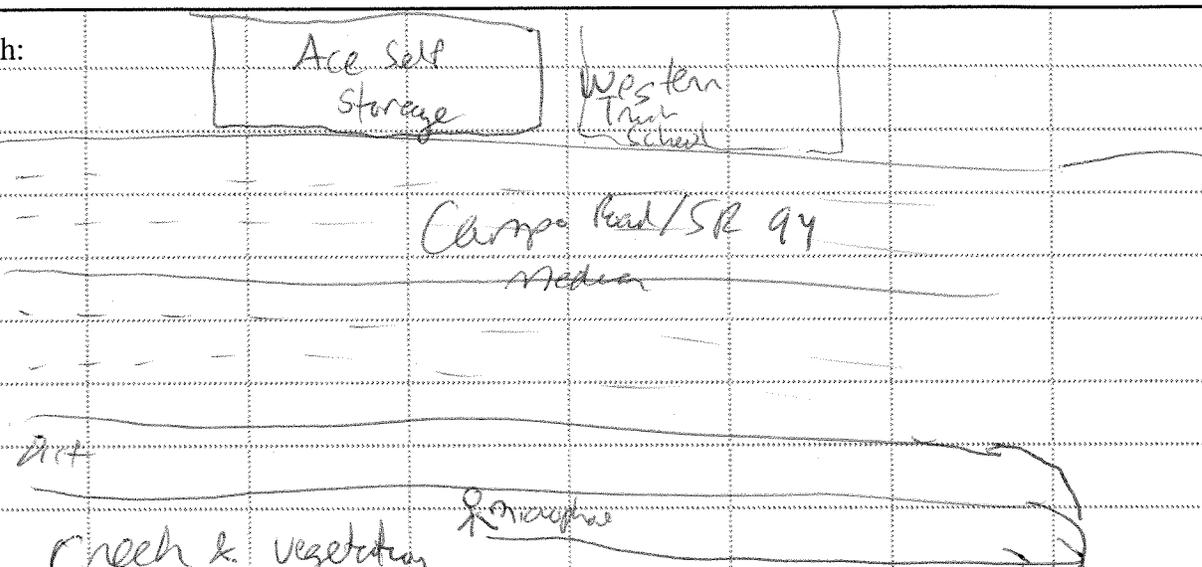
Calibrator: CA250

Serial #: 2621

45024

Notes: Medium + traffic

Sketch:



Jamacha Road

Temp: 82°

Wind Spd: 10-13 mph

Humidity: 9 %

Start of Measurement: 2:16

End of Measurement: 2:31

76.2 dBA L<sub>EQ</sub>

Camp Road

Cars (tally per 5 cars)

Medium Trucks (MT)

Heavy Trucks (HT)

Noise Measurement for Information Only

No Through Roadways

No Calibration Analysis Will Be Provided

## Site Survey

Job # RIC-11

Project Name: Campo Road Sewer Main Replace

Date: 4/16/2015

Site #: 9

Engineer:

Bill Vosti

Address:

Skylar Church; N 32.74/312°, E-116.95281°

Meter: LxT

Serial #: 021390

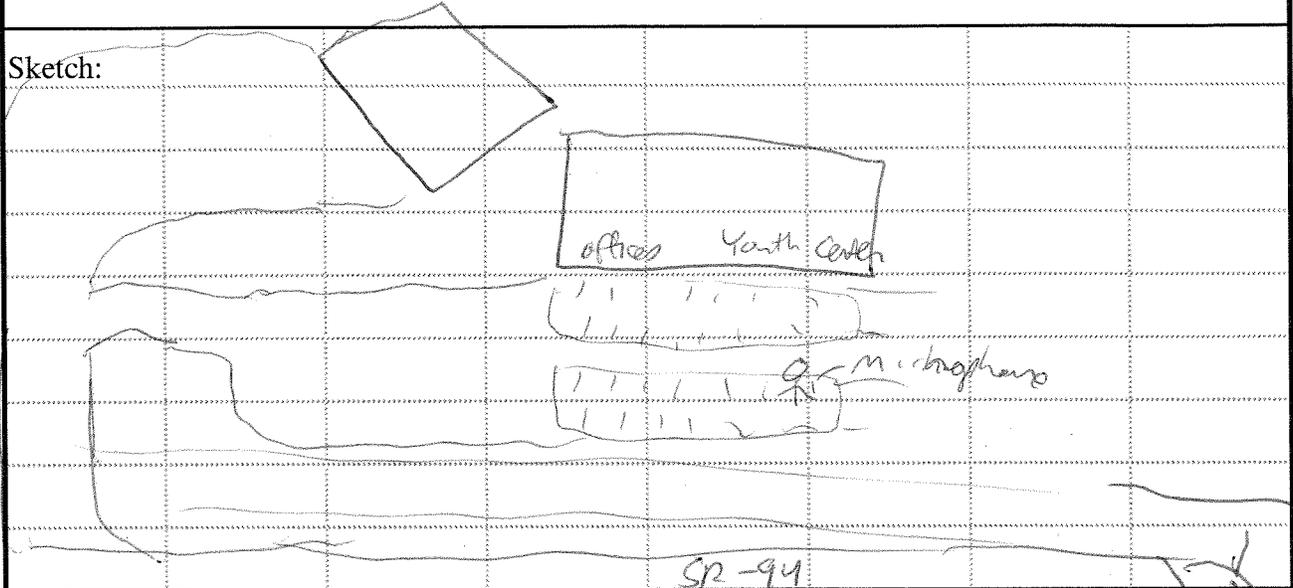
Calibrator: CA250

Serial #: 2621

Notes:

leaves nothing; line of sight w/ Jamacha Blvd, most car road from there

Sketch:



Temp: 81

Wind Spd: 12

mph Humidity: 9

%

Start of Measurement: 2:46

End of Measurement: 3:01

53.3

dBA L<sub>EQ</sub>

Cars (tally per 5 cars)

Medium Trucks (MT)

Heavy Trucks (HT)

Noise Measurement for Information Only

No Through Roadways

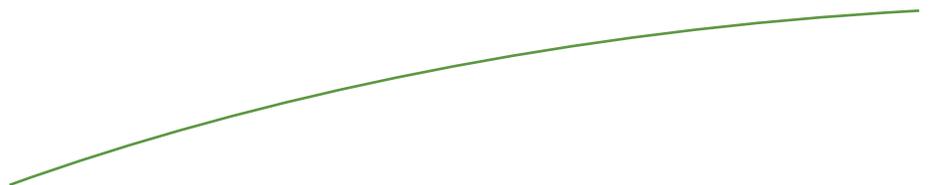
No Calibration Analysis Will Be Provided

831 data, 080



Appendix E

RESPONSES TO COMMENTS ON THE  
DRAFT MND



## **RESPONSES TO COMMENTS ON THE DRAFT MND**

The Draft MND for the Campo Road Sewer Replacement Project was prepared by Otay Water District (District) and circulated for public review beginning July 17, 2015. A Notice of Intent (NOI) to Adopt an MND was filed with the San Diego County Clerk's office and published in the San Diego Union-Tribune on July 17, 2015. Copies of the Draft MND and the supporting technical appendices were made available for review at the District and County of San Diego Rancho San Diego Branch Library. The Draft MND and appendices were also available for review and downloading from the District's Internet web page at: [www.otaywater.gov](http://www.otaywater.gov).

Five letters were received in response to issuance of the Draft MND from the following parties: California Department of Transportation, California State Water Resources Control Board, California Governor's Office of Planning and Research—State Clearinghouse and Planning Unit, County of San Diego, and San Diego County Archaeological Society, Inc.

