

# The Metropolitan Water District of Southern California

# Agenda

The mission of the Metropolitan Water District of Southern California is to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

## **E&O Committee**

T. Smith, Chair  
Vacant, Vice Chair  
R. Apodaca  
S. Blois  
M. Camacho  
D. De Jesus  
L. Dick  
S. Faessel  
L. Fong-Sakai  
R. Lefevre  
J. Morris  
G. Peterson  
H. Repenning  
H. Williams

## **Engineering and Operations Committee**

Meeting with Board of Directors \*

**July 12, 2022**

**9:30 a.m.**

Teleconference meetings will continue until further notice. Live streaming is available for all board and committee meetings on [mwdh2o.com](https://mwdh2o.com) ([Click Here](#))

A listen only phone line is also available at 1-877-853-5257; enter meeting ID: 831 5177 2466. Members of the public may present their comments to the Board on matters within their jurisdiction as listed on the agenda via teleconference only. To participate call (833) 548-0276 and enter meeting ID: 815 2066 4276.

## **Tuesday, July 12, 2022 Meeting Schedule**

9:30 am - E&O  
10:30 am - RP&AM  
11:00 am - OP&T  
12:00 pm - L&C  
1:00 pm - C&L  
1:30 pm - WP&S  
3:00 pm - BOD

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MWD Headquarters Building • 700 N. Alameda Street • Los Angeles, CA 90012

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\* The Metropolitan Water District's meeting of this Committee is noticed as a joint committee meeting with the Board of Directors for the purpose of compliance with the Brown Act. Members of the Board who are not assigned to this Committee may participate as members of the Board, whether or not a quorum of the Board is present. In order to preserve the function of the committee as advisory to the Board, members of the Board who are not assigned to this Committee will not vote on matters before this Committee.

- 1. Opportunity for members of the public to address the committee on matters within the committee's jurisdiction (As required by Gov. Code Section 54954.3(a))**

### **\*\* CONSENT CALENDAR ITEMS -- ACTION \*\***

## **2. CONSENT CALENDAR OTHER ITEMS - ACTION**

- A.** Approval of the Minutes of the Meeting of the Engineering and Operations Committee held June 13, 2022 [\*\*21-1301\*\*](#)

**Attachments:** [07122022 EO 2A Minutes](#)

## **3. CONSENT CALENDAR ITEMS - ACTION**

- 7-1** Amend the Capital Investment Plan for fiscal years 2022/2023 and 2023/2024 to include replacement of an expansion joint on the Upper Feeder at the Santa Ana River Bridge; and determine that there is a need to continue the emergency action of executing a no bid contract for the expansion joint replacement (Requires four-fifths vote of the Board); the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA. **[21-1296](#)**

**Attachments:** [07122022 EO 7-1 B-L](#)  
[07122022 EO 7-1 Presentation](#)

- 7-2** Adopt the CEQA determination that the proposed action has been previously addressed in the certified 2015 Final EIR, related CEQA actions, and Addendum No. 3; and award \$25,972,700 contract to Mladen Buntich Construction Company, Inc. for Stage 3 rehabilitation of the Etiwanda Pipeline **[21-1297](#)**

**Attachments:** [07122022 EO 7-2 B-L](#)  
[07122022 EO 7-2 Presentation](#)

- 7-3** Authorize an agreement with Jacobs Engineering Group, Inc., for a not-to-exceed amount of \$700,000 to perform final design of security upgrades at the Joseph Jensen Water Treatment Plant; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA **[21-1298](#)**

**Attachments:** [07122022 EO 7-3 B-L](#)  
[07122022 EO 7-3 Presentation](#)

**\*\* END OF CONSENT CALENDAR ITEMS \*\***

**4. OTHER BOARD ITEMS - ACTION**

NONE

**5. BOARD INFORMATION ITEMS**

NONE

**6. COMMITTEE ITEMS**

- a.** Update on Drought Initiatives for State Water Dependent Areas **[21-1308](#)**

**Attachments:** [07122022 EO 6a Presentation](#)

**7. MANAGEMENT REPORTS**

- a. Water System Operations Manager's Report [21-1302](#)

**Attachments:** [07122022 EO 7a Presentation](#)

- b. Engineering Services Manager's Report [21-1303](#)

**Attachments:** [07122022 EO 7b Presentation](#)

## 8. FOLLOW-UP ITEMS

NONE

## 9. FUTURE AGENDA ITEMS

## 10. ADJOURNMENT

NOTE: This committee reviews items and makes a recommendation for final action to the full Board of Directors. Final action will be taken by the Board of Directors. Agendas for the meeting of the Board of Directors may be obtained from the Board Executive Secretary. This committee will not take any final action that is binding on the Board, even when a quorum of the Board is present.

Writings relating to open session agenda items distributed to Directors less than 72 hours prior to a regular meeting are available for public inspection at Metropolitan's Headquarters Building and on Metropolitan's Web site <http://www.mwdh2o.com>.

Requests for a disability related modification or accommodation, including auxiliary aids or services, in order to attend or participate in a meeting should be made to the Board Executive Secretary in advance of the meeting to ensure availability of the requested service or accommodation.

**THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

**MINUTES**

**ENGINEERING AND OPERATIONS COMMITTEE**

**June 13, 2022**

Chair Smith called the teleconference meeting to order at 10:30 a.m.

Members present: Chair Smith, Directors Apodaca, Blois, Camacho, De Jesus, Fong-Sakai Lefevre, Morris, Peterson, and Williams

Members absent: Directors Dick, Faessel, and Repenning

Other Board members present: Directors Abdo, Ackerman, Atwater, Dennstedt, Erdman, Gray, Jung, McCoy, Miller, Ortega, Pressman, Ramos, Record, Sutley and Tamaribuchi

Committee staff present: Bednarski, Chapman, Hagekhalil, Lahouti, Rohen, Scully, Upadhyay, and Yamasaki

**1. OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO ADDRESS THE COMMITTEE ON MATTERS WITHIN THE COMMITTEE'S JURISDICTION**

None

**CONSENT CALENDAR ITEMS -- ACTION**

**2. CONSENT CALENDAR OTHER ITEMS - ACTION**

- A.** Approval of the Minutes of the Engineering and Operations Committee held May 10, 2022



### 3. CONSENT CALENDAR ITEMS – ACTION

- 75 Subject: Authorize three-year agreements with Power-Tech Engineers, Inc., HDR, Inc., Mangan, Inc., and Burns & McDonnell Engineering Company, Inc., each in a not-to-exceed amount of \$2,250,000, for specialized technical services to enhance arc flash protection at Metropolitan facilities; the General Manager has determined that this proposed action is exempt or otherwise not subject to CEQA

Presented by: No presentation given

Motion: Authorize agreements with Power-Tech Engineers, Inc., HDR, Inc., Mangan, Inc., and Burns & McDonnell Engineering Company, Inc., in an amount not-to-exceed total of \$750,000 each per year for a period of three years, to assess and mitigate arc flash risks for Metropolitan's facilities

John Bednarski introduced item 7-6.

- 7-6 Subject: Adopt the CEQA determination that the proposed action was previously addressed in the certified 2022 Final Program EIR and related CEQA documents; and award a \$6,176,521 contract to Siemens Industry, Inc. for the construction of battery energy storage systems at the F. E. Weymouth Water Treatment Plant; and authorize an increase of \$300,000 to an agreement with Stantec Inc. for construction support for a new not to exceed total of \$1,750,000

Presented by: Ha N. Nguyen, Principal Resource Specialist, Engineering Services Group

Motion: Adopt the CEQA determination that the proposed project was previously addressed in the certified 2022 Final PEIR, Findings, SOC, and MMRP, and that no further environmental analysis or documentation is required; and  
a. Award a \$6,176,521 contract to Siemens Industry, Inc. to construct Battery Energy Storage System facilities at the Weymouth plant.  
b. Authorize an increase of \$300,000 to agreement with Stantec Inc. for a new not-to-exceed total of \$1,750,000, to provide technical support.

The following Directors provided comments or asked questions:

1. Fong-Sakai
2. Lefevre
3. Morris

Staff responded to the Directors' comments or questions.

- 7-7    Subject:        Award a \$2,257,897 contract to Leed Electric, Inc. for replacement of ozone power supply units at the Joseph Jensen Water Treatment Plant; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA
- Presented by:    No presentation given
- Motion:         Award a \$2,257,897 contract to Leed Electric, Inc. for replacement of ozone power supply units at the Jensen plant

After completion of the presentation, Director Morris made a motion, seconded by Director Camacho, to approve the consent calendar consisting of items 2A, 7-5, 7-6, and 7-7.

The vote was:

- Ayes:                 Directors Apodaca, Blois, Camacho, De Jesus, Fong-Sakai, Lefevre, Morris, Peterson, Smith, and Williams
- Noes:                 None
- Abstentions:        Fong-Sakai (Item 2A only)
- Absent:               Directors Dick, Faessel, and Repenning

The motion for Items 7-5, 7-6, and 7-7 passed by a vote of 10 ayes, 0 noes, 0 abstentions, and 3 absent

The motion for Item 2A passed by a vote of 9 ayes, 0 noes, 1 abstention, and 3 absent

**\*\* END OF CONSENT CALENDAR ITEMS \*\***

**4.     OTHER BOARD ITEMS - ACTION**  
NONE

**5.     BOARD INFORMATION ITEMS**  
NONE

## 6. COMMITTEE ITEMS

- a.           Subject:           Regional Recycled Water Program Update  
Presented by:   Bruce Chalmers, Program Manager, Engineering Services Group

Mr. Chalmers reported on the following:

- Treatment activities/technical memorandums
  - Distributed Treatment Technical Memo Overall Cost Summary
  - Siting Evaluation
- Conveyance activities
  - Current extraordinary drought operation
  - Board actions to address historic drought
- New name for the program: Pure Water Southern California
- Next Steps

The following Directors provided comments or asked questions:

1.     Peterson
2.     LeFevre
3.     Fong-Sakai
4.     Miller

Staff responded to the Directors' comments or questions.

- b.           Subject:           Emergency Response Program Update  
Presented by:   Ian Whyte, Emergency Management Program Manager, Water  
System Operations Group

Mr. Whyte reported on the following:

- Preparing for a wide range of emergencies
- Innovations in emergency response and development of a duty officer
- Mutual assistance and FEMA reimbursements for disaster repair
- Expanding connections with our member agencies and emergency partners

The following Directors provided comments or asked questions:

1.     Peterson
2.     Blois
3.     Dennstedt
4.     Erdman

Staff responded to the Director's comments or questions.

- c.           Subject:           Capital Investment Plan quarterly report for period ending April 2022

Chair Smith announced report is available online for review.

## **7.       MANAGEMENT REPORTS**

- a.           Subject:           Water System Operations Manager's Report  
Presented by:       Brent Yamasaki, Water System Operations, Group Manager

Mr. Yamasaki reported on the following:

- Continuing operational actions to address the record drought
- Upper Feeder leak update and Lower Feeder challenges
- Diemer backwash valve actuator failure
- Fabrication and shutdown planning for intermediate Upper Feeder repair

- b.           Subject:           Engineering Services Manager's Report  
Presented by:       John Bednarski, Engineering Services Group, Chief Engineer and Group Manager

Mr. Bednarski reported on the following:

- Construction and procurement contracts
- CIP Expenditures
- Upper Feeder Santa Ana River Crossing repair updates
- CRA Storage Building Project
- PCCP Inspection Summary 2021-22 Shutdown Season
- Metropolitan's Hazard Mitigation Plan

## **8.       FOLLOW-UP ITEMS**

NONE

## **9.       FUTURE AGENDA ITEMS**

Director Blois requested a monthly update to E&O Committee on the status of water system improvements to address State Water Project dependent area reliability issues.

The next meeting will be held on July 12, 2022.

Meeting adjourned at 12:05 p.m.

Tim Smith  
Chair



- **Board of Directors**  
***Engineering and Operations Committee***

7/12/2022 Board Meeting

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7-1

## **Subject**

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Amend the Capital Investment Plan for fiscal years 2022/2023 and 2023/2024 to include the replacement of an expansion joint on the Upper Feeder at the Santa Ana River Bridge; and determine that there is a need to continue the emergency action of executing a no-bid contract for the expansion joint replacement (**Requires four-fifths vote of the Board**); the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

## **Executive Summary**

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An expansion joint on the Upper Feeder needs to be replaced to facilitate reliable deliveries of Colorado River water into the central portion of Metropolitan's distribution system. As this project was not included in the CIP budget for fiscal years 2022/23 and 2023/24, this action amends the Capital Investment Plan (CIP) to include the replacement of this expansion joint. This action also authorizes the continuation of an emergency contract executed by the General Manager to replace the damaged expansion joint. Staff will provide regular progress updates to the Board on this work and obtain necessary board approvals until the completion of construction.

## **Details**

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### **Background**

The Upper Feeder was constructed in 1936 as part of Metropolitan's original water delivery system. The 116-inch-diameter welded-steel pipeline extends approximately 60 miles from Lake Mathews to the Eagle Rock Control Facility in the city of Los Angeles. The feeder conveys untreated water from Lake Mathews to the F. E. Weymouth Water Treatment plant, and then delivers treated water to the Central Pool portion of the distribution system.

The Upper Feeder crosses the Santa Ana River with a 1,010-foot-long steel truss bridge in the cities of Jurupa Valley and Riverside. The feeder has an existing bellows-type expansion joint at the mid-span of the bridge that allows for thermal expansion and contraction of the pipeline. The bellows expansion joint was installed in January 2018.

On April 13, 2022, a leak was discovered at the bellows expansion joint. A steel bracket was installed as a temporary measure to stop the leak, and flow in the pipeline was reduced to approximately 525 cfs to decrease the pipeline's internal pressure. On a weekly basis, staff is currently monitoring the crack length and effectiveness of the short-term repair. After initially observing that the crack length was increasing, the crack length has remained stable for the last seven weeks. However, inspections of the bellows expansion joint by both Metropolitan staff and the bellows manufacturer concluded that the bellows joint should be replaced as it has been compromised. Staff recommends the expedited replacement of the damaged bellows joint with a new slip-type joint, which Metropolitan staff are currently fabricating.

Due to the critical nature of the feeder, the location of the expansion joint above environmentally sensitive areas, and the historically low State Water Project (SWP) allocations, the General Manager awarded an emergency contract with PCL Construction, Inc. for installation of the new joint on June 28, 2022, consistent with Section 8122(b) of Metropolitan's Administrative Code. This section of the Administrative Code, which mirrors Sections 21567 and 22050 of the California Public Contract Code, allows for the General Manager to waive competitive bidding requirements and execute contracts over the amount of \$250,000 in response to an

emergency condition. An emergency is defined as a sudden, unexpected occurrence that requires immediate action to prevent or mitigate the loss or substantial impairment of life, health, property, or essential public services. The General Manager is required to report the emergency action to the Board at the next regularly scheduled meeting, and the Board must determine by a four-fifths vote at subsequent meetings whether there is a need to continue the action.

Executing an emergency contract was necessary to allow adequate time for the contractor to plan, staff, and mobilize for construction so that the repair can be made as soon as fabrication of the new slip joint is complete. With the compromised bellows joint, Metropolitan is at risk of a prolonged, unplanned outage if the joint were to rupture. In addition, the Upper Feeder is currently operating at a reduced flow, and the repair is needed to return the feeder to full flow and support drought actions and operational shifts that could save SWP supply use in 2022.

### **Upper Feeder Expansion Joint Replacement – Design, Fabrication and Construction**

The scope of the project includes design, fabrication, and installation of a specialized piece of pipe to replace the damaged bellows. Staff investigated the use of both a carbon steel and stainless-steel slip-type joint. Although the stainless-steel expansion joint is expected to be more durable and reduce the long-term level of maintenance required compared to a carbon steel expansion joint, it requires a substantially longer time to procure materials and fabricate. Therefore, staff has initiated fabrication of a fast-track solution that includes the installation of a carbon steel replacement expansion joint. This expansion joint is expected to be complete by August 2022 and ready for installation shortly thereafter. Due to the critical nature of this feeder and expansion joint, staff is also pursuing the fabrication of a spare stainless-steel expansion joint so that a replacement part is readily available should this type of rehabilitation ever be needed in the future. Fabrication of the stainless-steel expansion joint will be advertised for competitive bidding at a later date.

The construction contract includes removal of bridge structural members to access the pipe and joint; removal of the existing bellows expansion joint; installation of the new slip-type expansion joint; removal and reinstallation of the steel cage that provides lateral restraint at the joint; and minor adjustments to the bridge truss isolators. In preparation for the construction activities, Metropolitan forces are also grading, clearing, and grubbing for the crane pad and access for construction. A shutdown has been scheduled for August/September 2022 for installation of the new expansion joint.

PCL Construction, Inc. was selected to perform the work based on familiarity with the project, as they performed the original installation of the bellow-type expansion joint in 2018. There is no indication that PCL's prior work on the project led to the current compromised condition of the expansion joint. A time-and-materials contract to conduct this work was issued to PCL Construction, Inc. on June 29, 2022. Staff expects that this emergency contracting action will continue until the joint installation is completed in September. Shortly thereafter, staff will return to the Board to request ratification of the completed contract. This ratification will also require a four-fifths vote of the Board.

A total of \$900,000 is required for the design and fabrication portion of the work. Allocated funds include \$60,000 for preliminary design and investigations; \$190,000 for final design; \$510,000 for fabrication of a slip-type expansion joint and Metropolitan force construction as described above; \$120,000 for environmental support, project management, and project controls; and \$20,000 for submittal review. **Attachment 1** provides the allocation of the required funds. Staff will report back to the Board on the total cost for the construction contract with PCL following the completion of the contractor's work.

Final design was performed by Metropolitan staff. Engineering Services' performance metric target range for final design with construction more than \$3 million is 9 to 12 percent. For this project, the performance metric goal for final design is 7.6 percent of the total construction cost. The estimated cost of construction for this project is anticipated to range from \$2.5 million to \$3.5 million.

### **Alternatives Considered**

Metropolitan's staff considered using an expedited schedule for board award of a construction contract rather than utilizing the emergency contracting provisions in the administrative code. However, even with an accelerated advertisement and award approach, construction work would not begin until November 2022. Staff determined that this is not an acceptable schedule considering the current flow restrictions that have been placed on the feeder. An emergency contract with PCL Construction, Inc. allows the contractor to start mobilizing, acquiring

key equipment, and begin contract submittals, including a detailed construction schedule, contractor means, methods, and safety plan. Issuing an emergency contract to PCL Construction, Inc. allows timely repair of a major pipeline that delivers Colorado River water into the central portion of Metropolitan's distribution system. It is a critical facility helping to reduce the impacts of the extreme drought conditions on the SWP. The selected option will reduce the risk of costly emergency repairs and enhance reliable deliveries to Metropolitan's member agencies.

### Summary

This action amends the CIP to include the replacement of an expansion joint on the Upper Feeder at the Santa Ana River Bridge. This action also authorizes the continuation of an emergency contract executed by the General Manager to replace the damaged expansion joint. See **Attachment 1** for the Allocation of Funds; and **Attachment 2** for the Location Map.

### Project Milestone

September 2022 – Replacement of Leaking Expansion Joint

### Policy

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Metropolitan Water District Administrative Code Section 8122: Emergency Contracts

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 52778, dated April 12th, 2022, the Board appropriated a total of \$600 million for projects identified in the Capital Investment Plan for Fiscal Years 2022/23 and 2023/24

### California Environmental Quality Act (CEQA)

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#### CEQA determination for Option #1:

The proposed action is statutorily exempt under the provisions of CEQA and the State CEQA Guidelines because it involves the immediate emergency repair of an existing pipeline with the same purpose and capacity to maintain service essential to the public health, safety, or welfare. (Section 15269(b) of the State CEQA Guidelines). In addition, the proposed action is statutorily exempt under the provisions of CEQA and the State CEQA Guidelines because it involves the installation of a new pipeline or maintenance, repair, restoration, removal, or demolition of an existing pipeline that does not exceed one mile in length. (Section 15262(k) of the State CEQA Guidelines).

#### CEQA determination for Option #2:

None required

### Board Options

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#### Option #1

- a. Amend the current CIP to include planning and implementation of infrastructure projects to replace an expansion joint on the Upper Feeder; and
- b. Determine that there is a need to continue the emergency action of executing a no-bid contract for installation of a new expansion joint on the Upper Feeder. **(Requires four-fifths vote of the Board.)**

**Fiscal Impact:** Expenditure of \$900,000 in capital funds for design and fabrication. Total cost for construction is currently unknown due to the structure of the emergency contract executed by the General Manager. All funds will be incurred in the current biennium and have been previously authorized. It is not anticipated that the addition of the project listed above to the CIP will increase CIP expenditures in the current biennium beyond those which have been previously approved by the Board.

**Business Analysis:** This project enhances delivery reliability to member agencies and reduces the risk of unplanned shutdowns of the Upper Feeder.



**Option #2**

Do not determine that there is a need to continue the emergency action.


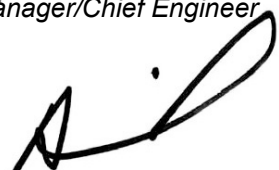
**Fiscal Impact:** Unknown costs for work performed by the contractor to date

**Business Analysis:** This option would delay the replacement of the expansion joint. The delay would limit flow on the Upper Feeder and expose Metropolitan to a greater risk of pipe rupture, which would severely disrupt water deliveries to member agencies.

**Staff Recommendation**

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Option #1

 _____ John V. Bednarski Manager/Chief Engineer	6/29/2022 _____ Date
 _____ Adel Hagekhalil General Manager	7/1/2022 _____ Date

**Attachment 1 – Allocation of Budgeted Funds**

**Attachment 2 – Location map**

Ref# es07122022

### **Allocation of Funds for the Upper Feeder Expansion Joint Replacement**

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	<b>Current Board Action (Jul. 2022)</b>
Labor	
Studies & Investigations	\$ 60,000
Final Design	190,000
Owner Costs (Program mgmt., envir. monitoring)	120,000
Submittals Review & Record Drwgs.	20,000
Construction Inspection & Support	-
Metropolitan Force Construction	150,000
Materials & Supplies	350,000
Incidental Expenses	10,000
Professional/Technical Services	-
Right-of-Way	-
Equipment Use	-
Contracts	-
Remaining Budget	-
<b>Total</b>	<b>\$ 900,000</b>

This is the initial action for the Upper Feeder Expansion Joint Replacement. The total estimated cost to complete the Upper Feeder Expansion Joint Replacement including funds allocated for the work described in this action, and future construction costs, is anticipated to range from \$3 million to \$4 million.





Engineering & Operations Committee

# Upper Feeder Expansion Joint Replacement

Item 7-1

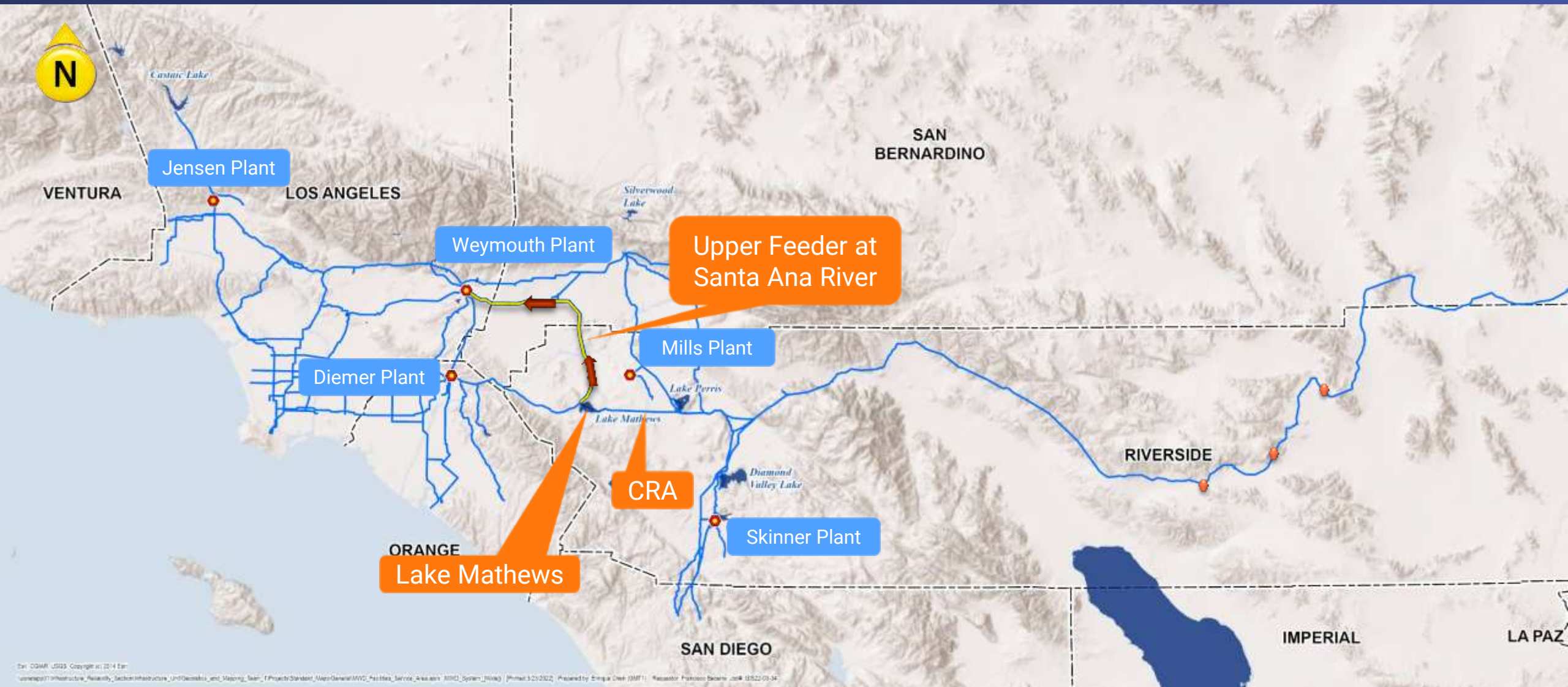
July 12, 2022

## Upper Feeder Expansion Joint Replacement

### Current Action

- Amend the Capital Investment Plan for fiscal years 2022/2023 and 2023/2024 to include replacement of an expansion joint on the Upper Feeder at the Santa Ana River Bridge
- Authorize the continuation of an emergency contract executed by the General Manager  
**(Requires four-fifths vote of the Board)**

# Distribution System





# Upper Feeder – Santa Ana River Crossing

- Multi-span bridge with steel trusses and concrete piers
- 9'-8" ID steel pipe
- Pipeline design flow: 750 cfs
- Pipeline internal pressure: 200 psi





## Upper Feeder – Bellows Installation

- Bellows expansion joint & restraining cage installed January 2018



Bellows Joint





## Upper Feeder Expansion Joint Replacement

### Bellows Expansion Joint Leak

- Discovered April 13, 2022
- Flow reduced
- Leak temporarily repaired April 21, 2022



## Upper Feeder Expansion Joint Replacement



## Bellows Expansion Joint Inspection

- Bellows joint compromised; to be replaced with slip-type expansion joint
- Crack has stabilized; monitoring weekly
- Forensic analysis of bellows failure ongoing
- Stainless steel slip joint to be installed in the future

## Expansion Joint Replacement Urgency

- Current flow limited to 525 cfs
- Unplanned shutdown and catastrophic failure risk
- Upper Feeder needed to support new drought actions & operational shifts to save SPW

## Upper Feeder Expansion Joint Replacement

### Alternatives Considered

- Board awards competitively bid contract
  - Delays start of construction
  - Increased risk of catastrophic failure
- Selected option
  - GM executed emergency contract
  - Metropolitan initiated fabrication of replacement slip-type expansion joint, installation design, and minor construction preparation activities
  - Contractor starts mobilizing, acquiring key equipment, & preparing contract submittals
  - Estimated start of on-site construction – August 2022

# Upper Feeder Expansion Joint Replacement

## Emergency Contract

- Executed per Admin Code section 8122(b)
  - Waived competitive bid requirements
  - Emergency means a sudden, unexpected occurrence that requires immediate action to prevent or mitigate the loss or substantial impairment of life, health, property, or essential public services
  - Emergency declared June 8, 2022
  - GM awarded contract on June 28, 2022
  - Monthly reporting to the Board required and continuation of contract activities determined by four-fifths vote
  - Board to ratify construction contract upon completion of construction activities
- Time and materials contract

## Upper Feeder Expansion Joint Replacement



Quagga Filters for  
Dewatering

## Upper Feeder Shutdown

- Planned start date: 9/6/22; Duration:  $\pm 14$  days
- CRW filtered prior to release to Santa Ana River
- Weymouth Treatment Plant to use 100% SPW during the shutdown
  - Approximately 1,000 AF/day (varies by demand)
- Member Agencies receiving water from Weymouth & Diemer will be asked to go to no outdoor watering during shutdown
- Metropolitan will be coordinating with Member Agencies on outreach and messaging
  - Social media, earned media, & press releases



## Upper Feeder Expansion Joint Replacement

### PCL Construction, Inc.

- Installed bellows joint in 2018
- Familiar with project and site conditions

### Contractor Scope of Work

- Removal of bridge structural members & restraining cage for pipe access
- Removal of bellows joint
- Installation of new sleeve-type joint
- Reinstallation of bridge structural members & restraining cage

# Upper Feeder Expansion Joint Replacement

## Metropolitan Scope

- Complete fabrication & installation design packages
- Fabricate new slip-type expansion joint
- Procure hardware & accessories
- Clear & grub area adjacent to the bridge for crane pad & access in advance of contractor's arrival
- Install 4-inch tap near expansion joint to facilitate construction
- Install new 36-inch accessway

New Slip Joint  
Fabrication  
@ La Verne Shops



# Allocation of Funds

## Upper Feeder Expansion Joint Replacement

### Metropolitan Labor

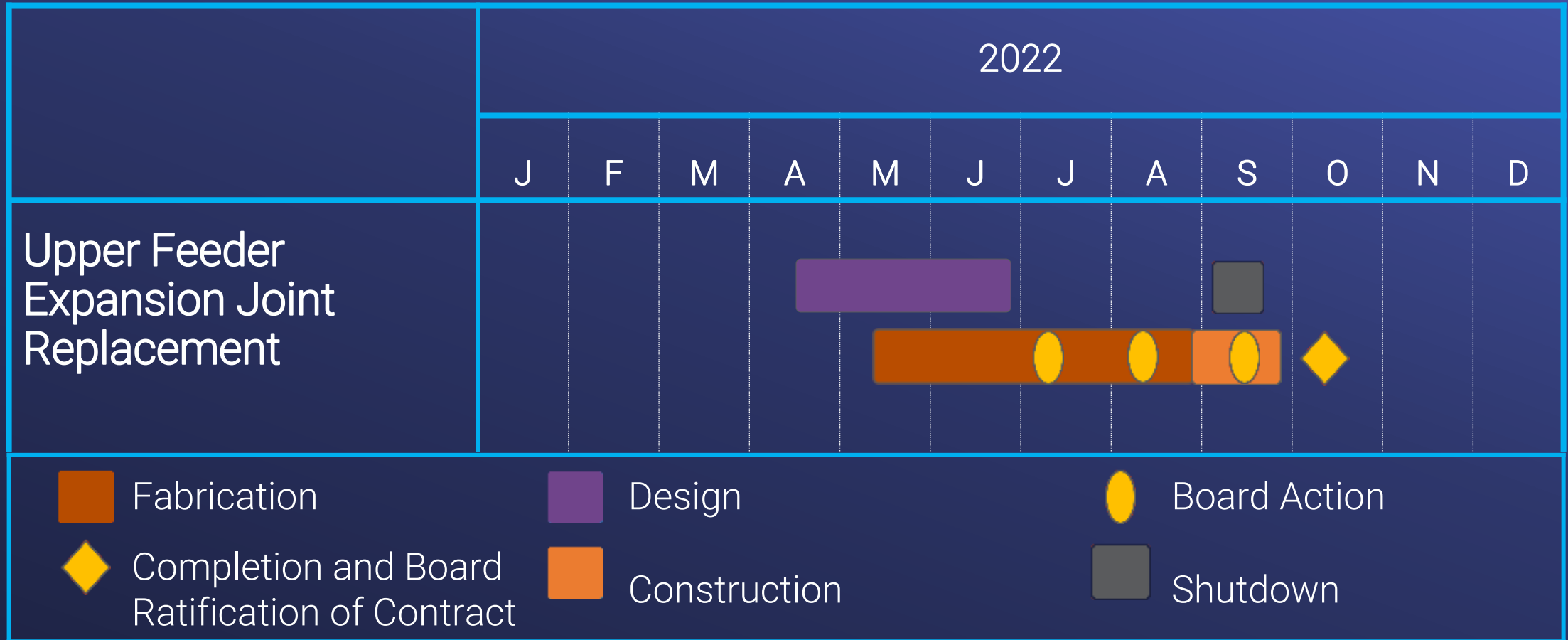
Program mgmt. environmental support, & contract admin.	\$120,000
Preliminary design & investigations	60,000
Final design	190,000
Submittal review & record drawings	20,000
Force construction	150,000

Materials	360,000
<hr/>	
Total	\$900,000

\*\*Anticipated total project costs including construction contract is \$3M - \$4M; final costs, including the construction contract, will be reported to the Board upon completion of construction.



# Project Schedule



# Board Options

- Option #1
  - a. Amend the current CIP to include planning and implementation of infrastructure projects to replace an expansion joint on the Upper Feeder; and
  - b. Determine that there is a need to continue the emergency action of executing a no-bid contract for installation of a new expansion joint on the Upper Feeder. **(Requires four-fifths vote of the Board.)**
- Option #2

Do not determine that there is a need to continue the emergency action.

# Staff Recommendation

- Option #1





- Board of Directors  
*Engineering and Operations Committee*

7/12/2022 Board Meeting

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7-2

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## Subject

Adopt the CEQA determination that the proposed action has been previously addressed in the certified 2015 Final EIR, related CEQA actions, and Addendum No. 3; and award \$25,972,700 contract to Mladen Buntich Construction Company, Inc. for Stage 3 rehabilitation of the Etiwanda Pipeline

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## Executive Summary

Previous investigations revealed that the protective mortar lining on the inside of the northern portion of the Etiwanda Pipeline is failing due to pressure fluctuations that occur when the downstream Etiwanda Power Plant is in operation. While the pipeline remains functional and the structural integrity of the line remains sound at present, staff recommended that the 5.4-mile northern portion of the pipeline be relined to enhance long-term reliability. In 2014 and 2016, approximately three miles of the pipeline were relined under two separate construction contracts. Staff recommends moving forward with the third and final stage of the project at this time. This action awards a construction contract to rehabilitate the remaining 2.4 miles of mortar lining along the northern portion of the Etiwanda Pipeline.

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## Details

### Background

The Etiwanda Pipeline was constructed in 1993 to convey untreated water from the Rialto Pipeline to the Upper Feeder. This 6.4-mile-long welded steel pipeline is 144 inches in diameter. The northern portion of the pipeline, which is 5.4 miles long, conveys high-pressure water to the Etiwanda Power Plant. From that facility, the southern portion of the line continues for one mile to an interconnection with the Upper Feeder. The pipeline is located within the cities of Fontana and Rancho Cucamonga.

The Etiwanda Pipeline provides flexibility in conveying untreated water from the East Branch of the State Water Project to the F. E. Weymouth Water Treatment Plant. The pipeline allows Metropolitan to generate power from the high-pressure flows available in the northern portion of the line. Under peak flow conditions, annual revenues from the Etiwanda Power Plant have reached \$8.3 million.

The Etiwanda Pipeline was constructed with a 0.75-inch-thick interior mortar lining to prevent corrosion of the steel pipe. During a 2008 internal inspection of the pipeline, staff discovered that approximately 37 percent of the northern portion of the line had missing or delaminated mortar lining. At the present time, the structural integrity of the pipeline remains sound. Over time, however, the loss of mortar lining will expose the pipeline to accelerated rates of corrosion which could lead to leakage or structural integrity issues.

Since the initial discovery of the lining issues, staff and third-party pipeline experts have conducted extensive investigations into the cause of the lining damage. The primary cause of the lining failures appears to be the daily internal pressure fluctuation within the pipeline resulting from power generation at the Etiwanda Power Plant. This fluctuation of internal pressure likely produced stress cracking in the mortar lining. In addition, variation in availability of State Water Project supplies resulted in prolonged periods when the pipeline was removed from service, creating drying and shrinkage cracks which exacerbated the deterioration of the mortar lining.

In December 2012, Metropolitan's Board authorized final design to replace the lining in the Etiwanda Pipeline. The first stage of the lining replacement was completed in December 2014. This effort replaced the mortar lining in approximately 2,800 feet of the pipeline with a polyurethane lining. By performing this work on a relatively short length of the feeder, staff was able to confirm production rates and efficiencies of the lining process prior to commencing the full-scale effort. The initial contract also validated the use of the polyurethane lining for this specific application. The experience gained during the initial contract was incorporated into the work plan for relining the remaining five miles of the feeder. Finally, the polyurethane lining system was also determined to be resilient to the expected pressure fluctuations in the pipeline.

In June 2015, Metropolitan's Board authorized final design of the remaining two stages of lining replacement, certified the final EIR for the project, and adopted a Mitigation Monitoring and Reporting Program (MMRP) for the work. The second stage of the relining replacement utilized the polyurethane lining system and was completed in December 2016. Staff recommends moving forward with construction to complete the third and final stage of the relining replacement to the pipeline, while State Project Water supplies are expected to be limited, and the Etiwanda Pipeline can remain out of service. The pipe procurement contract for this third stage of the overall project was awarded by the Board in November 2021.

In accordance with the April 2022 action on the biennial budget for Fiscal Years 2022/23 and 2023/24, the General Manager will authorize staff to proceed with the rehabilitation of the Etiwanda Pipeline, pending board award of the contract described below. Based on the current Capital Investment Plan expenditure forecast, funds for the work to be performed pursuant to this action during the current biennium are available within the Capital Investment Plan Appropriation for Fiscal Years 2022/23 and 2023/24 (Appropriation No. 15441). This project has been reviewed in accordance with Metropolitan's CIP prioritization criteria and was approved by Metropolitan's CIP evaluation team to be included in the Distribution System Reliability Program.

### **Etiwanda Pipeline Lining Rehabilitation, Stage 3 - Construction**

The scope of the contract includes rehabilitating approximately 13,800 feet of existing large-diameter pipe, including removing existing cement mortar lining and applying new polyurethane lining. The contract will also install a new steel liner in approximately 1,300 feet of Metropolitan-furnished pipe in a section of the pipeline that has exhibited accelerated corrosion. Metropolitan force activities will include shutdown planning and coordination, dewatering the pipeline, and removing valves from the accessway for contractor access. In addition, Metropolitan will furnish new valves for blowoffs and pump wells.

A total of \$33,000,000 is required for this work. In addition to the contract amount, other allocated funds include: \$577,000 for Metropolitan force construction; \$200,000 for Metropolitan furnished materials; \$2,400,000 for construction management and inspection; \$281,000 for submittal review and record drawing preparation; \$571,000 for project management, environmental monitoring, and public outreach; and \$2,998,300 for remaining budget. **Attachment 1** provides the allocation of the required funds. The completion of this third and final stage of the Etiwanda Pipeline relining project will bring the total cost of this three-stage project to \$65 million.

### **Award of Construction Contract (Mladen Buntich Construction Company, Inc.)**

Specifications No. 1857 for Etiwanda Pipeline Lining Rehabilitation was advertised for bids on April 7, 2022. As shown in **Attachment 2**, four bids were received and opened on June 14, 2022. The low bid from Mladen Buntich Construction Company, Inc., in the amount of \$25,972,700, complies with the requirements of the specifications. The other bids ranged from \$26.17 to \$29.93 million, while the engineer's estimate was \$30.5 million. For this contract, Metropolitan established a Small Business Enterprise participation level of at least 15 percent of the total bid amount. Mladen Buntich Construction Company, Inc. has committed to meet this level of participation. The subcontractors for this contract are listed in **Attachment 3**.

As described above, Metropolitan staff will perform construction management and inspection. Engineering Services' performance metric target range for construction management and inspection of projects with construction greater than \$3 million is 9 to 12 percent. For this project, the performance metric goal for inspection is 7.3 percent of the total construction cost. The total cost of construction for this project is \$32.9 million, which includes the cost of the contract (\$25,972,700), the cost of the Metropolitan-furnished steel liner pipe (\$6,147,262), Metropolitan force construction (\$577,000), and Metropolitan-furnished materials (\$200,000).

## Alternatives Considered

Staff considered accomplishing this final stage of the relining project by issuing two contracts, one for each affected city (Rancho Cucamonga and Fontana). This approach would manage the geographically diverse projects and resolve local agency permitting issues on a case-by-case basis. While this approach would also shorten the length of individual shutdowns, it would require successive shutdowns spread over multiple years. Following these evaluations, staff recommends using one construction contract to reline the remaining 13,800 feet of the Etiwanda Pipeline at this time. Design and coordination with the jurisdictional cities are in place to allow for relining of the final reach of the Etiwanda Pipeline under one contract. This alternative is a cost-effective approach that minimizes the risk of service interruptions to member agencies as a result of pipeline leaks and enhances the reliability of Metropolitan's distribution system

## Summary

This action awards a construction contract to Mladen Buntich Construction, Inc. for Stage 3 lining rehabilitation of the Etiwanda Pipeline. See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the listing of Subcontractors for Low Bidder, and **Attachment 4** for the Location Map.

## Project Milestone

October 2023 – Completion of construction

## Policy

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Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

Metropolitan Water District Administrative Code Section 11100: Environmental Matters

By Minute Item 50613, dated December 10, 2013, the Board awarded a contract for construction for Etiwanda Pipeline Stage 1 rehabilitation.

By Minute Item 50154, dated June 9, 2015, the Board authorized final design to rehabilitate the Etiwanda Pipeline.

By Minute Item 50911, dated February 9, 2016, the Board awarded a contract for construction of Etiwanda Pipeline Stage 2 rehabilitation.

By Minute Item 52577, dated 2021, the Board awarded a contract to furnish 1,300 feet of welded steel pipe and fittings to rehabilitate a portion of the Etiwanda Pipeline.

By Minute Item 52778, dated April 12, 2022, the Board appropriated a total of \$600 million for projects identified in the Capital Investment Plan for Fiscal Years 2022/2023 and 2023/2024.

## California Environmental Quality Act (CEQA)

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### CEQA determination for Option #1:

The environmental effects of the funding, design, construction, and operation of the proposed project were evaluated in the Etiwanda Pipeline North Relining Project Final Environmental Impact Report (SCH No. 2014081047), which was certified by the Board on June 9, 2015. The Board also adopted the Findings of Fact (Findings), the Statement of Overriding Considerations (SOC), the Mitigation Monitoring and Reporting Program (MMRP), and the project itself. On March 28, 2022, Addendum No. 3 to the Final EIR was prepared to document proposed minor modifications to construction work areas; none of the proposed modifications would result in significant adverse impacts beyond those impacts already disclosed in the Final EIR; Addendum No. 3 can be found in **Attachment 5**. Hence, the previous environmental documentation acted on by the Board in conjunction with the proposed action fully complies with CEQA and the State CEQA Guidelines. Accordingly, no further CEQA documentation is necessary for the Board to act on the proposed action.

### CEQA determination for Option #2:

None required

## Board Options

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### Option #1

Adopt the CEQA determination that the proposed action has been previously addressed in the certified 2015 Final EIR, related CEQA actions and Addendum No. 3, and

- a. Award \$25,972,700 contract to Mladen Buntich Construction Company, Inc. to replace a portion of the interior lining of the Etiwanda Pipeline.

**Fiscal Impact:** Expenditure of \$33.0 million in capital funds. All expenditures will be incurred in the current biennium and have been previously authorized.

**Business Analysis:** This option will complete needed rehabilitation to the damaged lining of the Etiwanda Pipeline, which will protect Metropolitan assets and reduce the risk of costly emergency repairs.

### Option #2

Do not proceed with the project at this time.

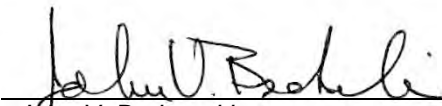
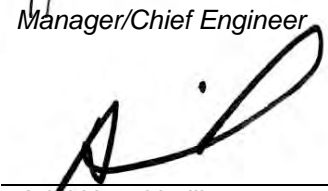
**Fiscal Impact:** None

**Business Analysis:** This option would forgo an opportunity to enhance reliability and extend the service life of the Etiwanda Pipeline and could lead to higher costs, more extensive repairs, and unplanned shutdowns.

## Staff Recommendation

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### Option #1

 _____ John V. Bednarski Manager/Chief Engineer	6/22/2022 Date
 _____ Adel Hagekhalil General Manager	6/29/2022 Date

**Attachment 1 – Allocation of Funds**

**Attachment 2 – Abstract of Bids**

**Attachment 3 – Subcontractors for Low Bidder**

**Attachment 4 – Location Map**

**Attachment 5 – Etiwanda Draft EIR, Final EIR, NOD, and Addendum Phase 3**

Ref# es12689037



### Allocation of Funds for Etiwanda Pipeline North Relining – Stage 3

	<b>Current Board Action (July 2022)</b>
Labor	
Studies & Investigations	\$ -
Final Design	-
Owner Costs (Program mgmt., envir. monitoring)	571,000
Submittals Review & Record Drwgs.	281,000
Construction Inspection & Support	2,400,000
Force Construction	577,000
Materials & Supplies	200,000
Incidental Expenses	-
Professional/Technical Services	-
Right-of-Way	-
Equipment Use	-
Contracts	
Mladin Buntich Construction Company, Inc.	25,972,700
Remaining Budget	2,998,300
<b>Total</b>	<b>\$ 33,000,000</b>

The total amount expended to date on Stage 3 of the relining of the Etiwanda Pipeline is approximately \$7,500,000. The total estimated cost to complete Stage 3 of this project, including the amount appropriated to date and funds allocated for the work described in this action, is \$40.5 million.

**The Metropolitan Water District of Southern California**

**Abstract of Bids Received on June 14, 2022 at 2:00 P.M.**

**Specifications No. 1857  
Etiwanda Pipeline North Relining – Stage 3**

The Stage 3 work consists of removal of the cement mortar lining along 2.5 miles of pipeline and replacing it with a polyurethane lining.

Engineer's estimate: \$30,500,000

<b>Bidder and Location</b>	<b>Total</b>	<b>SBE Amount</b>	<b>SBE %</b>	<b>Met SBE<sup>1</sup></b>
Mladen Buntich Construction Co., Inc. Upland, CA	<b>\$25,972,700</b>	<b>\$3,895,900</b>	<b>15%</b>	<b>Yes</b>
J.F. Shea Construction, Inc. Walnut, CA	\$26,169,000	-	-	-
Kiewit Infrastructure West, Inc. Sante Fe Springs, CA	\$29,484,000	-	-	-
Spinello Infrastructure West, Inc. Pomona, CA	\$29,930,000	-	-	-

<sup>1</sup> SBE (Small Business Enterprise) participation level established at 15 percent for this contract bid.

**The Metropolitan Water District of Southern California****Subcontractors for Low Bidder****Specifications No. 1857  
Etiwanda Pipeline North Relining – Stage 3**

Low bidder: Mladen Buntich Construction Company, Inc.

<b>Subcontractor and Location</b>
Cell-Crete Monrovia, CA
Dean's Certified Welding Temecula, CA
F.D. Thomas, Inc. Central Point, OR
Southern Contracting Company San Marcos, CA



**California Environmental Quality Act: Notice of Determination**

To: ☒ **Office of Planning and Research**  
1400 Tenth Street, Room 212  
Sacramento, CA 95814

From: **The Metropolitan Water District of Southern California**  
P.O. Box 54153  
Los Angeles, CA 90054-0153

*Subject:*  
**Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.**

**Project Title:** **Etiwanda Pipeline North Relining Project, SCH#2014081047**

State Clearinghouse Number	Lead Agency/Applicant Contact Person	Area Code/Telephone/Extension
2014081047	The Metropolitan Water District of Southern California Wendy Picht	(213) 217-7173

**Project Location** (include county): The Metropolitan Water District of Southern California (Metropolitan) Etiwanda Pipeline North, which traverses in a northeast to southwest direction, with the northernmost portion of the alignment located approximately 0.3 mile east of Lytle Creek Road and approximately 0.5 mile north of Summit Avenue in the city of Fontana. The southern terminus of the Project area is just north of Foothill Boulevard, approximately 0.2 mile west of East Street in the city of Rancho Cucamonga. The Project is located within San Bernardino County (see attached map).

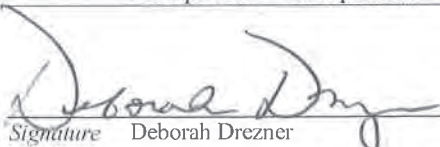
**Project Description:** Metropolitan has prepared an Environmental Impact Report (EIR) for the relining of the Etiwanda Pipeline North in compliance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. The project, as described in the EIR, would remove the existing interior mortar lining, much of which has delaminated from the pipe, and recoat the pipe with a new lining to prevent further corrosion.

Metropolitan, acting as the Lead Agency/Applicant under CEQA, certified an Environmental Impact Report for the "Etiwanda Pipeline North Relining Project" on June 09, 2015.

This is to advise that The Metropolitan Water District of Southern California as the **Lead Agency** under CEQA has reviewed and considered the above-described project and has adopted the following determinations regarding the above-described project:

1. The project [☒will ☐will not] have a significant effect on the environment.
2. ☒ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒were ☐were not] made a condition of the approval of the project.
4. A Statement of Overriding Considerations (SOC) [☒was ☐was not] adopted for this project.
5. A Mitigation Monitoring Report or Monitoring Plan (MMRP) [☒was ☐was not] adopted for this project.
6. Findings [☒were ☐were not] made pursuant to the provisions of CEQA.

The certified Environmental Impact Report, responses to comments, SOC, MMRP, Findings, and related CEQA documentation are on file at Metropolitan's headquarters at 700 North Alameda Street, Los Angeles, CA 90012.

  
Signature Deborah Drezner

Interim Manager,  
Environmental Planning Team  
Title

June 10, 2015

Date

Date received for filing at County or OPR: \_\_\_\_\_

(EPT No. 1472)





# *The Metropolitan Water District of Southern California*

## **ETIWANDA PIPELINE NORTH RELINING PROJECT**

*Draft Environmental Impact Report  
Metropolitan Report No. 1472*

*January 2015*



# **ETIWANDA PIPELINE NORTH RELINING PROJECT**

## **Draft Environmental Impact Report**

The Metropolitan Water District of Southern California  
700 North Alameda Street  
Los Angeles, CA 90012

Metropolitan Report No. 1472  
State Clearinghouse No. 2014081047

January 2015

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## LIST OF ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
a.m./AM	morning
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CH <sub>4</sub>	methane
CMP	Congestion Management Program
CNRA	California Natural Resource Agency
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
CRA	Colorado River Aqueduct
dBa	decibel(s) with A-weighting
DWR	Department of Water Resources
EIR	Environmental Impact Report
GHG	greenhouse gas
HELIX	HELIX Environmental Planning, Inc.
HFCs	hydrofluorocarbons
hp	horsepower
I-15	Interstate 15
L <sub>EQ</sub>	average sound level
LOS	level of service
MBTA	Migratory Bird Treaty Act
Metropolitan	Metropolitan Water District of Southern California
MMT	million metric tons
MS4	Municipal Separate Storm Sewer Systems
MT	metric tons
N <sub>2</sub> O	nitrous oxide
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	oxides of nitrogen
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System

O <sub>3</sub>	ozone
OSHA	Occupational Safety and Health Administration
PCE	passenger car equivalent
PFCs	perfluorocarbons
p.m./PM	evening
PM <sub>2.5</sub>	fine particulate matter with a diameter of 2.5 microns or less
PM <sub>10</sub>	respirable particulate matter with a diameter of 10 microns or less
ppm	parts per million
PRC	Public Resources Code
Project	Etiwanda Pipeline North Relining Project
P-UC	Public Utility Corridor
SANBAG	San Bernardino Associated Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SF <sub>6</sub>	sulfur hexafluoride
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	oxides of sulfur
SP-E	Etiwanda Specific Plan
SR	State Route
SWP	State Water Project
TACs	toxic air contaminants
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration decibels
VOC	volatile organic compound
µg/m <sup>3</sup>	micrograms per cubic meter

## SUMMARY

## SUMMARY

This chapter provides a summary of this Environmental Impact Report (EIR) for implementation of the Metropolitan Water District of Southern California's (Metropolitan's) Etiwanda Pipeline North Relining Project (herein referred to as "proposed Project" or "Project"). This EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code [PRC] Section 21000 et seq.) and the Guidelines for Implementation of CEQA (State CEQA Guidelines) published by the Public Resources Agency of the State of California (California Code of Regulations [CCR], Title 14, Section 15000 et seq.).

This chapter highlights the major areas of importance in the environmental analysis for the proposed Project as required by State CEQA Guidelines Section 15123. It provides a brief description of the Project objectives, the proposed Project, and alternatives to the proposed Project. In addition, this chapter includes a table summarizing: (1) the direct impacts that would occur from implementation of the proposed Project; (2) the level of impact significance before mitigation; (3) the recommended mitigation measures that would avoid or reduce significant environmental impacts; and (4) the level of impact significance after mitigation measures are implemented.

### S.1 PROJECT LOCATION

The proposed Project involves relining of Metropolitan's Etiwanda Pipeline North. The portion of the pipeline to be relined includes approximately 4.4 miles of pipeline right-of-way in the city of Fontana, beginning at Metropolitan's Rialto Pipeline and ending at East Avenue, and approximately 0.4 mile of pipeline right-of-way in the city of Rancho Cucamonga, continuing from East Avenue and ending just north of Foothill Boulevard. The pipeline parallels Interstate 15 (I-15), approximately 0.4 mile east of I-15 and crosses under State Route (SR) 210. The alignment traverses in a northeast to southwest direction, with the northernmost portion of the alignment located approximately 0.3 mile east of Lytle Creek Road and approximately 0.5 mile north of Summit Avenue in the city of Fontana. The southern terminus of the Project area is just north of Foothill Boulevard, approximately 0.2 mile west of East Street in the city of Rancho Cucamonga.

### S.2 PROJECT DESCRIPTION

#### Project Objectives

The proposed Project would remove the existing mortar lining that has become separated from the inside of Etiwanda Pipeline North and install a new lining to prevent further corrosion. The primary objectives of the Project are as follows:

- Enable Metropolitan to continue conveyance of water from the Rialto Pipeline to the Upper Feeder as needed to supply customers;
- Enable Metropolitan to continue electricity generation through water conveyance to the Etiwanda Hydroelectric Plant;

- Provide a safe, feasible and cost-effective relining method; and
- Minimize Project-related nuisances such as traffic disruption, noise, air quality, dust, and odor to the extent feasible.

### **Proposed Project**

To prevent further corrosion of the steel pipe in the approximately five-mile-long segment of Etiwanda Pipeline North, the Project proposes to remove the existing interior mortar lining, much of which has eroded and delaminated, and recoat the pipe with a new lining.

Except for excavation and staging, Project activities would mostly occur below-ground. Access to the pipe for relining activities would be accomplished via rollouts (where a 20-foot segment of pipe would be removed), existing manholes, existing buried outlets (similar to manholes but without surface structures), and proposed new buried outlets. While the remainder of the right-of-way and staging areas may be used for access and material storage, no other disturbance of the existing ground is anticipated. Surface disturbance could occur in the remainder of the right-of-way from materials staging and grubbing of vegetation. Project activities would not occur within storm drainage courses, public roadways, or public rights-of-way.

Primary activities would include the following: site preparation; preparation of access points into the pipeline; pipeline shutdown and removal of water; surface preparation of the interior of the pipe surfaces (including removal of the existing lining); application of the new liner; and closing access points and site completion. Following the completion of pipeline relining, the Project would not require operations or maintenance personnel beyond those already required for the existing pipeline.

The proposed Project activities are expected to begin in 2015 and would occur during pipeline shutdown periods, the number and duration of which would be determined by water demands and available supplies. Up to three phases would be required, each lasting approximately one year with each shutdown period lasting approximately six to nine months. Although the Project work schedule would vary throughout the duration of Project activities, during the pipeline shutdown period, work could be performed up to 24 hours per day and seven days per week.

Metropolitan's mission includes incorporation of environmental responsibility into its projects and operation of its facilities. Environmental commitments are proposed as part of the Project to reflect and incorporate Metropolitan's best practices to avoid, minimize, or offset potential environmental effects from its projects. The Project, with these environmental commitments incorporated, was then evaluated for potentially significant impacts and the need for mitigation measures. Implementation of these commitments as part of the Project would reduce potential impacts relative to air pollutant emissions, biological resources, and noise.

### **S.3 SCOPE OF ENVIRONMENTAL ANALYSIS**

This EIR contains a discussion of the potential significant environmental effects resulting from implementation of the proposed Project, including information related to existing site conditions, analyses of the type and magnitude of individual and cumulative environmental impacts, and feasible mitigation measures that could reduce or avoid environmental impacts. For analysis



purposes, certain assumptions were made in the types, quantities, and uses of equipment and workers. These assumptions reflect the best level of judgment and information available about the design of the Project, but they also allow necessary flexibility for adjustments during final design and performance of the work. Refinements in the Project may result in minor variations in specific types, numbers, and uses of equipment and workers; however, the assumptions used in the analyses are considered the worst-case Project scenarios for air emissions, noise, and traffic. Actual emissions, noise, and traffic levels could be lower than shown in the analysis conclusions.

In accordance with the State CEQA Guidelines, Metropolitan circulated a Notice of Preparation (NOP) and Initial Study for this Draft EIR in August 2014 to responsible agencies and other interested parties, to solicit comments on the scope of the Draft EIR. The 30-day public review period ended on September 17, 2014. The Initial Study, NOP and comment letters received on the NOP are included in **Appendix A** of this document. Based on the results of the Initial Study/NOP, this EIR analyzes the potential environmental effects of the proposed Project for the following issue areas:

1. Air Quality
2. Biological Resources
3. Greenhouse Gas Emissions
4. Land Use and Planning
5. Noise
6. Transportation and Traffic

Issue areas that were determined by the Initial Study to have less than significant impacts from the proposed Project were not further analyzed in this EIR. These environmental issue areas are as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| 1. Aesthetics                         | 7. Mineral Resources              |
| 2. Agriculture and Forestry Resources | 8. Population and Housing         |
| 3. Cultural Resources                 | 9. Public Services                |
| 4. Geology and Soils                  | 10. Recreation                    |
| 5. Hazards and Hazardous Materials    | 11. Utilities and Service Systems |
| 6. Hydrology and Water Quality        |                                   |

#### **S.4 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED**

Section 15123 of the State CEQA Guidelines requires the identification of any areas of controversy known to the lead agency, including issues raised by other agencies and the public. While no areas of controversy were identified for the Project in the NOP comment letters, it is anticipated that temporary noise levels during Project activities would be controversial. The anticipated noise levels, as well as measures that would limit impacts to adjacent residences, are detailed in **Section 3.5, Noise**, of this EIR. As discussed in that section, Metropolitan would work closely with the representatives from the Cities of Fontana and Rancho Cucamonga to reach resolution regarding acceptable noise levels.

## **S.5 SUMMARY OF PROJECT ALTERNATIVES**

Alternatives are analyzed in **Chapter 6.0, *Project Alternatives***, of this Draft EIR. A number of alternatives were identified and subjected to screening analysis, as part of the proposed Project design process. The objective of the alternatives analysis is to consider a reasonable range of potentially feasible alternatives to foster informed decision-making and public participation. All of the alternatives for the Project were rejected as infeasible and would not meet the basic Project objectives. The proposed Project, therefore, is considered to be the environmentally superior alternative.

## **S.6 SUMMARY OF IMPACTS AND MITIGATION MEASURES**

**Table S-1, *Environmental Impacts and Mitigation Measures***, provides a summary of the environmental impacts that could result from implementation of the proposed Project and feasible mitigation measures that could reduce or avoid environmental impacts. For each impact, **Table S-1** identifies the significance of the impact prior to and following implementation of mitigation measures. With the exception of air quality impacts and noise impacts, all Project-specific significant impacts would be reduced to below a level of significance following implementation of the mitigation measures. The Project's generation of nighttime noise would conflict with General Plan noise policies; however, as the Project is exempt from local zoning and building ordinances through California Government Code Section 53091, the short-term policy conflict represents a noise, rather than a land use, impact. Project-related impacts combined with impacts from other projects in the cumulative project study area also would not result in significant and unmitigable cumulative impacts, with the exceptions of air quality and noise.

**Table S-1**  
**ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
<b>3.1 Air Quality</b>				
Conflict with Applicable Air Quality Plans	The proposed Project would not exceed the assumptions in the Air Quality Management Plan; however, Project emissions would exceed regional criteria pollutant thresholds established by the South Coast Air Quality Management District (SCAQMD).	Significant	<p><b>AIR-1:</b> All off-road diesel-powered construction equipment greater than 50 horsepower (hp) will meet Tier 4 emission standards. All construction equipment will be outfitted with California Air Resources Board-certified best available control technology devices. Any emissions-control device used by the contractor will achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by California Air Resources Board regulations. A copy of each unit's certified tier specification, best available control technology documentation, and California Air Resources Board or South Coast Air Quality Management District operating permit will be provided at the time of mobilization of each applicable unit of equipment.</p> <p><b>AIR-2:</b> Diesel haul trucks (e.g., material delivery trucks and debris export) will be 2010 model year or newer.</p> <p><b>AIR-3:</b> Electricity from power poles will be used instead of temporary diesel or gasoline-powered generators and air compressors to reduce the associated emissions, where power poles are within 100 feet of equipment sites and feasible connections are available.</p>	Significant
Conformance to Air Quality Standards	Project emissions would exceed regional criteria pollutant thresholds established by the SCAQMD for emissions of volatile organic	Significant	Mitigation measures <b>AIR-1</b> through <b>AIR-3</b> will be implemented to reduce potential impacts associated with Project activities.	Significant

<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.1 Air Quality (cont.)</b>				
	compounds (VOCs), nitrogen oxides (NO <sub>x</sub> ), and particulate matter that is 2.5 microns or smaller (PM <sub>2.5</sub> ). Project-related emissions would also exceed SCAQMD's localized criteria pollutant thresholds for emissions of NO <sub>x</sub> , particulate matter that is 10 microns or smaller (PM <sub>10</sub> ), and PM <sub>2.5</sub> .			
Cumulatively Considerable Net Increase in Criteria Pollutants	The Project would result in regional and localized exceedances, as discussed above, which would be potentially cumulatively considerable.	Significant	Mitigation measures <b>AIR-1</b> through <b>AIR-3</b> will be implemented to reduce potential impacts associated with Project activities.	Significant
Expose Sensitive Receptors to Pollutants	Project-related local emissions of criteria pollutants and toxic air contaminants would result in potentially significant health risks to nearby residences, schools, and off-site workers.	Significant	Mitigation measures <b>AIR-1</b> through <b>AIR-3</b> will be implemented to reduce potential impacts associated with Project activities.	Significant (local emissions only)
Create Objectionable Odors	Project-related odors associated with equipment operations would be temporary and would not be objectionable to a substantial number of people.	Less than significant	No mitigation is required.	Less than significant

<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.2 Biological Resources</b>				
Adversely Affect Candidate, Sensitive, or Special Status Species	The Project would result in minor, temporary loss of foraging and movement areas for the San Diego jackrabbit, San Diego pocket mouse, and Los Angeles pocket mouse; as well as potential direct impacts to the San Diego pocket mouse and Los Angeles pocket mouse from ground-disturbing activities. Potential impacts to nesting birds would be less than significant through Metropolitan's standard environmental practices and compliance with the Migratory Bird Treaty Act (MBTA).	Less than significant	No mitigation is required.	Less than significant
Adversely Affect Sensitive Natural Communities	The Project would temporarily impact isolated habitat fragments of disturbed Riversidean upland sage scrub and disturbed Riversidean alluvial fan sage scrub within the existing right-of-way.	Less than significant	No mitigation is required.	Less than significant
Conflict with Local Policies or Ordinances Protecting Biological Resources	The Project would not conflict with local policies or ordinances protecting biological resources.	Less than significant	No mitigation is required.	Less than significant

<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.3 Greenhouse Gas Emissions</b>				
Generate GHG Emissions that may Result in a Significant Impact	The Project would not generate GHG emissions that would result in a significant impact on the environment.	Less than Significant	No mitigation is required.	Less than Significant
Conflict with Plans for Reducing GHG Emissions	The Project would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions.	Less than significant	No mitigation is required.	Less than significant
<b>3.4 Land Use and Planning</b>				
Conflict with applicable land use plan, policy, or regulation.	The Project would temporarily conflict with noise standards in the General Plans of cities of Fontana and Rancho Cucamonga. <sup>1</sup>	Less than Significant	The short-term policy conflict represents a noise, rather than a land use, impact, due to Metropolitan's exemption from local zoning and building ordinances (which is fully discussed in Section 3.5). No mitigation is required.	Less than Significant

<sup>1</sup> California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances, including local general plans. This exemption applies to the Etiwanda Pipeline North as a water transmission pipeline and a direct component of Metropolitan's treatment, storage and transmission system. Nonetheless, Metropolitan intends to voluntarily work with the local communities to reduce impacts due to conflicts with the local plans.



<p align="center"><b>Table S-1 (cont.)</b>  <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b></p>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.5 Noise</b>				
Generate Noise Levels in Excess of Standards	The Project would include 24-hour construction and result in noise levels exceeding the maximum allowable noise levels at adjacent residences during both daytime and nighttime hours. <sup>2</sup>	Significant	<p><b><u>NOI-1: Noise Control Plan</u></b></p> <p>A noise control plan will be developed in coordination with the City of Rancho Cucamonga and the City of Fontana, and will have the concurrence of the cities prior to beginning work in the Project area. The noise control plan will include but not necessarily be limited to mitigation measures <b>NOI-2</b> through <b>NOI-6</b>, to the extent feasible to protect the interests of the public and to allow for Project completion in light of critical work schedules, necessary work methods, and the physical constraints of Metropolitan's right-of-way and available work areas.</p> <p><b><u>NOI-2: Noise Monitoring</u></b></p> <ul style="list-style-type: none"> <li><b>NOI-2.a</b> – Noise monitoring will be performed to measure noise levels during work in the vicinity of sensitive receptors and to measure the effectiveness of noise control measures.</li> <li><b>NOI-2.b</b> – Where measured noise levels at the property line of residences are shown to exceed daytime noise levels of 75 dBA L<sub>EQ</sub>, or nighttime noise levels of 65 dBA L<sub>EQ</sub>, new noise control measures or improvements to noise control measures already in</li> </ul>	Significant

<sup>2</sup> California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances, including local noise ordinances in the local zoning or building codes. This exemption applies to the Etiwanda Pipeline North as a water transmission pipeline and a direct component of Metropolitan's treatment, storage and transmission system. Nonetheless, Metropolitan intends to voluntarily work with the local communities to reduce impacts due to conflicts with the local noise ordinances.

**Table S-1 (cont.)**  
**ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
<b>3.5 Noise (cont.)</b>				
			<p>place will be implemented in an effort to achieve those daytime and nighttime thresholds, or lower, to the extent feasible; noise monitoring will be performed to record the achieved level of noise reduction.</p> <p><b><u>NOI-3: General Noise Control for All Project Activities</u></b></p> <ul style="list-style-type: none"> <li>• <b>NOI-3.a</b> – Trucks and equipment equipped with back-up alarms will have the back-up alarms disengaged to the extent allowed by the Occupational Safety and Health Administration (OSHA); safety will be provided by lights and flagmen and safety lighting will be directed away from residences.</li> <li>• <b>NOI-3.b</b> – Areas where workers gather (e.g., break areas, shift-change areas, meeting areas) will be located a minimum of 100 feet away from any residence if feasible. Worker gathering areas that must be located within 100 feet of residences will be equipped with minimum eight-foot high noise control barriers between the gathering area and residences; entrances will not face residences.</li> <li>• <b>NOI-3.c</b> – Parking areas will be located a minimum of 150 feet from sensitive receptors. Parking areas that are within 500 feet of sensitive receptors will be posted to prohibit workers from gathering during nighttime hours, and prohibiting radios and music at any time.</li> </ul>	

<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.5 Noise (cont.)</b>				
			<ul style="list-style-type: none"> <li>• <b>NOI-3.d</b> – Equipment will be maintained to a minimum standard that includes engine noise baffles and mufflers that meet or exceed the original manufacturer’s requirements.</li> <li>• <b>NOI-3.e</b> – Equipment that has noise control doors will be operated only with the doors fully closed.</li> <li>• <b>NOI-3.f</b> – Equipment delivery trucks will be allowed only during daytime hours, and back-up alarms will be disengaged to the extent allowed by OSHA.</li> <li>• <b>NOI-3.g</b> – Fuel deliveries will occur during daytime hours and at a minimum of 500 feet from residences, to the extent feasible. Fueling stations that must be located within 500 feet of residences will have minimum eight-foot high noise control barriers, and fuel trucks that are required during nighttime hours will maintain a minimum distance of 100 feet from residences.</li> <li>• <b>NOI-3.h</b> – Noise control barriers and enclosures, where used in accordance with <b>NOI-2.b</b>, will be fully in place prior to work at that location.</li> <li>• <b>NOI-3.i</b> – Noise control barriers and enclosures, where used in accordance with <b>NOI-2.b</b>, will be implemented using the most appropriate material, configuration, and location to achieve the maximum feasible noise reduction.</li> </ul>	

**Table S-1 (cont.)**  
**ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
<b>3.5 Noise (cont.)</b>				
			<p><b><u>NOI-4: Noise Control During Site Preparation, Excavation, and Site Closure Activities</u></b></p> <p>Site preparation, excavation, and site closure activities will be allowed only during daytime hours.</p> <p><b><u>NOI-5: Noise Control During Mortar Lining Removal, Pipeline Dewatering, and New Pipeline Liner Application Activities</u></b></p> <p>Increased noise levels from these activities primarily result from pressurized air venting or leaking from equipment. The following measures would reduce the noise that results from this potential occurrence.</p> <ul style="list-style-type: none"> <li>• <b>NOI-5.a</b> – No air line, air relief valve, air switch, air control, or any other equipment component will be allowed to vent pressurized air directly to the atmosphere. All air vent lines will go through an air silencing system that reduces air vent noise to 75 dBA L<sub>EQ</sub> (1-second) or less at a distance of five feet.</li> <li>• <b>NOI-5.b</b> – When air leaks are detected in a piece of equipment, the air source will be turned off, the air line will be depressurized, and the leak will be repaired prior to resuming use of the equipment.</li> </ul>	

<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.5 Noise (cont.)</b>				
			<b><u>NOI-6: Noise Control at Rollout and Ventilation Locations</u></b> <ul style="list-style-type: none"> <li><b>NOI-6.a</b> – The use of mobile equipment during nighttime hours will be limited to the following types – (a) skid-steer or rubber-tracked excavator; (b) tire-mounted, medium-sized mobile crane; (c) two-axle delivery truck; (d) water truck; (e) pick-up truck.</li> <li><b>NOI-6.b</b> – All generators, air compressors, ventilation equipment, vacuum pumps, and air-vent silencing systems will be placed on the east side of the pipeline or east of rollout and ventilation locations, whichever distance and/or location will achieve maximum feasible noise reduction at nearby residences.</li> <li><b>NOI-6.c</b> – All generators, air compressors, ventilation equipment, vacuum pumps, and air-vent silencer systems will be used behind noise control barriers or within noise control enclosures as necessary to prevent noise at sensitive receptors from exceeding 75 dBA <math>L_{EQ}</math> to the extent feasible. Enclosure entrances will face away from residences. Equipment entrances will be for daytime use only; worker entrances will be for daytime and nighttime use but will be kept fully closed when not in use.</li> </ul>	

<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.5 Noise (cont.)</b>				
Increase Temporary Ambient Noise Levels	During Project-related activities, the proposed Project would result in a temporary increase in ambient noise levels at nearby residences.	Significant	Mitigation measures <b>NOI-1</b> through <b>NOI-6</b> will be implemented to reduce potential impacts associated with Project activities to the extent feasible.	Significant
Result in Excessive Ground-borne Vibration or Noise Levels	The proposed Project would cause some annoyance to nearby residences due to ground-borne vibration or noise levels; however, the Project would not result in excessive ground-borne vibration or noise levels such that structural damage would occur. Additionally, the Project is not near vibration-sensitive uses.	Less than significant	No mitigation is required.	Less than significant
<b>3.6 Transportation and Traffic</b>				
Conflict with a Circulation System Plan, Ordinance, or Policy	The Project would contribute more than 50 peak hour trips to an intersection currently operating at unacceptable LOS. The Project would not result in conflicts with other applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system.	Significant	<b>TR-1:</b> No more than 50 vehicle trips will utilize the intersection of Heritage Circle at Baseline Avenue during morning peak hours, between 7:00 a.m. and 9:00 a.m. This may be accomplished through a combination of shift scheduling, carpool incentives, and/or verification of employee and truck routes.	Less than significant
Conflict with a Congestion Management Program	Temporary trips associated with the Project would not result in a conflict with the applicable Congestion Management Program.	Less than significant	No mitigation is required.	Less than significant



## Chapter 1.0

# INTRODUCTION

## 1.0 INTRODUCTION

This Environmental Impact Report (EIR) was prepared by the Metropolitan Water District of Southern California (Metropolitan) for the proposed Etiwanda Pipeline North Relining Project (proposed Project). The Project involves repair of approximately five miles of the Etiwanda Pipeline North, consisting of removal of damaged concrete mortar lining inside the pipeline followed by application of a new polyurethane coating. This EIR was prepared to evaluate the potential impacts of the Project on the environment and on adjacent communities in the cities of Fontana and Rancho Cucamonga.

### 1.1 PURPOSE OF THE EIR

This EIR assesses the potential environmental effects of the Etiwanda Pipeline North Relining Project. This EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code [PRC] Section 21000 et seq.) and the Guidelines for Implementation of CEQA (State CEQA Guidelines) published by the Public Resources Agency of the state of California (California Code of Regulations [CCR], Title 14, Section 15000 et seq.). Metropolitan is the Lead Agency under CEQA (PRC Section 21067, as amended), is responsible for the preparation of the EIR, and will use this document to objectively review and assess the proposed Project prior to approval or disapproval.

This EIR is intended to: (1) inform decision makers and the public about the potentially significant environmental effects of the proposed activities; (2) identify the ways that significant environmental effects can be avoided or reduced; and (3) prevent significant, avoidable damage to the environment by requiring changes in the proposed Project through the use of alternatives or mitigation measures, to the extent that Metropolitan determines the changes to be feasible (CEQA Guidelines Section 15002; PRC Section 21002.1).

### 1.2 SCOPE OF THE EIR

Metropolitan prepared an Initial Study for the proposed Project (**Appendix A**). The Initial Study indicated that the Project would result in less than significant impacts to the following environmental issue areas:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| 1. Aesthetics                         | 7. Mineral Resources              |
| 2. Agriculture and Forestry Resources | 8. Population and Housing         |
| 3. Cultural Resources                 | 9. Public Services                |
| 4. Geology and Soils                  | 10. Recreation                    |
| 5. Hazards and Hazardous Materials    | 11. Utilities and Service Systems |
| 6. Hydrology and Water Quality        |                                   |

Therefore, these issue areas do not require additional analysis. The Initial Study, however, indicated that significant impacts may occur with respect to the following environmental issue areas:

- |                             |                               |
|-----------------------------|-------------------------------|
| 1. Air Quality              | 4. Land Use and Planning      |
| 2. Biological Resources     | 5. Noise                      |
| 3. Greenhouse Gas Emissions | 6. Transportation and Traffic |

Accordingly, Metropolitan determined that an EIR was necessary to address these potentially significant issues. These issues are discussed in detail in this EIR (**Chapter 3.0, *Environmental Impact Analysis***).

On August 15, 2014, Metropolitan circulated a Notice of Preparation (NOP) to responsible agencies and other interested parties. The Initial Study, NOP and comment letters received on the NOP are included in **Appendix A** of this document. The topics identified in the comment letters received in response to the NOP, and the manner in which such comments are addressed, are summarized below.

- Concerns regarding Project-related trips and recommendations for trip reductions:

Project-generated trips, their impact on the existing circulation system, and measures necessary to reduce the single significant impact are detailed in **Section 3.6, *Transportation and Traffic***.

- Work performed in Flood Control District right-of-way would require a permit and/or other on-site or off-site improvements:

Only below-ground work within the existing pipeline would occur within Flood Control District right-of-way. There would be no change to existing drainage patterns in these areas, and no permit would be required.

- Discussion of drainage and development in a floodplain:

The Initial Study discussed drainage and activities within a floodplain in accordance with Appendix G of the State CEQA Guidelines. Because no potentially significant impacts were identified, no discussion in this EIR is required.

- Assessment of adverse impacts on historical/archaeological resources and implementation of appropriate mitigation related to such resources, in addition to coordination with the tribes on the Native American contacts list provided by the Native American Heritage Commission:

As described in the Initial Study, a record search and survey of the Project area were conducted, which identified no potentially significant resources in the Project area. In addition, no concerns were raised by representatives of the tribes on the Native American contacts list provided by the Native American Heritage Commission. Potential impacts to cultural resources were determined to be less than significant, and no discussion in the EIR is required.

- Concerns regarding impacts to sensitive biological resources, including impacts to burrowing owls, wetlands and riparian habitats, take of listed species, and avoidance and protection of rare natural communities:

Biological resources within the Project area, potential impacts, and Metropolitan's standard measures to minimize potential impacts to such resources are detailed in **Section 3.2, Biological Resources**.

- Recommendations regarding the air quality analysis:

Existing air quality conditions, anticipated Project emissions, and measures to reduce potential impacts related to air quality are detailed in **Section 3.1, Air Quality**.

### 1.3 FORMAT OF THE EIR

This EIR is organized as follows:

**Executive Summary** – The Executive Summary includes a brief project description, summary of environmental impacts and proposed mitigation measures that would reduce or avoid impacts determined to be significant, alternatives considered, areas of controversy known to the Lead Agency, and any issues to be resolved including the choice among alternatives or how to mitigate significant impacts (CEQA Guidelines Section 15123).

**Chapter 1.0, Introduction** – This chapter describes the scope and purpose of the EIR, provides a brief summary of the CEQA process, and establishes the document format.

**Chapter 2.0, Project Description** – This chapter provides a description of Metropolitan, Etiwanda Pipeline North, and the proposed Project, including the goals and objectives of the Project and proposed Project features. In addition, the intended and required uses of the EIR and a discussion of discretionary actions required for Project implementation are included.

**Chapter 3.0, Environmental Impact Analysis** – This chapter constitutes the main body of the EIR and includes the detailed impact analysis for each environmental issue. The topics analyzed in this chapter include: air quality, biological resources, greenhouse gas emissions, land use and planning, noise, and transportation and traffic. Under each topic, **Chapter 3.0** includes a discussion of methods of analysis, existing conditions, the thresholds identified for the determination of significant impacts, and an evaluation of the impacts associated with implementation of the Project. Where the impact analysis demonstrates the potential for the Project to have a significant adverse impact on the environment, mitigation measures are provided which would minimize the significant effects. The EIR indicates if the proposed mitigation measures would reduce impacts to less than significant levels.

**Chapter 4.0, Cumulative Impact Analysis** – This chapter addresses the cumulative impacts due to implementation of the proposed Project in combination with other past, present, and reasonably foreseeable or probable future projects in the area.

**Chapter 5.0, *Mandatory CEQA Topics*** – This chapter discusses additional topics required by CEQA, including unavoidable adverse impacts, growth inducement, and irreversible environmental changes.

**Chapter 6.0, *Alternatives to the Proposed Project*** – This chapter provides a description of alternatives to the proposed Project and an evaluation of their potential to reduce or avoid the proposed Project’s significant impacts.

**Chapter 7.0, *References*** – This chapter includes a listing of applicable reference materials.

**Chapter 8.0, *List of Preparers*** – This chapter includes a list of individuals involved in the preparation of the EIR, including Lead Agency staff and consultants.

## Chapter 2.0

# PROJECT DESCRIPTION

## 2.0 PROJECT DESCRIPTION

This chapter describes Metropolitan, the Etiwanda Pipeline North, and the proposed Project for the public, reviewing agencies, and decision makers. In conjunction with the description of the proposed Project activities, this chapter includes the purpose, goals, and objectives of the Project; a description of the Project's location; an overview of the existing setting and adjacent land uses; a description of the Project's characteristics; and a summary of other approvals that may be required for Project implementation.

### 2.1 ABOUT METROPOLITAN

*The mission of the Metropolitan Water District of Southern California is to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.*

The Metropolitan Water District of Southern California (Metropolitan) was formed in 1928 under an enabling act of the California legislature to construct and operate the 242-mile Colorado River Aqueduct (CRA), to bring water from the Colorado River to southern California. Metropolitan is comprised of 26 cities and water districts (member agencies) and provides drinking water to nearly 19 million people in southern California. Metropolitan's service area includes 5,200 square miles of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties.

Metropolitan owns and operates the CRA, which extends from Lake Havasu on the California-Arizona border, to Metropolitan's Lake Mathews Reservoir in western Riverside County. To augment their supply of water, in 1960, Metropolitan and 30 other public agencies signed a long-term contract to enable construction of the 444-mile California Aqueduct, to bring State Water Project (SWP) water from the San Francisco Bay Area to southern California. The California Aqueduct is controlled by the Department of Water Resources (DWR) and provides water to Metropolitan and others under contract. The California Aqueduct extends from northern California's Sacramento-San Joaquin Delta to southern California reservoirs including Lake Silverwood, Lake Perris, and Lake Castaic.

Metropolitan's water sources also include local supplies from groundwater storage agreements and water transfer arrangements with other water suppliers and users. Supplies from the Colorado River, northern California, and local sources may vary substantially on the basis of availability and environmental factors. In total, Metropolitan moves more than 1.5 billion gallons of water per day through its system. Metropolitan's headquarters are in Los Angeles, and numerous field offices are maintained throughout the service area to operate and maintain the system. The primary components of Metropolitan's conveyance, treatment, and distribution system are summarized below.

- CRA – 242 miles, includes pumping plants, siphons, tunnels, canals, and pipelines
- Water treatment plants – five water treatment plants, including the Joseph E. Jensen plant (Granada Hills), Robert A. Skinner plant (north of Temecula), F.E. Weymouth plant (La Verne), Robert B. Diemer plant (Yorba Linda), and the Henry J. Mills plant (Riverside)



- Reservoirs – 10 water storage reservoirs, including Diamond Valley Lake (near Hemet), Etiwanda (Riverside), Lake Mathews (Riverside), Lake Skinner (north of Temecula), Copper Basin and Gene Wash (desert region), Live Oak Reservoir (La Verne), Garvey Reservoir (Monterey Park), Palos Verdes Reservoir (Rolling Hills), and Orange County Reservoir (Brea)
- Distribution pipelines to member agencies – 819 miles of pipeline extending throughout the service area
- Hydroelectric plants – 16 hydroelectric plants at various locations throughout the service area

## 2.2 ETIWANDA PIPELINE NORTH

The Etiwanda Pipeline was built by Metropolitan in 1993. The pipeline is 6.3 miles in length and 12 feet in diameter. Its construction is welded-steel pipe with an approximately 3/4-inch cement mortar lining for corrosion protection inside the pipe. The pipeline is within a Metropolitan-owned right-of-way ranging in width from approximately 50 to 100 feet, with original excavation for installation of the pipe approximately 70 feet wide. The Etiwanda Pipeline extends from Metropolitan's Rialto Pipeline in Fontana to Metropolitan's Upper Feeder pipeline in Rancho Cucamonga. Access to the pipeline is via a series of 24-inch manholes along the length of the alignment. Approximately 4.4 miles of the 6.3-mile pipeline are in the city of Fontana and 1.9 miles are in the city of Rancho Cucamonga, in San Bernardino County.

The 5.5-mile northern portion of the pipeline, Etiwanda Pipeline North, extends from the Rialto Pipeline (pipeline station 0+00) at Knox Avenue east of Lytle Creek Road, to the Etiwanda Hydroelectric Plant (pipeline station 286+05) at Etiwanda Avenue south of Foothill Boulevard. The Etiwanda Pipeline North serves as a "penstock" to convey high-pressure, untreated water from the East Branch pipeline of the SWP to the hydroelectric plant at sufficient pressure to generate power. **Figure 2-1, Representative Photographs – Existing Facilities**, shows existing facilities related to and along Etiwanda Pipeline North.

The approximately 0.8-mile southern portion of the Etiwanda Pipeline extends south from the Etiwanda Power Plant to the Upper Feeder at Etiwanda Avenue, north of 6th Street, in Rancho Cucamonga. This connection allows the Upper Feeder to convey both SWP water and CRA water to Metropolitan's F.E. Weymouth Water Treatment Plant in La Verne, from which treated water supplies are distributed to customers in Los Angeles and Orange counties.

## 2.3 PROJECT NEED

Approximately 40 percent of Metropolitan's water delivery system is over 60 years old, and modernization of facilities and of the overall system is an ongoing priority. Modernization includes capital projects such as Diamond Valley Lake and San Diego Pipeline No. 6; upgrades of existing facilities such as Oxidation Retrofit Programs at the Jensen, Skinner, Mills, Diemer and Weymouth treatment plants; and ongoing repairs and maintenance of all of Metropolitan's pipelines and associated structures. Systematic inspections of facilities are a necessary component of this modernization effort. Comprehensive inspections of pipelines and canals

occur during scheduled shutdowns of portions of the system (pipelines, canals, etc.), when water deliveries are suspended temporarily for periods ranging from hours to weeks.

During shut-downs in 2008 and 2009, inspections of the interior of the Etiwanda Pipeline North revealed that portions of the mortar lining were missing or had delaminated from the steel pipe surfaces. Extensive investigations were initiated to determine the cause of the lining erosion. The investigations concluded that the primary cause was the cycling of high-pressure water within the pipeline related to on-peak and off-peak operation of the Etiwanda Hydroelectric Plant, which resulted in substantial daily fluctuations in pressure inside the pipe. In addition, the seasonal variations in availability of SWP water supplies resulted in prolonged periods when the pipeline was not in service, which created drying and shrinkage cracks in the lining. The inflexible mortar lining was incapable of moderating or absorbing these physical stresses.

Although Etiwanda Pipeline North remains in service and its structural integrity remains sound, the loss of mortar lining over time would continue to expose the interior of the pipe to corrosion and eventually would result in leakage, and possibly failure. Relining of the pipe has been determined to be necessary to maintain the long-term integrity of, and reliability of water deliveries through, the Etiwanda Pipeline North. After extensive study and application of various coating alternatives on an approximately half-mile segment of the pipeline in 2014, a flexible polyurethane lining was determined to be the most suitable replacement for the existing mortar lining. The Etiwanda Pipeline North Relining Project (Project) is designed to remove the existing mortar lining and replace it with new polyurethane lining within an approximately five-mile length of Etiwanda Pipeline North.

## 2.4 PROJECT OBJECTIVES

A clear statement of Project objectives allows for the analysis of reasonable alternatives to the proposed Project. The overall intent of the Project is to repair the pipe lining and prevent further corrosion of approximately five miles of Etiwanda Pipeline North. Project objectives are as follows:

- Enable Metropolitan to continue conveyance of water from the Rialto Pipeline to the Upper Feeder as needed to supply customers;
- Enable Metropolitan to continue electricity generation through water conveyance to the Etiwanda Hydroelectric Plant;
- Provide a safe, feasible and cost-effective relining method; and
- Minimize Project-related nuisances such as traffic disruption, noise, air quality, dust, and odor to the extent feasible.

## 2.5 PROJECT LOCATION

The proposed Project includes repairs to approximately five miles of Etiwanda Pipeline North within the cities of Fontana and Rancho Cucamonga in San Bernardino County (**Figure 2-2, Regional Map**). The portion of the pipeline to be relined includes approximately 4.4 miles in Fontana, beginning at Metropolitan's Rialto Pipeline and ending at East Avenue, and

approximately 0.4 mile in Rancho Cucamonga, continuing from East Avenue and ending just north of Foothill Boulevard (**Figure 2-3, Project Vicinity Map**). The existing pipeline parallels Interstate 15 (I-15), approximately 0.4 mile east of I-15, and crosses under State Route (SR) 210. The alignment traverses in a northeast-to-southwest direction, with the northernmost portion of the alignment located approximately 0.3 mile east of Lytle Creek Road and approximately 0.5 mile north of Summit Avenue in the city of Fontana (pipeline station 0+00). The southern terminus of the Project area is just north of Foothill Boulevard, approximately 0.2 mile west of East Street in the city of Rancho Cucamonga (approximately pipeline station 254+90).

## **2.6 EXISTING SETTING AND LAND USES**

### **2.6.1 Existing Environmental Setting**

Within the city of Fontana, the Project is located in a utility corridor that includes Southern California Edison (SCE) transmission towers immediately east of the existing pipeline right-of-way. The Project area within the city of Fontana is zoned as Public Utility Corridor (P-UC), as well as designated P-UC in the Fontana General Plan. Within the city of Rancho Cucamonga boundaries, the Project area is zoned as Etiwanda Specific Plan (SP-E). The Etiwanda Specific Plan designates the Project area as Open Space, while the Rancho Cucamonga General Plan designates it as Flood Control/Utility Corridor. The pipeline alignment also is adjacent to areas containing residential uses, agricultural uses, and vacant land.

While the majority of Project activities would occur within Metropolitan's existing pipeline right-of-way, some staging may occur within the adjacent SCE right-of-way and/or other adjacent private property. Primary activities would occur within up to 12 work locations along the pipeline identified as Contractor Work and Storage Areas. The right-of-way, together with adjacent temporary construction easements, is referred to as the Project area. The pipeline right-of-way has a variable width along the alignment, ranging from approximately 50 to 100 feet. At some work area locations, the centerline of the pipeline ranges from approximately 36 to 70 feet from the adjacent residential property boundaries.

### **2.6.2 Adjacent Land Uses**

Uses adjacent to the northernmost portion of the Project area include single-family residential on the west and vacant land on the east (refer to **Figures 3.4-1a to 3.4-1d, Existing Land Uses** for mapping and to **Figure 2-4, Representative Photographs – Existing Setting**, for examples). Approximately 0.2 mile north of Summit Avenue in Fontana, the Project area is adjacent to Fontana Park, which contains a community center, aquatics center, play areas, and Fontana North Skate Park. South of Summit Avenue, the Project area is adjacent to single-family residential uses, Rosena Park, vacant land, and agricultural uses, and also passes in proximity to Summit High School. Further south, the Project area is then adjacent, on the east and on the west, to vacant land for approximately 1.6 miles. A portion of the Project area is adjacent to single-family residential for approximately 1.2 miles prior to crossing the Fontana/Rancho Cucamonga city limits at East Avenue.

Within the city of Rancho Cucamonga, adjacent land uses include single-family residential, Garcia Park, and vacant land, with multi-family uses in proximity to Foothill Boulevard.

## 2.7 PROJECT CHARACTERISTICS

To prevent further corrosion of the steel pipe in the approximately five-mile-long segment of Etiwanda Pipeline North, the Project proposes to remove the existing interior mortar lining, much of which has delaminated from the pipe, and recoat the pipe with a new lining.

Except for excavation and staging, Project activities mostly would occur below-ground. Access to the pipe for relining activities would be accomplished via rollouts (where a 20-foot segment of pipe would be removed), existing manholes, existing buried outlets (similar to manholes but without surface structures), and proposed new buried outlets (**Figures 2-5a-5j, Proposed Outlets, Manholes, and Rollout Stations**). The assumed excavation areas for these access points are as follows:

- Rollouts – 70 feet by 70 feet
- Existing manholes – 10 feet by 10 feet
- Existing buried outlets – 20 feet by 30 feet
- Proposed new buried outlets – 30 feet by 40 feet

While the remainder of the right-of-way and staging areas may be used for access and material storage, no other disturbance of the existing ground is anticipated. Surface disturbance could occur in the remainder of the right-of-way from materials staging and grubbing of vegetation. Project activities would not occur within storm drainage courses, public roadways, or public rights-of-way.

### 2.7.1 Project Activities

The proposed Project involves removing the existing mortar lining inside Etiwanda Pipeline North and recoating the pipe with a new liner. Primary activities would include the following: site preparation; preparation of access points into the pipeline; pipeline shutdown and dewatering; surface preparation of the interior surfaces of the pipe (including removal of the existing lining); application of the new liner; and closing access points and site completion (refer also to **Figure 2-6, Representative Photographs – Project Activities**). Following the completion of pipeline relining, the Project would not require operations or maintenance personnel beyond those already required for the existing pipeline.

#### **Site Preparation**

The Project would begin with site preparation activities at each of the access points along the pipeline prior to shutdown of the pipeline. Weed abatement and grading of access roads, if needed, would occur at each of the access points and at the designated laydown and staging locations. Aggregate may be placed on the access roads and work areas as needed to create an all-weather driving surface, and water trucks or soil binders may be used for dust suppression. Each of these areas may be temporarily fenced for safety and security purposes, particularly at the excavation areas. Materials and equipment needed for construction would be staged either at Contractor Work and Storage Areas or near any of the pipeline access points.

## **Preparation of Access Points**

Access points would allow entry into the pipeline for personnel, materials and equipment. Four types of access points would be used: existing manholes, existing buried outlets, rollout sections of pipe, and new outlets. If excavation is required at these locations, it could be completed prior to, during, or following the shutdown of the pipeline. All excavation pits could be open for the length of Project activities. The excavated material would be stored either at Contractor Work and Storage Areas along the pipeline or near any of the excavation sites.

## **Pipeline Shutdown and Dewatering**

To allow the entrance of workers inside the pipeline, Etiwanda Pipeline North would be taken out of service (i.e., shut down), and the water inside the pipeline would be removed (dewatered). The majority of the water would be discharged by gravity flow into the Upper Feeder or discharged into the Etiwanda Reservoir at the Etiwanda Hydroelectric Plant site. Water still remaining within the low points of the pipeline sections could be pumped to the next downstream low point or could be pumped out through manhole locations along the pipeline by the contractor. The water may be discharged to the Etiwanda Reservoir and/or to existing storm drains. Applicable permits would be obtained by the contractor. Dewatering is estimated to take approximately two to three days.

## **Surface Preparation of the Pipeline**

Following the pipeline shutdown and dewatering, the existing cement mortar lining would be detached from the walls of the pipeline using hand-held power tools, manual equipment, and/or other mechanical equipment. Once detached, the cement mortar lining would be removed either with hand tools or with small, motorized equipment and a movable conveyor belt through the pipeline access points. After removal of the existing mortar lining, the interior of the pipeline would be blasted with abrasives for suitable adherence of the new liner. Hand-held blast nozzles and semi-automated abrasive blasting mechanical equipment may be used for this process. Additional repair of the steel pipe may be required after abrasive blasting reveals corrosion needing more than a new coating.

Environmental control of the pipeline interior during and after this process is critical to keep the inside surface of the pipe clean and dry prior to application of the new lining. Improper surface condition that could result from dust or humidity would reduce the service life of the lining. Environmental controls would involve blowers, fans, and dehumidification equipment. Ventilation equipment and dehumidification equipment would be placed at one end of each pipe section being worked on to blow the required air inside the pipeline, and dust collection equipment would be placed at the other end to collect blown dust and debris.

## **Application of New Liner**

Following completion of pipeline surface preparation, the new liner would be applied. The new liner is expected to be a two-component, paint-type polyurethane product that would coat and protect the pipeline's steel surfaces. The coating equipment for the new liner would consist of mixing tanks, pumps, hoses, and nozzles. Hand-operated or mechanized spraying equipment would be used during the coating application. Once the application process begins, coating must



occur continuously to avoid joints, which would be more prone to future failure, in the new liner. Low humidity also is important for polyurethane application and curing. Dehumidification equipment and dust collection equipment would continue to be used during this stage.

### **Closing Access Points and Site Completion**

After the new lining has been fully applied and inspected, the pipeline would be cleaned and then all access points would be sealed, and the pipeline would be ready to be placed back into service. Each of the excavated pits for the rollouts and new and previously existing buried outlets would have shoring removed, and be backfilled and compacted. The backfill required at these locations could be completed either during or after the shutdown of the pipeline. Clean-up and recontouring of disturbed areas would be performed at each of the pipeline access points.

## **2.7.2 Project Schedule and Phasing**

### **Project Phasing**

The proposed Project activities are expected to begin in 2015 and would occur during pipeline shutdown periods, the number and duration of which would be determined by water demands and available supplies. Up to three shutdown periods, each approximately six to nine months long, over a period of up to three years, could be used to complete the approximately five-mile-long Project.

In addition to an approximately six- to nine-month shutdown window, four to five months prior to the shutdown would be used for site preparation, and one to two months after the shutdown would be used for site completion work. An overall construction period during each repair phase would be approximately one year.

Initial work on an approximately 0.4-mile segment of the pipeline was completed in 2014 as part of a pilot phase (Phase 1). Repair work for the proposed Project would be completed as Phase 2 and Phase 3. Phases 2 and 3 are currently anticipated to include two sub-phases (Sub-phases 2A, 2B, 3A, and 3B), as illustrated on **Figure 2-7, Proposed Project Phasing**. An optional phase (Phase 4) would only be included if work included as part of Phases 2 and 3 is not completed within the proposed Project schedule. The first pipeline shutdown is assumed to include work on Sub-phases 2A and 3A, and the second shutdown is assumed to occur as part of Sub-phases 2B and 3B.

Each Project phase is expected to be divided into two contracts (two for Phase 2 and two for Phase 3) that would be underway simultaneously in order to minimize the shutdown period and complete the Project as quickly as possible. Work within Sub-phases 2A and 3A could be concurrent and would commence in 2015. Sub-phases 2B and 3B are estimated to begin in 2016. Phase 4, if included, would begin in 2017.

### **Project Schedule**

The Project work schedule would vary throughout the duration of Project activities. Twelve-hour shifts are proposed for site preparation and site completion. During the pipeline shutdown period, work could be performed up to 24 hours per day and seven days per week; this

schedule is critical to accommodate time-sensitive work sequencing and to allow completion of work within the pipeline shutdown period. Excavation, access location closure, off-hauling of materials, and site completion would occur only between normal daytime hours (6:00 a.m. and 6:00 p.m.). Various other types of proposed activities could potentially occur during either daytime or nighttime hours.

### 2.7.3 **Personnel and Equipment**

The numbers of workers and equipment required would vary throughout the Project activities described above. The assumptions used for the impact analysis were estimated in consideration of the proposed Project tasks and based on the pilot phase work of relining Etiwanda Pipeline North, as well as Metropolitan's extensive experience with other similar pipeline projects. Project implementation is dependent on contractor requirements and allowable shut-down periods based on water supplies. Accordingly, many of the assumptions used for personnel and equipment represent worst-case scenarios in the analysis of potential impacts. The types, quantities, and use of equipment and personnel might vary somewhat to allow flexibility in implementation, but impacts and conclusions (for noise, emissions, traffic) are considered to represent worst-case intensity of activity.

The Project is assumed to require 320 workers per day per phase (including two concurrent sub-phases), based on two work shifts during the most active periods of the Project (160 workers per shift).

**Table 2-1, *Equipment Per Project Sub-phase***, lists the number of pieces of equipment that are assumed for the purposes of this analysis to be operating per day at the same repair section (either rollout or vent location) per Project sub-phase. Refer to **Figure 2-8, *Representative Photographs – Representative Equipment***, for images of some of the typical equipment expected to be used during Project activities. In this worst-case analysis, all equipment (except excavation equipment, vibratory soil compactor, wheel asphalt paver, concrete truck, and 100-ton crane) is assumed to be operating concurrently during a given day.

<b>Table 2-1 EQUIPMENT PER PROJECT SUB-PHASE</b>	
<b>Equipment</b>	<b>Number of Equipment Operating Per Day Per Sub-phase</b>
Air compressor	6
Vacuum	2
Dust collector	2
Dehumidifier	2
Blower	2
Generator	6
Abrasive blasting equipment (blast pots, hoses, cooling/dehumidifiers)	6
Abrasive recycle equipment	1
Air-powered coating sprayers	3



<b>Table 2-1 (cont.)                      EQUIPMENT PER PROJECT SUB-PHASE</b>	
<b>Equipment</b>	<b>Number of Equipment Operating Per Day Per Sub-phase</b>
Pneumatic and electric tools for chipping and scraping	4
Concrete saw	1
Concrete truck	0.5*
Excavator	1
Dump truck	2
Large crane (100-ton) for removing and placing rollouts	1
Smaller cranes for material and equipment	6
Loader	6
Forklift	6
Water truck	2
Semi-trailer truck with flat bed	3
Vibratory soil compactor	1
Wheel asphalt paver	1
Pickup truck	12

\* Concrete trucks would be needed for a half-day or less.  
 Source: Metropolitan 2014.

#### **2.7.4 Hauling and Access Routes**

Project equipment and debris hauling would utilize the pipeline right-of-way to get to adjacent surface streets, then continue to a main arterial route and then to I-15 for disposal. Average hauling distance is anticipated to be approximately 20 miles.

The total number of Project vehicles in use is likely to vary during the course of each phase. Once mobilization for each sub-phase is complete, approximately two daily truck trips would be required for Site Preparation and Pipeline Access phases and eight daily truck trips would be required for Pipeline Lining phases. While some variation may occur in actual numbers, types, or frequency of use of vehicles during the work, anticipated truck usage during mobilization in preparation for each phase includes the following:

- Four dump trucks (2 trips/day each for a total of 8 trips/day)
- Six semi-trucks with trailers (2 trips/day each for a total of 12 trips/day)
- Four water trucks (8 trips/day each for a total of 32 trips/day)
- Twenty-four pick-up trucks (4 trips/day each for a total of 96 trips/day)

#### **2.7.5 Environmental Commitments**

Environmental commitments are included in the Project to reflect and incorporate Metropolitan's best practices that avoid, minimize, or offset potential environmental effects from its projects. These best practices are relatively standardized and/or compulsory; they represent sound and proven methods to reduce the potential effects of projects and operations of facilities.

Implementation of these measures as part of the Project, in advance of impact findings and determinations, is in good faith to improve the quality and integrity of the Project, streamline the environmental analysis, and demonstrate environmental responsibility. Environmental commitments incorporated into the proposed Project include the following:

- Project activities would adhere to South Coast Air Quality Management District Rule 403, which includes a variety of measures intended to reduce fugitive dust emissions. In light of extreme drought conditions, Metropolitan would consider alternative feasible methods of dust control that minimize the use of water.
- If activities are proposed to occur during the general bird nesting season of February 1 through September 15, Metropolitan would retain a qualified biologist to ensure that nesting birds, including burrowing owls, are protected in compliance with the Migratory Bird Treaty Act and California Fish and Game Code (refer to **Section 3.2.3** for details).
- Work areas would be kept clean of attractive nuisances (e.g., trash and food) to wildlife, and the management of any wildlife that may occur within or adjacent to work areas would be in consultation with a qualified biologist.
- The use of any nighttime safety or security lighting would be directed away from homes and oncoming vehicles.