This Final MND has been prepared in accordance with the requirements of the California Environmental Quality Act (California Public Resources Code Section 21000, et seq., [revised December 1998] herein, CEQA) and the State of California CEQA Guidelines, as amended February 1999 (California Administrative Code, Title 14, Section 15000, et seq.). The purpose of the Final MND is to provide the decision-making body, in this case the District, responsible agencies, and the public with environmental impact information relative to the proposed Campo Road Sewer Replacement Project. The District must consider the information contained in this Final MND prior to approving the proposed project.

The Final MND includes copies of each comment letter received in response to the Draft MND and the District's responses to the comments received. The Final MND also includes revisions to clarify and correct the Draft MND, where necessary. Those revisions are shown in ~~strike-out~~/underline format to signify ~~deletions~~ and inserts in the text of the MND. No new significant information has been presented in the Final MND that would require recirculation of the Draft MND pursuant to Section 15073.5(a) of the CEQA Guidelines.

### **DRAFT MND COMMENT LETTERS**

#### **Federal/State Agencies**

California Department of Transportation, dated August 13, 2015

California State Water Resources Control Board, dated August 17, 2015

California Governor's Office of Planning and Research—State Clearinghouse and Planning Unit, dated August 18, 2015

#### **Local Agencies**

County of San Diego, dated August 17, 2015

#### **Private Organizations**

San Diego County Archaeological Society, Inc., dated August 12, 2015

DEPARTMENT OF TRANSPORTATION  
DISTRICT 11, DIVISION OF PLANNING  
4050 TAYLOR ST. M.S. 240  
SAN DIEGO, CA 92110  
PHONE (619) 688-6960  
FAX (619) 688-4299  
TTY 711  
www.dot.ca.gov



Serious Drought.  
Help save water!

August 13, 2015

11-IMP-94  
PM 13.3

Campo Road Sewer Replacement MND

Ms. Lisa Coburn-Boyd  
Otay Water District  
2554 Sweetwater Springs Boulevard  
Spring Valley, CA 91978

Dear Ms. Lisa Coburn-Boyd:

The California Department of Transportation (Caltrans) has reviewed the Mitigated Negative Declaration (MND) for the Campo Road Sewer Replacement project near State Route 94 (SR-94). Caltrans has the following comments:

Any access to SR-94 will need to be reviewed and approved by Caltrans. Encroachment into Caltrans Right of Way will require an Encroachment Permit.

Additional information regarding encroachment permits may be obtained by contacting the Caltrans Permits Office at (619) 688-6158. Early coordination with Caltrans is strongly advised for all encroachment permits.

If you have any questions, please contact Roger Sanchez of the Development Review branch at (619) 688-6494.

Sincerely,

JACOB ARMSTRONG, Branch Chief  
Development Review Branch

"Provide a safe, sustainable, integrated and efficient transportation system  
to enhance California's economy and livability"

1

1. Section 10, *Other Public Agencies Whose Approval is Required*, of the Draft Mitigated Negative Declaration (page 7) reflects that an Encroachment Permit will be required from the California Department of Transportation. The Otay Water District has initiated coordination with Caltrans and will continue such coordination to obtain the required Encroachment Permit prior to project construction.



OTAY WATER DISTRICT  
RE...  
2015 AUG 21 AM 11:39



State Water Resources Control Board

AUG 17 2015

Lisa Cobourn-Boyd  
Otay Water District  
2554 Sweetwater Springs Boulevard  
Spring Valley, CA 91978

Dear Ms. Boyd:

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION (IS/MND) FOR OTAY WATER DISTRICT (DISTRICT); CAMPO ROAD SEWER REPLACEMENT PROJECT (PROJECT); SAN DIEGO COUNTY; STATE CLEARINGHOUSE NO. 2015071048

We understand that the District may be pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project. As a funding agency and a state agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information and comments for the environmental document prepared for the Project.

The State Water Board, Division of Financial Assistance, is responsible for administering the CWSRF Program. The primary purpose for the CWSRF Program is to implement the Clean Water Act and various state laws by providing financial assistance for wastewater treatment facilities necessary to prevent water pollution, recycle water, correct nonpoint source and storm drainage pollution problems, provide for estuary enhancement, and thereby protect and promote health, safety and welfare of the inhabitants of the state. The CWSRF Program provides low-interest funding equal to one-half of the most recent State General Obligation Bond Rates with a 30-year term. Applications are accepted and processed continuously. Please refer to the State Water Board's CWSRF website at: [www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/srf/index.shtml](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.shtml).

The CWSRF Program is partially funded by the United States Environmental Protection Agency and requires additional "California Environmental Quality Act (CEQA)-Plus" environmental documentation and review. Three enclosures are included that further explain the CWSRF Program environmental review process and the additional federal requirements. For the complete environmental application package please visit: [http://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/srf/srf\\_forms.shtml](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml). The State Water Board is required to consult directly with agencies responsible for implementing federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to State Water Board approval of a CWSRF financing commitment for the proposed Project. For further information on the CWSRF Program, please contact Mr. Ahmad Kashkoli, at (916) 341-5855.

THOMAS HOWARD, positive assistant  
10013 Street Sacramento, CA 95833 | Mailing Address P.O. Box 100 Sacramento, CA 95819-0100 | www.fairmountain.com



- 1. Comments related to requirements associated with Clean Water State Revolving Fund financing are noted. The District is not proposing to apply for such funds for the subject project.

- 2 -

It is important to note that prior to a CWSRF financing commitment, projects are subject to provisions of the Federal Endangered Species Act (ESA), and must obtain Section 7 clearance from the United States Department of the Interior, Fish and Wildlife Service (USFWS), and/or the United States Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) for any potential effects to special status species.

Please be advised that the State Water Board will consult with the USFWS, and/or the NMFS regarding all federal special-status species that the Project has the potential to impact if the Project is to be financed by the CWSRF Program. The District will need to identify whether the Project will involve any direct effects from construction activities, or indirect effects such as growth inducement, that may affect federally listed threatened, endangered, or candidate species that are known, or have a potential to occur in the Project site, in the surrounding areas, or in the service area, and to identify applicable conservation measures to reduce such effects.

In addition, CWSRF projects must comply with federal laws pertaining to cultural resources, specifically Section 106 of the National Historic Preservation Act (Section 106). The State Water Board has responsibility for ensuring compliance with Section 106 and the State Water Board must consult directly with the California State Historic Preservation Officer (SHPO). SHPO consultation is initiated when sufficient information is provided by the CWSRF applicant. The District must retain a consultant that meets the Secretary of the Interior's Professional Qualifications Standards ([http://www.nps.gov/history/local-law/arch\\_strnds\\_9.htm](http://www.nps.gov/history/local-law/arch_strnds_9.htm)) to prepare a Section 106 compliance report.

Note that the District will need to identify the Area of Potential Effects (APE), including construction and staging areas, and the depth of any excavation. The APE is three-dimensional and includes all areas that may be affected by the Project. The APE includes the surface area and extends below ground to the depth of any Project excavations. The records search request should extend to a 1/2-mile beyond project APE. The appropriate area varies for different projects but should be drawn large enough to provide information on what types of sites may exist in the vicinity.

Other federal environmental requirements pertinent to the Project under the CWSRF Program include the following (for a complete list of all environmental requirements please visit: [http://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/srf/docs/forms/application\\_environmental\\_package.pdf](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/forms/application_environmental_package.pdf)):

- A. Compliance with the Federal Clean Air Act: (a) Provide air quality studies that may have been done for the Project; and (b) if the Project is in a nonattainment area or attainment area subject to a maintenance plan; (i) provide a summary of the estimated emissions (in tons per year) that are expected from both the construction and operation of the Project for each federal criteria pollutant in a nonattainment or maintenance area, and indicate if the nonattainment designation is moderate, serious, or severe (if applicable); (ii) if emissions are above the federal de minimis levels, but the Project is sized to meet only the needs of current population projections that are used in the approved State Implementation Plan for air quality, quantitatively indicate how the proposed capacity increase was calculated using population projections.
- B. Compliance with the Coastal Zone Management Act: Identify whether the Project is within a coastal zone and the status of any coordination with the California Coastal Commission.

1  
cont.

1  
cont.

- C. Protection of Wetlands: Identify any portion of the proposed Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (USACE), or requires a permit from the USACE, and identify the status of coordination with the USACE.
- D. Compliance with the Farmland Protection Policy Act: Identify whether the Project will result in the conversion of farmland. State the status of farmland (Prime, Unique, or Local Statewide Importance) in the Project area and determine if this area is under a Williamson Act Contract.
- E. Compliance with the Migratory Bird Treaty Act: List any birds protected under this act that may be impacted by the Project and identify conservation measures to minimize impacts.
- F. Compliance with the Flood Plain Management Act: Identify whether or not the Project is in a Flood Management Zone and include a copy of the Federal Emergency Management Agency flood zone maps for the area.
- G. Compliance with the Wild and Scenic Rivers Act: Identify whether or not any Wild and Scenic Rivers would be potentially impacted by the Project and include conservation measures to minimize such impacts.

Following are specific comments on the District's draft IS/MND:

2

- 1. On page 17, under Biological Resources, it states that capping of the manholes would be completed by hand or with small equipment so as not to impact habitat. Please clarify what type of small equipment will be used to ensure no impact to habitat in the Project area.
- 2. The proposed pipeline would be placed underground at approximate depths between 15 and 29 feet. On page 47, under Hydrology and Water Quality, it states that it is likely to encounter perched groundwater at 10 feet. Please clarify how the perched groundwater will be protected as a result of construction activities.

3

4

Please provide us with the following documents applicable to the proposed Project if seeking CWSRF or other State Water Board funding: (1) one copy of the draft and final IS/MND, (2) the resolution adopting the IS/MND and a Mitigation Monitoring and Reporting Program (MMRP) making CEQA findings, (3) all comments received during the review period and the District's response to those comments, (4) the adopted MMRP, and (5) the Notice of Determination filed with the San Diego County Clerk and the Governor's Office of Planning and Research, State Clearinghouse. In addition, we would appreciate notices of any hearings or meetings held regarding environmental review of any projects to be funded by the State Water Board.

2.

The manhole capping would be conducted using small equipment such as saws, wheel barrows, and shovels. Use of these hand tools would avoid disturbance to vegetation.\)

3.

While the Draft IS/MND conservatively identified that groundwater could be encountered during project construction activities, no groundwater has been encountered in the borings completed to date for the project. Additionally, the permeability of the subsurface materials along the project alignment is low; therefore, if perched groundwater is encountered, volumes that would enter the excavation area are anticipated to be low. In the event that dewatering is necessary, the project would conform to applicable National Pollutant Discharge Elimination System Permit (NPDES Permit No. CAG919002 [Order No. R9-2008-0002]) criteria prior to disposal of extracted groundwater. Specific requirements generally include: (1) implementing an appropriate sampling, analysis, and monitoring program; (2) providing at least 30 days notification to the appropriate local agency prior to discharging to a municipal storm drain system; (3) conforming with applicable water quality standards, including (but not limited to) the Basin Plan, Clean Water Act, and State Porter-Cologne Water Quality Control Act; and (4) submittal of applicable monitoring reports.

COMMENTS

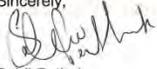
RESPONSES

3. While specific BMPs to address potential water quality concerns (cont.) from disposal of extracted groundwater would be determined based on site-specific parameters, they would likely include standard measures from the Groundwater Permit(s), with typical requirements including:
- Use erosion and sediment controls for applicable areas/ conditions, such as disposal of extracted groundwater on slopes or graded areas (with these generally identified as similar erosion/sediment controls as required under the NPDES Construction General Permit).
  - Test extracted groundwater for appropriate contaminants prior to discharge.
  - Treat extracted groundwater prior to discharge, if required, to provide conformance with applicable discharge criteria (e.g., through methods such as filtration, aeration, adsorption, disinfection, and/or conveyance to a municipal wastewater treatment plant).
4. As noted in the response to Comment 1, State Water Board funding is not being sought for the proposed project.

- 4 -

Thank you for the opportunity to review the District's draft IS/MND. If you have any questions or concerns, please feel free to contact me at (916) 319-0220, or by email at [Sahil.Pathak@waterboards.ca.gov](mailto:Sahil.Pathak@waterboards.ca.gov), or contact Ahmad Kashkoli at (916) 341-5855 or by email at [Ahmad.Kashkoli@waterboards.ca.gov](mailto:Ahmad.Kashkoli@waterboards.ca.gov).

Sincerely,



Sahil Pathak  
Environmental Scientist

Enclosures (3)

1. Clean Water State Revolving Fund Environmental Review Requirements
2. Quick Reference Guide to CEQA Requirements for State Revolving Fund Loans
3. Basic Criteria for Cultural Resources Reports

cc: State Clearinghouse  
(Re: SCH# 2015071048)  
P.O. Box 3044  
Sacramento, CA 95812-3044



EDMUND G. BROWN JR.  
GOVERNOR

STATE OF CALIFORNIA  
GOVERNOR'S OFFICE of PLANNING AND RESEARCH  
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX  
DIRECTOR  
2015 AUG 24 AM 10:47  
DAY WATER DISTRICT  
RECEIVED

August 18, 2015

Lisa Coburn-Boyd  
Otay Water District  
2554 Sweetwater Springs Boulevard  
Spring Valley, CA 91978-2004

Subject: Campo Road Sewer Replacement Project  
SCH#: 2015071048

Dear Lisa Coburn-Boyd:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on August 17, 2015, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan  
Director, State Clearinghouse

Enclosures

cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044  
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

1

1. This comment letter confirms that the Draft Mitigated Negative Declaration was distributed to various state agencies, and that the District has complied with statutory noticing obligations. No response is necessary.

Document Details Report  
State Clearinghouse Data Base

**SCH#** 2015071048  
**Project Title** Campo Road Sewer Replacement Project  
**Lead Agency** Otay Water District

**Type** MND Mitigated Negative Declaration

**Description** The Otay Water District determined that the existing 10-inch sewer pipeline within and south of Campo Road between Avocado Boulevard and Singer Lane is undersized to handle current sewer flows. To accommodate current and future flows, the District is proposing to install an approximately 8,360-foot-long, 8- to 15-inch gravity sewer main to replace the existing 9,225-foot-long, 10-inch sewer main. The proposed 8- to 15-inch sewer main would be installed by open trench excavation and horizontal auger boring. The existing 10-inch sewer pipeline would be abandoned in place, except for a 210-foot-long section of aboveground pipeline and seven supporting pillars that would be removed. In locations where the new alignment departs from the 10-inch pipe alignment, the manholes on the existing alignment would be abandoned.