## **2.8 OTHER REQUIRED PROJECT APPROVALS**

California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances. This exemption applies to the Etiwanda Pipeline North as a water transmission pipeline and a direct component of Metropolitan's treatment, storage and transmission system. Nonetheless, Project implementation is anticipated to require traffic control plans and waivers from local noise ordinances from the cities of Fontana and Rancho Cucamonga. These cities may have discretionary authority over some aspects of the Project and may use this EIR when considering the Project or issuing permits.

Other permits or approvals that could be required include:

- California Air Resources Board and/or South Coast Air Quality Management District certification of abrasive blast media and construction equipment;
- California Occupational Health and Safety Administration Tunnel Safety Order compliance; and
- Conformance with applicable State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) and/or Municipal Separate Storm Sewer Systems (MS4) requirements.



Manhole



Pipeline Access Point



Manhole



Section of Pipeline



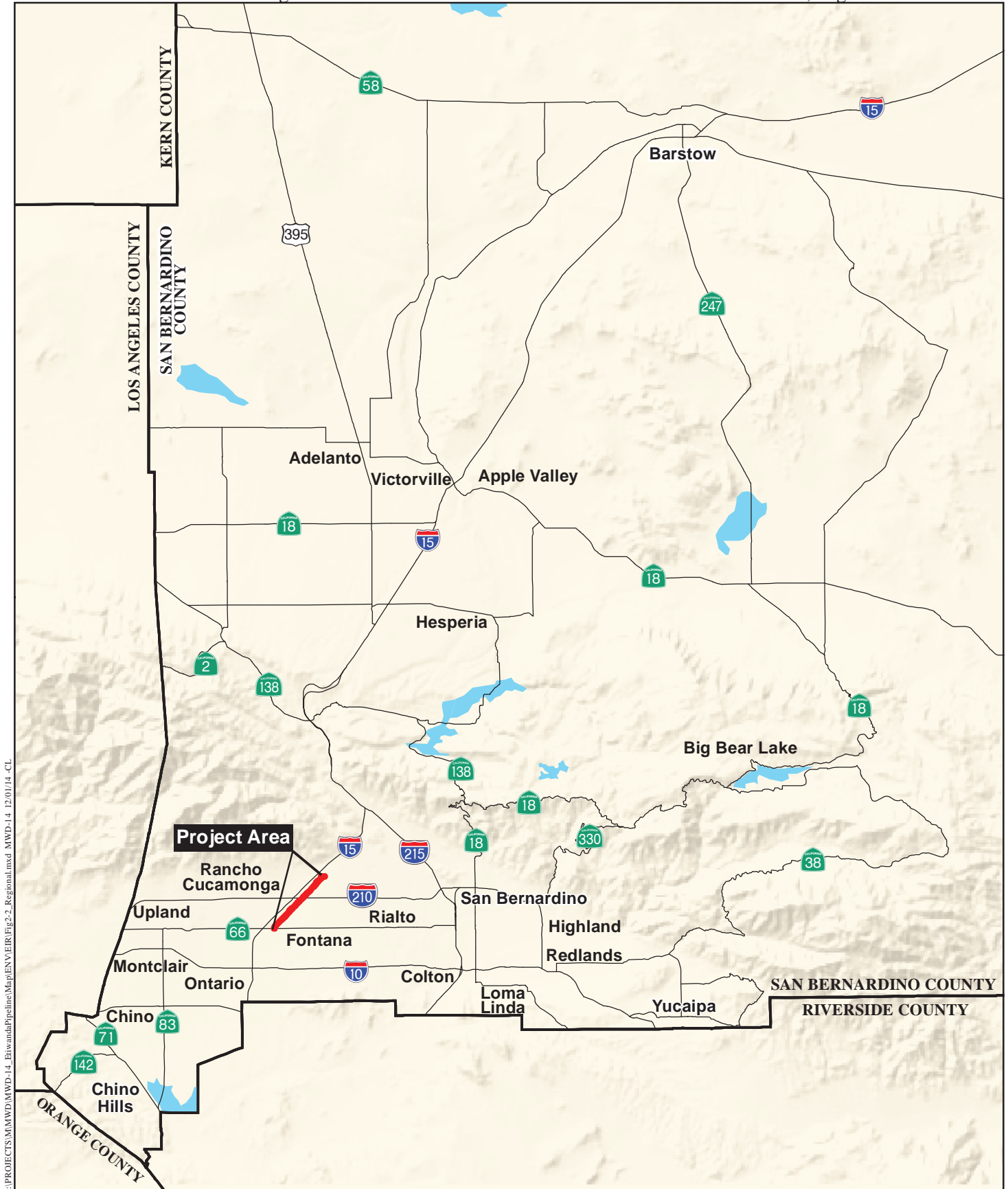
Rialto Pipeline Turnout

## Representative Photographs – Existing Facilities

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-1





## Regional Map

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-2





## Project Vicinity Map

ETIWANDA PIPELINE NORTH RELINING PROJECT



Figure 2-3





SCE Transmission Line and Flood Control Channel



Garcia Park



SCE Transmission Line and Open Land



Residential Development



SCE Transmission Line and Vineyard



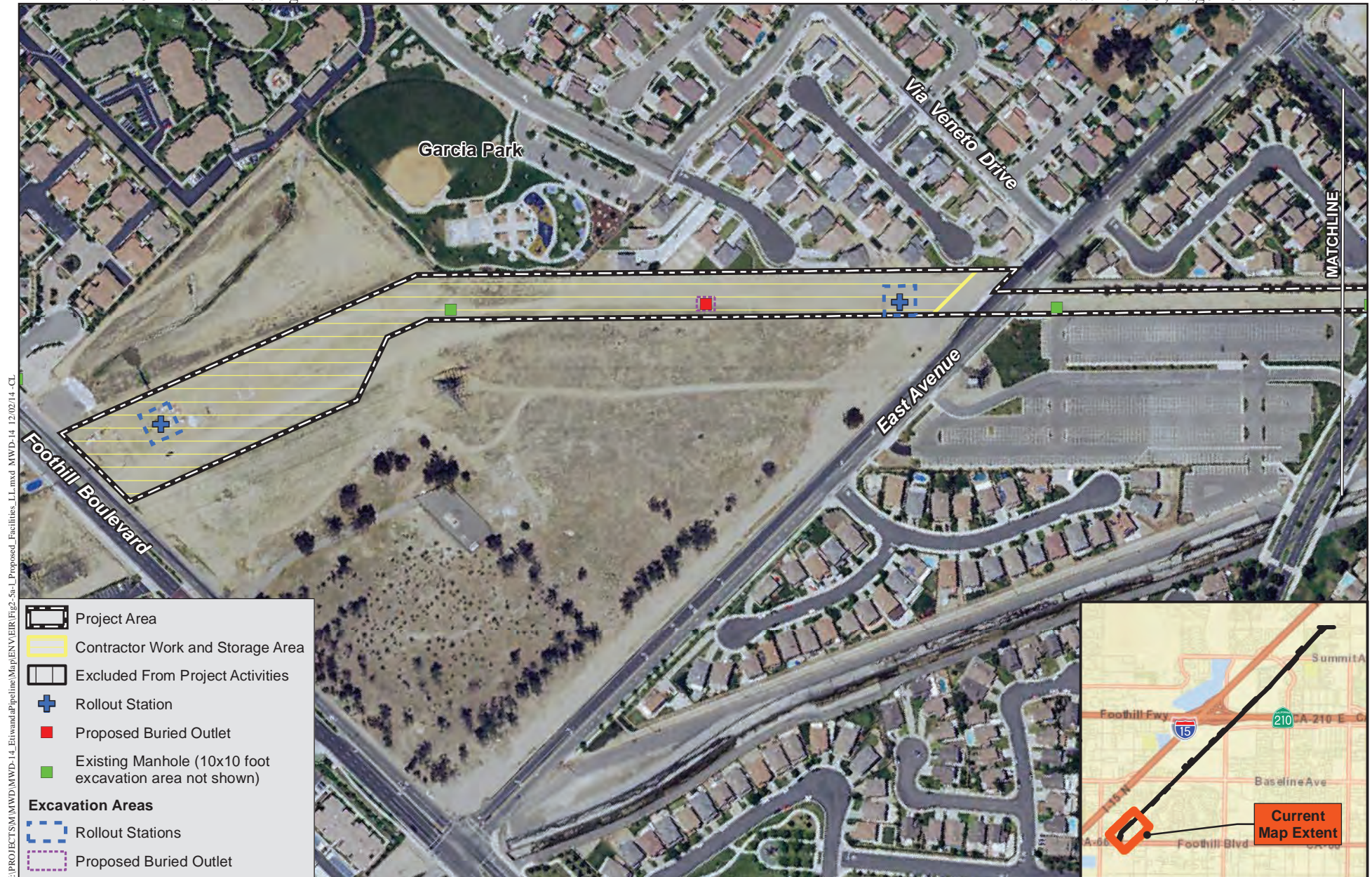
Residential Development and Open Land

## Representative Photographs – Existing Setting

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-4

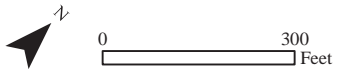




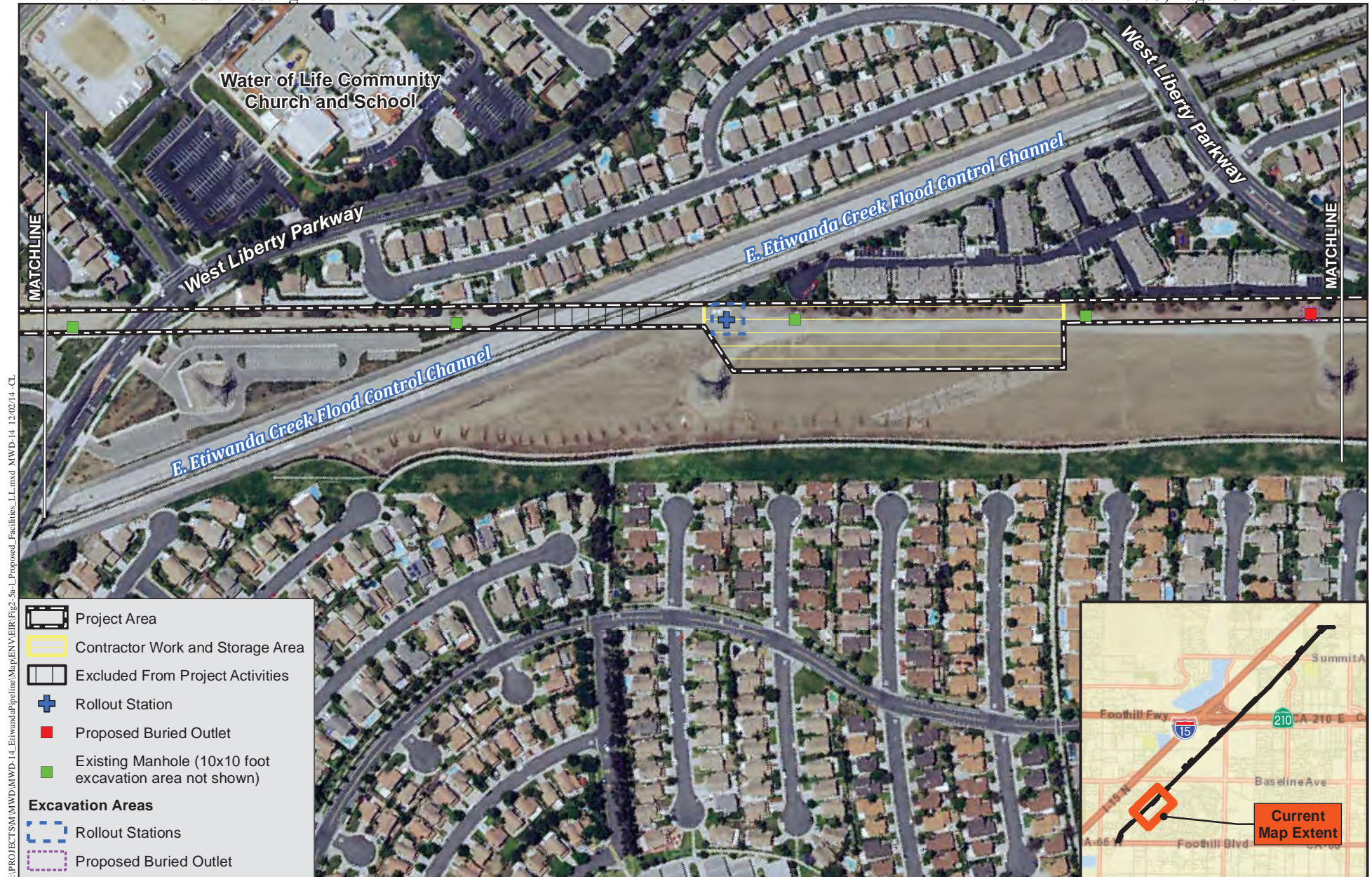
## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5a







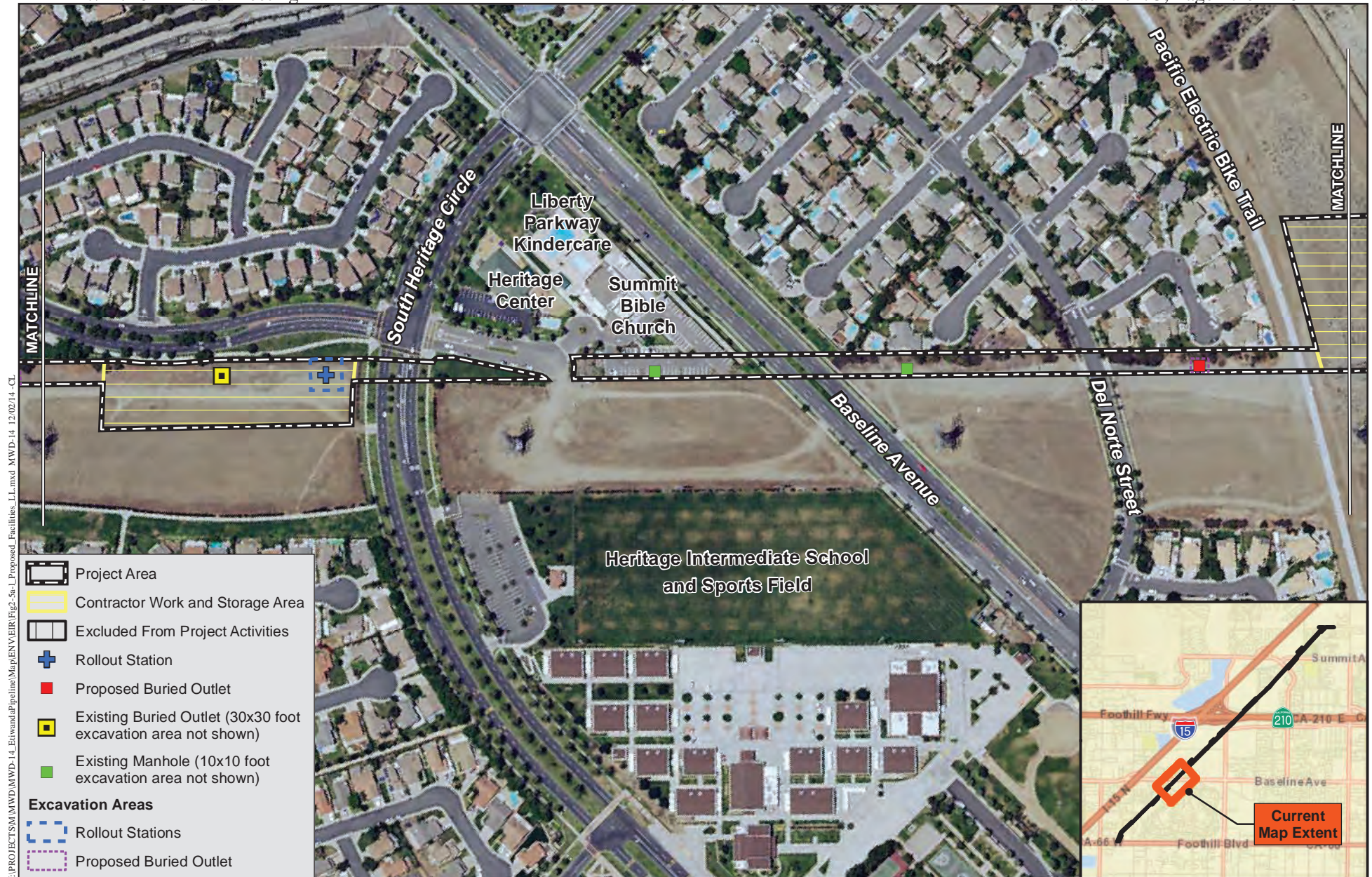
## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5b





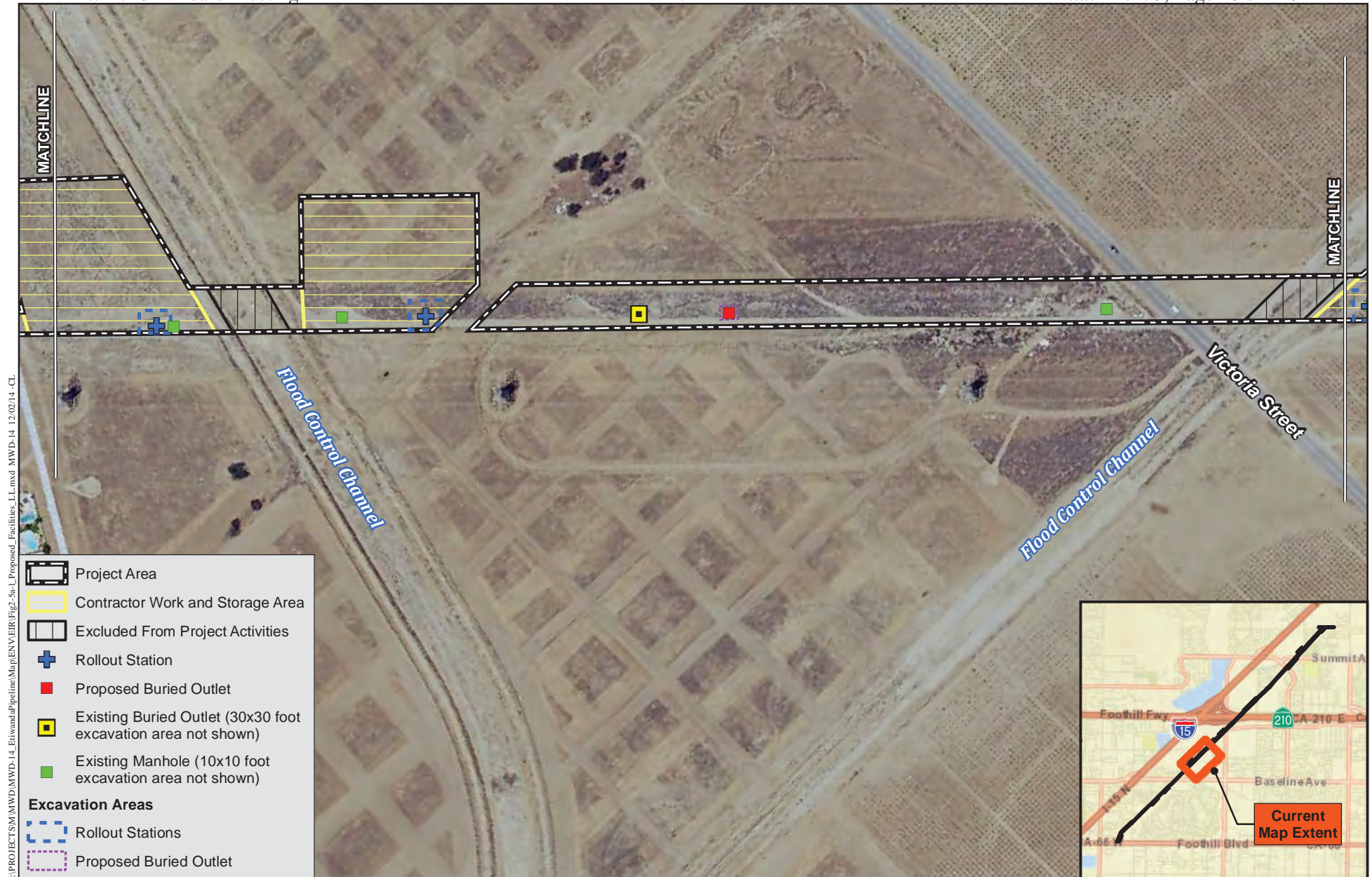


## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5c





## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5d



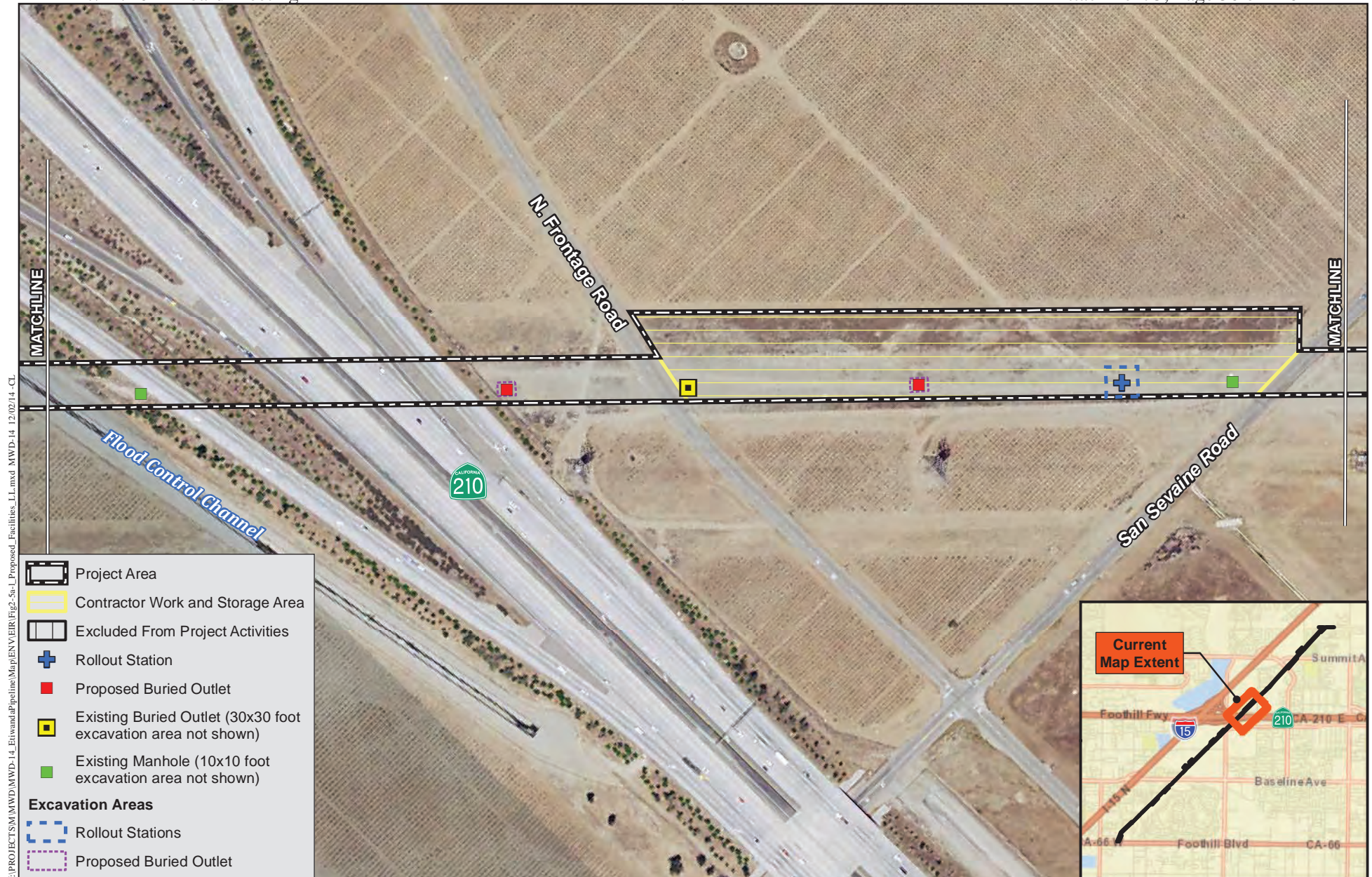


## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5e

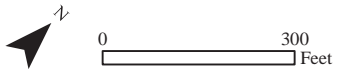




## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5f







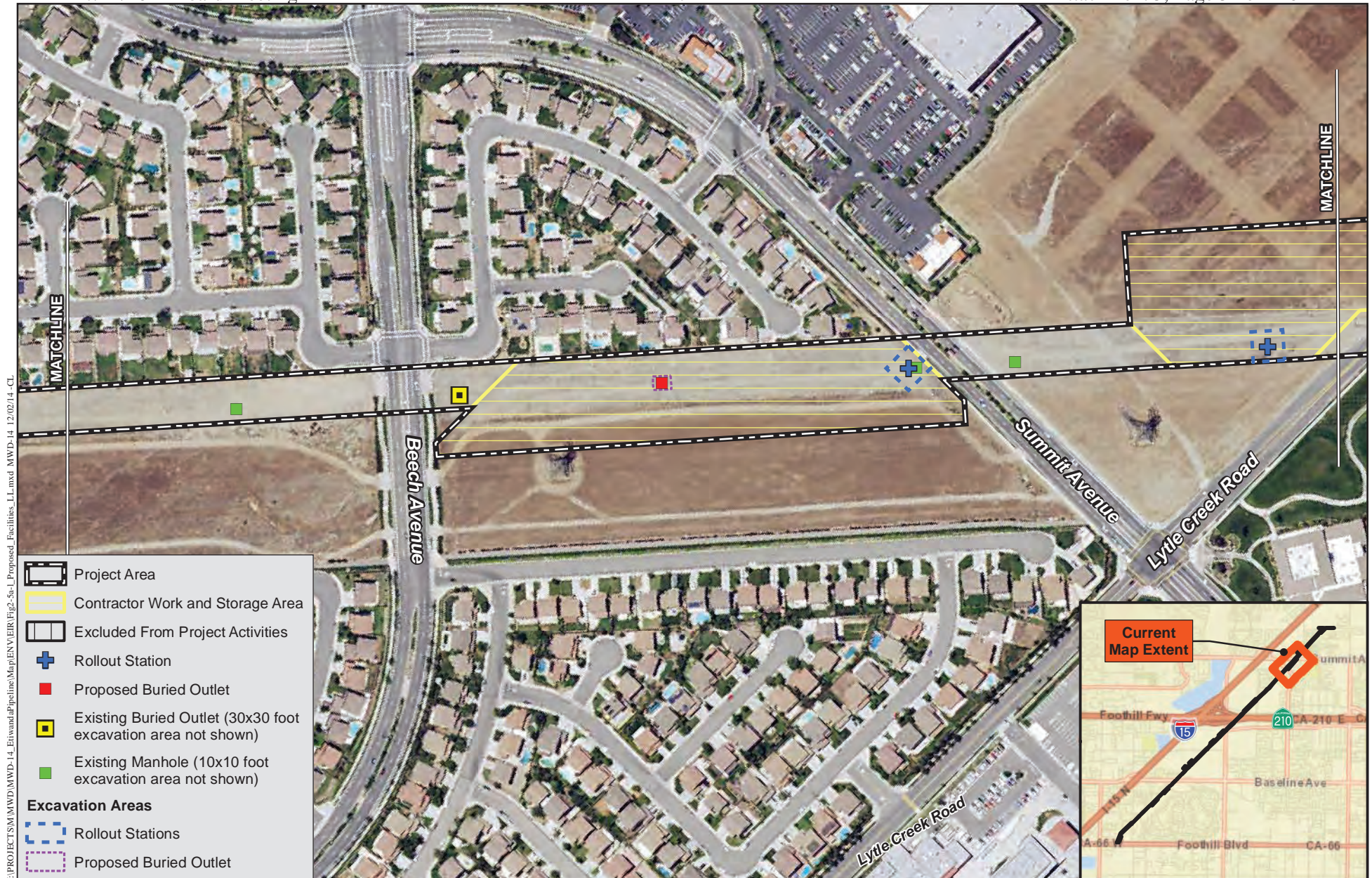
## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5g







## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5h





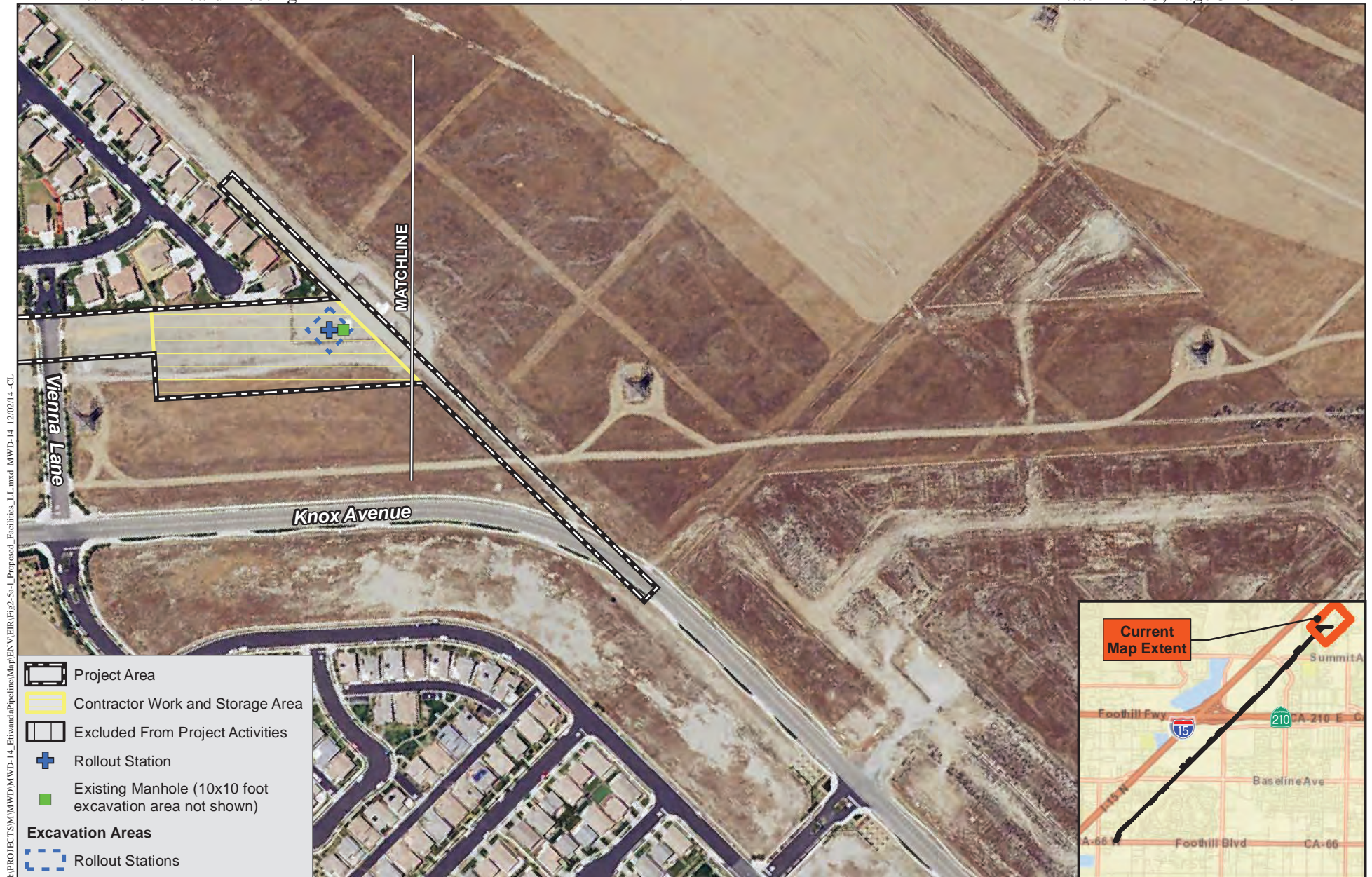
## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5i



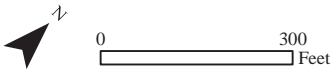




## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5j







Shoring at Access Locations



Off-hauling of Debris



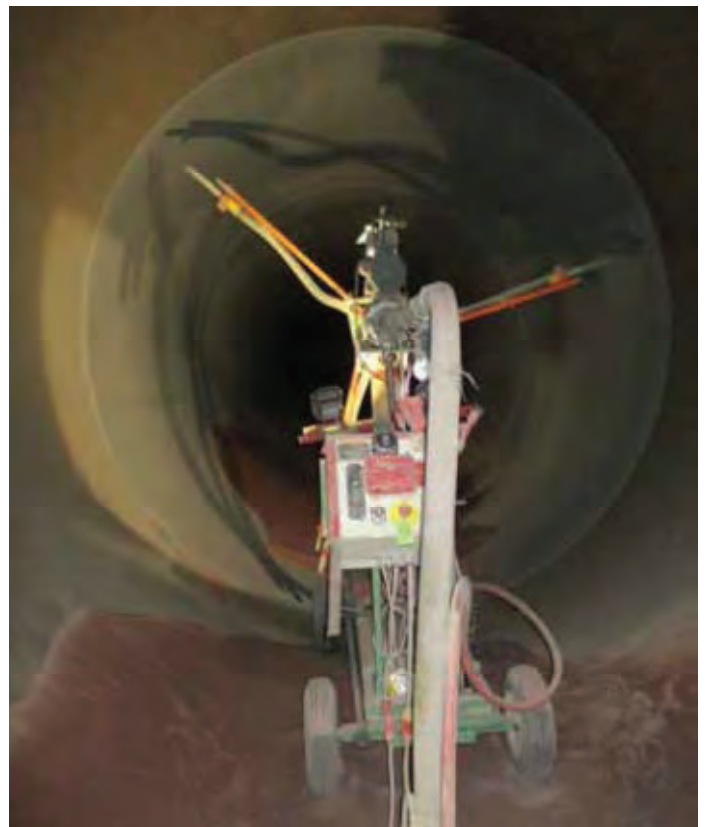
Mortar Lining Removal



Welding Pipeline Outlet



Debris Removal



Application of New Liner

## Representative Photographs – Project Activities

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-6





## Proposed Project Phasing

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-7







Air Compressors and Dehumidifiers



Blower



Bag Filters



Crane and Generator



Loader and Excavator

## Representative Photographs – Representative Equipment

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-8

## Chapter 3.0

# ENVIRONMENTAL IMPACT ANALYSIS

### 3.1 AIR QUALITY

This section is based on the information and analysis presented in the proposed Project's Air Quality Technical Report, dated December 2014 (HELIX Environmental Planning, Inc. [HELIX] 2014a). The technical report is included in its entirety as **Appendix B** of this EIR.

The methods for assessing air quality impacts included estimating emissions that would be generated by construction equipment during the proposed Project, including diesel particulate matter as part of a health risk assessment, and comparing estimated emission levels with applicable thresholds. The California Air Resources Board's (CARB's) off-road emissions inventory database (OFFROAD2011) and EMFAC2011 models were used to estimate the emissions from heavy construction equipment and on-road vehicles, respectively. The U.S. Environmental Protection Agency's (USEPA's) AERMOD model was used to analyze potential health effects from Project activities, in accordance with the guidelines in the South Coast Air Quality Management District's (SCAQMD's) *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. Analysis of air quality impacts also reflects topics of interest (including health risk assessment) brought forth in SCAQMD's NOP comment letter, dated August 27, 2014. This air quality impact assessment was prepared by HELIX and the health risk assessment was prepared by Urban Crossroads.

Although there would likely be minor variations in the numbers/types/use of equipment and workers compared to the assumptions incorporated into the emissions calculations, these assumptions generally provide for an overall worst-case analysis. This approach was used in order to allow flexibility in final design and implementation, and actual conditions might be less. Refer to **Appendix B** for complete listings of the assumptions used in the analysis and model outputs.

#### 3.1.1 Existing Conditions

##### **Air Pollutants of Concern**

###### Criteria Pollutants

Air quality is defined by ambient air concentrations of seven "criteria air pollutants," which are a group of common air pollutants identified by the USEPA to be of concern with respect to the health and welfare of the general public. The criteria air pollutants relevant to the proposed Project include nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (including particulates 10 microns or smaller [PM<sub>10</sub>] and particulates 2.5 microns or smaller [PM<sub>2.5</sub>]), carbon monoxide (CO), and sulfur dioxide (SO<sub>2</sub>). A description of each criteria air pollutant, including source types and health effects, is provided in the Air Quality Technical Report (**Appendix B**). Project-related equipment operations, vehicle trips, and grading would result in emissions of these pollutants.

###### Toxic Air Contaminants

Toxic air contaminants (TACs) refer to a diverse group of air pollutants that can affect human health; however, they are not subject to an adopted ambient air quality standard. With regard to the proposed Project, the primary toxic air contaminant of concern is diesel particulate matter. The exhaust from diesel engines includes hundreds of different gaseous and particulate



components, many of which are toxic. Accordingly, diesel particulate matter can be used as a surrogate measure of exposure for the mixture of chemicals that make up diesel exhaust as a whole.

## Existing Air Quality

### Attainment Designations

Based on monitored air pollutant concentrations, the USEPA and CARB designate an area's status in attaining the federal and state standards, respectively (discussed below). **Table 3.1-1, Attainment Status of Criteria Pollutants in the South Coast Air Basin**, summarizes the basin's current attainment status. When an area has been reclassified from a nonattainment area to an attainment area for a federal standard, the status is identified as "maintenance," and there must be a plan and measures that will keep the region in attainment for the following 10 years. As shown in **Table 3.1-1**, the air basin is a federal nonattainment area for ozone and PM<sub>2.5</sub>, and a state nonattainment area for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>. For pollutants for which the SCAB is in nonattainment, the SCAQMD is responsible for preparing plans that demonstrate how the SCAB will attain these standards. Impacts at the project level are determined based on a project's conformance with these plans.

<b>Table 3.1-1            ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN            THE SOUTH COAST AIR BASIN</b>		
<b>Pollutant</b>	<b>State</b>	<b>Federal</b>
Ozone (1 hour)	Nonattainment	No standard
Ozone (8 hour)	Nonattainment	Extreme Nonattainment
PM <sub>10</sub>	Nonattainment	Attainment/Maintenance
PM <sub>2.5</sub>	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO <sub>2</sub>	Attainment	Attainment/Maintenance
SO <sub>2</sub>	Attainment	Attainment

Sources: CARB 2013c; USEPA 2013a, 2013b.

### Toxic Air Contaminants

The SCAQMD has conducted a monitoring and evaluation study which focuses on the carcinogenic risk from exposure to toxic air contaminants in the South Coast Air Basin. This carcinogenic risk is expressed in terms of the expected number of additional cancers in a population of 1 million individuals that are exposed to toxic air contaminants over a 70-year lifetime, with this risk scalable for individual project analyses based on the actual duration of exposure. The SCAQMD-modeled carcinogenic risk for the area in which the Project is located ranges from approximately 804 to 942 per 1 million individuals exposed, which is less than the overall South Coast Air Basin average of about 1,200 per 1 million individuals exposed (SCAQMD 2008b). The study attributed about 94 percent of the carcinogenic risk to emissions associated with mobile sources, and about 6 percent of the risk to toxic air contaminants emitted from stationary sources (e.g., dry cleaners and chrome

plating operations). The results of the study indicate that diesel exhaust is the major contributor to carcinogenic risk due to toxic air contaminants, accounting on average for about 84 percent of the total risk (SCAQMD 2008a).

## **Regulatory Framework**

Federal and state ambient air quality standards have been set to protect the most sensitive persons from illness or discomfort. Residential areas, schools, playgrounds, child care centers, athletic facilities, hospitals, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes are especially likely to include persons sensitive to air pollutants. The standards and regulations most relevant to the proposed Project are summarized below, with additional detail provided in the Air Quality Technical Report.

### Federal

Pursuant to the Clean Air Act of 1970 and its 1977 and 1990 amendments, the USEPA is responsible for setting and enforcing the National Ambient Air Quality Standards for criteria pollutants. As part of its enforcement responsibilities, the USEPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan that demonstrates the means to attain and maintain the federal standards. As detailed above in **Table 3.1-1**, the Project area is a federal nonattainment area for ozone and PM<sub>2.5</sub> and must therefore comply with measures identified in the State Implementation Plan.

### State

The CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs in California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards, compiles emission inventories, develops suggested control measures, and oversees local programs.

The applicable air districts for regions that do not attain the state standards are required by the CARB to prepare plans for attaining the standards which are then integrated into the State Implementation Plan.

### Regional

#### *South Coast Air Quality Management District*

The SCAQMD regulates air quality in the South Coast Air Basin, which includes the non-desert portion of San Bernardino County. As a regional agency, the SCAQMD works directly with the Southern California Association of Governments, county transportation commissions, and local governments, as well as cooperates actively with applicable federal and state government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary. Rules, regulations, and plans developed by the SCAQMD that are relevant to the Project are summarized below and described in detail in the Air Quality Technical Report.

- The SCAQMD is responsible for preparing air quality management plans that address the attainment and maintenance of state ambient air quality standards. The latest air quality management plan was adopted by SCAQMD in 2012 and approved by the CARB in 2013. As detailed above in **Table 3.1-1**, the Project area is a state nonattainment area for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>. SCAQMD adopts rules and regulations to implement portions of the Air Quality Management Plan. Several of these rules may apply to construction or operation of the proposed Project, with the most notable of these rules being Rules 402 and 403.
- SCAQMD's Rule 402, Nuisance, requires that air contaminants or other materials not be released in quantities such that they cause nuisance or annoyance to a considerable number of people. This rule would apply to potential odors generated by the Project.
- SCAQMD's Rule 403, Fugitive Dust, aims to reduce the amount of particulate matter introduced into the ambient air from man-made fugitive dust sources by requiring measures to prevent, reduce, or mitigate fugitive dust emissions. This rule would apply to the Project's excavation, grading, and other ground-disturbing activities.

### **3.1.2 Significance Thresholds**

Based on Appendix G of the State CEQA Guidelines, a significant impact would occur if the proposed Project would do any of the following, identified below as Thresholds A through E:

- Threshold A: Conflict with or obstruct implementation of the applicable air quality plan;
- Threshold B: Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Threshold C: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Threshold D: Expose sensitive receptors to substantial pollutant concentrations; or
- Threshold E: Create objectionable odors affecting a substantial number of people.

Appendix G of the State CEQA Guidelines states that the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations. As such, SCAQMD has established significance thresholds intended to more specifically define CEQA Thresholds A through E. To assess conformance to the Air Quality Management Plan (SCAQMD 1993) under Threshold A, SCAQMD thresholds consider whether the Project would (A1) result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards; and (A2) exceed the assumptions in the Air Quality Management Plan. **Table 3.1-2, SCAQMD Air Quality Thresholds**, presents the SCAQMD's current significance thresholds relative to CEQA Thresholds B through E (i.e., for daily regional emissions for short-term

construction projects [applicable to Project activities], daily local emissions, and maximum incremental carcinogenic risk and hazard indices for toxic air contaminants). While a regional impact analysis is based on attaining or maintaining regional emissions standards, a local impact analysis compares the on-site emissions of a pollutant to a health-based standard.

As indicated in the first column of **Table 3.1-2**, the SCAQMD's thresholds are used to determine impacts relative to applicable CEQA thresholds (Thresholds A through E). Some CEQA thresholds require multiple SCAQMD thresholds to determine impacts (e.g., both regional emission thresholds [B1] and local emission thresholds [B2] are considered to determine significance with respect to CEQA Threshold B). Therefore, a significant impact would occur if the proposed Project would exceed the SCAQMD's established daily emission rates, risk values, or concentrations.

<b>Table 3.1-2 SCAQMD AIR QUALITY THRESHOLDS</b>		
<b>Threshold</b>	<b>Pollutant</b>	<b>Daily Regional Emissions Thresholds (pounds/day)</b>
A1/B1/C1	VOC	75
	NO <sub>x</sub>	100
	CO	550
	PM <sub>10</sub>	150
	PM <sub>2.5</sub>	55
	SO <sub>x</sub>	150
<b>Daily Local Emissions Thresholds (pounds/day)</b>		
B2/C2/D1	NO <sub>x</sub>	118
	CO	863
	PM <sub>10</sub>	5
	PM <sub>2.5</sub>	4
<b>Other Thresholds</b>		
D2	TACs	Maximum Incremental Carcinogenic Risk $\geq 10$ in 1 million
D3		Chronic & Acute Hazard Index $\geq 1.0$ (project increment)
E1	Odor	Project creates an odor nuisance pursuant to Rule 402

Notes: VOC: volatile organic compound; NO<sub>x</sub>: nitrogen oxides; CO: carbon monoxide; PM<sub>10</sub>: respirable particulate matter with a diameter of 10 microns or less; PM<sub>2.5</sub>: fine particulate matter with a diameter of 2.5 microns or less; SO<sub>x</sub>: sulfur oxides; TACs: toxic air contaminants; NO<sub>2</sub>: nitrogen dioxide; ppm: parts per million;  $\mu\text{g}/\text{m}^3$ : micrograms per cubic meter.

Source: SCAQMD 2011.

### 3.1.3 Impact Analysis

#### Consistency with Air Quality Plans (Threshold A)

The proposed Project would not involve a change in General Plan designation or zoning and, therefore, would not exceed the assumptions in the Air Quality Management Plan (Threshold A2). However, as described below (*Conformance to Air Quality Standards*), Project-related emissions would exceed thresholds that SCAQMD has established for the purposes of maintaining regional air quality. Therefore, the Project could result in an increase in the

frequency or severity of existing air quality violations, cause or contribute to new violations, and/or delay timely attainment of air quality standards (Threshold A1); impacts would be potentially significant and would require mitigation, as described in **Section 3.1.4**.

### Conformance to Air Quality Standards (Threshold B)

Project activities would result in temporary emissions through use of heavy equipment in the Project area as well as vehicle trips to the Project area from commuting construction workers and from delivery/haul trucks. The Project also would generate fugitive dust during grading activities.

### Daily Regional Emissions

Project activities are assumed to occur concurrently for Sub-phases 2A and 3A, and for Sub-phases 2B and 3B. In order to assess the maximum daily regional emissions as a result of the proposed Project, emissions from concurrent sub-phases are summed. Though each sub-phase was assumed to use the same equipment, emissions would decrease in later years as turnover in the fleet mix inventory phases out older, more polluting equipment in favor of newer, cleaner-burning models. Therefore, maximum daily regional emissions would occur when Sub-phase 2A activities overlap with Sub-phase 3A activities. **Table 3.1-3, Maximum Daily Regional Emissions**, compares the anticipated maximum daily regional emissions to the SCAQMD thresholds for daily regional emissions (Threshold B1).

<b>Table 3.1-3</b> <b>MAXIMUM DAILY REGIONAL EMISSIONS</b> <b>(pounds/day)</b>						
Maximum Daily Emissions	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Sub-phases 2A and 3A	275	1,200	2,547	4	100	98
SCAQMD Regional Thresholds (Table 3.1.2 Threshold B1)	75	550	100	150	150	55
<b>Exceed Threshold?</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>Yes</b>

Notes: VOC: volatile organic compound; NO<sub>x</sub>: nitrogen oxides; CO: carbon monoxide; SO<sub>x</sub>: sulfur oxides;  
 PM<sub>10</sub>: respirable particulate matter with a diameter of 10 microns or less; PM<sub>2.5</sub>: fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District.  
 Source: HELIX 2014a.

As shown in **Table 3.1-3**, maximum daily regional emissions would exceed the SCAQMD thresholds for VOC, CO, NO<sub>x</sub>, and PM<sub>2.5</sub>. As such, impacts related to maximum daily regional emissions would be potentially significant (Threshold B1), and measures would be required, as described in **Section 3.1.4**, to mitigate these impacts.

### Daily Local Emissions

Although activities are assumed to occur concurrently for Sub-phases 2A and 3A, and for Sub-phases 2B and 3B, activities in each sub-phase would occur far enough apart such that they would not share sensitive receptors. Local emissions are therefore not summed the same way

regional emissions are. **Table 3.1-4, Maximum Daily Local Emissions**, compares the anticipated maximum daily local emissions to the SCAQMD daily local emission thresholds (Threshold B2). These maximum emissions would occur with Sub-phases 2A and 3A. Emissions of these two sub-phases would be identical.

<b>Table 3.1-4</b> <b>MAXIMUM DAILY LOCAL EMISSIONS</b> <b>(pounds/day)</b>				
<b>Maximum Local Emissions</b>	<b>CO</b>	<b>NO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
	556	1,267	49	49
<i>SCAQMD Local Thresholds (Table 3.1.2 Threshold B2)</i>	863	118	5	4
<b><i>Exceed Threshold?</i></b>	<b><i>No</i></b>	<b><i>Yes</i></b>	<b><i>Yes</i></b>	<b><i>Yes</i></b>

Notes: NO<sub>x</sub>: nitrogen oxides; CO: carbon monoxide; PM<sub>10</sub>: respirable particulate matter with a diameter of 10 microns or less; PM<sub>2.5</sub>: fine particulate matter with a diameter of 2.5 microns or less.

Source: HELIX 2014a.

As shown in **Table 3.1-4**, maximum daily local emissions would exceed the SCAQMD thresholds for NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. As such, impacts related to maximum daily local emissions would be potentially significant (Threshold B2), and measures would be required, as described in **Section 3.1.4**, to mitigate these impacts.

### **Cumulatively Considerable Net Increase of Criteria Pollutants (Threshold C)**

The region is a federal and/or state nonattainment area for PM<sub>10</sub>, PM<sub>2.5</sub>, and ozone. The Project would contribute PM<sub>10</sub>, PM<sub>2.5</sub>, and VOC and NO<sub>x</sub> (which form ozone when subjected to chemical reactions in the presence of sunlight) to the area during short-term Project activities. Notwithstanding the short-term, temporary nature of the Project, PM<sub>2.5</sub>, VOC, and NO<sub>x</sub> emissions would exceed the SCAQMD significance thresholds for maximum daily regional emissions, as shown in **Table 3.1-3**. Therefore, the net increase to the region of Project-related criteria pollutants would be potentially cumulatively considerable, and the impact would be potentially significant (Threshold C1). Reduction measures would be required, as described in **Section 3.1.4**, to mitigate this impact.

For local impacts, cumulative particulate impacts are considered when projects may be within a few hundred yards of each other. Activities associated with the SCE Falcon Ridge Substation Project could occur immediately adjacent to the proposed Project, generally during the same timeframe. As shown in **Table 3.1-4**, the Project's maximum daily local emissions would exceed the SCAQMD significance thresholds for NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Therefore, the net increase locally of Project-related criteria pollutants would be potentially cumulatively considerable, and the impact would be potentially significant (Threshold C2). Measures would be required, as described in **Section 3.1.4**, to mitigate this impact.



### Sensitive Receptors (Threshold D)

Impacts to sensitive receptors (including workers, residences, and schools) have the potential to result from exposure of those individuals to criteria pollutant emissions and exposure to toxic air contaminants. With respect to criteria pollutants emitted locally during Project activities, as described above and shown in **Table 3.1-4**, maximum daily local emissions would exceed the SCAQMD significance thresholds. As such, sensitive receptors near Project activities may be exposed to significant concentrations of criteria pollutants (Threshold D1).

Project activities also would result in temporary toxic air contaminant emissions in the form of diesel particulate matter from off-road and on-road equipment and from worker and haul/delivery vehicles. The SCAQMD suggests that projects with diesel powered mobile sources quantify potential carcinogenic risks from the diesel particulate emissions. Therefore, impacts associated with emissions of diesel particulate matter were analyzed in accordance with the guidelines in the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. Health risks associated with exposure to toxic air contaminants are described in terms of the carcinogenic risk and a Hazard Index for exposure to a chemical at a given concentration. Carcinogenic risks are estimated as the incremental probability that an individual would develop cancer over his/her lifetime as a direct result of exposure to potential carcinogens. The estimated risk is expressed as a probability (e.g., 10 in 1 million). A risk level of one in one million implies a likelihood that up to one person out of one million equally exposed people would contract cancer if exposed to a specific concentration for a specific amount of time during that person's assumed lifetime (70 years). This would be in addition to those cancer cases that would normally occur in an unexposed population of one million people.

The "Hazard Index" expresses the potential for chemicals to result in non-cancer-related health impacts. These effects are evaluated by comparing a given exposure concentration to the Reference Exposure Level, which is the concentration at which no adverse health effects are seen. The Hazard Index represents a ratio of the exposure concentration to the Reference Exposure Level. If an exposure level is equal to the safe exposure level (Reference Exposure Level), then the ratio, referred to as the Hazard Index, would equal 1.0. Hazard Indices are expressed using decimal notation (e.g., 0.001). A calculated Hazard Index exposure of less than 1.0 would likely not result in adverse non-cancer-related health effects over an individual's lifetime.

The analysis of Project impacts reflects that increased exposure would occur over a three-year period, and considers the distance between Project activities and the applicable sensitive receptors. The residential receptor with the greatest potential exposure to Project diesel particulate matter source emissions is located approximately 20 feet from the western boundary of the Project area. The maximum incremental carcinogenic risk attributable to Project diesel particulate matter source emissions based on the input parameters is estimated at 78.79 in 1 million and non-carcinogenic risks were estimated to have a Hazard Index of 3.46. The worker receptor with the greatest potential exposure to Project diesel particulate matter source emissions is located approximately 125 feet from the western boundary of the Project area. Based on the input parameters, the maximum incremental carcinogenic risk is estimated to be 10.42 in 1 million with a non-carcinogenic risk Hazard Index of 1.33. The school receptor with the



greatest potential exposure to Project diesel particulate matter source emissions is located approximately 320 feet from the western boundary of the Project area. Based on the input parameters, the maximum incremental carcinogenic risk is estimated to be 13.88 in 1 million with a non-carcinogenic risk Hazard Index of 0.62.

The total carcinogenic risk over the lifetime of the Project would exceed SCAQMD thresholds for off-site workers, residences, and schools. As such, impacts related to carcinogenic risks would be potentially significant (Threshold D2), and measures would be required, as described in **Section 3.1.4**, to mitigate these impacts.

While the Project's Hazard Index for schools would be below the SCAQMD threshold, the Hazard Index would exceed the SCAQMD threshold for residences and off-site workers. Therefore, impacts related to chronic non-carcinogenic hazards would be potentially significant (Threshold D3), and measures would be required, as described in **Section 3.1.4**, to mitigate these impacts.

### **Objectionable Odors (Threshold E)**

While objectionable odors rarely cause any physical harm, they can be unpleasant, leading to distress among sensitive receptors and sometimes generating citizen complaints to local governments and air districts.

Project equipment and activities would generate odors primarily from diesel exhaust emissions associated with equipment operating on the site. There may be situations where odors would be noticeable by nearby residents, but these odors would not be unfamiliar nor necessarily objectionable. The odors would be temporary and would dissipate rapidly from the source with an increase in distance. Therefore, the impacts would be short-term and would not be objectionable to a substantial number of people; the impact would be less than significant (Threshold E1).

### **3.1.4 Mitigation Measures**

The following mitigation measures have been identified to reduce air quality impacts associated with the proposed Project.

**AIR-1** All off-road diesel-powered construction equipment greater than 50 horsepower (hp) will meet Tier 4 emission standards. All construction equipment will be outfitted with CARB-certified best available control technology devices. Any emissions-control device used by the contractor will achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. A copy of each unit's certified tier specification, best available control technology documentation, CARB or SCAQMD operating permit will be provided at the time of mobilization of each applicable unit of equipment.

**AIR-2** Diesel haul trucks (e.g., material delivery trucks and debris export) will be 2010 model year or newer.

**AIR-3** Electricity from power poles will be used instead of temporary diesel or gasoline-powered generators and air compressors to reduce the associated emissions, where power poles are within 100 feet of equipment sites and feasible connections are available.

### 3.1.5 Conclusions

As demonstrated in **Table 3.1-5, Maximum Daily Regional Emissions with Mitigation**, and **Table 3.1-6, Maximum Daily Local Emissions with Mitigation**, implementation of mitigation measures AIR-1 and AIR-2 would reduce emissions of VOC, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Mitigation measure AIR-3 is to be implemented as feasible and would further reduce Project-related emissions; however, because the extent of this measure's feasibility is unknown at this time, reductions were not quantified. Although mitigation measures AIR-1 and AIR-2 would reduce emissions, regional emissions of VOC, CO, and NO<sub>x</sub> as well as local emissions of PM<sub>2.5</sub> would still exceed their respective SCAQMD thresholds of significance. Project-related impacts associated with air quality Thresholds A through D would, therefore, be significant and unavoidable. Although Project emissions would be below Thresholds D2 and D3 as further described below, impacts to Threshold D as a whole are considered significant because Threshold D1 would be exceeded.

<b>Table 3.1-5</b> <b>MAXIMUM DAILY REGIONAL EMISSIONS WITH MITIGATION</b> <b>(pounds/day)</b>						
<b>Maximum Daily Emissions</b>	<b>VOC</b>	<b>CO</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Sub-phases 2A and 3A	162	1,200	175	4	10	9
<i>SCAQMD Thresholds (Table 3.1.2 Thresholds A1, B1, C1)</i>	<i>75</i>	<i>550</i>	<i>100</i>	<i>150</i>	<i>150</i>	<i>55</i>
<b><i>Exceed Threshold?</i></b>	<b><i>Yes</i></b>	<b><i>Yes</i></b>	<b><i>Yes</i></b>	<b><i>No</i></b>	<b><i>No</i></b>	<b><i>No</i></b>

Notes: VOC: volatile organic compound; NO<sub>x</sub>: nitrogen oxides; CO: carbon monoxide; SO<sub>x</sub>: sulfur oxides;  
 PM<sub>10</sub>: respirable particulate matter with a diameter of 10 microns or less; PM<sub>2.5</sub>: fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District.  
 Source: HELIX 2014a.

<b>Table 3.1-6</b> <b>MAXIMUM DAILY LOCAL EMISSIONS WITH MITIGATION</b> <b>(pounds/day)</b>				
<b>Maximum Local Emissions</b>	<b>CO</b>	<b>NO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
	556	83	4	4
<i>SCAQMD Thresholds (Table 3.1.2 Thresholds B2, C2, D1)</i>	<i>863</i>	<i>118</i>	<i>5</i>	<i>4</i>
<b><i>Exceed Threshold?</i></b>	<b><i>No</i></b>	<b><i>No</i></b>	<b><i>No</i></b>	<b><i>Yes</i></b>

Notes: NO<sub>x</sub>: nitrogen oxides; CO: carbon monoxide; PM<sub>10</sub>: respirable particulate matter with a diameter of 10 microns or less; PM<sub>2.5</sub>: fine particulate matter with a diameter of 2.5 microns or less.  
 Source: HELIX 2014a.

Implementation of mitigation measures AIR-1 and AIR-2 would reduce emissions of diesel particulate matter. Mitigation measure AIR-1 would reduce on-site diesel particulate matter by over 90 percent and mitigation measure AIR-2 would reduce off-site diesel particulate matter by up to 10 percent. With incorporation of mitigation measures AIR-1 and AIR-2, carcinogenic risk for sensitive receptors (residential, workers and schools) would remain below the threshold of 10 in 1 million for carcinogenic risk and below the Hazard Index threshold of 1.0 for the non-carcinogenic risk (Table 3.1-2). Based on the input parameters, the greatest potential residential exposure is estimated to be reduced to 8.48 in 1 million, and non-carcinogenic risk is estimated to have a Hazard Index of 0.37. The greatest potential worker receptor exposure is estimated to have a mitigated carcinogenic risk of 1.11 in 1 million and a non-carcinogenic risk Hazard Index of 0.14. The greatest potential school receptor exposure is estimated to have a mitigated carcinogenic risk of 1.49 in 1 million and a non-carcinogenic risk Hazard Index of 0.07.

Accordingly, with implementation of the noted measures, the total carcinogenic risk over the lifetime of the Project would not exceed SCAQMD standards to residences, workers, or schools (Threshold D2). Similarly, implementation of the noted mitigation measures would reduce the chronic non-carcinogenic risk Hazard Index for the Project to levels below the SCAQMD thresholds (Threshold D3). Project-related impacts to sensitive receptors associated with air quality Thresholds D2 and D3 would therefore be rendered less than significant; however, as discussed above, impacts related to Threshold D1 would still be considered significant and unavoidable due to local emissions. As a result, total impacts related to Threshold D would be considered significant.

For Threshold E, as discussed in **Section 3.1.3**, Project-related impacts from objectionable odors would be less than significant, and no mitigation is required.

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## 3.2 BIOLOGICAL RESOURCES

This section is based on the information and analysis presented in the proposed Project's Biological Resources Letter Report, dated October 24, 2014 (HELIX 2014b). The report is included as **Appendix C** of this EIR.

Prior to conducting field surveys, a thorough review was performed of relevant maps, databases, and literature pertaining to biological resources known to occur within southwestern San Bernardino County. The Biological Resources Letter Report is based on vegetation mapping; general biological surveys; habitat assessments for burrowing owl and Delhi Sands flower-loving fly; a focused presence/absence trapping survey for small mammals including San Bernardino kangaroo rat, San Diego pocket mouse, San Diego desert woodrat, and Los Angeles pocket mouse; and an assessment of wetland and aquatic resources potentially under state or federal jurisdiction. General biological surveys and habitat assessments were conducted by HELIX in October 2013 and March 2014, and the small mammal trapping survey was conducted by ENVIRA in April 2014. The study area for biological resources encompasses the Project area and adjacent lands that might be indirectly affected by Project activities. Potential impacts were evaluated based on the observed and potential biological resources in the Project area and the locations of proposed work areas.

### 3.2.1 Existing Conditions

#### **Vegetation Communities**

The entire study area contains evidence of disturbance, including disturbance from excavation for the Etiwanda Pipeline in 1993, regular vegetation maintenance in the pipeline right-of-way, on-going disturbance by agricultural activities, and permanent disturbance by development. The Project area consists almost entirely of disturbed land, with small patches of native vegetation that are heavily invaded by non-native species (**Figures 3.2-1a to 3.2-1j *Vegetation and Sensitive Resources/Impacts***).

Six vegetation community or land use types were mapped within the study area: Riversidean upland sage scrub, Riversidean alluvial fan sage scrub, streambed, non-native vegetation, disturbed land, and developed land (**Table 3.2-1, *Vegetation Communities and Habitat Types in the Study Area***).

#### Riversidean Upland Sage Scrub - Disturbed

Riversidean upland sage scrub is the driest expression of coastal sage scrub, found on steep slopes, severely drained soils, and very dry sites. It is considered to be a sensitive natural community in accordance with Section 15380 of the State CEQA Guidelines. Within the study area, this community is characterized as disturbed because it includes relatively high numbers of non-native species, fewer native species than in typical undisturbed examples of the community, and evidence of physical disturbance to plants and soils from human activities. This community occurs in the middle of the Project area in two patches, near Cherry Avenue and Victoria Street. These patches are low in habitat quality due to disturbance, small patch size, and isolation from habitat blocks in the local and regional area.

<b>Table 3.2-1 VEGETATION COMMUNITIES AND HABITAT TYPES IN THE STUDY AREA</b>	
<b>Vegetation Community</b>	<b>Acres</b>
Riversidean Upland Sage Scrub – Disturbed	5.0
Riversidean Alluvial Fan Sage Scrub – Disturbed	0.2
Streambed	0.3
Non-native Vegetation	0.7
Disturbed Land	59.9
Developed	6.4
<b>TOTAL</b>	<b>72.5</b>

#### Riversidean Alluvial Fan Sage Scrub – Disturbed

This community is similar to Riversidean upland sage scrub, but it occurs on terraces of seasonal streams and alluvial fans and includes some riparian species. It is considered to be a sensitive natural community. Within the study area, this community is disturbed from human activity and includes a variety of non-native species. A small patch of this community occurs in the Project area south of Victoria Street. This patch is considered low in habitat quality for the same reasons described for Riversidean upland sage scrub.

#### Streambed

A streambed is the sandy, gravelly, or rocky bed of a waterway that is mostly or completely unvegetated on a permanent basis. Non-native grasses and early-colonizing herbaceous species might be present seasonally, but rarely exceed 10 percent cover. Fluctuating water levels prevent the establishment of woody species. One patch of streambed occurs in the Project area, north of Baseline Avenue, where the Project area crosses an unnamed flood control channel.

#### Non-native Vegetation

Non-native vegetation is composed of non-native and/or landscape species that form patches that exclude native species. Non-native vegetation in the Project area consists of planted landscaping along the embankment and ramps for the interchange between SR 210 and I-15.

#### Disturbed Land

Disturbed land is highly disturbed ground that still retains a soil surface. Vegetation, if any, consists almost exclusively of upland species that are non-native and weedy, and therefore able to colonize after human disturbance. The vast majority of the Project area is disturbed land, with a variety of non-native grasses and herbs and some colonized native species. One patch of disturbed land adjacent to the streambed has small individuals of native species typically associated with sage scrub, but regular disturbance (discing/mowing) maintains this habitat as disturbed.

### Developed Land

Developed land is land that has been built upon or physically altered to the point that it no longer naturally supports vegetation or retains a soil surface. Developed land in the Project area includes paved roads and a park.

### **Plant Species**

No special-status plant species were observed during the October 2013 and March 2014 general biological surveys. A search of relevant databases did not result in any point records for special-status plant species in or immediately adjacent to the Project area, and no special-status plant species have better than low potential to occur within the study area due to lack of suitable habitat, inappropriate soil conditions, inappropriate elevations, existing disturbances, and the prevalence of non-native plant species. A complete list of plants observed in the study area is provided in Attachment A of the Biological Resources Letter Report.

### **Animal Species**

No rare, threatened, or endangered species was observed or otherwise detected within the study area. Animal species observed in the study area, or detected audibly or by sign, include common species such as side-blotch lizard, house finch, European starling, northern mockingbird, Anna's hummingbird, common raven, desert cottontail, California ground squirrel, coyote, and black-tailed jackrabbit. In addition, a single raptor species, a red-tailed hawk, was observed soaring over the study area. The study area is predominantly disturbed and does not provide high-quality, native habitat for animal species, and overall animal activity during the general biological surveys was low relative to the results of surveys in other locations. A complete list of animals detected in the study area is provided in Attachment A of the Biological Resources Letter Report.

To develop a preliminary list of special-status animal species with potential to occur, previous observation records within the four U.S. Geological Survey (USGS) quadrangle maps adjacent to the study area were reviewed. A total of 25 special-status animal species were identified through this review and analyzed for their potential to occur within the study area. Of those 25 species, three were observed during Project surveys. An additional four species that have potential to occur and that would be subject to special consideration if present in the study area are discussed in greater detail below.

### Special-Status Animal Species Present in the Project Area

Three special-status animal species were observed in the study area during the general biological surveys and during protocol-level trapping for small mammals: San Diego pocket mouse, Los Angeles pocket mouse, and San Diego black-tailed jackrabbit. Each of these species is state-listed as a Species of Special Concern, which carries no formal legal status; however, CEQA requires full analysis of potential Project impacts to such species. The status of these species in the Project area is discussed below. Trapping locations were determined on the basis of potentially suitable habitat within the study area and access authorization by property owners.

### *San Diego Pocket Mouse*

The habitat quality for San Diego pocket mouse was generally considered to be low. A total of seven San Diego pocket mice were trapped at three locations in the Project area during trapping surveys in April 2014. Trapping locations with positive results were as follows: (1) north of Baseline Avenue and east of Del Norte Street, on the south side of the unnamed channel; (2) north of Baseline Avenue and east of Del Norte Street, on the north side of the unnamed channel; and (3) north of Vienna Lane, east of Campania Way and west of Knox Avenue (**Figure 3.2-1d and 3.2-1i**).

### *Los Angeles Pocket Mouse*

The habitat quality for San Diego pocket mouse was generally considered to be low. A total of six Los Angeles pocket mice were trapped at three locations in the Project area during trapping surveys in April 2014. Trapping locations with positive results were as follows: (1) northeast of Del Norte Street, on the north side of the unnamed channel; (2) north of North Frontage Road and immediately west of San Sevaire Road; and (3) northwest of Reagan Drive, south of Summit Avenue and east of River Rock Drive (**Figures 3.2-1d, 3.2-1f, and 3.2-1h**).

### *San Diego Black-tailed Jackrabbit*

An individual black-tailed jackrabbit was observed in the Project area south of Victoria Street during the general biological survey. This individual was determined to be the San Diego black-tailed jackrabbit subspecies based on distinguishing characteristics observed during the survey, the location of the study area within the subspecies' range, and previous recordation of the subspecies in the study area.

### Special-Status Animal Species with Potential to Occur in the Project Area

Four special-status animal species either have historical records or designated habitat within the study area, or are widespread and known to occur in the region but were not observed during biological surveys of the Project area: San Bernardino kangaroo rat, Delhi Sands flower-loving fly, coast horned lizard, and burrowing owl. The potential for these species to occur in the Project area is discussed below.

### *San Bernardino Kangaroo Rat*

The San Bernardino kangaroo rat is listed by U.S. Fish and Wildlife Service (USFWS) as endangered, indicating that it is considered to be in danger of extinction throughout all or a significant portion of its range; the portion of the study area north of Summit Avenue has been designated by USFWS as critical habitat for this species. San Bernardino kangaroo rat is identified as a Species of Special Concern by the California Department of Fish and Wildlife (CDFW). The San Bernardino kangaroo rat is found on alluvial fans where soils are loose, sandy, or gravelly, and vegetative cover is below 25 percent. It requires alluvial sage scrub habitat, and is found mostly in early- and intermediate-stage alluvial sage scrub on lower stream channel terraces; less frequently, the species is found in mature alluvial sage scrub on higher terraces. Areas where herbaceous and/or annual grass cover is high are not suitable for



the San Bernardino kangaroo rat, as roots impede burrowing and there is insufficient bare soil surface for foraging.

As previously described, a total of 0.2 acre of Riversidean alluvial fan sage scrub occurs in the Project area and it is highly disturbed by non-native species. It is located along what appears to be an abandoned agricultural drain that likely has not experienced in many years the fluvial processes associated with soils and vegetation favored by the San Bernardino kangaroo rat. No other suitable habitat occurs in the Project area. No San Bernardino kangaroo rats were trapped during the focused presence/absence survey in April 2014, and the Project area is presumed to be unoccupied by this species.

#### *Delhi Sands Flower-loving Fly*

The Delhi Sands flower-loving fly is listed as endangered by USFWS. The Delhi Sands flower-loving fly requires fine, sandy soils, preferring those in the Delhi soil series that occur as stabilized dunes, and preferring relatively undisturbed habitat with 10 to 20 percent vegetative cover. Typical Delhi Sands flower-loving fly habitat includes vegetative cover of less than 50 percent.

The biological survey of the Project area included an assessment of potentially suitable habitat for the Delhi Sands flower-loving fly. The southern portion of the study area, from Foothill Boulevard to 0.5-mile north of Baseline Avenue, is within an observation record for Delhi Sands flower-loving fly; this area also is within the limits of the Ontario Recovery Unit of the USFWS Delhi Sands Flower-loving Fly Recovery Plan and 5-Year Review (USFWS 1997, 2008). The study area north of Baseline Avenue is outside the known range of the Delhi Sands flower-loving fly, and Delhi series soils do not occur anywhere in the study area. The Delhi Sands flower-loving fly is not expected to occur within the Project area or elsewhere within the study area due to a lack of Delhi series soils, the high level of soil disturbance from discing and other maintenance activities, prevalence of non-native grasses, unsuitable vegetative cover, and low frequency of indicator plant species.

#### *Coast Horned Lizard*

The coast horned lizard is listed as a Species of Special Concern by CDFW. Preferred habitats of coast horned lizard include coastal sage scrub, chaparral, grasslands, forest, woodland, and riparian areas, with open areas for basking and abundant native ants and other insect prey.

There are two historical records of the coast horned lizard in the study area, but the species is considered to have low potential to occur in the Project area or elsewhere within the study area due to disturbance by agriculture and maintenance activities, overall lack of suitable surface soils and cover, and presumed low abundance of suitable prey.

#### *Burrowing Owl*

The burrowing owl is listed by CDFW as a Species of Special Concern and is covered by special management protocols that have been recommended as a guideline for management of the species (CDFW 2012). The burrowing owl is a ground-nesting raptor that utilizes abandoned squirrel burrows as nesting habitat. The burrowing owl is also known to use debris piles, pipes,

culverts, and rock piles for burrows. The preferred habitat is flat to gently rolling terrain with less than 30 percent shrub cover.

A habitat assessment and directed search for the burrowing owl were conducted in the study area with negative results. Burrows with potential to support the burrowing owl were observed in the study area but outside of the Project area, and no sign of current or previous occupation by burrowing owls (i.e., feathers, pellets, whitewash, decoration) was observed. Based on disturbed conditions and lack of suitable burrows, the burrowing owl is not expected in the Project area and has a low potential to occur in agricultural and undeveloped lands within the study area outside the Project area.

## **Regulatory Framework**

Activities affecting the biological resources determined to exist or have the potential to exist within the study area are subject to the federal, state, and local regulations discussed below. The standards and regulations most relevant to the proposed Project are summarized below, with additional detail provided in the Project's Biological Resources Letter Report (**Appendix C**).

### Federal

#### *Federal Endangered Species Act*

The Federal Endangered Species Act provides a process for the listing of plant and animal species as threatened or endangered, and extends legal protection to those listed species. No species listed under the Endangered Species Act were observed in the Project area, and the potential to occur is considered low; therefore, no permits would be required for incidental take of listed species, and no consultation with USFWS would be required.

#### *Migratory Bird Treaty Act*

All migratory bird species that are native to the United States or its territories are protected under the federal Migratory Bird Treaty Act (MBTA) as amended under the Migratory Bird Treaty Reform Act of 2004. In common practice, compliance with the MBTA is satisfied by appropriate measures to avoid and minimize direct impacts and indirect noise impacts to active bird nests.

No bird nests were observed in the study area during surveys. Nevertheless, birds may still nest in the low-quality, disturbed habitat that occurs in the Project area. Given this possibility, Metropolitan applies standard practices for all of its projects and operations to avoid adverse impacts to nesting birds, including burrowing owls and other raptors. These practices would be applied to the proposed Project.

### State

#### *California Endangered Species Act*

Similar to the federal Endangered Species Act, the California Endangered Species Act, along with the Native Plant Protection Act, authorizes CDFW to designate, protect, and regulate the

taking of special-status species in California. No species listed under the California Endangered Species Act was observed in the study area or has high potential to occur; therefore, the California Endangered Species Act is not applicable to the Project.

### *California Fish and Game Code*

The California Fish and Game Code regulates the taking or possession of birds, mammals, fish, amphibians, and reptiles, as well as natural resources such as wetlands and waters of the state. It includes the California Endangered Species Act (Sections 2050-2115), Native Plant Protection Act (Sections 1900 *et seq.*), and Streambed Alteration Agreement regulations (Sections 1600-1616). The code also includes protection of birds (Sections 3500 *et seq.*) and the California Native Plant Protection Act of 1977 (Sections 1900-1913).

Pursuant to California Fish and Game Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the code or any associated regulation. Raptors (birds of prey) and owls and their active nests are protected by California Fish and Game Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. In common practice, CDFW places timing restrictions on clearing of potential nesting habitat (e.g., vegetation), as well as restrictions on disturbances allowed near active raptor nests.

The presence in the study area of three mammalian Species of Special Concern creates the potential for significant Project impacts to species covered by the California Fish and Game Code. As previously noted, Metropolitan's standard practices for projects and facilities include measures to avoid impacts to nesting birds and raptors, including the burrowing owl. These potential impacts are analyzed in detail below. The remaining portions of the code are not expected to apply to the Project.

### *California Environmental Quality Act (CEQA)*

Although threatened and endangered species are protected by specific federal and state laws, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain criteria. CEQA Guidelines Section 15380(d) allows a public agency to undertake a review to determine if a significant effect would occur on species that have not yet been listed by either the USFWS or CDFW (i.e., species of concern).

Potential Project impacts to special-status species known to occur in the Project area (i.e., Los Angeles pocket mouse, San Diego pocket mouse, and black-tailed jackrabbit), and to special-status species with potential to occur (i.e., San Bernardino kangaroo rat, Delhi sands flower-loving fly, coast horned lizard, and burrowing owl), must be analyzed for significance under CEQA thresholds.

### Local

The adopted General Plans of the cities of Rancho Cucamonga and Fontana include several policies relevant to the protection of biological resources. Although California Government

Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances, these policies provide a point of reference regarding resource protection priorities of those jurisdictions. The portion of the proposed Project in Rancho Cucamonga does not include biological resources that are addressed by the environmental protection policies of the General Plan.

Relevant policies of the City of Fontana General Plan include the following:

- Goal 1.2, Policy 2: Require mitigation for removal of any natural habitat, including restoration of degraded habitat of the same type, creation of new or extension of existing habitat of the same type, financial contribution to a habitat conservation fund administered by federal, state or local government agency, or by a non-profit conservancy.
- Goal 1.2, Policy 3: Apply local CEQA procedures to identify impacts to rare, threatened and endangered species.

### **3.2.2 Significance Thresholds**

Based on Appendix G of the State CEQA Guidelines and thresholds identified in the Initial Study/NOP prepared for the proposed Project, a significant impact would occur if the proposed Project would do any of the following, identified below as Thresholds A through C:

- Threshold 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 CDFW or USFWS;
- Threshold B: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS; or
- Threshold C: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

### **3.2.3 Impact Analysis**

#### **Candidate, Sensitive, and Special-status Species (Threshold A)**

As described in **Section 3.2.1**, no sensitive plants were observed during the general biological survey, and none of the sensitive plant species identified through database searches has a better than low potential to occur within the Project area. Therefore, no significant impacts to sensitive plant species are expected.

Three sensitive mammal species were observed within portions of the Project area: San Diego black-tailed jackrabbit, San Diego pocket mouse, and Los Angeles pocket mouse. A single individual of San Diego black-tailed jackrabbit was observed in the study area. This is a large, mobile species that is active during the day and assumed to be easily capable of escaping harm



by Project activities. Project impacts to San Diego jackrabbit are restricted to minor, temporary loss of foraging and movement areas, and would be less than significant.

San Diego pocket mouse and Los Angeles pocket mouse are small, nocturnal rodents that spend the day in underground burrows and forage above-ground at night. Both were trapped in very low numbers during small mammal trapping surveys. Pocket mice are not expected to easily escape harm by Project ground-disturbing activities, given their small size and nocturnal habits, and the Project has potential for direct impact to individuals of these species. Overall activity was low during the small mammal trapping survey (captures in less than seven percent of traps), and small mammal population sizes in the study area are considered low (ENVIRA 2014). Both species were represented by fewer than 10 individuals in the trapping survey results, suggesting that the Project area supports less than one percent of the lowest estimated statewide population of San Diego pocket mouse, and little more than one percent of the lowest estimated statewide population of Los Angeles pocket mouse.

Given the low number and density of both San Diego pocket mouse and Los Angeles pocket mouse in the Project area, and the small portion of the Project area that would be directly impacted by Project activities (**Figures 3.2-1a to 3.2-1j**), the potential for direct impact to either species is low and potential impacts would not jeopardize the survival of either species. Potential Project impacts to these two species would be restricted to minor, temporary loss of foraging and movement habitat, and low-likelihood direct impacts to fewer than 10 individuals from ground-disturbing activities. These impacts would be less than significant.

The study area contains vegetation and structures that provide suitable nesting habitat for common birds, including raptors, protected under the MBTA and California Fish and Game Code. The proposed Project could result in the removal or trimming of vegetation, and elevated noise levels during the general bird nesting season (March 1 through September 15) and, therefore, could result in impacts to nesting birds. Direct impacts could occur as a result of removal of vegetation supporting an active nest, and noise impacts could affect raptors nesting in nearby SCE electrical transmission towers or in adjacent agricultural lands. As previously noted, Metropolitan employs standard practices, for all projects and facilities, to protect nesting birds from adverse impacts and to ensure compliance with the MBTA and Fish and Game Code.

As a general practice, for any Metropolitan projects or operations activities that would occur during the general bird nesting season of February 1 through September 15, Metropolitan would retain a qualified biologist to perform a pre-activity survey of potential nesting habitat to confirm the absence of active nests. The pre-activity survey would be performed no more than seven days prior to the start of work in each area. If the biologist determines that no active nests are present, work is allowed to proceed. If the qualified biologist determines that an active nest is present, an adequate avoidance buffer is established to ensure that no adverse impacts would occur until the young have fledged the nest and the nest is confirmed no longer to be active. The avoidance buffer distance that Metropolitan generally applies is up to 300 feet for songbirds or non-raptors and up to 500 feet for raptors, depending on the species, site conditions, and nature of the work. Where suitable buffers are not feasible, modified work schedules and/or methods may be applied. Additionally, where potential nesting vegetation is present in the vicinity of work areas, Metropolitan's qualified biologist is consulted to maintain such vegetation outside the nesting season to minimize the potential for nesting activity near work areas where indirect impacts might

occur. Application of these standard practices to the Project would ensure that impacts to species protected under the MBTA and Fish and Game Code would be less than significant.

The Project area does not contain suitable burrows for burrowing owl, and burrowing owl is not expected to occur in the Project area. Surrounding undeveloped lands outside the Project area but within the study area have low potential for burrowing owl based on disturbance and agricultural activities. No direct impacts to burrowing owl are expected, and the potential for indirect impacts outside the Project area is considered to be low. The low likelihood of burrowing owl presence in the areas surrounding the Project, and the implementation of avoidance and minimization measures should any be detected during pre-activity nesting bird surveys, would ensure that the Project's impacts to burrowing owl would be less than significant.

In summary, the potential Project impacts to sensitive species (Threshold A) would be less than significant.

### **Sensitive Natural Communities (Threshold B)**

Two sensitive natural communities were mapped within the Project area: Riversidean alluvial fan sage scrub and Riversidean upland sage scrub. Potential Project impacts to sensitive natural communities are depicted in **Figures 3.2-1a to 3.2-1j**, and summarized in **Table 3.2-2, Sensitive Vegetation Community Impacts**.

<b>Table 3.2-2 SENSITIVE VEGETATION COMMUNITY IMPACTS*</b>		
<b>Vegetation Community</b>	<b>Existing</b>	<b>Impact</b>
Riversidean Upland Sage Scrub – Disturbed	5.0	2.6
Riversidean Alluvial Fan Sage Scrub – Disturbed	0.2	0.1
<b>TOTAL</b>	<b>5.2</b>	<b>2.7</b>

\*Areas are in acres

Note: Impacts reported in this table reflect vegetation within proposed Contractor Work and Storage Areas and excavation areas. Impacts to up to an additional 2.4 acres of Riversidean upland sage scrub and up to 0.08 acre of Riversidean alluvial fan sage scrub may be subject to temporary disturbance.

The Project would temporarily impact 2.6 acres of disturbed Riversidean upland sage scrub and 0.1 acre of disturbed Riversidean alluvial fan sage scrub in the proposed Contractor Work and Storage Areas and excavation areas. The Riversidean alluvial fan sage scrub and Riversidean upland sage scrub in the Project area represent vegetation that has re-grown since excavation for installation of Etiwanda Pipeline North in 1993. These communities are highly disturbed and provide limited biological function and value. Neither has a high potential to support any sensitive species. The San Bernardino kangaroo rat was determined to be absent from these communities. The Riversidean alluvial fan sage scrub is not associated with any functioning riparian habitat and is of low quality. The Riversidean upland sage scrub is highly disturbed, low in quality, and isolated from core habitat blocks in the local and regional area. Temporary impacts to these communities (Threshold B) would be less than significant.

Sensitive native vegetation outside the areas proposed for direct disturbance but within the Project area (totaling up to an additional 2.4 acres of Riversidean upland sage scrub and up to 0.08 acre of Riversidean alluvial fan sage scrub) may be subject to disturbance by vehicle access and equipment storage as necessary for Project activities, or by routine vegetation maintenance. Because no permanent removal of habitat would be necessary to accommodate temporary access and storage in these areas, vegetation in these communities is expected to recover after Project completion. These areas are isolated habitat fragments in disturbed condition and the potential temporary impact (Threshold B) would be less than significant.

### **Local Policies, Ordinances, and Adopted Plans (Threshold C)**

As described in **Section 3.2.1**, the adopted General Plan for the City of Fontana includes policies relevant to the protection of biological resources. These policies include identification of impacts to sensitive species and mitigation for removal of natural habitat. As noted above, California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances. These policies provide a point of reference regarding resource protection priorities of those jurisdictions and are evaluated for purposes of full disclosure of potential Project impacts on the environment. Potential impacts to sensitive species are addressed above, and appropriate protective measures would be provided in accordance with Metropolitan's standard practices for the protection of nesting birds. Also as addressed above, the Project would result in temporary impacts to Riversidean upland sage scrub and Riversidean alluvial fan sage scrub. These communities are, however, disturbed, low in quality, and provide limited biological function and value. They represent vegetation that has re-grown since excavation for installation of Etiwanda Pipeline North in 1993, and vegetation in these communities is expected to recover after Project completion. Impacts would be less than significant and do not require mitigation. Based on these considerations, the Project would not conflict with local policies or ordinances protecting biological resources (Threshold C).

#### **3.2.4 Mitigation Measures**

Impacts related to Thresholds A, B, and C would be less than significant; no mitigation is required.

#### **3.2.5 Conclusions**

Impacts to special-status animal species and sensitive communities would be less than significant given the relatively low sensitivity of resources present, small numbers of individuals likely to be affected, and Metropolitan's standard practices for the protection of nesting birds, including burrowing owls and other raptors. No impacts would occur related to consistency with local policies, ordinances, or plans.

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## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1a







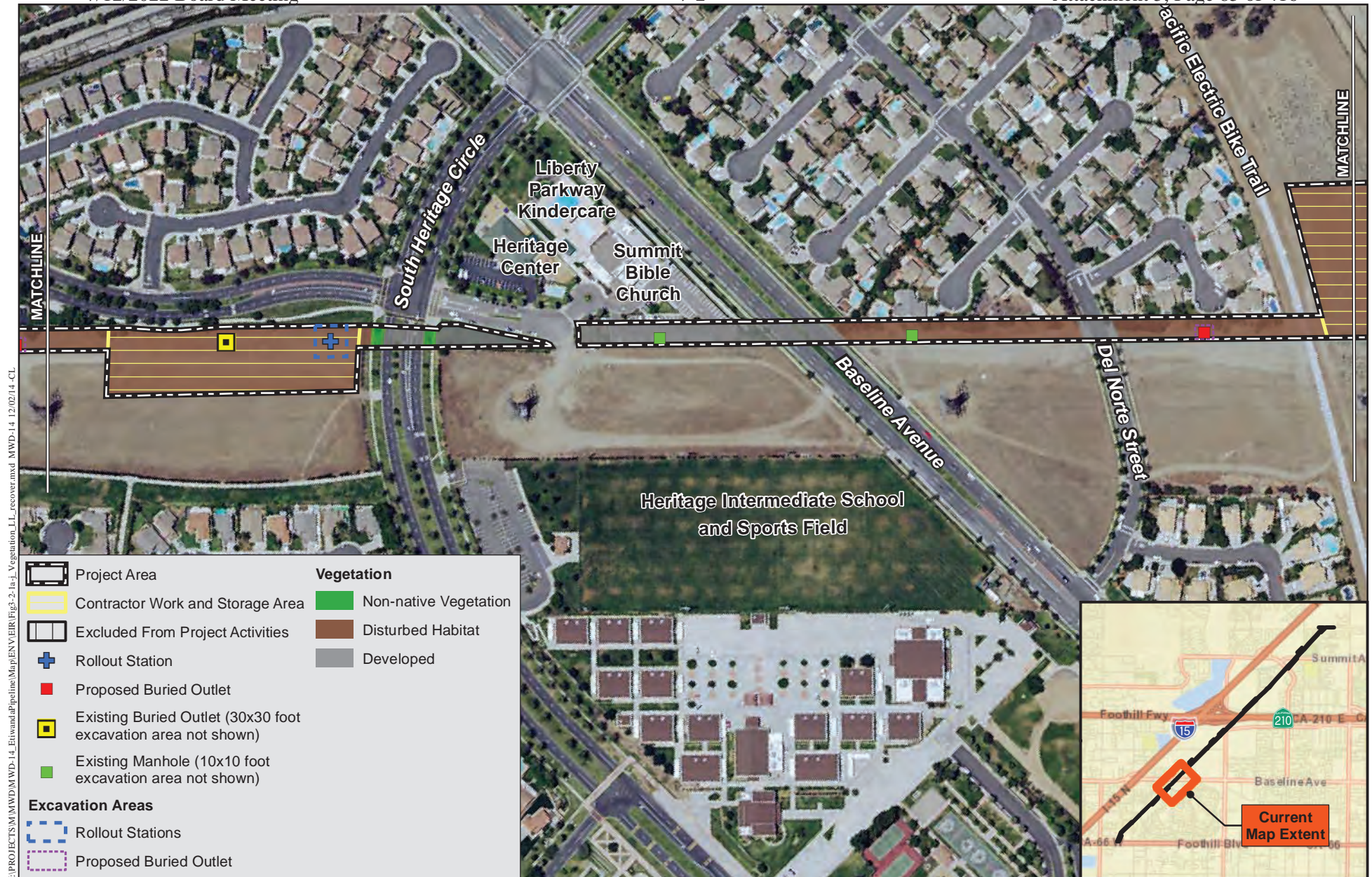
## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1b





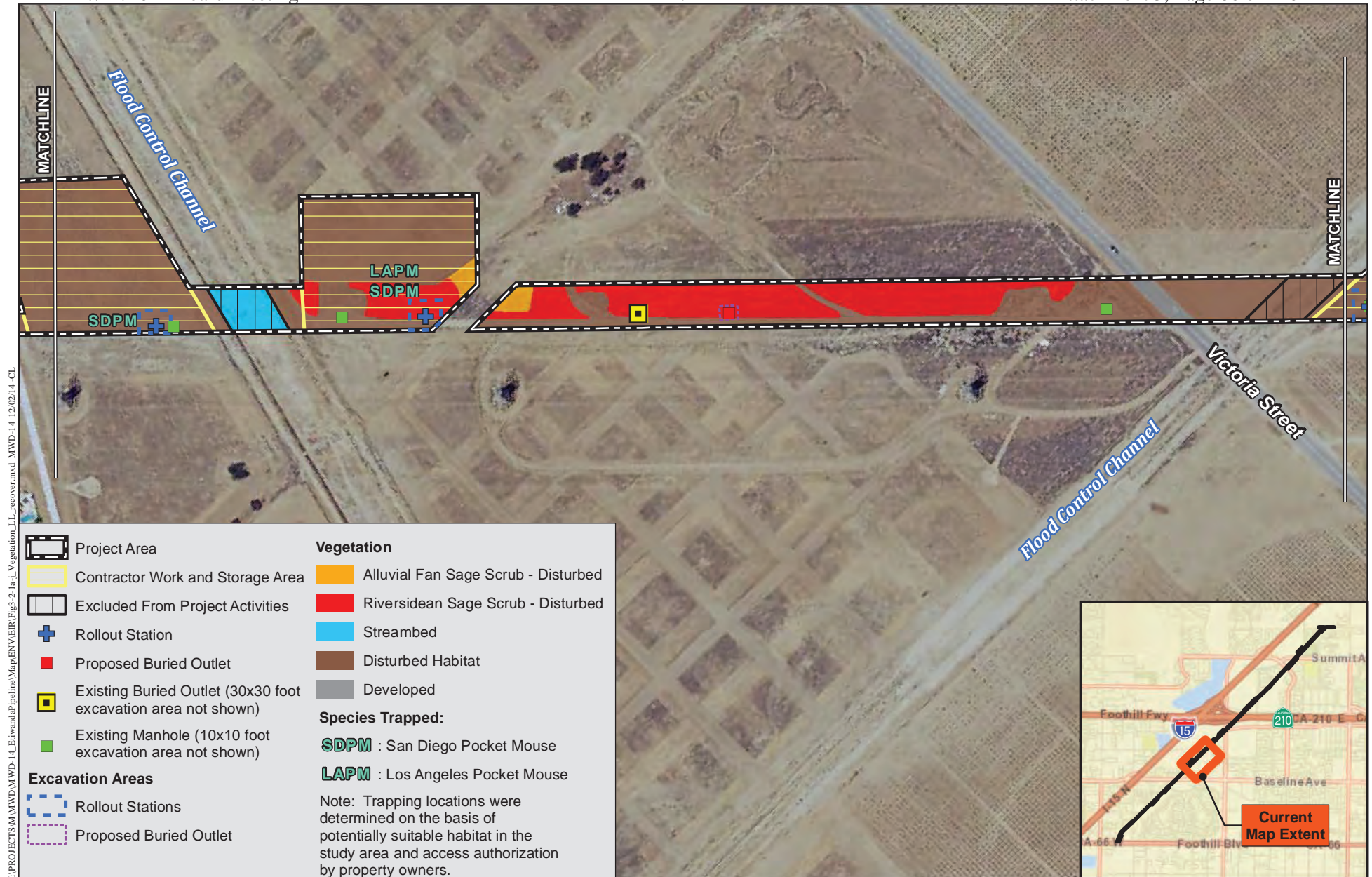


## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1c





## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1d



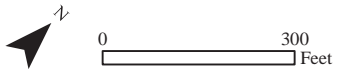




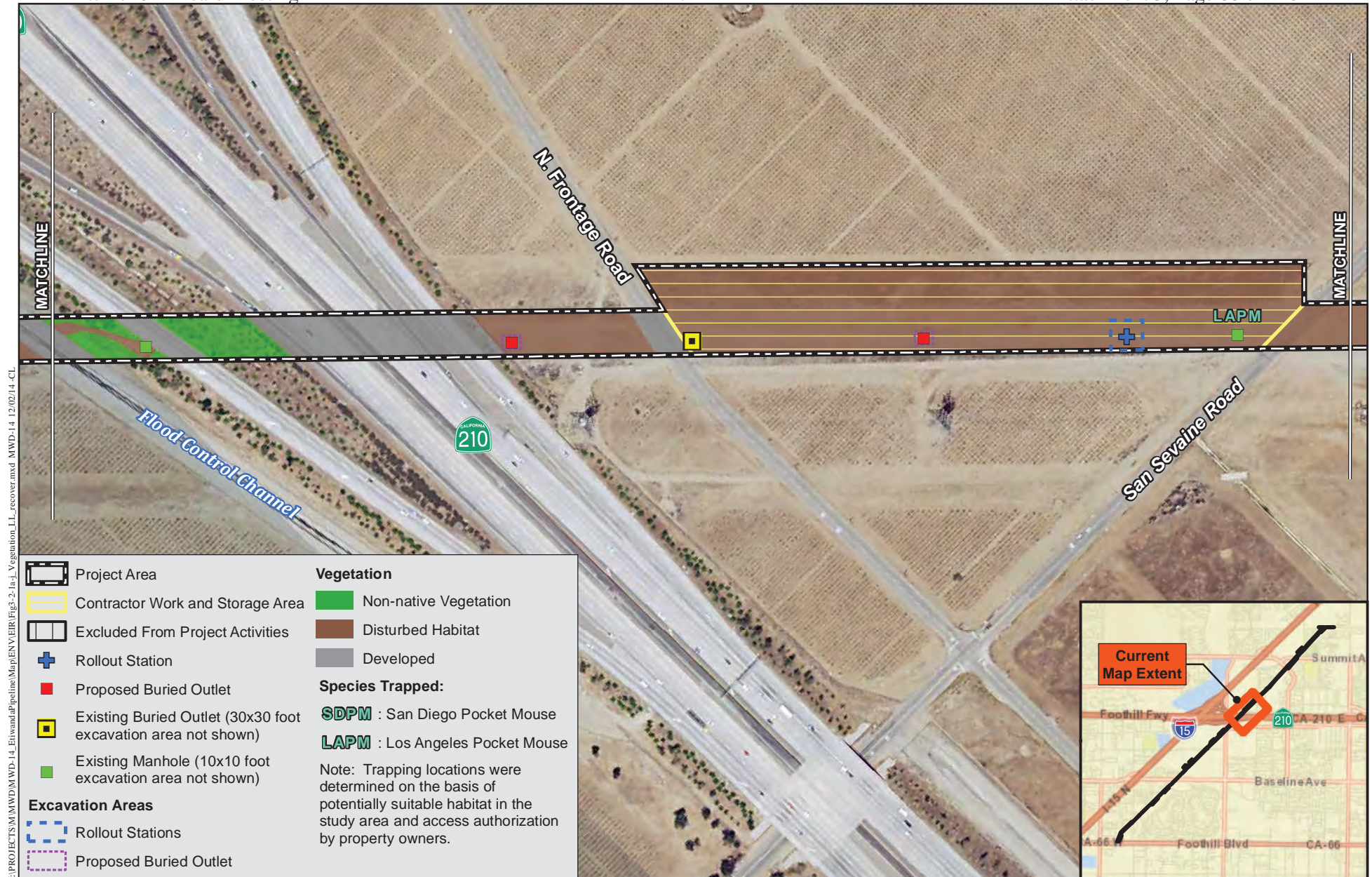
## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1e







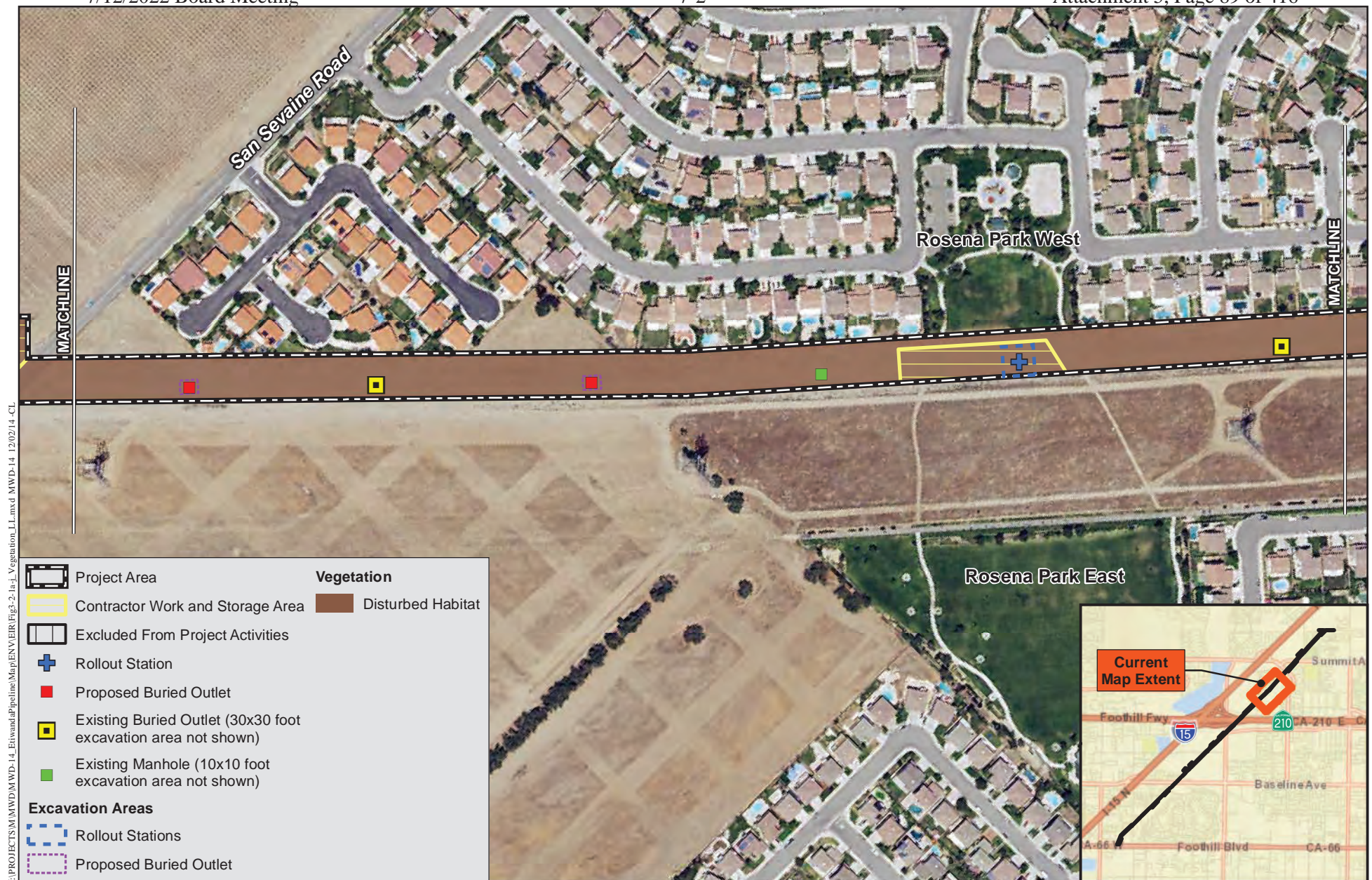
## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1f







## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1g







## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1h





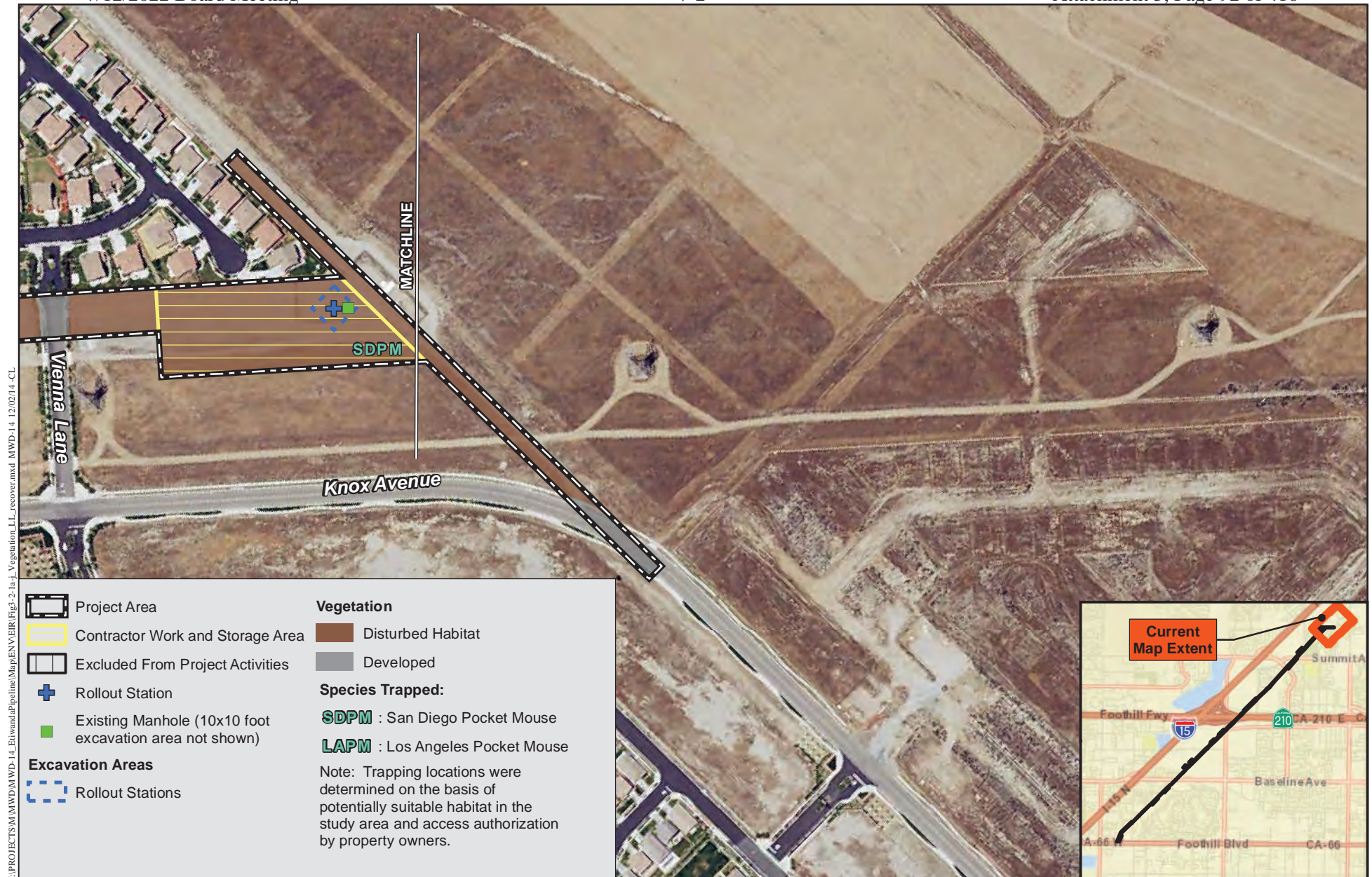
## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1i







## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1j



### 3.3 GREENHOUSE GAS EMISSIONS

This section is based on the information and analysis presented in the proposed Project's Greenhouse Gas Emissions Technical Report, dated December 2014 (HELIX 2014c). The technical report is included in its entirety as **Appendix E** of this EIR.