**Lead Agency Contact**

**Name** Lisa Coburn-Boyd  
**Agency** Otay Water District  
**Phone** 619 670 2222  
**email**  
**Address** 2554 Sweetwater Springs Boulevard  
**City** Spring Valley **State** CA **Zip** 91978-2004  
**Fax**

**Project Location**

**County** San Diego  
**City**  
**Region**  
**Lat / Long** 32° 44' 40" N / 116° 57' 23" W  
**Cross Streets** Campo Road (SR 94) between Avocado Boulevard and Jamacha Road  
**Parcel No.**  
**Township** 16S **Range** 1W **Section** 27 **Base**

**Proximity to:**

**Highways** SR 94 and 54  
**Airports**  
**Railways**  
**Waterways** Sweetwater River  
**Schools** Avocado ES  
**Land Use** GP: General Commercial, Open Space, Specific Plan Area  
Z: C36, C37, S90, M52, S80, S88, S94

**Project Issues** Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects; Other Issues

**Reviewing Agencies** Resources Agency; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 11; Air Resources Board; State Water Resources Control Board, Division of Financial Assistance; Regional Water Quality Control Board, Region 9; Native American Heritage Commission

**Date Received** 07/17/2015 **Start of Review** 07/17/2015 **End of Review** 08/17/2015

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

SCH #2015071048

EDMUND G. BROWN II, Governor

DEPARTMENT OF TRANSPORTATION  
DISTRICT 11, DIVISION OF PLANNING  
4050 TAYLOR ST., M.S. 340  
SAN DIEGO, CA 92110  
PHONE (619) 688-6960  
FAX (619) 688-4299  
TTY 711  
www.dot.ca.gov

clear  
8/17/15  
E



Serious People  
Help save water!

RECEIVED  
AUG 13 2015  
STATE CLEARING HOUSE

11-IMP-94  
PM 13.3

Campo Road Sewer Replacement MND

August 13, 2015

Ms. Lisa Coburn-Boyd  
Otay Water District  
2554 Sweetwater Springs Boulevard  
Spring Valley, CA 91978

Dear Ms. Lisa Coburn-Boyd:

The California Department of Transportation (Caltrans) has reviewed the Mitigated Negative Declaration (MND) for the Campo Road Sewer Replacement project near State Route 94 (SR-94). Caltrans has the following comments:

Any access to SR-94 will need to be reviewed and approved by Caltrans. Encroachment into Caltrans Right of Way will require an Encroachment Permit.

Additional information regarding encroachment permits may be obtained by contacting the Caltrans Permits Office at (619) 688-6158. Early coordination with Caltrans is strongly advised for all encroachment permits.

If you have any questions, please contact Roger Sanchez of the Development Review branch at (619) 688-6494.

Sincerely,

JACOB ARMSTRONG, Branch Chief  
Development Review Branch

*"to provide a safe, sustainable, integrated and efficient transportation system  
to enhance California's economy and livability"*



State Water Resources Control Board

AUG 17 2015

Lisa Cobourn-Boyd  
Otay Water District  
2554 Sweetwater Springs Boulevard  
Spring Valley, CA 91978

RECEIVED  
AUG 17 2015  
STATE CLEARING HOUSE

Clear  
8/17/15  
E

Dear Ms. Boyd:

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION (IS/MND) FOR OTAY WATER DISTRICT (DISTRICT): CAMPO ROAD SEWER REPLACEMENT PROJECT (PROJECT); SAN DIEGO COUNTY; STATE CLEARINGHOUSE NO. 2015071048

We understand that the District may be pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project. As a funding agency and a state agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information and comments for the environmental document prepared for the Project.

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- 2 -

It is important to note that prior to a CWSRF financing commitment, projects are subject to provisions of the Federal Endangered Species Act (ESA), and must obtain Section 7 clearance from the United States Department of the Interior, Fish and Wildlife Service (USFWS), and/or the United States Department of Commerce National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS) for any potential effects to special status species.

Please be advised that the State Water Board will consult with the USFWS, and/or the NMFS regarding all federal special-status species that the Project has the potential to impact if the Project is to be financed by the CWSRF Program. The District will need to identify whether the Project will involve any direct effects from construction activities, or indirect effects such as growth inducement, that may affect federally listed threatened, endangered, or candidate species that are known, or have a potential to occur in the Project site, in the surrounding areas, or in the service area, and to identify applicable conservation measures to reduce such effects.

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Note that the District will need to identify the Area of Potential Effects (APE), including construction and staging areas, and the depth of any excavation. The APE is three-dimensional and includes all areas that may be affected by the Project. The APE includes the surface area and extends below ground to the depth of any Project excavations. The records search request should extend to a 1/4-mile beyond project APE. The appropriate area varies for different projects but should be drawn large enough to provide information on what types of sites may exist in the vicinity.

Other federal environmental requirements pertinent to the Project under the CWSRF Program include the following (for a complete list of all environmental requirements please visit: [http://www.waterboards.ca.gov/water\\_issues/programs/grants\\_loans/srf/docs/forms/application\\_environmental\\_package.pdf](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/docs/forms/application_environmental_package.pdf)):

- A. Compliance with the Federal Clean Air Act: (a) Provide air quality studies that may have been done for the Project; and (b) if the Project is in a nonattainment area or attainment area subject to a maintenance plan; (i) provide a summary of the estimated emissions (in tons per year) that are expected from both the construction and operation of the Project for each federal criteria pollutant in a nonattainment or maintenance area, and indicate if the nonattainment designation is moderate, serious, or severe (if applicable); (ii) if emissions are above the federal de minimis levels, but the Project is sized to meet only the needs of current population projections that are used in the approved State Implementation Plan for air quality, quantitatively indicate how the proposed capacity increase was calculated using population projections.
- B. Compliance with the Coastal Zone Management Act: Identify whether the Project is within a coastal zone and the status of any coordination with the California Coastal Commission.

- 3 -

- C. Protection of Wetlands: Identify any portion of the proposed Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (USACE), or requires a permit from the USACE, and identify the status of coordination with the USACE.
- D. Compliance with the Farmland Protection Policy Act: Identify whether the Project will result in the conversion of farmland. State the status of farmland (Prime, Unique, or Local Statewide Importance) in the Project area and determine if this area is under a Williamson Act Contract.
- E. Compliance with the Migratory Bird Treaty Act: List any birds protected under this act that may be impacted by the Project and identify conservation measures to minimize impacts.
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- G. Compliance with the Wild and Scenic Rivers Act: Identify whether or not any Wild and Scenic Rivers would be potentially impacted by the Project and include conservation measures to minimize such impacts.

Following are specific comments on the District's draft IS/MND:

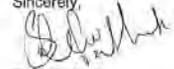
1. On page 17, under Biological Resources, it states that capping of the manholes would be completed by hand or with small equipment so as not to impact habitat. Please clarify what type of small equipment will be used to ensure no impact to habitat in the Project area.
2. The proposed pipeline would be placed underground at approximate depths between 15 and 29 feet. On page 47, under Hydrology and Water Quality, it states that it is likely to encounter perched groundwater at 10 feet. Please clarify how the perched groundwater will be protected as a result of construction activities.

Please provide us with the following documents applicable to the proposed Project if seeking CWSRF or other State Water Board funding: (1) one copy of the draft and final IS/MND, (2) the resolution adopting the IS/MND and a Mitigation Monitoring and Reporting Program (MMRP) making CEQA findings, (3) all comments received during the review period and the District's response to those comments, (4) the adopted MMRP, and (5) the Notice of Determination filed with the San Diego County Clerk and the Governor's Office of Planning and Research, State Clearinghouse. In addition, we would appreciate notices of any hearings or meetings held regarding environmental review of any projects to be funded by the State Water Board.

- 4 -

Thank you for the opportunity to review the District's draft IS/MND. If you have any questions or concerns, please feel free to contact me at (916) 319-0220, or by email at [Sahil.Pathak@waterboards.ca.gov](mailto:Sahil.Pathak@waterboards.ca.gov), or contact Ahmad Kashkoli at (916) 341-5855 or by email at [Ahmad.Kashkoli@waterboards.ca.gov](mailto:Ahmad.Kashkoli@waterboards.ca.gov).

Sincerely,



Sahil Pathak  
Environmental Scientist

Enclosures (3)

1. Clean Water State Revolving Fund Environmental Review Requirements
2. Quick Reference Guide to CEQA Requirements for State Revolving Fund Loans
3. Basic Criteria for Cultural Resources Reports

cc: State Clearinghouse  
(Re: SCH# 2015071048)  
P.O. Box 3044  
Sacramento, CA 95812-3044



# County of San Diego

**MARK WARDLAW**  
DIRECTOR  
PHONE: (619) 194-2802  
FAX: (619) 694-2955

PLANNING & DEVELOPMENT SERVICES  
5610 OVERLAND AVENUE, SUITE 310, SAN DIEGO, CA 92123  
www.sdcounty.ca.gov/pds

**DARREN GRETLER**  
ASSISTANT DIRECTOR  
PHONE: (619) 694-2662  
FAX: (619) 694-2555

August 17, 2015

Otay Water District  
2554 Sweetwater Springs Boulevard  
Spring Valley, California 91978-2004  
Attention: Lisa Coburn-Boyd

Via E-mail: [lisa.coburn-boyd@otaywater.gov](mailto:lisa.coburn-boyd@otaywater.gov)

### COMMENTS ON THE NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION AND NOTICE OF A PUBLIC HEARING FOR THE CAMPO ROAD SEWER REPLACEMENT PROJECT

Dear Ms. Coburn-Boyd:

The County of San Diego (County) received the Draft Initial Study and Proposed Mitigated Negative Declaration for the Campo Road Sewer Replacement Project and appreciates this opportunity to comment. The County Department of Public Works and Planning and Development Services have reviewed the Initial Study and have identified issues that may have an effect on unincorporated County lands.

#### Transportation/Traffic

- 1.
  - County-maintained roadways are located within the proposed project area (Avocado Boulevard, Via Mercado). As a result, County roads could potentially be impacted by the project. All paved and unpaved County roadways that are damaged, disturbed, or removed by the permitted work must be repaired to the satisfaction of DPW's Private Development Construction Inspection and Road Maintenance Sections.
- 2.
  - If the project would require a temporary road closure or detour around construction areas, this demonstrates that work would occur within the County's road right-of-way, and will require permits from the County. The environmental document should note the project will require an encroachment permit, including a traffic control plan that must be submitted to the County for review.

1. Comment noted. Construction details showing trench restoration requirements for County roads impacted by construction will be included in the Encroachment Permit application, and are subject to County review and approval through that process.
2. Section 10, *Other Public Agencies Whose Approval is Required*, of the Draft Mitigated Negative Declaration (page 7) reflects that an Encroachment Permit, Excavation Permit, and Traffic Control Permit will be required from the County of San Diego. Required permits will be obtained prior to project construction.

August 17, 2015  
 Otay Water District  
 Lisa Coburn-Boyd

**Watershed Protection Program**

3

- This project may generate offsite impacts to County lands with respect to storm water quality. Please consider adding to the discussion in the Water Quality section (page 6) how this project will be in conformance with the County of San Diego's Grading Ordinance and Watershed Protection Ordinance.
- Please reference appropriate dates/year for State of California Construction General Permit in the Water Quality section (page 6).

The County appreciates the opportunity to participate in the environmental review process for this project. We look forward to providing additional assistance at your request. If you have any questions regarding these comments, please contact Eric Lardy, Planning Manager, at (858) 694- 3052, or via email at [eric.lardy@sdcounty.ca.gov](mailto:eric.lardy@sdcounty.ca.gov)

Sincerely,



Andrew Spurgin, AICP  
 Chief  
 Advance Planning Division

e-mail cc:

- Conor McGee, CAO Staff Officer, LUEG
- Adam Wilson, Policy Advisor, Board of Supervisors, District 2
- Jeff Kashak, Environmental Planner, Department of Public Works
- Richard Chin, Associate Transportation Specialist, Department of Public Works
- Nick Ortiz, Land Development Project Manager, Planning & Development Services

3.

In response to this comment, pages 6 and 35 of the Initial Study have been revised to clarify that the Project would comply with the National Pollutant Discharge Elimination System Construction General Permit, Order 2009-0009-DWQ, adopted in 2009 and amended in 2010 and 2012. The proposed project would result in less than significant hydrology and water quality impacts as it would comply with the NPDES General Construction Permit, including any applicable post-construction requirements in that permit. The project has applied for an excavation permit and submitted construction plans to the County for review.



San Diego County Archaeological Society, Inc.  
Environmental Review Committee

12 August 2015

To: Ms. Lisa Coburn-Boyd  
Otay Water District  
2554 Sweetwater Springs Boulevard  
Spring Valley, California 91978-2004  
  
Subject: Draft Mitigated Negative Declaration  
Campo Road Sewer Replacement project

Dear Ms. Coburn-Boyd:

I have reviewed the subject DMND on behalf of this committee of the San Diego County Archaeological Society.

1 [ Based on the information contained in the information contained in the DMND, we agree with mitigation measure CUL-1.

Thank you for including SDCAS in the public review of this project's environmental documents.

Sincerely,

*James W. Royle, Jr.*  
James W. Royle, Jr., Chairperson  
Environmental Review Committee

cc: SDCAS President  
File

P.O. Box 81106 San Diego, CA 92138-1106 (658) 538-0935

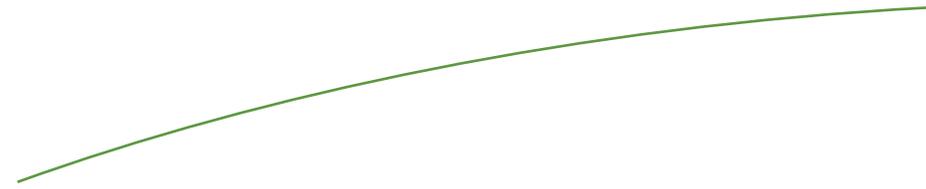
1. Comment noted. No response is necessary.

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Appendix F

MITIGATION MONITORING AND REPORTING  
PROGRAM SUMMARY



**Campo Road Sewer Replacement Project  
Mitigation Monitoring and Reporting Program Summary  
Mitigated Negative Declaration**

Mitigation Measures	Implementation Action	Method of Verification	Timing of Verification	Responsible Person	Verification Date
<b>BIOLOGICAL RESOURCES</b>					
<p><b>BIO-1</b> Temporary orange construction fencing shall be installed adjacent to the access road where Otay tarplant occurs and the contractors shall be informed regarding no-entry areas. The temporary construction fencing and contractor education shall occur prior to grubbing, clearing, and/or grading. A qualified biologist shall verify the location of the temporary fencing prior to construction activities within areas containing Otay tarplant. In addition, a biological monitor shall be present during construction activities within 25 feet of areas containing Otay tarplant to ensure that this species is not impacted. The fencing shall be removed upon completion of construction of the project.</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	
<p><b>BIO-2</b> To ensure compliance with the MBTA, clearing of vegetation shall occur outside of the breeding season of most avian species (February 1 through September 15). Clearing during the breeding season of MBTA-covered species (migratory birds that are native to the United States or its territories) could occur if it is determined that no nesting birds (or birds displaying breeding or nesting behavior) are present within 3 days prior to clearing. A pre-construction survey shall be conducted to determine if breeding or nesting avian species occurs within areas directly affected by vegetation removal or indirectly affected by noise. If any of these birds are observed nesting or displaying breeding/nesting behavior within the area, construction in the area shall be postponed until (1) the nest is abandoned or the young have fledged or (2) after September 15. The no-work buffer zone placed around the nest shall be determined by a qualified biologist at the time of discovery, and will vary based on site conditions and the type of work to be conducted. A qualified biologist shall monitor vegetation removal if conducted during the breeding season.</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	