HELIX assessed potential greenhouse gas (GHG) impacts by estimating emissions that would be generated by construction equipment, off-road vehicles, and on-road vehicles during the proposed Project and comparing the emission levels with applicable thresholds. These emissions were estimated using the Project-specific information previously described in **Section 2.7.3, Personnel and Equipment**. CARB's off-road emissions inventory database (OFFROAD2011) and EMFAC2011 models were used to estimate the emissions from heavy construction equipment and on-road vehicles, respectively. Complete listings of the assumptions used in the analysis and model outputs are provided in **Appendix D**. Although there would likely be minor variations in the numbers/types/use of equipment and workers compared to the assumptions incorporated into the emissions calculations, these assumptions generally provide for an overall worst-case analysis. This approach was used in order to allow flexibility in final design and implementation; actual GHG emissions may be less.

#### 3.3.1 Existing Conditions

##### **Climate Change and Greenhouse Gases**

Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns, over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Historical records show that global temperature changes have occurred naturally in the past, such as during previous ice ages and warming periods. Changes in global climate patterns have recently been attributed to global warming, which is an average increase in the temperature of the atmosphere near the Earth's surface.

Global temperatures are moderated by naturally occurring atmospheric gases. These gases are commonly referred to as GHGs because they function like a greenhouse by letting light in but preventing heat from escaping, thus warming the Earth's atmosphere. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. GHGs, as defined under California Assembly Bill 32 (AB 32), include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). The global warming potential of each GHG is multiplied by the potency and lifespan in the atmosphere of that gas to produce CO<sub>2</sub> equivalents (CO<sub>2</sub>e).

##### **Existing Greenhouse Gas Emissions**

In 2012, total GHG emissions in California were estimated at 459 million metric tons (MMT) CO<sub>2</sub>e (CARB 2014). According to the San Bernardino County GHG Inventory (San Bernardino Associated Governments [SANBAG] 2013), San Bernardino County emitted 17.5 MMT CO<sub>2</sub>e in 2008. This inventory indicated that the largest contributors of GHG emissions in San Bernardino



County were the light- and medium-duty vehicles and heavy-duty vehicles categories, which comprised 35 percent (6 MMT CO<sub>2</sub>e) of the total amount. By 2020, in the absence of any reduction measures, SANBAG estimates regional GHG emissions would be 20 MMT CO<sub>2</sub>e (SANBAG 2013).

## **Regulatory Framework**

Regulatory agencies, such as the USEPA, CARB, etc., have adopted a variety of regulations in an attempt to address the potential effects of GHGs on global climate. The regulations most relevant to the proposed Project are summarized below, with additional detail provided in the Project's Greenhouse Gas Emissions Technical Report (**Appendix D**).

### Federal

The U.S. Supreme Court ruled in *Massachusetts v. U.S. Environmental Protection Agency* that CO<sub>2</sub> is an air pollutant, as defined under the federal Clean Air Act, and that the USEPA has the authority to regulate emissions of GHGs. Following the court decision, the USEPA announced that GHGs threaten the public health and welfare of the American people.

### State

The California Global Warming Solutions Act of 2006 (AB 32) required CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB was directed to reduce GHG emissions to 1990 levels by 2020. AB 32 required CARB to adopt a scoping plan that includes various measures, rules, and regulations in an open public process to achieve the GHG reductions.

### South Coast Air Quality Management District

In 2008, the SCAQMD proposed a tiered threshold approach for analyzing GHG emissions: Tier 1 determines if a project qualifies for an applicable CEQA exemption; Tier 2 determines consistency with GHG reduction plans; and Tier 3 proposes a numerical screening value as a threshold. In 2010, the SCAQMD suggested a Tier 3 screening threshold of 3,000 metric tons (MT) CO<sub>2</sub>e per year for all land use types. This screening threshold is used only for guidance, as it has not been formally approved by the SCAQMD board as of September 2014.

### **3.3.2 Significance Thresholds**

Based on Appendix G of the State CEQA Guidelines, a significant impact would occur if the proposed Project would result in the following, identified below as Thresholds A and B:

- Threshold A: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Threshold B: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

For Threshold A, there are no established federal, state, or local quantitative thresholds applicable to the Project to determine the quantity of GHG emissions that may have a significant effect on the environment. CARB, the SCAQMD, and various cities and agencies have proposed, or adopted on an interim basis, thresholds of significance that require the implementation of GHG emission reduction measures. For the proposed Project, the most appropriate screening threshold for determining GHG emissions is the SCAQMD proposed Tier 3 screening threshold (SCAQMD 2010); therefore, a significant impact would occur if the proposed Project would exceed the SCAQMD proposed Tier 3 screening threshold of 3,000 MT CO<sub>2</sub>e per year.

### 3.3.3 Impact Analysis

The magnitude of global GHG emissions is extremely large when compared to the emissions of an individual project, such as the Project's infrastructure work; therefore, it is accepted by GHG policymakers that an individual project would be unlikely to result in the magnitude of GHG emissions necessary to directly impact climate change. The California Natural Resource Agency (CNRA), which is charged with the adoption of CEQA guidelines for GHGs, stated, "Due to the global nature of GHG emissions and their potential effects, GHG emissions will typically be addressed in a cumulative impacts analysis" (CNRA 2009). Thus, the GHG impact analysis represents a cumulative GHG impact analysis for Project-related GHG emissions.

#### **Direct and Indirect Emissions of Greenhouse Gases (Threshold A)**

Project activities would result in GHG emissions through the use of heavy equipment in the Project area, as well as from vehicle trips to and from the Project area by commuting workers and delivery/haul trucks. As shown in **Table 3.3-1, *Estimated GHG Emissions***, based on emission estimates using the OFFROAD2011 and EMFAC2011 models, total GHG emissions associated with relining activities are estimated at 82,588 MT CO<sub>2</sub>e.

<b>Table 3.3-1 ESTIMATED GHG EMISSIONS</b>	
<b>Sub-phase</b>	<b>Emissions (MT CO<sub>2</sub>e)</b>
2A	16,529
2B	16,520
3A	16,529
3B	16,520
4A	16,490
<b>TOTAL<sup>1</sup></b>	<b>82,588</b>
Amortized Emissions <sup>2</sup>	2,753

<sup>1</sup> The total presented is the sum of the unrounded values.

<sup>2</sup> Emissions are amortized over 30 years in accordance with SCAQMD guidance.

Source: HELIX 2014c.

It should be noted that mitigation measures AIR-1 (construction equipment would use emission-control technology), AIR-2 (contractor would use 2010 and newer diesel haul trucks),

and AIR-3 (use of power pole electricity where feasible) would have the effect of reducing GHG emissions from the Project. AIR-1 and AIR-2 reductions were incorporated in the estimates above. Although the implementation of AIR-3 would likely lead to the biggest reduction in Project GHG emissions of the three mitigation measures, it was not included in the model as the extent to which this measure would be feasible to implement has yet to be determined.

SCAQMD, in its *Draft Guidance Document – Interim CEQA GHG Significance Thresholds*, recommends that construction emissions be amortized over a 30-year project lifetime (SCAQMD 2008c). The proposed Project, therefore, as shown in **Table 3.3-1**, would contribute 2,753 MT CO<sub>2</sub>e emissions per year on an amortized basis.

The amount of amortized Project emissions is less than the significance threshold of 3,000 MT CO<sub>2</sub>e per year. Therefore, the Project GHG emissions would not be cumulatively considerable, and the impacts under Threshold A would be less than significant.

### **Consistency with Plans for Reducing Greenhouse Gas Emissions (Threshold B)**

As previously discussed, the increase in GHG emissions would be less than SCAQMD's significance threshold being applied to this analysis. Therefore, implementation of the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. No impact under Threshold B would occur.

#### **3.3.4 Mitigation Measures**

Impacts related to Thresholds A and B would be less than significant; no mitigation is required.

#### **3.3.5 Conclusions**

The assessment of GHG emissions is inherently cumulative because climate change is a global phenomenon. As discussed above, the impact of the Project's GHG emissions on climate change would not be cumulatively significant, as the Project does not exceed the SCAQMD screening threshold or conflict with an applicable GHG plan, policy, or regulation.



### 3.4 LAND USE AND PLANNING

The focus of the following analysis is on the consistency of the proposed Project with the General Plans and zoning designations for the cities of Fontana and Rancho Cucamonga. In addition, the analysis considers the relationship of the proposed Project with surrounding land uses.

Land use impacts were assessed by generating existing land use maps and designated land use maps for the Project area and nearby properties; reviewing the General Plans of the cities of Rancho Cucamonga and Fontana for policies that might be applicable to a pipeline relining project within an existing pipeline right-of-way; assessing the potential for the Project to conflict with existing or planned land uses in or adjacent to the Project area; and comparing the proposed Project to the relevant General Plan policies of the cities of Rancho Cucamonga and Fontana. The existing land use and designated land use mapping was obtained from SANBAG; the review of General Plans and assessment of potential land use impacts was conducted by HELIX.

It should be noted that California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances. This exemption applies to Etiwanda Pipeline North as a water transmission pipeline and a direct component of Metropolitan's treatment, storage and transmission system. Despite this exemption from local land use planning jurisdiction, for purposes of full disclosure of potential Project impacts on the environment, this EIR evaluates Project compatibility with relevant General Plan policies of the cities of Rancho Cucamonga and Fontana.

#### 3.4.1 Existing Conditions

##### **Environmental Setting**

The Project area includes approximately 4.4 miles of pipeline right-of-way in Fontana and 0.4 mile of pipeline right-of-way in Rancho Cucamonga. The Etiwanda Pipeline North right-of-way is within a designated public utility corridor, which contains both the pipeline and an adjacent SCE transmission line.

**Figures 3.4-1a to 3.4-1d, *Existing Land Uses***, illustrate existing land uses as mapped by SANBAG. Beginning in the southern end of the Project area in the city of Rancho Cucamonga, the Project area is adjacent to electrical power facilities, vacant land, flood control channels, and a park. The Project area then continues northeast in the city of Fontana, where it is adjacent to electrical power facilities, high-density single-family homes, low-rise apartments, religious facilities, retail centers, pre-schools and day care centers, local and regional parks, irrigated cropland, orchards and vineyards, and vacant land.

##### **Regulatory Framework**

###### General Plans

The General Plans of the Cities of Fontana and Rancho Cucamonga contain land use designations, as well as goals and policies adopted for the purpose of avoiding or mitigating an environmental effect. Land use designations as compiled by SANBAG are illustrated on **Figures 3.4-2a to 3.4-2d, *Designated Land Uses***. The applicable land use designations are

addressed below, with the applicable goals and policies summarized in **Table 3.4-1, Project Consistency with General Plan Policies** (see below).

#### *City of Fontana*

The City of Fontana General Plan includes land use development policies and land use maps to guide future development in the city. The pipeline right-of-way is designated as Public Utility Corridor (P-UC); this designation is used to indicate locations in Fontana that contain easements for public utilities.

Land use designations near the Project area in Fontana include residential, other retail/service, open-non development, parks, schools, general commercial, urban mixed, and transportation (refer to **Figures 3.4-2b to 3.4-2d**).

#### *City of Rancho Cucamonga*

In the City of Rancho Cucamonga General Plan, the pipeline right-of-way is designated as Flood Control/Utility Corridor. According to the General Plan, this land use designation includes lands primarily used for flood control purposes and to support public utilities.

The land uses designated near the Project area in Rancho Cucamonga include parks, office, general commercial, and residential (refer to **Figure 3.4-2a**).

#### Zoning

The Zoning and Development Codes of the cities of Fontana and Rancho Cucamonga contain the regulatory framework that specifies allowable uses. The pipeline right-of-way is zoned as Public Utility Corridor by the City of Fontana. The right-of-way is zoned under the Etiwanda Specific Plan by the City of Rancho Cucamonga; that specific plan lists the area as a Utility Corridor.

### **3.4.2 Significance Thresholds**

Based on Appendix G of the State CEQA Guidelines and thresholds identified in the Initial Study/NOP prepared for the proposed Project, a significant impact would occur if the proposed Project would do the following, identified below as Threshold A:

- Threshold A: Conflict with 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.

### **3.4.3 Impact Analysis**

#### **Consistency with Zoning**

As stated above, the Project area is zoned as Public Utility Corridor by the City of Fontana and as a Utility Corridor by the City of Rancho Cucamonga. The Project would repair an existing pipeline within the existing utility corridor. Temporary use of adjacent properties for contractor

staging areas would not affect the long-term use of those properties. Project activities would not interfere with existing or future zoning. Therefore, the Project would not result in conflicts with zoning ordinances (Threshold A).

### **Consistency with General Plans**

#### City of Fontana

The Project would take place within a land use designation appropriate for Etiwanda Pipeline North – Public Utility Corridor. This land use designation accommodates long-term operation and maintenance of the pipeline, which was originally built in 1993. The Project would involve only temporary activities and would restore the Project area to its pre-existing condition after Project activities have been completed. The Project would be consistent with the environmental goals, policies, and actions of the City of Fontana General Plan, except for one action (Goal 3, Action 18) under the Noise Element, as demonstrated in **Table 3.4-1**.

Project activities would exceed the hours of construction activity operation allowed in the City of Fontana Municipal Code (as discussed in **Section 3.5, Noise**), and while mitigation measures would lessen the impacts from these exceedances, the noise impacts would still be potentially significant and unmitigable. The short-term policy conflict represents a noise, rather than a land use, impact, and is fully discussed in Section 3.5. Land use impacts would be less than significant (Threshold A).

#### City of Rancho Cucamonga

The Project would take place within a land use designation appropriate for Etiwanda Pipeline North – Flood Control/Utility Corridor. This land use designation accommodates long-term operation and maintenance of the pipeline, which was originally built in 1993. The Project would involve only temporary activities and would restore the Project area to its preexisting condition after Project activities have been completed. The Project would be consistent with the environmental goals, objectives, and guidelines of the City of Rancho Cucamonga General Plan, except for one policy (Policy PS-13.4) under the Public Health and Safety Element regarding noise, as shown in **Table 3.4-1**. Project activities would exceed City of Rancho Cucamonga Municipal Code and General Plan standards with regard to acceptable noise levels near residences. While mitigation measures would lessen the impacts from these exceedances, the noise impacts still would be potentially significant and unmitigable. The short-term policy conflict represents a noise, rather than a land use, impact, and is fully discussed in Section 3.5. Land use impacts would be less than significant (Threshold A).

#### **3.4.4 Mitigation Measures**

Impacts related to Threshold A would be less than significant; no mitigation is required.

#### **3.4.5 Conclusions**

Project activities temporarily would increase noise to nearby noise-sensitive land uses. The mitigation measures specified in **Section 3.5.4** would decrease the noise impacts to the extent feasible; however, the resulting noise levels are expected to exceed noise significance thresholds



even with mitigation at some locations of the Project area, during some periods of Project activity. Although the Project would be inconsistent with noise policies in the General Plans of the cities of Fontana and Rancho Cucamonga, California Government Code Section 53091 exempts Metropolitan, and therefore the Project, from local zoning and building ordinances (as discussed at the beginning of this section). The short-term policy conflict represents a noise, rather than a land use, impact, and is fully discussed in Section 3.5. Impacts to land use and planning would be less than significant.

**Table 3.4-1**  
**PROJECT CONSISTENCY WITH GENERAL PLAN POLICIES**

<b>Policy</b>	<b>Discussion</b>	<b>Consistent?</b>
<b><i>City of Fontana General Plan</i></b>		
<b><i>City of Fontana General Plan – Land Use Element</i></b>		
Goal 2, Policy 2: Regionally beneficial land uses such as transportation corridors, flood control systems, utility corridors, and recreational corridors shall be sensitively integrated into our community.	The Project area is located within a land use and zoning designation of P-UC. Repairing Etiwanda Pipeline North would assist in Metropolitan’s ability to continue to provide water to customers within its southern California service area. Project activities would be temporary; after completion of the Project, the Project area would be returned to its existing condition.	Yes
Goal 2, Policy 3: Multiple uses within utility easements shall emphasize open spaces but may accommodate more intensive uses to safely augment adjacent uses.	The proposed Project is located within a utility corridor that is mostly vacant above-ground. Project activities would be temporary; upon completion, the Project area would be returned to its existing condition. Metropolitan generally maintains exclusive use of its facility rights-of-way; however, the Project would not preclude the Project area from being used for multiple purposes.	Yes
<b><i>City of Fontana General Plan – Public Facilities, Services, and Infrastructure Element</i></b>		
Goal 9, Policy 2: The installation of utilities shall be coordinated so that disruption of public rights-of-way and private property is kept to a minimum.	The Project would consist of repair of an existing pipeline within Metropolitan’s existing right-of-way. The Project would not result in disruptions to roadways or other public rights-of-way. Metropolitan would obtain temporary construction easements from private properties that would be used as staging areas, and they would be returned to their current status following completion of Project activities.	Yes
<b><i>City of Fontana General Plan – Open Space and Conservation Element</i></b>		
Goal 1.2, Policy 2: Require mitigation for removal of any natural habitat, including restoration of degraded habitat of the same type, creation of new or extension of existing habitat of the same type, financial contribution to a habitat conservation fund administered by federal, state or local government agency, or by a non-profit conservancy.	As discussed in <b>Section 3.2, Biological Resources</b> , the Project would temporarily impact 2.6 acres of disturbed Riversidean upland sage scrub and 0.1 acre of disturbed Riversidean alluvial fan sage scrub in the proposed staging areas and excavation areas. These communities are highly disturbed and provide limited biological function and value. Impacts would be temporary and are considered less than significant; therefore, no mitigation is required for sensitive habitat.	Yes

<p align="center"><b>Table 3.4-1 (cont.)</b>  <b>PROJECT CONSISTENCY WITH GENERAL PLAN POLICIES</b></p>		
<b>Policy</b>	<b>Discussion</b>	<b>Consistent?</b>
<i>City of Fontana General Plan (cont.)</i>		
<i>City of Fontana General Plan – Open Space and Conservation Element (cont.)</i>		
Goal 1.2, Policy 3: Apply local CEQA procedures to identify impacts to rare, threatened and endangered species.	As discussed in <b>Section 3.2</b> , no rare, threatened, or endangered species were observed in the Project area and the potential for them to occur is considered low. Impacts would be less significant; therefore, no mitigation is required for these species.	Yes
Goal 2.1, Policy 1: Link multi-use utility corridors to other elements of the local and regional parks and trails systems wherever feasible.	Project activities are temporary, and upon completion, the area would be restored to its existing condition. Metropolitan generally maintains exclusive use of its facility rights-of-way; however, the Project would not preclude the use of the utility corridor for multi-use linkages between parks and trails.	Yes
<i>City of Fontana General Plan – Noise Element</i>		
Goal 3, Action 5: Construction shall be performed as quietly as feasible when performed in proximity to residential or other noise sensitive land uses.	As discussed in <b>Section 3.5, Noise</b> , the Project would generate substantial noise levels at adjacent residences at some locations in the Project area during daytime and nighttime hours. Project mitigation measures specified in <b>Section 3.5.4</b> would lessen the impact to the extent feasible.	Yes
Goal 3, Action 18: Ensure that construction activities are regulated to established hours of operation included in the noise ordinance.	The Fontana Municipal Code establishes allowable daytime construction hours. Project activities are anticipated to occur up to 24 hours per day.	No
Goal 3, Action 20: Require that all construction equipment utilizes noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.	As discussed in <b>Section 3.5</b> , the Project would result in substantial noise levels and a number of noise control measures are identified in <b>Section 3.5.4</b> . Control measures would include noise reduction features on equipment that will be maintained to a minimum standard, which includes engine noise baffles and mufflers that meet or exceed the original manufacturer's requirements (NOI-3.e).	Yes



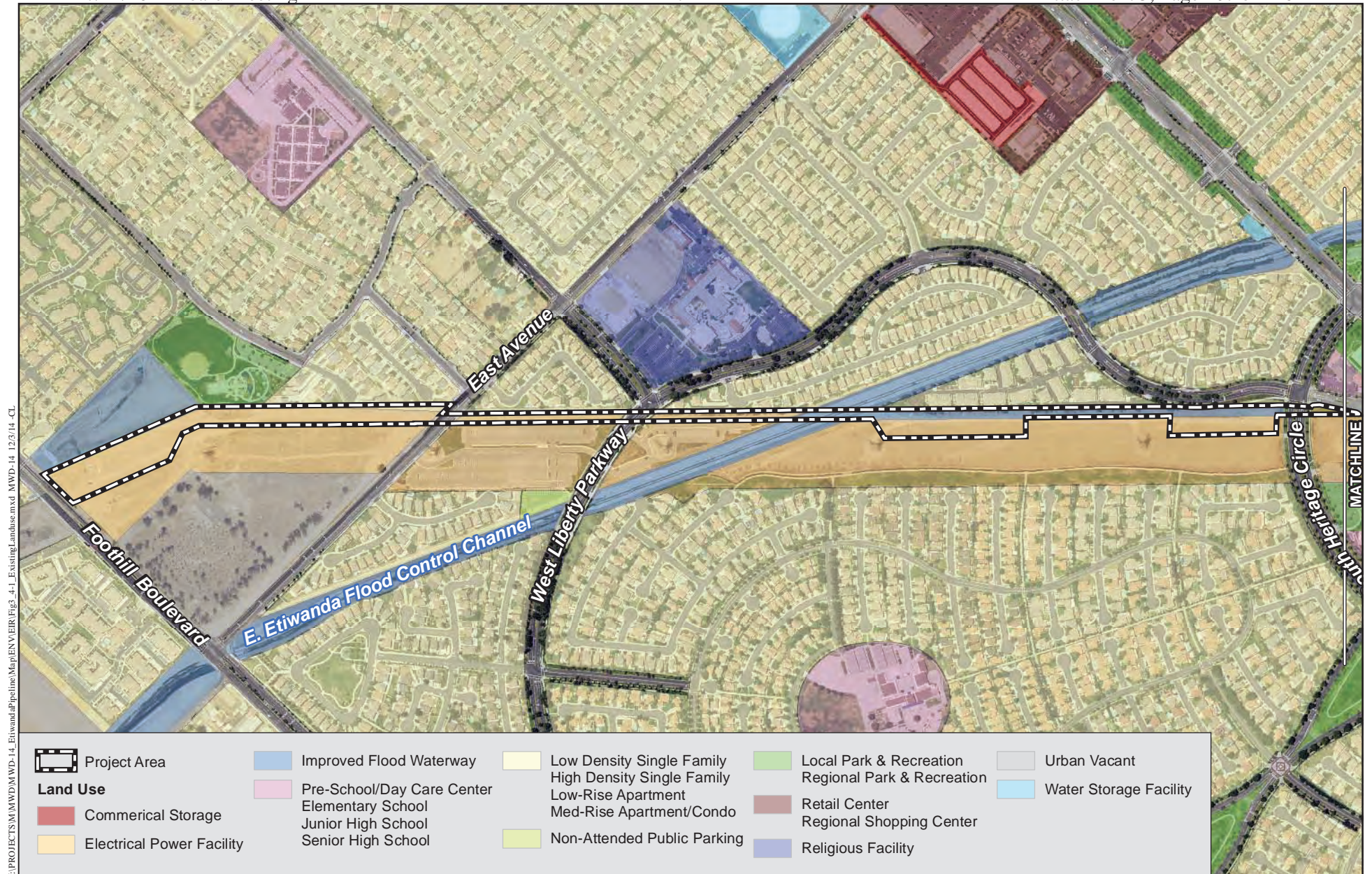
<b>Table 3.4-1 (cont.)</b> <b>PROJECT CONSISTENCY WITH GENERAL PLAN POLICIES</b>		
<b>Policy</b>	<b>Discussion</b>	<b>Consistent?</b>
<b><i>City of Fontana General Plan (cont.)</i></b>		
<b><i>City of Fontana General Plan – Air Quality Element</i></b>		
Goal 4, Policy 1: Particulate emissions from roads, parking lots, construction sites, and agricultural lands shall be kept at the minimum feasible level.	As discussed in <b>Section 3.1, Air Quality</b> , Project activities would exceed the SCAQMD maximum daily regional emission threshold for PM <sub>2.5</sub> , and the SCAQMD maximum daily local emission thresholds for both PM <sub>10</sub> and PM <sub>2.5</sub> . The mitigation measures specified in <b>Section 3.1.4</b> would reduce these emissions to a minimum feasible level.	Yes
Goal 4, Policy 2: Emissions from building materials and construction methods that generate excessive pollutants shall be kept at the minimum feasible level.	As discussed in <b>Section 3.1</b> , Project activities would exceed the SCAQMD maximum daily regional emission threshold for VOC, CO, and NO <sub>x</sub> , and the SCAQMD maximum daily local emission threshold for NO <sub>x</sub> . Project activities also would result in temporary toxic air contaminant emissions from diesel particulate matter from off-road and on-road equipment and vehicles. The mitigation measures specified in <b>Section 3.1.4</b> would reduce these emissions to a minimum feasible level.	Yes
Goal 4, Action 1: Incorporate the provisions of SCAQMD Rule 403 (Dust Control) into City land use administration rules and procedures.	The Project's environmental commitments, discussed under <b>Section 2.6.5</b> , include adhering to SCAQMD Rule 403 to reduce fugitive dust emissions. Because the Project would comply with SCAQMD Rule 403 and emissions of regulated particulate matter (PM <sub>10</sub> and PM <sub>2.5</sub> ) would be reduced to below SCAQMD maximum emission thresholds, the Project would not generate significant amounts of dust.	Yes
Goal 4, Action 2: Establish grading and building permitting procedures so that all construction involving demolition or earth movement reduces fugitive dust emissions through the appropriate techniques (e.g., wetting).	Refer to previous response.	Yes

<b>Table 3.4-1 (cont.)</b> <b>PROJECT CONSISTENCY WITH GENERAL PLAN POLICIES</b>		
<b>Policy</b>	<b>Discussion</b>	<b>Consistent?</b>
<b><i>City of Rancho Cucamonga General Plan</i></b>		
<b><i>City of Rancho Cucamonga General Plan – Community Mobility Element</i></b>		
Policy CM 6.3: Maintain consistency with the SCAQMD air quality mandates, SANBAG's Congestion Management and Nexus Programs, and SCAG's Regional Mobility Plan requirements.	The Project would cumulatively contribute pollutants to the regional and local area per SCAQMD thresholds. The mitigation measures specified in <b>Section 3.1.4</b> would reduce emissions to below the applicable threshold, achieving consistency with applicable SCAQMD air quality plans and other applicable mandates. Potential impacts related to congestion would be temporary and would be reduced to less than significant levels through the incorporation of specified mitigation. The Project would not affect regional mobility.	Yes
<b><i>City of Rancho Cucamonga General Plan – Public Health and Safety Element</i></b>		
Policy PS-10.4: Require projects that generate potentially significant levels of air pollutants to incorporate the best available air quality mitigation into the project design, as appropriate.	Refer to response for Goal 4, Policy 1 of the City of Fontana General Plan – Air Quality Element.	Yes
Policy PS-13.4: Require that acceptable noise levels are maintained near residences, schools, health care facilities, religious institutions, and other noise sensitive uses in accordance with the Development Code and noise standards contained in the General Plan.	The Project would create temporary noise in excess of 65 decibels with A-weighting (dBA) at nearby residential uses. As discussed in <b>Section 3.5</b> , the Project would generate substantial noise levels at sensitive receptors at some locations in the Project area during daytime and nighttime hours. Project mitigation measures specified in <b>Section 3.5.4</b> would lessen the impact to the extent feasible. However, the resulting noise levels are expected to exceed the thresholds even with mitigation during some periods of Project activity. Noise impacts would be significant and unmitigable and the Project would be in conflict with this policy.	No

<b>Table 3.4-1 (cont.)</b> <b>PROJECT CONSISTENCY WITH GENERAL PLAN POLICIES</b>		
<b>Policy</b>	<b>Discussion</b>	<b>Consistent?</b>
<i>City of Rancho Cucamonga General Plan (cont.)</i>		
<i>City of Rancho Cucamonga General Plan – Public Health and Safety Element (cont.)</i>		
Policy PS-13.5: Limit the hours of operation at noise generating sources that are adjacent to noise-sensitive uses, wherever practical.	Project activities are anticipated to occur up to 24 hours per day adjacent to noise-sensitive uses at some locations in the Project area. Because of the coating techniques that would be employed to install the new pipe liner, 24-hour operations of some equipment are required. The mitigation measures contained in <b>Section 3.5.4</b> would reduce associated impacts to the extent feasible.	Yes
Policy PS-13.6: Implement appropriate standard construction noise controls for all construction projects.	The Project would employ standard noise control measures, such as mufflers. In addition, a number of specialty measures as described in <b>Section 3.5.4</b> would be employed to further reduce noise levels to the extent feasible.	Yes
Policy PS-13.7: Require all exterior noise sources (construction operations, air compressors, pumps, fans, and leaf blowers) to use available noise suppression devices and techniques to bring exterior noise levels down to acceptable levels.	Refer to the above response.	Yes



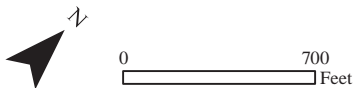
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## Existing Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-1a





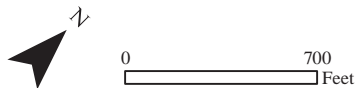


Data Source: Land Use (SANBAG, 2012)

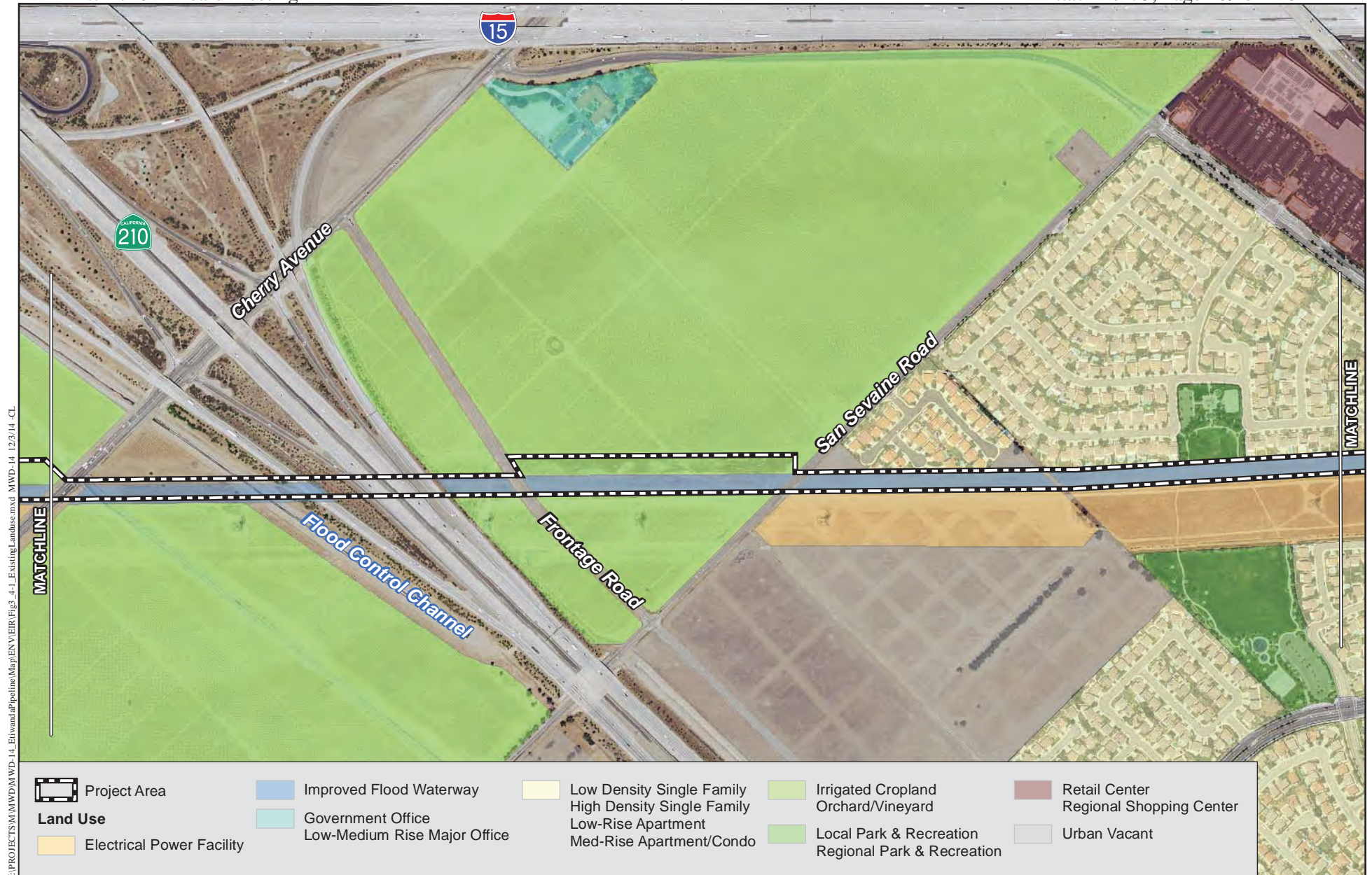
## Existing Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-1b





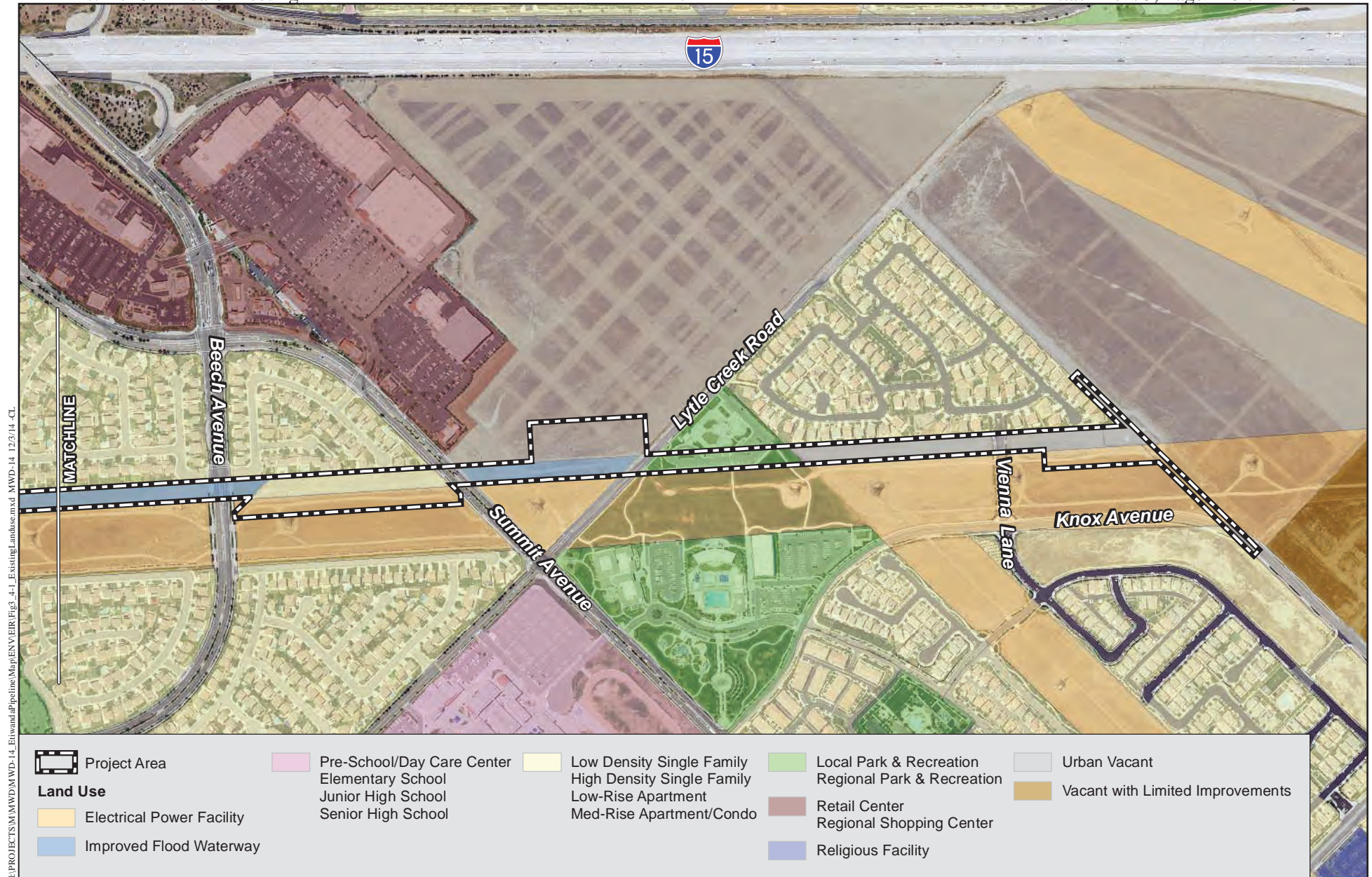


## Existing Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-1c



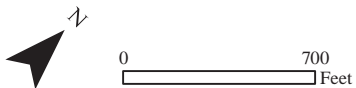


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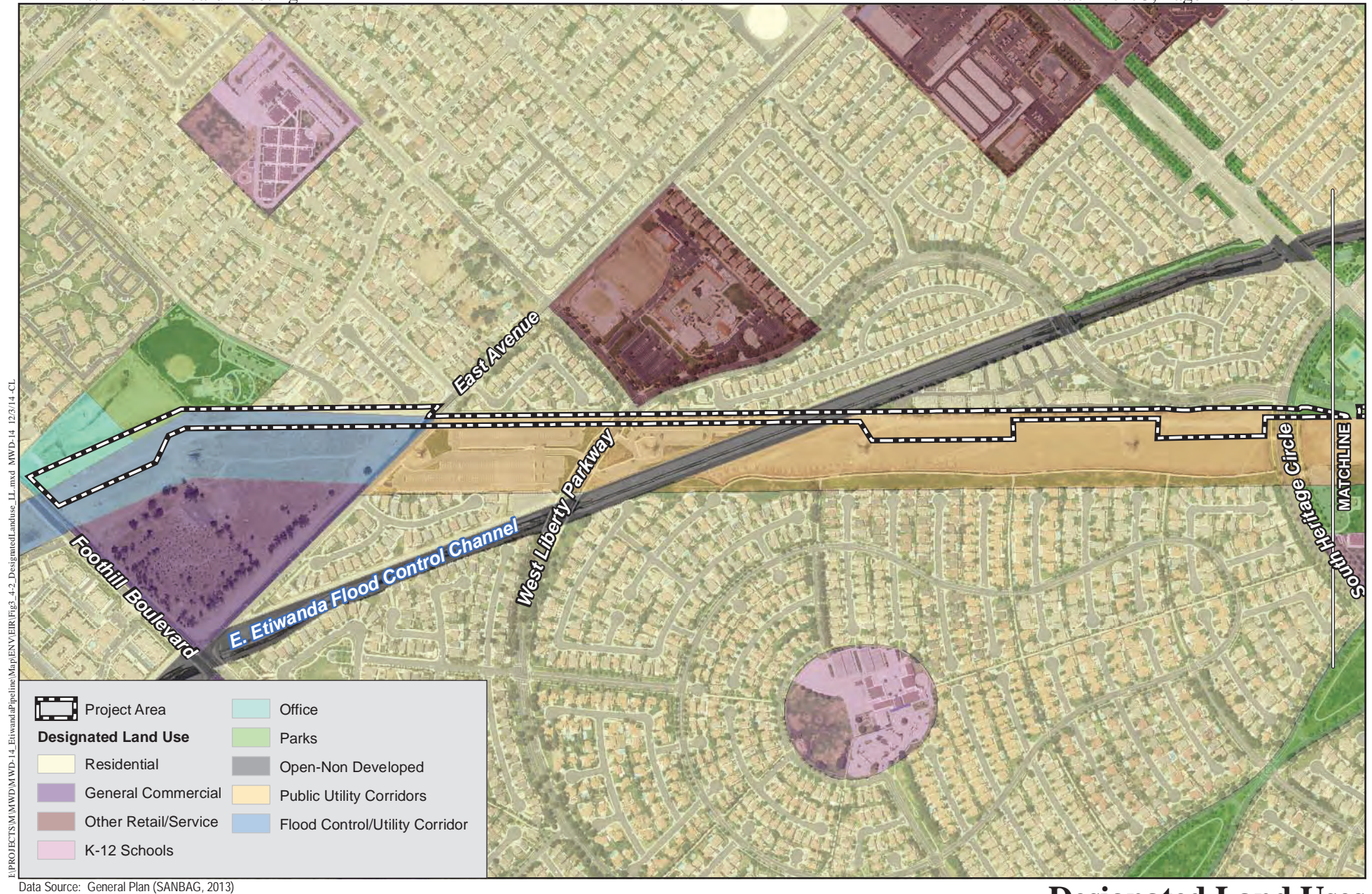
## Existing Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-1d



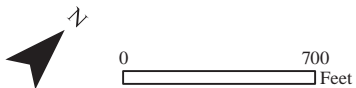




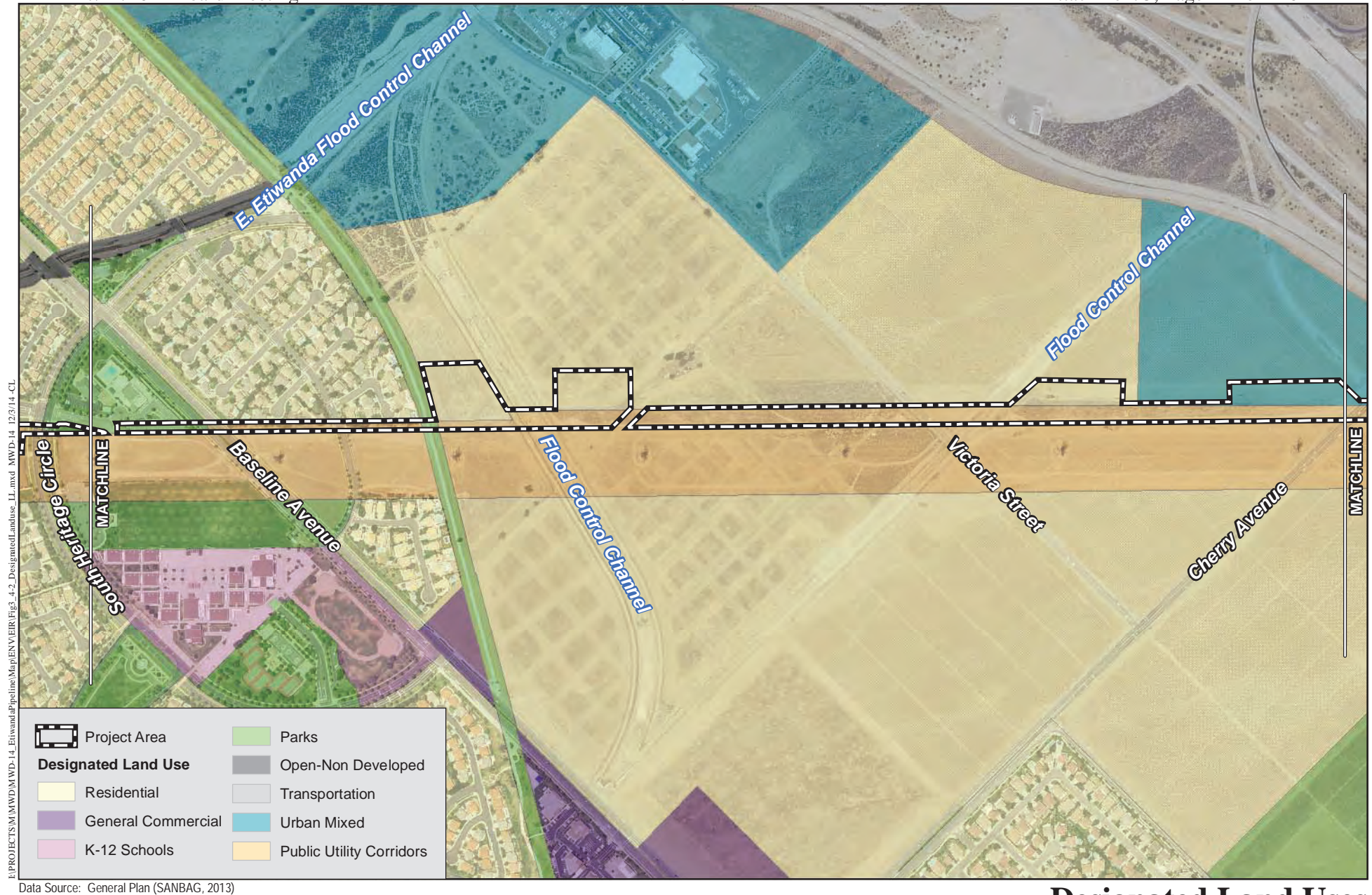
## Designated Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-2a



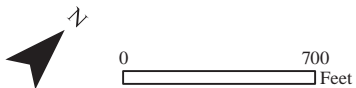




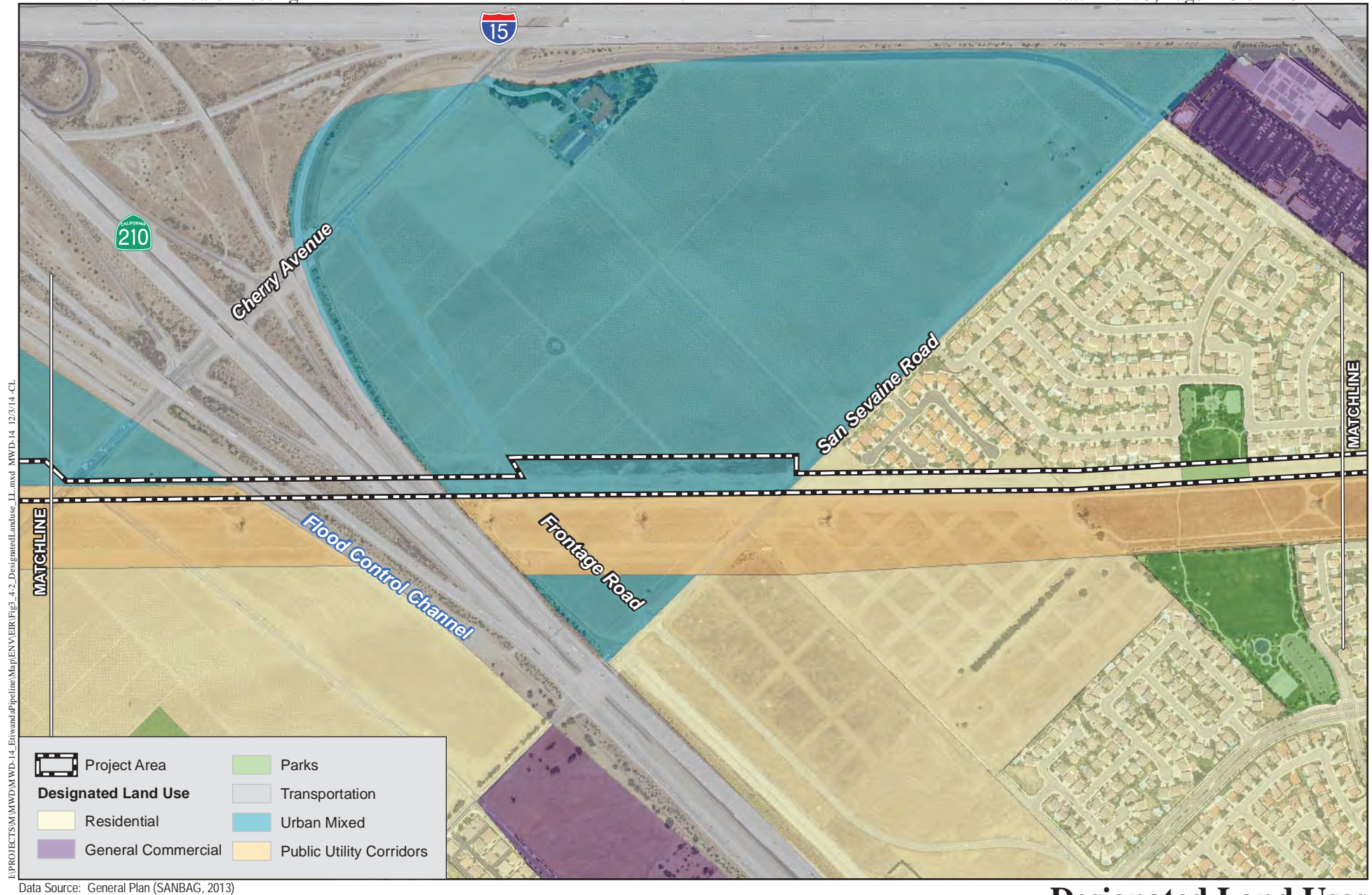
## Designated Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-2b





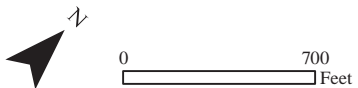


Data Source: General Plan (SANBAG, 2013)

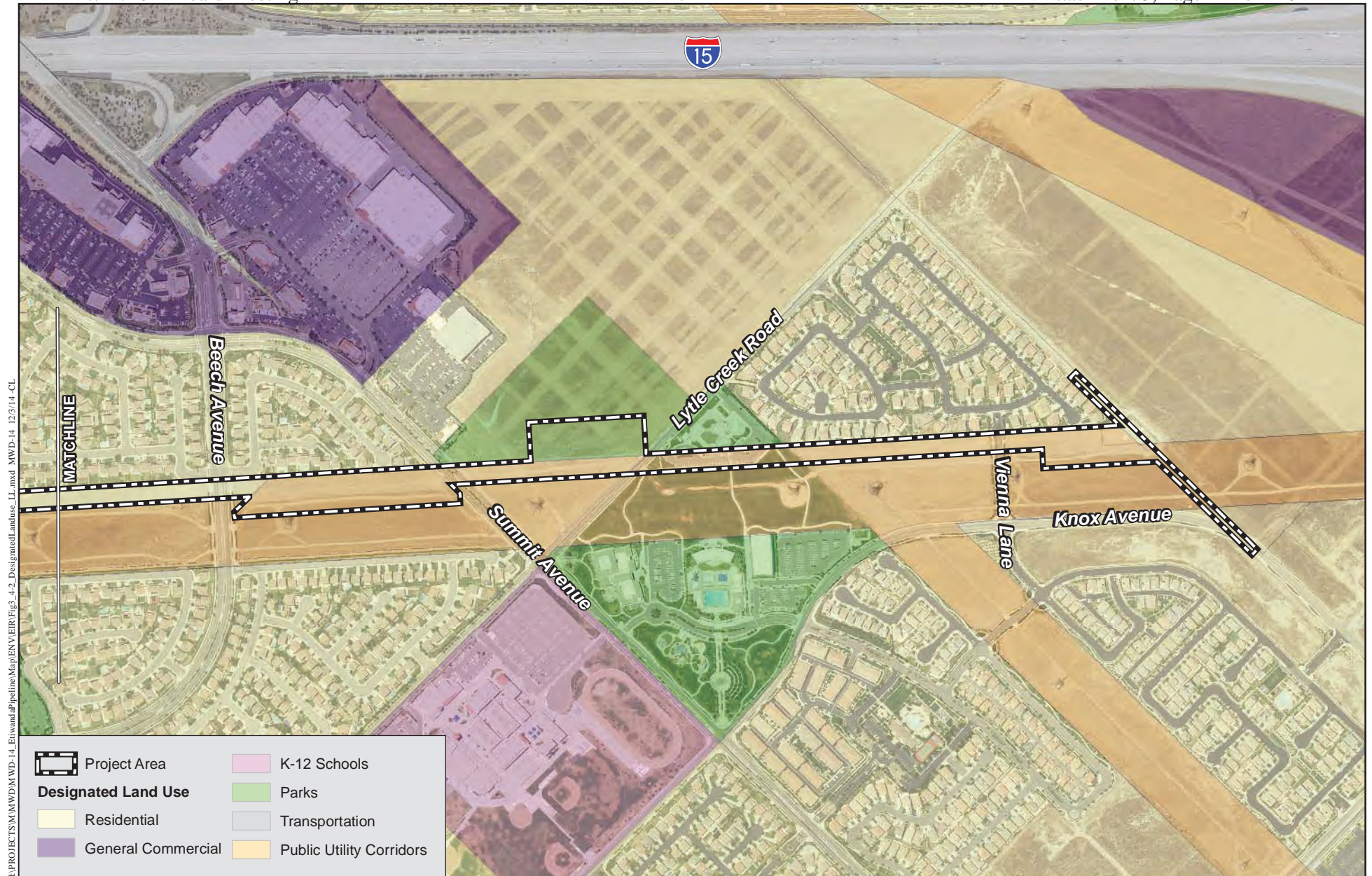
## Designated Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-2c



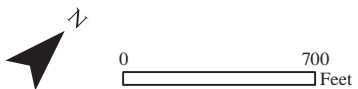




## Designated Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-2d





### 3.5 NOISE

This section is based on the information and analysis presented in the proposed Project's Acoustical Site Assessment, dated November 4, 2014 (HELIX 2014d). The technical report is included in its entirety as **Appendix E** of this EIR.

The methods HELIX used for assessing noise impacts included taking baseline noise measurements in and near the Project area; measuring noise generated by construction equipment during the pilot phase (Phase 1); estimating noise levels that would be generated by construction equipment during the proposed Project; and comparing estimated noise levels with applicable thresholds, including those adopted by the cities of Rancho Cucamonga and Fontana. As noted in **Chapter 2, Project Description**, the proposed Project would use several different types of equipment to install the new liner. Some of the equipment, such as excavators, loaders, and dump trucks, are standard equipment that has been incorporated into the Federal Highway Administration Roadway Construction Noise Model (U.S. Department of Transportation 2008); however, other equipment, such as those associated with the mortar lining debris removal and abrasive blasting, are highly specialized.

To provide a basis for estimating noise from specialized equipment, noise levels were measured for individual pieces of representative equipment that were used during similar work on the pilot phase (Phase 1) on the pipeline segment south of the Project. Noise levels were then calculated both for a standardized distance of 50 feet and, where applicable, at the closest noise sensitive receptor (the closest noise sensitive receptors would be located approximately 20 to 30 feet away from Project noise sources, depending on the type of activity being undertaken and equipment being used).

Although there would likely be minor variations in the numbers/types/use of equipment and workers compared to the assumptions incorporated into the noise calculations, the assumptions used generally provide for an overall worst-case analysis. This approach was used in order to allow flexibility in final design and implementation, and actual conditions might be less.

#### 3.5.1 Existing Conditions

##### Noise Fundamentals

Sound can be described as vibrations that travel through the air and can be heard when they reach a person's ear. Noise is defined as loud, unexpected, or annoying sound. Sound becomes unwanted when it interferes with normal activities, causes actual physical harm, or has adverse effects on health.

All noise-level or sound-level values presented in this section are expressed in terms of decibels with A-weighting (dBA) to approximate the hearing sensitivity of humans. **Table 3.5-1, Typical A-Weighted Noise Levels**, compares common activities and their noise levels (dBA). Under the decibel scale, a doubling of sound energy corresponds to an increase of 3 dBA.

Time-averaged noise levels are expressed as "L<sub>EQ</sub>." L<sub>EQ</sub> represents the average of the noise levels occurring over a specified period. Unless a different time period is specified, L<sub>EQ</sub> implies a period of one hour.

## Existing Noise Environment

Ambient noise measurements were conducted at a series of locations along the Project alignment on May 15, 2014, for a duration of 20 minutes at each location. The survey was conducted to determine the typical daytime ambient noise levels in the Project area and to note information about the locations of noise-sensitive land uses (see Noise-sensitive Receptors below for more discussion) and noise sources (non-transportation) at those locations.

The measurement locations are shown on **Figure 3.5-1, Ambient Noise Measurements**, and ambient noise level measurements are provided in **Table 3.5-2, Ambient Noise Measurements**. As shown on **Figure 3.5-1** and **Table 3.5-2**, average daytime exterior noise levels ranged from approximately 38 dBA northwest of Knox Avenue (site 9) to 50 dBA near the Etiwanda Hydroelectric Plant (site 1).

Table 3.5-1 TYPICAL A-WEIGHTED NOISE LEVELS		
Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2009

**Table 3.5-2  
 AMBIENT NOISE MEASUREMENTS**

Site #	Location Description	Time	L <sub>EQ</sub>
1	North of East Foothills Boulevard, east of Rancho Cucamonga water pump near Garcia Park	1:30 p.m.	50.0 dBA
2	East of East Avenue, edge of parking lot	1:55 p.m.	40.6 dBA
3	East of West Liberty Parkway, northeast end of parking lot	2:23 p.m.	43.8 dBA
4	Southwest of South Heritage Circle	2:56 p.m.	41.3 dBA
5	Northeast of Del Norte Street near Pacific Electric Bike Path	3:20 p.m.	43.5 dBA
6	Southwest of Cherry Avenue and South Highland Avenue in old field area	3:55 p.m.	44.5 dBA
7	Northeast of San Sevaine Road (Lyster Avenue and Vine Avenue)	4:22 p.m.	42.8 dBA
8	Northeast of Lyle Creek Road at northeast corner of a small park	4:45 p.m.	41.2 dBA
9	Northwest of Knox Avenue next to fenced area	5:05 p.m.	38.4 dBA

Note: Some pump noise was audible at Site #1.

### Noise-sensitive Receptors

A noise-sensitive land use is one in which users would be adversely affected by high levels of noise. Individual uses, such as residences, churches, schools, parks, and hospitals, are considered to be noise-sensitive receptors. Noise-sensitive receptors along or in proximity to the Project area include single-family residences, Summit High School, Rosena Park, and Fontana Park in Fontana, and single- and multi-family residences and Garcia Park in Rancho Cucamonga.

### Regulatory Framework

The relevant portions of the municipal codes of the cities of Fontana and Rancho Cucamonga are summarized below, and **Table 3.5-3, *Exterior Noise Limits Within Residential Districts***, lists allowable exterior noise limits established by each City. It should be noted that California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances (but not from noise ordinances that are outside of the zoning and building ordinances). Despite this exemption from local planning ordinances, for purposes of full disclosure of potential Project impacts on the environment, this assessment of potential noise impacts evaluates Project compatibility with noise-related General Plan policies of the cities of Rancho Cucamonga and Fontana.



<b>Table 3.5-3 EXTERIOR NOISE LIMITS WITHIN RESIDENTIAL DISTRICTS</b>		
<b>City</b>	<b>Time</b>	<b>Maximum Allowable Noise Level (dBA)</b>
Fontana	7:00 a.m. to 10:00 p.m.	65
	10:00 p.m. to 7:00 a.m.	65
Rancho Cucamonga	7:00 a.m. to 10:00 p.m.	65*
	10:00 p.m. to 7:00 a.m.	60*

\*These exterior noise limits may be exceeded for a cumulative period of not more than 15 minutes in one hour; by 5dBA for not more than a cumulative period of 10 minutes in one hour; and by 14 dBA (but not 15 dBA or more) for a cumulative period of not more than 5 minutes in one hour.

Sources: City of Fontana Municipal Code Section 30-182.A, Rancho Cucamonga Municipal Code Section 17.66.050-1

### City of Fontana Municipal Code

The City of Fontana Municipal Code prohibits unnecessary, excessive, and annoying noises throughout the city. Performance standards for noise levels within residential districts are specified under the Municipal Code's Zoning and Development section (see **Table 3.5-3**). Specifically, it establishes a maximum allowable noise level of 65 dBA at any time of day.

Regarding vibrations, the municipal code states that no person shall create or cause to be created any activity which causes a vibration that can be felt beyond the property line of any residentially zoned property with or without the aid of an instrument.

The Municipal Code also applies to construction and repair noise. Acts that create loud, excessive, impulsive, or intrusive sound or noise that annoys or disturbs people at a distance of 50 feet or more from the edge of the property, structure, or units in which the source is located are prohibited. Although the following activities are generally prohibited, the building inspector may issue a permit granting an exemption:

- Construction activities (e.g., demolition, excavating, structural repair) occurring on weekdays outside of 7:00 a.m. to 6:00 p.m., and on Saturdays outside of 8:00 a.m. to 5:00 p.m.
- Transportation of rails, pillars or similar materials along streets and other public places that causes loud, excessive, impulsive, or intrusive noise
- Operation between the hours of 6:00 p.m. and 7:00 a.m. of any construction equipment which causes loud, excessive, impulsive or intrusive noise (e.g., pile driver, pneumatic hammer)
- Operation of any noise-creating blower, power fan, or engine other than from 7:00 a.m. and 6:00 p.m. on a weekday and 8:00 a.m. and 5:00 p.m. on a Saturday, unless the noise is equipped with a muffler device sufficient to deaden such noise

### City of Rancho Cucamonga Municipal Code

The noise standards contained in the City of Rancho Cucamonga Municipal Code establish a maximum allowable noise level at the adjacent residential property line (exterior) of 65 dBA between 7:00 a.m. and 10:00 p.m., and 60 dBA between 10:00 p.m. and 7:00 a.m. (see **Table 3.5-3**). The ordinance allows incremental increases of the exterior noise limit as follows: for a cumulative period of not more than 15 minutes in one hour; by 5 dBA for not more than a cumulative period of 10 minutes in one hour; and by 14 dBA (but not 15 dBA or more) for a cumulative period of not more than 5 minutes in one hour.

Noise sources associated with various construction activities are excluded from the noise level limits provided the following conditions apply:

1. When adjacent to residence, school, church, or similar land use, the noise generating activity must not take place between 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a national holiday, and provided noise levels created do not exceed the standard of 65 dBA when measured at the adjacent property line.
2. When adjacent to a commercial or industrial use, the noise generating activity does not take place between 10:00 p.m. and 6:00 a.m. on weekdays, including Saturday and Sunday, and provided noise levels created do not exceed the standard of 70 dBA when measured at the adjacent property line.

The code also regulates vibration sources; however, vibration from temporary construction/demolition is exempt.

### **3.5.2 Significance Thresholds**

Based on Appendix G of the State CEQA Guidelines and thresholds identified in the Initial Study/NOP prepared for the proposed Project, a significant impact would occur if the proposed Project would result in the following, identified below as Thresholds A through C:

- Threshold 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;
- Threshold B: A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; or
- Threshold C: Exposure of persons to, or generation of, excessive ground-borne vibration or ground-borne noise levels.

With regard to Threshold B, as described in **Section 3.5.3**, the city of Fontana, which encompasses most of the proposed Project area, provides for Noise Ordinance exemptions for construction activities and does not specify associated construction noise thresholds. Many southern California jurisdictions that set a noise level threshold for construction activities consider exceedance of 75 dBA  $L_{EQ}$  for a one-hour average noise level between 7:00 a.m. and 7:00 p.m. to reflect a

substantial temporary increase in ambient noise levels. This standard is consistent with findings that the community noise environment is normally unacceptable for residential sites that are exposed to noise where the average sound level exceeds 75 dBA (U.S. Department of Housing and Urban Development 1991). Therefore, this 75-dBA threshold is applied for assessing the potential significance of Project daytime noise levels as it relates to substantial temporary or periodic increases in ambient noise levels (Threshold B).

More stringent standards are typically applied to nighttime work. The City of Fontana has established a general exterior noise standard of 65 dBA; the City of Rancho Cucamonga uses a general exterior noise standard of 60 dBA from 10:00 p.m. to 7:00 a.m., and 65 dBA from 7:00 a.m. to 7:00 p.m. For the purposes of establishing a uniform significance threshold for assessing whether the Project would cause a substantial temporary or periodic increase in nighttime ambient noise levels, construction noise would be considered to result in a substantial temporary increase in ambient noise levels if the one-hour average noise level exceeds 65 dBA  $L_{EQ}$  between 7:00 p.m. and 7:00 a.m. at the boundary of any residential or noise-sensitive land use property line.

Note that the 75 dBA daytime threshold and 65 dBA nighttime threshold were specifically developed for purposes of assessing whether the proposed Project addressed in this EIR would cause a substantial temporary or periodic increase in ambient noise levels (Threshold B); the 75-dBA daytime threshold and 65-dBA nighttime threshold do not reflect adopted city ordinances or regulations within the Project area.

### **3.5.3 Impact Analysis**

#### **Exceedance of Noise Standards (Threshold A)**

As detailed in **Section 3.5.1** and shown on **Table 3.5-2**, the cities have established maximum allowable noise levels of 60 to 65 dBA, depending on the jurisdiction and the time of day. In addition, work is typically allowed only during daytime hours Monday through Saturday, although the City of Fontana's Municipal Code includes a provision that allows the building inspector to issue a permit granting an exemption from these restrictions. Project activities would include operation of some heavy equipment up to 24 hours per day and 7 days per week. In addition to exceeding the construction hours specified in the Municipal Codes, these activities would result in noise levels exceeding the maximum allowable noise levels at adjacent residences during both daytime and nighttime hours, as described below (Threshold B).

Metropolitan intends to coordinate with each of the cities to establish allowable work schedules and noise levels to allow deviation from the Municipal Code provisions for daytime and nighttime noise. These work schedules and noise levels will be agreed upon both to protect the public welfare and to accommodate necessary Project activities. Nonetheless, the Project activity hours and associated noise levels would result in the exposure of adjacent residents to noise levels in excess of established Municipal Code standards (Threshold A), and a significant impact would result.

#### **Temporary Increase in Ambient Noise (Threshold B)**

The Project would generate temporarily elevated noise levels that may disrupt nearby noise-sensitive receptors. The magnitude of the impact would depend on the type of work being



performed, the equipment used to perform or support that work, the duration of each work activity, the distance between the noise source and sensitive receptors, and any intervening structures or topography that would serve to lessen noise.

The following analysis is divided into Project activities that would utilize both standard equipment (such as trucks, cranes, excavation equipment, and generators) and specialized equipment that is uniquely required for this Project (such as abrasive blasting equipment and ventilation equipment). **Table 3.5-4, Summary of Equipment Noise Levels**, summarizes the projected noise levels associated with various Project activities.

Table 3.5-4 SUMMARY OF EQUIPMENT NOISE LEVELS			
Equipment Type	Closest Point to Sensitive Receptors		Distance to Reduce Noise to <75 dBA L <sub>EQ</sub> (feet)
	Distance (feet)	Noise Level (dBA L <sub>EQ</sub> )	
Standard Equipment	20	89	100
Rollout Locations			
Abrasive Blasting	30	85	210
Debris Removal		73	90
Pipeline Coating		78	90
Ventilation Locations			
Abrasive Blasting	30	90	210
Debris Removal		79	190
Pipeline Coating		88	190

Note: The nearest noise-sensitive receptors would be approximately 10 feet further from rollout and ventilation locations than from the standard noise equipment because standard equipment, including excavation equipment, would operate closer to the residences located to the west and northwest of the pipeline right-of-way.

### Standard Equipment Noise Levels

The following Project activities would primarily use standard equipment: site preparation in the Contractor Work and Storage areas and other potential access and work areas; excavation of pipe segments for rollouts, buried outlets, and ventilation access points; final sealing of the pipeline after relining has been completed; and backfilling excavated areas as part of site closure. As noted in **Section 2.6.2**, excavation activities would occur only during daytime hours.

Based on estimated distances of the equipment to the nearest sensitive receptors, the combined hourly average noise level from Project activities at the nearest residence is calculated to be approximately 89 dBA L<sub>EQ</sub> at a distance of 20 feet. These estimated noise levels are substantially higher than existing ambient noise levels noted in **Section 3.5.1**, which range from approximately 38 dBA L<sub>EQ</sub> (northwest of Knox Avenue) to 50 dBA L<sub>EQ</sub> (near the Etiwanda Hydroelectric Plant). Impacts would exceed the daytime threshold of 75 dBA L<sub>EQ</sub> and be potentially significant (Threshold B).

The same equipment in operation at 100 feet or greater from any noise-sensitive land use would result in noise levels less than 75 dBA  $L_{EQ}$ , based on a standard attenuation rate of 6 dBA per doubling of distance from stationary noise sources. The reduction could be more or less than 6 dBA depending on intervening structures and topography, but at a distance of 100 feet or greater from Project activities, the standard construction equipment is expected to be able to operate during normal daytime hours (that is, at noise levels less than 75 dBA  $L_{EQ}$ ) without a significant adverse noise impact (Threshold B).

### Specialty Equipment Noise Levels

The use of specialty equipment would occur primarily during the following Project activities: removal of the existing mortar lining and associated debris; abrasive blasting of the steel interior surfaces of the pipe; and application of the new polyurethane pipeline lining material. These activities would occur sequentially, and some of the equipment would be used for more than one activity. The analysis below describes estimated noise levels that would occur at rollout locations and ventilation locations, where specialty equipment primarily would be used.

### *Rollout Locations*

A detailed equipment list with associated noise levels is available in the Acoustical Site Assessment, Table 10, *Construction Activity Equipment Usage at Rollout Location*. The activity that would require the most units of equipment to be operating simultaneously would be the abrasive blasting operation. Under worst-case conditions, the noise level during abrasive blasting at a distance of 30 feet from the nearest noise-sensitive land use (generally, this would occur where residences are immediately west or northwest of the pipeline right-of-way), is calculated to be 84.9 dBA  $L_{EQ}$ . (Note that the nearest noise-sensitive receptors would be approximately 10 feet further from rollout locations than from the standard noise equipment discussed above because standard equipment, including excavation equipment, would operate closer to the residences located to the west and northwest of the pipeline right-of-way.) Noise levels during the mortar lining debris removal and pipeline coating activities would be lower (approximately 73 and 78 dBA  $L_{EQ}$ , respectively). Nevertheless, the noise level for any of the three activities – mortar lining debris removal, abrasive blasting, application of new pipeline coating – would be potentially significant at rollout locations as the noise levels for each of these activities would exceed the daytime noise threshold of 75 dBA  $L_{EQ}$  and nighttime threshold of 65 dBA  $L_{EQ}$ , at a distance of 30 feet (Threshold B).

Proximity to sensitive receptors is critical in the final analysis of the potential significance of Project noise levels. If the equipment used for the mortar lining debris removal and pipeline coating application is positioned at a distance of 90 feet or more from the nearest noise-sensitive land use, the resulting noise level may be reduced to 75 dBA  $L_{EQ}$  or lower. Accordingly, mortar lining debris removal and pipeline coating equipment placed at least 90 feet from residences would not be likely to result in a significant impact during daytime hours. Noise from mortar lining debris removal and pipeline coating equipment would still exceed the nighttime noise threshold of 65 dBA at this distance, and the impact would be considered significant (Threshold B). At rollout locations, abrasive blasting equipment (including blast-pot, blast-pot blow-off, air-filters, etc.) would need to be placed at least 210 feet from the nearest residences for noise levels to be reduced to 75 dBA  $L_{EQ}$  or lower; even at this distance, abrasive blasting

noise would exceed the 65 dBA  $L_{EQ}$  nighttime significance threshold (Threshold B). Additionally, it may not be feasible to locate the mortar lining debris and pipeline coating equipment at least 90 feet and the abrasive blasting equipment at least 210 feet from the nearest residences.

#### *Ventilation Locations*

A detailed equipment list with associated noise levels is available in the Acoustical Site Assessment, Table 11, *Construction Activity Equipment Usage at Ventilation Locations*. Abrasive blasting activities would require the most units of equipment at ventilation locations. Under worst-case conditions, the noise level during this activity at the anticipated distance of 30 feet from the equipment to the nearest noise-sensitive land use would be approximately 90 dBA  $L_{EQ}$ . Noise levels during the mortar lining debris removal and pipeline coating activities would be lower (approximately 79 and 88 dBA  $L_{EQ}$ , respectively). Nevertheless, similar to the rollout locations, the noise level for any of the three activities – mortar lining debris removal, abrasive blasting, application of pipeline coating – would be potentially significant at ventilation locations as the noise levels would exceed the daytime noise threshold of 75 dBA  $L_{EQ}$  and nighttime threshold of 65 dBA  $L_{EQ}$  (Threshold B).

If the equipment used for the mortar lining debris removal and pipeline coating operations is positioned at a distance of 190 feet or more from the nearest noise-sensitive land use, the resulting noise level may be reduced to 75 dBA or lower. Accordingly, mortar lining debris removal and pipeline coating equipment placed at least 190 feet from residences is not likely to result in a significant impact during daytime hours. Noise from mortar lining debris removal and pipeline coating equipment would still exceed the nighttime noise threshold of 65 dBA at this distance, and the impact would be considered significant (Threshold B). At ventilation locations, abrasive blasting equipment would need to be placed at least 210 feet from the nearest residences for noise levels to be reduced to 75 dBA  $L_{EQ}$  or lower; even at this distance, abrasive blasting noise would exceed the 65 dBA  $L_{EQ}$  nighttime significance threshold (Threshold B). Additionally, it may not be feasible to locate the mortar lining debris and pipeline coating equipment at least 190 feet and the abrasive blasting equipment at least 210 feet from the nearest residences.

#### **Excessive Ground-borne Vibration (Threshold C)**

Annoyance is the primary impact associated with excessive ground-borne vibration from this type of project. Project activities would not involve high-impact activities such as pile-driving and blasting. Vibration-causing activities primarily would consist of the excavation of access locations at rollouts and ventilation points, using equipment such as excavators and loaders. The Project area was previously excavated and backfilled during the original pipeline installation; therefore, blasting would not be required, and the ground is generally expected to yield easily to excavation at the rollouts and outlets.

The strongest source of potential vibration from the Project would be the use of a vibratory roller during final Project closure. The typical vibration level for this type of equipment at a distance of 25 feet is 94 vibration decibels (VdB). At a distance of 20 feet, the projected vibration level would be approximately 97 VdB. At this level, the vibratory roller would cause some annoyance



to nearby residences, but this level would not cause structural damage. The Project is not near vibration-sensitive uses (such as sensitive laboratory equipment or fragile historic structures). Furthermore, the vibratory roller is mobile and would not be a steady source of vibration at any one location for a long duration. As a result, impacts would be less than significant (Threshold C).

### **3.5.4 Mitigation Measures**

Noise control measures will be implemented for all work within 500 feet of sensitive receptors to reduce daytime and nighttime noise levels to the extent feasible. Measures may include, but will not necessarily be limited to, the following. In all cases, “daytime hours” refers to 6:00 a.m. to 6:00 p.m., and “nighttime hours” refers to 6:00 p.m. to 6:00 a.m. As noted in NOI-1, all measures are subject to feasibility of design and to coordination with the City of Rancho Cucamonga and the City of Fontana.

#### **NOI-1 Noise Control Plan**

A noise control plan will be developed in coordination with the City of Rancho Cucamonga and the City of Fontana, and will have the concurrence of the cities prior to beginning work in the Project area. The noise control plan will include but not necessarily be limited to mitigation measures NOI-2 through NOI-6, to the extent feasible to protect the interests of the public and to allow for Project completion in light of critical work schedules, necessary work methods, and the physical constraints of Metropolitan’s right-of-way and available work areas.

#### **NOI-2 Noise Monitoring**

- **NOI-2.a** – Noise monitoring will be performed to measure noise levels during work in the vicinity of sensitive receptors and to measure the effectiveness of noise control measures.
- **NOI-2.b** – Where measured noise levels at the property line of residences are shown to exceed daytime noise levels of 75 dBA  $L_{EQ}$ , or nighttime noise levels of 65 dBA  $L_{EQ}$ , new noise control measures or improvements to noise control measures already in place will be implemented in an effort to achieve those daytime and nighttime thresholds, or lower, to the extent feasible; noise monitoring will be performed to record the achieved level of noise reduction.

#### **NOI-3 General Noise Control for All Project Activities**

- **NOI-3.a** – Trucks and equipment equipped with back-up alarms will have the back-up alarms disengaged to the extent allowed by the Occupational Safety and Health Administration (OSHA); safety will be provided by lights and flagmen, and safety lighting will be directed away from residences.
- **NOI-3.b** – Areas where workers gather (e.g., break areas, shift-change areas, meeting areas) will be located a minimum of 100 feet away from any residence if feasible. Worker gathering areas that must be located within 100 feet of

residences will be equipped with minimum eight-foot high noise control barriers between the gathering area and residences; entrances will not face residences.

- **NOI-3.c** – Parking areas will be located a minimum of 150 feet from sensitive receptors. Parking areas that are within 500 feet of sensitive receptors will be posted to prohibit workers from gathering during nighttime hours, and prohibiting radios and music at any time.
- **NOI-3.d** – Equipment will be maintained to a minimum standard that includes engine noise baffles and mufflers that meet or exceed the original manufacturer's requirements.
- **NOI-3.e** – Equipment that has noise control doors will be operated only with the doors fully closed.
- **NOI-3.f** – Equipment delivery trucks will be allowed only during daytime hours, and back-up alarms will be disengaged to the extent allowed by OSHA.
- **NOI-3.g** – Fuel deliveries will occur during daytime hours and at a minimum of 500 feet from residences, to the extent feasible. Fueling stations that must be located within 500 feet of residences will have minimum eight-foot high noise control barriers, and fuel trucks that are required during nighttime hours will maintain a minimum distance of 100 feet from residences.
- **NOI-3.h** – Noise control barriers and enclosures, where used in accordance with NOI-2.b, will be fully in place prior to work at that location.
- **NOI-3.i** – Noise control barriers and enclosures, where used in accordance with NOI-2.b, will be implemented using the most appropriate material, configuration, and location to achieve the maximum feasible noise reduction.

**NOI-4     Noise Control During Site Preparation, Excavation, and Site Closure Activities**

Site preparation, excavation, and site closure activities will be allowed only during daytime hours.

**NOI-5     Noise Control During Mortar Lining Removal, Pipeline Dewatering, and New Pipeline Liner Application Activities**

Increased noise levels from these activities primarily result from pressurized air venting or leaking from equipment. The following measures would reduce the noise that results from this potential occurrence.

- **NOI-5.a** – No air line, air relief valve, air switch, air control, or any other equipment component will be allowed to vent pressurized air directly to the atmosphere. All air vent lines will go through an air silencing system that reduces air vent noise to 75 dBA  $L_{EQ}$  (1-second) or less at a distance of five feet.

- **NOI-5.b** – When air leaks are detected in a piece of equipment, the air source will be turned off, the air line will be depressurized, and the leak will be repaired prior to resuming use of the equipment.

**NOI-6     Noise Control at Rollout and Ventilation Locations**

- **NOI-6.a** – The use of mobile equipment during nighttime hours will be limited to the following types – (a) skid-steer or rubber-tracked excavator; (b) tire-mounted, medium-sized mobile crane; (c) two-axle delivery truck; (d) water truck; (e) pick-up truck.
- **NOI-6.b** – All generators, air compressors, ventilation equipment, vacuum pumps, and air-vent silencing systems will be placed on the east side of the pipeline or east of rollout and ventilation locations, whichever distance and/or location will achieve maximum feasible noise reduction at nearby residences.
- **NOI-6.c** – All generators, air compressors, ventilation equipment, vacuum pumps, and air-vent silencer systems will be used behind noise control barriers or within noise control enclosures as necessary to prevent noise at sensitive receptors from exceeding 75 dBA  $L_{EQ}$  to the extent feasible. Enclosure entrances will face away from residences. Equipment entrances will be for daytime use only; worker entrances will be for daytime and nighttime use but will be kept fully closed when not in use.

**3.5.5     Conclusions**

Project activities would temporarily increase noise at noise-sensitive land uses in the Project area. The mitigation measures specified above would decrease the noise impacts to the extent feasible. However, the resulting noise levels even with mitigation are expected to exceed significance Thresholds A and B at some locations during some periods of Project activity. Resulting impacts would, therefore, be significant and unmitigable.

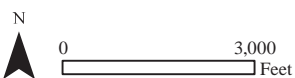




## Ambient Noise Measurements

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.5-1





### 3.6 TRANSPORTATION AND TRAFFIC

This section is based on the information and analysis presented in the Etiwanda Pipeline North Relining Project Traffic Impact Analysis dated October 22, 2014 (Urban Crossroads 2014b). The Traffic Impact Analysis is included in its entirety as **Appendix F** of this EIR.

Potential impacts to traffic and circulation from Project-related activities were assessed by Urban Crossroads. The study compared the anticipated traffic from the Project to the traffic capacity and operating conditions of the local street system. Intersection traffic counts during peak travel periods were conducted as part of the Traffic Impact Analysis in August 2013 and August 2014 to determine existing operating conditions.

To determine whether the proposed Project would cause a substantial increase in traffic in relation to the existing traffic load and capacity of the street system in the traffic study area, the traffic report analyzed trip generation associated with the proposed Project. As discussed in **Chapter 2, Project Description**, the numbers of workers and vehicles required would vary throughout Project-related activities. The trip volumes used for the traffic impact analysis were estimated in consideration of the proposed Project activities and were based on the pilot phase (Phase 1) relining activities to the south of the Project, as well as Metropolitan's extensive experience with other, similar pipeline projects. Project design and implementation are dependent on contractor requirements and allowable shut-down periods based on water supplies. Accordingly, many of the assumptions used for personnel and vehicles represent worst-case scenarios in the analysis of potential impacts. The types, quantities, and use of equipment and personnel might vary somewhat to allow flexibility in implementation, but impacts and conclusions are considered to represent worst-case intensity of activity.

The projected trip generation at each intersection was then added to the projected future intersection volumes to determine Levels of Service (LOS) and evaluate the Project's effect on the operation of intersections relative to local agency and Congestion Management Program criteria.

#### 3.6.1 Existing Conditions

##### **Traffic Fundamentals**

LOS is the term used to denote the different operating conditions that occur on a given roadway segment or intersection under various traffic volumes. LOS is a qualitative measure used to describe a quantitative analysis, taking into account factors such as the geometry of roadways and intersections, the phasing of signal lights, vehicle speed, travel delay, freedom to maneuver on roadways and through intersections, and safety. LOS provides an index to the operational qualities of a roadway segment or an intersection. LOS designations range from A through F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS designation is calculated differently for signalized and unsignalized intersections due to different traffic patterns of vehicles moving through the intersections.

For signalized intersections, LOS criteria are stated in terms of *average* control delay per vehicle for a 15-minute analysis period. Control delay includes the initial delay of decelerating when

approaching the intersection, the delay of being stopped at the intersection, the time to move up in the vehicle queue, and the delay of accelerating through the intersection.

For unsignalized intersections, LOS criteria are stated in terms of *weighted-average* control delay per vehicle for a 15-minute analysis period. For all-way stop-controlled intersections, LOS is calculated for the intersection as a whole. For intersections where vehicular movement is controlled by stop signs in two directions (e.g., at side streets), LOS is calculated for the intersection as a whole, as well as for each movement that is subject to a stop sign and for the left turn movement from the major street. For a single-lane approach to the intersection, LOS is calculated as the average of all movements in that lane.

Each jurisdiction has adopted standards (which can also vary by intersection, as described below) of what LOS is considered acceptable. Although the Project is exempt from local zoning and building ordinances pursuant to California Government Code Section 53091, traffic conditions with the Project are compared to these adopted local government standards for the purposes of full disclosure of potential impacts.

### **Existing Street Network**

The traffic study area includes the key roadways and intersections in the vicinity of the proposed Project which are anticipated to carry Project-related traffic. The existing roadways and intersections within the traffic study area are illustrated in **Figure 3.6-1, Traffic Study Area**, and are described in detail in Chapter 3 of the Traffic Impact Analysis (**Appendix F**). Roadway segments range from two-lane undivided residential roadways to six-lane roadways with raised medians.

### **Truck Routes**

The cities of Fontana and Rancho Cucamonga designate truck routes in Section 17.428 and Section 10.56 of their municipal codes, respectively. Designated truck routes within the traffic study area include Foothill Boulevard, Baseline Avenue, Etiwanda Avenue (south of Foothill Boulevard), and Cherry Avenue (south of Citrus Avenue).

### **Existing Traffic Volumes and Levels of Service**

Peak travel periods occur on weekdays from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. **Table 3.6-1, Actual Intersection Operations under Existing (2014) Conditions**, lists the peak-period delay and LOS of intersections in the traffic study area based on actual traffic counts. As shown, all of the intersections are currently operating at an LOS during the peak hours that is considered acceptable by the applicable local jurisdiction, with the following exceptions:

- Heritage Circle at Baseline Avenue
- Heritage Circle at Liberty Parkway



**Table 3.6-1**  
**ACTUAL INTERSECTION OPERATIONS UNDER EXISTING (2014) CONDITIONS**

Intersection	Traffic Control <sup>1</sup>	Delay (seconds) <sup>2</sup>		Acceptable LOS Level <sup>3</sup>	LOS <sup>4</sup>	
		AM Peak Hour	PM Peak Hour		AM Peak Hour	PM Peak Hour
Etiwanda Avenue / Foothill Boulevard	S	33.3	34.5	E	C	C
East Avenue / Foothill Boulevard	S	21.5	13.7	D	C	B
East Avenue / Miller Avenue	U	17.9	15.1	D	C	C
Heritage Circle / Baseline Avenue	S	43.6	23.8	C	<b>D</b>	C
Heritage Circle / Liberty Parkway	U	34.6	9.0	C	<b>D</b>	A
E. Heritage Circle / Baseline Avenue	S	27.0	18.3	C	C	B
Cherry Avenue / Highland Avenue	U	35.6	37.8	E	E <sup>5</sup>	E <sup>5</sup>
San Sevaine Road / Frontage Road	U	9.7	8.9	C	A	A
Beech Avenue / Frontage Road	S	14.0	15.2	C	B	B
Beech Avenue / Summit Avenue	S	21.9	25.4	C	C	C
Lytle Creek Road / Summit Avenue	S	15.6	12.5	C	B	B

<sup>1</sup> U = unsignalized (with all-way stop); S = signalized.

<sup>2</sup> Average seconds of delay during the peak hour.

<sup>3</sup> Acceptable LOS levels for each intersection are based on local agency criteria; refer to Table 3.6-2.

<sup>4</sup> Bold and shaded LOS values indicate an unacceptable LOS per local jurisdiction guidelines; refer to corresponding intersection LOS standards in Table 3.6-2.

<sup>5</sup> LOS E is acceptable at this intersection per Fontana/CMP standards.

Source: Urban Crossroads 2014b.

## Regulatory Framework

### San Bernardino County Congestion Management Program

SANBAG, which serves as the County Congestion Management Agency, adopted a Congestion Management Program for the County and associated cities (including the cities of Fontana and Rancho Cucamonga) in 1992, with the Congestion Management Program updated through 2011 and a current update pending. The County Congestion Management Program is intended to maintain or enhance the performance of the multimodal transportation system, and minimize travel delays. It defines a network of state highways and arterials, associated LOS standards (acceptable LOS for Congestion Management Program intersections is LOS E or better) and procedures, and a process for mitigation of impacts to the transportation network for new development. The traffic study area includes two intersections subject to the standards in the Congestion Management Program.

### City of Fontana General Plan

The approximately 4.4-mile portion of the Project east of East Avenue is within the city of Fontana. The City of Fontana General Plan Circulation Element identifies LOS C or better as the adopted standard. At intersections where LOS C improvements are not considered to be feasible, LOS D is typically considered the worst acceptable level in urbanized areas of the city. At intersections that already have unacceptable LOS, the City of Fontana also considers the

addition of 50 or more peak hour trips to be a significant impact to that intersection. Circulation goals and policies that are applicable to the proposed Project are as follows:

Goal CE-1: A balanced transportation system for Fontana is provided that meets the mobility needs of current and future residents and ensures the safe and efficient movements of vehicles, people and goods throughout the City.

- Policy CE-1.12: All streets and intersections designed after the adoption of the General Plan will be planned to function at LOS C or better, wherever possible. Improvements to existing streets will be designed to LOS C standards whenever feasible.

Goal CE-3: A circulation system is provided that reduces conflicts between commercial trucking, private/public transportation and land uses.

- Policy CE-3.1: Provide designated truck routes for use by commercial trucking that minimize impacts on local traffic and neighborhoods.
- Policy CE-3.2: Provide appropriately designed roadways for the designated truck routes including designated truck routes for large STAA trucks that can safely accommodate truck travel [an “STAA truck” is a large truck allowed to operate on National Network routes pursuant to the Surface Transportation Assistance Act of 1982].
- Policy CE-3.4: Encourage the development of adequate on-site loading areas to minimize interference of truck loading activities with efficient traffic circulation on adjacent roadways.

#### City of Rancho Cucamonga General Plan

The approximately 0.4-mile portion of the Project west of East Avenue and north of Foothill Boulevard is within the city of Rancho Cucamonga. The City of Rancho Cucamonga General Plan Community Mobility Element identifies LOS D or better as the adopted standard. Community Mobility goals and policies that are applicable to the proposed Project are as follows:

Goal CM-4: Maximize the operational efficiency of the street system.

- Policy CM-4.1: Continue to implement traffic management and traffic signal operation measures along the arterial roadway to minimize delay and congestion for all modes, without adversely impacting transit, bicycles, and pedestrians.
- Policy CM-4.2: Continue to design and operate arterials and intersections for the safe operation of all modes of transportation, including transit, bicyclists, and pedestrians.

Goal CM-7: Maintain an efficient and safe network of goods and freight movement that supports the needs of the business community.

- Policy CM-7.1: Continue to maintain a truck circulation system that defines truck routes, directs the movement of trucks safely along major roadways, and minimizes truck travel on local and collector streets.

### **3.6.2 Significance Thresholds**

Based on Appendix G of the State CEQA Guidelines and thresholds identified in the Initial Study/NOP prepared for the proposed Project, a significant impact would occur if the proposed Project would do the following, identified below as Thresholds A and B:

- Threshold 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; or
- Threshold B: Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards, established by the county congestion management agency for designated roads or highways.

As noted in the Regulatory Framework, each of the applicable surrounding jurisdictions has its own traffic standards. The standards of the applicable local jurisdictions are used to assist in determining significance associated with the significance thresholds above. Some CEQA thresholds require multiple thresholds to determine impacts (e.g., both intersection LOS operations [A1] and number of Project trips contributed [A2] are considered to determine significance with respect to CEQA Threshold A). Threshold A1/B1 also applies to the determination of significance under CEQA Threshold B. As such, a significant impact would occur if the proposed Project would:

- Threshold A1/B1: Cause the addition of project-generated trips resulting in the peak hour LOS of the study intersection to change from acceptable operation to deficient operation (refer to **Table 3.6-2, Acceptable LOS Levels for the Traffic Study Intersections**, which outlines the LOS levels considered acceptable for each intersection by the applicable local jurisdiction); or
- Threshold A2: Contribute 50 or more peak hour trips to an intersection that is currently operating at unacceptable LOS.



<b>Table 3.6-2</b> <b>ACCEPTABLE LOS LEVELS FOR THE TRAFFIC STUDY INTERSECTIONS</b>		
<b>Intersection</b>	<b>LOS Criteria</b>	<b>Jurisdiction</b>
Etiwanda Avenue / Foothill Boulevard	E	Rancho Cucamonga / CMP <sup>1</sup>
East Avenue / Foothill Boulevard	D	Rancho Cucamonga / Fontana
East Avenue / Miller Avenue	D	Rancho Cucamonga / Fontana
Heritage Circle / Baseline Avenue	C	Fontana
Heritage Circle / Liberty Parkway	C	Fontana
E. Heritage Circle / Baseline Avenue	C	Fontana
Cherry Avenue / Highland Avenue	E	Fontana / CMP
San Sevaine Road / Frontage Road	C	Fontana
Beech Avenue / Frontage Road	C	Fontana
Beech Avenue / Summit Avenue	C	Fontana
Lytle Creek Road / Summit Avenue	C	Fontana

<sup>1</sup> CMP = Congestion Management Program.  
 Source: Urban Crossroads 2014b.

### 3.6.3 Impact Analysis

#### Circulation System Performance (Threshold A)

##### Trip Generation

The Project is assumed to require 320 workers per day, based on two work shifts during the most active periods of the Project (160 workers per shift). The number of trucks assumed to access the site per day includes 8 dump trucks, 12 semi-trucks with trailers, 4 water trucks, and 48 half-ton pick-up trucks.

Because large trucks affect traffic flow more than passenger vehicles, rather than counting trucks as single vehicles, truck trips are converted to a “passenger car equivalent” (PCE).

As shown in **Table 3.6-3, Project Trip Generation**, with the assumptions above, the Project would generate a total of approximately 1,000 trips per day (using PCE for trucks) with approximately 96 a.m. peak hour trips (7:00 to 9:00 a.m.) and 90 p.m. peak hour trips (4:00 to 6:00 p.m.). Peak hours represent the daily time periods with the highest traffic volumes and provide a conservative evaluation of Project trips in relation to intersection/roadway capacity.

**Table 3.6-3  
 PROJECT TRIP GENERATION**

Trip Type	Quantity	AM Peak Hour Trips			PM Peak Hour Trips			Daily
		In	Out	Total	In	Out	Total	
Dump Truck	8	1	1	2	1	1	2	16
<b>Dump Truck PCE<sup>1</sup> (2.0)</b>		<b>2</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>32</b>
Semi-Truck with Trailer	12	1	1	2	1	1	2	24
<b>Semi-Truck with Trailer PCE<sup>1</sup> (3.0)</b>		<b>3</b>	<b>3</b>	<b>6</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>72</b>
Water Truck	4	2	1	3	2	1	3	32
<b>Water Truck PCE<sup>1</sup> (2.0)</b>		<b>4</b>	<b>2</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>6</b>	<b>64</b>
½ Ton Pick-Up Truck	48	8	8	16	8	8	16	192
<b>½ Ton Pick-Up Truck PCE<sup>1</sup> (1.0)</b>		<b>8</b>	<b>8</b>	<b>16</b>	<b>8</b>	<b>8</b>	<b>16</b>	<b>192</b>
Subtotal Truck Trips		12	11	23	12	11	23	264
<b>Subtotal Truck Trips (PCE)</b>		<b>17</b>	<b>15</b>	<b>32</b>	<b>17</b>	<b>15</b>	<b>32</b>	<b>360</b>
Employees <sup>2</sup>	320	46	18	64	26	32	58	640
<b>PROJECT TOTAL TRIPS</b>		<b>63</b>	<b>33</b>	<b>96</b>	<b>43</b>	<b>47</b>	<b>90</b>	<b>1,000</b>

Notes:

<sup>1</sup> Passenger car equivalent (PCE) factors: dump trucks and water trucks = 2.0; semi-truck = 3.0; 1/2 ton pick-up truck = 1.0

<sup>2</sup> Daily quantities assume two auto trips per employee (one inbound / one outbound).

Source: Urban Crossroads 2014b.

### Trip Distribution

Because access routes have not been specified for the Project, the potential interaction between Project activities and surrounding regional access routes was considered in identifying the routes where Project traffic would be anticipated to travel. The trip distribution pattern is heavily influenced by the geographical location of Project activities, the location of surrounding uses, and the proximity to the regional freeway system. I-15 and SR 210 are anticipated to provide the primary regional access for truck and employee trips to the Project area. Existing dirt roads at or near individual work locations would be utilized for access within the Project area.

### Other Changes in Traffic Volumes

As growth occurs in a region, the number of vehicle trips tends to increase over time. To account for the anticipated increase in the number of vehicles unrelated to the Project on area roadways, future traffic volumes have been calculated based on the interpolation of growth between 2014 and 2035 from other traffic studies near the Project traffic study area. The annual growth rate was then used to calculate peak hour volumes for each intersection in the traffic study area for the duration of the Project (2015 to approximately 2017).

### Traffic Volumes With Project

Although all Project phases are estimated to generate the same number of trips, the actual destination of traffic would vary throughout the various Project activities, depending on the specific location of work at a given time. The traffic study area was divided into three separate work locations for the purposes of traffic impact analysis, with the greatest potential overlap being six trips. **Table 3.6-4, Traffic Volumes With Project**, assumes growth that would be

expected to occur regardless of the Project, as well as Project-related trips. Based on the anticipated number of trips, the table illustrates the projected traffic conditions for each intersection within the traffic study area, identifies those intersections that would operate at unacceptable LOS during peak hours, and identifies the number of associated Project trips. As shown, the only intersections anticipated to operate at unacceptable peak hour LOS with Project activities are the two intersections that were previously identified as operating at unacceptable LOS under existing conditions:

- Heritage Circle at Baseline Avenue – LOS D in the a.m. peak hour
- Heritage Circle at Liberty Parkway – LOS E in the a.m. peak hour

With regard to Threshold A1, the Project would not change the LOS of intersections in the traffic study area from acceptable LOS to unacceptable LOS. The intersection of Heritage Circle with Liberty Parkway would deteriorate from LOS D under existing conditions to LOS E in the future with ambient growth and Project-generated traffic. As this intersection is already operating at unacceptable levels, however, this is not considered a significant impact pursuant to Threshold A1.

**Table 3.6-4**  
**TRAFFIC VOLUMES WITH PROJECT**

Intersection	Delay (seconds) <sup>1</sup>		LOS <sup>2</sup>			Project-generated Traffic Volume <sup>3</sup>	
	AM	PM	Criterion	AM	PM	AM	PM
Etiwanda Avenue / Foothill Boulevard	38.8	41.6	E	D	D	78	73
East Avenue / Foothill Boulevard	25.3	14.5	D	C	B	76	65
East Avenue / Miller Avenue	20.9	17.1	D	C	C	6	6
Heritage Circle / Baseline Avenue	49.9	25.1	C	<b>D</b>	C	<b>72</b>	67
Heritage Circle / Liberty Parkway	40.8	9.3	C	<b>E</b>	A	22	15
E. Heritage Circle / Baseline Avenue	29.1	19.3	C	C	B	42	43
Cherry Avenue / Highland Avenue	40.3	49.9	E	E	E	24	22
San Sevaine Road / Frontage Road	10.4	9.2	C	B	A	13	11
Beech Avenue / Frontage Road	14.6	16.6	C	B	B	15	13
Beech Avenue / Summit Avenue	23.0	29.6	C	C	C	57	54
Lytle Creek Road / Summit Avenue	15.9	13.1	C	B	B	36	35

Notes:

<sup>1</sup> Average seconds of delay during the peak hour.

<sup>2</sup> Bold and shaded LOS values indicate an unacceptable LOS per local jurisdiction guidelines; refer to corresponding intersection LOS standards in Table 3.6-2.

<sup>3</sup> Bold and shaded Project traffic volumes indicate significant impact related to contribution of 50 or more peak hour trips to an intersection currently operating at unacceptable LOS.

Source: Urban Crossroads 2014b.

With regard to Threshold A2, the Project would contribute 72 vehicle trips (PCE) during a.m. peak hours at one deficient intersection, Heritage Circle at Baseline Avenue. This impact is considered significant based on the City of Fontana's significance criterion of 50 or more Project-related peak hour vehicle trips at intersections currently operating at unacceptable LOS. No other deficient intersections would experience 50 or more Project-related peak hour vehicle trips. Project-related vehicle trips would cease once Project activities are completed and impacts



would be temporary; therefore, only temporary modifications to Project-related traffic would be required, as discussed in Section 3.6.4, to mitigate this impact.

### **Congestion Management Program Conformance (Threshold B)**

With regard to Threshold B, the temporary increase in traffic due to Project-related vehicle trips would not change the LOS of traffic study area intersections within the Congestion Management Program from acceptable LOS to unacceptable LOS. Additionally, because Project-related traffic would be temporary, the Project would not conflict with other provisions of the Congestion Management Program. Therefore, the temporary increase in vehicle trips due to the proposed Project would result in a less than significant impact and no mitigation is required.

#### **3.6.4 Mitigation Measures**

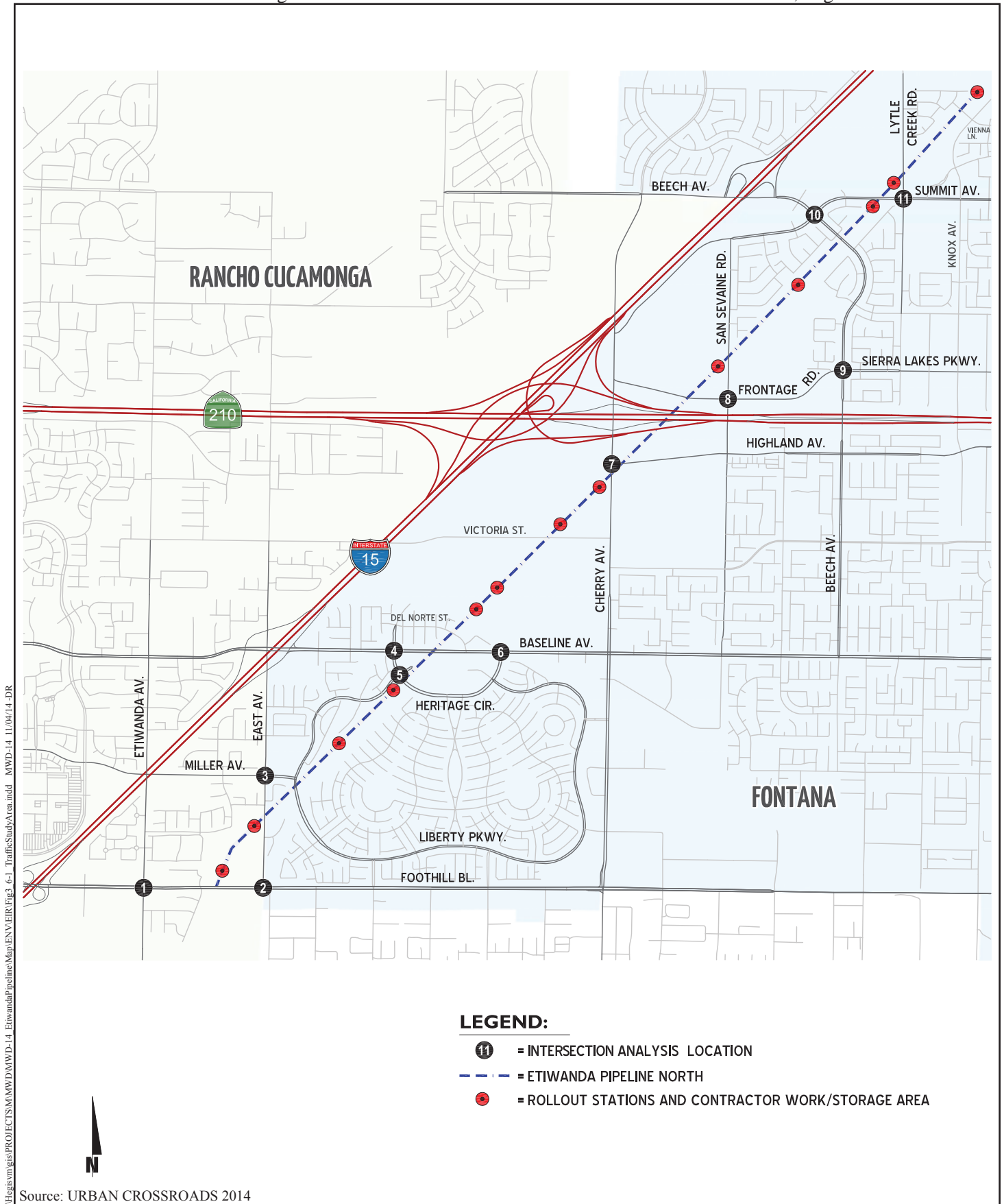
The following mitigation measure has been identified to reduce transportation and traffic impacts associated with the proposed Project.