Mitigation Measures	Implementation Action	Method of Verification	Timing of Verification	Responsible Person	Verification Date
<p><b>BIO-3</b> No grubbing, clearing, or grading shall occur during the gnatcatcher breeding season (February 15 through August 15) within 500 feet of occupied Diegan coastal sage scrub in the central portion of the proposed pipeline alignment (south of the intersection of Campo Road/ Jamacha Boulevard). As such, all project plans shall state the same.</p> <p>If project construction would occur during the gnatcatcher breeding season in the central portion of the alignment and/or raptor breeding season, pre-construction surveys shall be conducted within three days prior to construction activities to determine if these species occur within the areas indirectly impacted by noise. If there are no gnatcatchers or raptors nesting (includes nest building or other breeding/nesting behavior) within this area, construction shall be allowed to proceed. However, if any gnatcatcher or raptors are observed nesting or displaying breeding/nesting behavior within the area, construction shall be postponed until (1) all nesting (or breeding/nesting behavior) has ceased or until after August 15; or (2) a temporary noise barrier or berm shall be constructed at the edge of the impact footprint to reduce noise levels below 60 dB L<sub>EQ</sub> or ambient (if ambient is greater than 60 dB L<sub>EQ</sub>). Alternatively, construction equipment could be modified and/or the duration of construction equipment operation could be controlled to keep noise levels below 60 dB L<sub>EQ</sub> or ambient in lieu of or in concert with a wall or other sound attenuation barrier.</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	
<p><b>BIO-4</b> No clearing, grubbing, grading, or other construction activities shall occur within 300 feet of occupied least Bell’s vireo habitat between March 15 to September 15, the breeding season of the least Bell’s vireo. If construction activities must occur during the least Bell’s vireo breeding season, nest surveys shall be conducted within 300 feet of all proposed activities. If active nests are encountered and construction activities must occur during the least Bell’s vireo breeding season, noise levels from human activities at the nest shall be restricted to less than 60 dB L<sub>EQ</sub> or the ambient noise level plus 3 dB (perceptible change threshold), whichever is greater. Noise levels shall be monitored, and monitoring reports shall be provided to the District to be included in the annual reports.</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	

Mitigation Measures	Implementation Action	Method of Verification	Timing of Verification	Responsible Person	Verification Date
<p><b>BIO-5</b> Impacts to Diegan coastal sage scrub (including disturbed) shall be mitigated at a 1:1 ratio. Therefore, required mitigation would be 0.3 acre. The District shall debit credits from its San Miguel Habitat Management Area.</p> <p>In addition, in order to avoid impacts to adjacent sensitive habitat during construction, such habitat interfaces shall require temporary orange construction fencing that clearly delineates the edge of the approved limits of work and environmentally sensitive areas beyond. A biologist shall ensure that the fencing is properly installed prior to construction, and maintained for the duration of construction activity. The fencing shall be installed in a manner that does not impact habitats to be avoided. A biological monitor shall be present during construction activities adjacent to sensitive habitat. The fencing shall be removed upon completion of construction of the project.</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	
<b>CULTURAL RESOURCES</b>					
<p><b>CUL-1</b> Trenching will be monitored by an archaeologist and a Native American monitor. Trenching below depths at which cultural material would reasonably be expected to occur will not require monitoring, but monitors should be present to observe trenching, grading, and other ground-disturbing activities in the upper few feet (as determined by the archaeologist) of soil. If cultural material is encountered, monitors will have the authority to temporarily halt or redirect work while the cultural material is documented and assessed. If significant deposits are found, additional data recovery will be conducted, as necessary, to adequately mitigate project impacts. Cultural material recovered will be curated at the San Diego Archaeological Center or other appropriate facility meeting federal curatorial standards.</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	

Mitigation Measures	Implementation Action	Method of Verification	Timing of Verification	Responsible Person	Verification Date
<p><b>CUL-2</b> Trenching within Santiago Peak Volcanics will be monitored by a paleontologist. If paleontological resources are encountered, the monitor will have the authority to temporarily halt or redirect work while the paleontological resources are documented and assessed. If significant deposits are found, additional data recovery will be conducted, as necessary, in order to adequately mitigate project impacts. The fossil collection and all associated documentation will be legally transferred to a qualified repository within San Diego County.</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	
<b>NOISE</b>					
<p><b>NOI-1</b> Trenching construction activities involving a dump truck and an excavator may generate significant noise impacts to sensitive habitat if operated within 210 feet of the habitat. If a dump truck and an excavator are operated within this distance during the breeding seasons of coastal California gnatcatcher (February 15 to August 31) or least Bell’s vireo (March 15 to September 15), a temporary noise barrier between the construction equipment and the sensitive habitat shall be used to reduce noise impacts to baseline noise levels of 65.6 dBA L<sub>EQ</sub>.</p> <p>An 8-foot high temporary noise barrier meeting the specifications listed below (or of a STC 19 rating or better) would attenuate noise at the sensitive habitat to less baseline noise levels of 65.6 dBA L<sub>EQ</sub>. The sound attenuation fence or wall must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are 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 and must be at least 3/4-inch total thickness or have a density of at least 3½ pounds per square foot.</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	

Mitigation Measures	Implementation Action	Method of Verification	Timing of Verification	Responsible Person	Verification Date
<p><b>NOI-2</b> Construction activities for the western jacking pit involving a dump truck and an excavator may generate significant noise impacts to coastal California gnatcatcher habitat if operated within 210 feet of the sensitive habitat. Due to the close distance to sensitive habitat that a dump truck and excavator would have to operate for the western jacking pit, barrier mitigation to reduce noise impacts to sensitive habitat to less than significant levels would be infeasible. Therefore, if western jacking pit activities would occur during the breeding season for the coastal California gnatcatcher (February 15 to August 31), a qualified biologist shall conduct a study confirming the absence of coastal California gnatcatchers within 250 feet of the construction activities prior to start of work or, if work has already begun, prior to the breeding season. If coastal California gnatcatchers are found to be present, construction activities shall cease until the close of the breeding season.</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	
<p><b>NOI-3</b> Eastern jacking pit construction activities involving a dump truck and an excavator may generate significant noise impacts to sensitive habitat if operated within 210 feet of the habitat. If a dump truck and an excavator are operated within this distance during the breeding seasons of coastal California gnatcatcher (February 15 to August 31) or least Bell's vireo (March 15 to September 15), a temporary noise barrier between the construction equipment and the sensitive habitat shall be used to reduce noise impacts to existing ambient noise levels (65.6 dBA L<sub>EQ</sub>).</p> <p>An 8-foot high barrier meeting a STC 19 rating or better would attenuate noise at the sensitive habitat to less than baseline noise levels of 65.6 dBA L<sub>EQ</sub>. The sound attenuation fence or wall must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are 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 and must be at least 3/4-inch total thickness or have a density of at least 3½ pounds per square foot.</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	