- TR-1** No more than 50 vehicle trips related to Project activities will utilize the intersection of Heritage Circle at Baseline Avenue during morning peak hours, between 7:00 a.m. and 9:00 a.m. This may be accomplished through a combination of shift scheduling, carpool incentives, and/or verification of employee and truck routes.

#### **3.6.5 Conclusions**

The proposed Project would contribute more than 50 peak hour trips to one intersection operating at a deficient LOS under existing conditions: Heritage Circle at Baseline Avenue. This impact would be reduced to less than significant levels through implementation of the mitigation measure addressed above. Based on the anticipated Project traffic distribution in relation to roadway capacity, routing the required proportion of traffic to alternate intersections would not result in significant impacts at other locations.

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## Traffic Study Area

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.6-1



## Chapter 4.0

# CUMULATIVE IMPACT ANALYSIS

## 4.0 CUMULATIVE IMPACT ANALYSIS

### 4.1 INTRODUCTION

The State CEQA Guidelines define cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (State CEQA Guidelines Section 15355). According to State CEQA Guidelines Section 15130, an EIR shall discuss cumulative impacts of a project when the project’s incremental effect is cumulatively significant. A cumulative impact analysis must include either: (1) a list of past, present, and reasonably anticipated future projects; or (2) a summary of projections contained in adopted plans designed to evaluate regional or area-wide conditions.

A cumulative impact analysis considers the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial, impacts taking place over a period of time. The cumulative impact analysis presented in this chapter addresses all of the resource issues evaluated in this EIR, which were included in the EIR because they were determined in the Initial Study to have the potential for adverse impacts as a result of the Project.

### 4.2 CUMULATIVE IMPACT ANALYSIS METHODS

To determine resources with the potential for cumulative impacts, this analysis evaluated impacts of the Project when combined with impacts from past, current, and reasonably anticipated future projects. A list of cumulative projects located within two miles of the Project was compiled with the cooperation of the cities of Fontana and Rancho Cucamonga, as well as from information contained in the EIR for SCE’s adjacent Falcon Ridge Substation Project. The locations of these projects are illustrated on **Figure 4-1, Cumulative Projects**, and their key characteristics are presented in **Table 4-1, Cumulative Projects**.

Table 4-1 CUMULATIVE PROJECTS					
Map No.	Project No.	Name	Location	Description	Status
<b>City of Fontana</b>					
1	MCN 12-47 ASP 12-031 TPM 12-09 VAR 12-02	Farmer Boys Retail Center	14505 Foothill Boulevard	Retail center of approximately 21,800 sf	Pending approval
2	CUP 14-003 CUP 14-004 MCN 14-010	Buscados Restaurant	14765 Foothill Boulevard	New restaurant; New CUP for entertainment	Pending approval

**Table 4-1 (cont.)  
 CUMULATIVE PROJECTS**

<b>Map No.</b>	<b>Project No.</b>	<b>Name</b>	<b>Location</b>	<b>Description</b>	<b>Status</b>
<b>City of Fontana (cont.)</b>					
3	MCN 13-029 TTM 13-04 GPA 13-003 ZCA 13-005 TTM 18881	N/A	15205 Center Avenue	Subdivide 19.4 acres into 105 single-family lots	Approved October 2014
4	CUP 14-032 MCN 14-078 PAM 14-0128	N/A	15544 Joliet Court	Large family day care	Pending approval
5	DRP 13-03 MCN 13-033 PAM 13-090	Citrus Height	15581 Brewer Lane	Construct 12 homes	Pending approval
6	DRP 13-014 DRP 13-015 MCN 13-071 TTM 18244 TTM 18245	N/A	15902 Baseline Avenue	85 single-family detached units in TTM#18244 and 120 attached multi-family units in 20 buildings in TTM#18245	Approved March 2014
7	MCN 12-55 ASP 12-037 CUP 12-032 LLA 12-006 TPM 13-0010 GPA 14-07 ZCA 14-08	N/A	16019 Summit Avenue	Construction of two reservoirs, new booster building, and water storage	Pending approval
8	MCN 14-082 ZCA 14-013 GPA 14-010 TPM 14-015 MUP 14-09	N/A	16177 Baseline Avenue	Construction of two Fontana Water Co. water reservoirs	Pending approval
9	DRP 14-018 MCN 14-049 TPM 14-011	Kia Dealership	16273 Highland Avenue	Construction of a new 25,433 sf car dealership	Pending approval
10	MCN 14-70 ASP 14-032 PAM 14-0100	Sierra Lakes Professional Park Pad B	16391 Sierra Lakes Parkway	6,005 sf retail shops building	Pending approval
11	MCN 14-69 ASP 14-031 PAM 14-099	Sierra Lakes Marketplace Pad G	16595 Sierra Lakes Parkway	6,178 sf retail shops building with drive thru lane	Pending approval
12	DRP 12-017 MCN 12-050 SPA 12-02 CUP 12-027	N/A	16733 South Highland Avenue	Proposed amendment to current specific plan to allow construction of Wal-Mart store, restaurant, retail space, and gas station	Pending approval



**Table 4-1 (cont.)  
 CUMULATIVE PROJECTS**

<b>Map No.</b>	<b>Project No.</b>	<b>Name</b>	<b>Location</b>	<b>Description</b>	<b>Status</b>
<b>City of Fontana (cont.)</b>					
13	DRP 12-02 PLN 11-052 TTM 11-004 TTM 18825	N/A	5655 Citrus Avenue	Proposed subdivision of 154 single-family detached residences for Tract #18825	Approved July 2012
14	GPA 14-009 MCN 14-062 TTM 14-007 ZCA 14-010 PAM 13-0150	N/A	5924 Citrus Avenue	Proposed subdivision of 105 residential lots	Pending approval
15	CUP 12-019 DRP 12-012 MCN 12-0031 GPA 14-004 GPA 14-005 ZCA 14-005 ZCA 14-006 CUP 14-019 DRP 14-013 PAM 14-040	N/A	5975 Sierra Avenue	New church and 8 buildings on 40 acres	Pending approval
16	MCN 14-028 TTM 14-002 PAM 14-017	N/A	6207 Knox Avenue	5 lot subdivision	Pending approval
17	MCN 13-023 TPM 13-004 PAM 13-0016	N/A	6908 Oleander Avenue	TPM to subdivide one existing one parcel into four residential parcels	Approved April 2014
18	DRP 13-005 DRP 13-006 MCN 13-044 TTM 13-006 PAM 13-074	N/A	7041 Citrus Avenue	Subdivision of one 5-acre parcel into 18 lots and construct 18 single-family residences	Approved October 2013
19	CUP 13-20 DRP 13-11 SPA 13-03 MCN 12-063	N/A	7625 East Avenue	Construction of 3,000-seat sanctuary and parking structure for Water of Life	Approved January 2014
20	DRP 12-010 MCN 12-023 DRP 13-0017 TT 17885 TT 18676-1 TT 18676	N/A	7816 Lime Avenue	Construct 332 single-family homes	Approved March 2014
21	MCN 12-29 ASP 12-0021 TPM 12-007	DMV	8026 Hemlock Avenue	Proposed construction of two new buildings of 22,189 sf and 2,500 sf	Approved October 2012

**Table 4-1 (cont.)  
 CUMULATIVE PROJECTS**

<b>Map No.</b>	<b>Project No.</b>	<b>Name</b>	<b>Location</b>	<b>Description</b>	<b>Status</b>
<b>City of Fontana (cont.)</b>					
22	MUP 14-06 MCN 13-070	N/A	8143 Banana Avenue	Construction of a 8,931 sf fire station on 1.83 acres	Approved July 2014
23	N/A	Fontana Auto Center	Along the south side of SR 210 between Sierra Avenue and Citrus Avenue	A multi-acre development area zoned specifically for automotive sales, accommodating up to 12 dealerships	Three dealerships have completed construction; one dealership is in the development process with anticipated completion in Spring of 2015
24	N/A	Shady Trails	Near the southwest corner of Casa Grande Drive and Citrus Avenue	174 single-family homes on 37.5 gross acres, which will include various amenities such as a recreation room, a pool, spa, tot lot, large sun deck, a basketball half court, and an open lawn area	Approved October 19, 2010
25	N/A	I-15 / Duncan Canyon Road Interchange	At the I-15 / Duncan Canyon Road Interchange	The existing two-lane overpass will be widened to a six-lane interchange and will include on and off ramps connecting to I-15	Construction began in 2012 and is not complete
26	SPL 04-006	Arboretum Specific Plan	Approximately 0.5 mile north of Summit Avenue, west of Sierra Avenue, east of Citrus Avenue, and south of Duncan Canyon Road	A master-planned community on 531.3 acres to contain the following: maximum of 3,526 residential units, a public arboretum, a public park, private parks, three elementary schools, and an activity center	Approved September 23, 2009; construction has not begun

**Table 4-1 (cont.)  
 CUMULATIVE PROJECTS**

<b>Map No.</b>	<b>Project No.</b>	<b>Name</b>	<b>Location</b>	<b>Description</b>	<b>Status</b>
<b>City of Fontana (cont.)</b>					
27	SPL 07-001 DRP 07-010 TTM 07-009 PLN 07-008	Citrus Heights North Specific Plan	Bordered on the south by Summit Avenue, on the east by Citrus Avenue, and on the west by Lytle Creek Road	Approximately 212 acres with a maximum of 1,154 residential dwelling units, a community sport center, an area for private recreation use, and a commercial site	Approved August 14, 2004; approximately 350 single-family residential units have been built, and approximately 114 attached condominium units have been completed
28	SPL 10-001 AGR 10-003	Summit at Rosena Specific Plan	Southeast of I-15 within the northwest quadrant of the interception of Summit Avenue and Sierra Avenue	Approximately 179.8 acres to include 856 dwelling units, a mixed-use activity center featuring both attached dwellings and neighborhood retail and service uses, an elementary school, and open space areas providing both passive and active recreational uses	Approved by the City Council on March 22, 2006; no development has occurred
29	AMD 06-010 ZCH 06-007 TT 06-010 PLN 06-008	Ventana at Duncan Canyon Specific Plan	Bounded by I-15 on the north and west, Citrus Avenue on the east, and the SCE power line transmission corridor on the south	Mixed-use community with a maximum of 842 residential units, retail commercial space, office / business park space, restaurant space, and hotel space	Approved by City Council on April 10, 2007; no development has occurred



<b>Table 4-1 (cont.) CUMULATIVE PROJECTS</b>					
<b>Map No.</b>	<b>Project No.</b>	<b>Name</b>	<b>Location</b>	<b>Description</b>	<b>Status</b>
<b>City of Rancho Cucamonga</b>					
30	AMD 09-001 PLN 09-006 ZCH 09-001 SPL 09-001	West Gate Specific Plan	North of Baseline Avenue, south and west of Lytle Creek Road with the major portion west of San Sevaire Road and Highland Avenue	Approximately 964 acres to include a maximum of 5,554 residential units, commercial retail, business park/public facilities, public parks, private parks, and two schools	Currently being processed for a total revision of the permitted land uses; no development has occurred
31	DRC 2013-00642	N/A	APN: 1100-201-05	Proposed parking above the Metropolitan easement	Idle since 2013
<b>Southern California Edison</b>					
32	CPUC 10-12-017	Falcon Ridge Substation Project	South of Casa Grande Avenue, east of Sierra Avenue, north of Summit Avenue, and adjacent to SCE's existing transmission right-of-way in Fontana	66/12 kilovolt unattended, automated, 56 megavoltampere low-profile substation with two sub-transmission source lines and new telecommunications infrastructure work (overhead and underground) to connect the proposed substation to nearby substations	Approved May 2014; Expected Completion 2017

Sources: City of Fontana 2014a and 2014b; City of Rancho Cucamonga 2014; SCE 2012

Acronyms/abbreviations:

A = Application	DRP = Design Review Permit	SPA = Specific Plan Amendment
AGR = Development Agreement	GPA = General Plan Amendment	SPL = Specific Plan
AMD = Municipal Code Amendment	LLA = Lot Line Adjustment	TT = Tentative Tract
APN = Assessor Parcel Number	MCN = Master Case Number	TTM = Tentative Tract Map
ASP = Site Permit	MUP = Municipal Use Permit	TPM = Tentative Parcel Map
CPUC = California Public Utilities Commission	N/A = not applicable	VAR = Variance
CUP = Conditional Use Permit	PAM = Pre-Application Meeting	ZCA = Zone Change Amendment
DRC = Design Review Committee	PLN = Planning Review	ZCH = Zone Change
	sf = square feet	

## 4.3 CUMULATIVE IMPACT ANALYSIS

### 4.3.1 Air Quality

The proposed Project, in conjunction with other projects in the area, would have the potential to produce a cumulative increase in criteria pollutant emissions. The regional and local daily emissions thresholds established by SCAQMD have been developed specifically to address cumulative impacts to air quality. Even with implementation of the mitigation measures presented in **Section 3.1.4**, the Project would exceed the SCAQMD thresholds for regional

emissions of VOC, CO, and NO<sub>x</sub>. Therefore, the Project would contribute significantly to the cumulative impact to regional emissions.

With respect to local impacts, cumulative particulate impacts are considered when projects may be within a few hundred yards of each other. As identified in **Table 4-1** and **Figure 4-1**, several projects have been identified within this proximity to the Project, including a water reservoir and booster station, church and associated parking, three private development projects, and the Falcon Ridge Substation Project. The Falcon Ridge Substation Project is anticipated to be under construction concurrently with the Etiwanda Pipeline North Relining Project. The construction schedule for the other projects is unknown and, although it is unlikely that they would all be under construction at the same time as the proposed Project, they are conservatively assumed to overlap for the purposes of this analysis. As shown in **Table 3.1-6**, implementation of the mitigation measures AIR-1 and AIR-2 would reduce local emissions of CO, NO<sub>x</sub>, and PM<sub>10</sub> to below the SCAQMD thresholds. Because these thresholds have been developed for the specific purpose of addressing cumulative impacts, the Project would not contribute significantly to cumulative impacts regarding local emissions of CO, NO<sub>x</sub>, and PM<sub>10</sub>. Even with implementation of mitigation measures, the proposed Project would result in local emissions of PM<sub>2.5</sub> that exceed the SCAQMD significance thresholds. Therefore, the Project would contribute significantly to the cumulative local emissions impact.

In summary, the Project would contribute significantly to cumulative impacts to regional and local air pollutant emissions.

#### **4.3.2 Biological Resources**

Portions of the cumulative project area support, or previously supported, habitat types such as Riversidean sage scrub and Riversidean alluvial fan sage scrub, which may provide habitat for species such as San Bernardino kangaroo rat, San Diego pocket mouse, and Los Angeles pocket mouse. The extensive development that has occurred in the region has resulted in a loss of substantial amounts of these habitats and associated species, which has resulted in them being considered sensitive by the applicable resource agencies. The cumulative regional loss of sensitive vegetation communities and associated sensitive species would be considered significant.

The proposed Project would also result in the removal of Riversidean sage scrub and Riversidean alluvial fan sage scrub. However, these communities occur only in small patches that are highly disturbed, discontinuous, and provide limited biological function and value. As a result, the minor, temporary Project-related impacts to these communities would not contribute significantly to cumulative vegetation impacts.

The San Bernardino kangaroo rat was determined to be absent from the Project area. As discussed in **Section 3.2**, Project-related impacts to the three sensitive species identified within the Project area (San Diego black-tailed jackrabbit, San Diego pocket mouse, and Los Angeles pocket mouse) would include less than significant impacts from temporary loss of patchy, low-quality foraging and movement areas, as well as possible direct impacts to the San Diego pocket mouse and Los Angeles pocket mouse from ground-disturbing activities. Survey results, however, suggest that the Project area supports less than one percent of the lowest estimated

statewide population of San Diego pocket mouse, and a little more than one percent of the lowest estimated statewide population of Los Angeles pocket mouse.

Although only minimal, disturbed, low-quality patches of native vegetation occur in the Project area, the study area contains vegetation and structures that may provide nesting opportunities for common birds, including raptors. These birds are protected under the MBTA and California Fish and Game Code, and the potential for adverse impacts to nesting birds would be minimized through Metropolitan's standard practices for the protection of nesting birds. Therefore, the Project would not contribute significantly to cumulative impacts to sensitive species.

In summary, the Project would not contribute significantly to cumulative impacts to biological resources.

#### **4.3.3 Greenhouse Gas Emissions**

The assessment of GHG emissions is inherently cumulative because climate change is a global phenomenon. Therefore, the discussion in **Section 3.3** of this EIR addresses cumulative GHG impacts and determines that the impact of the Project's GHG emissions on climate change would not be cumulatively considerable, as the Project would not exceed the SCAQMD screening threshold or conflict with an applicable GHG plan, policy, or regulation. The Project would not contribute significantly to cumulative greenhouse gas emission impacts.

#### **4.3.4 Land Use and Planning**

The proposed Project consists of repairing an existing facility and would not result in an alteration of present or planned zoning or land use designations. California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances. This exemption applies to the Etiwanda Pipeline North as a water transmission pipeline and a direct component of Metropolitan's treatment, storage and transmission system. The Project would conflict with noise policies in the General Plans of the cities of Fontana and Rancho Cucamonga. This conflict represents a noise, rather than land use, impact, and is addressed in Section 4.3.5. Therefore, the Project would not contribute significantly to cumulative impacts to land use and planning.

#### **4.3.5 Noise**

##### **Temporary Increases in Ambient Noise**

Noise impacts are highly localized due to the decreasing effect that distance has upon noise levels. Construction of the SCE Falcon Ridge Substation Project may occur at the same time as the proposed Project. As part of the substation project, a sub-transmission source line segment would be installed adjacent to the Project. The new line would be built east of the existing line in the area north of SR 210 and west of the existing line south of SR 210. The distances to the nearest noise-sensitive land uses range from 75 to 135 feet in the southeast direction, and 370 to 430 feet in the northwest direction. The individual and combined noise levels are shown in **Table 4-2, Cumulative Noise Impacts to Noise-sensitive Land Uses**. Noise levels for the proposed Project assume implementation of the mitigation measures specified in **Section 3.5.4**.



<b>Table 4-2 CUMULATIVE NOISE IMPACTS TO NOISE-SENSITIVE LAND USES</b>				
<b>Project</b>	<b>Noise Levels for Work North of SR 210 (L<sub>EQ</sub>)</b>		<b>Noise Levels for Work South of SR 210 (L<sub>EQ</sub>)</b>	
	<b>Southeast</b>	<b>Northwest</b>	<b>Southeast</b>	<b>Northwest</b>
<b>Etiwanda North Pipeline Project</b>				
Rollout Location	48.1 dBA	63.8 dBA	48.1 dBA	63.8 dBA
Ventilation Location	44.2 dBA	51.0 dBA	44.2 dBA	51.0 dBA
<b>Falcon Ridge Substation Project</b>				
Proposed Line	76.1 <sup>1</sup> dBA	66.5 dBA	70.3 dBA	67.0 dBA
<b>Combined Noise Levels for Both Projects</b>	<b>76.1 dBA</b>	<b>68.4 dBA</b>	<b>70.3 dBA</b>	<b>68.8 dBA</b>

<sup>1</sup>Noted as a significant impact with mitigation requirements in SCE EIR (SCE 2012).

As shown, combined noise levels would exceed the daytime noise threshold of 75 dBA L<sub>EQ</sub>, at the location southeast of SR 210, and cumulative noise levels from both projects would be significant. However, the Falcon Ridge Substation Project is the predominant noise source; the proposed Project's contribution to the combined noise levels would be less than 3 dBA because noise resulting from the Project would have to be at least equal in volume to increase the noise level by 3 dBA. The Project's contribution of less than 3 dBA to the cumulative noise impact would not be cumulatively considerable. Further, mitigation within the SCE Falcon Ridge Substation Project EIR requires the implementation of noise reduction measures, and actual noise levels would be lower as a result. In summary, the Project would not contribute significantly to cumulative noise impacts.

### Generation of Ground-borne Vibration

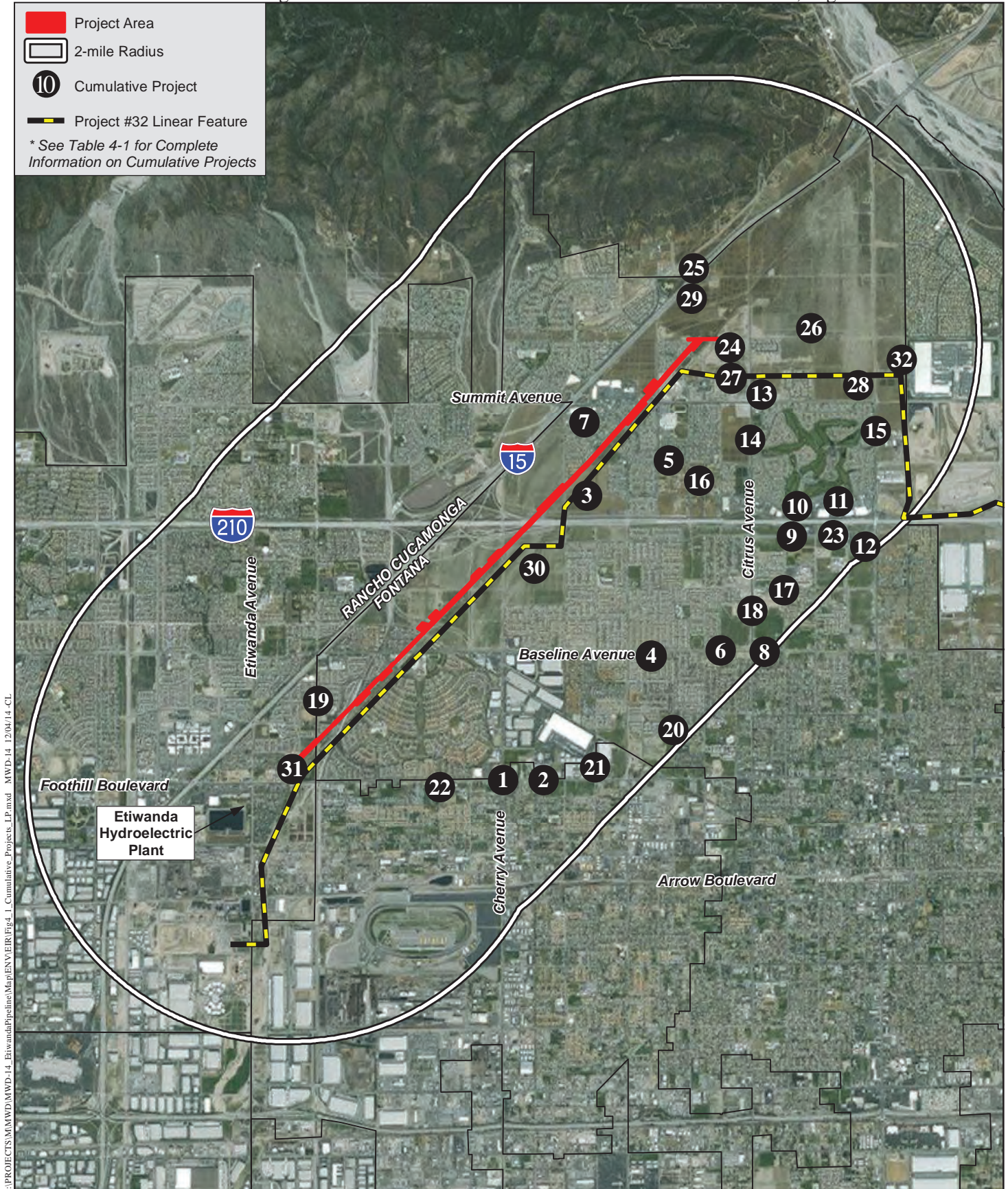
Ground-borne vibration is also a localized phenomenon that is progressively reduced as the distance from the source increases. The area of cumulative impact that would be considered for the vibration cumulative impact analysis would be only those projects within the immediate vicinity of the proposed Project.

The closest project that may be constructed at the same time as the proposed Project is the SCE Falcon Ridge Substation Project. At the estimated distances to the nearest sensitive land use from the proposed Project (75 to 135 feet in the southeast direction, and 370 to 430 feet in the northwest direction) and the substation project (125 to 380 feet in the southeast direction, and 175 to 330 feet in the northwest direction), impacts from the most likely source of vibration, a vibratory roller, would be less than significant for either project. As a result, cumulative vibration impacts would be less than significant. The Project would not contribute significantly to cumulative ground-borne vibration impacts.

#### **4.3.6 Transportation and Traffic**

The proposed Project would result in increased traffic during Project activities. The analysis in **Section 3.6** takes into account projected growth in the Project area. With implementation of mitigation measure TR-1, the Project would not result in a cumulatively considerable traffic impact to intersections or roadway segments within the Project traffic study area. Additionally, as shown in **Table 3.6-4**, projected traffic volumes would not result in a cumulative impact to study area intersections. Therefore, the Project would not result in increases in traffic that would combine with other projects to result in a cumulative impact. In summary, the Project would not contribute significantly to cumulative transportation and traffic impacts.





## Cumulative Projects

ETIWANDA PIPELINE NORTH RELINING PROJECT



Figure 4-1



## Chapter 5.0

# OTHER CEQA CONSIDERATIONS

## 5.0 OTHER CEQA CONSIDERATIONS

In addition to the topics analyzed elsewhere in this EIR, Section 15126 of the State CEQA Guidelines requires analysis of the following topics addressed in this chapter: growth-inducing impacts; significant environmental effects that cannot be avoided upon implementation of the proposed Project; and significant irreversible environmental effects associated with implementation of the proposed Project.

### 5.1 GROWTH INDUCEMENT

In accordance with Section 15126(d) of the State CEQA Guidelines, an EIR must include an analysis of the growth-inducing impact of the proposed Project. The growth inducement analysis must address: (1) the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment; and (2) the potential for a project to encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. This second issue involves the potential for a project to induce growth by the expansion or extension of existing services, utilities, or infrastructure. The State CEQA Guidelines further state that “[i]t must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment” (Section 15126.2[d]).

The proposed Project would consist of repair of an existing pipeline. During the Project, demand for various construction trade skills and labor would increase. It is anticipated that this demand would be met by the local labor force and would not require importation of a substantial number of workers that could cause an increased demand for temporary or permanent housing in this area. The Project would not change the pipeline capacity or service area, or otherwise include or require new infrastructure or utilities or roadway extensions. In addition, repair of the existing pipeline would not remove any barriers to growth. Therefore, growth inducement would not result from the proposed Project.

### 5.2 UNAVOIDABLE ADVERSE IMPACTS

Section 15126.2(b) of the State CEQA Guidelines requires the identification of significant impacts that would not be avoided, even with the implementation of feasible mitigation measures. The final determination of significance of impacts and of the feasibility of mitigation measures would be made by Metropolitan’s Board of Directors as part of its certification of this EIR. **Sections 3.1 through 3.6** of this EIR provide an evaluation of the potentially significant environmental effects and corresponding mitigation measures associated with implementation of the proposed Project. According to this evaluation, the Project would result in significant impacts relative to temporarily increased noise levels at nearby noise-sensitive land uses as well as regional and local air pollutant emissions. Although measures have been proposed to reduce these impacts, the resulting levels are nonetheless expected to be significant. It is anticipated that additional measures to further reduce associated noise levels and air pollutant emissions would not be feasible, and no feasible alternatives to the proposed Project would avoid these significant impacts. Therefore, air quality and noise impacts are considered significant and unavoidable.

### 5.3 IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the State CEQA Guidelines requires an evaluation of significant irreversible environmental changes which would be involved should a proposed project be implemented. Section 15126.2(c) of the State CEQA Guidelines describes significant irreversible environmental changes that would be caused by a proposed project as follows:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project.

The proposed Project would entail the commitment of energy and non-renewable resources, such as energy derived from fossil fuels, construction materials (e.g., abrasives, mortar), and labor. Use of these resources would have an incremental effect on the regional consumption of these commodities. As the Project involves repair of an existing pipeline, it would not directly or indirectly change uses within or adjacent to the Project area. Furthermore, no environmental accidents or hazards are anticipated to occur as a result of Project implementation, as disclosed in the Initial Study/Notice of Preparation prepared for the Project (refer to **Appendix A**). Therefore, the impact from irreversible environmental changes from the proposed Project would not be significant.



## Chapter 6.0

# ALTERNATIVES TO THE PROPOSED PROJECT

## 6.0 ALTERNATIVES TO THE PROPOSED PROJECT

### 6.1 INTRODUCTION

During consideration of a project that could have a significant effect on the environment, CEQA requires that alternatives that could avoid or lessen the project's significant effect(s) be considered. This chapter presents potential alternatives to the Project and evaluates them as required by CEQA. The State CEQA Guidelines also require EIRs to identify the Environmentally Superior Alternative from among the alternatives (including the proposed Project). The environmentally superior alternative is identified in **Section 6.5**.

### 6.2 SUMMARY OF PROJECT OBJECTIVES AND SIGNIFICANT IMPACTS

#### 6.2.1 Project Objectives

In developing the alternatives to be addressed in this section, consideration was given to their feasibility to implement and their ability to meet the basic objectives of the Project. The Project involves removing the existing mortar lining, much of which has become separated from the inside of Etiwanda Pipeline North, and applying a new, flexible, polyurethane liner to prevent corrosion inside the pipe. Project objectives were identified in **Chapter 2, Project Description**, of this EIR as follows:

- Enable Metropolitan to continue conveyance of water from the Rialto Pipeline to the Upper Feeder as needed to supply customers;
- Enable Metropolitan to continue electricity generation through water conveyance to the Etiwanda Hydroelectric Plant;
- Provide a safe, feasible and cost-effective relining method; and
- Minimize Project-related nuisances such as traffic disruption, noise, air quality, dust, and odor to the extent feasible.

#### 6.2.2 Significant Environmental Impacts

Based on analysis in **Chapter 3, Environmental Impact Analysis**, the Project would have significant impacts with regard to the following issues: air quality, noise, and transportation and traffic. Noise impacts also would result in a conflict with City of Fontana General Plan Noise Element Goal 3, Action 18 and City of Rancho Cucamonga General Plan Policy PS-13.4. Project-related environmental impacts to transportation and traffic would be mitigated to less than significant levels; environmental impacts related to air quality and noise would be mitigated to the extent feasible, but are likely to remain significant even with mitigation.

### 6.3 ALTERNATIVES CONSIDERED BUT REJECTED

As described below, alternatives considered but rejected include location (**Section 6.3.1**) and design alternatives (**Section 6.3.2**) as well as the No Project Alternative (**Section 6.4**). All of the potential alternatives that were considered for the Project have been rejected. Section 15126.6(a)

of the State CEQA Guidelines states that an EIR shall describe “a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project,” as well as provide an evaluation of “the comparative merits of the alternatives.” Under Section 15126.6(a), an EIR does not need to consider alternatives that are not feasible, nor need it address every conceivable alternative to the project. The range of alternatives “is governed by the ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.” The focus is on informed decision-making and public participation rather than providing a set of alternatives simply to satisfy format.

### **6.3.1 Alternative Location**

Potential alternative pipeline locations are substantially constrained by the need to connect the Rialto Pipeline to the Etiwanda Hydroelectric Plant and Upper Feeder, as well as the width of Metropolitan’s existing right-of-way. In consideration of these constraints, this alternative would construct a new, smaller (10 feet in diameter) pipeline parallel to the existing Etiwanda Pipeline North. Minimal disruptions of service would occur during installation of a new pipeline. Similar to the proposed Project, the smaller pipe would be lined with a flexible lining for corrosion resistance and would be tolerant of the wide fluctuations in water flows and pressures inside the pipe.

This alternative would result in substantially more ground disturbance than would be required for the proposed Project. This would result in greater potential impacts to biological resources due to ground disturbance and vegetation removal throughout the Project area, and potentially in additional areas outside of the work locations that are identified for the proposed Project. Extensive heavy equipment operations and ground disturbance likely would increase emissions of air pollutants, including criteria pollutants, fugitive dust, and GHGs. Potential impacts to the transportation system would be increased by the number of workers and the number of trucks that would be required to remove excess soil, and potentially by trenching across area roadways. While this alternative likely would avoid or minimize the need for nighttime construction noise, excavation would result in high levels of daytime noise at more adjacent residences for a potentially longer period of time.

Other potential environmental impacts that were addressed in the Initial Study as not being potentially significant would require re-evaluation under this alternative. Open-trench excavation along the approximately five-mile length of Etiwanda Pipeline North likely would result in potentially significant impacts to hydrology, impacts to natural and man-made drainages that are able to be avoided under the proposed Project, and impacts to cultural and paleontological resources if excavation were to occur in previously undisturbed soils.

This alternative would have the highest initial costs for construction, given the likely need to acquire additional right-of-way either for temporary construction easements or for long-term operation and maintenance of the new pipeline. Considering the remaining integrity of the existing pipeline, the considerably greater or broader level of potential environmental impacts and disturbance to nearby communities, and the substantially higher cost of new pipeline construction, this alternative was eliminated from further consideration due to not meeting the



Project objectives of providing a feasible and cost-effective relining method, and minimizing disturbance to the environment and nearby communities.

### **6.3.2 Design Alternatives**

Seven liner repair/replacement alternatives and one pressure control facility coupled with a liner repair alternative were considered during initial Project design. Based on review of physical properties, advantages, and disadvantage of each of these alternatives, Metropolitan rejected each as not being feasible. Each alternative is briefly described below.

#### **Liner Repair/Replacement Alternatives**

Work activities for each of the liner repair/replacement alternatives would be generally similar to the proposed Project, as described in **Section 2.7.1, *Project Activities***. They would include site preparation; preparation of access points into the pipeline; pipeline shutdown and removal of water; surface preparation of the interior of the pipe; application of the new liner; and closing access points and site completion. Although the specific equipment types and processes would vary, the resulting level of environmental impact would be similar to the proposed Project.

##### Cement Mortar Liners

###### *Standard and Fabric-Reinforced Cement Mortar Liners*

These mortar liner alternatives would replace the existing cement mortar liner of Etiwanda Pipeline North with a new cement mortar liner, of standard, non-reinforced, or fiber-reinforced construction. Mortar lining is relatively inexpensive, is widely used, and has demonstrated corrosion protection in water pipelines under most operating conditions. The limitations of mortar lining under the operating conditions of Etiwanda Pipeline North have been demonstrated by the deterioration of the existing mortar lining. Mortar lining must be kept in continuous moist conditions or irreversible cracks can develop. These alternatives likely would result in the need for repeated future repairs, involving more frequent disturbance of nearby communities, more frequent interruptions of water supplies through Etiwanda Pipeline North while repairs are made, and diminished reliability of Etiwanda Pipeline North both for generation of power and for water deliveries to the Upper Feeder.

This alternative was rejected from further consideration due to not meeting any of the four Project objectives of providing a feasible and cost-effective relining method, minimizing environmental and community disturbance, enabling continued use of Etiwanda Pipeline North for generation of power, and enabling continued use of Etiwanda Pipeline North for water conveyance.

###### *Mesh-Reinforced Cement Mortar Liner*

This alternative would replace the existing cement mortar liner of Etiwanda Pipeline North with mesh-reinforced cement mortar lining. Mesh reinforcement provides improvements in the strain capacity, toughness, impact resistance, and crack control over standard and fabric-reinforced mortar liners; however, this liner is usually reserved for short pipeline sections where equipment access is not required. In addition, mesh-reinforced mortar liner has not been tested in a pipeline

with highly variable pressures and may be expected to perform similar to other mortar liners under extreme operating conditions. The application process for mesh-reinforced mortar also is more labor intensive than other mortar linings. For these reasons, mesh-reinforced mortar liner was rejected from further consideration due to not meeting any of the four Project objectives.

#### Flexible Coating System Alternatives

##### *Epoxy Liner*

Use of epoxy liner would be similar to the proposed use of polyurethane, in that epoxy would provide flexible corrosion resistance able to withstand the operating conditions of Etiwanda Pipeline North. This alternative would have no clear advantages over the proposed Project, and disadvantages would include a more extensive application process requiring a longer duration of work and higher costs. While epoxy provides more flexibility than cement mortar, epoxy is less flexible than polyurethane, has less adherence strength, and has greater potential for blistering, leading to a higher potential for future damage than polyurethane. This alternative was rejected from further consideration due to not meeting the project objective of minimizing disturbance to the environment and nearby communities, and not meeting to as high a degree as the proposed Project the objectives of continued use of Etiwanda Pipeline North for power generation and water conveyance.

#### Slip-Liner Alternatives

Slip-liner alternatives would consist of installing a new, smaller pipeline within the existing Etiwanda Pipeline North. Pipe construction would be steel, pre-stressed concrete cylinder, or fiberglass-reinforced polymer mortar. For each type, the pipe segments would be pushed or pulled into the existing pipeline and extra space between the slip liner and the existing pipeline would be grouted with cement. The new liner would provide corrosion resistance and be able to withstand high pressures, and would not require removal of the existing mortar liner in Etiwanda Pipeline North or on-site application of a new interior liner.

The most expensive of the liner alternatives, slip-lining is typically used in situations where the original pipe has lost, or is at risk of losing, substantial strength due to physical damage; this is not the case with Etiwanda Pipeline North, where corrosion and potential leakage are the most likely results of the deteriorating existing mortar. Slip-lining was rejected from further consideration due to not meeting the objective of providing a feasible or cost-effective relining method.

#### **Pressure-Control Facility Alternative**

This alternative would repair/replace the cement mortar lining within Etiwanda Pipeline North, and construct a new pressure-control facility to regulate water pressure within the pipeline. Construction of the new pressure-control facility would occur at the northern end of Etiwanda Pipeline North near the connection to the Rialto Pipeline. The facility would be located on land currently owned by Metropolitan; however, additional property might need to be acquired in order to provide sufficient space and adequate access for operation and maintenance of the facility.

The pressure control facility would allow the pipeline to operate continuously at a relatively uniform pressure, which would prevent stress cracking of the new liner by relieving stresses from large fluctuations in pressure and flows. This alternative would involve relining the pipe, as with the proposed Project, but also would include the additional cost of construction, operation, and maintenance of the new pressure-control facility. In addition, the uniform, lower pressure would adversely affect the ability to continue to use Etiwanda Pipeline North for the generation of power. This alternative was rejected from further consideration due to not meeting the project objective of enabling continued use of Etiwanda Pipeline North for power generation.

## **6.4 NO PROJECT ALTERNATIVE**

### **6.4.1 No Project Alternative Description**

Pursuant to Section 15126.6(e)(3)(B) of the State CEQA Guidelines, the No Project Alternative reflects the “circumstances under which the Project does not proceed.” The No Project Alternative assumes that Etiwanda Pipeline North would not be repaired, and that no major pipeline work would occur in the Project area. Existing maintenance activities would continue. No coordination with the City of Fontana, City of Rancho Cucamonga, or other agencies would be required. Impacts associated with this alternative, compared to the proposed Project, are described below.

### **6.4.2 Comparison of the Impacts of the No Project Alternative to the Proposed Project**

Because the No Project Alternative would not involve any physical improvements, it would avoid significant impacts that would occur from the proposed Project related to air quality, noise, and transportation and traffic. This alternative would not, however, meet any of the four Project objectives and could potentially result in significant interruptions to regional water deliveries/supplies, loss of power generation, and temporary flooding if corrosion of the pipeline results in substantial future leaking or failure. A break in the pipeline would result in temporary impacts during emergency repairs, which would result in impacts similar to the proposed Project. Potential flooding could result in property damage to nearby structures, as well as more impacts to biological resources within the Project area.

## **6.5 SUMMARY OF ALTERNATIVES ANALYSIS AND IDENTIFICATION OF THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

If an alternative is considered clearly superior to the proposed Project relative to identified environmental impacts, Section 15126.6 of the State CEQA Guidelines requires that alternative be identified as the environmentally superior alternative. By statute, if the environmentally superior alternative is the No Project Alternative, an EIR must also identify an environmentally superior alternative among the other alternatives.

Based on the alternatives discussion provided in this chapter, several alternatives to the proposed Project were analyzed; however, each of these alternatives was rejected as being infeasible and not meeting the basic Project objectives. The No Project Alternative would avoid significant environmental impacts from the Project in the interim, but likely would result in similar impacts, or potentially more or greater impacts, in the event that unanticipated damage were to occur and emergency repairs were required.



The proposed Project would repair and prevent corrosion of Etiwanda Pipeline North, enable the continued conveyance of water as needed to supply customers and to generate power, provide a feasible and cost-effective relining method, and minimize Project-related nuisances to the extent feasible. The proposed Project, therefore, is considered to be the environmentally superior alternative.

## Chapter 7.0

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## 7.0 REFERENCES

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Urban Crossroads

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2014b Etiwanda Pipeline North Relining Project Traffic Impact Analysis. October 22.

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## Chapter 8.0

### LIST OF PREPARERS

## 8.0 LIST OF PREPARERS

The following professional staff participated in the preparation of this EIR.

### **The Metropolitan Water District of Southern California**

Wendy Picht, Senior Environmental Specialist  
Diane Doesserich, Environmental Specialist

### **HELIX Environmental Planning, Inc.** (Environmental Impact Report, Air Quality and Greenhouse Gas Technical Reports, Acoustical Site Assessment, and Biological Resources Letter Report)

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John Kain, AICP, Principal  
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Haseeb Qureshi, Senior Associate  
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Philippe Vergne, Principal

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*The Metropolitan Water District of Southern California*

# **ETIWANDA PIPELINE NORTH RELINING PROJECT**

*Final Environmental Impact Report  
Metropolitan Report No. 1472*

*May 2015*



# **ETIWANDA PIPELINE NORTH RELINING PROJECT**

## **Final Environmental Impact Report**

The Metropolitan Water District of Southern California  
700 North Alameda Street  
Los Angeles, CA 90012

Metropolitan Report No. 1472  
State Clearinghouse No. 2014081047

May 2015

## **FINAL EIR TABLE OF CONTENTS**

### **Section**

Final EIR Introduction

Responses to Comments Received on the Draft EIR

Revised Pages of the Draft EIR

Draft EIR as Modified



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# FINAL EIR INTRODUCTION

## INTRODUCTION

The Environmental Impact Report (EIR) for the Etiwanda Pipeline North Relining Project (the “proposed Project”) consists of two components: this Final EIR and a Draft EIR that was circulated for public review from January 9 through February 23, 2015. The Metropolitan Water District of Southern California (Metropolitan) is the lead agency for the proposed Project under the California Environmental Quality Act (CEQA) and also is the proposed Project proponent.

This Final EIR includes comments received during the public review period and Metropolitan’s responses to those comments. Comments on the Draft EIR were received from the following public agencies and interested parties:

- A. California Department of Fish and Wildlife
- B. City of Fontana
- C. San Bernardino County
- D. Southern California Edison
- E. State Clearinghouse

The comments and responses to the comments follow this Introduction.

The Draft EIR includes an executive summary and an introduction to the proposed Project; describes the proposed Project; discusses existing environmental conditions in the Project area; and assesses the proposed Project’s potential environmental impacts. The Draft EIR also addresses the extent to which the proposed Project would incrementally add to environmental effects caused by other projects; evaluates alternatives to the proposed Project; describes environmental effects found not to be significant and not requiring detailed analysis in the EIR; and provides lists of EIR preparers, personnel contacted during EIR preparation, references cited, and acronyms and abbreviations used.

Minor revisions have been made to the text of the Draft EIR based on comments received. These revisions are shown in ~~strikeout~~/underline format, and are indicated by a line in the left margin. The revisions consist of changes to text that clarify information. The changes do not constitute significant additional information that would change the outcome of the environmental analysis or necessitate recirculation of the document (CEQA Guidelines Section 15088.5). Specifically, the EIR has not been changed in such a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the Project or a feasible way to mitigate or avoid a substantial environmental effect that Metropolitan has declined to implement.

The Metropolitan Board of Directors will consider, among other things, the information in the Draft and Final EIRs and will determine the adequacy of the environmental documentation under CEQA. Should the Board of Directors elect to certify the Final EIR and approve the proposed Project, Metropolitan will file a Notice of Determination with the San Bernardino County Clerk



within five working days of the Project approval hearing. The Final EIR certification hearing for the proposed Project is scheduled for:

June 9, 2015 at Noon  
The Metropolitan Water District of Southern California Headquarters  
700 N. Alameda Street  
Los Angeles, CA 90012

This hearing, which will be part of a Regular Board Meeting, is open to agencies and members of the public.

## RESPONSES TO COMMENTS RECEIVED ON THE DRAFT EIR

## COMMENTS

## RESPONSES



EDMUND G. BROWN JR.  
GOVERNOR

STATE OF CALIFORNIA

GOVERNOR'S OFFICE of PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX  
DIRECTOR

February 24, 2015

Wendy Picht  
Metropolitan Water District of Southern California  
P.O. Box 54153  
Los Angeles, CA 90054-0153

Subject: Etiwanda Pipeline North Liner Repair Project  
SCH#: 2014081047

Dear Wendy Picht:

The State Clearinghouse submitted the above named Draft EIR 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 February 23, 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 Comment noted.

## COMMENTS

## RESPONSES

## State Clearinghouse Data Base

<b>SCH#</b>	2014081047		
<b>Project Title</b>	Etiwanda Pipeline North Liner Repair Project		
<b>Lead Agency</b>	Metropolitan Water District of Southern California		

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<b>Type</b>	EIR	Draft EIR
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**Description** The proposed project involves relining approximately 4.8 miles of Etiwanda Pipeline North, including 0.4 mile in Rancho Cucamonga and 4.4 miles in Fontana. Inspections have revealed that portions of the internal lining have cracked and delaminated from the pipe due primarily to the cycling of high pressure flows within the pipeline as a result of the operation of the Etiwanda Hydroelectric Plant. To prevent further corrosion of the steel pipe in the 4.8-mile segment of Etiwanda Pipeline North, Metropolitan proposes to remove the existing interior mortar lining and recoat the pipe with a new lining.

---

**Lead Agency Contact**

<b>Name</b>	Wendy Picht		
<b>Agency</b>	Metropolitan Water District of Southern California		
<b>Phone</b>	951 926 7173	<b>Fax</b>	
<b>email</b>			
<b>Address</b>	P.O. Box 54153		
<b>City</b>	Los Angeles	<b>State</b>	CA <b>Zip</b> 90054-0153

---

**Project Location**

<b>County</b>	San Bernardino		
<b>City</b>	Rancho Cucamonga, Fontana		
<b>Region</b>			
<b>Lat / Long</b>	34° 7' 54" N / 117° 29' 25" W		
<b>Cross Streets</b>	Etiwanda Ave. x Foothill Blvd to Duncan Cyn Rd x Citrus Ave		
<b>Parcel No.</b>			
<b>Township</b>	1N	<b>Range</b> 6W	<b>Section</b> 34 <b>Base</b> SBB&M

---

**Proximity to:**

<b>Highways</b>	Hwy 210
<b>Airports</b>	
<b>Railways</b>	
<b>Waterways</b>	
<b>Schools</b>	Various
<b>Land Use</b>	Various - industrial, residential

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**Project Issues** Air Quality; Biological Resources; Noise; Traffic/Circulation; Vegetation; Other Issues

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**Reviewing Agencies** Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 6; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 8; Air Resources Board; State Water Resources Control Board, Division of Financial Assistance; State Water Resources Control Board, Division of Water Rights; Regional Water Quality Control Board, Region 4; Department of Toxic Substances Control; California Energy Commission; Native American Heritage Commission; State Lands Commission

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<b>Date Received</b>	01/09/2015	<b>Start of Review</b>	01/09/2015	<b>End of Review</b>	02/23/2015
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Note: Blanks in data fields result from insufficient information provided by lead agency.



## COMMENTS

## RESPONSES



State of California - Natural Resources Agency  
 DEPARTMENT OF FISH AND WILDLIFE  
 Inland Deserts Region  
 3602 Inland Empire Blvd., Suite C-220  
 Ontario, CA 91764  
 (909) 484-0459  
[www.wildlife.ca.gov](http://www.wildlife.ca.gov)

EDMUND G. BROWN, Jr., Governor  
 CHARLTON H. BONHAM, Director



February 17, 2015

Ms. Wendy Picht  
 Environmental Planning Team  
 Metropolitan Water District of Southern California  
 P.O. Box 54153  
 Los Angeles, CA 90054

Subject: Draft Environmental Impact Report  
 Etiwanda Pipeline North Relining Project  
 State Clearinghouse No. 2014081047

Dear Ms. Picht:

The Department of Fish and Wildlife (Department) appreciates the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Etiwanda Pipeline North Relining Project (Project) [State Clearinghouse No. 2014081047]. The Department is responding to the DEIR as a Trustee Agency for fish and wildlife resources (California Fish and Game Code Sections 711.7 and 1802, and the California Environmental Quality Act [CEQA] Guidelines Section 15386), and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines Section 15381), such as the issuance of a Lake or Streambed Alteration Agreement (California Fish and Game Code Sections 1600 *et seq.*) and/or a California Endangered Species Act (CESA) Permit for Incidental Take of Endangered, Threatened, and/or Candidate species (California Fish and Game Code Sections 2080 and 2080.1).

The proposed Project involves relining a portion of the Etiwanda Pipeline North, which is located parallel to and approximately 0.4 mile east of Interstate 15, from the northern edge of Foothill Boulevard in the City of Rancho Cucamonga, extending northeast to approximately 0.3 mile east of Lytle Creek Road and approximately 0.5 mile north of Summit Avenue in the City of Fontana, San Bernardino County, California.

The Metropolitan Water District of Southern California (Metropolitan) proposes to remove the existing mortar lining that has become separated from the inside of Etiwanda Pipeline North and install a new lining to prevent further corrosion. Access to the pipe for relining activities would be accomplished via rollouts (removal of a 20-foot segment of pipe), existing manholes, existing buried outlets, and proposed new buried outlets. Surface disturbance is expected to occur from excavation, staging, vegetation grubbing, and storage of materials.

1 These introductory comments are noted.

*Conserving California's Wildlife Since 1870*

## COMMENTS

## RESPONSES

Draft Environmental Impact Report  
 Etiwanda Pipeline North Relining Project  
 SCH No. 2014081047  
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1  
cont. Following review of the Biological Resources section of the DEIR, the Department offers the comments and recommendations listed below to assist Metropolitan in adequately identifying and/or mitigating the project's significant, or potentially significant, impacts on biological resources. The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of those species (i.e., biological resources). The Department is a Trustee Agency with responsibility under CEQA for commenting on projects that could affect biological resources. As a Trustee Agency, the Department is responsible for providing, as available, biological expertise to review and comment upon environmental documents and impacts arising from project activities (CEQA Guidelines, § 15386; Fish and Game Code, § 1802).

*Nesting Birds*

2 It is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). In addition, sections 3503, 3503.5, and 3513 of the Fish and Game Code (FGC) stipulate the following: section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by FGC or any regulation made pursuant thereto; Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by FGC or any regulation adopted pursuant thereto; and Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

2 Page 3.2-9 of the DEIR states that as standard practice, Metropolitan would perform surveys for nesting birds prior to operations activities performed from February 1 through September 15. Please note that some species of raptors (e.g., owls) may commence nesting activities in January, and passerines may nest later than September 15. The Department encourages the Lead Agency to complete nesting bird surveys regardless of time of year to ensure compliance with all applicable laws related to nesting birds and birds of prey. Furthermore, the DEIR states that nesting bird surveys would be conducted no more than seven days prior to initiation of Project activities. Please note that the Department recommends that pre-construction surveys be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted sooner. The Department also recommends that surveys occur over the entirety of the project site, and not be limited to those areas with shrubs and trees. Not all bird species nest in vegetation; some species nest directly on the ground. As mentioned previously, it is the Lead Agency's responsibility to ensure that the project complies with all applicable laws related to nesting birds and birds of prey, and that violations of these laws do not occur.

2 Metropolitan acknowledges its responsibility for compliance with all applicable laws, including the Migratory Bird Treaty Act and California Fish and Game Code, and for ensuring that violations of these laws do not occur. Metropolitan will, in consultation with qualified biologists, perform all due diligence to ensure compliance with these laws, including conducting pre-activity surveys and implementing adequate measures to avoid or minimize adverse impacts to nesting birds in the event that nests are identified (EIR page 3.2-9).



## COMMENTS

## RESPONSES

Draft Environmental Impact Report  
 Etiwanda Pipeline North Relining Project  
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*Burrowing Owl*

- 3 Suitable habitat for burrowing owl, a California Species of Special Concern, occurs on the project site. Although suitable burrows were not observed in the March 2014 habitat assessment, sufficient time has passed since then to allow burrowing owls to colonize the site. The Department recommends that Metropolitan perform a pre-activity take avoidance survey for burrowing owl no more than 14 days before ground disturbance activities, as outlined in Appendix D of the 2012 Staff Report on Burrowing Owl Mitigation, which can be found here:  
[http://www.dfg.ca.gov/wildlife/nongame/survey\\_monitor.html](http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html).

*San Diego Pocket Mouse and Los Angeles Pocket Mouse*

- 4 The San Diego pocket mouse and the Los Angeles pocket mouse are California Species of Special Concern, and are considered "rare" pursuant to CEQA Guidelines Section 15380(b)(2). Focused trapping surveys for small mammals on the Project site resulted in the identification of seven individual San Diego pocket mice and six individual Los Angeles pocket mice. Based on this result, the Biological Resources Letter Report included with the DEIR asserts that the Project could have direct impacts to "fewer than 10 individuals" of each species. This appears to be based on the assumption that nearly 100% of the onsite populations were trapped. The Department does not understand how this conclusion was reached. The Final EIR should contain a thorough disclosure of the impacts to these species; please provide the analysis used to quantify the onsite populations of, and likely impacts to, each species. If the April 2014 survey did not provide sufficient data to accurately estimate the populations and impacts, additional surveys may be needed in order to do so. The Final EIR should include mitigation measures for impacts to Los Angeles pocket mouse and San Diego pocket mouse, such as use of an appropriate mitigation bank, or conserving occupied habitat through a conservation easement.

*Impacts to Sensitive Natural Communities*

- 5 According to the Biological Resources Letter Report, the Project would impact 2.6 acres of Riversidean upland sage scrub, and 0.1 acre of Riversidean alluvial fan sage scrub (RAFSS) within the Project site, as well as an additional 2.4 acres of offsite Riversidean upland sage scrub and 0.08 acre of RAFSS. Given the close similarity between the two communities, and the fact that RAFSS is mapped as being directly adjacent to the "upland" scrub, the Department is concerned that some or all of the areas identified as "Riversidean upland sage scrub" may actually be a more mature stage of RAFSS. Please clarify the methods used to differentiate RAFSS from Riversidean upland sage scrub.
- Please note that RAFSS is a state-designated S-1.1 "very threatened" community, and Riversidean sage scrub is designated S-3, "vulnerable". The impacts are described in the DEIR as "temporary", and it is stated that "vegetation in these communities is

- 3 Consistent with this comment, the Draft EIR acknowledged the suitability of habitat for burrowing owl, although burrowing owls have not been observed and the likelihood of potential impacts is considered low. As described in response to Comment 2, Metropolitan would consult with qualified biologists to ensure that Project activities are compliant with the Migratory Bird Treaty Act and California Fish and Game Code. These measures also would provide appropriate protections for burrowing owl.

- 4 Consistent with this comment, the Draft EIR acknowledged the sensitivity of Los Angeles pocket mouse (LAPM) and northwestern San Diego pocket mouse (SDPM) and presented survey findings and conclusions of potential impacts of the Project. As stated in the Draft EIR and appendices, a presence/absence survey for San Bernardino kangaroo rat (SBKR) and LAPM was performed for the Project by Mr. Philippe Vergne of ENVIRA. Mr. Vergne is a certified principal investigator permitted by the U.S. Fish and Wildlife Service to trap and handle Stephens' kangaroo rat, SBKR and Pacific pocket mouse, and to conduct field studies on sensitive small mammals in Southern California (TE-068072-2); he also holds a California Department of Fish and Wildlife (CDFW) Memorandum of Understanding for the above-mentioned species, LAPM and other rodents, and a CDFW collection permit. In response to this comment, biologists with HELIX Environmental Planning, Inc. (HELIX), in consultation with Mr. Vergne, prepared the following information to further describe the rationale for analysis methods and conclusions in the Draft EIR pertaining to LAPM and SDPM.

The small mammal trapping survey was conducted in accordance with survey protocols for SBKR and was focused in areas of SBKR suitable habitat. A habitat assessment for SBKR identified eight areas in the Project impact footprint as suitable for SBKR and all eight areas were trapped. All three species (LAPM, SDPM, SBKR) share habitat affinities, namely: dry sandy soils, sparse shrub cover, and land cover dominated by grasses and bare ground. The trapping surveys found individuals of LAPM and SDPM in a total of five locations in the Project impact area; one location contained both species and each

## COMMENTS

## RESPONSES

4 species was found separately in two other locations. Although the  
cont. trapping survey was not focused on LAPM and SDPM, it included  
areas of suitable habitat where these species were not found. Based  
on the absence of LAPM and SDPM from surveyed areas of suitable  
habitat, it is concluded that the areas where these species were trapped  
correspond to the extent of potential occupied habitat within the Project  
impact footprint. The total mapped area of potential occupied habitat  
is 4.0 hectares (approximately 9.9 acres) for LAPM and 4.4 hectares  
(approximately 10.9 acres) for SDPM.

The Project impact area has been reduced and modified to  
exclude all areas mapped as Riversidean alluvial fan sage scrub  
(RAFSS), with buffers where feasible, as illustrated on Final EIR  
Figure 3.2-1d. These avoidance areas coincide with the one location  
where both species (three individuals of each) were trapped, and  
are most likely to support LAPM and SDPM burrows based on the  
presence of loose, sandy soils. The great majority of the proposed  
impact footprint consists of staging areas where no excavation is  
expected to take place; excavation would be limited to access points  
over the existing pipeline that range in size from 100 to 4,900 square  
feet. Because the Project would be completed in phases, disturbance  
would occur at only a small number of locations at once.

Data on population densities for LAPM and SDPM are scarce. Review  
of literature including species descriptions by resource agencies and the  
Western Riverside County Multiple Species Habitat Conservation Plan  
indicates that little is known of the biology of either species, and most  
references do not include population densities. Published sources that  
do include estimates of population densities cite a single study for each  
species, both of which were performed in the early 1960s (Chew and  
Butterworth 1964, Jones 1993). These studies reported average densities  
of 1.7 individuals per hectare for LAPM and 0.36 individuals per hectare  
for SDPM. Personal communication between Dr. George Aldridge of  
HELIX and Dr. Mary V. Price, Professor Emeritus of biology at the  
University of California, Riverside, indicates that observed population  
densities of SDPM in the Inland Empire are higher than reported in Chew  
and Butterworth (1964). Dr. Price, whose curriculum vitae includes  
publications in peer reviewed journals of scientific studies of pocket  
and kangaroo mice spanning the 1970s to 2000s, advises that a density  
estimate of up to 3.0 SDPM per hectare would be more appropriate in the  
Project area. These estimates represent the best available scientific data  
regarding the densities at which these species occur in nature.



## COMMENTS

## RESPONSES

4 cont. Based on these average densities of 1.7 LAPM individuals per hectare and 3.0 SDPM individuals per hectare, estimates for the population sizes of these species in the Project impact area are 7 individuals of LAPM over 4.0 hectares of occupied habitat, and 13 individuals for SDPM over 4.4 hectares of occupied habitat. The trapping survey detected a total of 6 LAPM and 7 SDPM. Population densities of all organisms vary both in space and time, and estimates are necessarily approximate. The total of 6 LAPM that were detected in the survey matches closely the estimated number of 7 individuals. For SDPM, the total number of 7 individuals detected in the survey is lower than the estimated number of 13 but within a reasonable range of variation.

Species accounts for these species and for pocket mice in general indicate that pocket mice are asocial except during mating, and have limited overlap of home ranges. Although the specific trapping efficiency is unknown, the conclusion is reasonably drawn that the number of occurrences of each species in the trapping data, including up to three captures of each species in a single area (which could represent some re-captures of the same individuals), represents the upper end of the potential range of the number of SDPM and LAPM in the Project impact area. Therefore, the estimate of direct impact to fewer than 10 individuals stated in the Draft EIR is a reasonable estimate of the maximum number of individuals that could be affected by the Project.

Known records reported to the CNDDDB for LAPM include locations south of Baseline Avenue and west of Interstate 15. These records indicate that LAPM was found in habitat very similar to the disturbed sage scrub described in the Project area. One of these CNDDDB records for LAPM includes trapping data, which indicate a capture rate approximately three times higher than the 0.004 per trap-night in the trapping survey for this Project. The nearest CNDDDB record for SDPM is northeast of the Project area near Lytle Creek, north of the Interstate 15/215 interchange. A description of LAPM published for CDFW by P.V. Brylski in 1998 states that the westernmost extant population of LAPM was then in Etiwanda Wash, north-northwest of the Project area. Based on this information, the Project impact area is peripheral for LAPM and SDPM, and represents small, isolated patches of low-quality habitat for both species.

In summary and consistent with the findings of the Draft EIR, Project impacts to LAPM and SDPM would be less than significant for the following reasons:

- Habitat in the Project area is highly disturbed, both historically prior to the installation of the Etiwanda Pipeline North, and currently

## COMMENTS

## RESPONSES

4  
cont.

from maintenance activities in the right-of-way and agriculture in surrounding areas;

- Subsequent to the Draft EIR, the Project impact area has been modified to exclude RAFSS, which is the habitat in the Project area that supported the greatest numbers of LAPM and SDPM individuals and is most likely to support their burrows (see response to Comment 5, below, and revised Figure 3.2-1d);
- The Project area supports a very small number of LAPM and SDPM, estimated at no more than 10 individuals of each species;
- The Project would affect approximately 1 percent of the statewide population of LAPM and 0.33 percent of the statewide population of SDPM;
- The Project area is not in an area of high-density occurrences of either LAPM or SDPM;
- Project impacts would be mostly on the surface; and
- Project impacts would be temporary and would occur in only a small proportion of the total impact area at any one time.

Because impacts would be less than significant, no mitigation is required.

## COMMENTS

## RESPONSES

Draft Environmental Impact Report  
 Etiwanda Pipeline North Relining Project  
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5  
cont. expected to recover after Project completion". However, the DEIR also characterizes the onsite Riversidean upland sage scrub and RAFSS communities as "highly disturbed" and providing "limited biological function and value" following regrowth since the original installation of the Etiwanda Pipeline North in 1993. The DEIR does not comment on whether the current disturbed condition is the direct result of the original pipeline installation. However, in the Department's opinion, it is unreasonable to assume that unmitigated disturbances to these communities will not result in further degradation of the habitat quality. It is therefore inappropriate to describe the impacts as "temporary". The Department recommends that Metropolitan adopt mitigation measures to address impacts to RAFSS and Riversidean upland sage scrub, including implementation of a Restoration Plan and control of invasive plant species after Project activities are concluded.

*Lake and Streambed Alteration Program*

6 The Biological Resources Letter Report identified two streams crossing the project site. Although impacts to the streams are not planned, a Lake or Streambed Alteration Notification may be required if the potential for impacting the streams arises.

For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream or use material from a streambed, the project applicant (or "entity") must provide written notification to the Department pursuant to Section 1602 of the Fish and Game Code. Based on this notification and other information, the Department then determines whether a Lake and Streambed Alteration (LSA) Agreement is required. The Department's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if necessary, the environmental document should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with the Department is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. To obtain a Lake or Streambed Alteration notification package, please go to <http://www.dfg.ca.gov/habcon/1600/forms.html>.

The Department's website has additional information regarding dryland streams in "A review of Stream Processes and Forms in Dryland Watersheds" at this location: <http://www.dfg.ca.gov/habcon/1600/1600resources.html>.

Additional information can also be found in "Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants, With the MESA Field Guide - Final Project Report" (MESA Guide) available here: <http://www.energy.ca.gov/2014publications/CEC-500-2014-013/index.html> Please review page 9 of the MESA Guide. Please also refer to page E-14, which includes the definition of stream used by the Department's Lake and Streambed Alteration Program.

5 As stated in the Draft EIR and appendices, approximately 0.2 acre of the Project area was mapped as disturbed RAFSS during biological resources surveys in 2013 and 2014. This mapped area is within a channel located south of Victoria Street that appears to be an abandoned agricultural drain that has no evident watershed or downstream hydrological connection. Mapping was conducted by Mr. Robert Hogenauer, a biologist with 10 years of experience conducting biological resource surveys in the Inland Empire. In response to this comment, the following detailed information is provided to further describe the rationale for analysis methods and conclusions in the Draft EIR pertaining to RAFSS and RSS.

RAFSS in the Project area was mapped primarily on the basis of the presence of scalebroom (*Lepidospartum squamatum*) and its location in an identifiable channel, and secondarily on the presence of saltgrass (*Distichlis spicata*). Vegetation outside of this channel was mapped as disturbed Riversidean upland sage scrub (RSS) on the basis of it having a strong dominance of California buckwheat and deerweed, with poor shrub cover and very low species richness, and no scalebroom or other species associated with alluvial scrub communities. In addition to California buckwheat and deerweed, the RSS consisted of red brome (*Bromus madritensis ssp. rubens*), oats (*Avena sp.*), and red-stem filaree (*Erodium cicutarium*), which were prevalent in the surrounding disturbed areas. The landscape position of this RSS vegetation is entirely indistinguishable from the surrounding uplands for hundreds of meters, including agricultural lands, residential development, roadways, and parks.

Both RAFSS and RSS communities were mapped as disturbed based on high levels of non-native species invasion, sparse native cover, and evidence of historic and current disturbance. RAFSS areas contained large amounts of Bermuda grass (*Cynodon dactylon*) and wild lettuce (*Lactuca serriola*), and RSS vegetation included the non-native brome, oats, and filaree, as described above. The Draft Supplemental EIR for the original Etiwanda Pipeline and Power Plant (WESTEC 1988) characterized the RSS vegetation in the proposed right-of-way as disturbed prior to the original installation of the pipeline. Therefore, the current disturbed nature of the vegetation is not solely the result of pipeline installation, but also represents the pre-existing disturbed condition. In addition, the RSS areas have been disturbed by on-going maintenance activities in the right-of-way.

## COMMENTS

## RESPONSES

5 cont. Subsequent to circulation of the Draft EIR, the Project impact area has been reduced and modified to exclude all areas mapped as RAFSS and provide a buffer around them as feasible (see revised Figure 3.2-1d). Impacts to RSS would be temporary and would occur in areas of very low habitat quality that are located within the existing maintained Metropolitan right-of-way. Most impacts would not involve ground disturbance or removal of vegetation.

The modified Project proposes no impacts to RAFSS and temporary impacts to 2.6 acres of disturbed RSS consisting of a sparse arrangement of California buckwheat and deerweed shrubs with non-native red brome, oats, and filaree. Temporary impacts would not be significant given the marginal nature and isolated location of the habitat. Both California buckwheat and deerweed are resilient disturbance-followers and early successional species in coastal sage scrub communities. In a 2002 publication prepared by San Diego State University Department of Biology for CDFW, California buckwheat is noted as having successful seed recruitment and being a well-known colonizer at disturbed sites (SDSU 2002). Deerweed is noted as being commonly associated with disturbed places that have been cleared or burned (Clarke et al. 2007, Lightner 2006). Due to these species' known resilience against disturbance events, it is expected that they would again successfully recolonize the temporary impact areas and form a post-impact RSS community that is functionally equivalent to the limited, disturbed community that currently exists.



## COMMENTS

## RESPONSES

Draft Environmental Impact Report  
 Etiwanda Pipeline North Relining Project  
 SCH No. 2014081047  
 Page 5 of 5

The following information will be required for the processing of a Notification of Lake or Streambed Alteration and the Department recommends incorporating this information into the CEQA document to avoid subsequent documentation and project delays. Please note that failure to include this analysis in the project's environmental document could preclude the Department from relying on the Lead Agency's analysis to issue an LSA Agreement without the Department first conducting its own, separate Lead Agency subsequent or supplemental analysis for the project:

- 1) Delineation of lakes, streams, and associated habitat that will be temporarily and/or permanently impacted by the proposed project (include an estimate of impact to each habitat type);
- 2) Discussion of avoidance and minimization measures to reduce project impacts; and,
- 3) Discussion of potential mitigation measures required to reduce the project impacts to a level of insignificance. Please refer to section 15370 of the CEQA Guidelines for the definition of mitigation.

The Department appreciates the opportunity to comment on the DEIR for the Etiwanda Pipeline North Relining Project (SCH No. 2014081047) and requests that the Department's comments be addressed in the Final EIR (FEIR). If you should have any questions pertaining to this letter, please contact Gabriele Quillman at [gabriele.quillman@wildlife.ca.gov](mailto:gabriele.quillman@wildlife.ca.gov) or 909-980-3818.

Sincerely,

  
 Leslie MacNair  
 Acting Regional Manager

cc: State Clearinghouse, Sacramento

6 The Project has been designed to avoid impacts to drainages that may fall under the jurisdiction of CDFW. This additional guidance is acknowledged; however, a Lake or Streambed Alteration Notification and/or Agreement is not expected to be required.

7 Comments noted. The comments are addressed in this Final EIR as requested, and a copy of the response has been provided to CDFW in accordance with CEQA requirements.

## COMMENTS

## RESPONSES



# CITY OF FONTANA CALIFORNIA

February 19, 2015

Ms. Wendy Picht  
Environmental Planning Team  
The Metropolitan Water District of Southern California  
PO Box 54153  
Los Angeles, CA 90054-0153

## RE: Etiwanda Pipeline North Relining Project

Dear Ms. Picht:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (DEIR) for the Etiwanda Pipeline North Relining Project (SCH#2014081047). City staff has met on several occasions with the Metropolitan Water District of Southern California (MWD) team to review and discuss the project prior to the circulation of this DEIR. The City appreciates the outreach efforts to date by the MWD and looks forward to partnering with your agency throughout the project; so that, it can be successful. We are requesting that your agency continue to coordinate with Mr. Ryan in the City of Fontana's Engineering Department. His contact information is as follows:

Mr. Kevin Ryan  
Strategic Transportation Engineering Manager – Engineering Department  
8353 Sierra Avenue  
Fontana, CA 92335  
(909) 350-6655  
kryan@fontana.org

In addition to coordinating with Mr. Ryan, the City has the following comment as it relates to the DEIR:

### Mitigation Measure NOI-01: Noise Control Plan

The City is requesting a Public Relations program to alert residents and businesses within the Roll Out Station areas of the project in advance of construction related activities. This plan should include advance public outreach as well as 24-hour contact information during construction for questions and concerns. The outreach program should also include neighborhood meetings as well as informational mailers to the surrounding areas within 660 feet of the project boundary. Please coordinate with Mr.

[www.fontana.org](http://www.fontana.org)

8353 Sierra Avenue Fontana, California 92335-3528 (909) 350-7600

- 1 Comments noted. Metropolitan has been coordinating with the City of Fontana and will continue the coordination with Mr. Kevin Ryan as requested.
- 2 Metropolitan will coordinate with Mr. Ryan as requested to develop the Noise Control Plan and to develop an effective public outreach program during the Project. The public outreach program will include provisions for neighborhood meetings, informational flyers and mailings, and appropriate contact information for Metropolitan, the City and the Project.

## COMMENTS

## RESPONSES

Page 2

Ryan to coordinate and develop the Noise Control Plan as required in Mitigation Measure NOI-1: Noise Control Plan.

When available, please send a copy of the Final Environmental Impact Report to my attention. My contact information is as follows:

Rina Leung  
Assistant Planner – Community Development Department  
8353 Sierra Avenue  
Fontana, CA 92335  
(909) 350-6566  
[rluong@fontana.org](mailto:rluong@fontana.org)

Thank you for inviting the City of Fontana to participate in the public review process. We look forward to working with your agency on coordinating and developing the Noise Control Plan; as well as, on other components for the Etiwanda Pipeline North Relining project.

Respectfully,

COMMUNITY DEVELOPMENT DEPARTMENT  
PLANNING DIVISION



Rina Leung  
Assistant Planner

3 Comments noted. A copy of the Final EIR has been provided to the City as requested.

## COMMENTS

## RESPONSES

825 East Third Street, San Bernardino, CA 92415-0835 | Phone: 909.387.8109 Fax: 909.387.8109



## Department of Public Works

- Environmental & Construction • Flood Control
- Operations • Solid Waste Management
- Surveyor • Transportation

Gerry Newcombe  
Director

February 23, 2015

File: 10(ENV)-4.01

Ms. Wendy Picht  
Environmental Planning Team  
The Metropolitan Water District of Southern California  
PO Box 54153  
Los Angeles, CA. 90054-0153  
[EPT@MWDH2o.com](mailto:EPT@MWDH2o.com)

RE: CEQA – NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT  
FOR THE ETIWANDA PIPELINE RELINING PROJECT FOR THE METROPOLITAN WATER  
DISTRICT

Dear Ms. Picht:

Thank you for giving the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project. **We received this request on January 13, 2015** and pursuant to our review, the following comments are provided:

**Traffic Division (Eloy Ruvalcaba, PWE III, 909-387-1869):**

1. Please clarify if there are going to be any long-term road closures during construction of the project.

If you have any questions, please contact the individual(s) who provided the specific comment, as listed above.

Sincerely,

NIDHAM ARAM ALRAYES, MSCE, P.E., QSD/P  
Public Works Engineer III  
Environmental Management

NAA:PE:nh/CEQAComment\_MWD\_EtiwandaPipelineRelining\_2015-02-23-08

## BOARD OF SUPERVISORS

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Chief Executive Officer

- 1 As described in Section 2.7, *Project Characteristics*, of the Draft EIR, Project activities other than transportation would not occur within public roadways or public rights-of-way (page 2-5). Therefore, no road closures will be required.



## COMMENTS

## RESPONSES



Jennifer Menjivar-Shaw  
Local Public Affairs  
795 Redwood Avenue  
Fontana, CA 92336

February 23, 2015

Wendy Picht  
Metropolitan Water District of Southern California  
Environmental Planning Team US 3-311  
P.O. Box 54153  
Los Angeles, CA 90054-0153  
[EPT@mwadh2o.com](mailto:EPT@mwadh2o.com)

RE: Draft EIR for Etiwanda Pipeline North Relining Project

Dear Ms. Picht:

Southern California Edison (SCE) appreciates the opportunity to review and provide comments on the Draft Environmental Impact Report (DEIR) for the Etiwanda Pipeline North Relining Project. The Metropolitan Water District (MWD) is proposing to remove the existing interior mortar lining and recoat the pipe with a new lining. Except for excavation and staging, the Project activities would mostly occur below-ground. Access to the pipe for relining activities would be accomplished via rollouts (where a 20-foot segment of pipe would be removed), existing manholes, existing buried outlets (similar to manholes but without surface structures), and proposed new buried outlets. While the majority of Project activities would occur within Metropolitan's existing pipeline right-of-way, some staging may occur within the adjacent SCE right-of-way and/or other adjacent private property. Construction is anticipated to begin in 2015 and would occur over a period of up to three years.

SCE maintains electrical transmission and distribution facilities, as well as substations and supporting appurtenances in the Project vicinity. SCE's existing 500 kilovolt (kV) transmission line is adjacent to the proposed project. In addition, SCE's Falcon Ridge Substation Project was approved by the California Public Utilities Commission in February 2014. The approved project includes the construction of a 66 kV subtransmission line, which would be located within SCE's existing utility corridor. Construction is anticipated to begin in Quarter 1 of 2016 and occur over an 18-month period. The attached Figure 2-3, was modified to illustrate SCE's existing 500 kV transmission line as a dashed blue line and the approved 66 kV subtransmission line as a dashed yellow line.

SCE is concerned about the coinciding construction periods of the Falcon Ridge Substation Project and Etiwanda Pipeline Relining Project. Specifically, SCE is concerned with the DEIR's assessment of potential cumulative impacts to environmental resources identified by both projects in the surrounding and overlapping construction areas, and the application of avoidance, minimization and mitigation measures for these resources. For example, in the Draft EIR<sup>1</sup> and Preliminary Environmental Assessment for the Falcon Ridge Substation Project<sup>2</sup>, SCE similarly identified Riversidean Alluvial Fan Sage Scrub (RAFSS) habitat located adjacent to and within the coinciding project areas, and SCE must mitigate for impacts to this habitat. SCE's avoidance, minimization and mitigation measures for environmental resources in the project area can be found in the Falcon Ridge Substation Project Mitigation, Monitoring, Reporting, and Compliance Program<sup>3</sup>. Unanticipated cumulative impacts could result if impacts to environmental resources in the overlapping project areas are not similarly mitigated.

SCE requests the Etiwanda Pipeline North Relining Project DEIR include discussion of coordination regarding timing and use of staging areas between SCE and MWD to minimize potential cumulative construction impacts and ensure compliance with both project's mitigation measures. SCE is particularly concerned about an approximately two-mile stretch (located south of the Interstate 210 freeway, to the north of the Miller Lane and Liberty Parkway intersection) where construction of both projects would be in close proximity to each other. SCE suggests the DEIR establish MWD's responsibility for mitigating impacts associated with its project in these overlapping areas and clearly explain that SCE would not be responsible for mitigating impacts related to MWD project activities in areas where SCE and MWD construction coincide.

<sup>1</sup> [http://www.cpuc.ca.gov/Environment/info/esa/falconridge/DEIR/FRSS\\_DEIR.pdf](http://www.cpuc.ca.gov/Environment/info/esa/falconridge/DEIR/FRSS_DEIR.pdf) (refer to Section 4.4 Biological Resources)

<sup>2</sup> [http://www.cpuc.ca.gov/Environment/info/esa/falconridge/PEA/PEA\\_Vol\\_2\\_AppD.pdf](http://www.cpuc.ca.gov/Environment/info/esa/falconridge/PEA/PEA_Vol_2_AppD.pdf)

<sup>3</sup> <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M087/K685/87885123.pdf>

1 These introductory comments are noted.

2 The anticipated cumulative impacts of the Etiwanda Pipeline North Relining Project together with the Falcon Ridge Substation Project and other past, present, and reasonably anticipated future projects, are addressed in Section 4.0, *Cumulative Impact Analysis*, of the Draft EIR. Specifically with regard to Riversidean alluvial fan sage scrub (RAFSS), the proposed Project has been revised to exclude RAFSS from Project impact areas (see revised Figure 3.2-1d). As a result, no unanticipated cumulative impacts would result and no mitigation for impacts to this plant community would be necessary.

3 As noted in response to Comment 2, the cumulative impacts analysis contained in the Draft EIR addresses the anticipated cumulative impacts of the Etiwanda Pipeline North Relining Project and Falcon Ridge Substation Project. Metropolitan would coordinate with SCE as necessary for activities that are of mutual interest, including project phasing, work schedules, and work areas. Metropolitan acknowledges that each party is responsible for mitigating its own impacts as specified in its own environmental document.

## COMMENTS

## RESPONSES

February 23, 2015

MWD Etiwanda Pipeline DEIR

Page 2 of 3

4 [ If you have any questions regarding this letter, please do not hesitate to contact me at [Jennifer.Shaw@sce.com](mailto:Jennifer.Shaw@sce.com) or (909) 357-6515.

Regards,



Jennifer Shaw

Local Public Affairs Region Manager

Southern California Edison Company

cc: Jeremy Califano, SCE Falcon Ridge Project

4 Comment noted.

## COMMENTS

## RESPONSES

February 23, 2015

MWD Etiwanda Pipeline DEIR

Page 3 of 3



COMMENTS

RESPONSES

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## REVISED PAGES OF THE DRAFT EIR

## S.5 SUMMARY OF PROJECT ALTERNATIVES

Alternatives are analyzed in **Chapter 6.0, *Project Alternatives***, of this Draft EIR. A number of alternatives were identified and subjected to screening analysis, as part of the proposed Project design process. The objective of the alternatives analysis is to consider a reasonable range of potentially feasible alternatives to foster informed decision-making and public participation. All of the alternatives for the Project were rejected as infeasible and would not meet the basic Project objectives. The proposed Project, therefore, is considered to be the environmentally superior alternative.

## S.6 SUMMARY OF IMPACTS AND MITIGATION MEASURES

**Table S-1, *Environmental Impacts and Mitigation Measures***, provides a summary of the environmental impacts that could result from implementation of the proposed Project and feasible mitigation measures that could reduce or avoid environmental impacts. For each impact, **Table S-1** identifies the significance of the impact prior to and following implementation of mitigation measures. With the exception of air quality impacts and noise impacts, all Project-specific significant impacts would be reduced to below a level of significance following implementation of the mitigation measures. The Project's generation of nighttime noise would conflict with General Plan noise policies; however, as the Project is exempt from local zoning and building ordinances through California Government Code Section 53091, the short-term policy conflict represents a noise, rather than a land use, impact. Project-related impacts combined with impacts from other projects in the cumulative project study area also would not result in significant and unmitigable cumulative impacts, with the exceptions of air quality and noise.

<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.2 Biological Resources</b>				
Adversely Affect Candidate, Sensitive, or Special Status Species	The Project would result in minor, temporary loss of foraging and movement areas for the San Diego jackrabbit, San Diego pocket mouse, and Los Angeles pocket mouse; as well as potential direct impacts to the San Diego pocket mouse and Los Angeles pocket mouse from ground-disturbing activities. Potential impacts to nesting birds would be less than significant through Metropolitan's standard environmental practices and compliance with the Migratory Bird Treaty Act (MBTA).	Less than significant	No mitigation is required.	Less than significant
Adversely Affect Sensitive Natural Communities	The Project would temporarily impact isolated habitat fragments of disturbed Riversidean upland sage scrub and <del>disturbed Riversidean alluvial fan sage scrub</del> within the existing right-of-way.	Less than significant	No mitigation is required.	Less than significant
Conflict with Local Policies or Ordinances Protecting Biological Resources	The Project would not conflict with local policies or ordinances protecting biological resources.	Less than significant	No mitigation is required.	Less than significant

**Table S-1 (cont.)**  
**ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
<b>3.5 Noise (cont.)</b>				
			<ul style="list-style-type: none"> <li>• <b>NOI-3.c</b> – Parking areas will be located a minimum of 150 feet from sensitive receptors. Parking areas that are within 500 feet of sensitive receptors will be posted to prohibit workers from gathering during nighttime hours, and prohibiting radios and music at any time.</li> <li>• <b>NOI-3.d</b> – Equipment will be maintained to a minimum standard that includes engine noise baffles and mufflers that meet or exceed the original manufacturer’s requirements.</li> <li>• <b>NOI-3.e</b> – Equipment that has noise control doors will be operated only with the doors fully closed.</li> <li>• <b>NOI-3.f</b> – Equipment delivery trucks will be allowed only during daytime hours, and back-up alarms will be disengaged to the extent allowed by OSHA.</li> <li>• <b>NOI-3.g</b> – Fuel deliveries will occur during daytime hours and at a minimum of 500 feet from residences, to the extent feasible. Fueling stations that must be located within 500 feet of residences will have minimum eight-foot high noise control barriers, and fuel trucks that are required during nighttime hours will maintain a minimum distance of 100 feet from residences.</li> <li>• <b>NOI-3.h</b> – Noise control barriers and enclosures, where used in accordance with <b>NOI-12.b</b>, will be fully in place prior to work at that location.</li> </ul>	



**Table S-1 (cont.)**  
**ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
<b>3.5 Noise (cont.)</b>				
			<ul style="list-style-type: none"> <li><b>NOI-3.i</b> – Noise control barriers and enclosures, where used in accordance with <b>NOI-12.b</b>, will be implemented using the most appropriate material, configuration, and location to achieve the maximum feasible noise reduction.</li> </ul> <p><b><u>NOI-4: Noise Control During Site Preparation, Excavation, and Site Closure Activities</u></b></p> <p>Site preparation, excavation, and site closure activities will be allowed only during daytime hours.</p> <p><b><u>NOI-5: Noise Control During Mortar Lining Removal, Pipeline Dewatering, and New Pipeline Liner Application Activities</u></b></p> <p>Increased noise levels from these activities primarily result from pressurized air venting or leaking from equipment. The following measures would reduce the noise that results from this potential occurrence.</p> <ul style="list-style-type: none"> <li><b>NOI-5.a</b> – No air line, air relief valve, air switch, air control, or any other equipment component will be allowed to vent pressurized air directly to the atmosphere. All air vent lines will go through an air silencing system that reduces air vent noise to 75 dBA <math>L_{EQ}</math> (1-second) or less at a distance of five feet.</li> </ul>	

- Recommendations regarding the air quality analysis:

Existing air quality conditions, anticipated Project emissions, and measures to reduce potential impacts related to air quality are detailed in **Section 3.1, Air Quality**.

- Identification of potential permit requirements associated with work within the California Department of Transportation (Caltrans) right-of-way:

Metropolitan would obtain the necessary Caltrans Encroachment Permit prior to initiation of Project activities, as identified in **Section 2.8, Other Required Project Approvals**.

### 1.3 FORMAT OF THE EIR

This EIR is organized as follows:

**Executive Summary** – The Executive Summary includes a brief project description, summary of environmental impacts and proposed mitigation measures that would reduce or avoid impacts determined to be significant, alternatives considered, areas of controversy known to the Lead Agency, and any issues to be resolved including the choice among alternatives or how to mitigate significant impacts (CEQA Guidelines Section 15123).

**Chapter 1.0, Introduction** – This chapter describes the scope and purpose of the EIR, provides a brief summary of the CEQA process, and establishes the document format.

**Chapter 2.0, Project Description** – This chapter provides a description of Metropolitan, Etiwanda Pipeline North, and the proposed Project, including the goals and objectives of the Project and proposed Project features. In addition, the intended and required uses of the EIR and a discussion of discretionary actions required for Project implementation are included.

**Chapter 3.0, Environmental Impact Analysis** – This chapter constitutes the main body of the EIR and includes the detailed impact analysis for each environmental issue. The topics analyzed in this chapter include: air quality, biological resources, greenhouse gas emissions, land use and planning, noise, and transportation and traffic. Under each topic, **Chapter 3.0** includes a discussion of methods of analysis, existing conditions, the thresholds identified for the determination of significant impacts, and an evaluation of the impacts associated with implementation of the Project. Where the impact analysis demonstrates the potential for the Project to have a significant adverse impact on the environment, mitigation measures are provided which would minimize the significant effects. The EIR indicates if the proposed mitigation measures would reduce impacts to less than significant levels.

**Chapter 4.0, Cumulative Impact Analysis** – This chapter addresses the cumulative impacts due to implementation of the proposed Project in combination with other past, present, and reasonably foreseeable or probable future projects in the area.

**Chapter 5.0, Mandatory CEQA Topics** – This chapter discusses additional topics required by CEQA, including unavoidable adverse impacts, growth inducement, and irreversible environmental changes.

Implementation of these measures as part of the Project, in advance of impact findings and determinations, is in good faith to improve the quality and integrity of the Project, streamline the environmental analysis, and demonstrate environmental responsibility. Environmental commitments incorporated into the proposed Project include the following:

- Project activities would adhere to South Coast Air Quality Management District Rule 403, which includes a variety of measures intended to reduce fugitive dust emissions. In light of extreme drought conditions, Metropolitan would consider alternative feasible methods of dust control that minimize the use of water.
- If activities are proposed to occur during the general bird nesting season of February 1 through September 15, Metropolitan would retain a qualified biologist to ensure that nesting birds, including burrowing owls, are protected in compliance with the Migratory Bird Treaty Act and California Fish and Game Code (refer to **Section 3.2.3** for details).
- Work areas would be kept clean of attractive nuisances (e.g., trash and food) to wildlife, and the management of any wildlife that may occur within or adjacent to work areas would be in consultation with a qualified biologist.
- The use of any nighttime safety or security lighting would be directed away from homes and oncoming vehicles.

## 2.8 OTHER REQUIRED PROJECT APPROVALS

California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances. This exemption applies to the Etiwanda Pipeline North as a water transmission pipeline and a direct component of Metropolitan's treatment, storage and transmission system. Nonetheless, Project implementation is anticipated to require traffic control plans and waivers from local noise ordinances from the cities of Fontana and Rancho Cucamonga. These cities may have discretionary authority over some aspects of the Project and may use this EIR when considering the Project or issuing permits.

Other permits or approvals that could be required include:

- Caltrans Encroachment Permit;
- California Air Resources Board and/or South Coast Air Quality Management District certification of abrasive blast media and construction equipment;
- California Occupational Health and Safety Administration Tunnel Safety Order compliance; and
- Conformance with applicable State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) and/or Municipal Separate Storm Sewer Systems (MS4) requirements.

occur. Application of these standard practices to the Project would ensure that impacts to species protected under the MBTA and Fish and Game Code would be less than significant.

The Project area does not contain suitable burrows for burrowing owl, and burrowing owl is not expected to occur in the Project area. Surrounding undeveloped lands outside the Project area but within the study area have low potential for burrowing owl based on disturbance and agricultural activities. No direct impacts to burrowing owl are expected, and the potential for indirect impacts outside the Project area is considered to be low. The low likelihood of burrowing owl presence in the areas surrounding the Project, and the implementation of avoidance and minimization measures should any be detected during pre-activity nesting bird surveys, would ensure that the Project's impacts to burrowing owl would be less than significant.

In summary, the potential Project impacts to sensitive species (Threshold A) would be less than significant.

### Sensitive Natural Communities (Threshold B)

Two sensitive natural communities were mapped within the Project area: Riversidean alluvial fan sage scrub and Riversidean upland sage scrub. Potential Project impacts to sensitive natural communities are depicted in **Figures 3.2-1a to 3.2-1j**, and summarized in **Table 3.2-2, Sensitive Vegetation Community Impacts**.

Table 3.2-2 SENSITIVE VEGETATION COMMUNITY IMPACTS*		
Vegetation Community	Existing	Impact
Riversidean Upland Sage Scrub – Disturbed	5.0	2.6
Riversidean Alluvial Fan Sage Scrub – Disturbed	0.2	0.04
<b>TOTAL</b>	<b>5.2</b>	<b>2.67</b>

\*Areas are in acres

Note: Impacts reported in this table reflect vegetation within proposed Contractor Work and Storage Areas and excavation areas. Impacts to up to an additional 2.4 acres of Riversidean upland sage scrub and up to 0.08 acre of Riversidean alluvial fan sage scrub may be subject to temporary disturbance.

The Project would temporarily impact 2.6 acres of disturbed Riversidean upland sage scrub and 0.1 acre of disturbed Riversidean alluvial fan sage scrub in the proposed Contractor Work and Storage Areas and excavation areas. According to biological surveys conducted for the original Etiwanda Pipeline North installation in 1988, Riversidean upland sage scrub in the proposed pipeline alignment was disturbed (WESTEC 1988), which indicates that this habitat has been of low quality since before the original pipeline installation. The Riversidean alluvial fan sage scrub and disturbed Riversidean upland sage scrub in the Project area represents vegetation that has re-grown since excavation for installation of Etiwanda Pipeline North in 1993, and that has continued to be disturbed by on-going maintenance activities in the right-of-way. These communities are remains highly disturbed, low in quality, and provides limited biological function and value. Neither has a high potential to support any sensitive species. The San Bernardino kangaroo rat was determined to be absent from these communities. The Riversidean alluvial fan sage scrub is not associated with any functioning riparian habitat and is of low



~~quality. The Riversidean upland sage scrub is highly disturbed comprised of a sparse arrangement of California buckwheat and deerweed shrubs with non-native red brome, oats, and filaree, low in quality, and~~ It also is isolated from core habitat blocks in the local and regional area. Both California buckwheat and deerweed are resilient disturbance-followers, which are expected to again successfully colonize the temporary impact areas. Temporary impacts to ~~thisese communities~~ (Threshold B) would be less than significant.

Sensitive native vegetation outside the areas proposed for direct disturbance but within the Project area (totaling up to an additional 2.4 acres of Riversidean upland sage scrub ~~and up to 0.08 acre of Riversidean alluvial fan sage scrub~~) may be subject to disturbance by vehicle access and equipment storage as necessary for Project activities, or by routine vegetation maintenance. Because no permanent removal of habitat would be necessary to accommodate temporary access and storage in these areas, vegetation in these communities is expected to recover after Project completion. These areas are isolated habitat fragments in disturbed condition and the potential temporary impact (Threshold B) would be less than significant.

### **Local Policies, Ordinances, and Adopted Plans (Threshold C)**

As described in **Section 3.2.1**, the adopted General Plan for the City of Fontana includes policies relevant to the protection of biological resources. These policies include identification of impacts to sensitive species and mitigation for removal of natural habitat. As noted above, California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances. These policies provide a point of reference regarding resource protection priorities of those jurisdictions and are evaluated for purposes of full disclosure of potential Project impacts on the environment. Potential impacts to sensitive species are addressed above, and appropriate protective measures would be provided in accordance with Metropolitan's standard practices for the protection of nesting birds. Also as addressed above, the Project would result in temporary impacts to Riversidean upland sage scrub ~~and Riversidean alluvial fan sage scrub~~. ~~Thisese communities is~~ are, however, disturbed, low in quality, and provides limited biological function and value. ~~They~~ It represents vegetation that has re-grown in similar quality to the disturbed vegetation that existed prior to ~~since~~ excavation for installation of Etiwanda Pipeline North in 1993, ~~and~~ Vegetation in thisese communities is expected to recover after Project completion to a community that is functionally equivalent to the limited, disturbed community that currently exists. Impacts would be less than significant and do not require mitigation. Based on these considerations, the Project would not conflict with local policies or ordinances protecting biological resources (Threshold C).

### **3.2.4 Mitigation Measures**

Impacts related to Thresholds A, B, and C would be less than significant; no mitigation is required.

### **3.2.5 Conclusions**

Impacts to special-status animal species and sensitive communities would be less than significant given the relatively low sensitivity of resources present, small numbers of individuals likely to be affected, and Metropolitan's standard practices for the protection of nesting birds, including burrowing owls and other raptors. No impacts would occur related to consistency with local policies, ordinances, or plans.

**Table 3.4-1  
PROJECT CONSISTENCY WITH GENERAL PLAN POLICIES**

<b>Policy</b>	<b>Discussion</b>	<b>Consistent?</b>
<b><i>City of Fontana General Plan</i></b>		
<b><i>City of Fontana General Plan – Land Use Element</i></b>		
Goal 2, Policy 2: Regionally beneficial land uses such as transportation corridors, flood control systems, utility corridors, and recreational corridors shall be sensitively integrated into our community.	The Project area is located within a land use and zoning designation of P-UC. Repairing Etiwanda Pipeline North would assist in Metropolitan’s ability to continue to provide water to customers within its southern California service area. Project activities would be temporary; after completion of the Project, the Project area would be returned to its existing condition.	Yes
Goal 2, Policy 3: Multiple uses within utility easements shall emphasize open spaces but may accommodate more intensive uses to safely augment adjacent uses.	The proposed Project is located within a utility corridor that is mostly vacant above-ground. Project activities would be temporary; upon completion, the Project area would be returned to its existing condition. Metropolitan generally maintains exclusive use of its facility rights-of-way; however, the Project would not preclude the Project area from being used for multiple purposes.	Yes
<b><i>City of Fontana General Plan – Public Facilities, Services, and Infrastructure Element</i></b>		
Goal 9, Policy 2: The installation of utilities shall be coordinated so that disruption of public rights-of-way and private property is kept to a minimum.	The Project would consist of repair of an existing pipeline within Metropolitan’s existing right-of-way. The Project would not result in disruptions to roadways or other public rights-of-way. Metropolitan would obtain temporary construction easements from private properties that would be used as staging areas, and they would be returned to their current status following completion of Project activities.	Yes
<b><i>City of Fontana General Plan – Open Space and Conservation Element</i></b>		
Goal 1.2, Policy 2: Require mitigation for removal of any natural habitat, including restoration of degraded habitat of the same type, creation of new or extension of existing habitat of the same type, financial contribution to a habitat conservation fund administered by federal, state or local government agency, or by a non-profit conservancy.	As discussed in <b>Section 3.2, Biological Resources</b> , the Project would temporarily impact 2.6 acres of disturbed Riversidean upland sage scrub and 0.1 acre of disturbed Riversidean alluvial fan sage scrub in the proposed staging areas and excavation areas. <del>These communities are</del> <u>is highly disturbed and provides limited biological function and value.</u> Impacts would be temporary and are considered less than significant; therefore, no mitigation is required for sensitive habitat.	Yes

residences will be equipped with minimum eight-foot high noise control barriers between the gathering area and residences; entrances will not face residences.

- **NOI-3.c** – Parking areas will be located a minimum of 150 feet from sensitive receptors. Parking areas that are within 500 feet of sensitive receptors will be posted to prohibit workers from gathering during nighttime hours, and prohibiting radios and music at any time.
- **NOI-3.d** – Equipment will be maintained to a minimum standard that includes engine noise baffles and mufflers that meet or exceed the original manufacturer's requirements.
- **NOI-3.e** – Equipment that has noise control doors will be operated only with the doors fully closed.
- **NOI-3.f** – Equipment delivery trucks will be allowed only during daytime hours, and back-up alarms will be disengaged to the extent allowed by OSHA.
- **NOI-3.g** – Fuel deliveries will occur during daytime hours and at a minimum of 500 feet from residences, to the extent feasible. Fueling stations that must be located within 500 feet of residences will have minimum eight-foot high noise control barriers, and fuel trucks that are required during nighttime hours will maintain a minimum distance of 100 feet from residences.
- **NOI-3.h** – Noise control barriers and enclosures, where used in accordance with NOI-12.b, will be fully in place prior to work at that location.
- **NOI-3.i** – Noise control barriers and enclosures, where used in accordance with NOI-12.b, will be implemented using the most appropriate material, configuration, and location to achieve the maximum feasible noise reduction.

**NOI-4     Noise Control During Site Preparation, Excavation, and Site Closure Activities**

Site preparation, excavation, and site closure activities will be allowed only during daytime hours.

**NOI-5     Noise Control During Mortar Lining Removal, Pipeline Dewatering, and New Pipeline Liner Application Activities**

Increased noise levels from these activities primarily result from pressurized air venting or leaking from equipment. The following measures would reduce the noise that results from this potential occurrence.

- **NOI-5.a** – No air line, air relief valve, air switch, air control, or any other equipment component will be allowed to vent pressurized air directly to the atmosphere. All air vent lines will go through an air silencing system that reduces air vent noise to 75 dBA  $L_{EQ}$  (1-second) or less at a distance of five feet.

emissions of VOC, CO, and NO<sub>x</sub>. Therefore, the Project would contribute significantly to the cumulative impact to regional emissions.

With respect to local impacts, cumulative particulate impacts are considered when projects may be within a few hundred yards of each other. As identified in **Table 4-1** and **Figure 4-1**, several projects have been identified within this proximity to the Project, including a water reservoir and booster station, church and associated parking, three private development projects, and the Falcon Ridge Substation Project. The Falcon Ridge Substation Project is anticipated to be under construction concurrently with the Etiwanda Pipeline North Relining Project. The construction schedule for the other projects is unknown and, although it is unlikely that they would all be under construction at the same time as the proposed Project, they are conservatively assumed to overlap for the purposes of this analysis. As shown in **Table 3.1-6**, implementation of the mitigation measures AIR-1 and AIR-2 would reduce local emissions of CO, NO<sub>x</sub>, and PM<sub>10</sub> to below the SCAQMD thresholds. Because these thresholds have been developed for the specific purpose of addressing cumulative impacts, the Project would not contribute significantly to cumulative impacts regarding local emissions of CO, NO<sub>x</sub>, and PM<sub>10</sub>. Even with implementation of mitigation measures, the proposed Project would result in local emissions of PM<sub>2.5</sub> that exceed the SCAQMD significance thresholds. Therefore, the Project would contribute significantly to the cumulative local emissions impact.

In summary, the Project would contribute significantly to cumulative impacts to regional and local air pollutant emissions.

#### **4.3.2 Biological Resources**

Portions of the cumulative project area support, or previously supported, habitat types such as Riversidean sage scrub and Riversidean alluvial fan sage scrub, which may provide habitat for species such as San Bernardino kangaroo rat, San Diego pocket mouse, and Los Angeles pocket mouse. The extensive development that has occurred in the region has resulted in a loss of substantial amounts of these habitats and associated species, which has resulted in them being considered sensitive by the applicable resource agencies. The cumulative regional loss of sensitive vegetation communities and associated sensitive species would be considered significant.

The proposed Project would also result in the removal of Riversidean sage scrub and Riversidean alluvial fan sage scrub. However, ~~this~~<sup>these</sup> communities occurs only in small patches that are highly disturbed, discontinuous, and provide limited biological function and value. This community was comprised of low quality vegetation prior to the original installation of the Etiwanda Pipeline and has since been disturbed by ongoing maintenance activities in the right-of-way. Because the native species currently present in this community are disturbance followers, vegetation in this community is expected to recover after Project completion to a community that is functionally equivalent to the limited, disturbed community that currently exists. As a result, the minor, temporary Project-related impacts to ~~this~~<sup>these</sup> communities would not contribute significantly to cumulative vegetation impacts.

The San Bernardino kangaroo rat was determined to be absent from the Project area. As discussed in Section 3.2, Project-related impacts to the three sensitive species identified within



the Project area (San Diego black-tailed jackrabbit, San Diego pocket mouse, and Los Angeles pocket mouse) would include less than significant impacts from temporary loss of patchy, low-quality foraging and movement areas, as well as possible direct impacts to the San Diego pocket mouse and Los Angeles pocket mouse from ground-disturbing activities. Survey results, however, suggest that the Project area supports less than one percent of the lowest estimated statewide population of San Diego pocket mouse, and a little more than one percent of the lowest estimated statewide population of Los Angeles pocket mouse.

Although only minimal, disturbed, low-quality patches of native vegetation occur in the Project area, the study area contains vegetation and structures that may provide nesting opportunities for common birds, including raptors. These birds are protected under the MBTA and California Fish and Game Code, and the potential for adverse impacts to nesting birds would be avoided or minimized through Metropolitan's standard practices for the protection of nesting birds. Therefore, the Project would not contribute significantly to cumulative impacts to sensitive species.

In summary, the Project would not contribute significantly to cumulative impacts to biological resources.

#### **4.3.3 Greenhouse Gas Emissions**

The assessment of GHG emissions is inherently cumulative because climate change is a global phenomenon. Therefore, the discussion in **Section 3.3** of this EIR addresses cumulative GHG impacts and determines that the impact of the Project's GHG emissions on climate change would not be cumulatively considerable, as the Project would not exceed the SCAQMD screening threshold or conflict with an applicable GHG plan, policy, or regulation. The Project would not contribute significantly to cumulative greenhouse gas emission impacts.