Mitigation Measures	Implementation Action	Method of Verification	Timing of Verification	Responsible Person	Verification Date
<p><b>NOI-4</b> Tunnel boring activities at the western jacking pit involving a generator may create significant noise impacts to coastal California gnatcatcher habitat if operated within 80 feet of the sensitive habitat. Due to the close distance that a generator would have to operate for tunnel boring construction activities, barrier mitigation to reduce noise impacts to sensitive habitat to less than significant levels would be infeasible. Therefore, if tunnel boring at the western jacking pit would occur during the breeding season for the coastal California gnatcatcher (February 15 to August 31), a qualified biologist shall conduct a study confirming the absence of coastal California gnatcatchers within 250 feet of tunneling construction work prior to start of work or, if work has already begun, prior to the breeding season. If coastal California gnatcatchers are found to be present, construction activities shall cease until the close of the breeding season.</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	
<p><b>NOI-5</b> Dump trucks and front-end loaders shall not operate within 145 feet of the edge of occupied coastal California gnatcatcher habitat during the breeding season (February 15 to August 31).</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	
<p><b>NOI-6</b> Due to the close distance that a jackhammer, an air compressor, and a skid steer would have to operate to remove each manhole’s concrete dome, barrier mitigation to reduce noise levels to avoid impacts to sensitive habitat would be infeasible. Therefore, manhole removal activities shall not occur during the breeding seasons for the coastal California gnatcatcher (February 15 to August 31) or least Bell’s vireo (March 15 to September 15).</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	
<p><b>NOI-7</b> Due to the close distance to sensitive habitat that a crane would operate to remove the elevated pipeline, barrier mitigation to reduce noise levels to avoid impacts to sensitive habitat would be infeasible. Therefore, operation of a crane to remove the elevated pipeline shall not occur during the breeding seasons for the coastal California gnatcatcher (February 15 to August 31) or least Bell’s vireo (March 15 to September 15).</p>	Condition of Approval	Plan Check	Prior to approval of final design plans	OWD Engineering Department	

# AGENDA ITEM 6



## STAFF REPORT

TYPE MEETING:	Regular Board	MEETING DATE:	November 4, 2015
SUBMITTED BY:	Lisa Coburn-Boyd Environmental Compliance Specialist	PROJECT:	P1253- 001000
	Bob Kennedy Engineering Manager	DIV. NO.	ALL
APPROVED BY:	<input checked="" type="checkbox"/> Rod Posada, Chief, Engineering <input checked="" type="checkbox"/> German Alvarez, Assistant General Manager <input checked="" type="checkbox"/> Mark Watton, General Manager		
SUBJECT:	Project Approval and California Environmental Quality Act Notice of Exemption for the Purchase of Water from Cadiz, Inc.		

### **GENERAL MANAGER'S RECOMMENDATION:**

That the Otay Water District (District) Board of Directors (Board) authorize the General Manager and District staff to explore, negotiate and enter into a Letter of Intent or Memorandum of Understanding (LOI/MOU) between the District and Cadiz, Inc. for the purchase of 5,000 acre-feet per year (AFY) of raw water and to approve the California Environmental Quality Act (CEQA) Notice of Exemption for the potential water purchase.

See Exhibit A for the location of the Cadiz Valley Water Conservation, Recovery, and Storage Project (Cadiz Water Project).

### **COMMITTEE ACTION:**

Please see Attachment A.

**PURPOSE:**

To obtain Board authorization for the General Manager and District staff to General Manager and District staff to explore, negotiate and enter into a Letter of Intent or Memorandum of Understanding (LOI/MOU) between the District and Cadiz, Inc. for the purchase of 5,000 acre-feet per year (AFY) of raw water and to approve the California Environmental Quality Act (CEQA) Notice of Exemption for the potential water purchase.

**ANALYSIS:**

The proposed project is to allow the District to purchase 5,000 AFY of raw water from the Cadiz Water Project. The raw water that would be purchased is contained in a closed groundwater basin, located in the Mojave Desert portion of eastern San Bernardino County, California, and will be one of the new water sources in the water supply portfolio to be included in the Integrated Water Resources Plan Update (IRP). The IRP workshop with the Board will be held in February, 2016.

Cadiz Inc. will construct a wellfield on their property and the recovered groundwater would be transported through a manifold (piping) system to a 43-mile conveyance pipeline that will also be constructed for the Cadiz Water Project. The conveyance pipeline would carry the water to a tie-in point at the Colorado River Aqueduct (CRA) (see Exhibit B for Cadiz Water Project schematic). From the CRA, the water would be delivered through the same pipelines that are used to deliver water to the District by the Metropolitan Water District of Southern California (MWD), and in turn, the San Diego County Water Authority (SDCWA). The raw water delivered from the Cadiz Water Project would replace an equal amount of raw water that would normally be delivered by the MWD and SDCWA from their existing sources. The raw water would be treated as usual at the Helix Water District's Levy Water Treatment Plant before being distributed through the District's pipelines to customers in the northern portion of the District's service area. No physical improvements would be required by the proposed project.

As a first step towards the eventual purchase of the water from the Cadiz Water Project, the District will prepare a LOI/MOU between Cadiz, Inc. and the District. This LOI/MOU will indicate the District's interest in and willingness to purchase water from the Cadiz, Inc., provided that certain conditions precedent are met, including, but not limited to, successful environmental review and construction of the proposed project.

In addition, the District will file a CEQA Notice of Exemption (see Attachment B) for the purchase of 5,000 AFY of water. Approval of the proposed project would not require any physical changes to the environment by the District as all water to be purchased would be conveyed to District property via (1) existing infrastructure (i.e., Colorado River Aqueduct and existing MWD and SDCWA conveyance lines) and (2) new infrastructure proposed by Cadiz, Inc. The effects of

the Cadiz Water Project have been analyzed in the Cadiz Water Project Final Environmental Impact Report (FEIR). Before any water is received by the District, the District would confirm that all necessary mitigation measures required by the Cadiz Water Project's FEIR Mitigation Monitoring and Reporting Program have been implemented. Therefore, the District's purchase of the water would have no potential of causing a significant effect on the environment and is exempt from CEQA under the "general rule", as described under Section 15061(b)(3).

**FISCAL IMPACT:**             Joe Beachem, Chief Financial Officer

District staff work and any outside services work on the CEQA NOE is covered by the Environmental Services Operating Budget account, P1253.

Legal services for the LOI/MOU are within the standard legal services retainer and are covered by the Operating Budget.

Based on a review of the Operating Budget, it is anticipated that there are sufficient funds to support this work.

**STRATEGIC GOAL:**

This Project supports the District's Mission statement, "To provide high value water and wastewater services to the customers of the Otay Water District in a professional, effective, and efficient manner" and the General Manager's Vision, "A District that is at the forefront in innovations to provide water services at affordable rates, with a reputation for outstanding customer service."

**LEGAL IMPACT:**

None.

LCB/BK:mlc

P:\WORKING\CIP P1253\Subproject 001000\Cadiz Project\Staff Reports\BD 11-04-15, Staff Report, Cadiz Valley Water Project Approval of Water Purchase and NOE.docx

Attachments:    Attachment A - Committee Action  
                  Attachment B - CEQA Notice of Exemption  
                  Exhibit A - Project Location  
                  Exhibit B - Cadiz Water Project Schematic



## ATTACHMENT A

<b>SUBJECT/PROJECT:</b> P1253-001000	Project Approval and California Environmental Quality Act Notice of Exemption for the Purchase of Water from Cadiz, Inc.
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### **COMMITTEE ACTION:**

The Engineering, Operations, and Water Resources Committee (Committee) reviewed this item at a meeting held on October 20, 2015. The Committee supported Staff's recommendation.

### **NOTE:**

The "Committee Action" is written in anticipation of the Committee moving the item forward for Board approval. This report will be sent to the Board as a Committee approved item, or modified to reflect any discussion or changes as directed from the Committee prior to presentation to the full Board.