#### **4.3.4 Land Use and Planning**

The proposed Project consists of repairing an existing facility and would not result in an alteration of present or planned zoning or land use designations. California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances. This exemption applies to the Etiwanda Pipeline North as a water transmission pipeline and a direct component of Metropolitan's treatment, storage and transmission system. The Project would conflict with noise policies in the General Plans of the cities of Fontana and Rancho Cucamonga. This conflict represents a noise, rather than land use, impact, and is addressed in **Section 4.3.5**. Therefore, the Project would not contribute significantly to cumulative impacts to land use and planning.

#### **4.3.5 Noise**

##### **Temporary Increases in Ambient Noise**

Noise impacts are highly localized due to the decreasing effect that distance has upon noise levels. Construction of the SCE Falcon Ridge Substation Project may occur at the same time as the proposed Project. As part of the substation project, a sub-transmission source line segment would be installed adjacent to the Project. The new line would be built east of the existing line

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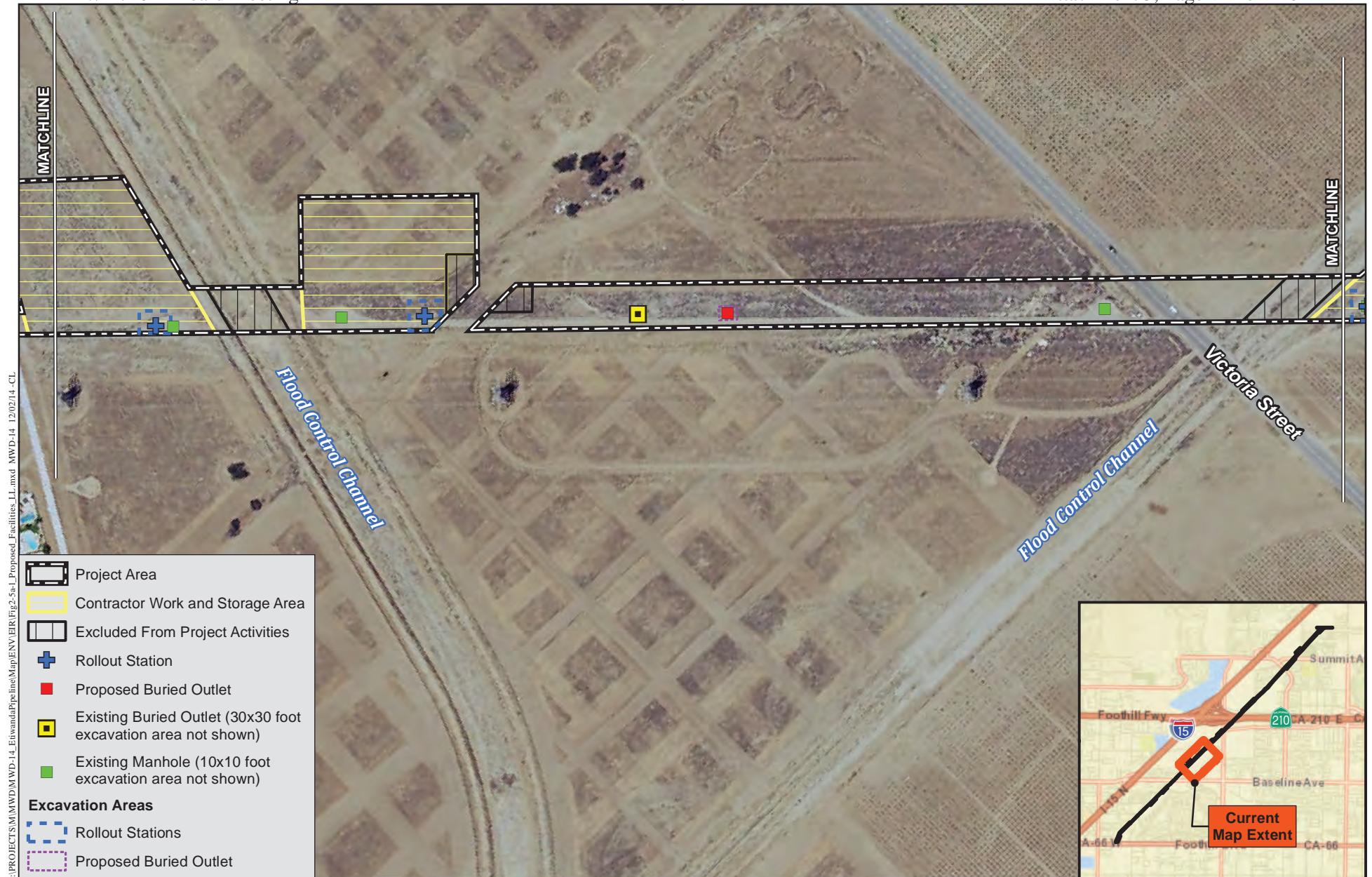
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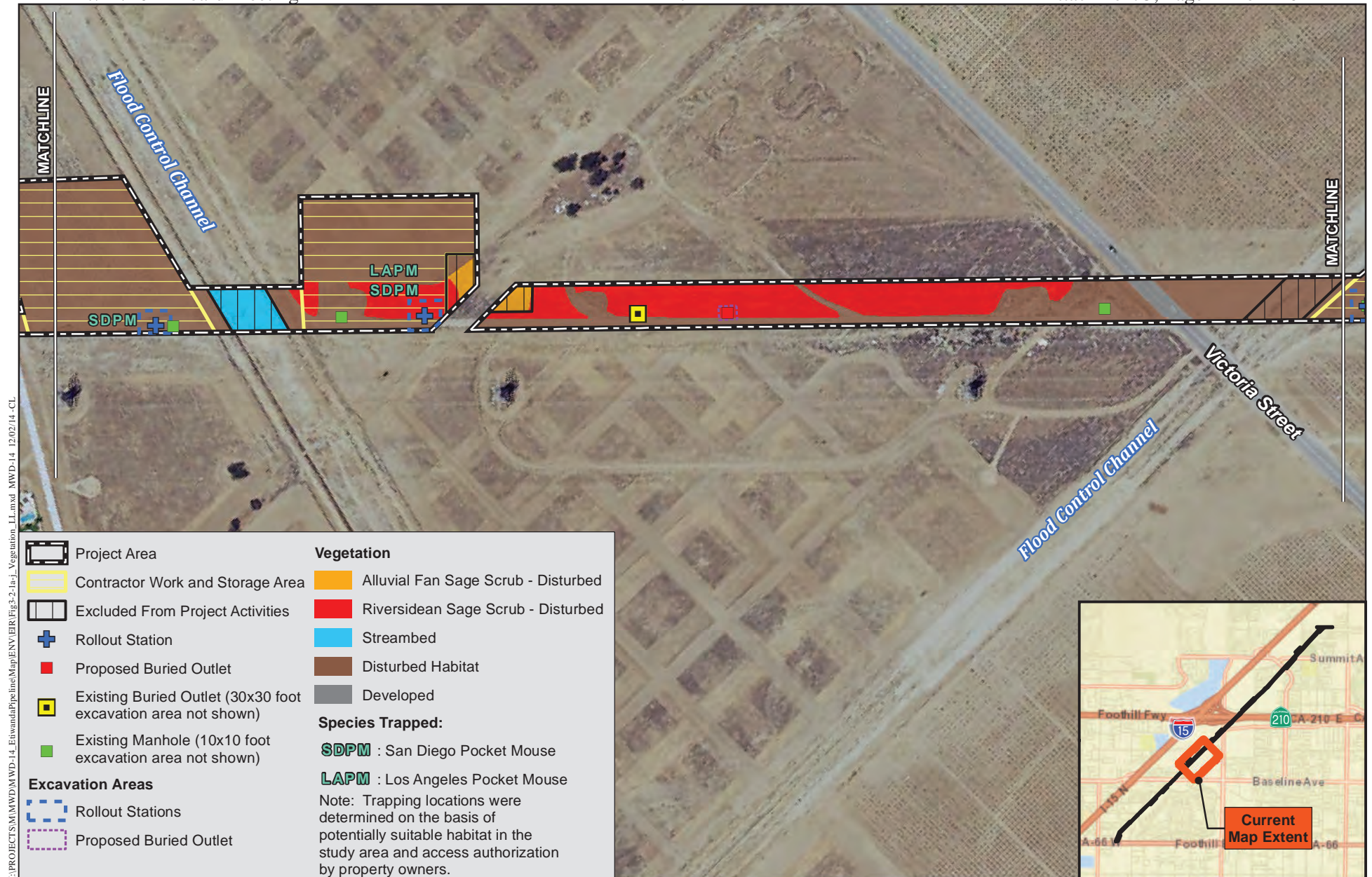


## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5d





## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1d

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## LIST OF ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
a.m./AM	morning
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CH <sub>4</sub>	methane
CMP	Congestion Management Program
CNRA	California Natural Resource Agency
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
CRA	Colorado River Aqueduct
dBa	decibel(s) with A-weighting
DWR	Department of Water Resources
EIR	Environmental Impact Report
GHG	greenhouse gas
HELIX	HELIX Environmental Planning, Inc.
HFCs	hydrofluorocarbons
hp	horsepower
I-15	Interstate 15
L <sub>EQ</sub>	average sound level
LOS	level of service
MBTA	Migratory Bird Treaty Act
Metropolitan	Metropolitan Water District of Southern California
MMT	million metric tons
MS4	Municipal Separate Storm Sewer Systems
MT	metric tons
N <sub>2</sub> O	nitrous oxide
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	oxides of nitrogen
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System



O <sub>3</sub>	ozone
OSHA	Occupational Safety and Health Administration
PCE	passenger car equivalent
PFCs	perfluorocarbons
p.m./PM	evening
PM <sub>2.5</sub>	fine particulate matter with a diameter of 2.5 microns or less
PM <sub>10</sub>	respirable particulate matter with a diameter of 10 microns or less
ppm	parts per million
PRC	Public Resources Code
Project	Etiwanda Pipeline North Relining Project
P-UC	Public Utility Corridor
SANBAG	San Bernardino Associated Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SF <sub>6</sub>	sulfur hexafluoride
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	oxides of sulfur
SP-E	Etiwanda Specific Plan
SR	State Route
SWP	State Water Project
TACs	toxic air contaminants
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration decibels
VOC	volatile organic compound
µg/m <sup>3</sup>	micrograms per cubic meter

## SUMMARY

## SUMMARY

This chapter provides a summary of this Environmental Impact Report (EIR) for implementation of the Metropolitan Water District of Southern California's (Metropolitan's) Etiwanda Pipeline North Relining Project (herein referred to as "proposed Project" or "Project"). This EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code [PRC] Section 21000 et seq.) and the Guidelines for Implementation of CEQA (State CEQA Guidelines) published by the Public Resources Agency of the State of California (California Code of Regulations [CCR], Title 14, Section 15000 et seq.).

This chapter highlights the major areas of importance in the environmental analysis for the proposed Project as required by State CEQA Guidelines Section 15123. It provides a brief description of the Project objectives, the proposed Project, and alternatives to the proposed Project. In addition, this chapter includes a table summarizing: (1) the direct impacts that would occur from implementation of the proposed Project; (2) the level of impact significance before mitigation; (3) the recommended mitigation measures that would avoid or reduce significant environmental impacts; and (4) the level of impact significance after mitigation measures are implemented.

### S.1 PROJECT LOCATION

The proposed Project involves relining of Metropolitan's Etiwanda Pipeline North. The portion of the pipeline to be relined includes approximately 4.4 miles of pipeline right-of-way in the city of Fontana, beginning at Metropolitan's Rialto Pipeline and ending at East Avenue, and approximately 0.4 mile of pipeline right-of-way in the city of Rancho Cucamonga, continuing from East Avenue and ending just north of Foothill Boulevard. The pipeline parallels Interstate 15 (I-15), approximately 0.4 mile east of I-15 and crosses under State Route (SR) 210. The alignment traverses in a northeast to southwest direction, with the northernmost portion of the alignment located approximately 0.3 mile east of Lytle Creek Road and approximately 0.5 mile north of Summit Avenue in the city of Fontana. The southern terminus of the Project area is just north of Foothill Boulevard, approximately 0.2 mile west of East Street in the city of Rancho Cucamonga.

### S.2 PROJECT DESCRIPTION

#### Project Objectives

The proposed Project would remove the existing mortar lining that has become separated from the inside of Etiwanda Pipeline North and install a new lining to prevent further corrosion. The primary objectives of the Project are as follows:

- Enable Metropolitan to continue conveyance of water from the Rialto Pipeline to the Upper Feeder as needed to supply customers;
- Enable Metropolitan to continue electricity generation through water conveyance to the Etiwanda Hydroelectric Plant;

- Provide a safe, feasible and cost-effective relining method; and
- Minimize Project-related nuisances such as traffic disruption, noise, air quality, dust, and odor to the extent feasible.

### **Proposed Project**

To prevent further corrosion of the steel pipe in the approximately five-mile-long segment of Etiwanda Pipeline North, the Project proposes to remove the existing interior mortar lining, much of which has eroded and delaminated, and recoat the pipe with a new lining.

Except for excavation and staging, Project activities would mostly occur below-ground. Access to the pipe for relining activities would be accomplished via rollouts (where a 20-foot segment of pipe would be removed), existing manholes, existing buried outlets (similar to manholes but without surface structures), and proposed new buried outlets. While the remainder of the right-of-way and staging areas may be used for access and material storage, no other disturbance of the existing ground is anticipated. Surface disturbance could occur in the remainder of the right-of-way from materials staging and grubbing of vegetation. Project activities would not occur within storm drainage courses, public roadways, or public rights-of-way.

Primary activities would include the following: site preparation; preparation of access points into the pipeline; pipeline shutdown and removal of water; surface preparation of the interior of the pipe surfaces (including removal of the existing lining); application of the new liner; and closing access points and site completion. Following the completion of pipeline relining, the Project would not require operations or maintenance personnel beyond those already required for the existing pipeline.

The proposed Project activities are expected to begin in 2015 and would occur during pipeline shutdown periods, the number and duration of which would be determined by water demands and available supplies. Up to three phases would be required, each lasting approximately one year with each shutdown period lasting approximately six to nine months. Although the Project work schedule would vary throughout the duration of Project activities, during the pipeline shutdown period, work could be performed up to 24 hours per day and seven days per week.

Metropolitan's mission includes incorporation of environmental responsibility into its projects and operation of its facilities. Environmental commitments are proposed as part of the Project to reflect and incorporate Metropolitan's best practices to avoid, minimize, or offset potential environmental effects from its projects. The Project, with these environmental commitments incorporated, was then evaluated for potentially significant impacts and the need for mitigation measures. Implementation of these commitments as part of the Project would reduce potential impacts relative to air pollutant emissions, biological resources, and noise.

### **S.3 SCOPE OF ENVIRONMENTAL ANALYSIS**

This EIR contains a discussion of the potential significant environmental effects resulting from implementation of the proposed Project, including information related to existing site conditions, analyses of the type and magnitude of individual and cumulative environmental impacts, and feasible mitigation measures that could reduce or avoid environmental impacts. For analysis purposes, certain assumptions were made in the types, quantities, and uses of equipment and



workers. These assumptions reflect the best level of judgment and information available about the design of the Project, but they also allow necessary flexibility for adjustments during final design and performance of the work. Refinements in the Project may result in minor variations in specific types, numbers, and uses of equipment and workers; however, the assumptions used in the analyses are considered the worst-case Project scenarios for air emissions, noise, and traffic. Actual emissions, noise, and traffic levels could be lower than shown in the analysis conclusions.

In accordance with the State CEQA Guidelines, Metropolitan circulated a Notice of Preparation (NOP) and Initial Study for this Draft EIR in August 2014 to responsible agencies and other interested parties, to solicit comments on the scope of the Draft EIR. The 30-day public review period ended on September 17, 2014. The Initial Study, NOP and comment letters received on the NOP are included in **Appendix A** of this document. Based on the results of the Initial Study/NOP, this EIR analyzes the potential environmental effects of the proposed Project for the following issue areas:

1. Air Quality
2. Biological Resources
3. Greenhouse Gas Emissions
4. Land Use and Planning
5. Noise
6. Transportation and Traffic

Issue areas that were determined by the Initial Study to have less than significant impacts from the proposed Project were not further analyzed in this EIR. These environmental issue areas are as follows:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| 1. Aesthetics                         | 7. Mineral Resources              |
| 2. Agriculture and Forestry Resources | 8. Population and Housing         |
| 3. Cultural Resources                 | 9. Public Services                |
| 4. Geology and Soils                  | 10. Recreation                    |
| 5. Hazards and Hazardous Materials    | 11. Utilities and Service Systems |
| 6. Hydrology and Water Quality        |                                   |

#### **S.4 AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED**

Section 15123 of the State CEQA Guidelines requires the identification of any areas of controversy known to the lead agency, including issues raised by other agencies and the public. While no areas of controversy were identified for the Project in the NOP comment letters, it is anticipated that temporary noise levels during Project activities would be controversial. The anticipated noise levels, as well as measures that would limit impacts to adjacent residences, are detailed in **Section 3.5, Noise**, of this EIR. As discussed in that section, Metropolitan would work closely with the representatives from the Cities of Fontana and Rancho Cucamonga to reach resolution regarding acceptable noise levels.

## S.5 SUMMARY OF PROJECT ALTERNATIVES

Alternatives are analyzed in **Chapter 6.0, *Project Alternatives***, of this Draft EIR. A number of alternatives were identified and subjected to screening analysis, as part of the proposed Project design process. The objective of the alternatives analysis is to consider a reasonable range of potentially feasible alternatives to foster informed decision-making and public participation. All of the alternatives for the Project were rejected as infeasible and would not meet the basic Project objectives. The proposed Project, therefore, is considered to be the environmentally superior alternative.

## S.6 SUMMARY OF IMPACTS AND MITIGATION MEASURES

**Table S-1, *Environmental Impacts and Mitigation Measures***, provides a summary of the environmental impacts that could result from implementation of the proposed Project and feasible mitigation measures that could reduce or avoid environmental impacts. For each impact, **Table S-1** identifies the significance of the impact prior to and following implementation of mitigation measures. With the exception of air quality impacts and noise impacts, all Project-specific significant impacts would be reduced to below a level of significance following implementation of the mitigation measures. The Project's generation of nighttime noise would conflict with General Plan noise policies; however, as the Project is exempt from local zoning and building ordinances through California Government Code Section 53091, the short-term policy conflict represents a noise, rather than a land use, impact. Project-related impacts combined with impacts from other projects in the cumulative project study area also would not result in significant and unmitigable cumulative impacts, with the exceptions of air quality and noise.

**Table S-1**  
**ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
<b>3.1 Air Quality</b>				
Conflict with Applicable Air Quality Plans	The proposed Project would not exceed the assumptions in the Air Quality Management Plan; however, Project emissions would exceed regional criteria pollutant thresholds established by the South Coast Air Quality Management District (SCAQMD).	Significant	<p><b>AIR-1:</b> All off-road diesel-powered construction equipment greater than 50 horsepower (hp) will meet Tier 4 emission standards. All construction equipment will be outfitted with California Air Resources Board-certified best available control technology devices. Any emissions-control device used by the contractor will achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by California Air Resources Board regulations. A copy of each unit's certified tier specification, best available control technology documentation, and California Air Resources Board or South Coast Air Quality Management District operating permit will be provided at the time of mobilization of each applicable unit of equipment.</p> <p><b>AIR-2:</b> Diesel haul trucks (e.g., material delivery trucks and debris export) will be 2010 model year or newer.</p> <p><b>AIR-3:</b> Electricity from power poles will be used instead of temporary diesel or gasoline-powered generators and air compressors to reduce the associated emissions, where power poles are within 100 feet of equipment sites and feasible connections are available.</p>	Significant
Conformance to Air Quality Standards	Project emissions would exceed regional criteria pollutant thresholds established by the SCAQMD for emissions of volatile organic	Significant	Mitigation measures <b>AIR-1</b> through <b>AIR-3</b> will be implemented to reduce potential impacts associated with Project activities.	Significant

<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.1 Air Quality (cont.)</b>				
	compounds (VOCs), nitrogen oxides (NO <sub>x</sub> ), and particulate matter that is 2.5 microns or smaller (PM <sub>2.5</sub> ). Project-related emissions would also exceed SCAQMD's localized criteria pollutant thresholds for emissions of NO <sub>x</sub> , particulate matter that is 10 microns or smaller (PM <sub>10</sub> ), and PM <sub>2.5</sub> .			
Cumulatively Considerable Net Increase in Criteria Pollutants	The Project would result in regional and localized exceedances, as discussed above, which would be potentially cumulatively considerable.	Significant	Mitigation measures <b>AIR-1</b> through <b>AIR-3</b> will be implemented to reduce potential impacts associated with Project activities.	Significant
Expose Sensitive Receptors to Pollutants	Project-related local emissions of criteria pollutants and toxic air contaminants would result in potentially significant health risks to nearby residences, schools, and off-site workers.	Significant	Mitigation measures <b>AIR-1</b> through <b>AIR-3</b> will be implemented to reduce potential impacts associated with Project activities.	Significant (local emissions only)
Create Objectionable Odors	Project-related odors associated with equipment operations would be temporary and would not be objectionable to a substantial number of people.	Less than significant	No mitigation is required.	Less than significant



<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.2 Biological Resources</b>				
Adversely Affect Candidate, Sensitive, or Special Status Species	The Project would result in minor, temporary loss of foraging and movement areas for the San Diego jackrabbit, San Diego pocket mouse, and Los Angeles pocket mouse; as well as potential direct impacts to the San Diego pocket mouse and Los Angeles pocket mouse from ground-disturbing activities. Potential impacts to nesting birds would be less than significant through Metropolitan's standard environmental practices and compliance with the Migratory Bird Treaty Act (MBTA).	Less than significant	No mitigation is required.	Less than significant
Adversely Affect Sensitive Natural Communities	The Project would temporarily impact isolated habitat fragments of disturbed Riversidean upland sage scrub and <del>disturbed Riversidean alluvial fan sage scrub</del> within the existing right-of-way.	Less than significant	No mitigation is required.	Less than significant
Conflict with Local Policies or Ordinances Protecting Biological Resources	The Project would not conflict with local policies or ordinances protecting biological resources.	Less than significant	No mitigation is required.	Less than significant

<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.3 Greenhouse Gas Emissions</b>				
Generate GHG Emissions that may Result in a Significant Impact	The Project would not generate GHG emissions that would result in a significant impact on the environment.	Less than Significant	No mitigation is required.	Less than Significant
Conflict with Plans for Reducing GHG Emissions	The Project would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions.	Less than significant	No mitigation is required.	Less than significant
<b>3.4 Land Use and Planning</b>				
Conflict with applicable land use plan, policy, or regulation.	The Project would temporarily conflict with noise standards in the General Plans of cities of Fontana and Rancho Cucamonga. <sup>1</sup>	Less than Significant	The short-term policy conflict represents a noise, rather than a land use, impact, due to Metropolitan's exemption from local zoning and building ordinances (which is fully discussed in Section 3.5). No mitigation is required.	Less than Significant

<sup>1</sup> California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances, including local general plans. This exemption applies to the Etiwanda Pipeline North as a water transmission pipeline and a direct component of Metropolitan's treatment, storage and transmission system. Nonetheless, Metropolitan intends to voluntarily work with the local communities to reduce impacts due to conflicts with the local plans.

<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.5 Noise</b>				
Generate Noise Levels in Excess of Standards	The Project would include 24-hour construction and result in noise levels exceeding the maximum allowable noise levels at adjacent residences during both daytime and nighttime hours. <sup>2</sup>	Significant	<p><b><u>NOI-1: Noise Control Plan</u></b></p> <p>A noise control plan will be developed in coordination with the City of Rancho Cucamonga and the City of Fontana, and will have the concurrence of the cities prior to beginning work in the Project area. The noise control plan will include but not necessarily be limited to mitigation measures <b>NOI-2</b> through <b>NOI-6</b>, to the extent feasible to protect the interests of the public and to allow for Project completion in light of critical work schedules, necessary work methods, and the physical constraints of Metropolitan's right-of-way and available work areas.</p> <p><b><u>NOI-2: Noise Monitoring</u></b></p> <ul style="list-style-type: none"> <li><b>NOI-2.a</b> – Noise monitoring will be performed to measure noise levels during work in the vicinity of sensitive receptors and to measure the effectiveness of noise control measures.</li> </ul>	Significant

<sup>2</sup> California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances, including local noise ordinances in the local zoning or building codes. This exemption applies to the Etiwanda Pipeline North as a water transmission pipeline and a direct component of Metropolitan's treatment, storage and transmission system. Nonetheless, Metropolitan intends to voluntarily work with the local communities to reduce impacts due to conflicts with the local noise ordinances.

<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.5 Noise (cont.)</b>				
			<ul style="list-style-type: none"> <li>• <b>NOI-2.b</b> – Where measured noise levels at the property line of residences are shown to exceed daytime noise levels of 75 dBA L<sub>EQ</sub>, or nighttime noise levels of 65 dBA L<sub>EQ</sub>, new noise control measures or improvements to noise control measures already in place will be implemented in an effort to achieve those daytime and nighttime thresholds, or lower, to the extent feasible; noise monitoring will be performed to record the achieved level of noise reduction.</li> </ul> <p><b>NOI-3: <u>General Noise Control for All Project Activities</u></b></p> <ul style="list-style-type: none"> <li>• <b>NOI-3.a</b> – Trucks and equipment equipped with back-up alarms will have the back-up alarms disengaged to the extent allowed by the Occupational Safety and Health Administration (OSHA); safety will be provided by lights and flagmen and safety lighting will be directed away from residences.</li> <li>• <b>NOI-3.b</b> – Areas where workers gather (e.g., break areas, shift-change areas, meeting areas) will be located a minimum of 100 feet away from any residence if feasible. Worker gathering areas that must be located within 100 feet of residences will be equipped with minimum eight-foot high noise control barriers between the gathering area and residences; entrances will not face residences.</li> </ul>	



**Table S-1 (cont.)**  
**ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
<b>3.5 Noise (cont.)</b>				
			<ul style="list-style-type: none"> <li>• <b>NOI-3.c</b> – Parking areas will be located a minimum of 150 feet from sensitive receptors. Parking areas that are within 500 feet of sensitive receptors will be posted to prohibit workers from gathering during nighttime hours, and prohibiting radios and music at any time.</li> <li>• <b>NOI-3.d</b> – Equipment will be maintained to a minimum standard that includes engine noise baffles and mufflers that meet or exceed the original manufacturer’s requirements.</li> <li>• <b>NOI-3.e</b> – Equipment that has noise control doors will be operated only with the doors fully closed.</li> <li>• <b>NOI-3.f</b> – Equipment delivery trucks will be allowed only during daytime hours, and back-up alarms will be disengaged to the extent allowed by OSHA.</li> <li>• <b>NOI-3.g</b> – Fuel deliveries will occur during daytime hours and at a minimum of 500 feet from residences, to the extent feasible. Fueling stations that must be located within 500 feet of residences will have minimum eight-foot high noise control barriers, and fuel trucks that are required during nighttime hours will maintain a minimum distance of 100 feet from residences.</li> <li>• <b>NOI-3.h</b> – Noise control barriers and enclosures, where used in accordance with <b>NOI-12.b</b>, will be fully in place prior to work at that location.</li> </ul>	

**Table S-1 (cont.)**  
**ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
<b>3.5 Noise (cont.)</b>				
			<ul style="list-style-type: none"> <li><b>NOI-3.i</b> – Noise control barriers and enclosures, where used in accordance with <b>NOI-12.b</b>, will be implemented using the most appropriate material, configuration, and location to achieve the maximum feasible noise reduction.</li> </ul> <p><b><u>NOI-4: Noise Control During Site Preparation, Excavation, and Site Closure Activities</u></b></p> <p>Site preparation, excavation, and site closure activities will be allowed only during daytime hours.</p> <p><b><u>NOI-5: Noise Control During Mortar Lining Removal, Pipeline Dewatering, and New Pipeline Liner Application Activities</u></b></p> <p>Increased noise levels from these activities primarily result from pressurized air venting or leaking from equipment. The following measures would reduce the noise that results from this potential occurrence.</p> <ul style="list-style-type: none"> <li><b>NOI-5.a</b> – No air line, air relief valve, air switch, air control, or any other equipment component will be allowed to vent pressurized air directly to the atmosphere. All air vent lines will go through an air silencing system that reduces air vent noise to 75 dBA <math>L_{EQ}</math> (1-second) or less at a distance of five feet.</li> </ul>	

<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.5 Noise (cont.)</b>				
			<ul style="list-style-type: none"> <li><b>NOI-5.b</b> – When air leaks are detected in a piece of equipment, the air source will be turned off, the air line will be depressurized, and the leak will be repaired prior to resuming use of the equipment.</li> </ul> <p><b>NOI-6: <u>Noise Control at Rollout and Ventilation Locations</u></b></p> <ul style="list-style-type: none"> <li><b>NOI-6.a</b> – The use of mobile equipment during nighttime hours will be limited to the following types – (a) skid-steer or rubber-tracked excavator; (b) tire-mounted, medium-sized mobile crane; (c) two-axle delivery truck; (d) water truck; (e) pick-up truck.</li> <li><b>NOI-6.b</b> – All generators, air compressors, ventilation equipment, vacuum pumps, and air-vent silencing systems will be placed on the east side of the pipeline or east of rollout and ventilation locations, whichever distance and/or location will achieve maximum feasible noise reduction at nearby residences.</li> <li><b>NOI-6.c</b> – All generators, air compressors, ventilation equipment, vacuum pumps, and air-vent silencer systems will be used behind noise control barriers or within noise control enclosures as necessary to prevent noise at sensitive receptors from exceeding 75 dBA <math>L_{EQ}</math> to the extent feasible. Enclosure entrances will face away from residences. Equipment entrances will be for daytime use only; worker entrances will be for daytime and nighttime use but will be kept fully closed when not in use.</li> </ul>	

<b>Table S-1 (cont.)</b> <b>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>				
<b>Issue</b>	<b>Impact</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Significance After Mitigation</b>
<b>3.5 Noise (cont.)</b>				
Increase Temporary Ambient Noise Levels	During Project-related activities, the proposed Project would result in a temporary increase in ambient noise levels at nearby residences.	Significant	Mitigation measures <b>NOI-1</b> through <b>NOI-6</b> will be implemented to reduce potential impacts associated with Project activities to the extent feasible.	Significant
Result in Excessive Ground-borne Vibration or Noise Levels	The proposed Project would cause some annoyance to nearby residences due to ground-borne vibration or noise levels; however, the Project would not result in excessive ground-borne vibration or noise levels such that structural damage would occur. Additionally, the Project is not near vibration-sensitive uses.	Less than significant	No mitigation is required.	Less than significant
<b>3.6 Transportation and Traffic</b>				
Conflict with a Circulation System Plan, Ordinance, or Policy	The Project would contribute more than 50 peak hour trips to an intersection currently operating at unacceptable LOS. The Project would not result in conflicts with other applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system.	Significant	<b>TR-1:</b> No more than 50 vehicle trips will utilize the intersection of Heritage Circle at Baseline Avenue during morning peak hours, between 7:00 a.m. and 9:00 a.m. This may be accomplished through a combination of shift scheduling, carpool incentives, and/or verification of employee and truck routes.	Less than significant
Conflict with a Congestion Management Program	Temporary trips associated with the Project would not result in a conflict with the applicable Congestion Management Program.	Less than significant	No mitigation is required.	Less than significant



## Chapter 1.0

# INTRODUCTION

## 1.0 INTRODUCTION

This Environmental Impact Report (EIR) was prepared by the Metropolitan Water District of Southern California (Metropolitan) for the proposed Etiwanda Pipeline North Relining Project (proposed Project). The Project involves repair of approximately five miles of the Etiwanda Pipeline North, consisting of removal of damaged concrete mortar lining inside the pipeline followed by application of a new polyurethane coating. This EIR was prepared to evaluate the potential impacts of the Project on the environment and on adjacent communities in the cities of Fontana and Rancho Cucamonga.

### 1.1 PURPOSE OF THE EIR

This EIR assesses the potential environmental effects of the Etiwanda Pipeline North Relining Project. This EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code [PRC] Section 21000 et seq.) and the Guidelines for Implementation of CEQA (State CEQA Guidelines) published by the Public Resources Agency of the state of California (California Code of Regulations [CCR], Title 14, Section 15000 et seq.). Metropolitan is the Lead Agency under CEQA (PRC Section 21067, as amended), is responsible for the preparation of the EIR, and will use this document to objectively review and assess the proposed Project prior to approval or disapproval.

This EIR is intended to: (1) inform decision makers and the public about the potentially significant environmental effects of the proposed activities; (2) identify the ways that significant environmental effects can be avoided or reduced; and (3) prevent significant, avoidable damage to the environment by requiring changes in the proposed Project through the use of alternatives or mitigation measures, to the extent that Metropolitan determines the changes to be feasible (CEQA Guidelines Section 15002; PRC Section 21002.1).

### 1.2 SCOPE OF THE EIR

Metropolitan prepared an Initial Study for the proposed Project (**Appendix A**). The Initial Study indicated that the Project would result in less than significant impacts to the following environmental issue areas:

- |                                       |                                   |
|---------------------------------------|-----------------------------------|
| 1. Aesthetics                         | 7. Mineral Resources              |
| 2. Agriculture and Forestry Resources | 8. Population and Housing         |
| 3. Cultural Resources                 | 9. Public Services                |
| 4. Geology and Soils                  | 10. Recreation                    |
| 5. Hazards and Hazardous Materials    | 11. Utilities and Service Systems |
| 6. Hydrology and Water Quality        |                                   |

Therefore, these issue areas do not require additional analysis. The Initial Study, however, indicated that significant impacts may occur with respect to the following environmental issue areas:

- |                             |                               |
|-----------------------------|-------------------------------|
| 1. Air Quality              | 4. Land Use and Planning      |
| 2. Biological Resources     | 5. Noise                      |
| 3. Greenhouse Gas Emissions | 6. Transportation and Traffic |

Accordingly, Metropolitan determined that an EIR was necessary to address these potentially significant issues. These issues are discussed in detail in this EIR (**Chapter 3.0, *Environmental Impact Analysis***).

On August 15, 2014, Metropolitan circulated a Notice of Preparation (NOP) to responsible agencies and other interested parties. The Initial Study, NOP and comment letters received on the NOP are included in **Appendix A** of this document. The topics identified in the comment letters received in response to the NOP, and the manner in which such comments are addressed, are summarized below.

- Concerns regarding Project-related trips and recommendations for trip reductions:

Project-generated trips, their impact on the existing circulation system, and measures necessary to reduce the single significant impact are detailed in **Section 3.6, *Transportation and Traffic***.

- Work performed in Flood Control District right-of-way would require a permit and/or other on-site or off-site improvements:

Only below-ground work within the existing pipeline would occur within Flood Control District right-of-way. There would be no change to existing drainage patterns in these areas, and no permit would be required.

- Discussion of drainage and development in a floodplain:

The Initial Study discussed drainage and activities within a floodplain in accordance with Appendix G of the State CEQA Guidelines. Because no potentially significant impacts were identified, no discussion in this EIR is required.

- Assessment of adverse impacts on historical/archaeological resources and implementation of appropriate mitigation related to such resources, in addition to coordination with the tribes on the Native American contacts list provided by the Native American Heritage Commission:

As described in the Initial Study, a record search and survey of the Project area were conducted, which identified no potentially significant resources in the Project area. In addition, no concerns were raised by representatives of the tribes on the Native American contacts list provided by the Native American Heritage Commission. Potential impacts to cultural resources were determined to be less than significant, and no discussion in the EIR is required.

- Concerns regarding impacts to sensitive biological resources, including impacts to burrowing owls, wetlands and riparian habitats, take of listed species, and avoidance and protection of rare natural communities:

Biological resources within the Project area, potential impacts, and Metropolitan's standard measures to minimize potential impacts to such resources are detailed in **Section 3.2, *Biological Resources***.

- Recommendations regarding the air quality analysis:

Existing air quality conditions, anticipated Project emissions, and measures to reduce potential impacts related to air quality are detailed in **Section 3.1, Air Quality**.

- Identification of potential permit requirements associated with work within the California Department of Transportation (Caltrans) right-of-way:

Metropolitan would obtain the necessary Caltrans Encroachment Permit prior to initiation of Project activities, as identified in **Section 2.8, Other Required Project Approvals**.

### 1.3 FORMAT OF THE EIR

This EIR is organized as follows:

**Executive Summary** – The Executive Summary includes a brief project description, summary of environmental impacts and proposed mitigation measures that would reduce or avoid impacts determined to be significant, alternatives considered, areas of controversy known to the Lead Agency, and any issues to be resolved including the choice among alternatives or how to mitigate significant impacts (CEQA Guidelines Section 15123).

**Chapter 1.0, Introduction** – This chapter describes the scope and purpose of the EIR, provides a brief summary of the CEQA process, and establishes the document format.

**Chapter 2.0, Project Description** – This chapter provides a description of Metropolitan, Etiwanda Pipeline North, and the proposed Project, including the goals and objectives of the Project and proposed Project features. In addition, the intended and required uses of the EIR and a discussion of discretionary actions required for Project implementation are included.

**Chapter 3.0, Environmental Impact Analysis** – This chapter constitutes the main body of the EIR and includes the detailed impact analysis for each environmental issue. The topics analyzed in this chapter include: air quality, biological resources, greenhouse gas emissions, land use and planning, noise, and transportation and traffic. Under each topic, **Chapter 3.0** includes a discussion of methods of analysis, existing conditions, the thresholds identified for the determination of significant impacts, and an evaluation of the impacts associated with implementation of the Project. Where the impact analysis demonstrates the potential for the Project to have a significant adverse impact on the environment, mitigation measures are provided which would minimize the significant effects. The EIR indicates if the proposed mitigation measures would reduce impacts to less than significant levels.

**Chapter 4.0, Cumulative Impact Analysis** – This chapter addresses the cumulative impacts due to implementation of the proposed Project in combination with other past, present, and reasonably foreseeable or probable future projects in the area.

**Chapter 5.0, Mandatory CEQA Topics** – This chapter discusses additional topics required by CEQA, including unavoidable adverse impacts, growth inducement, and irreversible environmental changes.



**Chapter 6.0, *Alternatives to the Proposed Project*** – This chapter provides a description of alternatives to the proposed Project and an evaluation of their potential to reduce or avoid the proposed Project’s significant impacts.

**Chapter 7.0, *References*** – This chapter includes a listing of applicable reference materials.

**Chapter 8.0, *List of Preparers*** – This chapter includes a list of individuals involved in the preparation of the EIR, including Lead Agency staff and consultants.

## Chapter 2.0

# PROJECT DESCRIPTION

## 2.0 PROJECT DESCRIPTION

This chapter describes Metropolitan, the Etiwanda Pipeline North, and the proposed Project for the public, reviewing agencies, and decision makers. In conjunction with the description of the proposed Project activities, this chapter includes the purpose, goals, and objectives of the Project; a description of the Project's location; an overview of the existing setting and adjacent land uses; a description of the Project's characteristics; and a summary of other approvals that may be required for Project implementation.

### 2.1 ABOUT METROPOLITAN

*The mission of the Metropolitan Water District of Southern California is to provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.*

The Metropolitan Water District of Southern California (Metropolitan) was formed in 1928 under an enabling act of the California legislature to construct and operate the 242-mile Colorado River Aqueduct (CRA), to bring water from the Colorado River to southern California. Metropolitan is comprised of 26 cities and water districts (member agencies) and provides drinking water to nearly 19 million people in southern California. Metropolitan's service area includes 5,200 square miles of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties.

Metropolitan owns and operates the CRA, which extends from Lake Havasu on the California-Arizona border, to Metropolitan's Lake Mathews Reservoir in western Riverside County. To augment their supply of water, in 1960, Metropolitan and 30 other public agencies signed a long-term contract to enable construction of the 444-mile California Aqueduct, to bring State Water Project (SWP) water from the San Francisco Bay Area to southern California. The California Aqueduct is controlled by the Department of Water Resources (DWR) and provides water to Metropolitan and others under contract. The California Aqueduct extends from northern California's Sacramento-San Joaquin Delta to southern California reservoirs including Lake Silverwood, Lake Perris, and Lake Castaic.

Metropolitan's water sources also include local supplies from groundwater storage agreements and water transfer arrangements with other water suppliers and users. Supplies from the Colorado River, northern California, and local sources may vary substantially on the basis of availability and environmental factors. In total, Metropolitan moves more than 1.5 billion gallons of water per day through its system. Metropolitan's headquarters are in Los Angeles, and numerous field offices are maintained throughout the service area to operate and maintain the system. The primary components of Metropolitan's conveyance, treatment, and distribution system are summarized below.

- CRA – 242 miles, includes pumping plants, siphons, tunnels, canals, and pipelines
- Water treatment plants – five water treatment plants, including the Joseph E. Jensen plant (Granada Hills), Robert A. Skinner plant (north of Temecula), F.E. Weymouth plant (La Verne), Robert B. Diemer plant (Yorba Linda), and the Henry J. Mills plant (Riverside)

- Reservoirs – 10 water storage reservoirs, including Diamond Valley Lake (near Hemet), Etiwanda (Riverside), Lake Mathews (Riverside), Lake Skinner (north of Temecula), Copper Basin and Gene Wash (desert region), Live Oak Reservoir (La Verne), Garvey Reservoir (Monterey Park), Palos Verdes Reservoir (Rolling Hills), and Orange County Reservoir (Brea)
- Distribution pipelines to member agencies – 819 miles of pipeline extending throughout the service area
- Hydroelectric plants – 16 hydroelectric plants at various locations throughout the service area

## 2.2 ETIWANDA PIPELINE NORTH

The Etiwanda Pipeline was built by Metropolitan in 1993. The pipeline is 6.3 miles in length and 12 feet in diameter. Its construction is welded-steel pipe with an approximately 3/4-inch cement mortar lining for corrosion protection inside the pipe. The pipeline is within a Metropolitan-owned right-of-way ranging in width from approximately 50 to 100 feet, with original excavation for installation of the pipe approximately 70 feet wide. The Etiwanda Pipeline extends from Metropolitan's Rialto Pipeline in Fontana to Metropolitan's Upper Feeder pipeline in Rancho Cucamonga. Access to the pipeline is via a series of 24-inch manholes along the length of the alignment. Approximately 4.4 miles of the 6.3-mile pipeline are in the city of Fontana and 1.9 miles are in the city of Rancho Cucamonga, in San Bernardino County.

The 5.5-mile northern portion of the pipeline, Etiwanda Pipeline North, extends from the Rialto Pipeline (pipeline station 0+00) at Knox Avenue east of Lytle Creek Road, to the Etiwanda Hydroelectric Plant (pipeline station 286+05) at Etiwanda Avenue south of Foothill Boulevard. The Etiwanda Pipeline North serves as a "penstock" to convey high-pressure, untreated water from the East Branch pipeline of the SWP to the hydroelectric plant at sufficient pressure to generate power. **Figure 2-1, Representative Photographs – Existing Facilities**, shows existing facilities related to and along Etiwanda Pipeline North.

The approximately 0.8-mile southern portion of the Etiwanda Pipeline extends south from the Etiwanda Power Plant to the Upper Feeder at Etiwanda Avenue, north of 6th Street, in Rancho Cucamonga. This connection allows the Upper Feeder to convey both SWP water and CRA water to Metropolitan's F.E. Weymouth Water Treatment Plant in La Verne, from which treated water supplies are distributed to customers in Los Angeles and Orange counties.

## 2.3 PROJECT NEED

Approximately 40 percent of Metropolitan's water delivery system is over 60 years old, and modernization of facilities and of the overall system is an ongoing priority. Modernization includes capital projects such as Diamond Valley Lake and San Diego Pipeline No. 6; upgrades of existing facilities such as Oxidation Retrofit Programs at the Jensen, Skinner, Mills, Diemer and Weymouth treatment plants; and ongoing repairs and maintenance of all of Metropolitan's pipelines and associated structures. Systematic inspections of facilities are a necessary component of this modernization effort. Comprehensive inspections of pipelines and canals



occur during scheduled shutdowns of portions of the system (pipelines, canals, etc.), when water deliveries are suspended temporarily for periods ranging from hours to weeks.

During shut-downs in 2008 and 2009, inspections of the interior of the Etiwanda Pipeline North revealed that portions of the mortar lining were missing or had delaminated from the steel pipe surfaces. Extensive investigations were initiated to determine the cause of the lining erosion. The investigations concluded that the primary cause was the cycling of high-pressure water within the pipeline related to on-peak and off-peak operation of the Etiwanda Hydroelectric Plant, which resulted in substantial daily fluctuations in pressure inside the pipe. In addition, the seasonal variations in availability of SWP water supplies resulted in prolonged periods when the pipeline was not in service, which created drying and shrinkage cracks in the lining. The inflexible mortar lining was incapable of moderating or absorbing these physical stresses.

Although Etiwanda Pipeline North remains in service and its structural integrity remains sound, the loss of mortar lining over time would continue to expose the interior of the pipe to corrosion and eventually would result in leakage, and possibly failure. Relining of the pipe has been determined to be necessary to maintain the long-term integrity of, and reliability of water deliveries through, the Etiwanda Pipeline North. After extensive study and application of various coating alternatives on an approximately half-mile segment of the pipeline in 2014, a flexible polyurethane lining was determined to be the most suitable replacement for the existing mortar lining. The Etiwanda Pipeline North Relining Project (Project) is designed to remove the existing mortar lining and replace it with new polyurethane lining within an approximately five-mile length of Etiwanda Pipeline North.

## 2.4 PROJECT OBJECTIVES

A clear statement of Project objectives allows for the analysis of reasonable alternatives to the proposed Project. The overall intent of the Project is to repair the pipe lining and prevent further corrosion of approximately five miles of Etiwanda Pipeline North. Project objectives are as follows:

- Enable Metropolitan to continue conveyance of water from the Rialto Pipeline to the Upper Feeder as needed to supply customers;
- Enable Metropolitan to continue electricity generation through water conveyance to the Etiwanda Hydroelectric Plant;
- Provide a safe, feasible and cost-effective relining method; and
- Minimize Project-related nuisances such as traffic disruption, noise, air quality, dust, and odor to the extent feasible.

## 2.5 PROJECT LOCATION

The proposed Project includes repairs to approximately five miles of Etiwanda Pipeline North within the cities of Fontana and Rancho Cucamonga in San Bernardino County (**Figure 2-2, Regional Map**). The portion of the pipeline to be relined includes approximately 4.4 miles in Fontana, beginning at Metropolitan's Rialto Pipeline and ending at East Avenue, and

approximately 0.4 mile in Rancho Cucamonga, continuing from East Avenue and ending just north of Foothill Boulevard (**Figure 2-3, Project Vicinity Map**). The existing pipeline parallels Interstate 15 (I-15), approximately 0.4 mile east of I-15, and crosses under State Route (SR) 210. The alignment traverses in a northeast-to-southwest direction, with the northernmost portion of the alignment located approximately 0.3 mile east of Lytle Creek Road and approximately 0.5 mile north of Summit Avenue in the city of Fontana (pipeline station 0+00). The southern terminus of the Project area is just north of Foothill Boulevard, approximately 0.2 mile west of East Street in the city of Rancho Cucamonga (approximately pipeline station 254+90).

## **2.6 EXISTING SETTING AND LAND USES**

### **2.6.1 Existing Environmental Setting**

Within the city of Fontana, the Project is located in a utility corridor that includes Southern California Edison (SCE) transmission towers immediately east of the existing pipeline right-of-way. The Project area within the city of Fontana is zoned as Public Utility Corridor (P-UC), as well as designated P-UC in the Fontana General Plan. Within the city of Rancho Cucamonga boundaries, the Project area is zoned as Etiwanda Specific Plan (SP-E). The Etiwanda Specific Plan designates the Project area as Open Space, while the Rancho Cucamonga General Plan designates it as Flood Control/Utility Corridor. The pipeline alignment also is adjacent to areas containing residential uses, agricultural uses, and vacant land.

While the majority of Project activities would occur within Metropolitan's existing pipeline right-of-way, some staging may occur within the adjacent SCE right-of-way and/or other adjacent private property. Primary activities would occur within up to 12 work locations along the pipeline identified as Contractor Work and Storage Areas. The right-of-way, together with adjacent temporary construction easements, is referred to as the Project area. The pipeline right-of-way has a variable width along the alignment, ranging from approximately 50 to 100 feet. At some work area locations, the centerline of the pipeline ranges from approximately 36 to 70 feet from the adjacent residential property boundaries.

### **2.6.2 Adjacent Land Uses**

Uses adjacent to the northernmost portion of the Project area include single-family residential on the west and vacant land on the east (refer to **Figures 3.4-1a to 3.4-1d, Existing Land Uses** for mapping and to **Figure 2-4, Representative Photographs – Existing Setting**, for examples). Approximately 0.2 mile north of Summit Avenue in Fontana, the Project area is adjacent to Fontana Park, which contains a community center, aquatics center, play areas, and Fontana North Skate Park. South of Summit Avenue, the Project area is adjacent to single-family residential uses, Rosena Park, vacant land, and agricultural uses, and also passes in proximity to Summit High School. Further south, the Project area is then adjacent, on the east and on the west, to vacant land for approximately 1.6 miles. A portion of the Project area is adjacent to single-family residential for approximately 1.2 miles prior to crossing the Fontana/Rancho Cucamonga city limits at East Avenue.

Within the city of Rancho Cucamonga, adjacent land uses include single-family residential, Garcia Park, and vacant land, with multi-family uses in proximity to Foothill Boulevard.

## 2.7 PROJECT CHARACTERISTICS

To prevent further corrosion of the steel pipe in the approximately five-mile-long segment of Etiwanda Pipeline North, the Project proposes to remove the existing interior mortar lining, much of which has delaminated from the pipe, and recoat the pipe with a new lining.

Except for excavation and staging, Project activities mostly would occur below-ground. Access to the pipe for relining activities would be accomplished via rollouts (where a 20-foot segment of pipe would be removed), existing manholes, existing buried outlets (similar to manholes but without surface structures), and proposed new buried outlets (**Figures 2-5a-5j, Proposed Outlets, Manholes, and Rollout Stations**). The assumed excavation areas for these access points are as follows:

- Rollouts – 70 feet by 70 feet
- Existing manholes – 10 feet by 10 feet
- Existing buried outlets – 20 feet by 30 feet
- Proposed new buried outlets – 30 feet by 40 feet

While the remainder of the right-of-way and staging areas may be used for access and material storage, no other disturbance of the existing ground is anticipated. Surface disturbance could occur in the remainder of the right-of-way from materials staging and grubbing of vegetation. Project activities would not occur within storm drainage courses, public roadways, or public rights-of-way.

### 2.7.1 Project Activities

The proposed Project involves removing the existing mortar lining inside Etiwanda Pipeline North and recoating the pipe with a new liner. Primary activities would include the following: site preparation; preparation of access points into the pipeline; pipeline shutdown and dewatering; surface preparation of the interior surfaces of the pipe (including removal of the existing lining); application of the new liner; and closing access points and site completion (refer also to **Figure 2-6, Representative Photographs – Project Activities**). Following the completion of pipeline relining, the Project would not require operations or maintenance personnel beyond those already required for the existing pipeline.

#### **Site Preparation**

The Project would begin with site preparation activities at each of the access points along the pipeline prior to shutdown of the pipeline. Weed abatement and grading of access roads, if needed, would occur at each of the access points and at the designated laydown and staging locations. Aggregate may be placed on the access roads and work areas as needed to create an all-weather driving surface, and water trucks or soil binders may be used for dust suppression. Each of these areas may be temporarily fenced for safety and security purposes, particularly at the excavation areas. Materials and equipment needed for construction would be staged either at Contractor Work and Storage Areas or near any of the pipeline access points.

## **Preparation of Access Points**

Access points would allow entry into the pipeline for personnel, materials and equipment. Four types of access points would be used: existing manholes, existing buried outlets, rollout sections of pipe, and new outlets. If excavation is required at these locations, it could be completed prior to, during, or following the shutdown of the pipeline. All excavation pits could be open for the length of Project activities. The excavated material would be stored either at Contractor Work and Storage Areas along the pipeline or near any of the excavation sites.

## **Pipeline Shutdown and Dewatering**

To allow the entrance of workers inside the pipeline, Etiwanda Pipeline North would be taken out of service (i.e., shut down), and the water inside the pipeline would be removed (dewatered). The majority of the water would be discharged by gravity flow into the Upper Feeder or discharged into the Etiwanda Reservoir at the Etiwanda Hydroelectric Plant site. Water still remaining within the low points of the pipeline sections could be pumped to the next downstream low point or could be pumped out through manhole locations along the pipeline by the contractor. The water may be discharged to the Etiwanda Reservoir and/or to existing storm drains. Applicable permits would be obtained by the contractor. Dewatering is estimated to take approximately two to three days.

## **Surface Preparation of the Pipeline**

Following the pipeline shutdown and dewatering, the existing cement mortar lining would be detached from the walls of the pipeline using hand-held power tools, manual equipment, and/or other mechanical equipment. Once detached, the cement mortar lining would be removed either with hand tools or with small, motorized equipment and a movable conveyor belt through the pipeline access points. After removal of the existing mortar lining, the interior of the pipeline would be blasted with abrasives for suitable adherence of the new liner. Hand-held blast nozzles and semi-automated abrasive blasting mechanical equipment may be used for this process. Additional repair of the steel pipe may be required after abrasive blasting reveals corrosion needing more than a new coating.

Environmental control of the pipeline interior during and after this process is critical to keep the inside surface of the pipe clean and dry prior to application of the new lining. Improper surface condition that could result from dust or humidity would reduce the service life of the lining. Environmental controls would involve blowers, fans, and dehumidification equipment. Ventilation equipment and dehumidification equipment would be placed at one end of each pipe section being worked on to blow the required air inside the pipeline, and dust collection equipment would be placed at the other end to collect blown dust and debris.

## **Application of New Liner**

Following completion of pipeline surface preparation, the new liner would be applied. The new liner is expected to be a two-component, paint-type polyurethane product that would coat and protect the pipeline's steel surfaces. The coating equipment for the new liner would consist of mixing tanks, pumps, hoses, and nozzles. Hand-operated or mechanized spraying equipment would be used during the coating application. Once the application process begins, coating must



occur continuously to avoid joints, which would be more prone to future failure, in the new liner. Low humidity also is important for polyurethane application and curing. Dehumidification equipment and dust collection equipment would continue to be used during this stage.

### **Closing Access Points and Site Completion**

After the new lining has been fully applied and inspected, the pipeline would be cleaned and then all access points would be sealed, and the pipeline would be ready to be placed back into service. Each of the excavated pits for the rollouts and new and previously existing buried outlets would have shoring removed, and be backfilled and compacted. The backfill required at these locations could be completed either during or after the shutdown of the pipeline. Clean-up and recontouring of disturbed areas would be performed at each of the pipeline access points.

## **2.7.2 Project Schedule and Phasing**

### **Project Phasing**

The proposed Project activities are expected to begin in 2015 and would occur during pipeline shutdown periods, the number and duration of which would be determined by water demands and available supplies. Up to three shutdown periods, each approximately six to nine months long, over a period of up to three years, could be used to complete the approximately five-mile-long Project.

In addition to an approximately six- to nine-month shutdown window, four to five months prior to the shutdown would be used for site preparation, and one to two months after the shutdown would be used for site completion work. An overall construction period during each repair phase would be approximately one year.

Initial work on an approximately 0.4-mile segment of the pipeline was completed in 2014 as part of a pilot phase (Phase 1). Repair work for the proposed Project would be completed as Phase 2 and Phase 3. Phases 2 and 3 are currently anticipated to include two sub-phases (Sub-phases 2A, 2B, 3A, and 3B), as illustrated on **Figure 2-7, Proposed Project Phasing**. An optional phase (Phase 4) would only be included if work included as part of Phases 2 and 3 is not completed within the proposed Project schedule. The first pipeline shutdown is assumed to include work on Sub-phases 2A and 3A, and the second shutdown is assumed to occur as part of Sub-phases 2B and 3B.

Each Project phase is expected to be divided into two contracts (two for Phase 2 and two for Phase 3) that would be underway simultaneously in order to minimize the shutdown period and complete the Project as quickly as possible. Work within Sub-phases 2A and 3A could be concurrent and would commence in 2015. Sub-phases 2B and 3B are estimated to begin in 2016. Phase 4, if included, would begin in 2017.

### **Project Schedule**

The Project work schedule would vary throughout the duration of Project activities. Twelve-hour shifts are proposed for site preparation and site completion. During the pipeline shutdown period, work could be performed up to 24 hours per day and seven days per week; this

schedule is critical to accommodate time-sensitive work sequencing and to allow completion of work within the pipeline shutdown period. Excavation, access location closure, off-hauling of materials, and site completion would occur only between normal daytime hours (6:00 a.m. and 6:00 p.m.). Various other types of proposed activities could potentially occur during either daytime or nighttime hours.

### 2.7.3 **Personnel and Equipment**

The numbers of workers and equipment required would vary throughout the Project activities described above. The assumptions used for the impact analysis were estimated in consideration of the proposed Project tasks and based on the pilot phase work of relining Etiwanda Pipeline North, as well as Metropolitan's extensive experience with other similar pipeline projects. Project implementation is dependent on contractor requirements and allowable shut-down periods based on water supplies. Accordingly, many of the assumptions used for personnel and equipment represent worst-case scenarios in the analysis of potential impacts. The types, quantities, and use of equipment and personnel might vary somewhat to allow flexibility in implementation, but impacts and conclusions (for noise, emissions, traffic) are considered to represent worst-case intensity of activity.

The Project is assumed to require 320 workers per day per phase (including two concurrent sub-phases), based on two work shifts during the most active periods of the Project (160 workers per shift).

**Table 2-1, *Equipment Per Project Sub-phase***, lists the number of pieces of equipment that are assumed for the purposes of this analysis to be operating per day at the same repair section (either rollout or vent location) per Project sub-phase. Refer to **Figure 2-8, *Representative Photographs – Representative Equipment***, for images of some of the typical equipment expected to be used during Project activities. In this worst-case analysis, all equipment (except excavation equipment, vibratory soil compactor, wheel asphalt paver, concrete truck, and 100-ton crane) is assumed to be operating concurrently during a given day.

<b>Table 2-1 EQUIPMENT PER PROJECT SUB-PHASE</b>	
<b>Equipment</b>	<b>Number of Equipment Operating Per Day Per Sub-phase</b>
Air compressor	6
Vacuum	2
Dust collector	2
Dehumidifier	2
Blower	2
Generator	6
Abrasive blasting equipment (blast pots, hoses, cooling/dehumidifiers)	6
Abrasive recycle equipment	1
Air-powered coating sprayers	3

<b>Table 2-1 (cont.)                      EQUIPMENT PER PROJECT SUB-PHASE</b>	
<b>Equipment</b>	<b>Number of Equipment Operating Per Day Per Sub-phase</b>
Pneumatic and electric tools for chipping and scraping	4
Concrete saw	1
Concrete truck	0.5*
Excavator	1
Dump truck	2
Large crane (100-ton) for removing and placing rollouts	1
Smaller cranes for material and equipment	6
Loader	6
Forklift	6
Water truck	2
Semi-trailer truck with flat bed	3
Vibratory soil compactor	1
Wheel asphalt paver	1
Pickup truck	12

\* Concrete trucks would be needed for a half-day or less.  
 Source: Metropolitan 2014.

#### **2.7.4 Hauling and Access Routes**

Project equipment and debris hauling would utilize the pipeline right-of-way to get to adjacent surface streets, then continue to a main arterial route and then to I-15 for disposal. Average hauling distance is anticipated to be approximately 20 miles.

The total number of Project vehicles in use is likely to vary during the course of each phase. Once mobilization for each sub-phase is complete, approximately two daily truck trips would be required for Site Preparation and Pipeline Access phases and eight daily truck trips would be required for Pipeline Lining phases. While some variation may occur in actual numbers, types, or frequency of use of vehicles during the work, anticipated truck usage during mobilization in preparation for each phase includes the following:

- Four dump trucks (2 trips/day each for a total of 8 trips/day)
- Six semi-trucks with trailers (2 trips/day each for a total of 12 trips/day)
- Four water trucks (8 trips/day each for a total of 32 trips/day)
- Twenty-four pick-up trucks (4 trips/day each for a total of 96 trips/day)

#### **2.7.5 Environmental Commitments**

Environmental commitments are included in the Project to reflect and incorporate Metropolitan's best practices that avoid, minimize, or offset potential environmental effects from its projects. These best practices are relatively standardized and/or compulsory; they represent sound and proven methods to reduce the potential effects of projects and operations of facilities.

Implementation of these measures as part of the Project, in advance of impact findings and determinations, is in good faith to improve the quality and integrity of the Project, streamline the environmental analysis, and demonstrate environmental responsibility. Environmental commitments incorporated into the proposed Project include the following:

- Project activities would adhere to South Coast Air Quality Management District Rule 403, which includes a variety of measures intended to reduce fugitive dust emissions. In light of extreme drought conditions, Metropolitan would consider alternative feasible methods of dust control that minimize the use of water.
- If activities are proposed to occur during the general bird nesting season of February 1 through September 15, Metropolitan would retain a qualified biologist to ensure that nesting birds, including burrowing owls, are protected in compliance with the Migratory Bird Treaty Act and California Fish and Game Code (refer to **Section 3.2.3** for details).
- Work areas would be kept clean of attractive nuisances (e.g., trash and food) to wildlife, and the management of any wildlife that may occur within or adjacent to work areas would be in consultation with a qualified biologist.
- The use of any nighttime safety or security lighting would be directed away from homes and oncoming vehicles.

## 2.8 OTHER REQUIRED PROJECT APPROVALS

California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances. This exemption applies to the Etiwanda Pipeline North as a water transmission pipeline and a direct component of Metropolitan's treatment, storage and transmission system. Nonetheless, Project implementation is anticipated to require traffic control plans and waivers from local noise ordinances from the cities of Fontana and Rancho Cucamonga. These cities may have discretionary authority over some aspects of the Project and may use this EIR when considering the Project or issuing permits.

Other permits or approvals that could be required include:

- Caltrans Encroachment Permit;
- California Air Resources Board and/or South Coast Air Quality Management District certification of abrasive blast media and construction equipment;
- California Occupational Health and Safety Administration Tunnel Safety Order compliance; and
- Conformance with applicable State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) and/or Municipal Separate Storm Sewer Systems (MS4) requirements.





Manhole



Pipeline Access Point



Manhole



Section of Pipeline

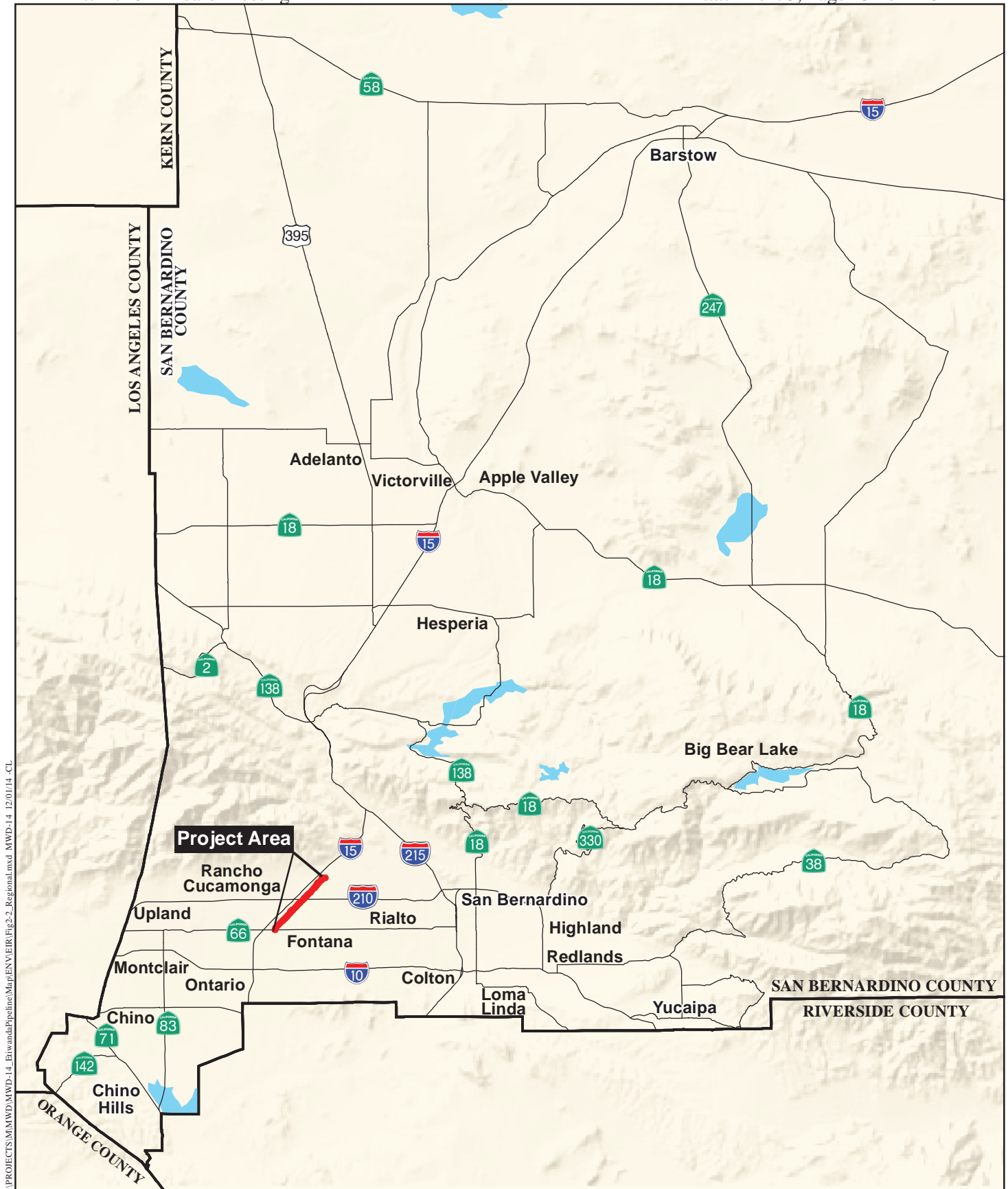


Rialto Pipeline Turnout

## Representative Photographs – Existing Facilities

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-1



## Regional Map

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-2

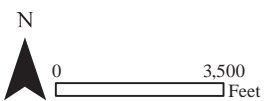




## Project Vicinity Map

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-3







SCE Transmission Line and Flood Control Channel



Garcia Park



SCE Transmission Line and Open Land



Residential Development



SCE Transmission Line and Vineyard



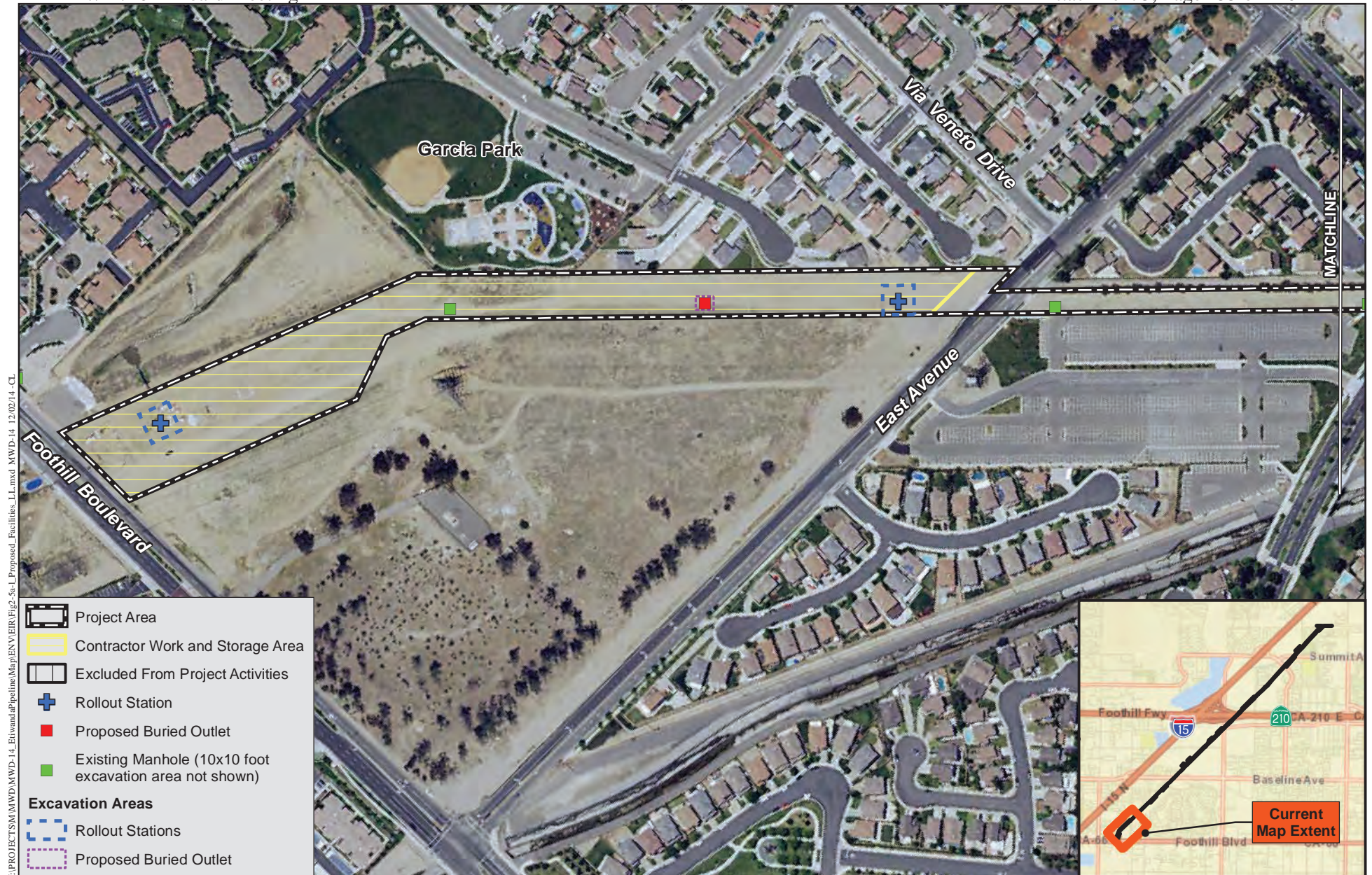
Residential Development and Open Land

## Representative Photographs – Existing Setting

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-4





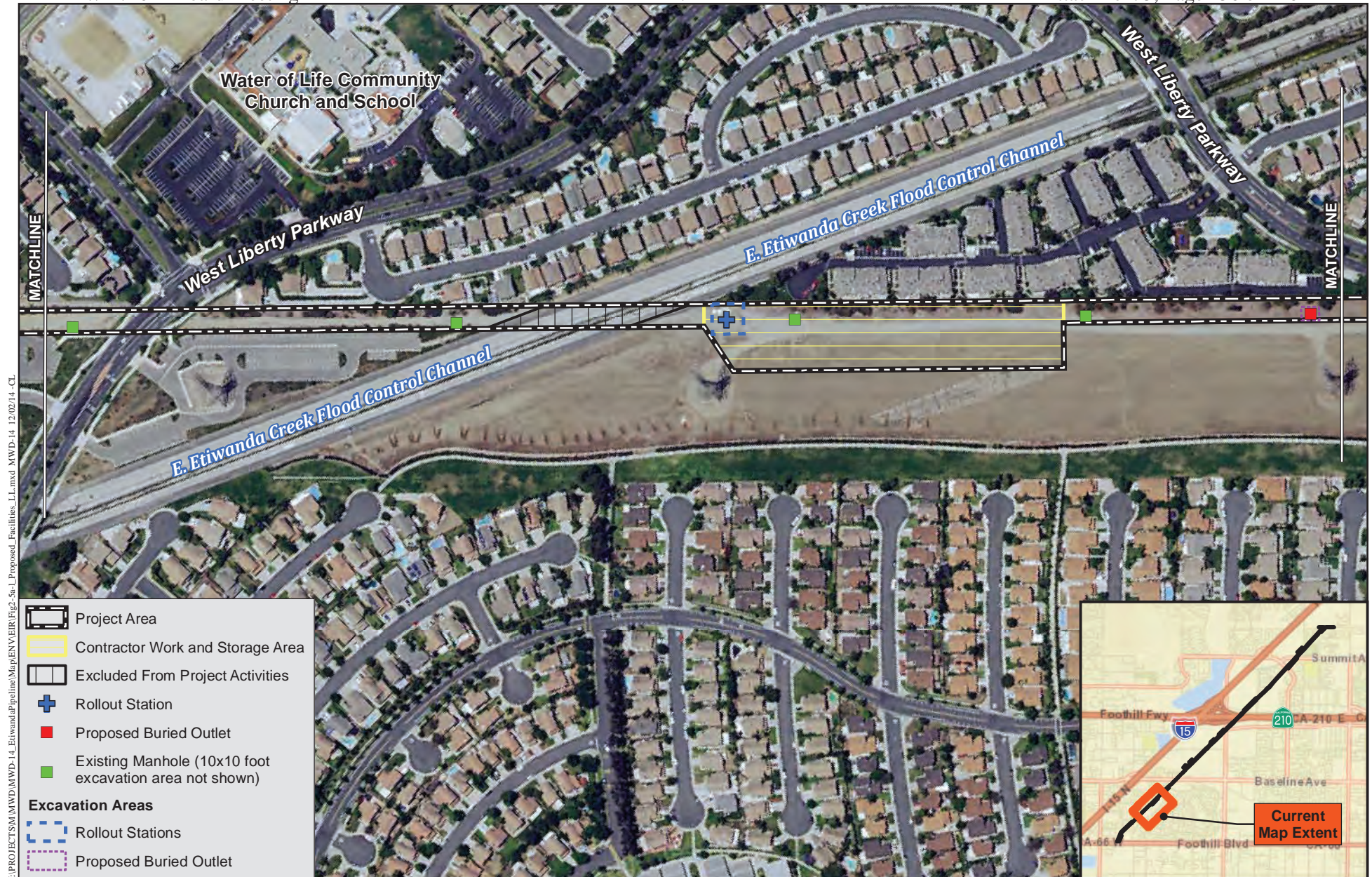
## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5a







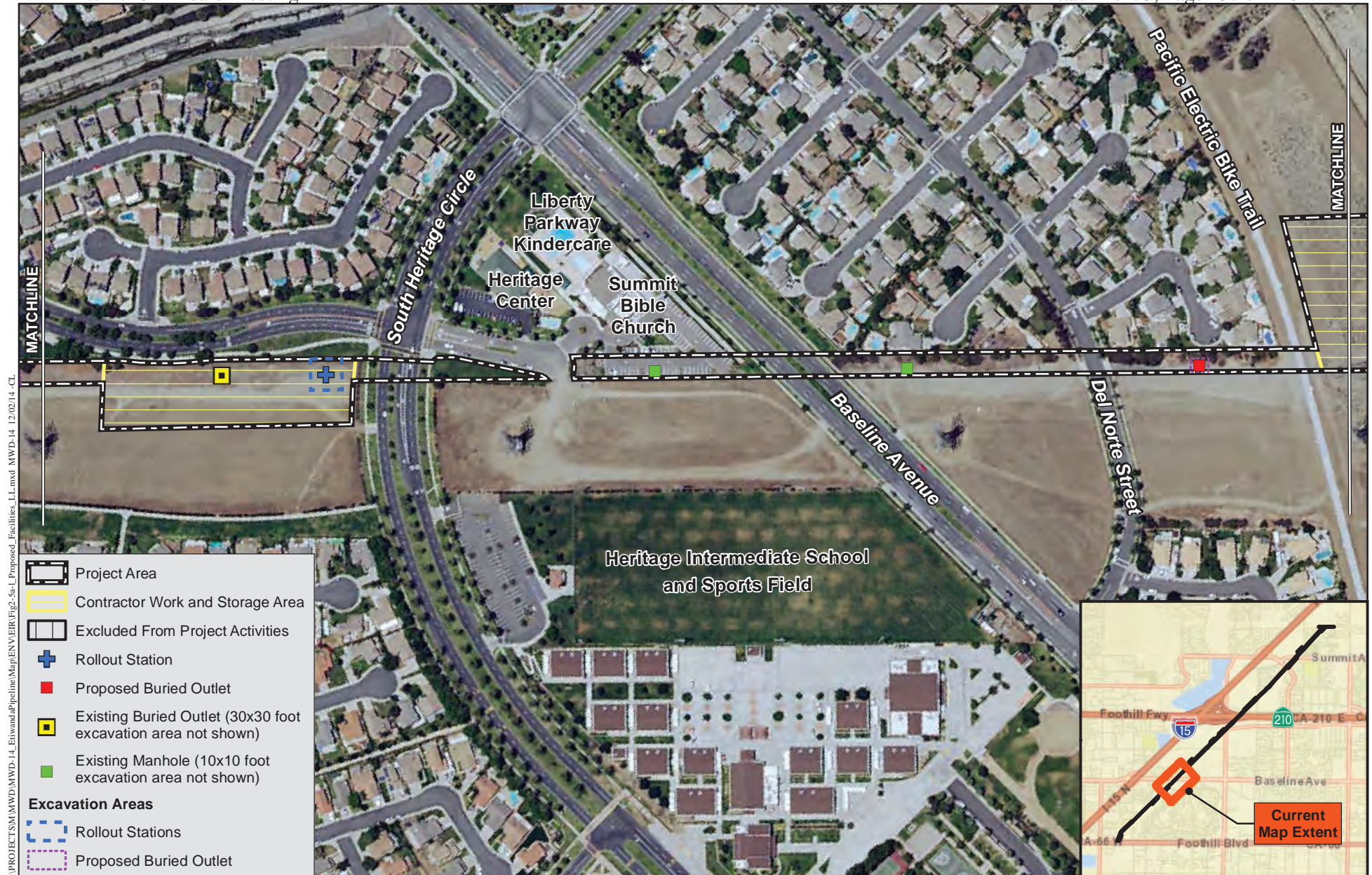
## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5b





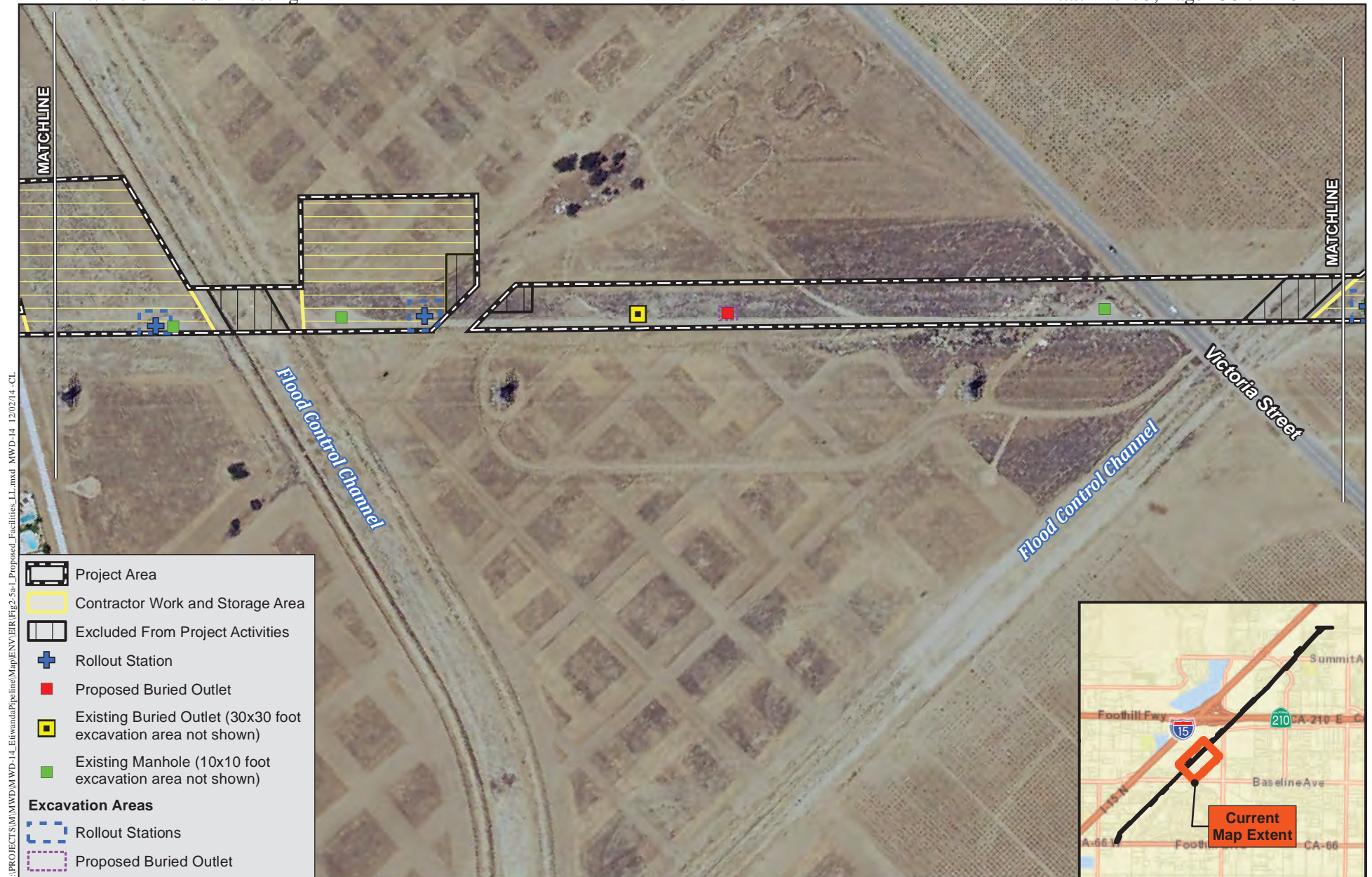


## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5c





## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5d



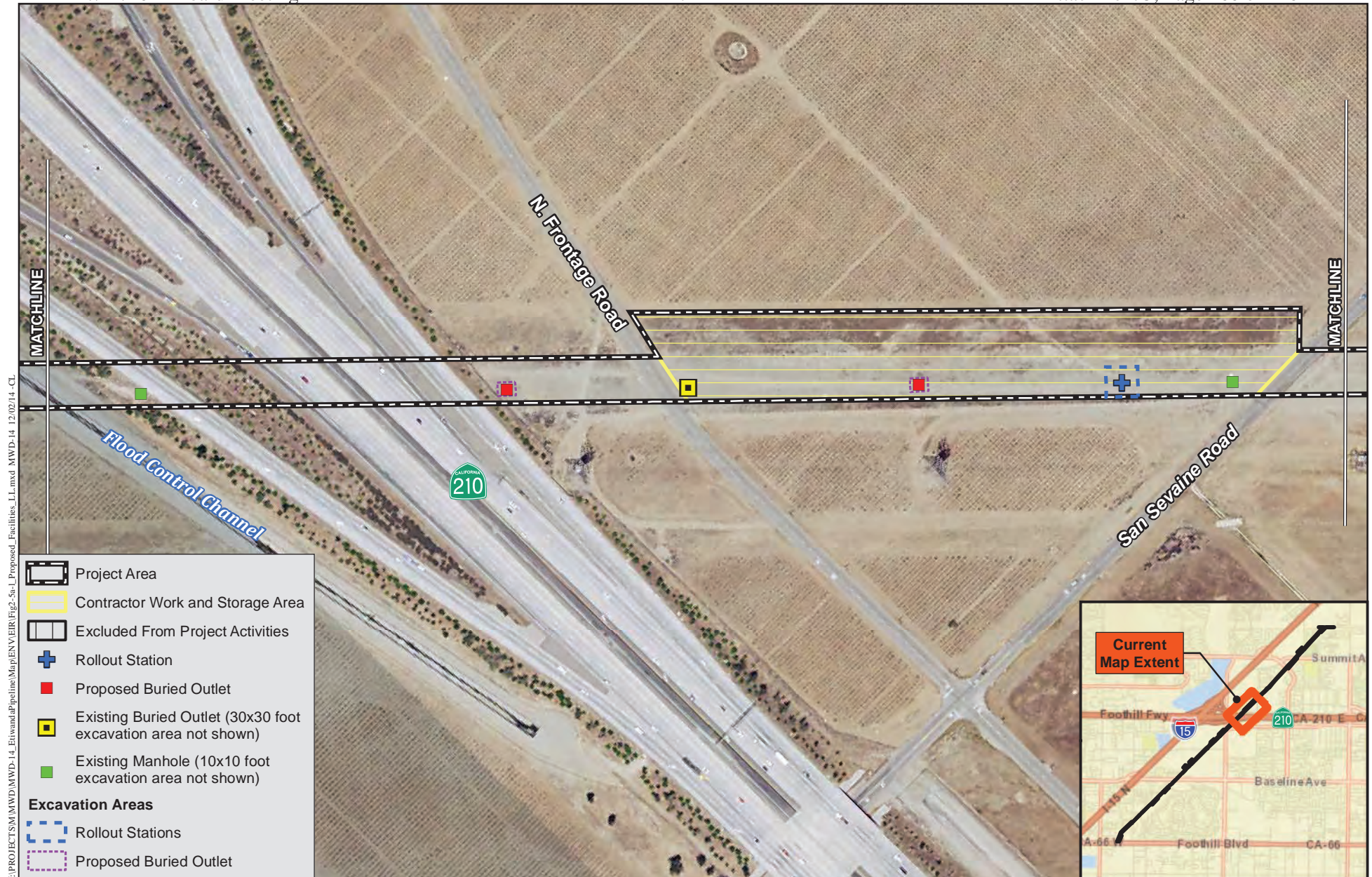


## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5e





## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5f







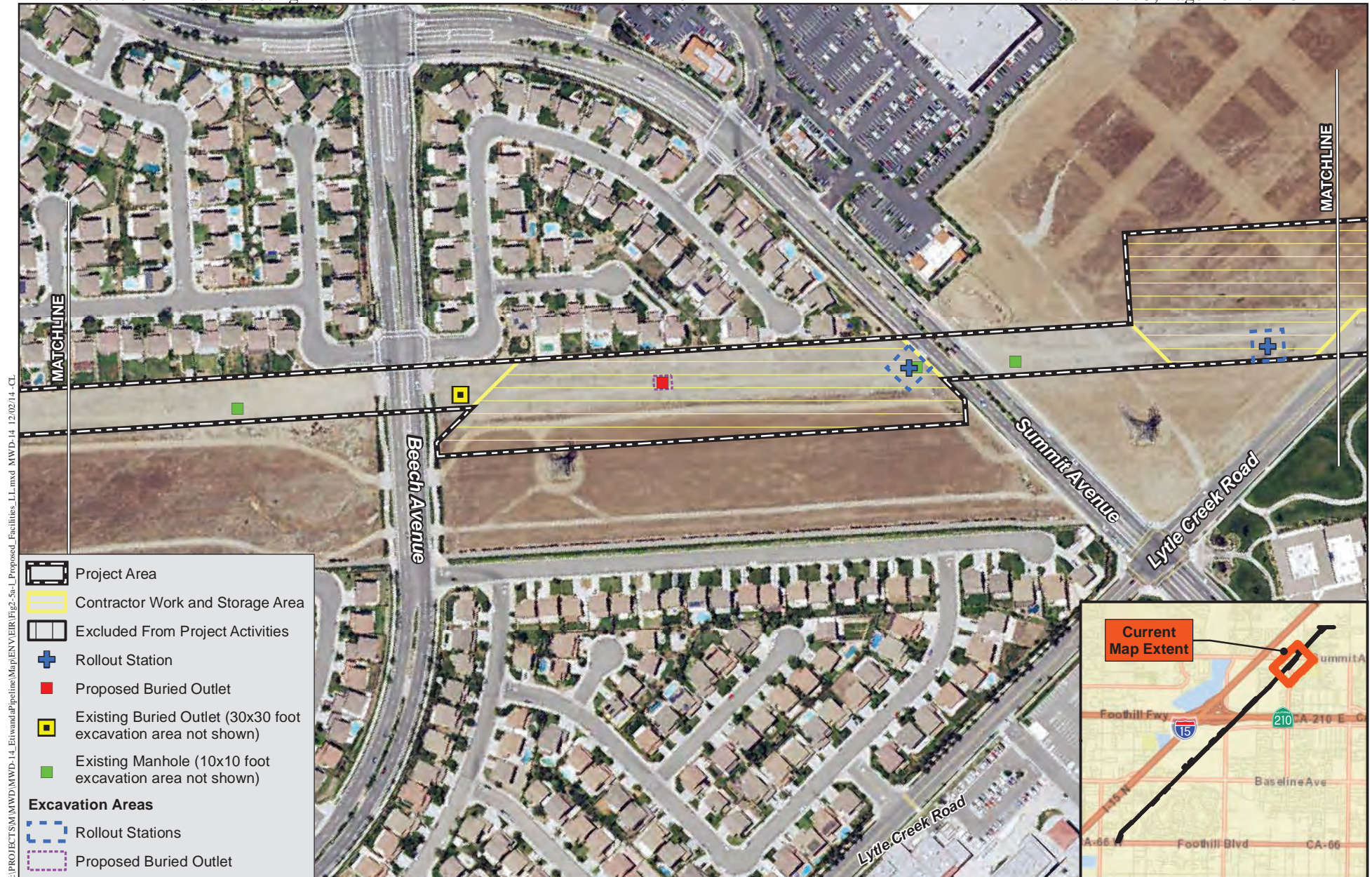
## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5g



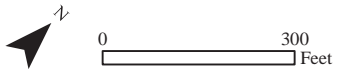




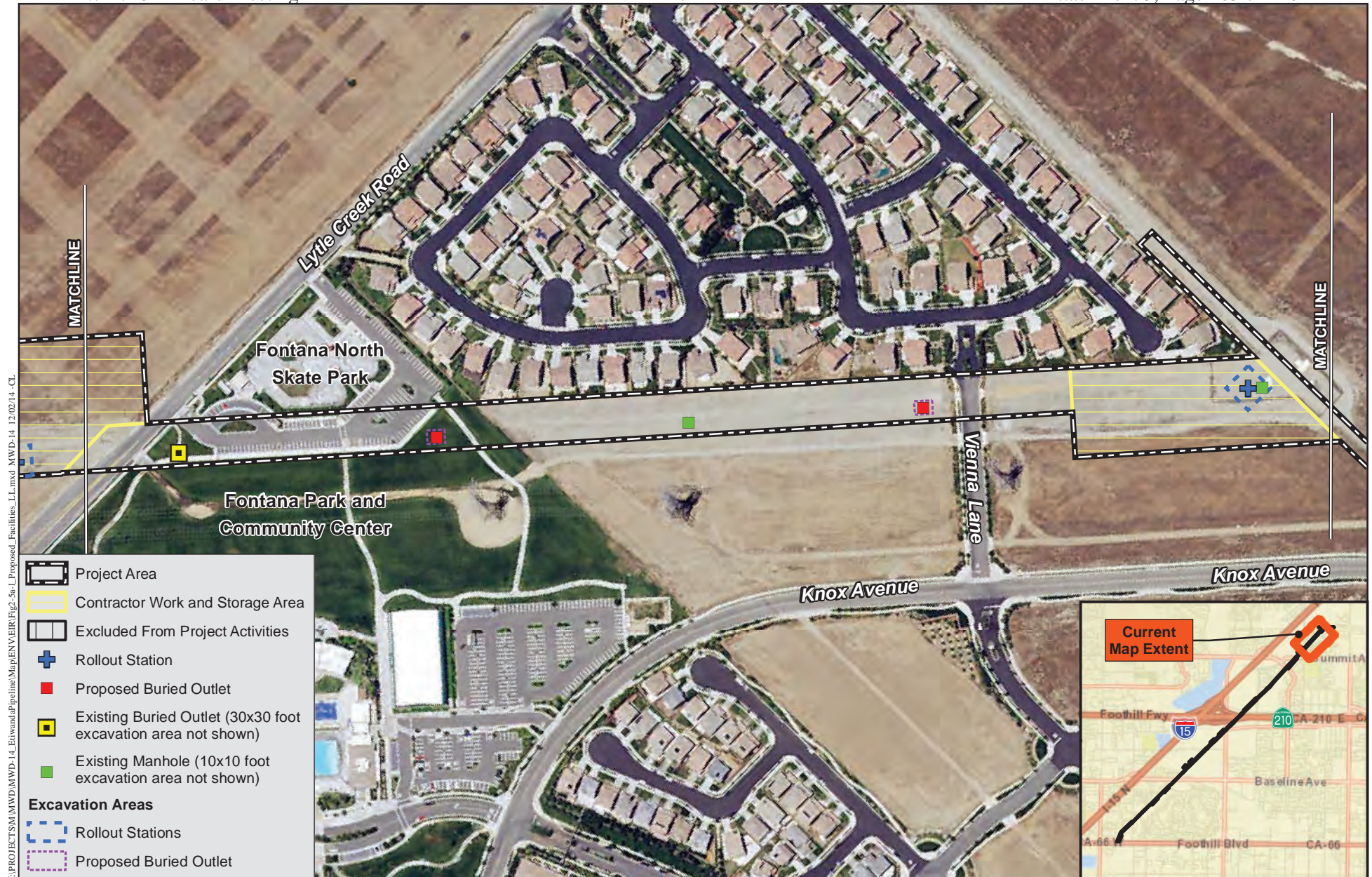
## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5h







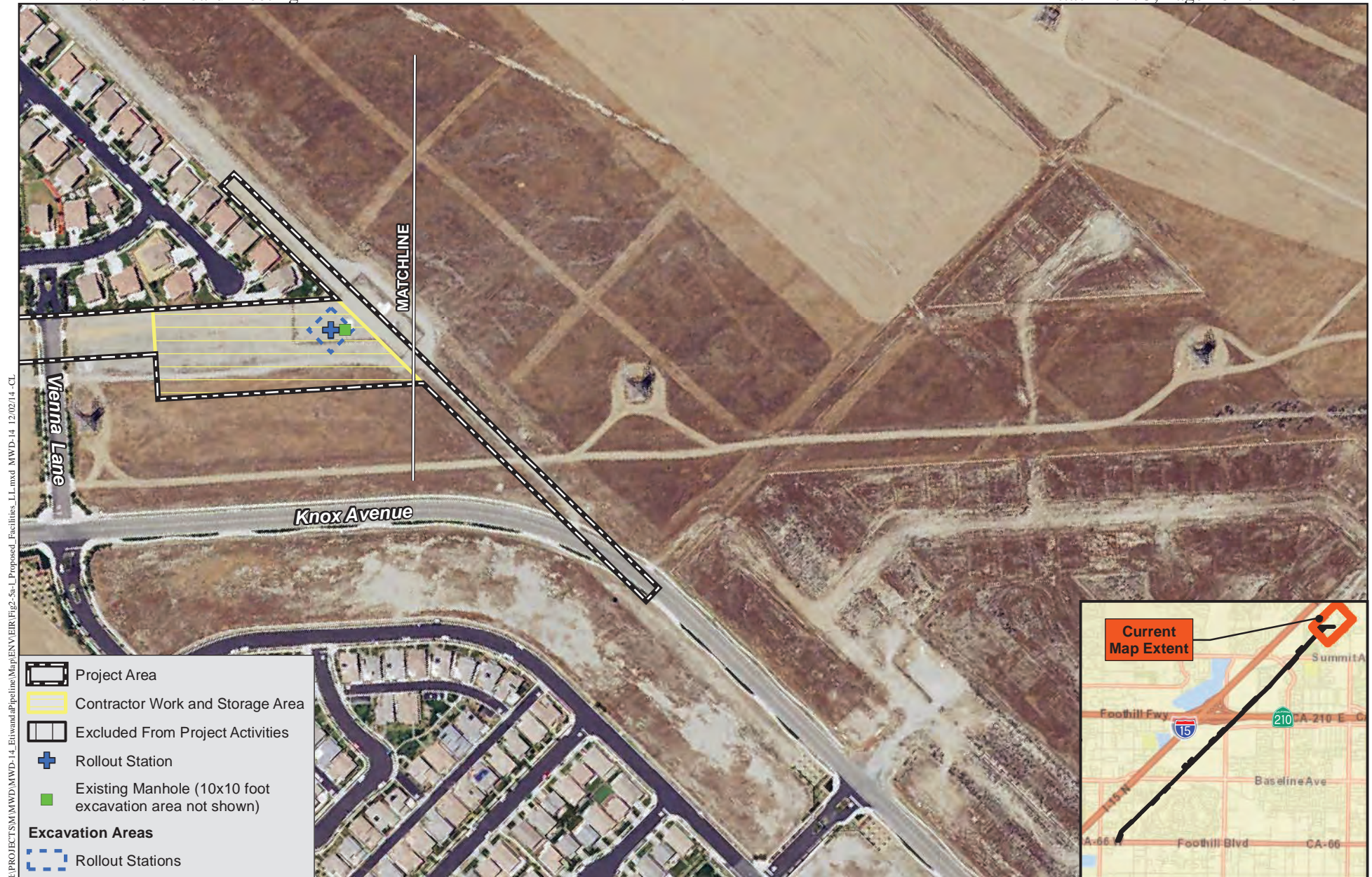
## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5i



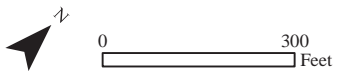




## Proposed Outlets, Manholes, and Rollout Stations

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-5j







Shoring at Access Locations



Off-hauling of Debris



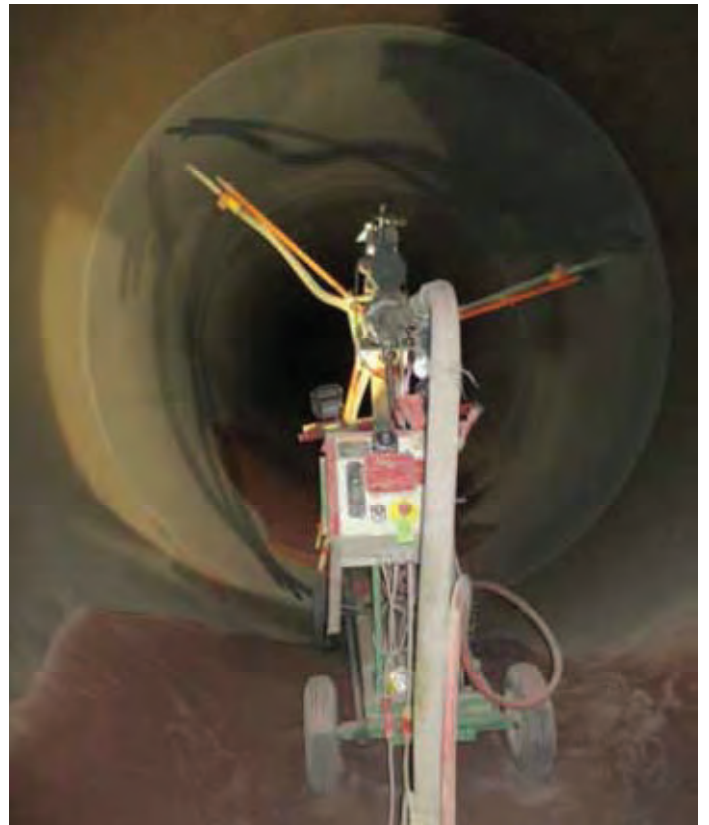
Mortar Lining Removal



Welding Pipeline Outlet



Debris Removal



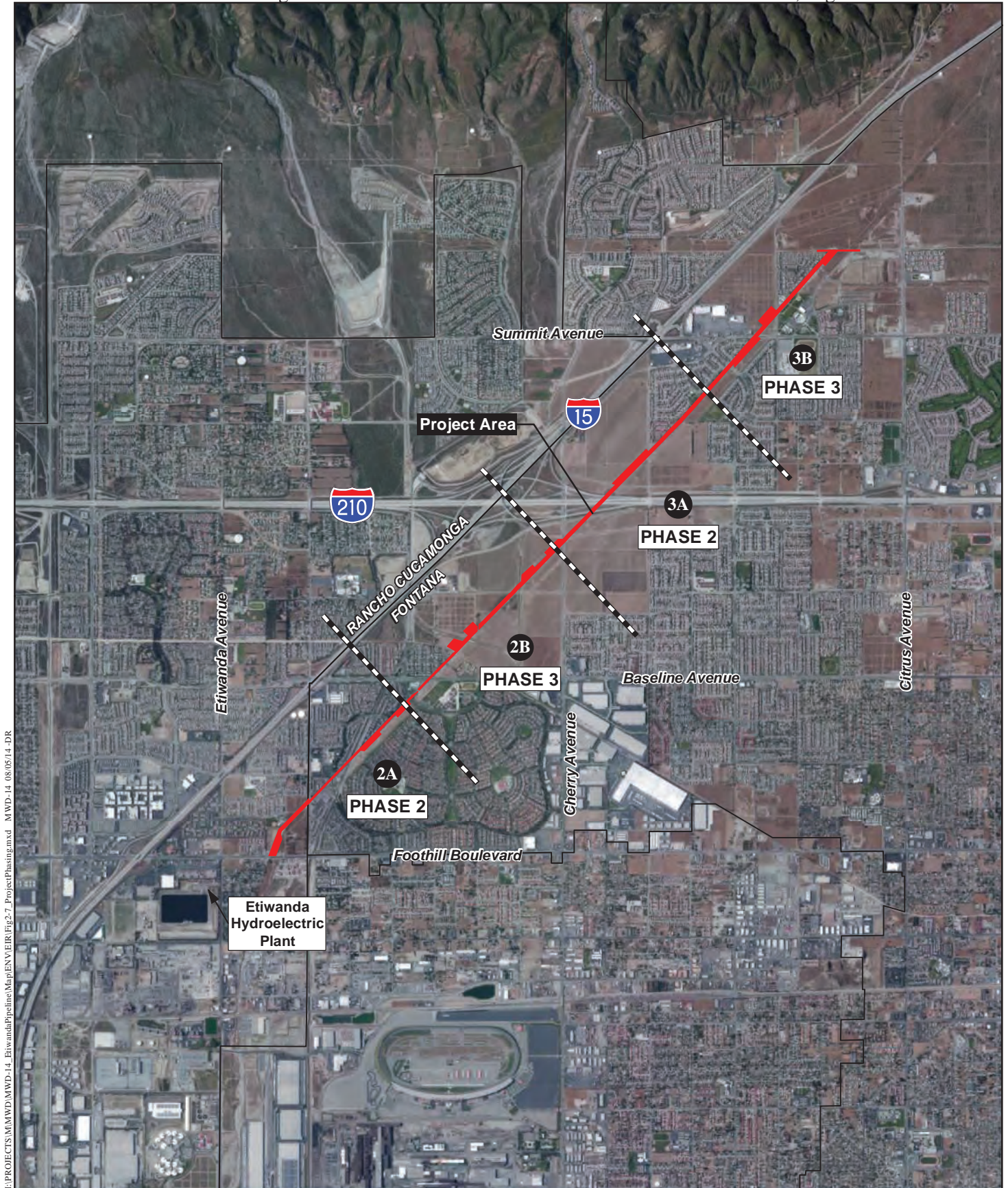
Application of New Liner

## Representative Photographs – Project Activities

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-6





## Proposed Project Phasing

ETIWANDA PIPELINE NORTH RELINING PROJECT



Figure 2-7





Air Compressors and Dehumidifiers



Blower



Bag Filters



Crane and Generator



Loader and Excavator

## Representative Photographs – Representative Equipment

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 2-8

## Chapter 3.0

# ENVIRONMENTAL IMPACT ANALYSIS

### 3.1 AIR QUALITY

This section is based on the information and analysis presented in the proposed Project's Air Quality Technical Report, dated December 2014 (HELIX Environmental Planning, Inc. [HELIX] 2014a). The technical report is included in its entirety as **Appendix B** of this EIR.