## ATTACHMENT B

### NOTICE OF EXEMPTION

---

To: County Clerk  
County of San Diego  
1600 Pacific Highway, Room 260  
San Diego, CA 92101

From: Otay Water District  
2554 Sweetwater Springs Blvd.  
Spring Valley, CA 91978

**Project Title:** Otay Water District Raw Water Purchase from the Cadiz Valley Water Conservation, Recovery and Storage Project

**Project Location -** Otay Water District in Southern San Diego County, California

**Project Location – City:** Various

**Project Location – County:** San Diego

**Description of Project:** The proposed project is the Otay Water District (District) purchase of 5,000 acre-feet per year of raw water from the Cadiz Valley Water Conservation, Recovery and Storage Project (Cadiz Water Project). The raw water that would be purchased is contained in a closed groundwater basin located in the Mojave Desert portion of eastern San Bernardino County, California. The Cadiz Water Project will construct a wellfield on their property and the recovered groundwater would be transported through a manifold (piping) system to a 43-mile conveyance pipeline that will also be constructed for the Cadiz Water Project. The conveyance pipeline would carry the water to a tie-in point at the Colorado River Aqueduct (CRA). From the CRA, the water would be delivered through the same pipelines that are used to deliver water to the District by the Metropolitan Water District of Southern California (MWD) and in turn, the San Diego County Water Authority (SDCWA) of which the District is a member agency. The 5,000 acre-feet of raw water delivered from the Cadiz Water Project would replace an equal amount of raw water that would normally be delivered by the MWD and SDCWA from their existing sources. The raw water would be treated as usual at the Helix Water District's Levy Water Treatment Plant before being distributed through the District's pipelines to customers in the northern portion of the District's service area. No physical improvements would be required by the proposed project.

**Name of Public Agency Approving Project:** Otay Water District

**Name of Person or Agency Carrying Out Project:** Otay Water District

**Exempt Status:** *(check one)*

Ministerial (Sec. 21080 (b)(1); 15268);

Declared Emergency (Sec. 21080(b)(3); 15269(a));

Emergency Project (Sec. 21080(b)(4); 15269 (b)(c));

Categorical Exemption (state type and section number): General Rule Exemption, Section 15061 (b) (3).

Statutory Exemption (state code Number):

**Reason why project is exempt:** Pending successful certification of the Cadiz Water Project Final Environmental Impact Report and implementation of all necessary mitigation measures required by the Cadiz Water Project's Mitigation Monitoring and Reporting Program, the District would enter into an agreement to purchase 5,000 acre-feet per year of raw water from the Cadiz Water Project. The purchase agreement is the proposed project. Approval of the

proposed project would not require any physical changes to the environment by the District as all water to be purchased would be conveyed to District property via (1) existing infrastructure (i.e. Colorado River Aqueduct and existing MWD and SDCWA conveyance lines) and (2) new infrastructure proposed by Cadiz, Inc., the effects of which have been analyzed and would be cleared in the Cadiz Water Project Final Environmental Impact Report before any water is received by the District. Therefore, because no physical changes to the environment would occur from the proposed project, approval of the water purchase agreement would have no potential of causing a significant effect on the environment and is exempt from CEQA under the “general rule” as described under Section 15061(b)(3).

**Lead Agency Contact Person:** Lisa Coburn-Boyd, Otay Water District  
**Area Code/Telephone/Extension:** (619) 670-2219

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

- Signed by Lead Agency
- Signed by Applicant



# CADIZ VALLEY WATER CONSERVATION, RECOVERY AND STORAGE PROJECT

## How It Works

Precipitation falls on surrounding mountains in the watershed as rain and snow. Water seeps underground and flows through the aquifer system beneath the Project area and discharges to dry lakes where it is lost to evaporation.

The Project will intercept and pump this water using extraction wells on Cadiz Inc. property creating hydraulic control. By instituting hydraulic control, most of the water currently lost to evaporation will be conserved. Conserved groundwater will be delivered via an underground conveyance pipeline to the Colorado River Aqueduct for delivery to water users.

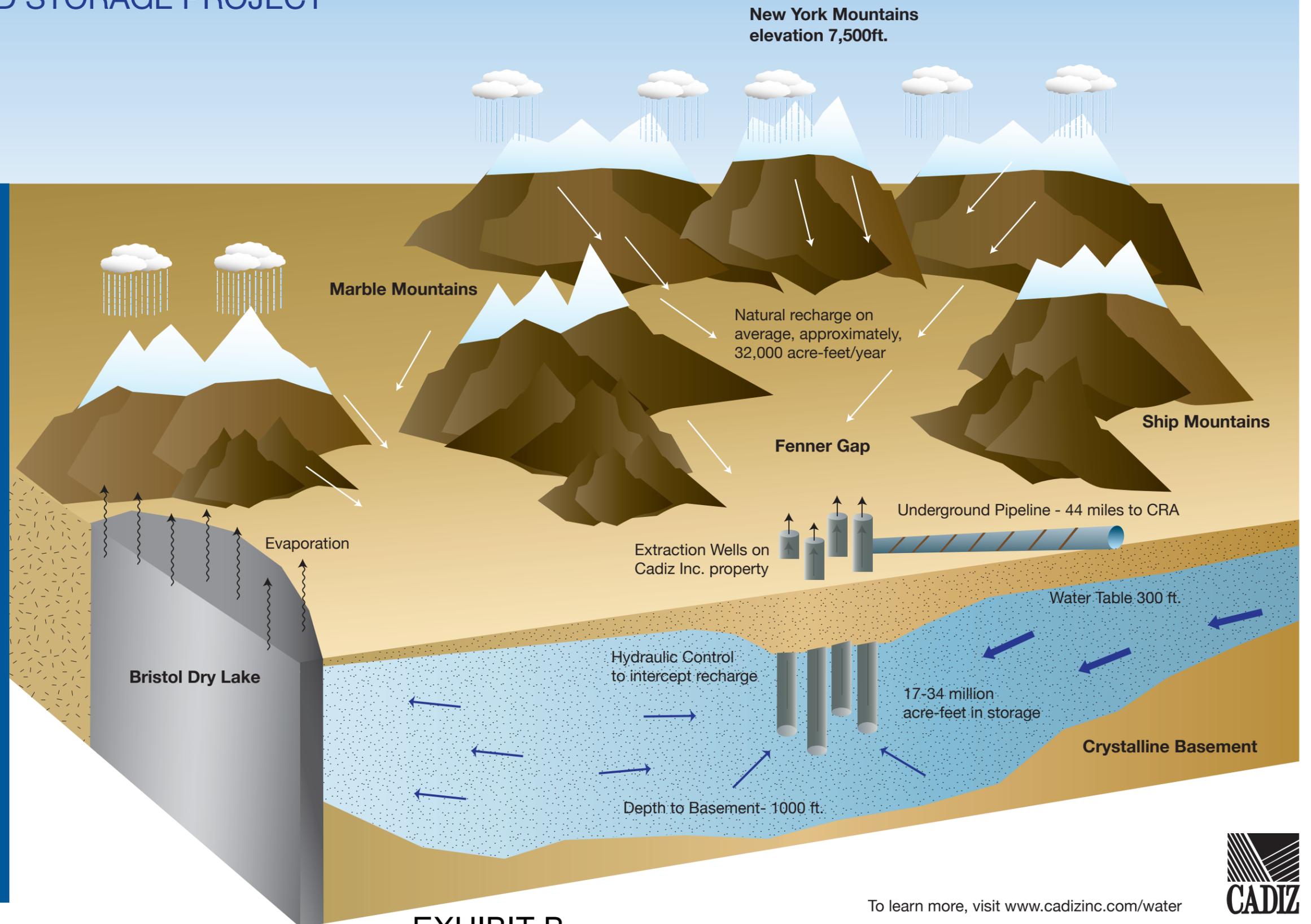


EXHIBIT B

To learn more, visit [www.cadizinc.com/water](http://www.cadizinc.com/water)