The methods for assessing air quality impacts included estimating emissions that would be generated by construction equipment during the proposed Project, including diesel particulate matter as part of a health risk assessment, and comparing estimated emission levels with applicable thresholds. The California Air Resources Board's (CARB's) off-road emissions inventory database (OFFROAD2011) and EMFAC2011 models were used to estimate the emissions from heavy construction equipment and on-road vehicles, respectively. The U.S. Environmental Protection Agency's (USEPA's) AERMOD model was used to analyze potential health effects from Project activities, in accordance with the guidelines in the South Coast Air Quality Management District's (SCAQMD's) *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. Analysis of air quality impacts also reflects topics of interest (including health risk assessment) brought forth in SCAQMD's NOP comment letter, dated August 27, 2014. This air quality impact assessment was prepared by HELIX and the health risk assessment was prepared by Urban Crossroads.

Although there would likely be minor variations in the numbers/types/use of equipment and workers compared to the assumptions incorporated into the emissions calculations, these assumptions generally provide for an overall worst-case analysis. This approach was used in order to allow flexibility in final design and implementation, and actual conditions might be less. Refer to **Appendix B** for complete listings of the assumptions used in the analysis and model outputs.

#### 3.1.1 Existing Conditions

##### **Air Pollutants of Concern**

###### Criteria Pollutants

Air quality is defined by ambient air concentrations of seven "criteria air pollutants," which are a group of common air pollutants identified by the USEPA to be of concern with respect to the health and welfare of the general public. The criteria air pollutants relevant to the proposed Project include nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (including particulates 10 microns or smaller [PM<sub>10</sub>] and particulates 2.5 microns or smaller [PM<sub>2.5</sub>]), carbon monoxide (CO), and sulfur dioxide (SO<sub>2</sub>). A description of each criteria air pollutant, including source types and health effects, is provided in the Air Quality Technical Report (**Appendix B**). Project-related equipment operations, vehicle trips, and grading would result in emissions of these pollutants.

###### Toxic Air Contaminants

Toxic air contaminants (TACs) refer to a diverse group of air pollutants that can affect human health; however, they are not subject to an adopted ambient air quality standard. With regard to the proposed Project, the primary toxic air contaminant of concern is diesel particulate matter. The exhaust from diesel engines includes hundreds of different gaseous and particulate components,



many of which are toxic. Accordingly, diesel particulate matter can be used as a surrogate measure of exposure for the mixture of chemicals that make up diesel exhaust as a whole.

## Existing Air Quality

### Attainment Designations

Based on monitored air pollutant concentrations, the USEPA and CARB designate an area's status in attaining the federal and state standards, respectively (discussed below). **Table 3.1-1, *Attainment Status of Criteria Pollutants in the South Coast Air Basin***, summarizes the basin's current attainment status. When an area has been reclassified from a nonattainment area to an attainment area for a federal standard, the status is identified as "maintenance," and there must be a plan and measures that will keep the region in attainment for the following 10 years. As shown in **Table 3.1-1**, the air basin is a federal nonattainment area for ozone and PM<sub>2.5</sub>, and a state nonattainment area for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>. For pollutants for which the SCAB is in nonattainment, the SCAQMD is responsible for preparing plans that demonstrate how the SCAB will attain these standards. Impacts at the project level are determined based on a project's conformance with these plans.

<b>Table 3.1-1</b> <b>ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN</b> <b>THE SOUTH COAST AIR BASIN</b>		
<b>Pollutant</b>	<b>State</b>	<b>Federal</b>
Ozone (1 hour)	Nonattainment	No standard
Ozone (8 hour)	Nonattainment	Extreme Nonattainment
PM <sub>10</sub>	Nonattainment	Attainment/Maintenance
PM <sub>2.5</sub>	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO <sub>2</sub>	Attainment	Attainment/Maintenance
SO <sub>2</sub>	Attainment	Attainment

Sources: CARB 2013c; USEPA 2013a, 2013b.

### Toxic Air Contaminants

The SCAQMD has conducted a monitoring and evaluation study which focuses on the carcinogenic risk from exposure to toxic air contaminants in the South Coast Air Basin. This carcinogenic risk is expressed in terms of the expected number of additional cancers in a population of 1 million individuals that are exposed to toxic air contaminants over a 70-year lifetime, with this risk scalable for individual project analyses based on the actual duration of exposure. The SCAQMD-modeled carcinogenic risk for the area in which the Project is located ranges from approximately 804 to 942 per 1 million individuals exposed, which is less than the overall South Coast Air Basin average of about 1,200 per 1 million individuals exposed (SCAQMD 2008b). The study attributed about 94 percent of the carcinogenic risk to emissions associated with mobile sources, and about 6 percent of the risk to toxic air contaminants emitted from stationary sources (e.g., dry cleaners and chrome plating operations). The results of the study indicate that diesel exhaust is the major contributor to

carcinogenic risk due to toxic air contaminants, accounting on average for about 84 percent of the total risk (SCAQMD 2008a).

## **Regulatory Framework**

Federal and state ambient air quality standards have been set to protect the most sensitive persons from illness or discomfort. Residential areas, schools, playgrounds, child care centers, athletic facilities, hospitals, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes are especially likely to include persons sensitive to air pollutants. The standards and regulations most relevant to the proposed Project are summarized below, with additional detail provided in the Air Quality Technical Report.

### Federal

Pursuant to the Clean Air Act of 1970 and its 1977 and 1990 amendments, the USEPA is responsible for setting and enforcing the National Ambient Air Quality Standards for criteria pollutants. As part of its enforcement responsibilities, the USEPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan that demonstrates the means to attain and maintain the federal standards. As detailed above in **Table 3.1-1**, the Project area is a federal nonattainment area for ozone and PM<sub>2.5</sub> and must therefore comply with measures identified in the State Implementation Plan.

### State

The CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs in California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards, compiles emission inventories, develops suggested control measures, and oversees local programs.

The applicable air districts for regions that do not attain the state standards are required by the CARB to prepare plans for attaining the standards which are then integrated into the State Implementation Plan.

### Regional

#### *South Coast Air Quality Management District*

The SCAQMD regulates air quality in the South Coast Air Basin, which includes the non-desert portion of San Bernardino County. As a regional agency, the SCAQMD works directly with the Southern California Association of Governments, county transportation commissions, and local governments, as well as cooperates actively with applicable federal and state government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary. Rules, regulations, and plans developed by the SCAQMD

that are relevant to the Project are summarized below and described in detail in the Air Quality Technical Report.

- The SCAQMD is responsible for preparing air quality management plans that address the attainment and maintenance of state ambient air quality standards. The latest air quality management plan was adopted by SCAQMD in 2012 and approved by the CARB in 2013. As detailed above in **Table 3.1-1**, the Project area is a state nonattainment area for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>. SCAQMD adopts rules and regulations to implement portions of the Air Quality Management Plan. Several of these rules may apply to construction or operation of the proposed Project, with the most notable of these rules being Rules 402 and 403.
- SCAQMD's Rule 402, Nuisance, requires that air contaminants or other materials not be released in quantities such that they cause nuisance or annoyance to a considerable number of people. This rule would apply to potential odors generated by the Project.
- SCAQMD's Rule 403, Fugitive Dust, aims to reduce the amount of particulate matter introduced into the ambient air from man-made fugitive dust sources by requiring measures to prevent, reduce, or mitigate fugitive dust emissions. This rule would apply to the Project's excavation, grading, and other ground-disturbing activities.

### **3.1.2 Significance Thresholds**

Based on Appendix G of the State CEQA Guidelines, a significant impact would occur if the proposed Project would do any of the following, identified below as Thresholds A through E:

- Threshold A: Conflict with or obstruct implementation of the applicable air quality plan;
- Threshold B: Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Threshold C: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Threshold D: Expose sensitive receptors to substantial pollutant concentrations; or
- Threshold E: Create objectionable odors affecting a substantial number of people.

Appendix G of the State CEQA Guidelines states that the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the above determinations. As such, SCAQMD has established significance thresholds intended to more specifically define CEQA Thresholds A through E. To assess conformance to the Air Quality Management Plan (SCAQMD 1993) under Threshold A, SCAQMD thresholds consider whether the Project would (A1) result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality



standards; and (A2) exceed the assumptions in the Air Quality Management Plan. **Table 3.1-2, SCAQMD Air Quality Thresholds**, presents the SCAQMD's current significance thresholds relative to CEQA Thresholds B through E (i.e., for daily regional emissions for short-term construction projects [applicable to Project activities], daily local emissions, and maximum incremental carcinogenic risk and hazard indices for toxic air contaminants). While a regional impact analysis is based on attaining or maintaining regional emissions standards, a local impact analysis compares the on-site emissions of a pollutant to a health-based standard.

As indicated in the first column of **Table 3.1-2**, the SCAQMD's thresholds are used to determine impacts relative to applicable CEQA thresholds (Thresholds A through E). Some CEQA thresholds require multiple SCAQMD thresholds to determine impacts (e.g., both regional emission thresholds [B1] and local emission thresholds [B2] are considered to determine significance with respect to CEQA Threshold B). Therefore, a significant impact would occur if the proposed Project would exceed the SCAQMD's established daily emission rates, risk values, or concentrations.

<b>Table 3.1-2 SCAQMD AIR QUALITY THRESHOLDS</b>		
<b>Threshold</b>	<b>Pollutant</b>	<b>Daily Regional Emissions Thresholds (pounds/day)</b>
A1/B1/C1	VOC	75
	NO <sub>x</sub>	100
	CO	550
	PM <sub>10</sub>	150
	PM <sub>2.5</sub>	55
	SO <sub>x</sub>	150
<b>Daily Local Emissions Thresholds (pounds/day)</b>		
B2/C2/D1	NO <sub>x</sub>	118
	CO	863
	PM <sub>10</sub>	5
	PM <sub>2.5</sub>	4
<b>Other Thresholds</b>		
D2	TACs	Maximum Incremental Carcinogenic Risk $\geq 10$ in 1 million
D3		Chronic & Acute Hazard Index $\geq 1.0$ (project increment)
E1	Odor	Project creates an odor nuisance pursuant to Rule 402

Notes: VOC: volatile organic compound; NO<sub>x</sub>: nitrogen oxides; CO: carbon monoxide; PM<sub>10</sub>: respirable particulate matter with a diameter of 10 microns or less; PM<sub>2.5</sub>: fine particulate matter with a diameter of 2.5 microns or less; SO<sub>x</sub>: sulfur oxides; TACs: toxic air contaminants; NO<sub>2</sub>: nitrogen dioxide; ppm: parts per million;  $\mu\text{g}/\text{m}^3$ : micrograms per cubic meter.

Source: SCAQMD 2011.

### 3.1.3 Impact Analysis

#### Consistency with Air Quality Plans (Threshold A)

The proposed Project would not involve a change in General Plan designation or zoning and, therefore, would not exceed the assumptions in the Air Quality Management Plan

(Threshold A2). However, as described below (*Conformance to Air Quality Standards*), Project-related emissions would exceed thresholds that SCAQMD has established for the purposes of maintaining regional air quality. Therefore, the Project could result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, and/or delay timely attainment of air quality standards (Threshold A1); impacts would be potentially significant and would require mitigation, as described in **Section 3.1.4**.

### **Conformance to Air Quality Standards (Threshold B)**

Project activities would result in temporary emissions through use of heavy equipment in the Project area as well as vehicle trips to the Project area from commuting construction workers and from delivery/haul trucks. The Project also would generate fugitive dust during grading activities.

### Daily Regional Emissions

Project activities are assumed to occur concurrently for Sub-phases 2A and 3A, and for Sub-phases 2B and 3B. In order to assess the maximum daily regional emissions as a result of the proposed Project, emissions from concurrent sub-phases are summed. Though each sub-phase was assumed to use the same equipment, emissions would decrease in later years as turnover in the fleet mix inventory phases out older, more polluting equipment in favor of newer, cleaner-burning models. Therefore, maximum daily regional emissions would occur when Sub-phase 2A activities overlap with Sub-phase 3A activities. **Table 3.1-3, Maximum Daily Regional Emissions**, compares the anticipated maximum daily regional emissions to the SCAQMD thresholds for daily regional emissions (Threshold B1).

<b>Table 3.1-3</b> <b>MAXIMUM DAILY REGIONAL EMISSIONS</b> <b>(pounds/day)</b>						
<b>Maximum Daily Emissions</b>	<b>VOC</b>	<b>CO</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Sub-phases 2A and 3A	275	1,200	2,547	4	100	98
<i>SCAQMD Regional Thresholds</i> <i>(Table 3.1.2 Threshold B1)</i>	<i>75</i>	<i>550</i>	<i>100</i>	<i>150</i>	<i>150</i>	<i>55</i>
<b><i>Exceed Threshold?</i></b>	<b><i>Yes</i></b>	<b><i>Yes</i></b>	<b><i>Yes</i></b>	<b><i>No</i></b>	<b><i>No</i></b>	<b><i>Yes</i></b>

Notes: VOC: volatile organic compound; NO<sub>x</sub>: nitrogen oxides; CO: carbon monoxide; SO<sub>x</sub>: sulfur oxides; PM<sub>10</sub>: respirable particulate matter with a diameter of 10 microns or less; PM<sub>2.5</sub>: fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District.

Source: HELIX 2014a.

As shown in **Table 3.1-3**, maximum daily regional emissions would exceed the SCAQMD thresholds for VOC, CO, NO<sub>x</sub>, and PM<sub>2.5</sub>. As such, impacts related to maximum daily regional emissions would be potentially significant (Threshold B1), and measures would be required, as described in **Section 3.1.4**, to mitigate these impacts.

### Daily Local Emissions

Although activities are assumed to occur concurrently for Sub-phases 2A and 3A, and for Sub-phases 2B and 3B, activities in each sub-phase would occur far enough apart such that they would not share sensitive receptors. Local emissions are therefore not summed the same way regional emissions are. **Table 3.1-4, Maximum Daily Local Emissions**, compares the anticipated maximum daily local emissions to the SCAQMD daily local emission thresholds (Threshold B2). These maximum emissions would occur with Sub-phases 2A and 3A. Emissions of these two sub-phases would be identical.

<b>Table 3.1-4</b> <b>MAXIMUM DAILY LOCAL EMISSIONS</b> <b>(pounds/day)</b>				
<b>Maximum Local Emissions</b>	<b>CO</b>	<b>NO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
	556	1,267	49	49
<i>SCAQMD Local Thresholds (Table 3.1.2 Threshold B2)</i>	863	118	5	4
<b><i>Exceed Threshold?</i></b>	<b><i>No</i></b>	<b><i>Yes</i></b>	<b><i>Yes</i></b>	<b><i>Yes</i></b>

Notes: NO<sub>x</sub>: nitrogen oxides; CO: carbon monoxide; PM<sub>10</sub>: respirable particulate matter with a diameter of 10 microns or less; PM<sub>2.5</sub>: fine particulate matter with a diameter of 2.5 microns or less.

Source: HELIX 2014a.

As shown in **Table 3.1-4**, maximum daily local emissions would exceed the SCAQMD thresholds for NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. As such, impacts related to maximum daily local emissions would be potentially significant (Threshold B2), and measures would be required, as described in **Section 3.1.4**, to mitigate these impacts.

### **Cumulatively Considerable Net Increase of Criteria Pollutants (Threshold C)**

The region is a federal and/or state nonattainment area for PM<sub>10</sub>, PM<sub>2.5</sub>, and ozone. The Project would contribute PM<sub>10</sub>, PM<sub>2.5</sub>, and VOC and NO<sub>x</sub> (which form ozone when subjected to chemical reactions in the presence of sunlight) to the area during short-term Project activities. Notwithstanding the short-term, temporary nature of the Project, PM<sub>2.5</sub>, VOC, and NO<sub>x</sub> emissions would exceed the SCAQMD significance thresholds for maximum daily regional emissions, as shown in **Table 3.1-3**. Therefore, the net increase to the region of Project-related criteria pollutants would be potentially cumulatively considerable, and the impact would be potentially significant (Threshold C1). Reduction measures would be required, as described in **Section 3.1.4**, to mitigate this impact.

For local impacts, cumulative particulate impacts are considered when projects may be within a few hundred yards of each other. Activities associated with the SCE Falcon Ridge Substation Project could occur immediately adjacent to the proposed Project, generally during the same timeframe. As shown in **Table 3.1-4**, the Project's maximum daily local emissions would exceed the SCAQMD significance thresholds for NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Therefore, the net increase locally of Project-related criteria pollutants would be potentially cumulatively

considerable, and the impact would be potentially significant (Threshold C2). Measures would be required, as described in **Section 3.1.4**, to mitigate this impact.

### **Sensitive Receptors (Threshold D)**

Impacts to sensitive receptors (including workers, residences, and schools) have the potential to result from exposure of those individuals to criteria pollutant emissions and exposure to toxic air contaminants. With respect to criteria pollutants emitted locally during Project activities, as described above and shown in **Table 3.1-4**, maximum daily local emissions would exceed the SCAQMD significance thresholds. As such, sensitive receptors near Project activities may be exposed to significant concentrations of criteria pollutants (Threshold D1).

Project activities also would result in temporary toxic air contaminant emissions in the form of diesel particulate matter from off-road and on-road equipment and from worker and haul/delivery vehicles. The SCAQMD suggests that projects with diesel powered mobile sources quantify potential carcinogenic risks from the diesel particulate emissions. Therefore, impacts associated with emissions of diesel particulate matter were analyzed in accordance with the guidelines in the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. Health risks associated with exposure to toxic air contaminants are described in terms of the carcinogenic risk and a Hazard Index for exposure to a chemical at a given concentration. Carcinogenic risks are estimated as the incremental probability that an individual would develop cancer over his/her lifetime as a direct result of exposure to potential carcinogens. The estimated risk is expressed as a probability (e.g., 10 in 1 million). A risk level of one in one million implies a likelihood that up to one person out of one million equally exposed people would contract cancer if exposed to a specific concentration for a specific amount of time during that person's assumed lifetime (70 years). This would be in addition to those cancer cases that would normally occur in an unexposed population of one million people.

The "Hazard Index" expresses the potential for chemicals to result in non-cancer-related health impacts. These effects are evaluated by comparing a given exposure concentration to the Reference Exposure Level, which is the concentration at which no adverse health effects are seen. The Hazard Index represents a ratio of the exposure concentration to the Reference Exposure Level. If an exposure level is equal to the safe exposure level (Reference Exposure Level), then the ratio, referred to as the Hazard Index, would equal 1.0. Hazard Indices are expressed using decimal notation (e.g., 0.001). A calculated Hazard Index exposure of less than 1.0 would likely not result in adverse non-cancer-related health effects over an individual's lifetime.

The analysis of Project impacts reflects that increased exposure would occur over a three-year period, and considers the distance between Project activities and the applicable sensitive receptors. The residential receptor with the greatest potential exposure to Project diesel particulate matter source emissions is located approximately 20 feet from the western boundary of the Project area. The maximum incremental carcinogenic risk attributable to Project diesel particulate matter source emissions based on the input parameters is estimated at 78.79 in 1 million and non-carcinogenic risks were estimated to have a Hazard Index of 3.46. The worker receptor with the greatest potential exposure to Project diesel particulate matter source emissions



is located approximately 125 feet from the western boundary of the Project area. Based on the input parameters, the maximum incremental carcinogenic risk is estimated to be 10.42 in 1 million with a non-carcinogenic risk Hazard Index of 1.33. The school receptor with the greatest potential exposure to Project diesel particulate matter source emissions is located approximately 320 feet from the western boundary of the Project area. Based on the input parameters, the maximum incremental carcinogenic risk is estimated to be 13.88 in 1 million with a non-carcinogenic risk Hazard Index of 0.62.

The total carcinogenic risk over the lifetime of the Project would exceed SCAQMD thresholds for off-site workers, residences, and schools. As such, impacts related to carcinogenic risks would be potentially significant (Threshold D2), and measures would be required, as described in **Section 3.1.4**, to mitigate these impacts.

While the Project's Hazard Index for schools would be below the SCAQMD threshold, the Hazard Index would exceed the SCAQMD threshold for residences and off-site workers. Therefore, impacts related to chronic non-carcinogenic hazards would be potentially significant (Threshold D3), and measures would be required, as described in **Section 3.1.4**, to mitigate these impacts.

### **Objectionable Odors (Threshold E)**

While objectionable odors rarely cause any physical harm, they can be unpleasant, leading to distress among sensitive receptors and sometimes generating citizen complaints to local governments and air districts.

Project equipment and activities would generate odors primarily from diesel exhaust emissions associated with equipment operating on the site. There may be situations where odors would be noticeable by nearby residents, but these odors would not be unfamiliar nor necessarily objectionable. The odors would be temporary and would dissipate rapidly from the source with an increase in distance. Therefore, the impacts would be short-term and would not be objectionable to a substantial number of people; the impact would be less than significant (Threshold E1).

### **3.1.4 Mitigation Measures**

The following mitigation measures have been identified to reduce air quality impacts associated with the proposed Project.

**AIR-1** All off-road diesel-powered construction equipment greater than 50 horsepower (hp) will meet Tier 4 emission standards. All construction equipment will be outfitted with CARB-certified best available control technology devices. Any emissions-control device used by the contractor will achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. A copy of each unit's certified tier specification, best available control technology documentation, CARB or SCAQMD operating permit will be provided at the time of mobilization of each applicable unit of equipment.

**AIR-2** Diesel haul trucks (e.g., material delivery trucks and debris export) will be 2010 model year or newer.

**AIR-3** Electricity from power poles will be used instead of temporary diesel or gasoline-powered generators and air compressors to reduce the associated emissions, where power poles are within 100 feet of equipment sites and feasible connections are available.

### 3.1.5 Conclusions

As demonstrated in **Table 3.1-5, Maximum Daily Regional Emissions with Mitigation**, and **Table 3.1-6, Maximum Daily Local Emissions with Mitigation**, implementation of mitigation measures AIR-1 and AIR-2 would reduce emissions of VOC, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Mitigation measure AIR-3 is to be implemented as feasible and would further reduce Project-related emissions; however, because the extent of this measure's feasibility is unknown at this time, reductions were not quantified. Although mitigation measures AIR-1 and AIR-2 would reduce emissions, regional emissions of VOC, CO, and NO<sub>x</sub> as well as local emissions of PM<sub>2.5</sub> would still exceed their respective SCAQMD thresholds of significance. Project-related impacts associated with air quality Thresholds A through D would, therefore, be significant and unavoidable. Although Project emissions would be below Thresholds D2 and D3 as further described below, impacts to Threshold D as a whole are considered significant because Threshold D1 would be exceeded.

<b>Table 3.1-5</b> <b>MAXIMUM DAILY REGIONAL EMISSIONS WITH MITIGATION</b> <b>(pounds/day)</b>						
Maximum Daily Emissions	VOC	CO	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Sub-phases 2A and 3A	162	1,200	175	4	10	9
<i>SCAQMD Thresholds</i> <i>(Table 3.1.2 Thresholds A1, B1, C1)</i>	75	550	100	150	150	55
<b>Exceed Threshold?</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: VOC: volatile organic compound; NO<sub>x</sub>: nitrogen oxides; CO: carbon monoxide; SO<sub>x</sub>: sulfur oxides; PM<sub>10</sub>: respirable particulate matter with a diameter of 10 microns or less; PM<sub>2.5</sub>: fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District.

Source: HELIX 2014a.

<b>Table 3.1-6</b> <b>MAXIMUM DAILY LOCAL EMISSIONS WITH MITIGATION</b> <b>(pounds/day)</b>				
Maximum Local Emissions	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	556	83	4	4
<i>SCAQMD Thresholds</i> <i>(Table 3.1.2 Thresholds B2, C2, D1)</i>	863	118	5	4
<b>Exceed Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>Yes</b>

Notes: NO<sub>x</sub>: nitrogen oxides; CO: carbon monoxide; PM<sub>10</sub>: respirable particulate matter with a diameter of 10 microns or less; PM<sub>2.5</sub>: fine particulate matter with a diameter of 2.5 microns or less.

Source: HELIX 2014a.

Implementation of mitigation measures AIR-1 and AIR-2 would reduce emissions of diesel particulate matter. Mitigation measure AIR-1 would reduce on-site diesel particulate matter by over 90 percent and mitigation measure AIR-2 would reduce off-site diesel particulate matter by up to 10 percent. With incorporation of mitigation measures AIR-1 and AIR-2, carcinogenic risk for sensitive receptors (residential, workers and schools) would remain below the threshold of 10 in 1 million for carcinogenic risk and below the Hazard Index threshold of 1.0 for the non-carcinogenic risk (Table 3.1-2). Based on the input parameters, the greatest potential residential exposure is estimated to be reduced to 8.48 in 1 million, and non-carcinogenic risk is estimated to have a Hazard Index of 0.37. The greatest potential worker receptor exposure is estimated to have a mitigated carcinogenic risk of 1.11 in 1 million and a non-carcinogenic risk Hazard Index of 0.14. The greatest potential school receptor exposure is estimated to have a mitigated carcinogenic risk of 1.49 in 1 million and a non-carcinogenic risk Hazard Index of 0.07.

Accordingly, with implementation of the noted measures, the total carcinogenic risk over the lifetime of the Project would not exceed SCAQMD standards to residences, workers, or schools (Threshold D2). Similarly, implementation of the noted mitigation measures would reduce the chronic non-carcinogenic risk Hazard Index for the Project to levels below the SCAQMD thresholds (Threshold D3). Project-related impacts to sensitive receptors associated with air quality Thresholds D2 and D3 would therefore be rendered less than significant; however, as discussed above, impacts related to Threshold D1 would still be considered significant and unavoidable due to local emissions. As a result, total impacts related to Threshold D would be considered significant.

For Threshold E, as discussed in **Section 3.1.3**, Project-related impacts from objectionable odors would be less than significant, and no mitigation is required.

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## 3.2 BIOLOGICAL RESOURCES

This section is based on the information and analysis presented in the proposed Project's Biological Resources Letter Report, dated October 24, 2014 (HELIX 2014b). The report is included as **Appendix C** of this EIR.

Prior to conducting field surveys, a thorough review was performed of relevant maps, databases, and literature pertaining to biological resources known to occur within southwestern San Bernardino County. The Biological Resources Letter Report is based on vegetation mapping; general biological surveys; habitat assessments for burrowing owl and Delhi Sands flower-loving fly; a focused presence/absence trapping survey for small mammals including San Bernardino kangaroo rat, San Diego pocket mouse, San Diego desert woodrat, and Los Angeles pocket mouse; and an assessment of wetland and aquatic resources potentially under state or federal jurisdiction. General biological surveys and habitat assessments were conducted by HELIX in October 2013 and March 2014, and the small mammal trapping survey was conducted by ENVIRA in April 2014. The study area for biological resources encompasses the Project area and adjacent lands that might be indirectly affected by Project activities. Potential impacts were evaluated based on the observed and potential biological resources in the Project area and the locations of proposed work areas.

### 3.2.1 Existing Conditions

#### **Vegetation Communities**

The entire study area contains evidence of disturbance, including disturbance from excavation for the Etiwanda Pipeline in 1993, regular vegetation maintenance in the pipeline right-of-way, on-going disturbance by agricultural activities, and permanent disturbance by development. The Project area consists almost entirely of disturbed land, with small patches of native vegetation that are heavily invaded by non-native species (**Figures 3.2-1a to 3.2-1j *Vegetation and Sensitive Resources/Impacts***).

Six vegetation community or land use types were mapped within the study area: Riversidean upland sage scrub, Riversidean alluvial fan sage scrub, streambed, non-native vegetation, disturbed land, and developed land (**Table 3.2-1, *Vegetation Communities and Habitat Types in the Study Area***).

#### Riversidean Upland Sage Scrub - Disturbed

Riversidean upland sage scrub is the driest expression of coastal sage scrub, found on steep slopes, severely drained soils, and very dry sites. It is considered to be a sensitive natural community in accordance with Section 15380 of the State CEQA Guidelines. Within the study area, this community is characterized as disturbed because it includes relatively high numbers of non-native species, fewer native species than in typical undisturbed examples of the community, and evidence of physical disturbance to plants and soils from human activities. This community occurs in the middle of the Project area in two patches, near Cherry Avenue and Victoria Street. These patches are low in habitat quality due to disturbance, small patch size, and isolation from habitat blocks in the local and regional area.

<b>Table 3.2-1 VEGETATION COMMUNITIES AND HABITAT TYPES IN THE STUDY AREA</b>	
<b>Vegetation Community</b>	<b>Acres</b>
Riversidean Upland Sage Scrub – Disturbed	5.0
Riversidean Alluvial Fan Sage Scrub – Disturbed	0.2
Streambed	0.3
Non-native Vegetation	0.7
Disturbed Land	59.9
Developed	6.4
<b>TOTAL</b>	<b>72.5</b>

#### Riversidean Alluvial Fan Sage Scrub – Disturbed

This community is similar to Riversidean upland sage scrub, but it occurs on terraces of seasonal streams and alluvial fans and includes some riparian species. It is considered to be a sensitive natural community. Within the study area, this community is disturbed from human activity and includes a variety of non-native species. A small patch of this community occurs in the Project area south of Victoria Street. This patch is considered low in habitat quality for the same reasons described for Riversidean upland sage scrub.

#### Streambed

A streambed is the sandy, gravelly, or rocky bed of a waterway that is mostly or completely unvegetated on a permanent basis. Non-native grasses and early-colonizing herbaceous species might be present seasonally, but rarely exceed 10 percent cover. Fluctuating water levels prevent the establishment of woody species. One patch of streambed occurs in the Project area, north of Baseline Avenue, where the Project area crosses an unnamed flood control channel.

#### Non-native Vegetation

Non-native vegetation is composed of non-native and/or landscape species that form patches that exclude native species. Non-native vegetation in the Project area consists of planted landscaping along the embankment and ramps for the interchange between SR 210 and I-15.

#### Disturbed Land

Disturbed land is highly disturbed ground that still retains a soil surface. Vegetation, if any, consists almost exclusively of upland species that are non-native and weedy, and therefore able to colonize after human disturbance. The vast majority of the Project area is disturbed land, with a variety of non-native grasses and herbs and some colonized native species. One patch of disturbed land adjacent to the streambed has small individuals of native species typically associated with sage scrub, but regular disturbance (discing/mowing) maintains this habitat as disturbed.

### Developed Land

Developed land is land that has been built upon or physically altered to the point that it no longer naturally supports vegetation or retains a soil surface. Developed land in the Project area includes paved roads and a park.

### **Plant Species**

No special-status plant species were observed during the October 2013 and March 2014 general biological surveys. A search of relevant databases did not result in any point records for special-status plant species in or immediately adjacent to the Project area, and no special-status plant species have better than low potential to occur within the study area due to lack of suitable habitat, inappropriate soil conditions, inappropriate elevations, existing disturbances, and the prevalence of non-native plant species. A complete list of plants observed in the study area is provided in Attachment A of the Biological Resources Letter Report.

### **Animal Species**

No rare, threatened, or endangered species was observed or otherwise detected within the study area. Animal species observed in the study area, or detected audibly or by sign, include common species such as side-blotch lizard, house finch, European starling, northern mockingbird, Anna's hummingbird, common raven, desert cottontail, California ground squirrel, coyote, and black-tailed jackrabbit. In addition, a single raptor species, a red-tailed hawk, was observed soaring over the study area. The study area is predominantly disturbed and does not provide high-quality, native habitat for animal species, and overall animal activity during the general biological surveys was low relative to the results of surveys in other locations. A complete list of animals detected in the study area is provided in Attachment A of the Biological Resources Letter Report.

To develop a preliminary list of special-status animal species with potential to occur, previous observation records within the four U.S. Geological Survey (USGS) quadrangle maps adjacent to the study area were reviewed. A total of 25 special-status animal species were identified through this review and analyzed for their potential to occur within the study area. Of those 25 species, three were observed during Project surveys. An additional four species that have potential to occur and that would be subject to special consideration if present in the study area are discussed in greater detail below.

### Special-Status Animal Species Present in the Project Area

Three special-status animal species were observed in the study area during the general biological surveys and during protocol-level trapping for small mammals: San Diego pocket mouse, Los Angeles pocket mouse, and San Diego black-tailed jackrabbit. Each of these species is state-listed as a Species of Special Concern, which carries no formal legal status; however, CEQA requires full analysis of potential Project impacts to such species. The status of these species in the Project area is discussed below. Trapping locations were determined on the basis of potentially suitable habitat within the study area and access authorization by property owners.

### *San Diego Pocket Mouse*

The habitat quality for San Diego pocket mouse was generally considered to be low. A total of seven San Diego pocket mice were trapped at three locations in the Project area during trapping surveys in April 2014. Trapping locations with positive results were as follows: (1) north of Baseline Avenue and east of Del Norte Street, on the south side of the unnamed channel; (2) north of Baseline Avenue and east of Del Norte Street, on the north side of the unnamed channel; and (3) north of Vienna Lane, east of Campania Way and west of Knox Avenue (**Figure 3.2-1d and 3.2-1i**).

### *Los Angeles Pocket Mouse*

The habitat quality for San Diego pocket mouse was generally considered to be low. A total of six Los Angeles pocket mice were trapped at three locations in the Project area during trapping surveys in April 2014. Trapping locations with positive results were as follows: (1) northeast of Del Norte Street, on the north side of the unnamed channel; (2) north of North Frontage Road and immediately west of San Sevaine Road; and (3) northwest of Reagan Drive, south of Summit Avenue and east of River Rock Drive (**Figures 3.2-1d, 3.2-1f, and 3.2-1h**).

### *San Diego Black-tailed Jackrabbit*

An individual black-tailed jackrabbit was observed in the Project area south of Victoria Street during the general biological survey. This individual was determined to be the San Diego black-tailed jackrabbit subspecies based on distinguishing characteristics observed during the survey, the location of the study area within the subspecies' range, and previous recordation of the subspecies in the study area.

### Special-Status Animal Species with Potential to Occur in the Project Area

Four special-status animal species either have historical records or designated habitat within the study area, or are widespread and known to occur in the region but were not observed during biological surveys of the Project area: San Bernardino kangaroo rat, Delhi Sands flower-loving fly, coast horned lizard, and burrowing owl. The potential for these species to occur in the Project area is discussed below.

### *San Bernardino Kangaroo Rat*

The San Bernardino kangaroo rat is listed by U.S. Fish and Wildlife Service (USFWS) as endangered, indicating that it is considered to be in danger of extinction throughout all or a significant portion of its range; the portion of the study area north of Summit Avenue has been designated by USFWS as critical habitat for this species. San Bernardino kangaroo rat is identified as a Species of Special Concern by the California Department of Fish and Wildlife (CDFW). The San Bernardino kangaroo rat is found on alluvial fans where soils are loose, sandy, or gravelly, and vegetative cover is below 25 percent. It requires alluvial sage scrub habitat, and is found mostly in early- and intermediate-stage alluvial sage scrub on lower stream channel terraces; less frequently, the species is found in mature alluvial sage scrub on higher terraces. Areas where herbaceous and/or annual grass cover is high are not suitable for the



San Bernardino kangaroo rat, as roots impede burrowing and there is insufficient bare soil surface for foraging.

As previously described, a total of 0.2 acre of Riversidean alluvial fan sage scrub occurs in the Project area and it is highly disturbed by non-native species. It is located along what appears to be an abandoned agricultural drain that likely has not experienced in many years the fluvial processes associated with soils and vegetation favored by the San Bernardino kangaroo rat. No other suitable habitat occurs in the Project area. No San Bernardino kangaroo rats were trapped during the focused presence/absence survey in April 2014, and the Project area is presumed to be unoccupied by this species.

#### *Delhi Sands Flower-loving Fly*

The Delhi Sands flower-loving fly is listed as endangered by USFWS. The Delhi Sands flower-loving fly requires fine, sandy soils, preferring those in the Delhi soil series that occur as stabilized dunes, and preferring relatively undisturbed habitat with 10 to 20 percent vegetative cover. Typical Delhi Sands flower-loving fly habitat includes vegetative cover of less than 50 percent.

The biological survey of the Project area included an assessment of potentially suitable habitat for the Delhi Sands flower-loving fly. The southern portion of the study area, from Foothill Boulevard to 0.5-mile north of Baseline Avenue, is within an observation record for Delhi Sands flower-loving fly; this area also is within the limits of the Ontario Recovery Unit of the USFWS Delhi Sands Flower-loving Fly Recovery Plan and 5-Year Review (USFWS 1997, 2008). The study area north of Baseline Avenue is outside the known range of the Delhi Sands flower-loving fly, and Delhi series soils do not occur anywhere in the study area. The Delhi Sands flower-loving fly is not expected to occur within the Project area or elsewhere within the study area due to a lack of Delhi series soils, the high level of soil disturbance from discing and other maintenance activities, prevalence of non-native grasses, unsuitable vegetative cover, and low frequency of indicator plant species.

#### *Coast Horned Lizard*

The coast horned lizard is listed as a Species of Special Concern by CDFW. Preferred habitats of coast horned lizard include coastal sage scrub, chaparral, grasslands, forest, woodland, and riparian areas, with open areas for basking and abundant native ants and other insect prey.

There are two historical records of the coast horned lizard in the study area, but the species is considered to have low potential to occur in the Project area or elsewhere within the study area due to disturbance by agriculture and maintenance activities, overall lack of suitable surface soils and cover, and presumed low abundance of suitable prey.

#### *Burrowing Owl*

The burrowing owl is listed by CDFW as a Species of Special Concern and is covered by special management protocols that have been recommended as a guideline for management of the species (CDFW 2012). The burrowing owl is a ground-nesting raptor that utilizes abandoned squirrel burrows as nesting habitat. The burrowing owl is also known to use debris piles, pipes,

culverts, and rock piles for burrows. The preferred habitat is flat to gently rolling terrain with less than 30 percent shrub cover.

A habitat assessment and directed search for the burrowing owl were conducted in the study area with negative results. Burrows with potential to support the burrowing owl were observed in the study area but outside of the Project area, and no sign of current or previous occupation by burrowing owls (i.e., feathers, pellets, whitewash, decoration) was observed. Based on disturbed conditions and lack of suitable burrows, the burrowing owl is not expected in the Project area and has a low potential to occur in agricultural and undeveloped lands within the study area outside the Project area.

## **Regulatory Framework**

Activities affecting the biological resources determined to exist or have the potential to exist within the study area are subject to the federal, state, and local regulations discussed below. The standards and regulations most relevant to the proposed Project are summarized below, with additional detail provided in the Project's Biological Resources Letter Report (**Appendix C**).

### Federal

#### *Federal Endangered Species Act*

The Federal Endangered Species Act provides a process for the listing of plant and animal species as threatened or endangered, and extends legal protection to those listed species. No species listed under the Endangered Species Act were observed in the Project area, and the potential to occur is considered low; therefore, no permits would be required for incidental take of listed species, and no consultation with USFWS would be required.

#### *Migratory Bird Treaty Act*

All migratory bird species that are native to the United States or its territories are protected under the federal Migratory Bird Treaty Act (MBTA) as amended under the Migratory Bird Treaty Reform Act of 2004. In common practice, compliance with the MBTA is satisfied by appropriate measures to avoid and minimize direct impacts and indirect noise impacts to active bird nests.

No bird nests were observed in the study area during surveys. Nevertheless, birds may still nest in the low-quality, disturbed habitat that occurs in the Project area. Given this possibility, Metropolitan applies standard practices for all of its projects and operations to avoid adverse impacts to nesting birds, including burrowing owls and other raptors. These practices would be applied to the proposed Project.

### State

#### *California Endangered Species Act*

Similar to the federal Endangered Species Act, the California Endangered Species Act, along with the Native Plant Protection Act, authorizes CDFW to designate, protect, and regulate the

taking of special-status species in California. No species listed under the California Endangered Species Act was observed in the study area or has high potential to occur; therefore, the California Endangered Species Act is not applicable to the Project.

### *California Fish and Game Code*

The California Fish and Game Code regulates the taking or possession of birds, mammals, fish, amphibians, and reptiles, as well as natural resources such as wetlands and waters of the state. It includes the California Endangered Species Act (Sections 2050-2115), Native Plant Protection Act (Sections 1900 *et seq.*), and Streambed Alteration Agreement regulations (Sections 1600-1616). The code also includes protection of birds (Sections 3500 *et seq.*) and the California Native Plant Protection Act of 1977 (Sections 1900-1913).

Pursuant to California Fish and Game Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the code or any associated regulation. Raptors (birds of prey) and owls and their active nests are protected by California Fish and Game Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. In common practice, CDFW places timing restrictions on clearing of potential nesting habitat (e.g., vegetation), as well as restrictions on disturbances allowed near active raptor nests.

The presence in the study area of three mammalian Species of Special Concern creates the potential for significant Project impacts to species covered by the California Fish and Game Code. As previously noted, Metropolitan's standard practices for projects and facilities include measures to avoid impacts to nesting birds and raptors, including the burrowing owl. These potential impacts are analyzed in detail below. The remaining portions of the code are not expected to apply to the Project.

### *California Environmental Quality Act (CEQA)*

Although threatened and endangered species are protected by specific federal and state laws, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain criteria. CEQA Guidelines Section 15380(d) allows a public agency to undertake a review to determine if a significant effect would occur on species that have not yet been listed by either the USFWS or CDFW (i.e., species of concern).

Potential Project impacts to special-status species known to occur in the Project area (i.e., Los Angeles pocket mouse, San Diego pocket mouse, and black-tailed jackrabbit), and to special-status species with potential to occur (i.e., San Bernardino kangaroo rat, Delhi sands flower-loving fly, coast horned lizard, and burrowing owl), must be analyzed for significance under CEQA thresholds.

### Local

The adopted General Plans of the cities of Rancho Cucamonga and Fontana include several policies relevant to the protection of biological resources. Although California Government

Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances, these policies provide a point of reference regarding resource protection priorities of those jurisdictions. The portion of the proposed Project in Rancho Cucamonga does not include biological resources that are addressed by the environmental protection policies of the General Plan.

Relevant policies of the City of Fontana General Plan include the following:

- Goal 1.2, Policy 2: Require mitigation for removal of any natural habitat, including restoration of degraded habitat of the same type, creation of new or extension of existing habitat of the same type, financial contribution to a habitat conservation fund administered by federal, state or local government agency, or by a non-profit conservancy.
- Goal 1.2, Policy 3: Apply local CEQA procedures to identify impacts to rare, threatened and endangered species.

### **3.2.2 Significance Thresholds**

Based on Appendix G of the State CEQA Guidelines and thresholds identified in the Initial Study/NOP prepared for the proposed Project, a significant impact would occur if the proposed Project would do any of the following, identified below as Thresholds A through C:

- Threshold 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 CDFW or USFWS;
- Threshold B: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS; or
- Threshold C: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

### **3.2.3 Impact Analysis**

#### **Candidate, Sensitive, and Special-status Species (Threshold A)**

As described in **Section 3.2.1**, no sensitive plants were observed during the general biological survey, and none of the sensitive plant species identified through database searches has a better than low potential to occur within the Project area. Therefore, no significant impacts to sensitive plant species are expected.

Three sensitive mammal species were observed within portions of the Project area: San Diego black-tailed jackrabbit, San Diego pocket mouse, and Los Angeles pocket mouse. A single individual of San Diego black-tailed jackrabbit was observed in the study area. This is a large, mobile species that is active during the day and assumed to be easily capable of escaping harm



by Project activities. Project impacts to San Diego jackrabbit are restricted to minor, temporary loss of foraging and movement areas, and would be less than significant.

San Diego pocket mouse and Los Angeles pocket mouse are small, nocturnal rodents that spend the day in underground burrows and forage above-ground at night. Both were trapped in very low numbers during small mammal trapping surveys. Pocket mice are not expected to easily escape harm by Project ground-disturbing activities, given their small size and nocturnal habits, and the Project has potential for direct impact to individuals of these species. Overall activity was low during the small mammal trapping survey (captures in less than seven percent of traps), and small mammal population sizes in the study area are considered low (ENVIRA 2014). Both species were represented by fewer than 10 individuals in the trapping survey results, suggesting that the Project area supports less than one percent of the lowest estimated statewide population of San Diego pocket mouse, and little more than one percent of the lowest estimated statewide population of Los Angeles pocket mouse.

Given the low number and density of both San Diego pocket mouse and Los Angeles pocket mouse in the Project area, and the small portion of the Project area that would be directly impacted by Project activities (**Figures 3.2-1a to 3.2-1j**), the potential for direct impact to either species is low and potential impacts would not jeopardize the survival of either species. Potential Project impacts to these two species would be restricted to minor, temporary loss of foraging and movement habitat, and low-likelihood direct impacts to fewer than 10 individuals from ground-disturbing activities. These impacts would be less than significant.

The study area contains vegetation and structures that provide suitable nesting habitat for common birds, including raptors, protected under the MBTA and California Fish and Game Code. The proposed Project could result in the removal or trimming of vegetation, and elevated noise levels during the general bird nesting season (March 1 through September 15) and, therefore, could result in impacts to nesting birds. Direct impacts could occur as a result of removal of vegetation supporting an active nest, and noise impacts could affect raptors nesting in nearby SCE electrical transmission towers or in adjacent agricultural lands. As previously noted, Metropolitan employs standard practices, for all projects and facilities, to protect nesting birds from adverse impacts and to ensure compliance with the MBTA and Fish and Game Code.

As a general practice, for any Metropolitan projects or operations activities that would occur during the general bird nesting season of February 1 through September 15, Metropolitan would retain a qualified biologist to perform a pre-activity survey of potential nesting habitat to confirm the absence of active nests. The pre-activity survey would be performed no more than seven days prior to the start of work in each area. If the biologist determines that no active nests are present, work is allowed to proceed. If the qualified biologist determines that an active nest is present, an adequate avoidance buffer is established to ensure that no adverse impacts would occur until the young have fledged the nest and the nest is confirmed no longer to be active. The avoidance buffer distance that Metropolitan generally applies is up to 300 feet for songbirds or non-raptors and up to 500 feet for raptors, depending on the species, site conditions, and nature of the work. Where suitable buffers are not feasible, modified work schedules and/or methods may be applied. Additionally, where potential nesting vegetation is present in the vicinity of work areas, Metropolitan's qualified biologist is consulted to maintain such vegetation outside the nesting season to minimize the potential for nesting activity near work areas where indirect impacts might

occur. Application of these standard practices to the Project would ensure that impacts to species protected under the MBTA and Fish and Game Code would be less than significant.

The Project area does not contain suitable burrows for burrowing owl, and burrowing owl is not expected to occur in the Project area. Surrounding undeveloped lands outside the Project area but within the study area have low potential for burrowing owl based on disturbance and agricultural activities. No direct impacts to burrowing owl are expected, and the potential for indirect impacts outside the Project area is considered to be low. The low likelihood of burrowing owl presence in the areas surrounding the Project, and the implementation of avoidance and minimization measures should any be detected during pre-activity nesting bird surveys, would ensure that the Project's impacts to burrowing owl would be less than significant.

In summary, the potential Project impacts to sensitive species (Threshold A) would be less than significant.

### Sensitive Natural Communities (Threshold B)

Two sensitive natural communities were mapped within the Project area: Riversidean alluvial fan sage scrub and Riversidean upland sage scrub. Potential Project impacts to sensitive natural communities are depicted in **Figures 3.2-1a to 3.2-1j**, and summarized in **Table 3.2-2, Sensitive Vegetation Community Impacts**.

Table 3.2-2 SENSITIVE VEGETATION COMMUNITY IMPACTS*		
Vegetation Community	Existing	Impact
Riversidean Upland Sage Scrub – Disturbed	5.0	2.6
Riversidean Alluvial Fan Sage Scrub – Disturbed	0.2	0.04
<b>TOTAL</b>	<b>5.2</b>	<b>2.67</b>

\*Areas are in acres

Note: Impacts reported in this table reflect vegetation within proposed Contractor Work and Storage Areas and excavation areas. Impacts to up to an additional 2.4 acres of Riversidean upland sage scrub and up to 0.08 acre of Riversidean alluvial fan sage scrub may be subject to temporary disturbance.

The Project would temporarily impact 2.6 acres of disturbed Riversidean upland sage scrub and 0.1 acre of disturbed Riversidean alluvial fan sage scrub in the proposed Contractor Work and Storage Areas and excavation areas. According to biological surveys conducted for the original Etiwanda Pipeline North installation in 1988, Riversidean upland sage scrub in the proposed pipeline alignment was disturbed (WESTEC 1988), which indicates that this habitat has been of low quality since before the original pipeline installation. The Riversidean alluvial fan sage scrub and disturbed Riversidean upland sage scrub in the Project area represents vegetation that has re-grown since excavation for installation of Etiwanda Pipeline North in 1993, and that has continued to be disturbed by on-going maintenance activities in the right-of-way. These communities are remains highly disturbed, low in quality, and provides limited biological function and value. Neither has a high potential to support any sensitive species. The San Bernardino kangaroo rat was determined to be absent from these communities. The Riversidean alluvial fan sage scrub is not associated with any functioning riparian habitat and is of low

~~quality. The Riversidean upland sage scrub is highly disturbed comprised of a sparse arrangement of California buckwheat and deerweed shrubs with non-native red brome, oats, and filaree, low in quality, and~~ It also is isolated from core habitat blocks in the local and regional area. Both California buckwheat and deerweed are resilient disturbance-followers, which are expected to again successfully colonize the temporary impact areas. Temporary impacts to ~~thisese communities~~ (Threshold B) would be less than significant.

Sensitive native vegetation outside the areas proposed for direct disturbance but within the Project area (totaling up to an additional 2.4 acres of Riversidean upland sage scrub ~~and up to 0.08 acre of Riversidean alluvial fan sage scrub~~) may be subject to disturbance by vehicle access and equipment storage as necessary for Project activities, or by routine vegetation maintenance. Because no permanent removal of habitat would be necessary to accommodate temporary access and storage in these areas, vegetation in these communities is expected to recover after Project completion. These areas are isolated habitat fragments in disturbed condition and the potential temporary impact (Threshold B) would be less than significant.

### **Local Policies, Ordinances, and Adopted Plans (Threshold C)**

As described in **Section 3.2.1**, the adopted General Plan for the City of Fontana includes policies relevant to the protection of biological resources. These policies include identification of impacts to sensitive species and mitigation for removal of natural habitat. As noted above, California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances. These policies provide a point of reference regarding resource protection priorities of those jurisdictions and are evaluated for purposes of full disclosure of potential Project impacts on the environment. Potential impacts to sensitive species are addressed above, and appropriate protective measures would be provided in accordance with Metropolitan's standard practices for the protection of nesting birds. Also as addressed above, the Project would result in temporary impacts to Riversidean upland sage scrub ~~and Riversidean alluvial fan sage scrub~~. ~~Thisese communities is~~ are, however, disturbed, low in quality, and provides limited biological function and value. ~~They~~ It represents vegetation that has re-grown in similar quality to the disturbed vegetation that existed prior to ~~since~~ excavation for installation of Etiwanda Pipeline North in 1993, ~~and~~ Vegetation in thisese communities is expected to recover after Project completion to a community that is functionally equivalent to the limited, disturbed community that currently exists. Impacts would be less than significant and do not require mitigation. Based on these considerations, the Project would not conflict with local policies or ordinances protecting biological resources (Threshold C).

### **3.2.4 Mitigation Measures**

Impacts related to Thresholds A, B, and C would be less than significant; no mitigation is required.

### **3.2.5 Conclusions**

Impacts to special-status animal species and sensitive communities would be less than significant given the relatively low sensitivity of resources present, small numbers of individuals likely to be affected, and Metropolitan's standard practices for the protection of nesting birds, including burrowing owls and other raptors. No impacts would occur related to consistency with local policies, ordinances, or plans.

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## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1a



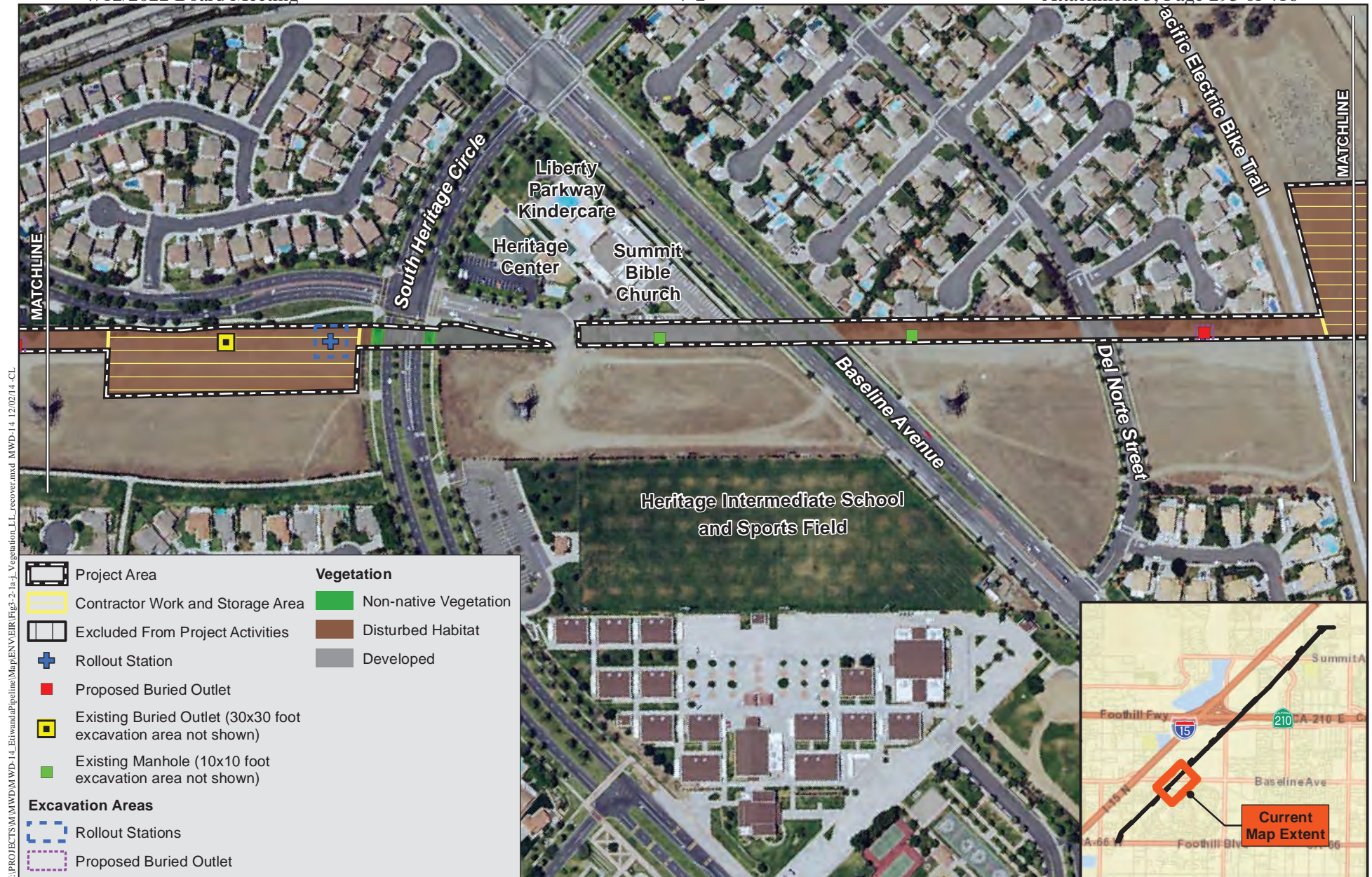


## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1b



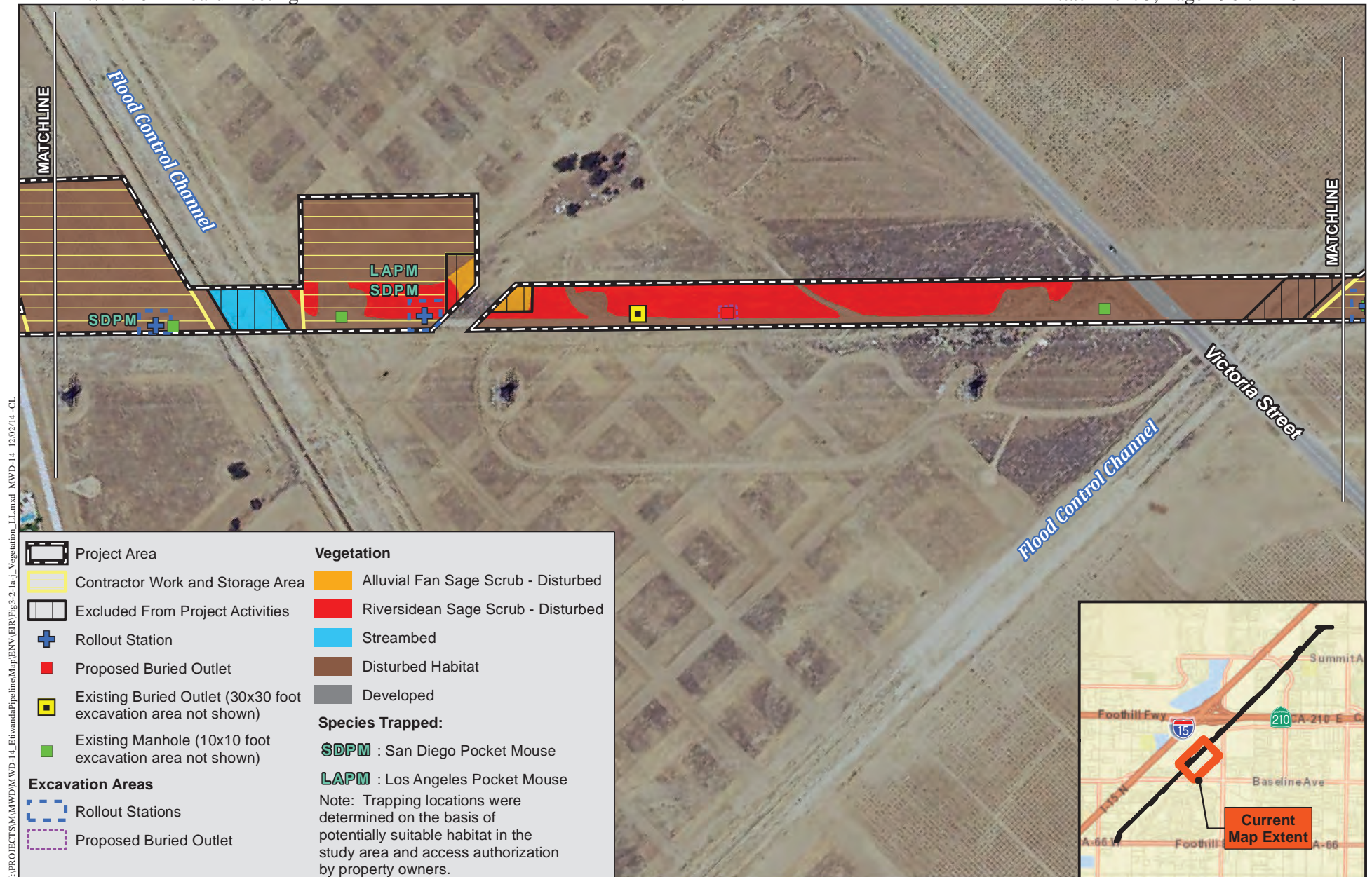


## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1c





## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1d



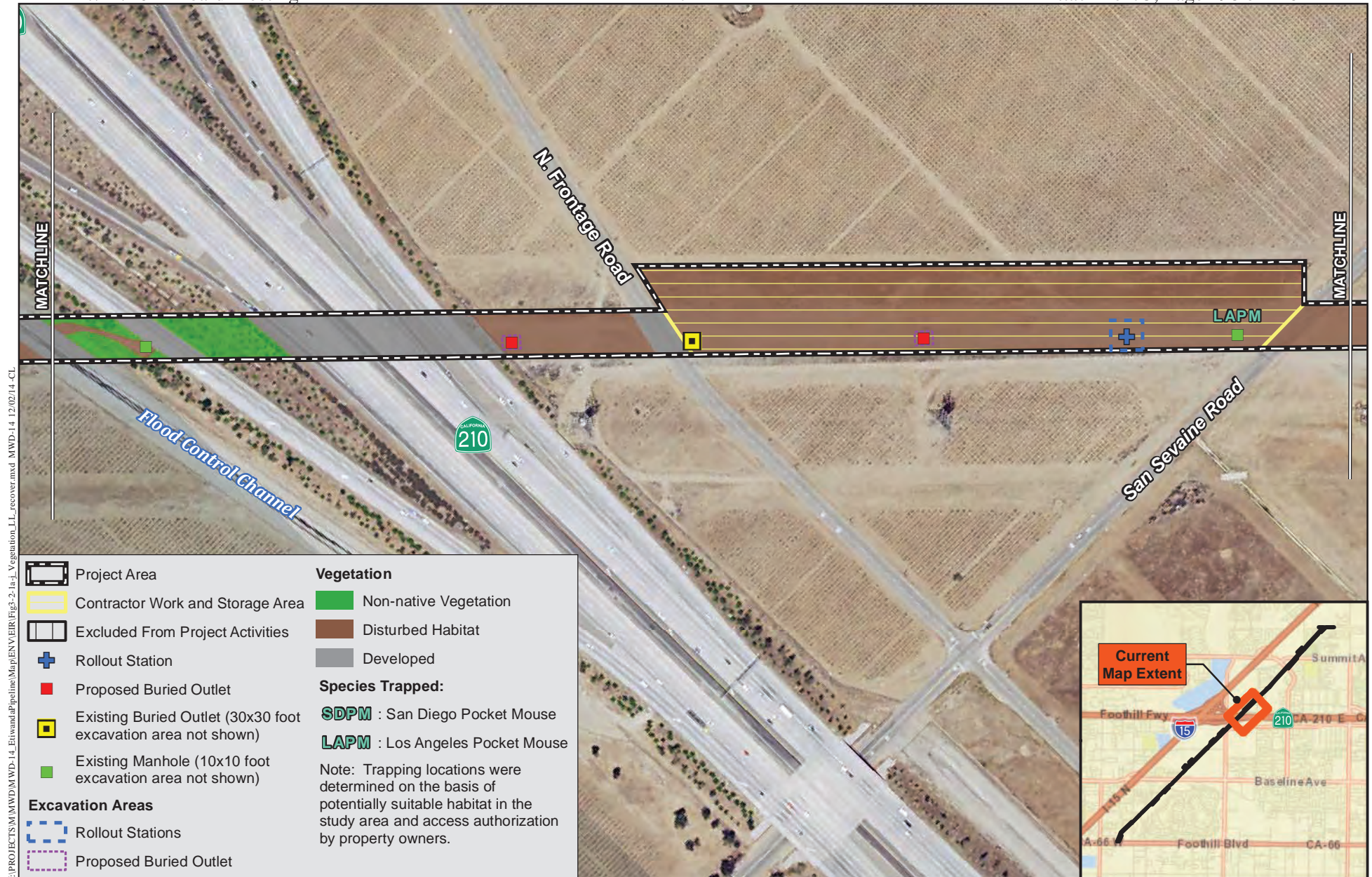


## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1e



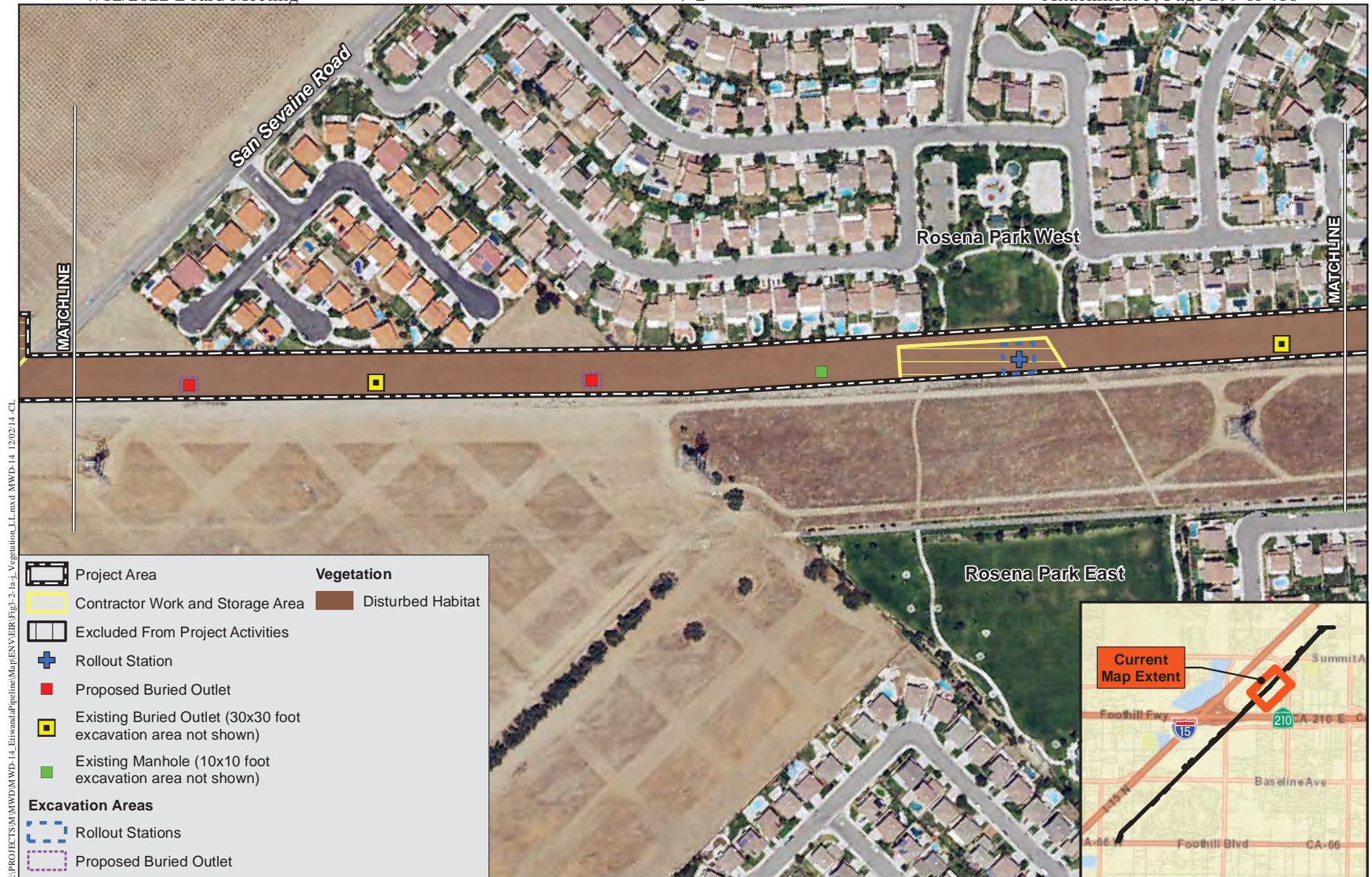


## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1f

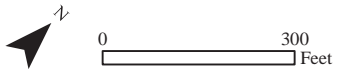




## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1g







## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1h





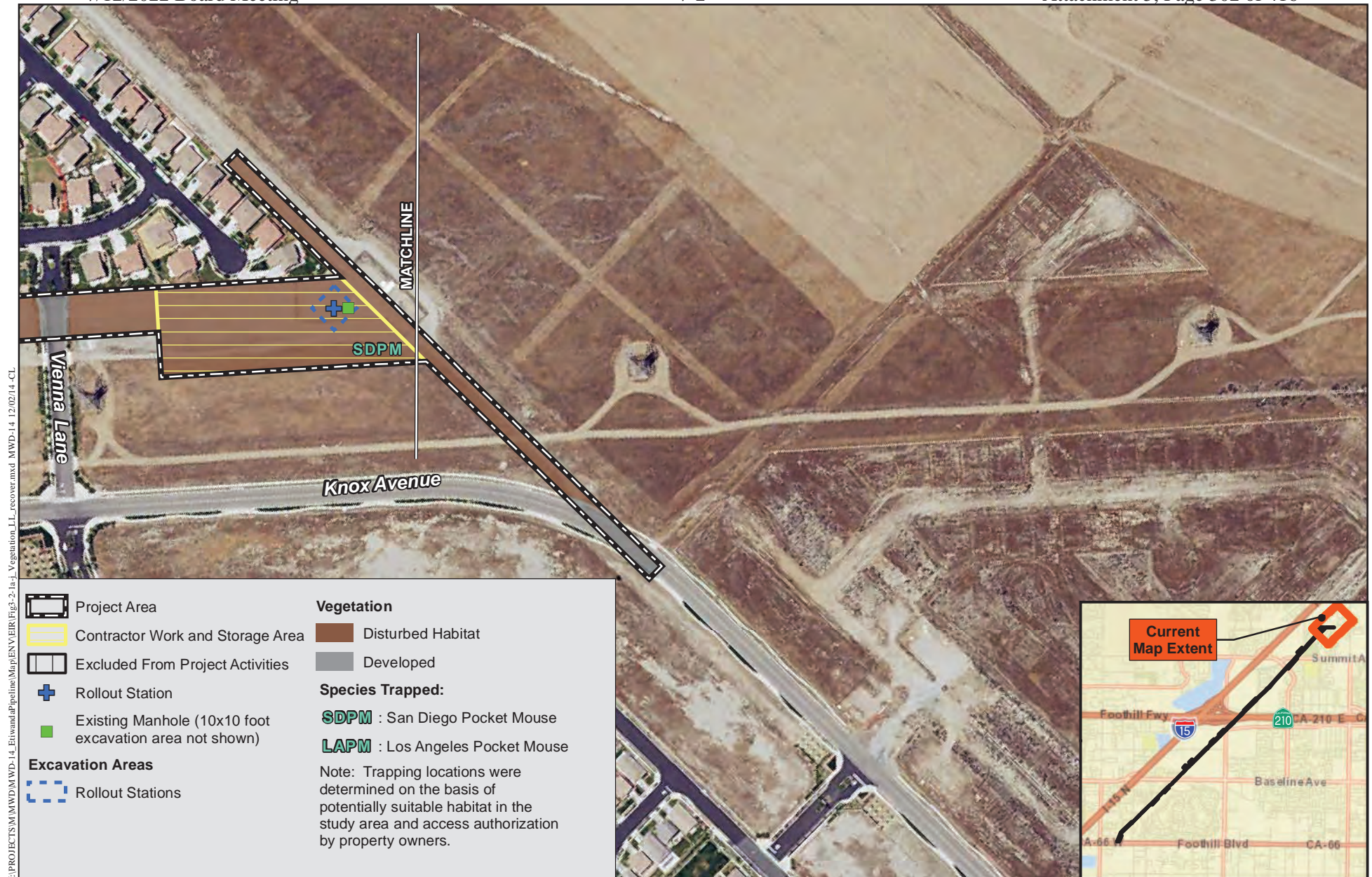
## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1i







## Vegetation and Sensitive Resources/Impacts

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.2-1j



### 3.3 GREENHOUSE GAS EMISSIONS

This section is based on the information and analysis presented in the proposed Project's Greenhouse Gas Emissions Technical Report, dated December 2014 (HELIX 2014c). The technical report is included in its entirety as **Appendix E** of this EIR.

HELIX assessed potential greenhouse gas (GHG) impacts by estimating emissions that would be generated by construction equipment, off-road vehicles, and on-road vehicles during the proposed Project and comparing the emission levels with applicable thresholds. These emissions were estimated using the Project-specific information previously described in **Section 2.7.3, Personnel and Equipment**. CARB's off-road emissions inventory database (OFFROAD2011) and EMFAC2011 models were used to estimate the emissions from heavy construction equipment and on-road vehicles, respectively. Complete listings of the assumptions used in the analysis and model outputs are provided in **Appendix D**. Although there would likely be minor variations in the numbers/types/use of equipment and workers compared to the assumptions incorporated into the emissions calculations, these assumptions generally provide for an overall worst-case analysis. This approach was used in order to allow flexibility in final design and implementation; actual GHG emissions may be less.

#### 3.3.1 Existing Conditions

##### **Climate Change and Greenhouse Gases**

Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns, over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Historical records show that global temperature changes have occurred naturally in the past, such as during previous ice ages and warming periods. Changes in global climate patterns have recently been attributed to global warming, which is an average increase in the temperature of the atmosphere near the Earth's surface.

Global temperatures are moderated by naturally occurring atmospheric gases. These gases are commonly referred to as GHGs because they function like a greenhouse by letting light in but preventing heat from escaping, thus warming the Earth's atmosphere. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. GHGs, as defined under California Assembly Bill 32 (AB 32), include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). The global warming potential of each GHG is multiplied by the potency and lifespan in the atmosphere of that gas to produce CO<sub>2</sub> equivalents (CO<sub>2</sub>e).

##### **Existing Greenhouse Gas Emissions**

In 2012, total GHG emissions in California were estimated at 459 million metric tons (MMT) CO<sub>2</sub>e (CARB 2014). According to the San Bernardino County GHG Inventory (San Bernardino Associated Governments [SANBAG] 2013), San Bernardino County emitted 17.5 MMT CO<sub>2</sub>e in 2008. This inventory indicated that the largest contributors of GHG emissions in San Bernardino



County were the light- and medium-duty vehicles and heavy-duty vehicles categories, which comprised 35 percent (6 MMT CO<sub>2</sub>e) of the total amount. By 2020, in the absence of any reduction measures, SANBAG estimates regional GHG emissions would be 20 MMT CO<sub>2</sub>e (SANBAG 2013).

## **Regulatory Framework**

Regulatory agencies, such as the USEPA, CARB, etc., have adopted a variety of regulations in an attempt to address the potential effects of GHGs on global climate. The regulations most relevant to the proposed Project are summarized below, with additional detail provided in the Project's Greenhouse Gas Emissions Technical Report (**Appendix D**).

### Federal

The U.S. Supreme Court ruled in *Massachusetts v. U.S. Environmental Protection Agency* that CO<sub>2</sub> is an air pollutant, as defined under the federal Clean Air Act, and that the USEPA has the authority to regulate emissions of GHGs. Following the court decision, the USEPA announced that GHGs threaten the public health and welfare of the American people.

### State

The California Global Warming Solutions Act of 2006 (AB 32) required CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB was directed to reduce GHG emissions to 1990 levels by 2020. AB 32 required CARB to adopt a scoping plan that includes various measures, rules, and regulations in an open public process to achieve the GHG reductions.

### South Coast Air Quality Management District

In 2008, the SCAQMD proposed a tiered threshold approach for analyzing GHG emissions: Tier 1 determines if a project qualifies for an applicable CEQA exemption; Tier 2 determines consistency with GHG reduction plans; and Tier 3 proposes a numerical screening value as a threshold. In 2010, the SCAQMD suggested a Tier 3 screening threshold of 3,000 metric tons (MT) CO<sub>2</sub>e per year for all land use types. This screening threshold is used only for guidance, as it has not been formally approved by the SCAQMD board as of September 2014.

### **3.3.2 Significance Thresholds**

Based on Appendix G of the State CEQA Guidelines, a significant impact would occur if the proposed Project would result in the following, identified below as Thresholds A and B:

- Threshold A: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Threshold B: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.



For Threshold A, there are no established federal, state, or local quantitative thresholds applicable to the Project to determine the quantity of GHG emissions that may have a significant effect on the environment. CARB, the SCAQMD, and various cities and agencies have proposed, or adopted on an interim basis, thresholds of significance that require the implementation of GHG emission reduction measures. For the proposed Project, the most appropriate screening threshold for determining GHG emissions is the SCAQMD proposed Tier 3 screening threshold (SCAQMD 2010); therefore, a significant impact would occur if the proposed Project would exceed the SCAQMD proposed Tier 3 screening threshold of 3,000 MT CO<sub>2</sub>e per year.

### 3.3.3 Impact Analysis

The magnitude of global GHG emissions is extremely large when compared to the emissions of an individual project, such as the Project's infrastructure work; therefore, it is accepted by GHG policymakers that an individual project would be unlikely to result in the magnitude of GHG emissions necessary to directly impact climate change. The California Natural Resource Agency (CNRA), which is charged with the adoption of CEQA guidelines for GHGs, stated, "Due to the global nature of GHG emissions and their potential effects, GHG emissions will typically be addressed in a cumulative impacts analysis" (CNRA 2009). Thus, the GHG impact analysis represents a cumulative GHG impact analysis for Project-related GHG emissions.

#### **Direct and Indirect Emissions of Greenhouse Gases (Threshold A)**

Project activities would result in GHG emissions through the use of heavy equipment in the Project area, as well as from vehicle trips to and from the Project area by commuting workers and delivery/haul trucks. As shown in **Table 3.3-1, *Estimated GHG Emissions***, based on emission estimates using the OFFROAD2011 and EMFAC2011 models, total GHG emissions associated with relining activities are estimated at 82,588 MT CO<sub>2</sub>e.

<b>Table 3.3-1 ESTIMATED GHG EMISSIONS</b>	
<b>Sub-phase</b>	<b>Emissions (MT CO<sub>2</sub>e)</b>
2A	16,529
2B	16,520
3A	16,529
3B	16,520
4A	16,490
<b>TOTAL<sup>1</sup></b>	<b>82,588</b>
Amortized Emissions <sup>2</sup>	2,753

<sup>1</sup> The total presented is the sum of the unrounded values.

<sup>2</sup> Emissions are amortized over 30 years in accordance with SCAQMD guidance.

Source: HELIX 2014c.

It should be noted that mitigation measures AIR-1 (construction equipment would use emission-control technology), AIR-2 (contractor would use 2010 and newer diesel haul trucks),

and AIR-3 (use of power pole electricity where feasible) would have the effect of reducing GHG emissions from the Project. AIR-1 and AIR-2 reductions were incorporated in the estimates above. Although the implementation of AIR-3 would likely lead to the biggest reduction in Project GHG emissions of the three mitigation measures, it was not included in the model as the extent to which this measure would be feasible to implement has yet to be determined.

SCAQMD, in its *Draft Guidance Document – Interim CEQA GHG Significance Thresholds*, recommends that construction emissions be amortized over a 30-year project lifetime (SCAQMD 2008c). The proposed Project, therefore, as shown in **Table 3.3-1**, would contribute 2,753 MT CO<sub>2</sub>e emissions per year on an amortized basis.

The amount of amortized Project emissions is less than the significance threshold of 3,000 MT CO<sub>2</sub>e per year. Therefore, the Project GHG emissions would not be cumulatively considerable, and the impacts under Threshold A would be less than significant.

### **Consistency with Plans for Reducing Greenhouse Gas Emissions (Threshold B)**

As previously discussed, the increase in GHG emissions would be less than SCAQMD's significance threshold being applied to this analysis. Therefore, implementation of the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. No impact under Threshold B would occur.

#### **3.3.4 Mitigation Measures**

Impacts related to Thresholds A and B would be less than significant; no mitigation is required.

#### **3.3.5 Conclusions**

The assessment of GHG emissions is inherently cumulative because climate change is a global phenomenon. As discussed above, the impact of the Project's GHG emissions on climate change would not be cumulatively significant, as the Project does not exceed the SCAQMD screening threshold or conflict with an applicable GHG plan, policy, or regulation.

### 3.4 LAND USE AND PLANNING

The focus of the following analysis is on the consistency of the proposed Project with the General Plans and zoning designations for the cities of Fontana and Rancho Cucamonga. In addition, the analysis considers the relationship of the proposed Project with surrounding land uses.

Land use impacts were assessed by generating existing land use maps and designated land use maps for the Project area and nearby properties; reviewing the General Plans of the cities of Rancho Cucamonga and Fontana for policies that might be applicable to a pipeline relining project within an existing pipeline right-of-way; assessing the potential for the Project to conflict with existing or planned land uses in or adjacent to the Project area; and comparing the proposed Project to the relevant General Plan policies of the cities of Rancho Cucamonga and Fontana. The existing land use and designated land use mapping was obtained from SANBAG; the review of General Plans and assessment of potential land use impacts was conducted by HELIX.

It should be noted that California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances. This exemption applies to Etiwanda Pipeline North as a water transmission pipeline and a direct component of Metropolitan's treatment, storage and transmission system. Despite this exemption from local land use planning jurisdiction, for purposes of full disclosure of potential Project impacts on the environment, this EIR evaluates Project compatibility with relevant General Plan policies of the cities of Rancho Cucamonga and Fontana.

#### 3.4.1 Existing Conditions

##### **Environmental Setting**

The Project area includes approximately 4.4 miles of pipeline right-of-way in Fontana and 0.4 mile of pipeline right-of-way in Rancho Cucamonga. The Etiwanda Pipeline North right-of-way is within a designated public utility corridor, which contains both the pipeline and an adjacent SCE transmission line.

**Figures 3.4-1a to 3.4-1d, *Existing Land Uses***, illustrate existing land uses as mapped by SANBAG. Beginning in the southern end of the Project area in the city of Rancho Cucamonga, the Project area is adjacent to electrical power facilities, vacant land, flood control channels, and a park. The Project area then continues northeast in the city of Fontana, where it is adjacent to electrical power facilities, high-density single-family homes, low-rise apartments, religious facilities, retail centers, pre-schools and day care centers, local and regional parks, irrigated cropland, orchards and vineyards, and vacant land.

##### **Regulatory Framework**

###### General Plans

The General Plans of the Cities of Fontana and Rancho Cucamonga contain land use designations, as well as goals and policies adopted for the purpose of avoiding or mitigating an environmental effect. Land use designations as compiled by SANBAG are illustrated on **Figures 3.4-2a to 3.4-2d, *Designated Land Uses***. The applicable land use designations are

addressed below, with the applicable goals and policies summarized in **Table 3.4-1, Project Consistency with General Plan Policies** (see below).

#### *City of Fontana*

The City of Fontana General Plan includes land use development policies and land use maps to guide future development in the city. The pipeline right-of-way is designated as Public Utility Corridor (P-UC); this designation is used to indicate locations in Fontana that contain easements for public utilities.

Land use designations near the Project area in Fontana include residential, other retail/service, open-non development, parks, schools, general commercial, urban mixed, and transportation (refer to **Figures 3.4-2b to 3.4-2d**).

#### *City of Rancho Cucamonga*

In the City of Rancho Cucamonga General Plan, the pipeline right-of-way is designated as Flood Control/Utility Corridor. According to the General Plan, this land use designation includes lands primarily used for flood control purposes and to support public utilities.

The land uses designated near the Project area in Rancho Cucamonga include parks, office, general commercial, and residential (refer to **Figure 3.4-2a**).

#### Zoning

The Zoning and Development Codes of the cities of Fontana and Rancho Cucamonga contain the regulatory framework that specifies allowable uses. The pipeline right-of-way is zoned as Public Utility Corridor by the City of Fontana. The right-of-way is zoned under the Etiwanda Specific Plan by the City of Rancho Cucamonga; that specific plan lists the area as a Utility Corridor.

### **3.4.2 Significance Thresholds**

Based on Appendix G of the State CEQA Guidelines and thresholds identified in the Initial Study/NOP prepared for the proposed Project, a significant impact would occur if the proposed Project would do the following, identified below as Threshold A:

- Threshold A: Conflict with 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.

### **3.4.3 Impact Analysis**

#### **Consistency with Zoning**

As stated above, the Project area is zoned as Public Utility Corridor by the City of Fontana and as a Utility Corridor by the City of Rancho Cucamonga. The Project would repair an existing pipeline within the existing utility corridor. Temporary use of adjacent properties for contractor



staging areas would not affect the long-term use of those properties. Project activities would not interfere with existing or future zoning. Therefore, the Project would not result in conflicts with zoning ordinances (Threshold A).

### **Consistency with General Plans**

#### City of Fontana

The Project would take place within a land use designation appropriate for Etiwanda Pipeline North – Public Utility Corridor. This land use designation accommodates long-term operation and maintenance of the pipeline, which was originally built in 1993. The Project would involve only temporary activities and would restore the Project area to its pre-existing condition after Project activities have been completed. The Project would be consistent with the environmental goals, policies, and actions of the City of Fontana General Plan, except for one action (Goal 3, Action 18) under the Noise Element, as demonstrated in **Table 3.4-1**.

Project activities would exceed the hours of construction activity operation allowed in the City of Fontana Municipal Code (as discussed in **Section 3.5, Noise**), and while mitigation measures would lessen the impacts from these exceedances, the noise impacts would still be potentially significant and unmitigable. The short-term policy conflict represents a noise, rather than a land use, impact, and is fully discussed in Section 3.5. Land use impacts would be less than significant (Threshold A).

#### City of Rancho Cucamonga

The Project would take place within a land use designation appropriate for Etiwanda Pipeline North – Flood Control/Utility Corridor. This land use designation accommodates long-term operation and maintenance of the pipeline, which was originally built in 1993. The Project would involve only temporary activities and would restore the Project area to its preexisting condition after Project activities have been completed. The Project would be consistent with the environmental goals, objectives, and guidelines of the City of Rancho Cucamonga General Plan, except for one policy (Policy PS-13.4) under the Public Health and Safety Element regarding noise, as shown in **Table 3.4-1**. Project activities would exceed City of Rancho Cucamonga Municipal Code and General Plan standards with regard to acceptable noise levels near residences. While mitigation measures would lessen the impacts from these exceedances, the noise impacts still would be potentially significant and unmitigable. The short-term policy conflict represents a noise, rather than a land use, impact, and is fully discussed in Section 3.5. Land use impacts would be less than significant (Threshold A).

#### **3.4.4 Mitigation Measures**

Impacts related to Threshold A would be less than significant; no mitigation is required.

#### **3.4.5 Conclusions**

Project activities temporarily would increase noise to nearby noise-sensitive land uses. The mitigation measures specified in **Section 3.5.4** would decrease the noise impacts to the extent feasible; however, the resulting noise levels are expected to exceed noise significance thresholds

even with mitigation at some locations of the Project area, during some periods of Project activity. Although the Project would be inconsistent with noise policies in the General Plans of the cities of Fontana and Rancho Cucamonga, California Government Code Section 53091 exempts Metropolitan, and therefore the Project, from local zoning and building ordinances (as discussed at the beginning of this section). The short-term policy conflict represents a noise, rather than a land use, impact, and is fully discussed in Section 3.5. Impacts to land use and planning would be less than significant.

**Table 3.4-1**  
**PROJECT CONSISTENCY WITH GENERAL PLAN POLICIES**

<b>Policy</b>	<b>Discussion</b>	<b>Consistent?</b>
<b><i>City of Fontana General Plan</i></b>		
<b><i>City of Fontana General Plan – Land Use Element</i></b>		
Goal 2, Policy 2: Regionally beneficial land uses such as transportation corridors, flood control systems, utility corridors, and recreational corridors shall be sensitively integrated into our community.	The Project area is located within a land use and zoning designation of P-UC. Repairing Etiwanda Pipeline North would assist in Metropolitan’s ability to continue to provide water to customers within its southern California service area. Project activities would be temporary; after completion of the Project, the Project area would be returned to its existing condition.	Yes
Goal 2, Policy 3: Multiple uses within utility easements shall emphasize open spaces but may accommodate more intensive uses to safely augment adjacent uses.	The proposed Project is located within a utility corridor that is mostly vacant above-ground. Project activities would be temporary; upon completion, the Project area would be returned to its existing condition. Metropolitan generally maintains exclusive use of its facility rights-of-way; however, the Project would not preclude the Project area from being used for multiple purposes.	Yes
<b><i>City of Fontana General Plan – Public Facilities, Services, and Infrastructure Element</i></b>		
Goal 9, Policy 2: The installation of utilities shall be coordinated so that disruption of public rights-of-way and private property is kept to a minimum.	The Project would consist of repair of an existing pipeline within Metropolitan’s existing right-of-way. The Project would not result in disruptions to roadways or other public rights-of-way. Metropolitan would obtain temporary construction easements from private properties that would be used as staging areas, and they would be returned to their current status following completion of Project activities.	Yes
<b><i>City of Fontana General Plan – Open Space and Conservation Element</i></b>		
Goal 1.2, Policy 2: Require mitigation for removal of any natural habitat, including restoration of degraded habitat of the same type, creation of new or extension of existing habitat of the same type, financial contribution to a habitat conservation fund administered by federal, state or local government agency, or by a non-profit conservancy.	As discussed in <b>Section 3.2, Biological Resources</b> , the Project would temporarily impact 2.6 acres of disturbed Riversidean upland sage scrub and 0.1 acre of disturbed Riversidean alluvial fan sage scrub in the proposed staging areas and excavation areas. <del>These communities are</del> <u>is highly disturbed and provides limited biological function and value.</u> Impacts would be temporary and are considered less than significant; therefore, no mitigation is required for sensitive habitat.	Yes

<b>Table 3.4-1 (cont.)</b> <b>PROJECT CONSISTENCY WITH GENERAL PLAN POLICIES</b>		
<b>Policy</b>	<b>Discussion</b>	<b>Consistent?</b>
<b><i>City of Fontana General Plan (cont.)</i></b>		
<b><i>City of Fontana General Plan – Open Space and Conservation Element (cont.)</i></b>		
Goal 1.2, Policy 3: Apply local CEQA procedures to identify impacts to rare, threatened and endangered species.	As discussed in <b>Section 3.2</b> , no rare, threatened, or endangered species were observed in the Project area and the potential for them to occur is considered low. Impacts would be less significant; therefore, no mitigation is required for these species.	Yes
Goal 2.1, Policy 1: Link multi-use utility corridors to other elements of the local and regional parks and trails systems wherever feasible.	Project activities are temporary, and upon completion, the area would be restored to its existing condition. Metropolitan generally maintains exclusive use of its facility rights-of-way; however, the Project would not preclude the use of the utility corridor for multi-use linkages between parks and trails.	Yes
<b><i>City of Fontana General Plan – Noise Element</i></b>		
Goal 3, Action 5: Construction shall be performed as quietly as feasible when performed in proximity to residential or other noise sensitive land uses.	As discussed in <b>Section 3.5, Noise</b> , the Project would generate substantial noise levels at adjacent residences at some locations in the Project area during daytime and nighttime hours. Project mitigation measures specified in <b>Section 3.5.4</b> would lessen the impact to the extent feasible.	Yes
Goal 3, Action 18: Ensure that construction activities are regulated to established hours of operation included in the noise ordinance.	The Fontana Municipal Code establishes allowable daytime construction hours. Project activities are anticipated to occur up to 24 hours per day.	No
Goal 3, Action 20: Require that all construction equipment utilizes noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.	As discussed in <b>Section 3.5</b> , the Project would result in substantial noise levels and a number of noise control measures are identified in <b>Section 3.5.4</b> . Control measures would include noise reduction features on equipment that will be maintained to a minimum standard, which includes engine noise baffles and mufflers that meet or exceed the original manufacturer's requirements (NOI-3.e).	Yes



<b>Table 3.4-1 (cont.)</b> <b>PROJECT CONSISTENCY WITH GENERAL PLAN POLICIES</b>		
<b>Policy</b>	<b>Discussion</b>	<b>Consistent?</b>
<b><i>City of Fontana General Plan (cont.)</i></b>		
<b><i>City of Fontana General Plan – Air Quality Element</i></b>		
Goal 4, Policy 1: Particulate emissions from roads, parking lots, construction sites, and agricultural lands shall be kept at the minimum feasible level.	As discussed in <b>Section 3.1, Air Quality</b> , Project activities would exceed the SCAQMD maximum daily regional emission threshold for PM <sub>2.5</sub> , and the SCAQMD maximum daily local emission thresholds for both PM <sub>10</sub> and PM <sub>2.5</sub> . The mitigation measures specified in <b>Section 3.1.4</b> would reduce these emissions to a minimum feasible level.	Yes
Goal 4, Policy 2: Emissions from building materials and construction methods that generate excessive pollutants shall be kept at the minimum feasible level.	As discussed in <b>Section 3.1</b> , Project activities would exceed the SCAQMD maximum daily regional emission threshold for VOC, CO, and NO <sub>x</sub> , and the SCAQMD maximum daily local emission threshold for NO <sub>x</sub> . Project activities also would result in temporary toxic air contaminant emissions from diesel particulate matter from off-road and on-road equipment and vehicles. The mitigation measures specified in <b>Section 3.1.4</b> would reduce these emissions to a minimum feasible level.	Yes
Goal 4, Action 1: Incorporate the provisions of SCAQMD Rule 403 (Dust Control) into City land use administration rules and procedures.	The Project's environmental commitments, discussed under <b>Section 2.6.5</b> , include adhering to SCAQMD Rule 403 to reduce fugitive dust emissions. Because the Project would comply with SCAQMD Rule 403 and emissions of regulated particulate matter (PM <sub>10</sub> and PM <sub>2.5</sub> ) would be reduced to below SCAQMD maximum emission thresholds, the Project would not generate significant amounts of dust.	Yes
Goal 4, Action 2: Establish grading and building permitting procedures so that all construction involving demolition or earth movement reduces fugitive dust emissions through the appropriate techniques (e.g., wetting).	Refer to previous response.	Yes

**Table 3.4-1 (cont.)**  
**PROJECT CONSISTENCY WITH GENERAL PLAN POLICIES**

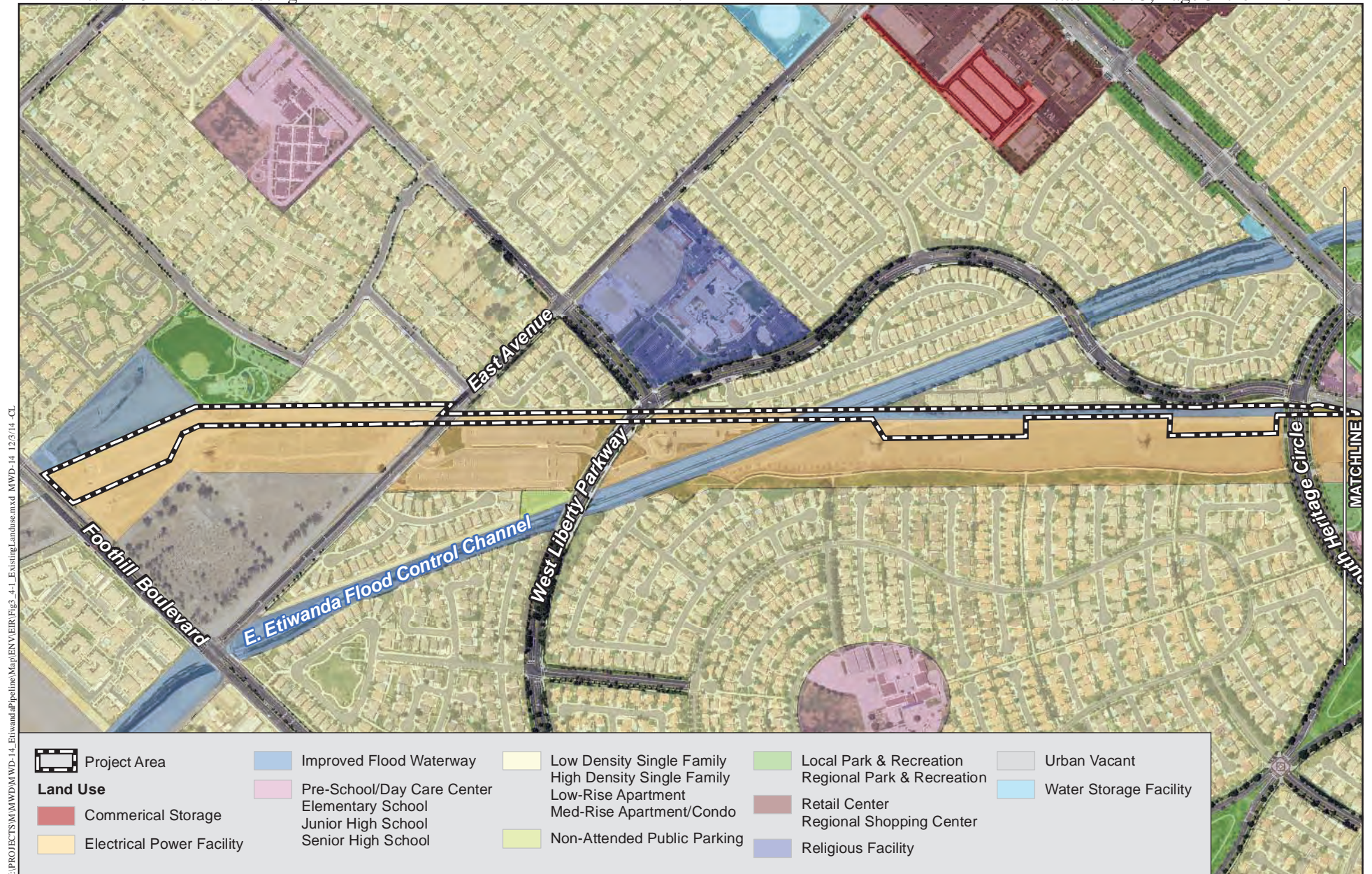
<b>Policy</b>	<b>Discussion</b>	<b>Consistent?</b>
<b><i>City of Rancho Cucamonga General Plan</i></b>		
<b><i>City of Rancho Cucamonga General Plan – Community Mobility Element</i></b>		
Policy CM 6.3: Maintain consistency with the SCAQMD air quality mandates, SANBAG's Congestion Management and Nexus Programs, and SCAG's Regional Mobility Plan requirements.	The Project would cumulatively contribute pollutants to the regional and local area per SCAQMD thresholds. The mitigation measures specified in <b>Section 3.1.4</b> would reduce emissions to below the applicable threshold, achieving consistency with applicable SCAQMD air quality plans and other applicable mandates. Potential impacts related to congestion would be temporary and would be reduced to less than significant levels through the incorporation of specified mitigation. The Project would not affect regional mobility.	Yes
<b><i>City of Rancho Cucamonga General Plan – Public Health and Safety Element</i></b>		
Policy PS-10.4: Require projects that generate potentially significant levels of air pollutants to incorporate the best available air quality mitigation into the project design, as appropriate.	Refer to response for Goal 4, Policy 1 of the City of Fontana General Plan – Air Quality Element.	Yes
Policy PS-13.4: Require that acceptable noise levels are maintained near residences, schools, health care facilities, religious institutions, and other noise sensitive uses in accordance with the Development Code and noise standards contained in the General Plan.	The Project would create temporary noise in excess of 65 decibels with A-weighting (dBA) at nearby residential uses. As discussed in <b>Section 3.5</b> , the Project would generate substantial noise levels at sensitive receptors at some locations in the Project area during daytime and nighttime hours. Project mitigation measures specified in <b>Section 3.5.4</b> would lessen the impact to the extent feasible. However, the resulting noise levels are expected to exceed the thresholds even with mitigation during some periods of Project activity. Noise impacts would be significant and unmitigable and the Project would be in conflict with this policy.	No

**Table 3.4-1 (cont.)**  
**PROJECT CONSISTENCY WITH GENERAL PLAN POLICIES**

<b>Policy</b>	<b>Discussion</b>	<b>Consistent?</b>
<i>City of Rancho Cucamonga General Plan (cont.)</i>		
<i>City of Rancho Cucamonga General Plan – Public Health and Safety Element (cont.)</i>		
Policy PS-13.5: Limit the hours of operation at noise generating sources that are adjacent to noise-sensitive uses, wherever practical.	Project activities are anticipated to occur up to 24 hours per day adjacent to noise-sensitive uses at some locations in the Project area. Because of the coating techniques that would be employed to install the new pipe liner, 24-hour operations of some equipment are required. The mitigation measures contained in <b>Section 3.5.4</b> would reduce associated impacts to the extent feasible.	Yes
Policy PS-13.6: Implement appropriate standard construction noise controls for all construction projects.	The Project would employ standard noise control measures, such as mufflers. In addition, a number of specialty measures as described in <b>Section 3.5.4</b> would be employed to further reduce noise levels to the extent feasible.	Yes
Policy PS-13.7: Require all exterior noise sources (construction operations, air compressors, pumps, fans, and leaf blowers) to use available noise suppression devices and techniques to bring exterior noise levels down to acceptable levels.	Refer to the above response.	Yes



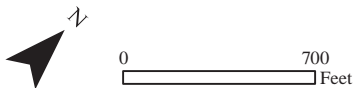
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## Existing Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-1a





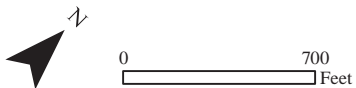


Data Source: Land Use (SANBAG, 2012)

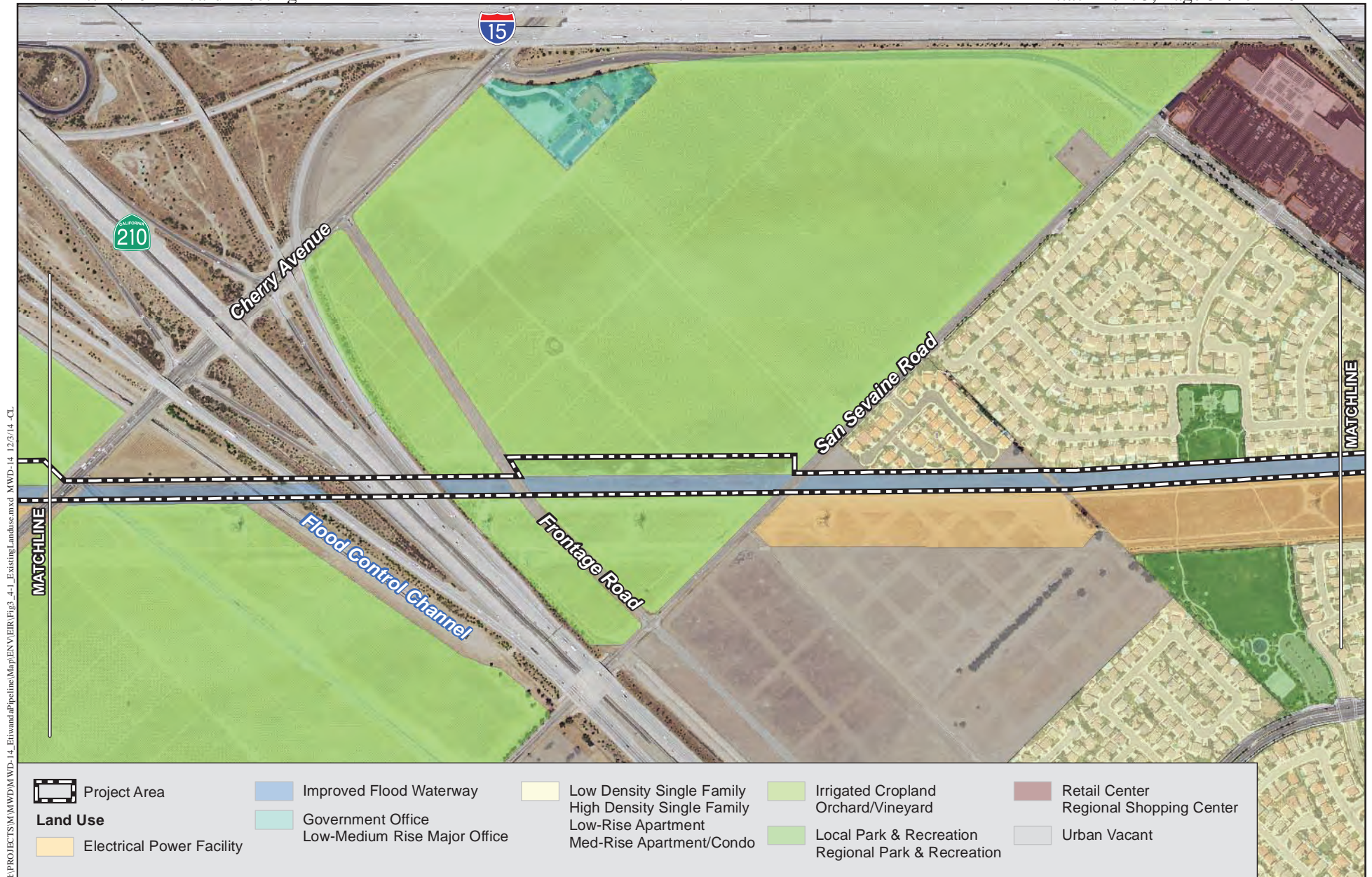
## Existing Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-1b





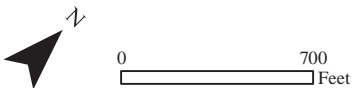


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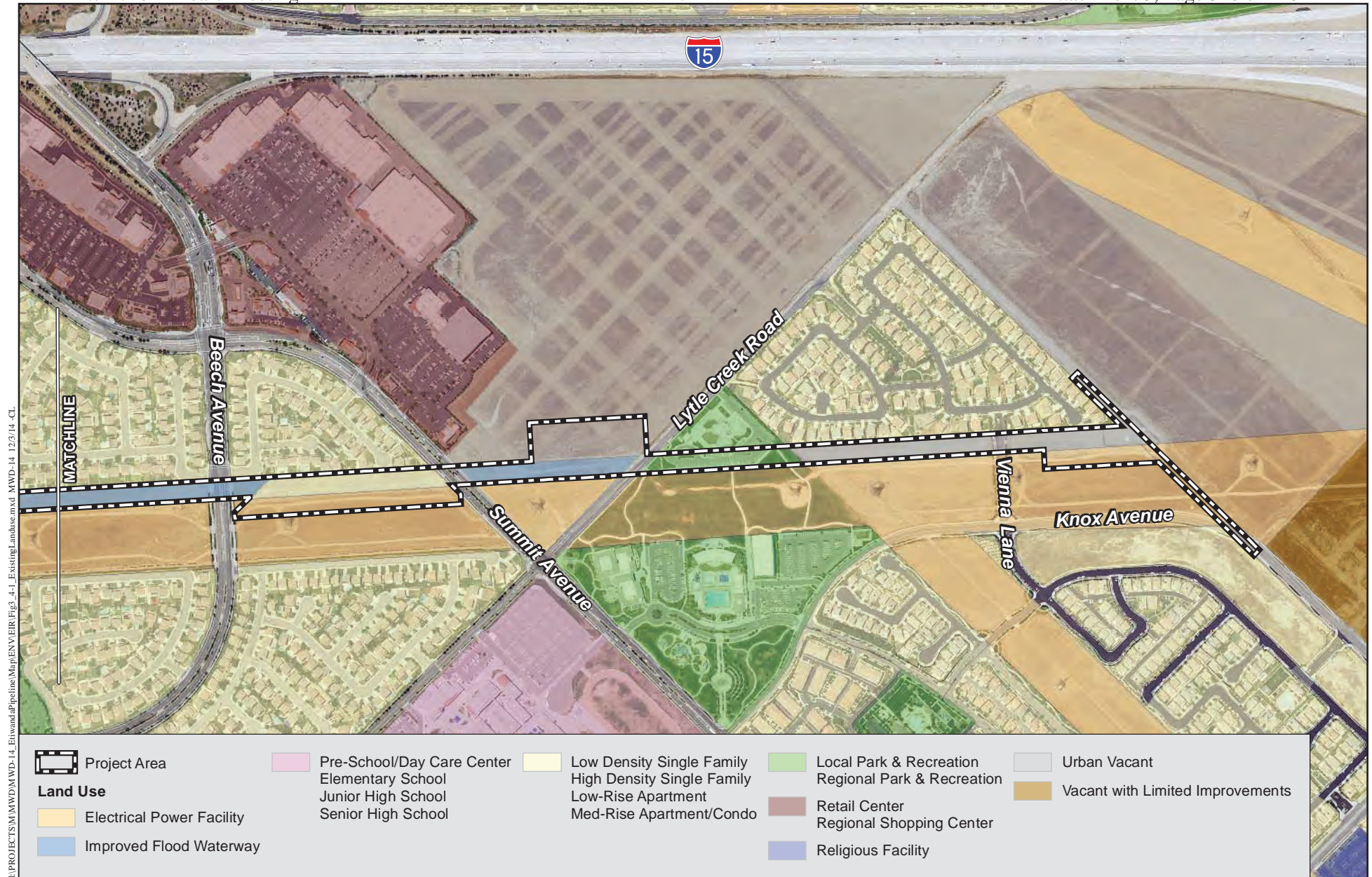
## Existing Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-1c



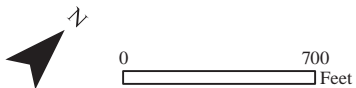




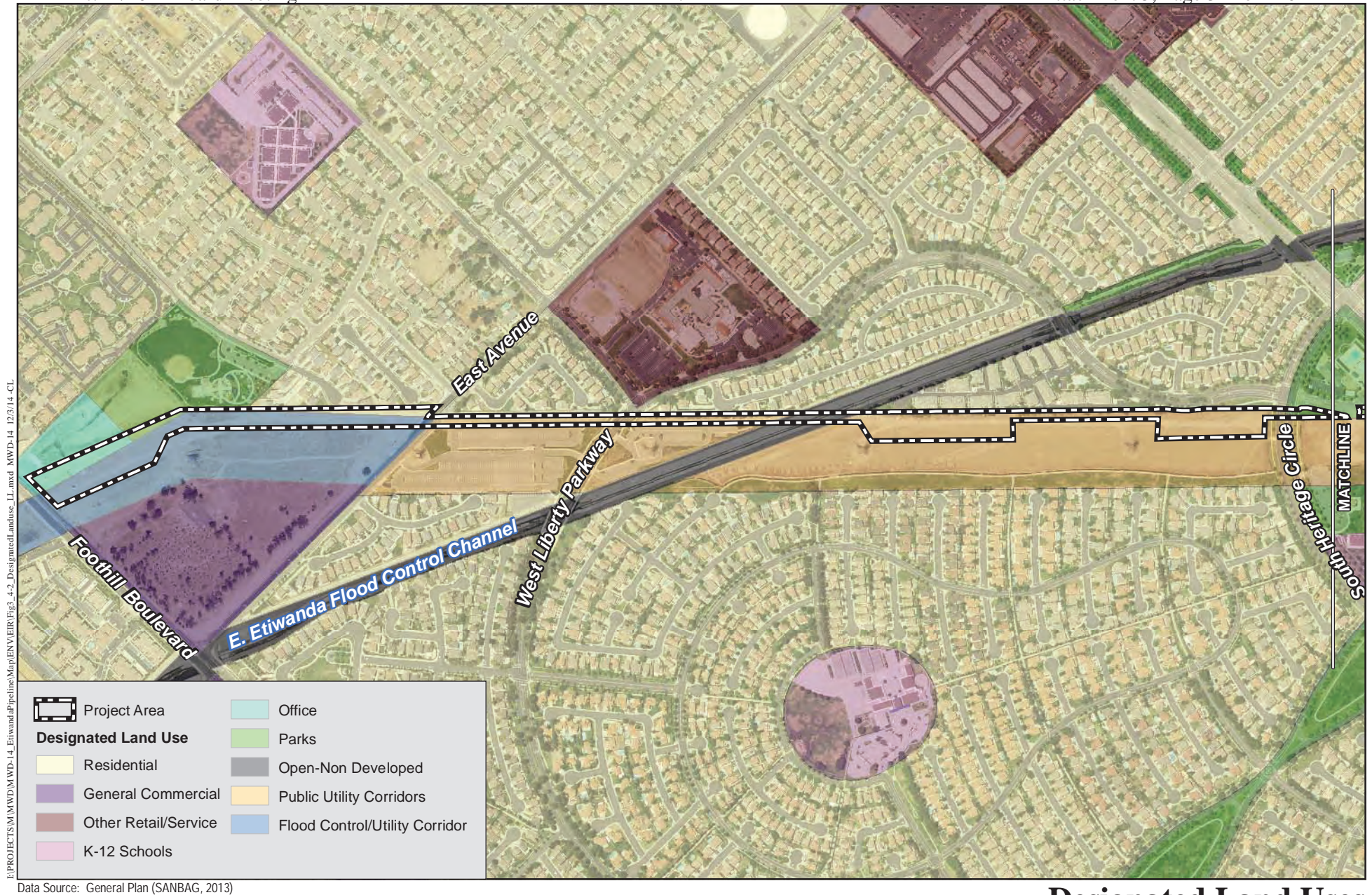
## Existing Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-1d



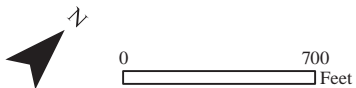




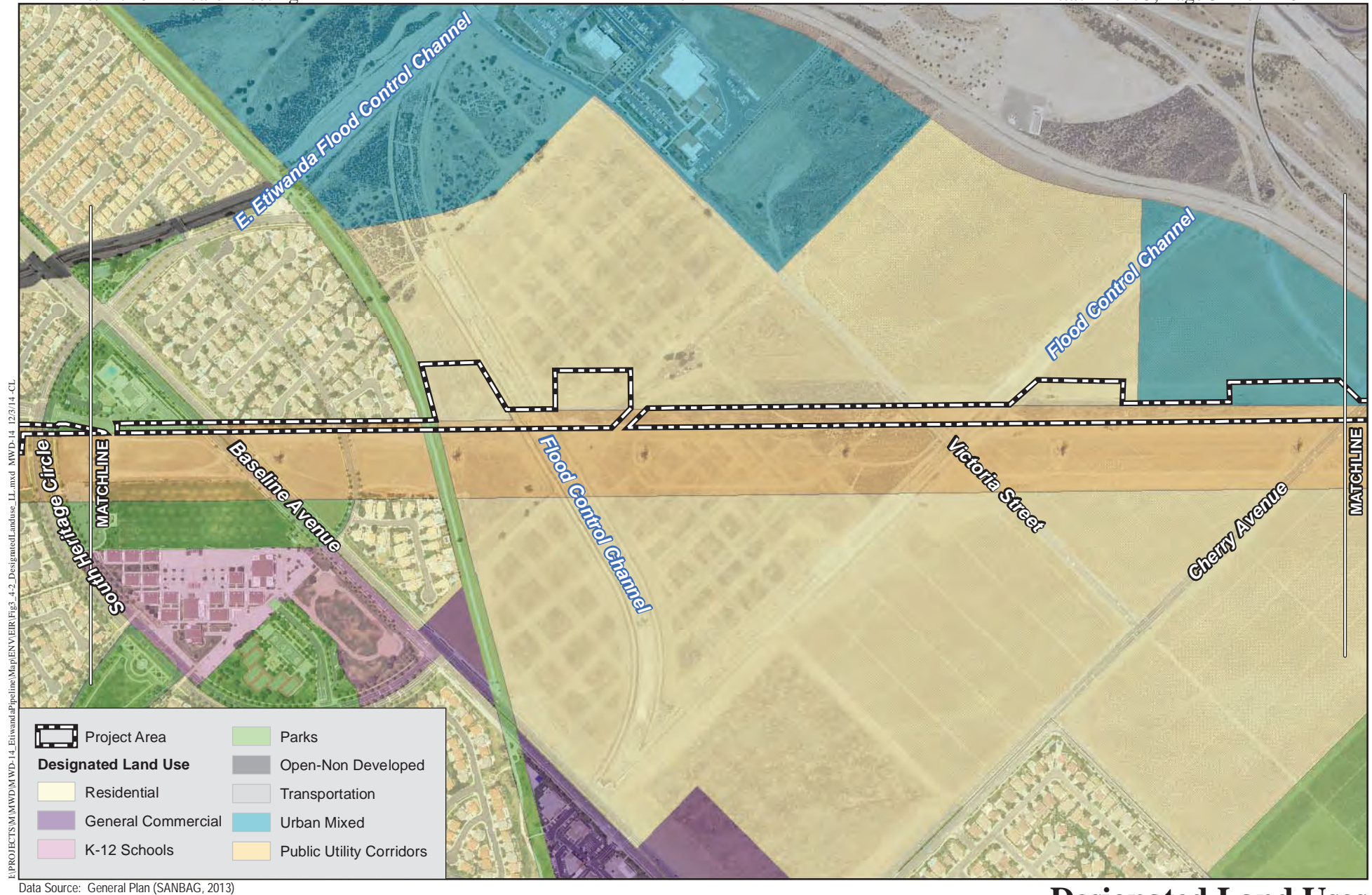
## Designated Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-2a



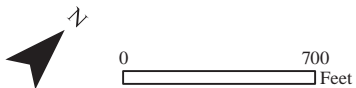




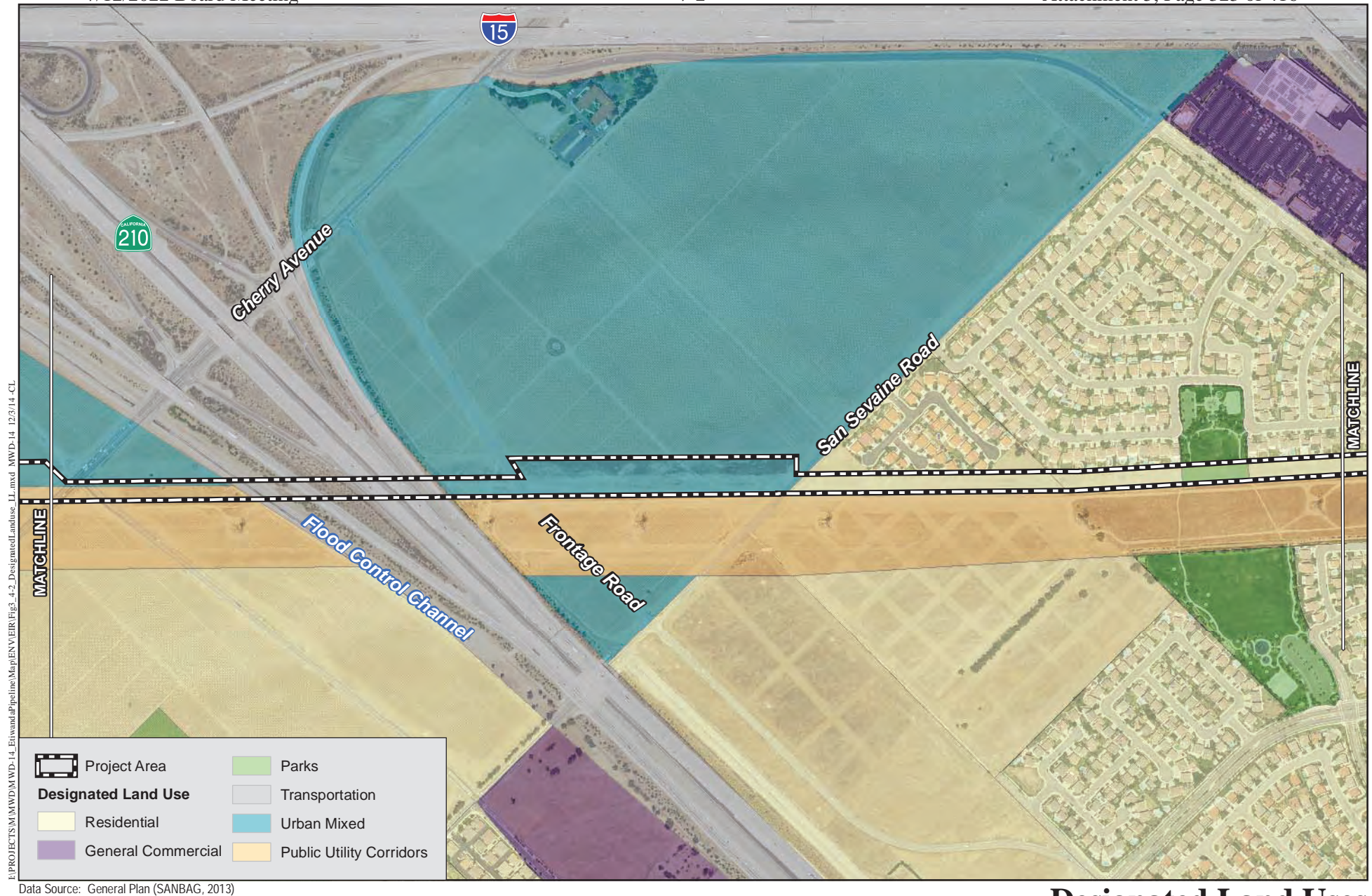
## Designated Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-2b



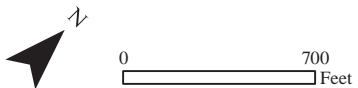




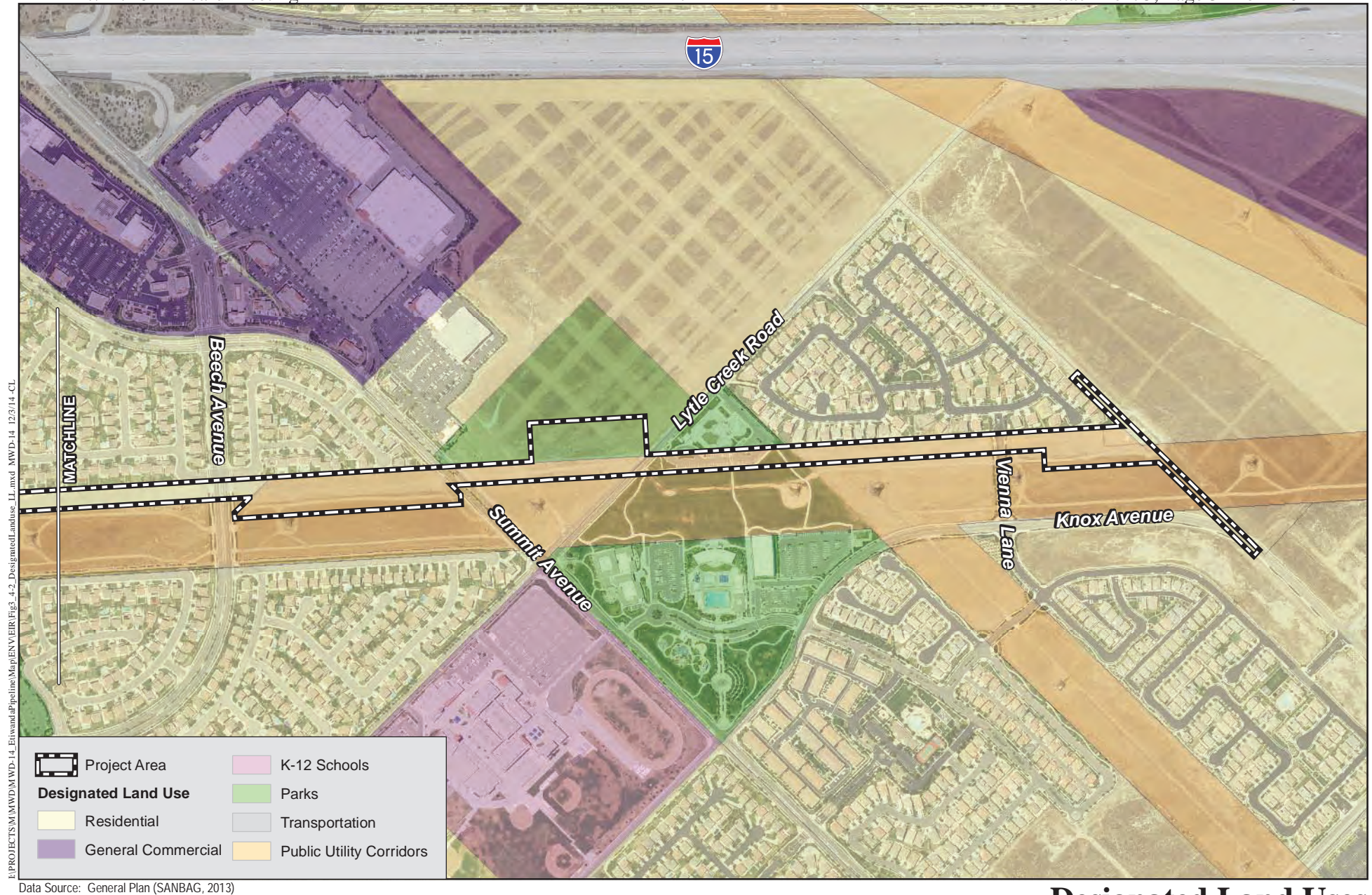
## Designated Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-2c



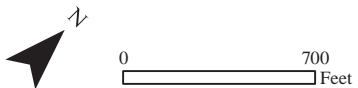




## Designated Land Uses

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.4-2d





### 3.5 NOISE

This section is based on the information and analysis presented in the proposed Project's Acoustical Site Assessment, dated November 4, 2014 (HELIX 2014d). The technical report is included in its entirety as **Appendix E** of this EIR.

The methods HELIX used for assessing noise impacts included taking baseline noise measurements in and near the Project area; measuring noise generated by construction equipment during the pilot phase (Phase 1); estimating noise levels that would be generated by construction equipment during the proposed Project; and comparing estimated noise levels with applicable thresholds, including those adopted by the cities of Rancho Cucamonga and Fontana. As noted in **Chapter 2, Project Description**, the proposed Project would use several different types of equipment to install the new liner. Some of the equipment, such as excavators, loaders, and dump trucks, are standard equipment that has been incorporated into the Federal Highway Administration Roadway Construction Noise Model (U.S. Department of Transportation 2008); however, other equipment, such as those associated with the mortar lining debris removal and abrasive blasting, are highly specialized.

To provide a basis for estimating noise from specialized equipment, noise levels were measured for individual pieces of representative equipment that were used during similar work on the pilot phase (Phase 1) on the pipeline segment south of the Project. Noise levels were then calculated both for a standardized distance of 50 feet and, where applicable, at the closest noise sensitive receptor (the closest noise sensitive receptors would be located approximately 20 to 30 feet away from Project noise sources, depending on the type of activity being undertaken and equipment being used).

Although there would likely be minor variations in the numbers/types/use of equipment and workers compared to the assumptions incorporated into the noise calculations, the assumptions used generally provide for an overall worst-case analysis. This approach was used in order to allow flexibility in final design and implementation, and actual conditions might be less.

#### 3.5.1 Existing Conditions

##### Noise Fundamentals

Sound can be described as vibrations that travel through the air and can be heard when they reach a person's ear. Noise is defined as loud, unexpected, or annoying sound. Sound becomes unwanted when it interferes with normal activities, causes actual physical harm, or has adverse effects on health.

All noise-level or sound-level values presented in this section are expressed in terms of decibels with A-weighting (dBA) to approximate the hearing sensitivity of humans. **Table 3.5-1, Typical A-Weighted Noise Levels**, compares common activities and their noise levels (dBA). Under the decibel scale, a doubling of sound energy corresponds to an increase of 3 dBA.

Time-averaged noise levels are expressed as "L<sub>EQ</sub>." L<sub>EQ</sub> represents the average of the noise levels occurring over a specified period. Unless a different time period is specified, L<sub>EQ</sub> implies a period of one hour.

## Existing Noise Environment

Ambient noise measurements were conducted at a series of locations along the Project alignment on May 15, 2014, for a duration of 20 minutes at each location. The survey was conducted to determine the typical daytime ambient noise levels in the Project area and to note information about the locations of noise-sensitive land uses (see Noise-sensitive Receptors below for more discussion) and noise sources (non-transportation) at those locations.

The measurement locations are shown on **Figure 3.5-1, Ambient Noise Measurements**, and ambient noise level measurements are provided in **Table 3.5-2, Ambient Noise Measurements**. As shown on **Figure 3.5-1** and **Table 3.5-2**, average daytime exterior noise levels ranged from approximately 38 dBA northwest of Knox Avenue (site 9) to 50 dBA near the Etiwanda Hydroelectric Plant (site 1).

<b>Table 3.5-1 TYPICAL A-WEIGHTED NOISE LEVELS</b>		
<b>Common Outdoor Activities</b>	<b>Noise Level (dBA)</b>	<b>Common Indoor Activities</b>
	<b>— 110 —</b>	Rock band
Jet fly-over at 1,000 feet		
	<b>— 100 —</b>	
Gas lawn mower at 3 feet		
	<b>— 90 —</b>	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	<b>— 80 —</b>	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	<b>— 70 —</b>	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	<b>— 60 —</b>	
		Large business office
Quiet urban daytime	<b>— 50 —</b>	Dishwasher next room
Quiet urban nighttime	<b>— 40 —</b>	Theater, large conference room (background)
Quiet suburban nighttime		
	<b>— 30 —</b>	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	<b>— 20 —</b>	
		Broadcast/recording studio
	<b>— 10 —</b>	
Lowest threshold of human hearing	<b>— 0 —</b>	Lowest threshold of human hearing

Source: Caltrans 2009

**Table 3.5-2  
 AMBIENT NOISE MEASUREMENTS**

Site #	Location Description	Time	L <sub>EQ</sub>
1	North of East Foothills Boulevard, east of Rancho Cucamonga water pump near Garcia Park	1:30 p.m.	50.0 dBA
2	East of East Avenue, edge of parking lot	1:55 p.m.	40.6 dBA
3	East of West Liberty Parkway, northeast end of parking lot	2:23 p.m.	43.8 dBA
4	Southwest of South Heritage Circle	2:56 p.m.	41.3 dBA
5	Northeast of Del Norte Street near Pacific Electric Bike Path	3:20 p.m.	43.5 dBA
6	Southwest of Cherry Avenue and South Highland Avenue in old field area	3:55 p.m.	44.5 dBA
7	Northeast of San Sevaine Road (Lyster Avenue and Vine Avenue)	4:22 p.m.	42.8 dBA
8	Northeast of Lyle Creek Road at northeast corner of a small park	4:45 p.m.	41.2 dBA
9	Northwest of Knox Avenue next to fenced area	5:05 p.m.	38.4 dBA

Note: Some pump noise was audible at Site #1.

### Noise-sensitive Receptors

A noise-sensitive land use is one in which users would be adversely affected by high levels of noise. Individual uses, such as residences, churches, schools, parks, and hospitals, are considered to be noise-sensitive receptors. Noise-sensitive receptors along or in proximity to the Project area include single-family residences, Summit High School, Rosena Park, and Fontana Park in Fontana, and single- and multi-family residences and Garcia Park in Rancho Cucamonga.

### Regulatory Framework

The relevant portions of the municipal codes of the cities of Fontana and Rancho Cucamonga are summarized below, and **Table 3.5-3, *Exterior Noise Limits Within Residential Districts***, lists allowable exterior noise limits established by each City. It should be noted that California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances (but not from noise ordinances that are outside of the zoning and building ordinances). Despite this exemption from local planning ordinances, for purposes of full disclosure of potential Project impacts on the environment, this assessment of potential noise impacts evaluates Project compatibility with noise-related General Plan policies of the cities of Rancho Cucamonga and Fontana.



<b>Table 3.5-3 EXTERIOR NOISE LIMITS WITHIN RESIDENTIAL DISTRICTS</b>		
<b>City</b>	<b>Time</b>	<b>Maximum Allowable Noise Level (dBA)</b>
Fontana	7:00 a.m. to 10:00 p.m.	65
	10:00 p.m. to 7:00 a.m.	65
Rancho Cucamonga	7:00 a.m. to 10:00 p.m.	65*
	10:00 p.m. to 7:00 a.m.	60*

\* These exterior noise limits may be exceeded for a cumulative period of not more than 15 minutes in one hour; by 5dBA for not more than a cumulative period of 10 minutes in one hour; and by 14 dBA (but not 15 dBA or more) for a cumulative period of not more than 5 minutes in one hour.

Sources: City of Fontana Municipal Code Section 30-182.A, Rancho Cucamonga Municipal Code Section 17.66.050-1

### City of Fontana Municipal Code

The City of Fontana Municipal Code prohibits unnecessary, excessive, and annoying noises throughout the city. Performance standards for noise levels within residential districts are specified under the Municipal Code's Zoning and Development section (see **Table 3.5-3**). Specifically, it establishes a maximum allowable noise level of 65 dBA at any time of day.

Regarding vibrations, the municipal code states that no person shall create or cause to be created any activity which causes a vibration that can be felt beyond the property line of any residentially zoned property with or without the aid of an instrument.

The Municipal Code also applies to construction and repair noise. Acts that create loud, excessive, impulsive, or intrusive sound or noise that annoys or disturbs people at a distance of 50 feet or more from the edge of the property, structure, or units in which the source is located are prohibited. Although the following activities are generally prohibited, the building inspector may issue a permit granting an exemption:

- Construction activities (e.g., demolition, excavating, structural repair) occurring on weekdays outside of 7:00 a.m. to 6:00 p.m., and on Saturdays outside of 8:00 a.m. to 5:00 p.m.
- Transportation of rails, pillars or similar materials along streets and other public places that causes loud, excessive, impulsive, or intrusive noise
- Operation between the hours of 6:00 p.m. and 7:00 a.m. of any construction equipment which causes loud, excessive, impulsive or intrusive noise (e.g., pile driver, pneumatic hammer)
- Operation of any noise-creating blower, power fan, or engine other than from 7:00 a.m. and 6:00 p.m. on a weekday and 8:00 a.m. and 5:00 p.m. on a Saturday, unless the noise is equipped with a muffler device sufficient to deaden such noise

### City of Rancho Cucamonga Municipal Code

The noise standards contained in the City of Rancho Cucamonga Municipal Code establish a maximum allowable noise level at the adjacent residential property line (exterior) of 65 dBA between 7:00 a.m. and 10:00 p.m., and 60 dBA between 10:00 p.m. and 7:00 a.m. (see **Table 3.5-3**). The ordinance allows incremental increases of the exterior noise limit as follows: for a cumulative period of not more than 15 minutes in one hour; by 5 dBA for not more than a cumulative period of 10 minutes in one hour; and by 14 dBA (but not 15 dBA or more) for a cumulative period of not more than 5 minutes in one hour.

Noise sources associated with various construction activities are excluded from the noise level limits provided the following conditions apply:

1. When adjacent to residence, school, church, or similar land use, the noise generating activity must not take place between 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a national holiday, and provided noise levels created do not exceed the standard of 65 dBA when measured at the adjacent property line.
2. When adjacent to a commercial or industrial use, the noise generating activity does not take place between 10:00 p.m. and 6:00 a.m. on weekdays, including Saturday and Sunday, and provided noise levels created do not exceed the standard of 70 dBA when measured at the adjacent property line.

The code also regulates vibration sources; however, vibration from temporary construction/demolition is exempt.

### **3.5.2 Significance Thresholds**

Based on Appendix G of the State CEQA Guidelines and thresholds identified in the Initial Study/NOP prepared for the proposed Project, a significant impact would occur if the proposed Project would result in the following, identified below as Thresholds A through C:

- Threshold 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;
- Threshold B: A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; or
- Threshold C: Exposure of persons to, or generation of, excessive ground-borne vibration or ground-borne noise levels.

With regard to Threshold B, as described in **Section 3.5.3**, the city of Fontana, which encompasses most of the proposed Project area, provides for Noise Ordinance exemptions for construction activities and does not specify associated construction noise thresholds. Many southern California jurisdictions that set a noise level threshold for construction activities consider exceedance of 75 dBA  $L_{EQ}$  for a one-hour average noise level between 7:00 a.m. and 7:00 p.m. to reflect a

substantial temporary increase in ambient noise levels. This standard is consistent with findings that the community noise environment is normally unacceptable for residential sites that are exposed to noise where the average sound level exceeds 75 dBA (U.S. Department of Housing and Urban Development 1991). Therefore, this 75-dBA threshold is applied for assessing the potential significance of Project daytime noise levels as it relates to substantial temporary or periodic increases in ambient noise levels (Threshold B).

More stringent standards are typically applied to nighttime work. The City of Fontana has established a general exterior noise standard of 65 dBA; the City of Rancho Cucamonga uses a general exterior noise standard of 60 dBA from 10:00 p.m. to 7:00 a.m., and 65 dBA from 7:00 a.m. to 7:00 p.m. For the purposes of establishing a uniform significance threshold for assessing whether the Project would cause a substantial temporary or periodic increase in nighttime ambient noise levels, construction noise would be considered to result in a substantial temporary increase in ambient noise levels if the one-hour average noise level exceeds 65 dBA  $L_{EQ}$  between 7:00 p.m. and 7:00 a.m. at the boundary of any residential or noise-sensitive land use property line.

Note that the 75 dBA daytime threshold and 65 dBA nighttime threshold were specifically developed for purposes of assessing whether the proposed Project addressed in this EIR would cause a substantial temporary or periodic increase in ambient noise levels (Threshold B); the 75-dBA daytime threshold and 65-dBA nighttime threshold do not reflect adopted city ordinances or regulations within the Project area.

### **3.5.3 Impact Analysis**

#### **Exceedance of Noise Standards (Threshold A)**

As detailed in **Section 3.5.1** and shown on **Table 3.5-2**, the cities have established maximum allowable noise levels of 60 to 65 dBA, depending on the jurisdiction and the time of day. In addition, work is typically allowed only during daytime hours Monday through Saturday, although the City of Fontana's Municipal Code includes a provision that allows the building inspector to issue a permit granting an exemption from these restrictions. Project activities would include operation of some heavy equipment up to 24 hours per day and 7 days per week. In addition to exceeding the construction hours specified in the Municipal Codes, these activities would result in noise levels exceeding the maximum allowable noise levels at adjacent residences during both daytime and nighttime hours, as described below (Threshold B).

Metropolitan intends to coordinate with each of the cities to establish allowable work schedules and noise levels to allow deviation from the Municipal Code provisions for daytime and nighttime noise. These work schedules and noise levels will be agreed upon both to protect the public welfare and to accommodate necessary Project activities. Nonetheless, the Project activity hours and associated noise levels would result in the exposure of adjacent residents to noise levels in excess of established Municipal Code standards (Threshold A), and a significant impact would result.

#### **Temporary Increase in Ambient Noise (Threshold B)**

The Project would generate temporarily elevated noise levels that may disrupt nearby noise-sensitive receptors. The magnitude of the impact would depend on the type of work being



performed, the equipment used to perform or support that work, the duration of each work activity, the distance between the noise source and sensitive receptors, and any intervening structures or topography that would serve to lessen noise.

The following analysis is divided into Project activities that would utilize both standard equipment (such as trucks, cranes, excavation equipment, and generators) and specialized equipment that is uniquely required for this Project (such as abrasive blasting equipment and ventilation equipment). **Table 3.5-4, Summary of Equipment Noise Levels**, summarizes the projected noise levels associated with various Project activities.

Table 3.5-4 SUMMARY OF EQUIPMENT NOISE LEVELS			
Equipment Type	Closest Point to Sensitive Receptors		Distance to Reduce Noise to <75 dBA L <sub>EQ</sub> (feet)
	Distance (feet)	Noise Level (dBA L <sub>EQ</sub> )	
Standard Equipment	20	89	100
Rollout Locations			
Abrasive Blasting	30	85	210
Debris Removal		73	90
Pipeline Coating		78	90
Ventilation Locations			
Abrasive Blasting	30	90	210
Debris Removal		79	190
Pipeline Coating		88	190

Note: The nearest noise-sensitive receptors would be approximately 10 feet further from rollout and ventilation locations than from the standard noise equipment because standard equipment, including excavation equipment, would operate closer to the residences located to the west and northwest of the pipeline right-of-way.

### Standard Equipment Noise Levels

The following Project activities would primarily use standard equipment: site preparation in the Contractor Work and Storage areas and other potential access and work areas; excavation of pipe segments for rollouts, buried outlets, and ventilation access points; final sealing of the pipeline after relining has been completed; and backfilling excavated areas as part of site closure. As noted in **Section 2.6.2**, excavation activities would occur only during daytime hours.

Based on estimated distances of the equipment to the nearest sensitive receptors, the combined hourly average noise level from Project activities at the nearest residence is calculated to be approximately 89 dBA L<sub>EQ</sub> at a distance of 20 feet. These estimated noise levels are substantially higher than existing ambient noise levels noted in **Section 3.5.1**, which range from approximately 38 dBA L<sub>EQ</sub> (northwest of Knox Avenue) to 50 dBA L<sub>EQ</sub> (near the Etiwanda Hydroelectric Plant). Impacts would exceed the daytime threshold of 75 dBA L<sub>EQ</sub> and be potentially significant (Threshold B).

The same equipment in operation at 100 feet or greater from any noise-sensitive land use would result in noise levels less than 75 dBA  $L_{EQ}$ , based on a standard attenuation rate of 6 dBA per doubling of distance from stationary noise sources. The reduction could be more or less than 6 dBA depending on intervening structures and topography, but at a distance of 100 feet or greater from Project activities, the standard construction equipment is expected to be able to operate during normal daytime hours (that is, at noise levels less than 75 dBA  $L_{EQ}$ ) without a significant adverse noise impact (Threshold B).

### Specialty Equipment Noise Levels

The use of specialty equipment would occur primarily during the following Project activities: removal of the existing mortar lining and associated debris; abrasive blasting of the steel interior surfaces of the pipe; and application of the new polyurethane pipeline lining material. These activities would occur sequentially, and some of the equipment would be used for more than one activity. The analysis below describes estimated noise levels that would occur at rollout locations and ventilation locations, where specialty equipment primarily would be used.

### *Rollout Locations*

A detailed equipment list with associated noise levels is available in the Acoustical Site Assessment, Table 10, *Construction Activity Equipment Usage at Rollout Location*. The activity that would require the most units of equipment to be operating simultaneously would be the abrasive blasting operation. Under worst-case conditions, the noise level during abrasive blasting at a distance of 30 feet from the nearest noise-sensitive land use (generally, this would occur where residences are immediately west or northwest of the pipeline right-of-way), is calculated to be 84.9 dBA  $L_{EQ}$ . (Note that the nearest noise-sensitive receptors would be approximately 10 feet further from rollout locations than from the standard noise equipment discussed above because standard equipment, including excavation equipment, would operate closer to the residences located to the west and northwest of the pipeline right-of-way.) Noise levels during the mortar lining debris removal and pipeline coating activities would be lower (approximately 73 and 78 dBA  $L_{EQ}$ , respectively). Nevertheless, the noise level for any of the three activities – mortar lining debris removal, abrasive blasting, application of new pipeline coating – would be potentially significant at rollout locations as the noise levels for each of these activities would exceed the daytime noise threshold of 75 dBA  $L_{EQ}$  and nighttime threshold of 65 dBA  $L_{EQ}$ , at a distance of 30 feet (Threshold B).

Proximity to sensitive receptors is critical in the final analysis of the potential significance of Project noise levels. If the equipment used for the mortar lining debris removal and pipeline coating application is positioned at a distance of 90 feet or more from the nearest noise-sensitive land use, the resulting noise level may be reduced to 75 dBA  $L_{EQ}$  or lower. Accordingly, mortar lining debris removal and pipeline coating equipment placed at least 90 feet from residences would not be likely to result in a significant impact during daytime hours. Noise from mortar lining debris removal and pipeline coating equipment would still exceed the nighttime noise threshold of 65 dBA at this distance, and the impact would be considered significant (Threshold B). At rollout locations, abrasive blasting equipment (including blast-pot, blast-pot blow-off, air-filters, etc.) would need to be placed at least 210 feet from the nearest residences for noise levels to be reduced to 75 dBA  $L_{EQ}$  or lower; even at this distance, abrasive blasting

noise would exceed the 65 dBA  $L_{EQ}$  nighttime significance threshold (Threshold B). Additionally, it may not be feasible to locate the mortar lining debris and pipeline coating equipment at least 90 feet and the abrasive blasting equipment at least 210 feet from the nearest residences.

#### *Ventilation Locations*

A detailed equipment list with associated noise levels is available in the Acoustical Site Assessment, Table 11, *Construction Activity Equipment Usage at Ventilation Locations*. Abrasive blasting activities would require the most units of equipment at ventilation locations. Under worst-case conditions, the noise level during this activity at the anticipated distance of 30 feet from the equipment to the nearest noise-sensitive land use would be approximately 90 dBA  $L_{EQ}$ . Noise levels during the mortar lining debris removal and pipeline coating activities would be lower (approximately 79 and 88 dBA  $L_{EQ}$ , respectively). Nevertheless, similar to the rollout locations, the noise level for any of the three activities – mortar lining debris removal, abrasive blasting, application of pipeline coating – would be potentially significant at ventilation locations as the noise levels would exceed the daytime noise threshold of 75 dBA  $L_{EQ}$  and nighttime threshold of 65 dBA  $L_{EQ}$  (Threshold B).

If the equipment used for the mortar lining debris removal and pipeline coating operations is positioned at a distance of 190 feet or more from the nearest noise-sensitive land use, the resulting noise level may be reduced to 75 dBA or lower. Accordingly, mortar lining debris removal and pipeline coating equipment placed at least 190 feet from residences is not likely to result in a significant impact during daytime hours. Noise from mortar lining debris removal and pipeline coating equipment would still exceed the nighttime noise threshold of 65 dBA at this distance, and the impact would be considered significant (Threshold B). At ventilation locations, abrasive blasting equipment would need to be placed at least 210 feet from the nearest residences for noise levels to be reduced to 75 dBA  $L_{EQ}$  or lower; even at this distance, abrasive blasting noise would exceed the 65 dBA  $L_{EQ}$  nighttime significance threshold (Threshold B). Additionally, it may not be feasible to locate the mortar lining debris and pipeline coating equipment at least 190 feet and the abrasive blasting equipment at least 210 feet from the nearest residences.

#### **Excessive Ground-borne Vibration (Threshold C)**

Annoyance is the primary impact associated with excessive ground-borne vibration from this type of project. Project activities would not involve high-impact activities such as pile-driving and blasting. Vibration-causing activities primarily would consist of the excavation of access locations at rollouts and ventilation points, using equipment such as excavators and loaders. The Project area was previously excavated and backfilled during the original pipeline installation; therefore, blasting would not be required, and the ground is generally expected to yield easily to excavation at the rollouts and outlets.

The strongest source of potential vibration from the Project would be the use of a vibratory roller during final Project closure. The typical vibration level for this type of equipment at a distance of 25 feet is 94 vibration decibels (VdB). At a distance of 20 feet, the projected vibration level would be approximately 97 VdB. At this level, the vibratory roller would cause some annoyance



to nearby residences, but this level would not cause structural damage. The Project is not near vibration-sensitive uses (such as sensitive laboratory equipment or fragile historic structures). Furthermore, the vibratory roller is mobile and would not be a steady source of vibration at any one location for a long duration. As a result, impacts would be less than significant (Threshold C).

### **3.5.4 Mitigation Measures**

Noise control measures will be implemented for all work within 500 feet of sensitive receptors to reduce daytime and nighttime noise levels to the extent feasible. Measures may include, but will not necessarily be limited to, the following. In all cases, “daytime hours” refers to 6:00 a.m. to 6:00 p.m., and “nighttime hours” refers to 6:00 p.m. to 6:00 a.m. As noted in NOI-1, all measures are subject to feasibility of design and to coordination with the City of Rancho Cucamonga and the City of Fontana.

#### **NOI-1 Noise Control Plan**

A noise control plan will be developed in coordination with the City of Rancho Cucamonga and the City of Fontana, and will have the concurrence of the cities prior to beginning work in the Project area. The noise control plan will include but not necessarily be limited to mitigation measures NOI-2 through NOI-6, to the extent feasible to protect the interests of the public and to allow for Project completion in light of critical work schedules, necessary work methods, and the physical constraints of Metropolitan’s right-of-way and available work areas.

#### **NOI-2 Noise Monitoring**

- **NOI-2.a** – Noise monitoring will be performed to measure noise levels during work in the vicinity of sensitive receptors and to measure the effectiveness of noise control measures.
- **NOI-2.b** – Where measured noise levels at the property line of residences are shown to exceed daytime noise levels of 75 dBA  $L_{EQ}$ , or nighttime noise levels of 65 dBA  $L_{EQ}$ , new noise control measures or improvements to noise control measures already in place will be implemented in an effort to achieve those daytime and nighttime thresholds, or lower, to the extent feasible; noise monitoring will be performed to record the achieved level of noise reduction.

#### **NOI-3 General Noise Control for All Project Activities**

- **NOI-3.a** – Trucks and equipment equipped with back-up alarms will have the back-up alarms disengaged to the extent allowed by the Occupational Safety and Health Administration (OSHA); safety will be provided by lights and flagmen, and safety lighting will be directed away from residences.
- **NOI-3.b** – Areas where workers gather (e.g., break areas, shift-change areas, meeting areas) will be located a minimum of 100 feet away from any residence if feasible. Worker gathering areas that must be located within 100 feet of

residences will be equipped with minimum eight-foot high noise control barriers between the gathering area and residences; entrances will not face residences.

- **NOI-3.c** – Parking areas will be located a minimum of 150 feet from sensitive receptors. Parking areas that are within 500 feet of sensitive receptors will be posted to prohibit workers from gathering during nighttime hours, and prohibiting radios and music at any time.
- **NOI-3.d** – Equipment will be maintained to a minimum standard that includes engine noise baffles and mufflers that meet or exceed the original manufacturer's requirements.
- **NOI-3.e** – Equipment that has noise control doors will be operated only with the doors fully closed.
- **NOI-3.f** – Equipment delivery trucks will be allowed only during daytime hours, and back-up alarms will be disengaged to the extent allowed by OSHA.
- **NOI-3.g** – Fuel deliveries will occur during daytime hours and at a minimum of 500 feet from residences, to the extent feasible. Fueling stations that must be located within 500 feet of residences will have minimum eight-foot high noise control barriers, and fuel trucks that are required during nighttime hours will maintain a minimum distance of 100 feet from residences.
- **NOI-3.h** – Noise control barriers and enclosures, where used in accordance with NOI-12.b, will be fully in place prior to work at that location.
- **NOI-3.i** – Noise control barriers and enclosures, where used in accordance with NOI-12.b, will be implemented using the most appropriate material, configuration, and location to achieve the maximum feasible noise reduction.

**NOI-4     Noise Control During Site Preparation, Excavation, and Site Closure Activities**

Site preparation, excavation, and site closure activities will be allowed only during daytime hours.

**NOI-5     Noise Control During Mortar Lining Removal, Pipeline Dewatering, and New Pipeline Liner Application Activities**

Increased noise levels from these activities primarily result from pressurized air venting or leaking from equipment. The following measures would reduce the noise that results from this potential occurrence.

- **NOI-5.a** – No air line, air relief valve, air switch, air control, or any other equipment component will be allowed to vent pressurized air directly to the atmosphere. All air vent lines will go through an air silencing system that reduces air vent noise to 75 dBA  $L_{EQ}$  (1-second) or less at a distance of five feet.

- **NOI-5.b** – When air leaks are detected in a piece of equipment, the air source will be turned off, the air line will be depressurized, and the leak will be repaired prior to resuming use of the equipment.

**NOI-6     Noise Control at Rollout and Ventilation Locations**

- **NOI-6.a** – The use of mobile equipment during nighttime hours will be limited to the following types – (a) skid-steer or rubber-tracked excavator; (b) tire-mounted, medium-sized mobile crane; (c) two-axle delivery truck; (d) water truck; (e) pick-up truck.
- **NOI-6.b** – All generators, air compressors, ventilation equipment, vacuum pumps, and air-vent silencing systems will be placed on the east side of the pipeline or east of rollout and ventilation locations, whichever distance and/or location will achieve maximum feasible noise reduction at nearby residences.
- **NOI-6.c** – All generators, air compressors, ventilation equipment, vacuum pumps, and air-vent silencer systems will be used behind noise control barriers or within noise control enclosures as necessary to prevent noise at sensitive receptors from exceeding 75 dBA  $L_{EQ}$  to the extent feasible. Enclosure entrances will face away from residences. Equipment entrances will be for daytime use only; worker entrances will be for daytime and nighttime use but will be kept fully closed when not in use.

**3.5.5     Conclusions**

Project activities would temporarily increase noise at noise-sensitive land uses in the Project area. The mitigation measures specified above would decrease the noise impacts to the extent feasible. However, the resulting noise levels even with mitigation are expected to exceed significance Thresholds A and B at some locations during some periods of Project activity. Resulting impacts would, therefore, be significant and unmitigable.

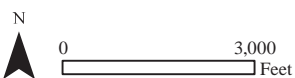




## Ambient Noise Measurements

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.5-1



### 3.6 TRANSPORTATION AND TRAFFIC

This section is based on the information and analysis presented in the Etiwanda Pipeline North Relining Project Traffic Impact Analysis dated October 22, 2014 (Urban Crossroads 2014b). The Traffic Impact Analysis is included in its entirety as **Appendix F** of this EIR.

Potential impacts to traffic and circulation from Project-related activities were assessed by Urban Crossroads. The study compared the anticipated traffic from the Project to the traffic capacity and operating conditions of the local street system. Intersection traffic counts during peak travel periods were conducted as part of the Traffic Impact Analysis in August 2013 and August 2014 to determine existing operating conditions.

To determine whether the proposed Project would cause a substantial increase in traffic in relation to the existing traffic load and capacity of the street system in the traffic study area, the traffic report analyzed trip generation associated with the proposed Project. As discussed in **Chapter 2, Project Description**, the numbers of workers and vehicles required would vary throughout Project-related activities. The trip volumes used for the traffic impact analysis were estimated in consideration of the proposed Project activities and were based on the pilot phase (Phase 1) relining activities to the south of the Project, as well as Metropolitan's extensive experience with other, similar pipeline projects. Project design and implementation are dependent on contractor requirements and allowable shut-down periods based on water supplies. Accordingly, many of the assumptions used for personnel and vehicles represent worst-case scenarios in the analysis of potential impacts. The types, quantities, and use of equipment and personnel might vary somewhat to allow flexibility in implementation, but impacts and conclusions are considered to represent worst-case intensity of activity.

The projected trip generation at each intersection was then added to the projected future intersection volumes to determine Levels of Service (LOS) and evaluate the Project's effect on the operation of intersections relative to local agency and Congestion Management Program criteria.

#### 3.6.1 Existing Conditions

##### **Traffic Fundamentals**

LOS is the term used to denote the different operating conditions that occur on a given roadway segment or intersection under various traffic volumes. LOS is a qualitative measure used to describe a quantitative analysis, taking into account factors such as the geometry of roadways and intersections, the phasing of signal lights, vehicle speed, travel delay, freedom to maneuver on roadways and through intersections, and safety. LOS provides an index to the operational qualities of a roadway segment or an intersection. LOS designations range from A through F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS designation is calculated differently for signalized and unsignalized intersections due to different traffic patterns of vehicles moving through the intersections.

For signalized intersections, LOS criteria are stated in terms of average control delay per vehicle for a 15-minute analysis period. Control delay includes the initial delay of decelerating when



approaching the intersection, the delay of being stopped at the intersection, the time to move up in the vehicle queue, and the delay of accelerating through the intersection.

For unsignalized intersections, LOS criteria are stated in terms of weighted-average control delay per vehicle for a 15-minute analysis period. For all-way stop-controlled intersections, LOS is calculated for the intersection as a whole. For intersections where vehicular movement is controlled by stop signs in two directions (e.g., at side streets), LOS is calculated for the intersection as a whole, as well as for each movement that is subject to a stop sign and for the left turn movement from the major street. For a single-lane approach to the intersection, LOS is calculated as the average of all movements in that lane.

Each jurisdiction has adopted standards (which can also vary by intersection, as described below) of what LOS is considered acceptable. Although the Project is exempt from local zoning and building ordinances pursuant to California Government Code Section 53091, traffic conditions with the Project are compared to these adopted local government standards for the purposes of full disclosure of potential impacts.

### **Existing Street Network**

The traffic study area includes the key roadways and intersections in the vicinity of the proposed Project which are anticipated to carry Project-related traffic. The existing roadways and intersections within the traffic study area are illustrated in **Figure 3.6-1, Traffic Study Area**, and are described in detail in Chapter 3 of the Traffic Impact Analysis (**Appendix F**). Roadway segments range from two-lane undivided residential roadways to six-lane roadways with raised medians.

### **Truck Routes**

The cities of Fontana and Rancho Cucamonga designate truck routes in Section 17.428 and Section 10.56 of their municipal codes, respectively. Designated truck routes within the traffic study area include Foothill Boulevard, Baseline Avenue, Etiwanda Avenue (south of Foothill Boulevard), and Cherry Avenue (south of Citrus Avenue).

### **Existing Traffic Volumes and Levels of Service**

Peak travel periods occur on weekdays from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. **Table 3.6-1, Actual Intersection Operations under Existing (2014) Conditions**, lists the peak-period delay and LOS of intersections in the traffic study area based on actual traffic counts. As shown, all of the intersections are currently operating at an LOS during the peak hours that is considered acceptable by the applicable local jurisdiction, with the following exceptions:

- Heritage Circle at Baseline Avenue
- Heritage Circle at Liberty Parkway



**Table 3.6-1  
ACTUAL INTERSECTION OPERATIONS UNDER EXISTING (2014) CONDITIONS**

Intersection	Traffic Control <sup>1</sup>	Delay (seconds) <sup>2</sup>		Acceptable LOS Level <sup>3</sup>	LOS <sup>4</sup>	
		AM Peak Hour	PM Peak Hour		AM Peak Hour	PM Peak Hour
Etiwanda Avenue / Foothill Boulevard	S	33.3	34.5	E	C	C
East Avenue / Foothill Boulevard	S	21.5	13.7	D	C	B
East Avenue / Miller Avenue	U	17.9	15.1	D	C	C
Heritage Circle / Baseline Avenue	S	43.6	23.8	C	<b>D</b>	C
Heritage Circle / Liberty Parkway	U	34.6	9.0	C	<b>D</b>	A
E. Heritage Circle / Baseline Avenue	S	27.0	18.3	C	C	B
Cherry Avenue / Highland Avenue	U	35.6	37.8	E	E <sup>5</sup>	E <sup>5</sup>
San Sevaine Road / Frontage Road	U	9.7	8.9	C	A	A
Beech Avenue / Frontage Road	S	14.0	15.2	C	B	B
Beech Avenue / Summit Avenue	S	21.9	25.4	C	C	C
Lytle Creek Road / Summit Avenue	S	15.6	12.5	C	B	B

<sup>1</sup> U = unsignalized (with all-way stop); S = signalized.

<sup>2</sup> Average seconds of delay during the peak hour.

<sup>3</sup> Acceptable LOS levels for each intersection are based on local agency criteria; refer to Table 3.6-2.

<sup>4</sup> Bold and shaded LOS values indicate an unacceptable LOS per local jurisdiction guidelines; refer to corresponding intersection LOS standards in Table 3.6-2.

<sup>5</sup> LOS E is acceptable at this intersection per Fontana/CMP standards.

Source: Urban Crossroads 2014b.

## Regulatory Framework

### San Bernardino County Congestion Management Program

SANBAG, which serves as the County Congestion Management Agency, adopted a Congestion Management Program for the County and associated cities (including the cities of Fontana and Rancho Cucamonga) in 1992, with the Congestion Management Program updated through 2011 and a current update pending. The County Congestion Management Program is intended to maintain or enhance the performance of the multimodal transportation system, and minimize travel delays. It defines a network of state highways and arterials, associated LOS standards (acceptable LOS for Congestion Management Program intersections is LOS E or better) and procedures, and a process for mitigation of impacts to the transportation network for new development. The traffic study area includes two intersections subject to the standards in the Congestion Management Program.

### City of Fontana General Plan

The approximately 4.4-mile portion of the Project east of East Avenue is within the city of Fontana. The City of Fontana General Plan Circulation Element identifies LOS C or better as the adopted standard. At intersections where LOS C improvements are not considered to be feasible, LOS D is typically considered the worst acceptable level in urbanized areas of the city. At intersections that already have unacceptable LOS, the City of Fontana also considers the

addition of 50 or more peak hour trips to be a significant impact to that intersection. Circulation goals and policies that are applicable to the proposed Project are as follows:

Goal CE-1: A balanced transportation system for Fontana is provided that meets the mobility needs of current and future residents and ensures the safe and efficient movements of vehicles, people and goods throughout the City.

- Policy CE-1.12: All streets and intersections designed after the adoption of the General Plan will be planned to function at LOS C or better, wherever possible. Improvements to existing streets will be designed to LOS C standards whenever feasible.

Goal CE-3: A circulation system is provided that reduces conflicts between commercial trucking, private/public transportation and land uses.

- Policy CE-3.1: Provide designated truck routes for use by commercial trucking that minimize impacts on local traffic and neighborhoods.
- Policy CE-3.2: Provide appropriately designed roadways for the designated truck routes including designated truck routes for large STAA trucks that can safely accommodate truck travel [an “STAA truck” is a large truck allowed to operate on National Network routes pursuant to the Surface Transportation Assistance Act of 1982].
- Policy CE-3.4: Encourage the development of adequate on-site loading areas to minimize interference of truck loading activities with efficient traffic circulation on adjacent roadways.

#### City of Rancho Cucamonga General Plan

The approximately 0.4-mile portion of the Project west of East Avenue and north of Foothill Boulevard is within the city of Rancho Cucamonga. The City of Rancho Cucamonga General Plan Community Mobility Element identifies LOS D or better as the adopted standard. Community Mobility goals and policies that are applicable to the proposed Project are as follows:

Goal CM-4: Maximize the operational efficiency of the street system.

- Policy CM-4.1: Continue to implement traffic management and traffic signal operation measures along the arterial roadway to minimize delay and congestion for all modes, without adversely impacting transit, bicycles, and pedestrians.
- Policy CM-4.2: Continue to design and operate arterials and intersections for the safe operation of all modes of transportation, including transit, bicyclists, and pedestrians.

Goal CM-7: Maintain an efficient and safe network of goods and freight movement that supports the needs of the business community.

- Policy CM-7.1: Continue to maintain a truck circulation system that defines truck routes, directs the movement of trucks safely along major roadways, and minimizes truck travel on local and collector streets.

### 3.6.2 Significance Thresholds

Based on Appendix G of the State CEQA Guidelines and thresholds identified in the Initial Study/NOP prepared for the proposed Project, a significant impact would occur if the proposed Project would do the following, identified below as Thresholds A and B:

- Threshold 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; or
- Threshold B: Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards, established by the county congestion management agency for designated roads or highways.

As noted in the Regulatory Framework, each of the applicable surrounding jurisdictions has its own traffic standards. The standards of the applicable local jurisdictions are used to assist in determining significance associated with the significance thresholds above. Some CEQA thresholds require multiple thresholds to determine impacts (e.g., both intersection LOS operations [A1] and number of Project trips contributed [A2] are considered to determine significance with respect to CEQA Threshold A). Threshold A1/B1 also applies to the determination of significance under CEQA Threshold B. As such, a significant impact would occur if the proposed Project would:

- Threshold A1/B1: Cause the addition of project-generated trips resulting in the peak hour LOS of the study intersection to change from acceptable operation to deficient operation (refer to **Table 3.6-2, *Acceptable LOS Levels for the Traffic Study Intersections***, which outlines the LOS levels considered acceptable for each intersection by the applicable local jurisdiction); or
- Threshold A2: Contribute 50 or more peak hour trips to an intersection that is currently operating at unacceptable LOS.



<b>Table 3.6-2</b> <b>ACCEPTABLE LOS LEVELS FOR THE TRAFFIC STUDY INTERSECTIONS</b>		
<b>Intersection</b>	<b>LOS Criteria</b>	<b>Jurisdiction</b>
Etiwanda Avenue / Foothill Boulevard	E	Rancho Cucamonga / CMP <sup>1</sup>
East Avenue / Foothill Boulevard	D	Rancho Cucamonga / Fontana
East Avenue / Miller Avenue	D	Rancho Cucamonga / Fontana
Heritage Circle / Baseline Avenue	C	Fontana
Heritage Circle / Liberty Parkway	C	Fontana
E. Heritage Circle / Baseline Avenue	C	Fontana
Cherry Avenue / Highland Avenue	E	Fontana / CMP
San Sevaine Road / Frontage Road	C	Fontana
Beech Avenue / Frontage Road	C	Fontana
Beech Avenue / Summit Avenue	C	Fontana
Lytle Creek Road / Summit Avenue	C	Fontana

<sup>1</sup> CMP = Congestion Management Program.  
Source: Urban Crossroads 2014b.

### 3.6.3 Impact Analysis

#### Circulation System Performance (Threshold A)

##### Trip Generation

The Project is assumed to require 320 workers per day, based on two work shifts during the most active periods of the Project (160 workers per shift). The number of trucks assumed to access the site per day includes 8 dump trucks, 12 semi-trucks with trailers, 4 water trucks, and 48 half-ton pick-up trucks.

Because large trucks affect traffic flow more than passenger vehicles, rather than counting trucks as single vehicles, truck trips are converted to a “passenger car equivalent” (PCE).

As shown in **Table 3.6-3, Project Trip Generation**, with the assumptions above, the Project would generate a total of approximately 1,000 trips per day (using PCE for trucks) with approximately 96 a.m. peak hour trips (7:00 to 9:00 a.m.) and 90 p.m. peak hour trips (4:00 to 6:00 p.m.). Peak hours represent the daily time periods with the highest traffic volumes and provide a conservative evaluation of Project trips in relation to intersection/roadway capacity.

**Table 3.6-3  
PROJECT TRIP GENERATION**

Trip Type	Quantity	AM Peak Hour Trips			PM Peak Hour Trips			Daily
		In	Out	Total	In	Out	Total	
Dump Truck	8	1	1	2	1	1	2	16
<b>Dump Truck PCE<sup>1</sup> (2.0)</b>		<b>2</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>32</b>
Semi-Truck with Trailer	12	1	1	2	1	1	2	24
<b>Semi-Truck with Trailer PCE<sup>1</sup> (3.0)</b>		<b>3</b>	<b>3</b>	<b>6</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>72</b>
Water Truck	4	2	1	3	2	1	3	32
<b>Water Truck PCE<sup>1</sup> (2.0)</b>		<b>4</b>	<b>2</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>6</b>	<b>64</b>
½ Ton Pick-Up Truck	48	8	8	16	8	8	16	192
<b>½ Ton Pick-Up Truck PCE<sup>1</sup> (1.0)</b>		<b>8</b>	<b>8</b>	<b>16</b>	<b>8</b>	<b>8</b>	<b>16</b>	<b>192</b>
Subtotal Truck Trips		12	11	23	12	11	23	264
<b>Subtotal Truck Trips (PCE)</b>		<b>17</b>	<b>15</b>	<b>32</b>	<b>17</b>	<b>15</b>	<b>32</b>	<b>360</b>
Employees <sup>2</sup>	320	46	18	64	26	32	58	640
<b>PROJECT TOTAL TRIPS</b>		<b>63</b>	<b>33</b>	<b>96</b>	<b>43</b>	<b>47</b>	<b>90</b>	<b>1,000</b>

Notes:

<sup>1</sup> Passenger car equivalent (PCE) factors: dump trucks and water trucks = 2.0; semi-truck = 3.0; 1/2 ton pick-up truck = 1.0

<sup>2</sup> Daily quantities assume two auto trips per employee (one inbound / one outbound).

Source: Urban Crossroads 2014b.

### Trip Distribution

Because access routes have not been specified for the Project, the potential interaction between Project activities and surrounding regional access routes was considered in identifying the routes where Project traffic would be anticipated to travel. The trip distribution pattern is heavily influenced by the geographical location of Project activities, the location of surrounding uses, and the proximity to the regional freeway system. I-15 and SR 210 are anticipated to provide the primary regional access for truck and employee trips to the Project area. Existing dirt roads at or near individual work locations would be utilized for access within the Project area.

### Other Changes in Traffic Volumes

As growth occurs in a region, the number of vehicle trips tends to increase over time. To account for the anticipated increase in the number of vehicles unrelated to the Project on area roadways, future traffic volumes have been calculated based on the interpolation of growth between 2014 and 2035 from other traffic studies near the Project traffic study area. The annual growth rate was then used to calculate peak hour volumes for each intersection in the traffic study area for the duration of the Project (2015 to approximately 2017).

### Traffic Volumes With Project

Although all Project phases are estimated to generate the same number of trips, the actual destination of traffic would vary throughout the various Project activities, depending on the specific location of work at a given time. The traffic study area was divided into three separate work locations for the purposes of traffic impact analysis, with the greatest potential overlap being six trips. **Table 3.6-4, Traffic Volumes With Project**, assumes growth that would be

expected to occur regardless of the Project, as well as Project-related trips. Based on the anticipated number of trips, the table illustrates the projected traffic conditions for each intersection within the traffic study area, identifies those intersections that would operate at unacceptable LOS during peak hours, and identifies the number of associated Project trips. As shown, the only intersections anticipated to operate at unacceptable peak hour LOS with Project activities are the two intersections that were previously identified as operating at unacceptable LOS under existing conditions:

- Heritage Circle at Baseline Avenue – LOS D in the a.m. peak hour
- Heritage Circle at Liberty Parkway – LOS E in the a.m. peak hour

With regard to Threshold A1, the Project would not change the LOS of intersections in the traffic study area from acceptable LOS to unacceptable LOS. The intersection of Heritage Circle with Liberty Parkway would deteriorate from LOS D under existing conditions to LOS E in the future with ambient growth and Project-generated traffic. As this intersection is already operating at unacceptable levels, however, this is not considered a significant impact pursuant to Threshold A1.

**Table 3.6-4  
TRAFFIC VOLUMES WITH PROJECT**

Intersection	Delay (seconds) <sup>1</sup>		LOS <sup>2</sup>			Project-generated Traffic Volume <sup>3</sup>	
	AM	PM	Criterion	AM	PM	AM	PM
Etiwanda Avenue / Foothill Boulevard	38.8	41.6	E	D	D	78	73
East Avenue / Foothill Boulevard	25.3	14.5	D	C	B	76	65
East Avenue / Miller Avenue	20.9	17.1	D	C	C	6	6
Heritage Circle / Baseline Avenue	49.9	25.1	C	<b>D</b>	C	<b>72</b>	67
Heritage Circle / Liberty Parkway	40.8	9.3	C	<b>E</b>	A	22	15
E. Heritage Circle / Baseline Avenue	29.1	19.3	C	C	B	42	43
Cherry Avenue / Highland Avenue	40.3	49.9	E	E	E	24	22
San Sevaine Road / Frontage Road	10.4	9.2	C	B	A	13	11
Beech Avenue / Frontage Road	14.6	16.6	C	B	B	15	13
Beech Avenue / Summit Avenue	23.0	29.6	C	C	C	57	54
Lytle Creek Road / Summit Avenue	15.9	13.1	C	B	B	36	35

Notes:

<sup>1</sup> Average seconds of delay during the peak hour.

<sup>2</sup> Bold and shaded LOS values indicate an unacceptable LOS per local jurisdiction guidelines; refer to corresponding intersection LOS standards in Table 3.6-2.

<sup>3</sup> Bold and shaded Project traffic volumes indicate significant impact related to contribution of 50 or more peak hour trips to an intersection currently operating at unacceptable LOS.

Source: Urban Crossroads 2014b.

With regard to Threshold A2, the Project would contribute 72 vehicle trips (PCE) during a.m. peak hours at one deficient intersection, Heritage Circle at Baseline Avenue. This impact is considered significant based on the City of Fontana's significance criterion of 50 or more Project-related peak hour vehicle trips at intersections currently operating at unacceptable LOS. No other deficient intersections would experience 50 or more Project-related peak hour vehicle



trips. Project-related vehicle trips would cease once Project activities are completed and impacts would be temporary; therefore, only temporary modifications to Project-related traffic would be required, as discussed in Section 3.6.4, to mitigate this impact.

### **Congestion Management Program Conformance (Threshold B)**

With regard to Threshold B, the temporary increase in traffic due to Project-related vehicle trips would not change the LOS of traffic study area intersections within the Congestion Management Program from acceptable LOS to unacceptable LOS. Additionally, because Project-related traffic would be temporary, the Project would not conflict with other provisions of the Congestion Management Program. Therefore, the temporary increase in vehicle trips due to the proposed Project would result in a less than significant impact and no mitigation is required.

#### **3.6.4 Mitigation Measures**

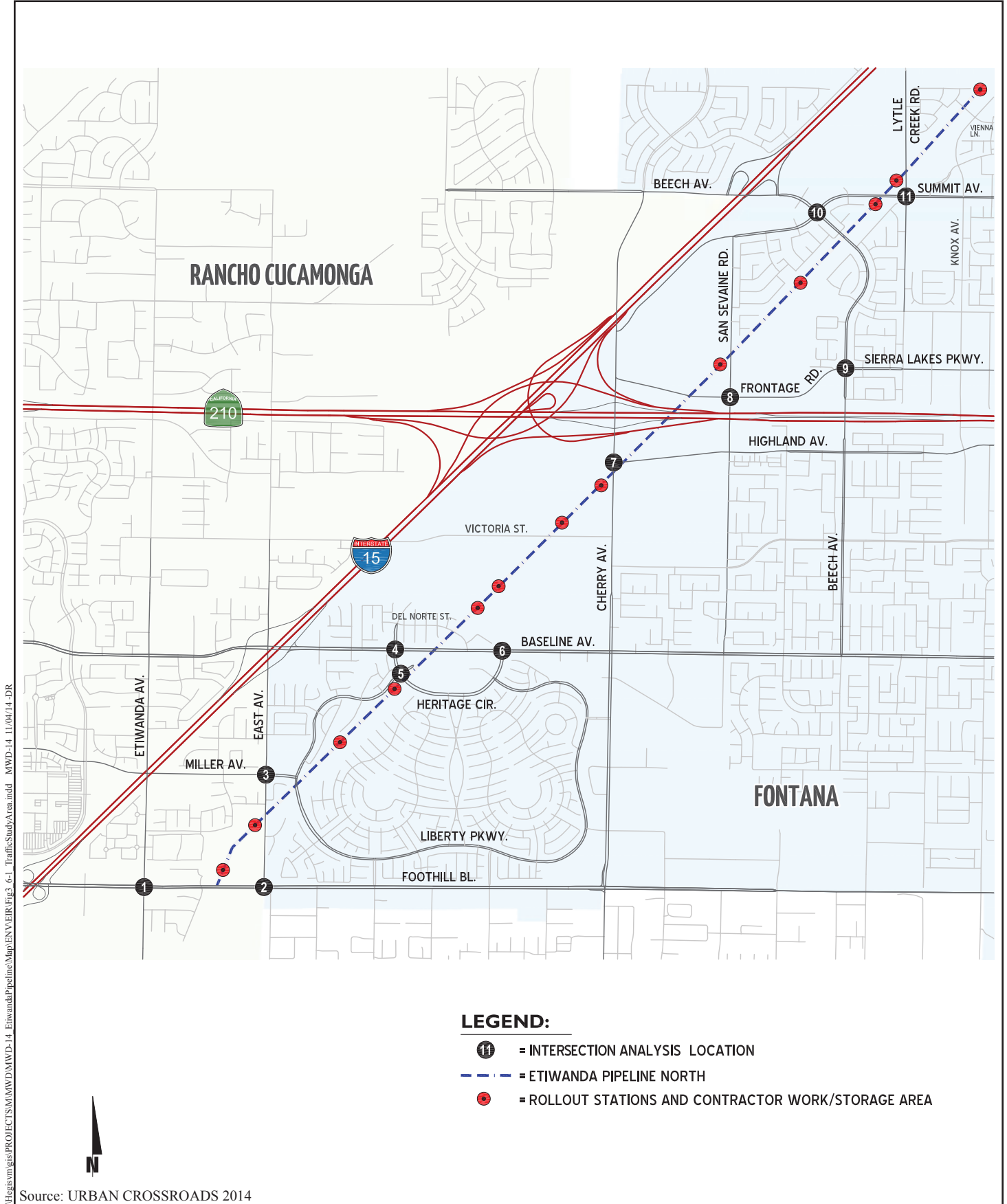
The following mitigation measure has been identified to reduce transportation and traffic impacts associated with the proposed Project.

**TR-1** No more than 50 vehicle trips related to Project activities will utilize the intersection of Heritage Circle at Baseline Avenue during morning peak hours, between 7:00 a.m. and 9:00 a.m. This may be accomplished through a combination of shift scheduling, carpool incentives, and/or verification of employee and truck routes.

#### **3.6.5 Conclusions**

The proposed Project would contribute more than 50 peak hour trips to one intersection operating at a deficient LOS under existing conditions: Heritage Circle at Baseline Avenue. This impact would be reduced to less than significant levels through implementation of the mitigation measure addressed above. Based on the anticipated Project traffic distribution in relation to roadway capacity, routing the required proportion of traffic to alternate intersections would not result in significant impacts at other locations.

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## Traffic Study Area

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 3.6-1



## Chapter 4.0

# CUMULATIVE IMPACT ANALYSIS

## 4.0 CUMULATIVE IMPACT ANALYSIS

### 4.1 INTRODUCTION

The State CEQA Guidelines define cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (State CEQA Guidelines Section 15355). According to State CEQA Guidelines Section 15130, an EIR shall discuss cumulative impacts of a project when the project’s incremental effect is cumulatively significant. A cumulative impact analysis must include either: (1) a list of past, present, and reasonably anticipated future projects; or (2) a summary of projections contained in adopted plans designed to evaluate regional or area-wide conditions.

A cumulative impact analysis considers the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial, impacts taking place over a period of time. The cumulative impact analysis presented in this chapter addresses all of the resource issues evaluated in this EIR, which were included in the EIR because they were determined in the Initial Study to have the potential for adverse impacts as a result of the Project.

### 4.2 CUMULATIVE IMPACT ANALYSIS METHODS

To determine resources with the potential for cumulative impacts, this analysis evaluated impacts of the Project when combined with impacts from past, current, and reasonably anticipated future projects. A list of cumulative projects located within two miles of the Project was compiled with the cooperation of the cities of Fontana and Rancho Cucamonga, as well as from information contained in the EIR for SCE’s adjacent Falcon Ridge Substation Project. The locations of these projects are illustrated on **Figure 4-1, Cumulative Projects**, and their key characteristics are presented in **Table 4-1, Cumulative Projects**.

Table 4-1 CUMULATIVE PROJECTS					
Map No.	Project No.	Name	Location	Description	Status
<b>City of Fontana</b>					
1	MCN 12-47 ASP 12-031 TPM 12-09 VAR 12-02	Farmer Boys Retail Center	14505 Foothill Boulevard	Retail center of approximately 21,800 sf	Pending approval
2	CUP 14-003 CUP 14-004 MCN 14-010	Buscados Restaurant	14765 Foothill Boulevard	New restaurant; New CUP for entertainment	Pending approval

<b>Table 4-1 (cont.) CUMULATIVE PROJECTS</b>					
<b>Map No.</b>	<b>Project No.</b>	<b>Name</b>	<b>Location</b>	<b>Description</b>	<b>Status</b>
<b>City of Fontana (cont.)</b>					
3	MCN 13-029 TTM 13-04 GPA 13-003 ZCA 13-005 TTM 18881	N/A	15205 Center Avenue	Subdivide 19.4 acres into 105 single-family lots	Approved October 2014
4	CUP 14-032 MCN 14-078 PAM 14-0128	N/A	15544 Joliet Court	Large family day care	Pending approval
5	DRP 13-03 MCN 13-033 PAM 13-090	Citrus Height	15581 Brewer Lane	Construct 12 homes	Pending approval
6	DRP 13-014 DRP 13-015 MCN 13-071 TTM 18244 TTM 18245	N/A	15902 Baseline Avenue	85 single-family detached units in TTM#18244 and 120 attached multi-family units in 20 buildings in TTM#18245	Approved March 2014
7	MCN 12-55 ASP 12-037 CUP 12-032 LLA 12-006 TPM 13-0010 GPA 14-07 ZCA 14-08	N/A	16019 Summit Avenue	Construction of two reservoirs, new booster building, and water storage	Pending approval
8	MCN 14-082 ZCA 14-013 GPA 14-010 TPM 14-015 MUP 14-09	N/A	16177 Baseline Avenue	Construction of two Fontana Water Co. water reservoirs	Pending approval
9	DRP 14-018 MCN 14-049 TPM 14-011	Kia Dealership	16273 Highland Avenue	Construction of a new 25,433 sf car dealership	Pending approval
10	MCN 14-70 ASP 14-032 PAM 14-0100	Sierra Lakes Professional Park Pad B	16391 Sierra Lakes Parkway	6,005 sf retail shops building	Pending approval
11	MCN 14-69 ASP 14-031 PAM 14-099	Sierra Lakes Marketplace Pad G	16595 Sierra Lakes Parkway	6,178 sf retail shops building with drive thru lane	Pending approval
12	DRP 12-017 MCN 12-050 SPA 12-02 CUP 12-027	N/A	16733 South Highland Avenue	Proposed amendment to current specific plan to allow construction of Wal-Mart store, restaurant, retail space, and gas station	Pending approval



<b>Table 4-1 (cont.) CUMULATIVE PROJECTS</b>					
<b>Map No.</b>	<b>Project No.</b>	<b>Name</b>	<b>Location</b>	<b>Description</b>	<b>Status</b>
<b>City of Fontana (cont.)</b>					
13	DRP 12-02 PLN 11-052 TTM 11-004 TTM 18825	N/A	5655 Citrus Avenue	Proposed subdivision of 154 single-family detached residences for Tract #18825	Approved July 2012
14	GPA 14-009 MCN 14-062 TTM 14-007 ZCA 14-010 PAM 13-0150	N/A	5924 Citrus Avenue	Proposed subdivision of 105 residential lots	Pending approval
15	CUP 12-019 DRP 12-012 MCN 12-0031 GPA 14-004 GPA 14-005 ZCA 14-005 ZCA 14-006 CUP 14-019 DRP 14-013 PAM 14-040	N/A	5975 Sierra Avenue	New church and 8 buildings on 40 acres	Pending approval
16	MCN 14-028 TTM 14-002 PAM 14-017	N/A	6207 Knox Avenue	5 lot subdivision	Pending approval
17	MCN 13-023 TPM 13-004 PAM 13-0016	N/A	6908 Oleander Avenue	TPM to subdivide one existing one parcel into four residential parcels	Approved April 2014
18	DRP 13-005 DRP 13-006 MCN 13-044 TTM 13-006 PAM 13-074	N/A	7041 Citrus Avenue	Subdivision of one 5-acre parcel into 18 lots and construct 18 single-family residences	Approved October 2013
19	CUP 13-20 DRP 13-11 SPA 13-03 MCN 12-063	N/A	7625 East Avenue	Construction of 3,000-seat sanctuary and parking structure for Water of Life	Approved January 2014
20	DRP 12-010 MCN 12-023 DRP 13-0017 TT 17885 TT 18676-1 TT 18676	N/A	7816 Lime Avenue	Construct 332 single-family homes	Approved March 2014
21	MCN 12-29 ASP 12-0021 TPM 12-007	DMV	8026 Hemlock Avenue	Proposed construction of two new buildings of 22,189 sf and 2,500 sf	Approved October 2012

<b>Table 4-1 (cont.)</b> <b>CUMULATIVE PROJECTS</b>					
<b>Map No.</b>	<b>Project No.</b>	<b>Name</b>	<b>Location</b>	<b>Description</b>	<b>Status</b>
<b>City of Fontana (cont.)</b>					
22	MUP 14-06 MCN 13-070	N/A	8143 Banana Avenue	Construction of a 8,931 sf fire station on 1.83 acres	Approved July 2014
23	N/A	Fontana Auto Center	Along the south side of SR 210 between Sierra Avenue and Citrus Avenue	A multi-acre development area zoned specifically for automotive sales, accommodating up to 12 dealerships	Three dealerships have completed construction; one dealership is in the development process with anticipated completion in Spring of 2015
24	N/A	Shady Trails	Near the southwest corner of Casa Grande Drive and Citrus Avenue	174 single-family homes on 37.5 gross acres, which will include various amenities such as a recreation room, a pool, spa, tot lot, large sun deck, a basketball half court, and an open lawn area	Approved October 19, 2010
25	N/A	I-15 / Duncan Canyon Road Interchange	At the I-15 / Duncan Canyon Road Interchange	The existing two-lane overpass will be widened to a six-lane interchange and will include on and off ramps connecting to I-15	Construction began in 2012 and is not complete
26	SPL 04-006	Arboretum Specific Plan	Approximately 0.5 mile north of Summit Avenue, west of Sierra Avenue, east of Citrus Avenue, and south of Duncan Canyon Road	A master-planned community on 531.3 acres to contain the following: maximum of 3,526 residential units, a public arboretum, a public park, private parks, three elementary schools, and an activity center	Approved September 23, 2009; construction has not begun

<b>Table 4-1 (cont.)</b> <b>CUMULATIVE PROJECTS</b>					
<b>Map No.</b>	<b>Project No.</b>	<b>Name</b>	<b>Location</b>	<b>Description</b>	<b>Status</b>
<b>City of Fontana (cont.)</b>					
27	SPL 07-001 DRP 07-010 TTM 07-009 PLN 07-008	Citrus Heights North Specific Plan	Bordered on the south by Summit Avenue, on the east by Citrus Avenue, and on the west by Lytle Creek Road	Approximately 212 acres with a maximum of 1,154 residential dwelling units, a community sport center, an area for private recreation use, and a commercial site	Approved August 14, 2004; approximately 350 single-family residential units have been built, and approximately 114 attached condominium units have been completed
28	SPL 10-001 AGR 10-003	Summit at Rosena Specific Plan	Southeast of I-15 within the northwest quadrant of the interception of Summit Avenue and Sierra Avenue	Approximately 179.8 acres to include 856 dwelling units, a mixed-use activity center featuring both attached dwellings and neighborhood retail and service uses, an elementary school, and open space areas providing both passive and active recreational uses	Approved by the City Council on March 22, 2006; no development has occurred
29	AMD 06-010 ZCH 06-007 TT 06-010 PLN 06-008	Ventana at Duncan Canyon Specific Plan	Bounded by I-15 on the north and west, Citrus Avenue on the east, and the SCE power line transmission corridor on the south	Mixed-use community with a maximum of 842 residential units, retail commercial space, office / business park space, restaurant space, and hotel space	Approved by City Council on April 10, 2007; no development has occurred



<b>Table 4-1 (cont.) CUMULATIVE PROJECTS</b>					
<b>Map No.</b>	<b>Project No.</b>	<b>Name</b>	<b>Location</b>	<b>Description</b>	<b>Status</b>
<b>City of Rancho Cucamonga</b>					
30	AMD 09-001 PLN 09-006 ZCH 09-001 SPL 09-001	West Gate Specific Plan	North of Baseline Avenue, south and west of Lytle Creek Road with the major portion west of San Sevaire Road and Highland Avenue	Approximately 964 acres to include a maximum of 5,554 residential units, commercial retail, business park/public facilities, public parks, private parks, and two schools	Currently being processed for a total revision of the permitted land uses; no development has occurred
31	DRC 2013-00642	N/A	APN: 1100-201-05	Proposed parking above the Metropolitan easement	Idle since 2013
<b>Southern California Edison</b>					
32	CPUC 10-12-017	Falcon Ridge Substation Project	South of Casa Grande Avenue, east of Sierra Avenue, north of Summit Avenue, and adjacent to SCE's existing transmission right-of-way in Fontana	66/12 kilovolt unattended, automated, 56 megavoltampere low-profile substation with two sub-transmission source lines and new telecommunications infrastructure work (overhead and underground) to connect the proposed substation to nearby substations	Approved May 2014; Expected Completion 2017

Sources: City of Fontana 2014a and 2014b; City of Rancho Cucamonga 2014; SCE 2012

Acronyms/abbreviations:

A = Application

AGR = Development Agreement

AMD = Municipal Code Amendment

APN = Assessor Parcel Number

ASP = Site Permit

CPUC = California Public Utilities Commission

CUP = Conditional Use Permit

DRC = Design Review Committee

DRP = Design Review Permit

GPA = General Plan Amendment

LLA = Lot Line Adjustment

MCN = Master Case Number

MUP = Municipal Use Permit

N/A = not applicable

PAM = Pre-Application Meeting

PLN = Planning Review

sf = square feet

SPA = Specific Plan Amendment

SPL = Specific Plan

TT = Tentative Tract

TTM = Tentative Tract Map

TPM = Tentative Parcel Map

VAR = Variance

ZCA = Zone Change Amendment

ZCH = Zone Change

## 4.3 CUMULATIVE IMPACT ANALYSIS

### 4.3.1 Air Quality

The proposed Project, in conjunction with other projects in the area, would have the potential to produce a cumulative increase in criteria pollutant emissions. The regional and local daily emissions thresholds established by SCAQMD have been developed specifically to address cumulative impacts to air quality. Even with implementation of the mitigation measures presented in **Section 3.1.4**, the Project would exceed the SCAQMD thresholds for regional

emissions of VOC, CO, and NO<sub>x</sub>. Therefore, the Project would contribute significantly to the cumulative impact to regional emissions.

With respect to local impacts, cumulative particulate impacts are considered when projects may be within a few hundred yards of each other. As identified in **Table 4-1** and **Figure 4-1**, several projects have been identified within this proximity to the Project, including a water reservoir and booster station, church and associated parking, three private development projects, and the Falcon Ridge Substation Project. The Falcon Ridge Substation Project is anticipated to be under construction concurrently with the Etiwanda Pipeline North Relining Project. The construction schedule for the other projects is unknown and, although it is unlikely that they would all be under construction at the same time as the proposed Project, they are conservatively assumed to overlap for the purposes of this analysis. As shown in **Table 3.1-6**, implementation of the mitigation measures AIR-1 and AIR-2 would reduce local emissions of CO, NO<sub>x</sub>, and PM<sub>10</sub> to below the SCAQMD thresholds. Because these thresholds have been developed for the specific purpose of addressing cumulative impacts, the Project would not contribute significantly to cumulative impacts regarding local emissions of CO, NO<sub>x</sub>, and PM<sub>10</sub>. Even with implementation of mitigation measures, the proposed Project would result in local emissions of PM<sub>2.5</sub> that exceed the SCAQMD significance thresholds. Therefore, the Project would contribute significantly to the cumulative local emissions impact.

In summary, the Project would contribute significantly to cumulative impacts to regional and local air pollutant emissions.

#### **4.3.2 Biological Resources**

Portions of the cumulative project area support, or previously supported, habitat types such as Riversidean sage scrub and Riversidean alluvial fan sage scrub, which may provide habitat for species such as San Bernardino kangaroo rat, San Diego pocket mouse, and Los Angeles pocket mouse. The extensive development that has occurred in the region has resulted in a loss of substantial amounts of these habitats and associated species, which has resulted in them being considered sensitive by the applicable resource agencies. The cumulative regional loss of sensitive vegetation communities and associated sensitive species would be considered significant.

The proposed Project would also result in the removal of Riversidean sage scrub and Riversidean alluvial fan sage scrub. However, ~~this~~<sup>these</sup> communities occurs only in small patches that are highly disturbed, discontinuous, and provide limited biological function and value. This community was comprised of low quality vegetation prior to the original installation of the Etiwanda Pipeline and has since been disturbed by ongoing maintenance activities in the right-of-way. Because the native species currently present in this community are disturbance followers, vegetation in this community is expected to recover after Project completion to a community that is functionally equivalent to the limited, disturbed community that currently exists. As a result, the minor, temporary Project-related impacts to ~~this~~<sup>these</sup> communities would not contribute significantly to cumulative vegetation impacts.

The San Bernardino kangaroo rat was determined to be absent from the Project area. As discussed in Section 3.2, Project-related impacts to the three sensitive species identified within

the Project area (San Diego black-tailed jackrabbit, San Diego pocket mouse, and Los Angeles pocket mouse) would include less than significant impacts from temporary loss of patchy, low-quality foraging and movement areas, as well as possible direct impacts to the San Diego pocket mouse and Los Angeles pocket mouse from ground-disturbing activities. Survey results, however, suggest that the Project area supports less than one percent of the lowest estimated statewide population of San Diego pocket mouse, and a little more than one percent of the lowest estimated statewide population of Los Angeles pocket mouse.

Although only minimal, disturbed, low-quality patches of native vegetation occur in the Project area, the study area contains vegetation and structures that may provide nesting opportunities for common birds, including raptors. These birds are protected under the MBTA and California Fish and Game Code, and the potential for adverse impacts to nesting birds would be avoided or minimized through Metropolitan's standard practices for the protection of nesting birds. Therefore, the Project would not contribute significantly to cumulative impacts to sensitive species.

In summary, the Project would not contribute significantly to cumulative impacts to biological resources.

#### **4.3.3 Greenhouse Gas Emissions**

The assessment of GHG emissions is inherently cumulative because climate change is a global phenomenon. Therefore, the discussion in **Section 3.3** of this EIR addresses cumulative GHG impacts and determines that the impact of the Project's GHG emissions on climate change would not be cumulatively considerable, as the Project would not exceed the SCAQMD screening threshold or conflict with an applicable GHG plan, policy, or regulation. The Project would not contribute significantly to cumulative greenhouse gas emission impacts.

#### **4.3.4 Land Use and Planning**

The proposed Project consists of repairing an existing facility and would not result in an alteration of present or planned zoning or land use designations. California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances. This exemption applies to the Etiwanda Pipeline North as a water transmission pipeline and a direct component of Metropolitan's treatment, storage and transmission system. The Project would conflict with noise policies in the General Plans of the cities of Fontana and Rancho Cucamonga. This conflict represents a noise, rather than land use, impact, and is addressed in **Section 4.3.5**. Therefore, the Project would not contribute significantly to cumulative impacts to land use and planning.

#### **4.3.5 Noise**

##### **Temporary Increases in Ambient Noise**

Noise impacts are highly localized due to the decreasing effect that distance has upon noise levels. Construction of the SCE Falcon Ridge Substation Project may occur at the same time as the proposed Project. As part of the substation project, a sub-transmission source line segment would be installed adjacent to the Project. The new line would be built east of the existing line



in the area north of SR 210 and west of the existing line south of SR 210. The distances to the nearest noise-sensitive land uses range from 75 to 135 feet in the southeast direction, and 370 to 430 feet in the northwest direction. The individual and combined noise levels are shown in **Table 4-2, Cumulative Noise Impacts to Noise-sensitive Land Uses**. Noise levels for the proposed Project assume implementation of the mitigation measures specified in **Section 3.5.4**.

<b>Table 4-2 CUMULATIVE NOISE IMPACTS TO NOISE-SENSITIVE LAND USES</b>				
<b>Project</b>	<b>Noise Levels for Work North of SR 210 (L<sub>EQ</sub>)</b>		<b>Noise Levels for Work South of SR 210 (L<sub>EQ</sub>)</b>	
	<b>Southeast</b>	<b>Northwest</b>	<b>Southeast</b>	<b>Northwest</b>
<b>Etiwanda North Pipeline Project</b>				
Rollout Location	48.1 dBA	63.8 dBA	48.1 dBA	63.8 dBA
Ventilation Location	44.2 dBA	51.0 dBA	44.2 dBA	51.0 dBA
<b>Falcon Ridge Substation Project</b>				
Proposed Line	76.1 <sup>1</sup> dBA	66.5 dBA	70.3 dBA	67.0 dBA
<b>Combined Noise Levels for Both Projects</b>	<b>76.1 dBA</b>	<b>68.4 dBA</b>	<b>70.3 dBA</b>	<b>68.8 dBA</b>

<sup>1</sup>Noted as a significant impact with mitigation requirements in SCE EIR (SCE 2012).

As shown, combined noise levels would exceed the daytime noise threshold of 75 dBA L<sub>EQ</sub>, at the location southeast of SR 210, and cumulative noise levels from both projects would be significant. However, the Falcon Ridge Substation Project is the predominant noise source; the proposed Project's contribution to the combined noise levels would be less than 3 dBA because noise resulting from the Project would have to be at least equal in volume to increase the noise level by 3 dBA. The Project's contribution of less than 3 dBA to the cumulative noise impact would not be cumulatively considerable. Further, mitigation within the SCE Falcon Ridge Substation Project EIR requires the implementation of noise reduction measures, and actual noise levels would be lower as a result. In summary, the Project would not contribute significantly to cumulative noise impacts.

### **Generation of Ground-borne Vibration**

Ground-borne vibration is also a localized phenomenon that is progressively reduced as the distance from the source increases. The area of cumulative impact that would be considered for the vibration cumulative impact analysis would be only those projects within the immediate vicinity of the proposed Project.

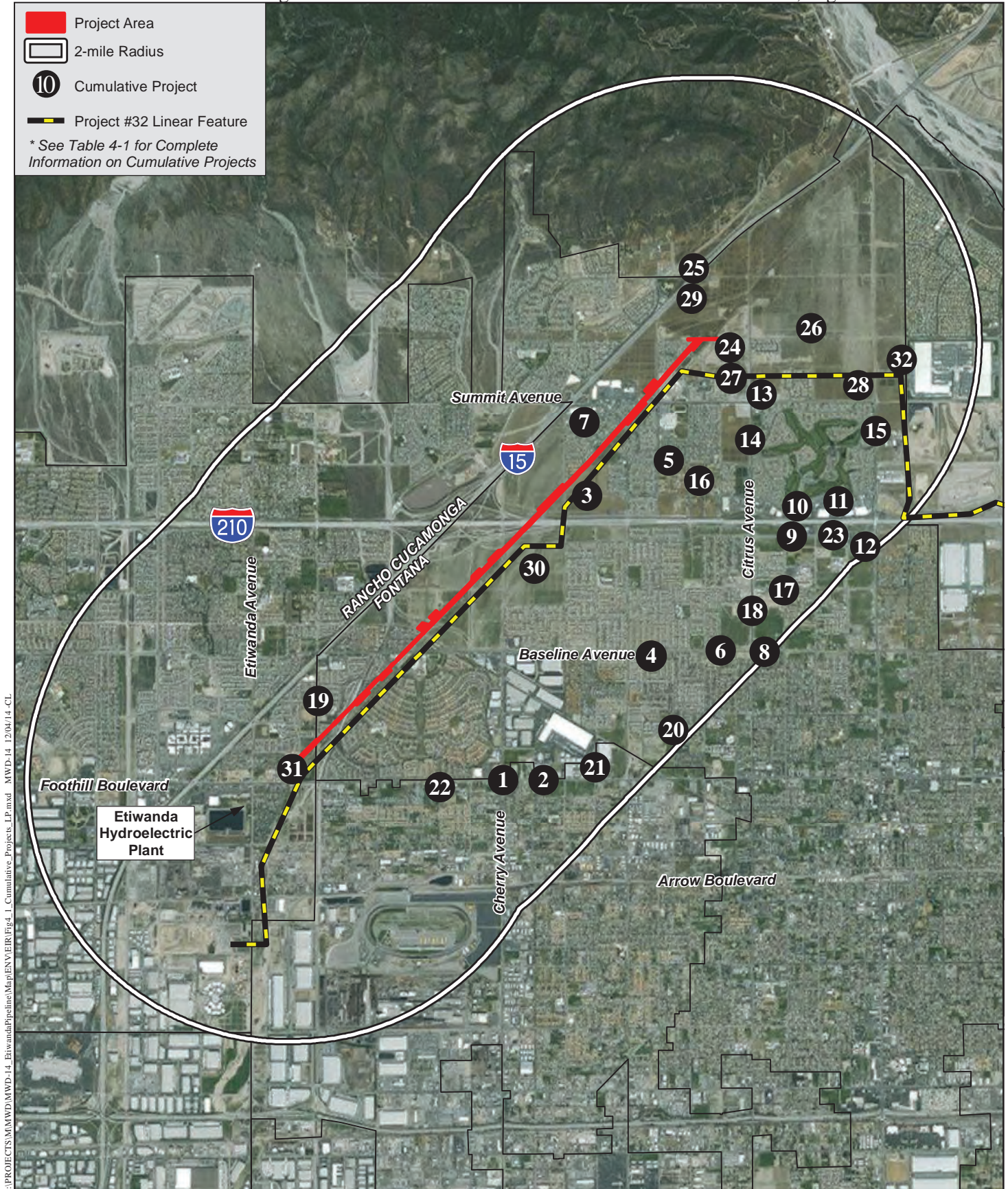
The closest project that may be constructed at the same time as the proposed Project is the SCE Falcon Ridge Substation Project. At the estimated distances to the nearest sensitive land use from the proposed Project (75 to 135 feet in the southeast direction, and 370 to 430 feet in the northwest direction) and the substation project (125 to 380 feet in the southeast direction, and 175 to 330 feet in the northwest direction), impacts from the most likely source of vibration, a

vibratory roller, would be less than significant for either project. As a result, cumulative vibration impacts would be less than significant. The Project would not contribute significantly to cumulative ground-borne vibration impacts.

#### **4.3.6 Transportation and Traffic**

The proposed Project would result in increased traffic during Project activities. The analysis in **Section 3.6** takes into account projected growth in the Project area. With implementation of mitigation measure TR-1, the Project would not result in a cumulatively considerable traffic impact to intersections or roadway segments within the Project traffic study area. Additionally, as shown in **Table 3.6-4**, projected traffic volumes would not result in a cumulative impact to study area intersections. Therefore, the Project would not result in increases in traffic that would combine with other projects to result in a cumulative impact. In summary, the Project would not contribute significantly to cumulative transportation and traffic impacts.





## Cumulative Projects

ETIWANDA PIPELINE NORTH RELINING PROJECT

Figure 4-1





## Chapter 5.0

# OTHER CEQA CONSIDERATIONS

## 5.0 OTHER CEQA CONSIDERATIONS

In addition to the topics analyzed elsewhere in this EIR, Section 15126 of the State CEQA Guidelines requires analysis of the following topics addressed in this chapter: growth-inducing impacts; significant environmental effects that cannot be avoided upon implementation of the proposed Project; and significant irreversible environmental effects associated with implementation of the proposed Project.

### 5.1 GROWTH INDUCEMENT

In accordance with Section 15126(d) of the State CEQA Guidelines, an EIR must include an analysis of the growth-inducing impact of the proposed Project. The growth inducement analysis must address: (1) the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment; and (2) the potential for a project to encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. This second issue involves the potential for a project to induce growth by the expansion or extension of existing services, utilities, or infrastructure. The State CEQA Guidelines further state that “[i]t must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment” (Section 15126.2[d]).

The proposed Project would consist of repair of an existing pipeline. During the Project, demand for various construction trade skills and labor would increase. It is anticipated that this demand would be met by the local labor force and would not require importation of a substantial number of workers that could cause an increased demand for temporary or permanent housing in this area. The Project would not change the pipeline capacity or service area, or otherwise include or require new infrastructure or utilities or roadway extensions. In addition, repair of the existing pipeline would not remove any barriers to growth. Therefore, growth inducement would not result from the proposed Project.

### 5.2 UNAVOIDABLE ADVERSE IMPACTS

Section 15126.2(b) of the State CEQA Guidelines requires the identification of significant impacts that would not be avoided, even with the implementation of feasible mitigation measures. The final determination of significance of impacts and of the feasibility of mitigation measures would be made by Metropolitan’s Board of Directors as part of its certification of this EIR. **Sections 3.1 through 3.6** of this EIR provide an evaluation of the potentially significant environmental effects and corresponding mitigation measures associated with implementation of the proposed Project. According to this evaluation, the Project would result in significant impacts relative to temporarily increased noise levels at nearby noise-sensitive land uses as well as regional and local air pollutant emissions. Although measures have been proposed to reduce these impacts, the resulting levels are nonetheless expected to be significant. It is anticipated that additional measures to further reduce associated noise levels and air pollutant emissions would not be feasible, and no feasible alternatives to the proposed Project would avoid these significant impacts. Therefore, air quality and noise impacts are considered significant and unavoidable.

### 5.3 IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the State CEQA Guidelines requires an evaluation of significant irreversible environmental changes which would be involved should a proposed project be implemented. Section 15126.2(c) of the State CEQA Guidelines describes significant irreversible environmental changes that would be caused by a proposed project as follows:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project.

The proposed Project would entail the commitment of energy and non-renewable resources, such as energy derived from fossil fuels, construction materials (e.g., abrasives, mortar), and labor. Use of these resources would have an incremental effect on the regional consumption of these commodities. As the Project involves repair of an existing pipeline, it would not directly or indirectly change uses within or adjacent to the Project area. Furthermore, no environmental accidents or hazards are anticipated to occur as a result of Project implementation, as disclosed in the Initial Study/Notice of Preparation prepared for the Project (refer to **Appendix A**). Therefore, the impact from irreversible environmental changes from the proposed Project would not be significant.



## Chapter 6.0

# ALTERNATIVES TO THE PROPOSED PROJECT

## 6.0 ALTERNATIVES TO THE PROPOSED PROJECT

### 6.1 INTRODUCTION

During consideration of a project that could have a significant effect on the environment, CEQA requires that alternatives that could avoid or lessen the project's significant effect(s) be considered. This chapter presents potential alternatives to the Project and evaluates them as required by CEQA. The State CEQA Guidelines also require EIRs to identify the Environmentally Superior Alternative from among the alternatives (including the proposed Project). The environmentally superior alternative is identified in **Section 6.5**.

### 6.2 SUMMARY OF PROJECT OBJECTIVES AND SIGNIFICANT IMPACTS

#### 6.2.1 Project Objectives

In developing the alternatives to be addressed in this section, consideration was given to their feasibility to implement and their ability to meet the basic objectives of the Project. The Project involves removing the existing mortar lining, much of which has become separated from the inside of Etiwanda Pipeline North, and applying a new, flexible, polyurethane liner to prevent corrosion inside the pipe. Project objectives were identified in **Chapter 2, Project Description**, of this EIR as follows:

- Enable Metropolitan to continue conveyance of water from the Rialto Pipeline to the Upper Feeder as needed to supply customers;
- Enable Metropolitan to continue electricity generation through water conveyance to the Etiwanda Hydroelectric Plant;
- Provide a safe, feasible and cost-effective relining method; and
- Minimize Project-related nuisances such as traffic disruption, noise, air quality, dust, and odor to the extent feasible.

#### 6.2.2 Significant Environmental Impacts

Based on analysis in **Chapter 3, Environmental Impact Analysis**, the Project would have significant impacts with regard to the following issues: air quality, noise, and transportation and traffic. Noise impacts also would result in a conflict with City of Fontana General Plan Noise Element Goal 3, Action 18 and City of Rancho Cucamonga General Plan Policy PS-13.4. Project-related environmental impacts to transportation and traffic would be mitigated to less than significant levels; environmental impacts related to air quality and noise would be mitigated to the extent feasible, but are likely to remain significant even with mitigation.

### 6.3 ALTERNATIVES CONSIDERED BUT REJECTED

As described below, alternatives considered but rejected include location (**Section 6.3.1**) and design alternatives (**Section 6.3.2**) as well as the No Project Alternative (**Section 6.4**). All of the potential alternatives that were considered for the Project have been rejected. Section 15126.6(a)

of the State CEQA Guidelines states that an EIR shall describe “a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project,” as well as provide an evaluation of “the comparative merits of the alternatives.” Under Section 15126.6(a), an EIR does not need to consider alternatives that are not feasible, nor need it address every conceivable alternative to the project. The range of alternatives “is governed by the ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice.” The focus is on informed decision-making and public participation rather than providing a set of alternatives simply to satisfy format.

### **6.3.1 Alternative Location**

Potential alternative pipeline locations are substantially constrained by the need to connect the Rialto Pipeline to the Etiwanda Hydroelectric Plant and Upper Feeder, as well as the width of Metropolitan’s existing right-of-way. In consideration of these constraints, this alternative would construct a new, smaller (10 feet in diameter) pipeline parallel to the existing Etiwanda Pipeline North. Minimal disruptions of service would occur during installation of a new pipeline. Similar to the proposed Project, the smaller pipe would be lined with a flexible lining for corrosion resistance and would be tolerant of the wide fluctuations in water flows and pressures inside the pipe.

This alternative would result in substantially more ground disturbance than would be required for the proposed Project. This would result in greater potential impacts to biological resources due to ground disturbance and vegetation removal throughout the Project area, and potentially in additional areas outside of the work locations that are identified for the proposed Project. Extensive heavy equipment operations and ground disturbance likely would increase emissions of air pollutants, including criteria pollutants, fugitive dust, and GHGs. Potential impacts to the transportation system would be increased by the number of workers and the number of trucks that would be required to remove excess soil, and potentially by trenching across area roadways. While this alternative likely would avoid or minimize the need for nighttime construction noise, excavation would result in high levels of daytime noise at more adjacent residences for a potentially longer period of time.

Other potential environmental impacts that were addressed in the Initial Study as not being potentially significant would require re-evaluation under this alternative. Open-trench excavation along the approximately five-mile length of Etiwanda Pipeline North likely would result in potentially significant impacts to hydrology, impacts to natural and man-made drainages that are able to be avoided under the proposed Project, and impacts to cultural and paleontological resources if excavation were to occur in previously undisturbed soils.

This alternative would have the highest initial costs for construction, given the likely need to acquire additional right-of-way either for temporary construction easements or for long-term operation and maintenance of the new pipeline. Considering the remaining integrity of the existing pipeline, the considerably greater or broader level of potential environmental impacts and disturbance to nearby communities, and the substantially higher cost of new pipeline construction, this alternative was eliminated from further consideration due to not meeting the



Project objectives of providing a feasible and cost-effective relining method, and minimizing disturbance to the environment and nearby communities.

### **6.3.2 Design Alternatives**

Seven liner repair/replacement alternatives and one pressure control facility coupled with a liner repair alternative were considered during initial Project design. Based on review of physical properties, advantages, and disadvantage of each of these alternatives, Metropolitan rejected each as not being feasible. Each alternative is briefly described below.

#### **Liner Repair/Replacement Alternatives**

Work activities for each of the liner repair/replacement alternatives would be generally similar to the proposed Project, as described in **Section 2.7.1, *Project Activities***. They would include site preparation; preparation of access points into the pipeline; pipeline shutdown and removal of water; surface preparation of the interior of the pipe; application of the new liner; and closing access points and site completion. Although the specific equipment types and processes would vary, the resulting level of environmental impact would be similar to the proposed Project.

#### **Cement Mortar Liners**

##### ***Standard and Fabric-Reinforced Cement Mortar Liners***

These mortar liner alternatives would replace the existing cement mortar liner of Etiwanda Pipeline North with a new cement mortar liner, of standard, non-reinforced, or fiber-reinforced construction. Mortar lining is relatively inexpensive, is widely used, and has demonstrated corrosion protection in water pipelines under most operating conditions. The limitations of mortar lining under the operating conditions of Etiwanda Pipeline North have been demonstrated by the deterioration of the existing mortar lining. Mortar lining must be kept in continuous moist conditions or irreversible cracks can develop. These alternatives likely would result in the need for repeated future repairs, involving more frequent disturbance of nearby communities, more frequent interruptions of water supplies through Etiwanda Pipeline North while repairs are made, and diminished reliability of Etiwanda Pipeline North both for generation of power and for water deliveries to the Upper Feeder.

This alternative was rejected from further consideration due to not meeting any of the four Project objectives of providing a feasible and cost-effective relining method, minimizing environmental and community disturbance, enabling continued use of Etiwanda Pipeline North for generation of power, and enabling continued use of Etiwanda Pipeline North for water conveyance.

##### ***Mesh-Reinforced Cement Mortar Liner***

This alternative would replace the existing cement mortar liner of Etiwanda Pipeline North with mesh-reinforced cement mortar lining. Mesh reinforcement provides improvements in the strain capacity, toughness, impact resistance, and crack control over standard and fabric-reinforced mortar liners; however, this liner is usually reserved for short pipeline sections where equipment access is not required. In addition, mesh-reinforced mortar liner has not been tested in a pipeline

with highly variable pressures and may be expected to perform similar to other mortar liners under extreme operating conditions. The application process for mesh-reinforced mortar also is more labor intensive than other mortar linings. For these reasons, mesh-reinforced mortar liner was rejected from further consideration due to not meeting any of the four Project objectives.

#### Flexible Coating System Alternatives

##### *Epoxy Liner*

Use of epoxy liner would be similar to the proposed use of polyurethane, in that epoxy would provide flexible corrosion resistance able to withstand the operating conditions of Etiwanda Pipeline North. This alternative would have no clear advantages over the proposed Project, and disadvantages would include a more extensive application process requiring a longer duration of work and higher costs. While epoxy provides more flexibility than cement mortar, epoxy is less flexible than polyurethane, has less adherence strength, and has greater potential for blistering, leading to a higher potential for future damage than polyurethane. This alternative was rejected from further consideration due to not meeting the project objective of minimizing disturbance to the environment and nearby communities, and not meeting to as high a degree as the proposed Project the objectives of continued use of Etiwanda Pipeline North for power generation and water conveyance.

#### Slip-Liner Alternatives

Slip-liner alternatives would consist of installing a new, smaller pipeline within the existing Etiwanda Pipeline North. Pipe construction would be steel, pre-stressed concrete cylinder, or fiberglass-reinforced polymer mortar. For each type, the pipe segments would be pushed or pulled into the existing pipeline and extra space between the slip liner and the existing pipeline would be grouted with cement. The new liner would provide corrosion resistance and be able to withstand high pressures, and would not require removal of the existing mortar liner in Etiwanda Pipeline North or on-site application of a new interior liner.

The most expensive of the liner alternatives, slip-lining is typically used in situations where the original pipe has lost, or is at risk of losing, substantial strength due to physical damage; this is not the case with Etiwanda Pipeline North, where corrosion and potential leakage are the most likely results of the deteriorating existing mortar. Slip-lining was rejected from further consideration due to not meeting the objective of providing a feasible or cost-effective relining method.

#### **Pressure-Control Facility Alternative**

This alternative would repair/replace the cement mortar lining within Etiwanda Pipeline North, and construct a new pressure-control facility to regulate water pressure within the pipeline. Construction of the new pressure-control facility would occur at the northern end of Etiwanda Pipeline North near the connection to the Rialto Pipeline. The facility would be located on land currently owned by Metropolitan; however, additional property might need to be acquired in order to provide sufficient space and adequate access for operation and maintenance of the facility.

The pressure control facility would allow the pipeline to operate continuously at a relatively uniform pressure, which would prevent stress cracking of the new liner by relieving stresses from large fluctuations in pressure and flows. This alternative would involve relining the pipe, as with the proposed Project, but also would include the additional cost of construction, operation, and maintenance of the new pressure-control facility. In addition, the uniform, lower pressure would adversely affect the ability to continue to use Etiwanda Pipeline North for the generation of power. This alternative was rejected from further consideration due to not meeting the project objective of enabling continued use of Etiwanda Pipeline North for power generation.

## **6.4 NO PROJECT ALTERNATIVE**

### **6.4.1 No Project Alternative Description**

Pursuant to Section 15126.6(e)(3)(B) of the State CEQA Guidelines, the No Project Alternative reflects the “circumstances under which the Project does not proceed.” The No Project Alternative assumes that Etiwanda Pipeline North would not be repaired, and that no major pipeline work would occur in the Project area. Existing maintenance activities would continue. No coordination with the City of Fontana, City of Rancho Cucamonga, or other agencies would be required. Impacts associated with this alternative, compared to the proposed Project, are described below.

### **6.4.2 Comparison of the Impacts of the No Project Alternative to the Proposed Project**

Because the No Project Alternative would not involve any physical improvements, it would avoid significant impacts that would occur from the proposed Project related to air quality, noise, and transportation and traffic. This alternative would not, however, meet any of the four Project objectives and could potentially result in significant interruptions to regional water deliveries/supplies, loss of power generation, and temporary flooding if corrosion of the pipeline results in substantial future leaking or failure. A break in the pipeline would result in temporary impacts during emergency repairs, which would result in impacts similar to the proposed Project. Potential flooding could result in property damage to nearby structures, as well as more impacts to biological resources within the Project area.

## **6.5 SUMMARY OF ALTERNATIVES ANALYSIS AND IDENTIFICATION OF THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

If an alternative is considered clearly superior to the proposed Project relative to identified environmental impacts, Section 15126.6 of the State CEQA Guidelines requires that alternative be identified as the environmentally superior alternative. By statute, if the environmentally superior alternative is the No Project Alternative, an EIR must also identify an environmentally superior alternative among the other alternatives.

Based on the alternatives discussion provided in this chapter, several alternatives to the proposed Project were analyzed; however, each of these alternatives was rejected as being infeasible and not meeting the basic Project objectives. The No Project Alternative would avoid significant environmental impacts from the Project in the interim, but likely would result in similar impacts, or potentially more or greater impacts, in the event that unanticipated damage were to occur and emergency repairs were required.



The proposed Project would repair and prevent corrosion of Etiwanda Pipeline North, enable the continued conveyance of water as needed to supply customers and to generate power, provide a feasible and cost-effective relining method, and minimize Project-related nuisances to the extent feasible. The proposed Project, therefore, is considered to be the environmentally superior alternative.

## Chapter 7.0

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## 7.0 REFERENCES

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## Chapter 8.0

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**California Environmental Quality Act: Notice of Determination**

To: ☒ **Office of Planning and Research**  
1400 Tenth Street, Room 212  
Sacramento, CA 95814

From: **The Metropolitan Water District of Southern California**  
P.O. Box 54153  
Los Angeles, CA 90054-0153

*Subject:*  
**Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.**

**Project Title:** **Etiwanda Pipeline North Relining Project, SCH#2014081047**

State Clearinghouse Number	Lead Agency/Applicant Contact Person	Area Code/Telephone/Extension
2014081047	The Metropolitan Water District of Southern California Wendy Picht	(213) 217-7173

**Project Location** (include county): The Metropolitan Water District of Southern California (Metropolitan) Etiwanda Pipeline North, which traverses in a northeast to southwest direction, with the northernmost portion of the alignment located approximately 0.3 mile east of Lytle Creek Road and approximately 0.5 mile north of Summit Avenue in the city of Fontana. The southern terminus of the Project area is just north of Foothill Boulevard, approximately 0.2 mile west of East Street in the city of Rancho Cucamonga. The Project is located within San Bernardino County (see attached map).

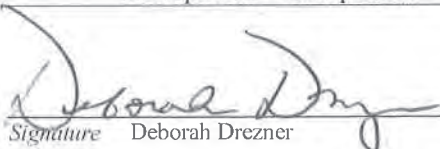
**Project Description:** Metropolitan has prepared an Environmental Impact Report (EIR) for the relining of the Etiwanda Pipeline North in compliance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. The project, as described in the EIR, would remove the existing interior mortar lining, much of which has delaminated from the pipe, and recoat the pipe with a new lining to prevent further corrosion.

Metropolitan, acting as the Lead Agency/Applicant under CEQA, certified an Environmental Impact Report for the "Etiwanda Pipeline North Relining Project" on June 09, 2015.

This is to advise that The Metropolitan Water District of Southern California as the **Lead Agency** under CEQA has reviewed and considered the above-described project and has adopted the following determinations regarding the above-described project:

1. The project [☒will ☐will not] have a significant effect on the environment.
2. ☒ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒were ☐were not] made a condition of the approval of the project.
4. A Statement of Overriding Considerations (SOC) [☒was ☐was not] adopted for this project.
5. A Mitigation Monitoring Report or Monitoring Plan (MMRP) [☒was ☐was not] adopted for this project.
6. Findings [☒were ☐were not] made pursuant to the provisions of CEQA.

The certified Environmental Impact Report, responses to comments, SOC, MMRP, Findings, and related CEQA documentation are on file at Metropolitan's headquarters at 700 North Alameda Street, Los Angeles, CA 90012.

  
Signature Deborah Drezner

Interim Manager,  
Environmental Planning Team  
Title

June 10, 2015

Date

Date received for filing at County or OPR: \_\_\_\_\_

(EPT No. 1472)

## **ETIWANDA PIPELINE NORTH RELINING PROJECT**

### **Addendum No. 3 to the Final Environmental Impact Report**

The Metropolitan Water District of Southern California  
700 North Alameda Street  
Los Angeles, CA 90012

State Clearinghouse No. 2014081047  
Report No. 1472

March 2022

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## 1.0 BACKGROUND INFORMATION

In June 2015, the Metropolitan Water District of Southern California (Metropolitan) certified the Final Environmental Impact Report (FEIR) for the Etiwanda Pipeline North Relining Project (Project). Subsequent to certification of the FEIR and approval of the Project in June 2015, revisions to the Project have occurred. The revisions include modifications to the locations, sizes, and/or configurations of several work areas as well as contractor work and storage areas, in addition to refinements to the Project construction schedule. Changes associated with Phase 2 were addressed in Addendum No. 1, dated January 2016. Addendum No. 2, dated June 2019, was prepared to address previously proposed changes associated with Phase 3; however, the activities described in that Addendum were never implemented because Phase 3 construction was delayed. Refer to *Project Description* below for more detailed information regarding the currently proposed revisions in the Phase 3 portion of the Project, as well as additional work within the area originally addressed as Phase 1.

California Environmental Quality Act (CEQA) Guidelines Section 15164 requires either the Lead Agency or a responsible agency to prepare an Addendum to a certified Environmental Impact Report (EIR) if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent environmental document have occurred (refer to discussion below regarding conditions described in Section 15162). Section 15164(b) provides that an Addendum “may be prepared if only minor technical changes or additions are necessary.”

The purpose of this Addendum is to document that no new significant impacts, nor a substantial increase in the severity of impacts, would result from the Project as described in the FEIR and this Addendum.

### 1.1 CEQA REQUIREMENTS

An Addendum to an EIR is appropriate under CEQA Guidelines Sections 15162 and 15164 for projects where there are no substantial changes to the project, or in circumstances surrounding the project, and where the project would not have new significant impacts or substantially more severe impacts than those disclosed in the previously certified EIR. Sections 15162 and 15164 of the CEQA Guidelines state that an Addendum to a previously certified EIR can be prepared for a project if the criteria and conditions summarized below are satisfied:

- **No Substantial Project Changes.** There are no substantial changes proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
- **No Substantial Change in Circumstances.** No substantial changes have occurred with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.



- **No New Information of Substantial Importance.** There is no new information of substantial importance, which was not known or could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, which shows any of the following: the project will have one or more significant effects not discussed in the previous EIR; significant effects previously examined will be substantially more severe than shown in the previous EIR; mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or mitigation measures or alternatives which are considerably different from those analyzed in the EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

An Addendum need not be circulated for public review but can be included in or attached to the certified EIR. The decision-making body shall consider the Addendum with the certified EIR prior to making a decision on the project.

None of the conditions identified in CEQA Guidelines Section 15162(a) would occur because:

- a) The revisions to the Project evaluated in the FEIR, as described in this Addendum, are minor in nature and would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects. The revisions include modifications to the locations, sizes, and/or configurations of several Project activity and contractor work and storage areas, as well as refinements to the Project construction schedule. These revisions to the Project would not result in any new significant environmental impacts or substantial increase in the severity of previously identified significant impacts (Table 1, *Summary of Impacts Associated with Etiwanda Pipeline North Relining Project*; refer to the Environmental Analysis section for details regarding the impacts associated with the Project revisions).
- b) Circumstances and existing conditions surrounding the Project have not materially changed from those described in the FEIR certified in June 2015. Existing conditions on and surrounding the Project site generally remain as described in the FEIR. Some additional disturbance (e.g., construction of a parking lot on private property, unrelated to the Project or other Metropolitan activities) has occurred within the study area, which would decrease, rather than increase, potential impacts associated with the Project. Additional residential development has also occurred at the northern end of the study area, at a similar or greater distance from project activities as the previously existing residences. Therefore, changes that have occurred would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
- c) There is no new information of substantial importance. There is no information available that indicates that the Project would result in significant effects that were not addressed in the previous EIR or a substantial increase in the severity of previously identified significant effects; or that mitigation measures or alternatives are available and feasible that would substantially reduce one or more significant effects on the environment.

**Table 1**  
**SUMMARY OF IMPACTS ASSOCIATED WITH PROJECT REVISIONS TO THE**  
**ETIWANDA PIPELINE NORTH RELINING PROJECT**

Impact	Final Environmental Impact Report (FEIR)	Addendum	New Significant or Substantial Increase in Severity?	Justification
<i>Air Quality</i>				
Conflict with Applicable Air Quality Plans	The Project will not exceed the assumptions in the Air Quality Management Plan; however, Project emissions will exceed regional criteria pollutant thresholds established by the South Coast Air Quality Management District (SCAQMD). These impacts will be reduced by mitigation measures <b>AIR-1</b> through <b>AIR-3</b> , but will remain significant.	The proposed Project revisions would reduce the extent of excavation and associated heavy equipment use, which would incrementally reduce air pollutant emissions.	No	Impacts are incrementally reduced as compared to the Project as analyzed in the FEIR.
Conformance to Air Quality Standards	Project emissions will exceed regional criteria pollutant thresholds established by the SCAQMD for emissions of volatile organic compounds (VOCs), nitrogen oxides (NO <sub>x</sub> ), and particulate matter that is 2.5 microns or smaller (PM <sub>2.5</sub> ). Project-related emissions will also exceed SCAQMD's localized criteria pollutant thresholds for emissions of NO <sub>x</sub> , particulate matter that is 10 microns or smaller (PM <sub>10</sub> ), and PM <sub>2.5</sub> . These impacts will be reduced by mitigation measures <b>AIR-1</b> through <b>AIR-3</b> , but will remain significant.	The proposed Project revisions would reduce the extent of excavation and associated heavy equipment use, which would incrementally reduce air pollutant emissions.	No	Impacts are incrementally reduced as compared to the Project as analyzed in the FEIR.

Impact	Final Environmental Impact Report (FEIR)	Addendum	New Significant or Substantial Increase in Severity?	Justification
<i>Air Quality (cont.)</i>				
Cumulatively Considerable Net Increase in Criteria Pollutants	The Project will result in regional and localized exceedances, as discussed above, which will be potentially cumulatively considerable. These impacts will be reduced by mitigation measures <b>AIR-1</b> through <b>AIR-3</b> , but will remain significant.	The proposed Project revisions would reduce the extent of excavation and associated heavy equipment use, which would incrementally reduce air pollutant emissions.	No	Impacts are incrementally reduced as compared to the Project as analyzed in the FEIR.
Expose Sensitive Receptors to Pollutants	Project-related local emissions of criteria pollutants and toxic air contaminants will result in potentially significant health risks to nearby residents, schools, and off-site workers. These impacts will be reduced by mitigation measures <b>AIR-1</b> through <b>AIR-3</b> , but local emissions will remain significant.	The proposed Project revisions would reduce the extent of excavation and associated heavy equipment use. These revisions would incrementally reduce air pollutant emissions.	No	Impacts are incrementally reduced as compared to the Project as analyzed in the FEIR.
Create Objectionable Odors	Project-related odors associated with equipment operations will be temporary and will not be objectionable to a substantial number of people. Impacts will be less than significant.	The proposed Project revisions would reduce the extent of excavation and associated heavy equipment use. These revisions would incrementally reduce associated odors.	No	Impacts are incrementally reduced as compared to the Project as analyzed in the FEIR.

Impact	Final Environmental Impact Report (FEIR)	Addendum	New Significant or Substantial Increase in Severity?	Justification
<i>Biological Resources</i>				
Adversely Affect Candidate, Sensitive, or Special Status Species	The Project will result in minor, temporary loss of foraging and movement areas for the San Diego jackrabbit, San Diego pocket mouse, and Los Angeles pocket mouse, as well as potential direct impacts to the San Diego pocket mouse and Los Angeles pocket mouse from ground-disturbing activities. These impacts, as well as potential impacts to nesting birds, will be less than significant.	While a portion of the alignment is now considered occupied by burrowing owl, potential impacts to burrowing owl would be avoided through Metropolitan's standard avoidance and minimization measures. The proposed Project revisions would not place Project activities closer to any other known sensitive status species or occupied habitat.	No	There is no change in the impact as identified in the FEIR.
Adversely Affect Sensitive Natural Communities	The Project will temporarily impact isolated habitat fragments of disturbed Riversidean upland sage scrub within the existing right-of-way. These impacts will be less than significant.	The proposed Project revisions would reduce impacts to sensitive vegetation communities; these impacts would be less than significant.	No	Impacts are incrementally reduced as compared to the Project as analyzed in the FEIR.
Conflict with Local Policies or Ordinances Protecting Biological Resources	The Project will not conflict with local policies or ordinances protecting biological resources.	The proposed Project revisions would not result in potential conflicts with local policies or ordinances protecting biological resources.	No	There is no change in the impact as identified in the FEIR.



Impact	Final Environmental Impact Report (FEIR)	Addendum	New Significant or Substantial Increase in Severity?	Justification
<i>Greenhouse Gas Emissions</i>				
Generate GHG Emissions that may Result in a Significant Impact	The Project will not generate GHG emissions that will result in a significant impact on the environment.	The proposed Project revisions would reduce the extent of excavation and associated heavy equipment use, which would incrementally reduce GHG emissions.	No	Impacts are incrementally reduced as compared to the Project as analyzed in the FEIR.
Conflict with Plans for Reducing GHG Emissions	The Project will not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions.	The proposed Project revisions would not result in potential conflicts with applicable GHG reduction measures.	No	There is no change in the impact as identified in the FEIR.
<i>Land Use and Planning</i>				
Conflict with applicable land use plan, policy, or regulation.	The Project will temporarily conflict with noise standards in the General Plans of cities of Fontana and Rancho Cucamonga. <sup>1</sup>	The proposed Project revisions would reduce the extent of excavation and associated heavy equipment use, which would incrementally reduce noise generation and associated land use impacts.	No	Impacts are incrementally reduced as compared to the Project as analyzed in the FEIR.

<sup>1</sup> California Government Code Section 53091 exempts Metropolitan, as a regional public water purveyor and utility, from local zoning and building ordinances, including local general plans. This exemption applies to the Etiwanda Pipeline North as a water transmission pipeline and a direct component of Metropolitan's treatment, storage, and transmission system. Nonetheless, Metropolitan intends to voluntarily work with the local communities to reduce impacts due to conflicts with the local plans.

Impact	Final Environmental Impact Report (FEIR)	Addendum	New Significant or Substantial Increase in Severity?	Justification
<i>Noise</i>				
Generate Noise Levels in Excess of Standards	The Project will include 24-hour construction and result in noise levels exceeding the maximum allowable noise levels at adjacent residences during both daytime and nighttime hours. These impacts will be reduced by mitigation measures <b>NOI-1</b> through <b>NOI-6</b> but will remain significant.	The proposed Project revisions would reduce the extent of excavation and associated heavy equipment use, which would incrementally reduce noise generation.	No	Impacts are incrementally reduced as compared to the Project as analyzed in the FEIR.
Increase Temporary Ambient Noise Levels	During Project-related activities, the Project will result in a temporary increase in ambient noise levels at nearby residences. These impacts will be reduced by mitigation measures <b>NOI-1</b> through <b>NOI-6</b> but will remain significant.	The proposed Project revisions would reduce the extent of excavation and associated heavy equipment use, which would incrementally reduce noise generation.	No	Impacts are incrementally reduced as compared to the Project as analyzed in the FEIR.
Result in Excessive Ground-borne Vibration or Noise Levels	The Project will cause some annoyance to nearby residences due to ground-borne vibration or noise levels; however, the Project will not result in excessive ground-borne vibration or noise levels such that structural damage will occur. Additionally, the Project is not near vibration-sensitive uses. Impacts will be less than significant.	The proposed Project revisions would reduce the extent of excavation and associated heavy equipment use, which would incrementally reduce vibration and ground-borne noise.	No	Impacts are incrementally reduced as compared to the Project as analyzed in the FEIR.

Impact	Final Environmental Impact Report (FEIR)	Addendum	New Significant or Substantial Increase in Severity?	Justification
<i>Transportation and Traffic</i>				
Conflict with a Circulation System Plan, Ordinance, or Policy	The Project will contribute more than 50 peak hour trips to an intersection currently operating at unacceptable level of service (LOS). The Project will not result in conflicts with other applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system. Impacts will be reduced to less than significant levels by mitigation measure <b>TR-1</b> .	The proposed Project revisions would not alter the amount of traffic generated, locations at which access would be taken from the public street system, or traffic distribution.	No	There is no change in the impact as identified in the FEIR.
Conflict with a Congestion Management Program	Temporary trips associated with the Project will not result in a conflict with the applicable Congestion Management Program.	The proposed Project revisions would not result in potential conflicts with the applicable Congestion Management Program.	No	There is no change in the impact as identified in the FEIR.

## **2.0 PROJECT DESCRIPTION**

This section describes the Project location of the work identified in the FEIR, the Project as analyzed in the FEIR, and revisions to the Project description since certification of the FEIR.

### **2.1 PROJECT LOCATION**

The Project, as described in the FEIR, consisted of relining approximately 4.4 miles of Etiwanda Pipeline North in the city of Fontana, beginning at Metropolitan's Rialto Pipeline and ending at East Avenue, and approximately 0.4 mile of pipeline in the city of Rancho Cucamonga, continuing from East Avenue and ending just north of Foothill Boulevard (Figures 1 and 2). The pipeline parallels Interstate 15 (I-15), approximately 0.4 mile east of I-15, and crosses under State Route (SR) 210. The alignment traverses in a northeast to southwest direction, with the northernmost portion of the alignment located approximately 0.3 mile east of Lytle Creek Road and approximately 0.5 mile north of Summit Avenue in the city of Fontana. The southern terminus of the Project area was just north of Foothill Boulevard, approximately 0.2 mile west of East Street in the city of Rancho Cucamonga. The revised project area extends southwest to the Etiwanda Hydroelectric Plant Control Facility.

### **2.2 PROJECT DESCRIPTION AS DESCRIBED IN CERTIFIED FEIR**

To prevent further corrosion of the steel pipe in the approximately 5-mile segment of Etiwanda Pipeline North, the Project will remove the existing interior mortar lining, much of which has eroded and delaminated, and recoat the pipe with a new lining.

Except for excavation and staging, Project activities will mostly occur below-ground. Access to the pipe for relining activities will be accomplished via rollouts (where a 20-foot segment of pipe will be removed), existing manholes, existing buried outlets (similar to manholes but without surface structures), and new buried outlets. The assumed excavation areas for these access points are as follows:

- Rollouts – 70 feet by 70 feet
- Existing manholes – 10 feet by 10 feet
- Existing buried outlets – 20 feet by 30 feet
- New buried outlets – 30 feet by 40 feet

While the remainder of the right-of-way and staging areas may be used for access and material storage, no subsurface disturbance of the existing ground is anticipated. Surface disturbance could occur in the remainder of the right-of-way from materials staging and grubbing of vegetation. Project activities will not occur within storm drainage courses, public roadways, or public rights-of-way.

Primary activities will include the following: site preparation; preparation of access points into the pipeline; pipeline shutdown and removal of water; surface preparation of the interior of the pipe surfaces (including removal of the existing lining); application of the new liner; and closing access points and site completion. Following the completion of pipeline relining, the Project will



not require operations or maintenance personnel beyond those already required for the existing pipeline.

The Project activities were expected to begin in 2015 and occur during pipeline shutdown periods. The number and duration of these shutdown periods are determined by water demands and available supplies. Up to three phases are required, each lasting approximately one year with each shutdown period lasting approximately six to nine months. Although the Project work schedule will vary throughout the duration of Project activities, during the pipeline shutdown period, work could be performed up to 24 hours per day and 7 days per week. Refer to **Chapter 2** of the FEIR for additional details regarding the Project.

### **2.3 NECESSARY REVISIONS TO THE PROJECT SINCE CERTIFICATION OF THE FEIR**

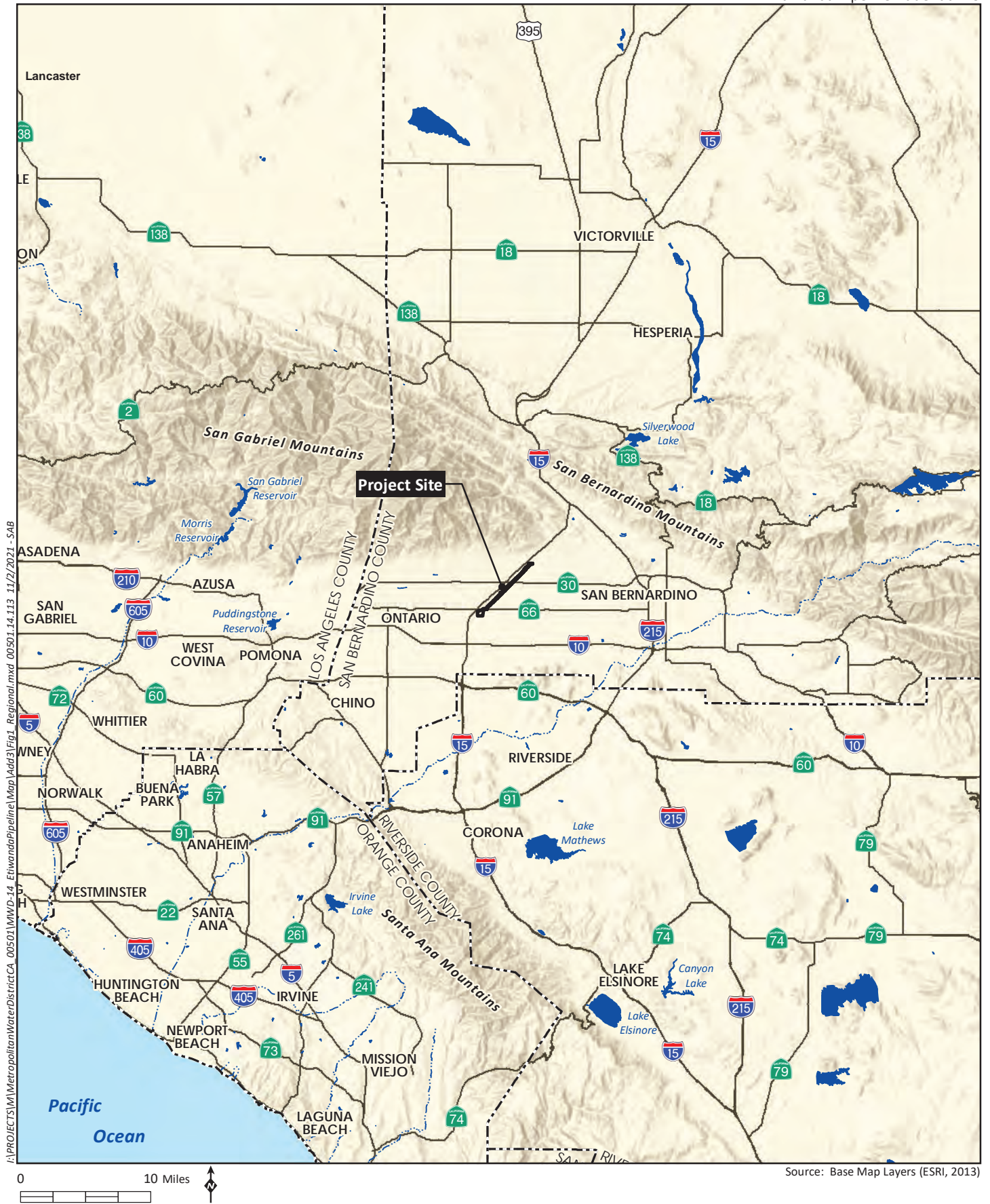
Initial work on an approximately 0.4-mile segment of the pipeline was completed in 2014 as part of a pilot phase (Phase 1), prior to preparation of the EIR. As described in the FEIR, the Project is divided into two phases, referred to as Phases 2 and 3. This Addendum addresses proposed revisions to Phase 3 of the Project, which extends from approximately Portenza Drive to Grizzly Way (Stations 1+54 to 62+88), and from Cherry Avenue to South Heritage Circle (Stations 126+08 to 192+95), as well as additional work within the original Phase 1 area, now known as Reach 5, from north of Foothill Boulevard to the Etiwanda Hydroelectric Plant Control Facility (Stations 199+46 to 283+21) (Figure 2). Additionally, a small segment of pipeline that was previously addressed in Phase 2 would be subject to minor additional damage repairs (Stations 199+46 to 216+57).

Phase 2 construction activities began in May 2016 and were completed in February 2017. Phase 3 activities are anticipated to occur between October 2022 and July 2023.

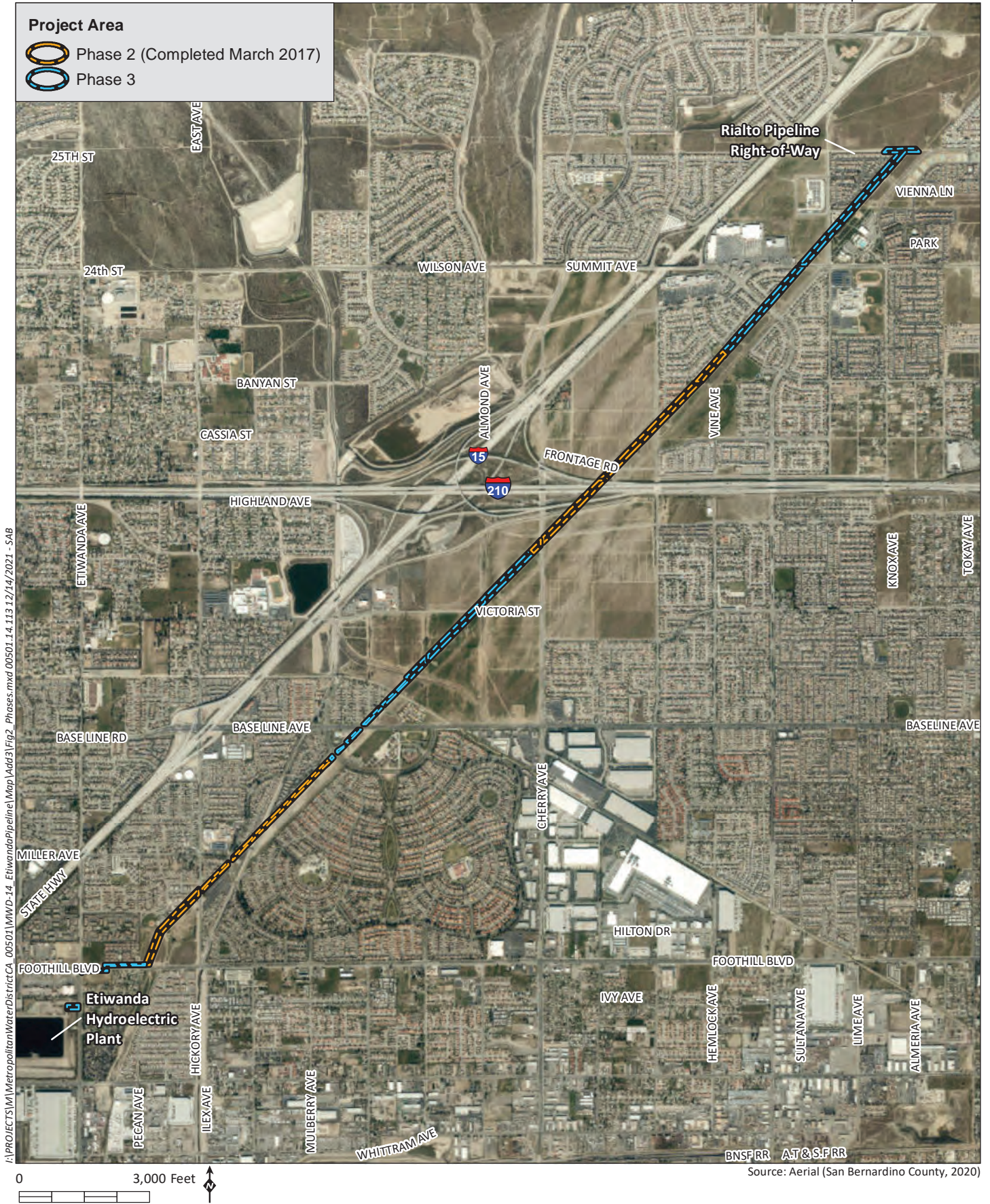
In addition to the Metropolitan right-of-way and specified Contractor Work and Storage Areas, additional Contractor Work and Storage Areas (used for materials storage, parking, and access) may occur along the length of the right-of-way, for a distance extending up to 100 feet to the southeast of the right-of-way. Existing public roadways and drainage channels would be excluded from such potential uses.

Proposed revisions to pipeline segments are as follows (the dimensions of disturbance areas are approximate):

- Approximately 1,000 feet of pipe in Reach 5 where experimental liner had previously been applied would be relined. Access to this pipeline segment would occur through two existing manholes (Stations 268+22.96 and 283+71.15) and one existing buried outlet (Station 282+46; with a 30-foot by 30-foot disturbance area) (Figure 3b).
- One previously proposed buried outlet (with a 30-foot by 40-foot disturbance area) previously proposed for access use would be removed. Instead, a rollout (where a 20-foot segment of pipe would be removed within a 70-foot by 70-foot disturbance area) would be installed southwest of Beech Avenue (Figure 3j, moved approximately 300 feet southwest, from Station 47+00.01 to Station 50+00).









- One previously proposed rollout would be removed. Instead, access through an existing service connection (with a 30-foot by 30-foot disturbance area) located northeast of the East Etiwanda Creek Flood Control Channel is proposed (Figure 3d, moved approximately 150 feet northeast, from Station 238+11 to Station 211+47).
- Previously identified rollouts would be removed and replaced with buried outlets at three locations: (1) west of Cherry Avenue (Figure 3g, Station 125+96); (2) east of Rosena Park West (Figure 3i, Station 63+00); and (3) at the northern end of the alignment (Figure 3k, Station 1+80).
- A previously identified rollout would be removed and proposed access only through an existing manhole north of Victoria Street (Figure 3f, Station 141+00.37).
- Previously identified rollouts are no longer proposed at four locations: (1) south of Heritage Circle (Figure 3e, Station 193+07); (2) northeast of Del Norte Street (Figure 3e, Station 168+00); (3) north of the Flood Control Channel (Figure 3f, Station 162+00); and (4) south of Summit Avenue (Figure 3j, Station 36+83.27).
- Excavation (previously assumed to require a 10-foot by 10-foot disturbance area) would be up to a 20-foot by 10-foot disturbance area around existing manholes.
- Previously proposed buried outlets are no longer proposed at two locations: (1) southwest of Grant Way (Figure 3d, Station 200+23); and (2) south of Vienna Lane (Figure 3k, Station 8+76).
- Existing buried outlets are no longer proposed for access at five locations: (1) south of Victoria Street (Figure 3f, Station 157+24.93); (2) south of Cherry Avenue (Figure 3g, Station 134+85.59); (3) north of Rosena Park West (Figure 3i, Station 57+14.51); (4) south of Summit Avenue (Figure 3j, Station 42); and (5) south of Fontana North Skate Park (Figure 3j, Station 25+38).
- Previously proposed manhole access is no longer proposed at two locations: (1) south of Baseline Avenue (Figure 3e, Station 185+68); and (2) at the north end of the alignment (Figure 3k, Station 1+21.67).
- The locations of three proposed buried outlets would be relocated: (1) east of Wake Court (Figure 3e, moved approximately 460 feet northeast from Station 173+60 to Station 169+00); (2) south of Victoria Street (Figure 3f, approximately 324 feet northeast from Station 155+24 to Station 152+00); and (3) north of (farther from) Fontana North Skate Park (Figure 3k, approximately 273 feet northeast from Station 19+63 to Station 16+90).
- The location of a proposed rollout west of Lytle Creek Road would be relocated approximately 160 feet southwest (Figure 3j, from Station 29+00 to Station 30+60).
- A number of previously proposed Contractor Work and Storage Areas would no longer be used (Figures 3d through 3k).



- One new permanent easement and several new temporary easements are proposed (Figures 3e, 3f, 3i, 3j, and 3k).
- Three new Contractor Work and Storage Areas within the Etiwanda Hydroelectric Plant Control Facility would be used (Figures 3a and 3b; the majority of which were analyzed in Addendum No. 1).

## **2.4 PREVIOUSLY DISCLOSED IMPACTS**

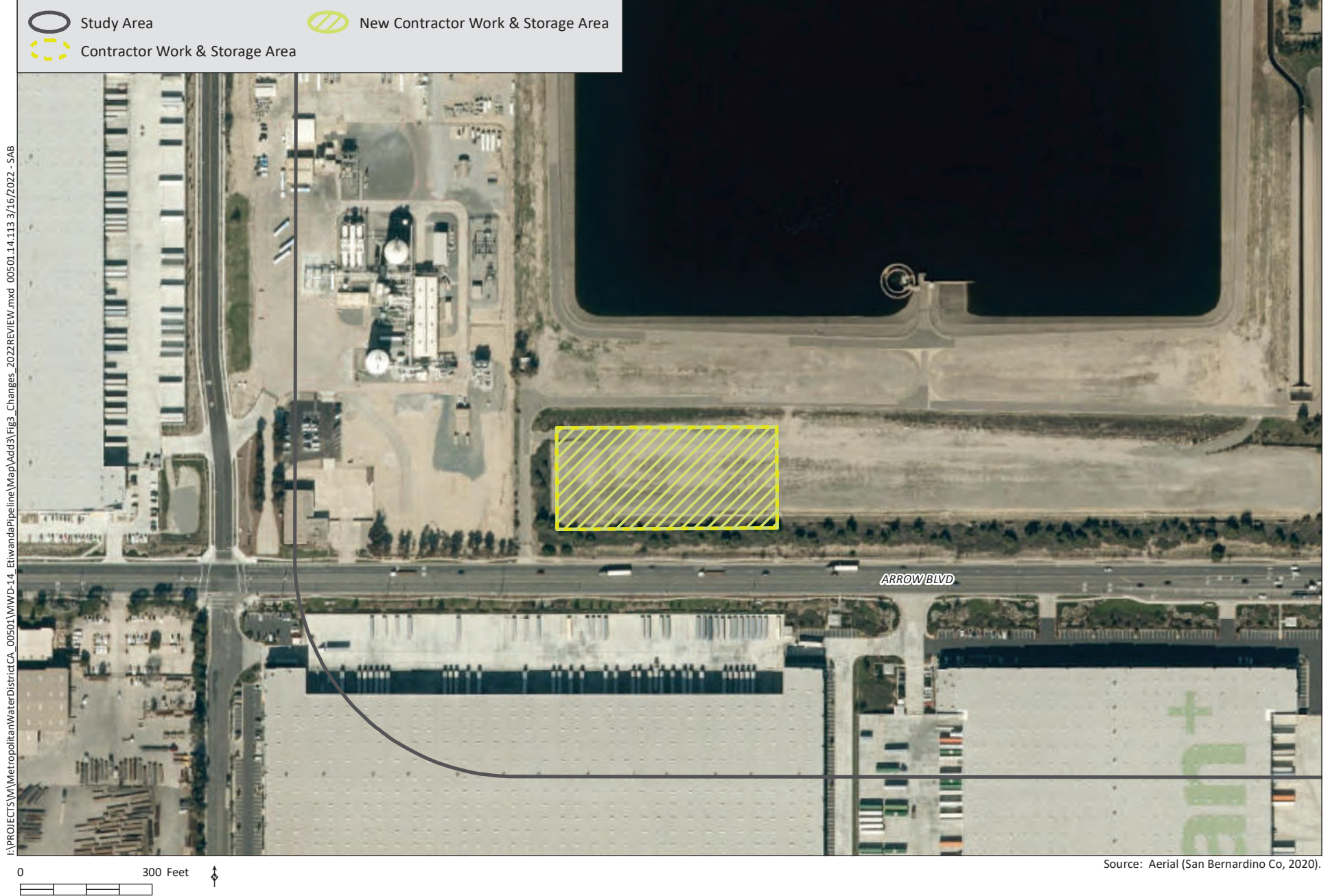
As disclosed in the FEIR, the Project will result in significant and unmitigable (to less than significant levels) impacts on air quality and noise. It also will result in significant but mitigable (to less than significant levels) impacts on traffic. Impacts associated with biological resources, land use and planning, and greenhouse gas (GHG) emissions were analyzed in detail in the FEIR and determined to have a less than significant impact, with no mitigation required. The Project design includes a number of standard construction measures to avoid or reduce potential impacts on the environment and residents in the area, in addition to the mitigation recommended in the FEIR. Aesthetics, agricultural resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, population and housing, public services, recreation, and utilities and service systems were identified during the initial environmental review process (prior to the preparation of the EIR) as having no, or less-than-significant, Project-related impacts, and thus, were not examined in detail in the EIR. Proposed Project revisions would not result in changes to those conclusions; therefore, the impact categories not examined in the FEIR also are not further examined in this Addendum. Also, because analyses of energy, tribal cultural resources, vehicle miles traveled, and wildfire were not required when the FEIR was certified, discussion of these topics is not included in this Addendum.

## **3.0 ENVIRONMENTAL ANALYSIS**

### **3.1 AIR QUALITY**

#### **3.1.1 Summary of Air Quality Impacts from FEIR**

Project activities will result in temporary emissions through use of heavy equipment in the Project area as well as vehicle trips to the Project area from commuting construction workers and from delivery/haul trucks. The Project also will generate fugitive dust during grading activities. Maximum daily regional emissions will exceed the SCAQMD thresholds for volatile organic compounds (VOCs), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), and particulate matter that is 2.5 microns or smaller (PM<sub>2.5</sub>). As such, impacts related to maximum daily regional emissions are potentially significant. Maximum daily local emissions will exceed the SCAQMD thresholds for NO<sub>x</sub>, particulate matter that is 10 microns or smaller (PM<sub>10</sub>), and PM<sub>2.5</sub>, resulting in potentially significant impacts related to maximum daily local emissions. Project-related exceedances of SCAQMD thresholds established for the purposes of maintaining regional air quality could result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, and/or delay timely attainment of air quality standards, resulting in a potentially significant impact related to consistency with applicable air quality plans. Similarly, Project-related pollutant emissions are potentially cumulatively considerable,



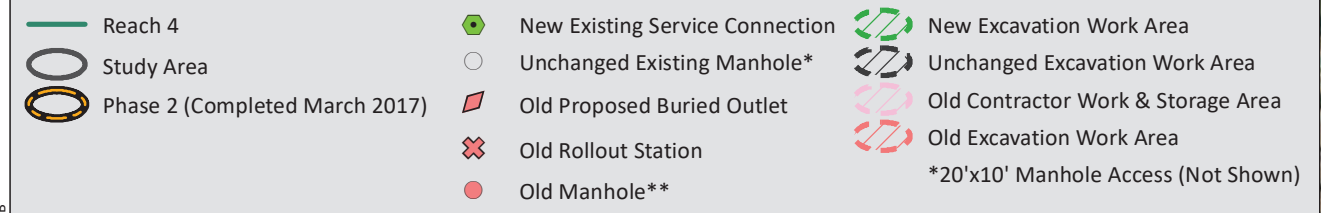








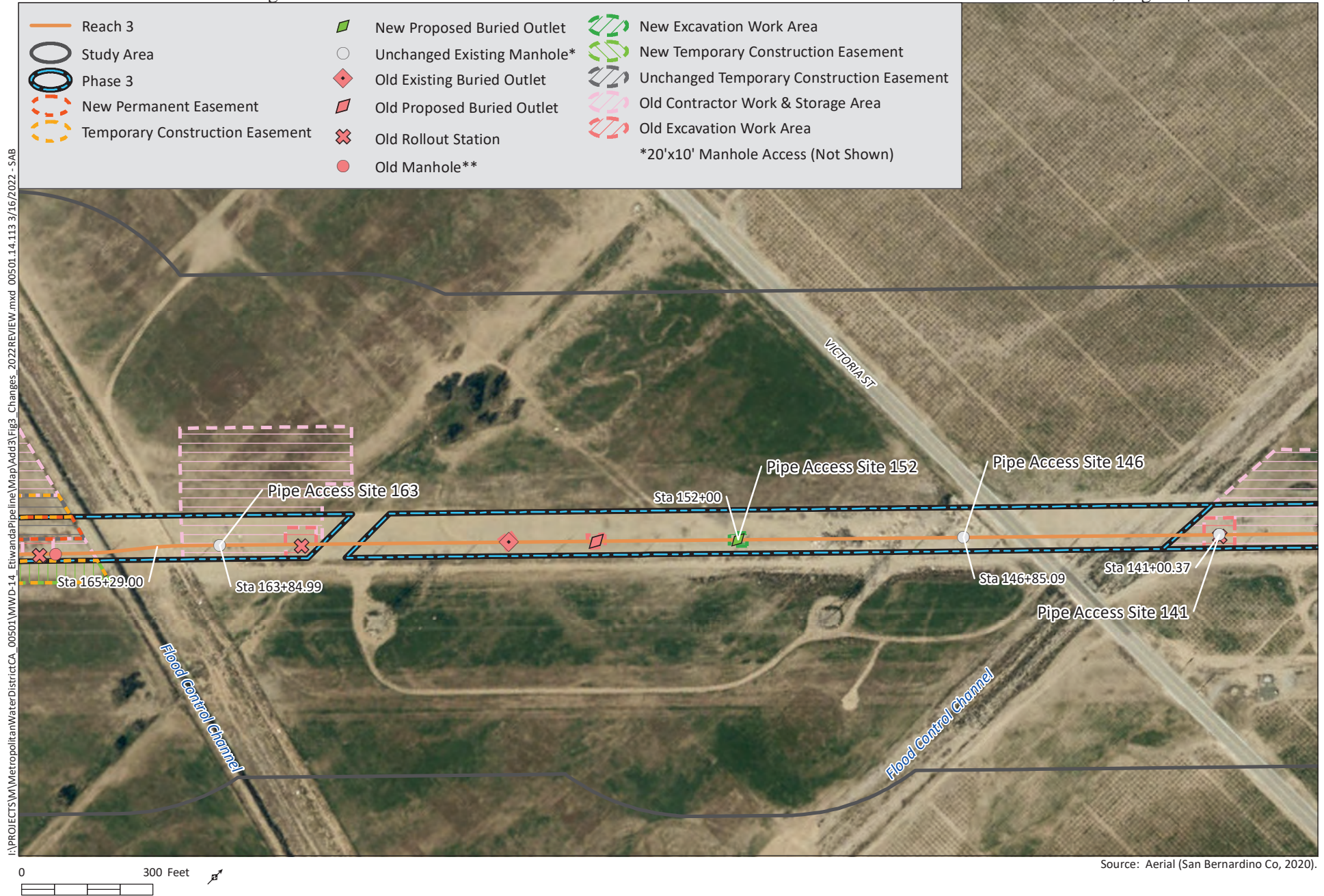




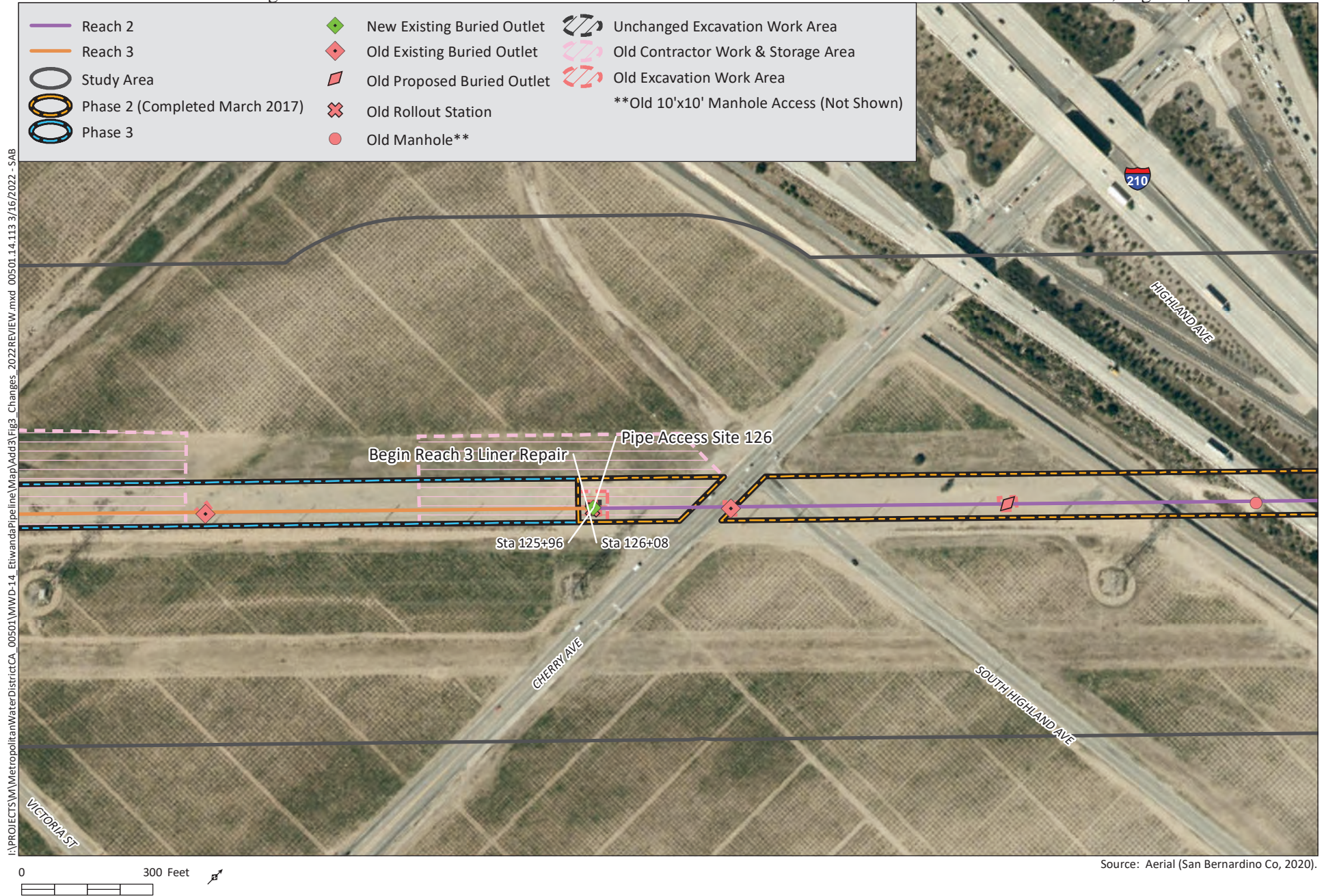












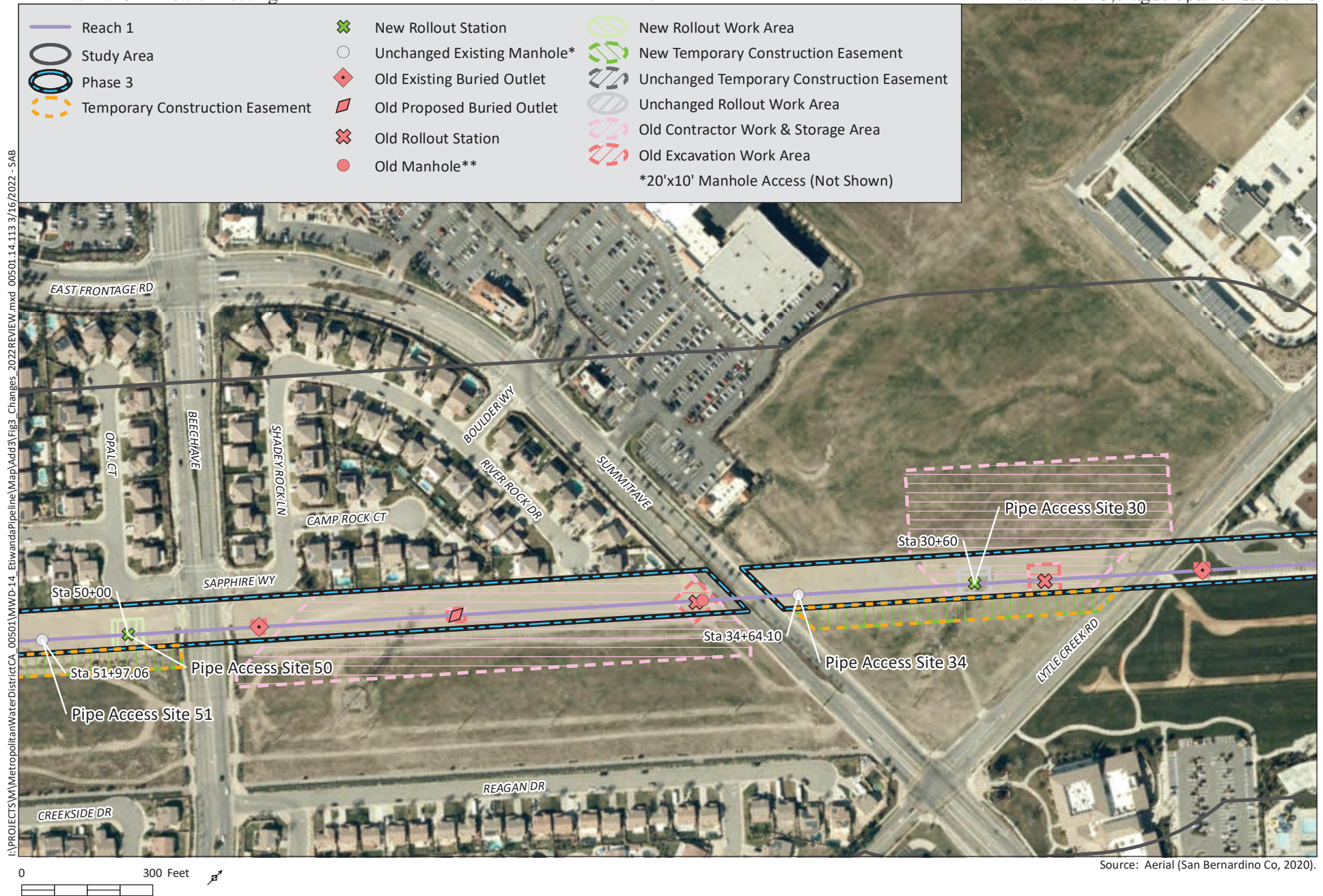
















and the impact is potentially significant. The Project also will result in potentially significant impacts due to exposure of sensitive receptors (including workers, residents, and schools) to localized criteria pollutant emissions and toxic air contaminants. Impacts related to odors are less than significant as they are short-term and will not be objectionable to a substantial number of people.

Mitigation measures AIR-1 through AIR-3 identified in the FEIR will reduce the identified significant impacts. The measures include ensuring that all off-road diesel-powered construction equipment greater than 50 horsepower (hp) will meet Tier 4 emission standards (AIR-1), using 2010 model year or newer diesel haul trucks (AIR-2), and using electricity from power poles instead of temporary diesel or gasoline-powered generators and air compressors to reduce the associated emissions, where power poles are within 100 feet of equipment sites and feasible connections are available (AIR-3). Implementation of mitigation measures AIR-1 and AIR-2 will reduce emissions of VOC, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Mitigation measure AIR-3 is to be implemented as feasible and will further reduce Project-related emissions; however, because the extent of this measure's feasibility is unknown at this time, reductions were not quantified. Although mitigation measures AIR-1 and AIR-2 will reduce emissions, regional emissions of VOC, CO, and NO<sub>x</sub> as well as local emissions of PM<sub>2.5</sub> will still exceed their respective SCAQMD thresholds of significance. Project-related impacts to air quality will, therefore, be significant and unmitigable. Refer to **Sections 3.1.3 through 3.1.5** of the FEIR for more information regarding the air quality impact analysis, applicable mitigation measures, and the resulting conclusions.

### **3.1.2 Air Quality Impacts Associated with Revised Project**

The proposed Project revisions include elimination of several previously planned excavation areas as well as reduction in the amount of excavation that would be required at several other locations. These reductions would outweigh the locations at which additional excavation is proposed. Overall, the activity area would reduce the extent of heavy equipment use and fugitive dust generation, which would incrementally reduce air pollutant emissions. The revisions to the Contractor Work and Storage Areas/easements would not change the generation or dissemination of air pollutants. The emission factors associated with construction equipment and worker vehicle emissions also decrease over time as a result of additional regulations and improved technologies, incrementally reducing the emissions that would be associated with the final phase of construction. The revisions would not result in a new significant impact, nor a substantial increase in the severity of the impacts described in the FEIR. However, the reductions would not be sufficient to reduce impacts to less than significant levels. As analyzed in the FEIR, the implementation of mitigation measures AIR-1 through AIR-3 will reduce impacts, but not to less than significant levels. There are no substantial changes to the Project or changes in circumstances that would require major revisions to the FEIR due to the involvement of new significant air quality impacts or an increase in the severity of previously identified air quality impacts.

### **3.1.3 Air Quality Mitigation Measures**

Mitigation Measures AIR-1 through AIR-3 contained in the FEIR would remain applicable with the proposed Project revisions; no revisions to Project mitigation measures are necessary.



## **3.2 BIOLOGICAL RESOURCES**

### **3.2.1 Summary of Biological Resources Impacts from FEIR**

The Project will temporarily impact 2.6 acres of disturbed Riversidean upland sage scrub in the Contractor Work and Storage Areas and excavation areas. This community is highly disturbed, low in quality, and provides limited biological function and value. Temporary impacts to this community are less than significant. Sensitive native vegetation outside the areas identified for direct disturbance but within the Project area (totaling up to an additional 2.4 acres of Riversidean upland sage scrub) may be subject to disturbance by vehicle access and equipment storage as necessary for Project activities, or by routine vegetation maintenance. Because no permanent removal of habitat is necessary to accommodate temporary access and storage in these areas, vegetation in these communities is expected to recover after Project completion to a community that is functionally equivalent to the limited, disturbed community that currently exists. These areas are isolated habitat fragments in disturbed condition and the potential temporary impact are less than significant.

No significant impacts to sensitive plant species are expected. Three sensitive mammal species were observed within portions of the Project area: San Diego black-tailed jackrabbit, San Diego pocket mouse, and Los Angeles pocket mouse. Project impacts to San Diego jackrabbit are restricted to minor, temporary loss of foraging and movement areas, and are less than significant. Given the low number and density of both San Diego pocket mouse and Los Angeles pocket mouse in the Project area, and the small portion of the Project area that is directly impacted by Project activities, the potential for direct impact to either species is low and potential impacts will not jeopardize the survival of either species. Impacts to these species are less than significant. The study area contains vegetation and structures that provide suitable nesting habitat for common birds, including raptors, protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. The Project could result in the removal or trimming of vegetation, and elevated noise levels during the general bird nesting season (February 1 through September 15) and, therefore, could result in impacts to nesting birds. If activities are proposed to occur during the general bird nesting season of February 1 through September 15, Metropolitan will retain a qualified biologist to ensure that nesting birds, including burrowing owls, are protected in compliance with the MBTA and California Fish and Game Code. This will ensure that impacts to nesting birds will be less than significant. No direct impacts to burrowing owl are expected, and the potential for indirect impacts outside the Project area is considered to be low. The low likelihood of burrowing owl presence in the areas surrounding the Project, and the implementation of avoidance and minimization measures should any be detected during pre-activity nesting bird surveys, will ensure that the Project's impacts to burrowing owl are less than significant.

As impacts to biological resources are less than significant, no mitigation was required. Refer to **Sections 3.2.3 and 3.2.5** of the FEIR for more information regarding the biological resources impact analysis and the resulting conclusions.



### **3.2.2 Biological Impacts Associated with Revised Project**

The proposed Project revisions would occur primarily in areas comprised of disturbed habitat or developed areas, along with small, isolated areas of disturbed/coastal sage scrub. These areas total 0.58 acre of poor-quality habitat. Additionally, this habitat is best characterized in accordance with updated vegetation community classification (Manual of California Vegetation [CNPS 2021b]) as California buckwheat scrub, which is not considered sensitive. Thus, impacts to this vegetation community would be less than what was previously anticipated and less than significant. While a portion of the alignment is now considered occupied by burrowing owl, implementation of Metropolitan Standard Operating Procedures for avoidance of impacts to burrowing owl will ensure that the Project's impacts to the species will remain less than significant.

The revisions would not result in a new significant impact, nor a substantial increase in the severity of the impacts described in the FEIR. As analyzed in the FEIR, impacts to biological resources will be less than significant. There are no substantial changes to the Project or changes in circumstances that would require major revisions to the FEIR due to the involvement of new significant biological impacts or an increase in the severity of previously identified biological impacts. No significant biological impacts would occur.

### **3.2.3 Biological Resources Mitigation Measures**

As described in the FEIR, because impacts to biological resources will be less than significant, no mitigation is required.

## **3.3 GREENHOUSE GAS EMISSIONS**

### **3.3.1 Summary of Greenhouse Gas Emissions Impacts from FEIR**

Project activities will result in GHG emissions through the use of heavy equipment in the Project area, as well as from vehicle trips to and from the Project area by commuting workers and delivery/haul trucks. The amortized Project emissions are less than the identified significance threshold and, therefore, will not be cumulatively considerable. Implementation of the Project also will not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. As impacts related to GHG emissions are less than significant, no mitigation was required. Refer to **Sections 3.3.3 and 3.3.5** of the FEIR for more information regarding the GHG emissions impact analysis and the resulting conclusions.

### **3.3.2 Greenhouse Gas Emissions Impacts Associated with Revised Project**

The proposed Project revisions include elimination of several previously planned excavation areas as well as reduction in the amount of excavation that would be required at several other locations. These reductions would outweigh the locations at which additional excavation is proposed. The activity area revisions would reduce the extent of excavation and associated heavy equipment use, which would incrementally reduce GHG emissions. The revisions to the Contractor Work and Storage Areas/easements would not change the generation of GHGs. The revisions would not result in a new significant impact, nor a substantial increase in the severity of the impacts described in the FEIR. The revised Project GHG emissions would still be below

the screening threshold. The proposed revisions would not alter the GHG significance conclusion of the FEIR. There are no substantial changes to the Project or changes in circumstances that would require major revisions to the FEIR due to the involvement of new significant GHG impact or a substantial increase in the severity of previously identified significant effects. No significant GHG impacts would occur.

### **3.3.3 Greenhouse Gas Mitigation Measures**

As described in the FEIR, because impacts related to GHG emissions will be less than significant, no mitigation is required.

## **3.4 LAND USE AND PLANNING**

### **3.4.1 Summary of Land Use and Planning Impacts from FEIR**

Project activities will not interfere with existing or future zoning. The Project is consistent with the environmental goals, policies, and actions of the City of Fontana and City of Rancho Cucamonga General Plans, except with regard to noise. Project activities will exceed the hours of construction activity operation allowed in the City of Fontana Municipal Code and will exceed City of Rancho Cucamonga Municipal Code and General Plan standards with regard to acceptable noise levels near residences (as discussed under Noise, below). Although the Project is inconsistent with noise policies in the General Plans of the cities of Fontana and Rancho Cucamonga, California Government Code Section 53091 exempts Metropolitan, and therefore the Project, from local zoning and building ordinances because the Project pertains to construction of facilities for the production, generation, storage, treatment, or transmission of water by a local agency. The short-term policy conflict represents a noise, rather than a land use, impact. Impacts to land use and planning are less than significant and, therefore, no mitigation was required. Refer to **Sections 3.4.3 and 3.4.5** of the FEIR for more information regarding the land use and planning impact analysis and the resulting conclusions.

### **3.4.2 Land Use and Planning Impacts Associated with Revised Project**

The proposed Project revisions include elimination of several previously planned excavation areas as well as reduction in the amount of excavation that would be required at several other locations. These reductions would outweigh the locations at which additional excavation is proposed. The work area revisions would reduce the extent of heavy equipment use and associated noise generation. The revisions to the Contractor Work and Storage Areas/easements would not change the amount of noise generated or the proximity of activities to sensitive receptors. The revisions would not result in a new significant impact, nor a substantial increase in the severity of the impacts described in the FEIR. However, the reductions would not be sufficient to reduce noise impacts to less than significant levels. As noted above, the short-term policy conflict represents a noise, rather than a land use, impact. There are no substantial changes to the Project or changes in circumstances that would require major revisions to the FEIR due to the involvement of new significant land use impacts or an increase in the severity of previously identified land use impacts. No significant land use impacts would occur.

### **3.4.3 Land Use and Planning Mitigation Measures**

As described in the FEIR, because impacts related to land use and planning will be less than significant, no mitigation is required.

## **3.5 NOISE**

### **3.5.1 Summary of Noise Impacts from FEIR**

Project activities will include operation of heavy equipment up to 24 hours per day and 7 days per week. In addition to exceeding the construction hours specified in the Municipal Codes, these activities will result in noise levels exceeding the maximum noise level standards at adjacent residences during both daytime and nighttime hours, which may disrupt nearby noise-sensitive receptors. Metropolitan intends to coordinate with each of the cities to establish allowable work schedules and noise levels to allow deviation from the Municipal Code provisions for daytime and nighttime noise. These work schedules and noise levels will be agreed upon both to protect the public welfare and to accommodate necessary Project construction activities. Nonetheless, the Project work hours and associated noise levels will result in the exposure of adjacent residents to noise levels in excess of established Municipal Code standards, and a significant impact will result.

Mitigation measures NOI-1 through NOI-6 identified in the FEIR will reduce the identified significant impacts. The measures include developing a noise control plan in coordination with the City of Rancho Cucamonga and the City of Fontana; conducting noise monitoring during Project activities; minimizing noise generated by Project activities; limiting hours for certain activities; controlling noise associated with pressurized air venting or leaking from specialty equipment; and controlling noise through equipment location and/or use of noise control barriers. Although these mitigation measures will decrease noise impacts to the extent feasible, the resulting noise levels even with mitigation are expected to exceed significance thresholds at some locations during some periods of Project construction. Resulting impacts will, therefore, be significant and unmitigable. Refer to **Sections 3.5.3 through 3.5.5** of the FEIR for more information regarding the noise impact analysis, applicable mitigation measures, and the resulting conclusions.

### **3.5.2 Noise Impacts Associated with Revised Project**

The proposed Project revisions include elimination of several previously planned excavation areas as well as reduction in the amount of excavation that would be required at several other locations. These reductions would outweigh the locations at which additional excavation is proposed. The Project work area revisions would reduce the extent of heavy equipment use and associated noise generation. One proposed buried outlet would be moved farther from Fontana North Skate Park, which would reduce potential noise impacts to park users. The new location would be closer to homes than the previously proposed location, but would be at a distance consistent with that of other Project features and, thus would not result in an increase in noise impacts. The revisions to the Contractor Work and Storage Areas/easements would not change the amount of noise generated or the proximity of activities to sensitive receptors. The revisions would not result in a new significant impact, nor a substantial increase in the severity of the



impacts described in the FEIR. However, the reductions would not be sufficient to reduce impacts to less than significant levels. As analyzed in the FEIR, the implementation of mitigation measures NOI-1 through NOI-6 will reduce impacts, but not to less than significant levels. There are no substantial changes to the Project or changes in circumstances that would require major revisions to the FEIR due to the involvement of new significant noise impacts or an increase in the severity of previously identified noise impacts.

### **3.5.3 Noise Mitigation Measures**

Mitigation Measures NOI-1 through NOI-6 contained in the FEIR will remain applicable with the proposed Project revisions; no revisions to Project mitigation measures are necessary.

## **3.6 TRANSPORTATION AND TRAFFIC**

### **3.6.1 Summary of Transportation and Traffic Impacts from FEIR**

The Project will generate a total of approximately 1,000 trips per day (using a “passenger car equivalent” [PCE] factor for trucks) with approximately 96 a.m. peak hour trips (7:00 to 9:00 a.m.) and 90 p.m. peak hour trips (4:00 to 6:00 p.m.). The Project will not change the LOS of intersections in the traffic study area from acceptable LOS to unacceptable LOS. The Project will, however, contribute 72 vehicle trips (PCE) during a.m. peak hours at one deficient intersection, Heritage Circle at Baseline Avenue. This impact is considered significant based on the City of Fontana’s significance criterion of 50 or more Project-related peak hour vehicle trips at intersections currently operating at unacceptable LOS. Mitigation measure TR-1 in the FEIR will reduce the identified significant impact to less than significant levels. This measure specifies that no more than 50 vehicle trips related to Project activities will use the deficient intersection during the morning peak hours. Refer to **Sections 3.6.3 through 3.6.5** of the FEIR for more information regarding the transportation and traffic impact analysis, applicable mitigation measures, and the resulting conclusions.

### **3.6.2 Transportation and Traffic Impacts Associated with Revised Project**

Although several specific locations previously identified for potential pipeline entry would no longer be used, the overall amount of activity (e.g., equipment deliveries, number of workers) associated with Project activities would not change. Therefore, the amount of traffic generated would be the same as analyzed in the FEIR. The changes in locations of excavation areas would not alter the locations at which Project traffic accesses the public roadway system or associated traffic distribution. The revisions would not result in a new significant impact, nor a substantial increase in the severity of the impacts described in the FEIR. As analyzed in the FEIR, the implementation of mitigation measure TR-1, to limit vehicle trips at the deficient intersection of Heritage Circle at Baseline Avenue, will reduce impacts to less than significant levels. There are no substantial changes to the Project or changes in circumstances that would require major revisions to the FEIR due to the involvement of new significant traffic impacts or an increase in the severity of previously identified traffic impacts.

### **3.6.3 Transportation and Traffic Mitigation Measures**

Mitigation Measure TR-1 contained in the FEIR will remain applicable with the proposed Project revisions; no revisions to Project mitigation measures are necessary.

## **4.0 CONCLUSION**

Section 15164(a) of the Guidelines states:

The lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a Subsequent EIR have occurred.

The proposed revisions to the original Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects due to substantial project changes or a substantial change in circumstances. Furthermore, new information associated with the proposed revisions does not indicate that the Project would have one or more significant effects not discussed in the EIR; that significant effects previously examined would be substantially more severe than shown in the EIR; that mitigation measures or alternatives previously found not to be feasible would in fact be feasible; or that mitigation measures or alternatives which are considerably different from those analyzed in the EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measures or alternatives. Accordingly, an Addendum was prepared as opposed to a negative declaration or a subsequent EIR. As the Lead Agency for the proposed Project revision, Metropolitan is issuing this Addendum in accordance with the Guidelines (Section 15164).

The Metropolitan Water District of Southern California

*Jennifer Harriger*  
Signature

03-28-2022  
Date

Jennifer Harriger  
Printed Name

Manager, Environmental Planning Section  
Title

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Engineering & Operations Committee

# Etiwanda Pipeline Rehabilitation Stage 3

Item 7-2

July 12, 2022

## Etiwanda Pipeline Rehabilitation Stage 3

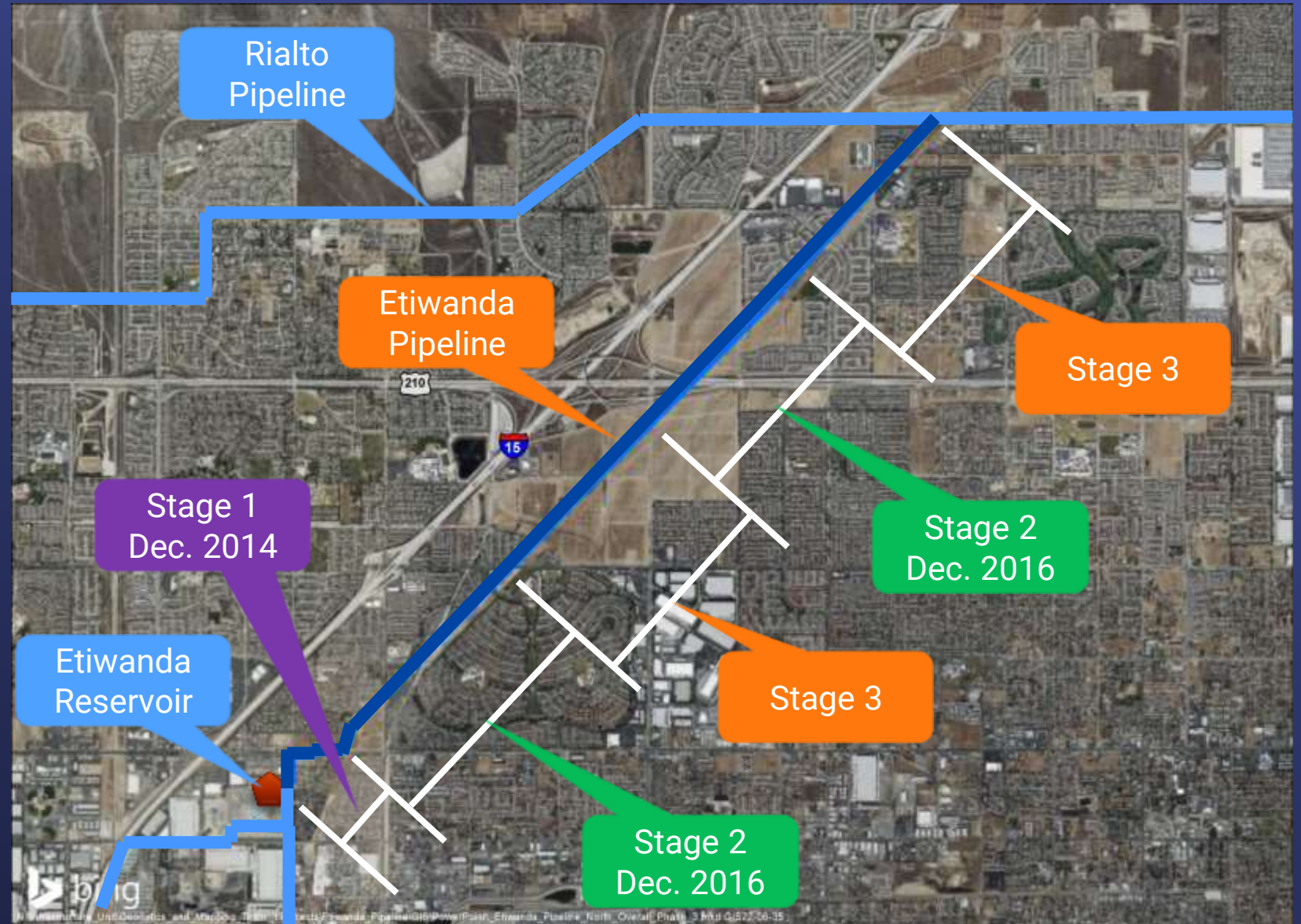
### Current Action

- Award a \$25,972,700 contract to Mladen Buntich Construction Company, Inc. for Stage 3 rehabilitation of the Etiwanda Pipeline

The map illustrates the Etiwanda Pipeline project area in Southern California. The pipeline route is shown as a red line, starting from the Los Angeles area and extending eastward through Orange and San Bernardino counties to the San Diego area. Key locations along the route include Jensen Plant, Weymouth Plant, Mills Plant, Diemer Plant, and Skinner Plant. The map also shows major cities (Ventura, Los Angeles, San Bernardino, Orange, San Diego, Riverside, Imperial, La Paz), water bodies (Castaic Lake, Silverwood Lake, Lake Perris, Lake Mathews, Diamond Valley Lake), and specific project locations (Jensen Plant, Weymouth Plant, Mills Plant, Diemer Plant, Skinner Plant). A blue line indicates the water supply line. A north arrow is located in the top left corner.



# Etiwanda Pipeline Rehabilitation Stage 3



# Background

- 144-inch diam. welded steel pipe
- 40% mortar lining fallen/delaminated
- Remains structurally sound
- Vulnerable to accelerated corrosion
- Results of technical investigations
  - Caused by fluctuating pressures due to hydro plant operations & de-watering
  - Confirmed by outside expert technical review



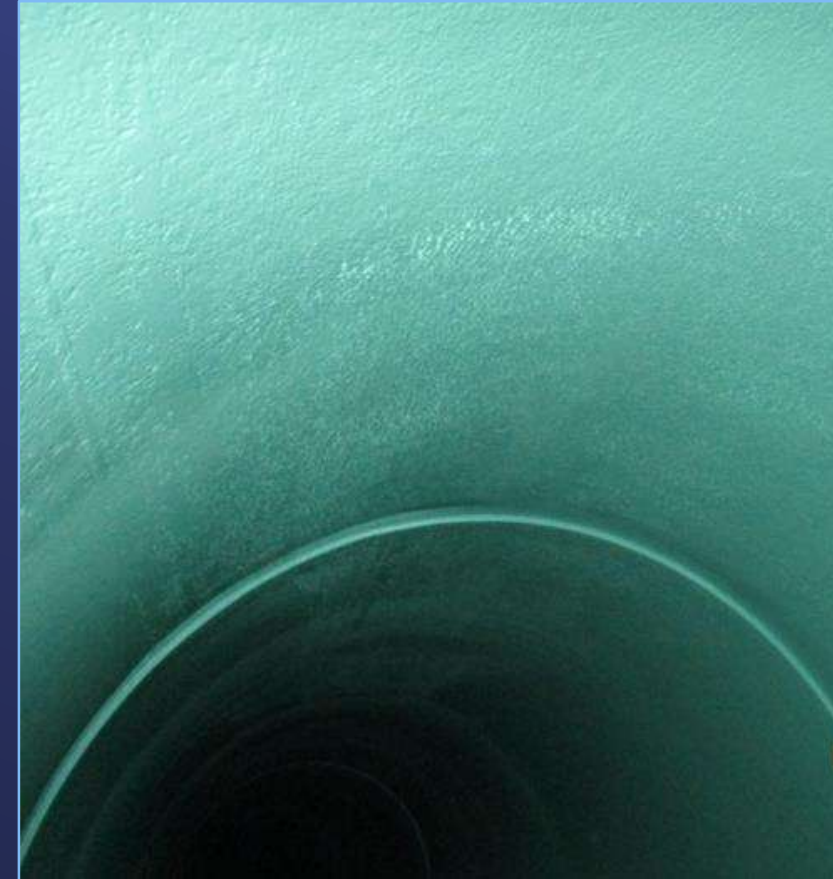


# Background

Condition Before  
Abrasive Blasting



Condition After  
Application of Coating





# Background

- Metropolitan to furnish 1,300 feet of steel liner
  - To avoid delays in starting construction
  - Minimize contract duration
- Board awarded contract for steel liner in November 2021
- Steel liner to be delivered by August 2022



Etiwanda Steel Pipe in Fabrication

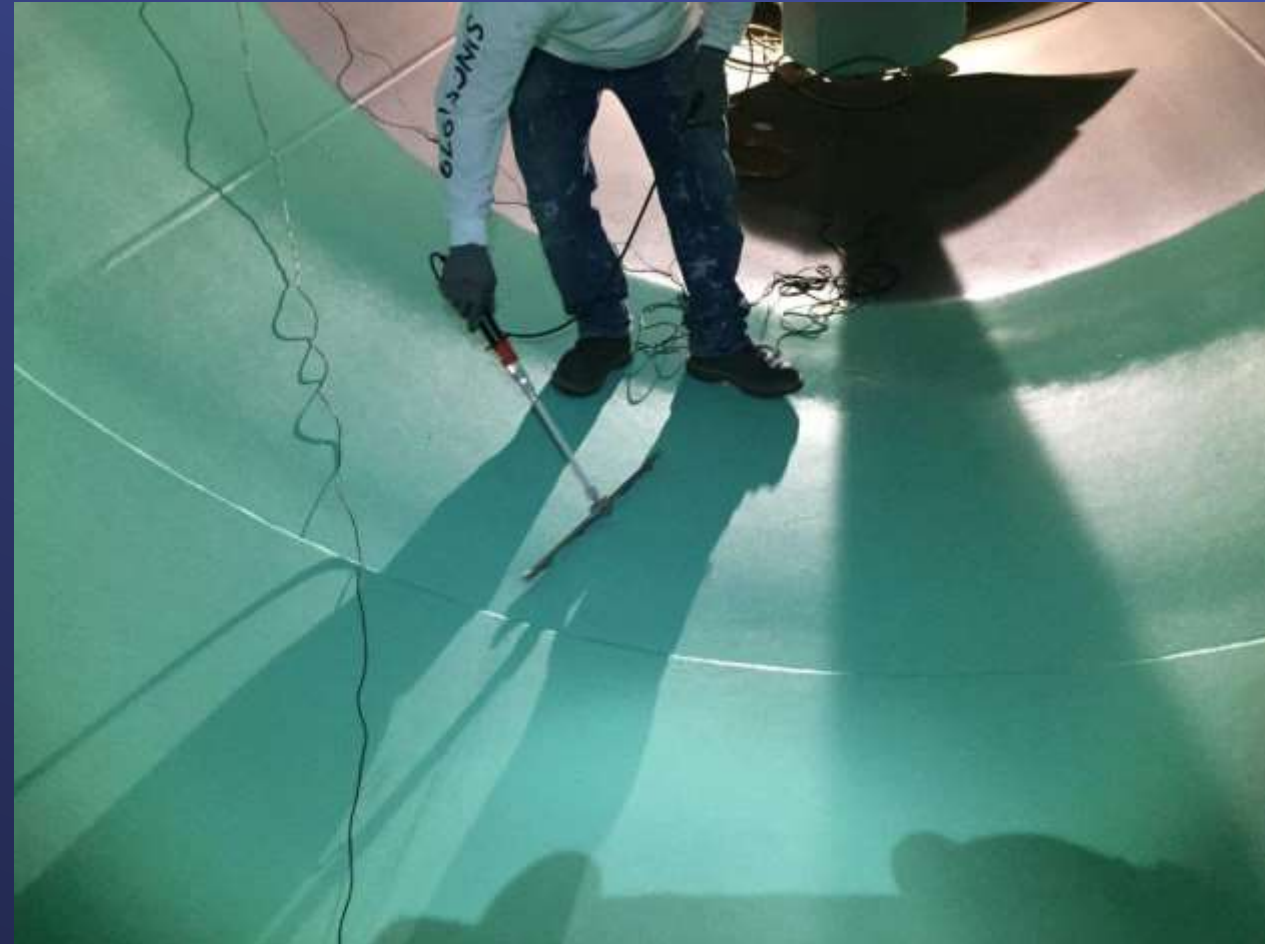
## Etiwanda Pipeline Rehabilitation Stage 3

### Alternatives Considered

- Two construction contracts – one for each affected city (Rancho Cucamonga and Fontana)
  - Would allow management of geographically diverse projects
  - Requires successive shutdowns spread over multiple years
- Selected alternative – One construction contract for the entire 2.5 miles
  - Most efficient way to get project completed
    - Reduces overall project costs: contracting, design and contract administration

# Contractor Scope

- Remove mortar lining
- Reline 2.5 miles of pipeline with polyurethane
- Install 1,300 feet of steel liner
- Install & maintain sound barriers
- Perform traffic control & surface restoration, as required



Measuring Thickness of Polyurethane Lining



# Metropolitan Scope

- Force Construction
  - Remove & replace valves
  - Furnish pipe blind flanges for installation by the contractor
  - Coordinate shutdown & dewatering of pipeline
- Field inspection & construction management
- Submittal review & technical support
- Respond to requests for information
- Environmental monitoring, project management, & contract administration



Shutdown Support



## Sound Barriers

*Contractor equipment behind sound barriers*

- Equipment needed to maintain environment within pipeline
- Equipment will operate 24/7 during in-pipeline work activities
- Residences located within 100 feet at some work site locations
- Public outreach notifying residences of work

# Bid Results

## Specifications No. 1857

Bids Received	June 14, 2022
No. of Bidders	4
Lowest Responsible Bidder	Mladen Buntich Construction Company, Inc.
Low Bid	\$25,972,700
Range of Bids	\$26.17 M to \$29.93 M
Engineer's estimate	\$30.5 M
SBE Participation*	100%

\*SBE (Small Business Enterprise) participation level set at 15%



# Allocation of Funds

## Etiwanda Pipeline Rehabilitation – Stage 3

### Contract

Mladen Buntich Construction Company, Inc.	\$25,972,700
---	--------------

### Metropolitan Labor

Owner Costs (Program mgmt., envir. monitoring)	571,000
--	---------

Submittal review, technical support & record drwgs.	281,000
--	---------

Construction management	2,400,000
-------------------------	-----------

Force construction	577,000
--------------------	---------

Materials & Incidentals	200,000
-------------------------	---------

Remaining Budget	2,998,300
------------------	-----------

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Total	\$33,000,000
-------	--------------

# Project Schedule



# Board Options

- Option #1

Adopt the CEQA determination that the proposed action has been previously addressed in the certified 2015 Final EIR, related CEQA actions and Addendum No. 3, and

- a. Award \$25,972,700 contract to Mladen Buntich Construction Company, Inc. to replace a portion of the interior lining of the Etiwanda Pipeline.

- Option #2

Do not proceed with the project at this time.



# Staff Recommendation

- Option #1





● **Board of Directors**  
***Engineering and Operations Committee***

7/12/2022 Board Meeting

---

**7-3**

**Subject**

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Authorize an agreement with Jacobs Engineering Group, Inc. for a not-to-exceed amount of \$700,000 to perform final design of security upgrades at the Joseph Jensen Water Treatment Plant; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

**Executive Summary**

---

Metropolitan safeguards critical infrastructure and personnel through a multi-layered combination of physical barriers, contracted security guard services, employee awareness, and a physical security system. A comprehensive assessment has identified the need for enhancements to the existing security measures at the Joseph Jensen Water Treatment Plant (Jensen plant). The planned improvements are consistent with Metropolitan's latest security and technology standards for essential facilities. This action authorizes a professional services agreement for final design to upgrade the security features at the Jensen plant.

**Details**

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**Background**

The Jensen plant was placed into service in 1972 with an initial capacity of 400 million gallons per day (mgd) and expanded to its current capacity of 750 mgd in the 1990s. Located in Granada Hills, the Jensen plant normally treats water from the West Branch of the State Water Project and delivers it to Metropolitan's Central Pool and to exclusive service areas on the west side of the distribution system.

The Jensen plant site encompasses over 150 acres bounded by Balboa Boulevard and San Fernando Road to the north-east and north-west, and the Los Angeles Department of Water and Power property line to the south. The plant site boundaries are delineated by 13,000 linear feet of chain link fence, with 24-hour per day staffed entrances at Balboa Boulevard and San Fernando Road. Approximately 5,000 linear feet of security network cable support an array of video surveillance equipment and badge readers at plant entrances and sensitive areas. These devices were installed in the 1990s with the technology and bandwidth standards of the time.

In recent years, staff has conducted comprehensive threat and physical security assessments of the Jensen plant site and identified critical locations requiring additional video surveillance, lighting, and motion detection. Following these findings, staff initiated preliminary design to upgrade the Jensen plant site security system in accordance with Metropolitan's latest security and technology standards for essential facilities. The devices that require upgrades include video surveillance, lighting and motion detection, public address systems, security network infrastructure, physical barriers, entrances, and signage. Preliminary design of the security enhancements has now been completed, and staff recommends moving forward with final design.

In accordance with the April 2022 action on the biennial budget for Fiscal Years 2022/23 and 2023/24, the General Manager will authorize staff to proceed with the action described herein, pending board authorization of the agreement described below. Based on the current Capital Investment Plan (CIP) expenditure forecast, funds for work to be performed pursuant to this action during the current biennium are available within the CIP Appropriation for Fiscal Years 2022/23 and 2023/24 (Appropriation No. 15525). This project has been reviewed in accordance with Metropolitan's CIP prioritization criteria and was approved by Metropolitan's CIP evaluation team to be included in the Treatment Plant Reliability Program.



### **Jensen Plant Site Security Upgrades – Final Design**

Throughout the Jensen plant, site security will be enhanced through the installation of new features including cameras with high-resolution capability to meet the latest bandwidth requirements; new LED lighting and perimeter motion detection at critical locations; public announcement system at both plant entrances for secure outside communication; additional badge readers for improved access control; break resistance film on exterior windows at the Administration Building; and perimeter landscape improvements to screen critical facilities of the plant.

Planned final design activities will be conducted with a hybrid effort of consultant and Metropolitan staff; consultant activities are described below. Metropolitan staff will plan and coordinate final design with the facility's users; perform structural and civil design; and provide environmental support, project management, and consultant oversight.

A total of \$1,329,000 is required for this work. Allocated funds include \$700,000 for final design by Jacobs Engineering Group, Inc., as described below. Allocated funds for Metropolitan staff activities include \$210,000 for structural and civil design, and technical oversight and review of consultant's work; \$219,000 for environmental support, project management, and project controls; and \$200,000 for remaining budget.

**Attachment 1** provides the allocation of the required funds.

As described above, final design will be performed by Jacobs Engineering Group and Metropolitan staff. Engineering Services' performance metric target range for final design with construction more than \$3 million is 9 to 12 percent. For this project, the performance metric goal for final design is 12 percent of the total construction cost. The estimated cost of design is \$910,000, which includes \$700,000 for Jacobs Engineering Group and \$210,000 for Metropolitan staff. The estimated cost of construction for this project is anticipated to range from \$7.5 million to \$8.5 million.

### **Engineering Services (Jacobs Engineering Group, Inc.) – New Agreement**

Jacobs Engineering Group, Inc. is recommended to perform final design to upgrade the security features at the Jensen plant. Jacobs Engineering was prequalified through Request for Qualification No. 1215 and was selected based on the firm's expertise in security systems for large commercial/industrial properties including water treatment plants. Jacobs Engineering completed the preliminary design for this project under an existing agreement.

The planned final design activities will include: (1) development of final design drawings and specifications; (2) equipment procurement support; and (3) preparation of an engineer's cost estimate.

This action authorizes an agreement with Jacobs Engineering Group, Inc. for a not-to-exceed amount of \$700,000 for final design to upgrade the security features at the Jensen plant site. For this agreement, Metropolitan has established a Small Business Enterprise participation level of 25 percent. Jacobs Engineering has agreed to meet this level of participation. The planned subconsultant for this work is DRP Engineering.

### **Alternatives Considered**

Alternatives considered for completing final design activities for the Jensen plant site security upgrades included assessing the availability and capability of in-house Metropolitan staff to conduct this work. Metropolitan's staffing strategy for utilizing consultants and in-house Metropolitan staff has been: (1) to assess current work assignments for in-house staff to determine the potential availability of staff to conduct this work; and (2) for long-term rehabilitation projects when resource needs exceed available in-house staffing or require specialized technical expertise.

In the case of this project, Metropolitan staff maintains the core competencies and technical capabilities to perform the design work for civil and structural project elements. The consultant will be relied upon to design the specialized security equipment, supporting infrastructure, and related electrical and instrumentation components. In this manner, in-house staff will continue to address a baseload of work on capital projects, while the professional services agreement will be relied upon to perform work that falls outside of the core competencies of in-house staff. This approach will allow for the efficient and timely completion of this project.

**Summary**

This action authorizes an agreement with Jacobs Engineering Group, Inc. for a not-to-exceed amount of \$700,000 to perform final design for security upgrades at the Jensen plant. See **Attachment 1** for the Allocation of Funds; and **Attachment 2** for the Location Map.

**Project Milestone**

May 2023 – Completion of final design of security upgrades at Jensen

**Policy**

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Metropolitan Water District Administrative Code Section 5108: Appropriations

Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 52778, dated April 12, 2022, the Board appropriated a total of \$600 million for projects identified in the Capital Investment Plan for Fiscal Years 2022/23 and 2023/24.

**California Environmental Quality Act (CEQA)**

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**CEQA determination for Option #1:**

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The overall activity involves the funding, studying, carrying out preliminary design, and preparing and processing environmental documentation for the proposed action. These activities consist of basic data collection and resource evaluation activities that do not result in a serious or major disturbance to an environmental resource. This may be strictly for information gathering purposes, or as part of a study leading to an action, which a public agency has not yet approved, adopted, or funded. Accordingly, the proposed action qualifies for a Class 6 Categorical Exemption (Sections 15306 of the State CEQA Guidelines).

**CEQA determination for Option #2:**

None

**Board Options**

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**Option #1**

Authorize an agreement with Jacobs Engineering Group, Inc. for a not-to-exceed amount of \$700,000 to perform final design for security upgrades at the Jensen plant.

**Fiscal Impact:** \$700,000 in capital funds. Approximately \$700,000 in capital funds will be incurred in the current biennium and has been previously authorized.

**Business Analysis:** This option will bring the plant site security features up to the latest industry and Metropolitan standards.

**Option #2**

Do not proceed with an agreement at this time.

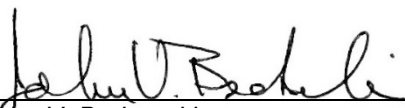
**Fiscal Impact:** None

**Business Analysis:** This option would forego an opportunity to enhance the Jensen plant site security and improve protection for critical infrastructure and personnel.

**Staff Recommendation**

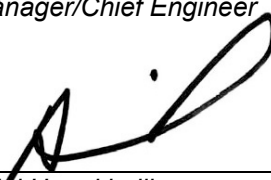
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Option #1

  
\_\_\_\_\_  
John V. Bednarski  
Manager/Chief Engineer

6/22/2022

Date

  
\_\_\_\_\_  
Adel Hagekhalil  
General Manager

6/28/2022

Date

**Attachment 1 – Allocation of Funds****Attachment 2 – Location Map**

Ref# es12682474



### Allocation of Funds for Jensen Plant Site Security Upgrades

	<b>Current Board Action <sup>1</sup> (July 2022)</b>
Labor	
Studies & Investigations	\$ -
Final Design	210,000
Owner Costs (Program mgmt., envir. planning)	219,000
Submittals Review & Record Drwgs.	-
Construction Inspection & Support	-
Metropolitan Force Construction	-
Materials & Supplies	-
Incidental Expenses	-
Professional/Technical Services	
Jacobs Engineering Group	700,000
Right-of-Way	-
Equipment Use	-
Contracts	-
Remaining Budget	200,000
<b>Total</b>	<b>\$ 1,329,000</b>

- 1 The total amount expended to date to upgrade the Jensen plant site security system is approximately \$900,000. The total estimated cost to complete the project, including the amount allocated to date, current funds requested, and future construction cost, is approximately \$9.5 million.





Engineering & Operations Committee

# Jensen Security Upgrades

Item 7-3

July 12, 2022

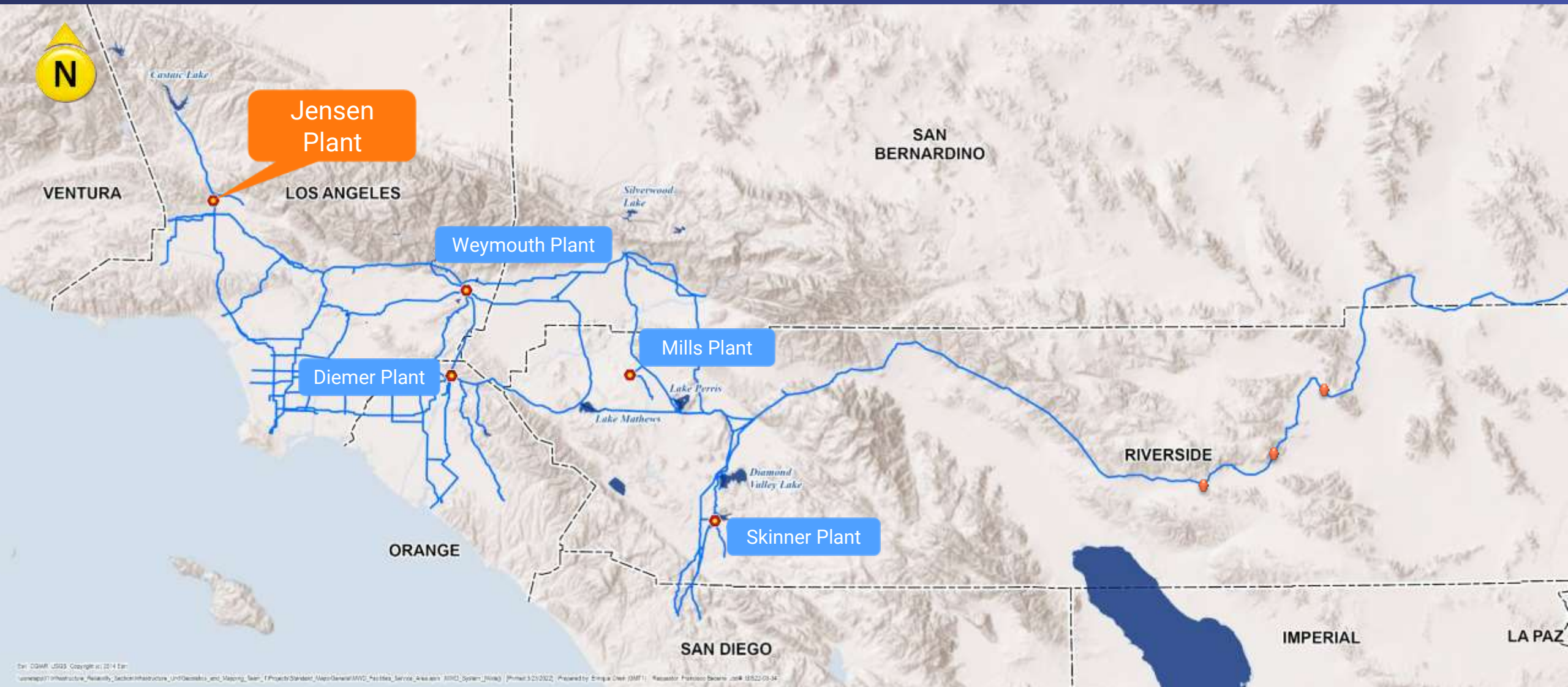


## Jensen Security Upgrades

### Current Action

- Authorize an agreement with Jacobs Engineering Group, Inc., in an amount not to exceed \$700,000 to perform final design of security upgrades at the Jensen plant

# Distribution System





# Background

- 150 acres of critical treatment infrastructure
- 13,000 linear feet of chain-link fencing
- Bordered by two major streets to the north, & LADWP facilities to the south





# Background

- Security cameras & lighting require upgrades to meet latest security standards
- Security network cable installed in the 1990s & does not support bandwidth of modern surveillance equipment
- Perimeter security enhancements recommended



Jensen plant perimeter fencing

# Planned Work

- Replace & add cameras, lighting, & badge readers
- Upgrade supporting infrastructure for security network
- Perimeter enhancements including fencing, drought tolerant landscaping, & other security enhancements



Example of landscape concealment at La Verne Facilities



Outdated analog cameras at Jensen Plant

## Jensen Security Upgrades

### Alternatives Considered

- Conduct all final design activities with Metropolitan staff
- Selected alternative – Develop final design with a hybrid effort of consultant & Metropolitan staff
  - Metropolitan staff retained for civil & structural engineering
  - Consultant retained for security expertise



## Jensen Security Upgrades

### New Agreement – Jacobs Engineering Group, Inc.

- Prequalified under RFQ No. 1215
- Scope of Work:
  - Final design drawings & specifications
  - Equipment procurement support
  - Engineer's cost estimate
- SBE participation level: 25%
- NTE amount: \$700,000

## Jensen Security Upgrades

### Metropolitan Scope

- Final design for structural & civil project elements
- Project management & design oversight
- Environmental support for CEQA

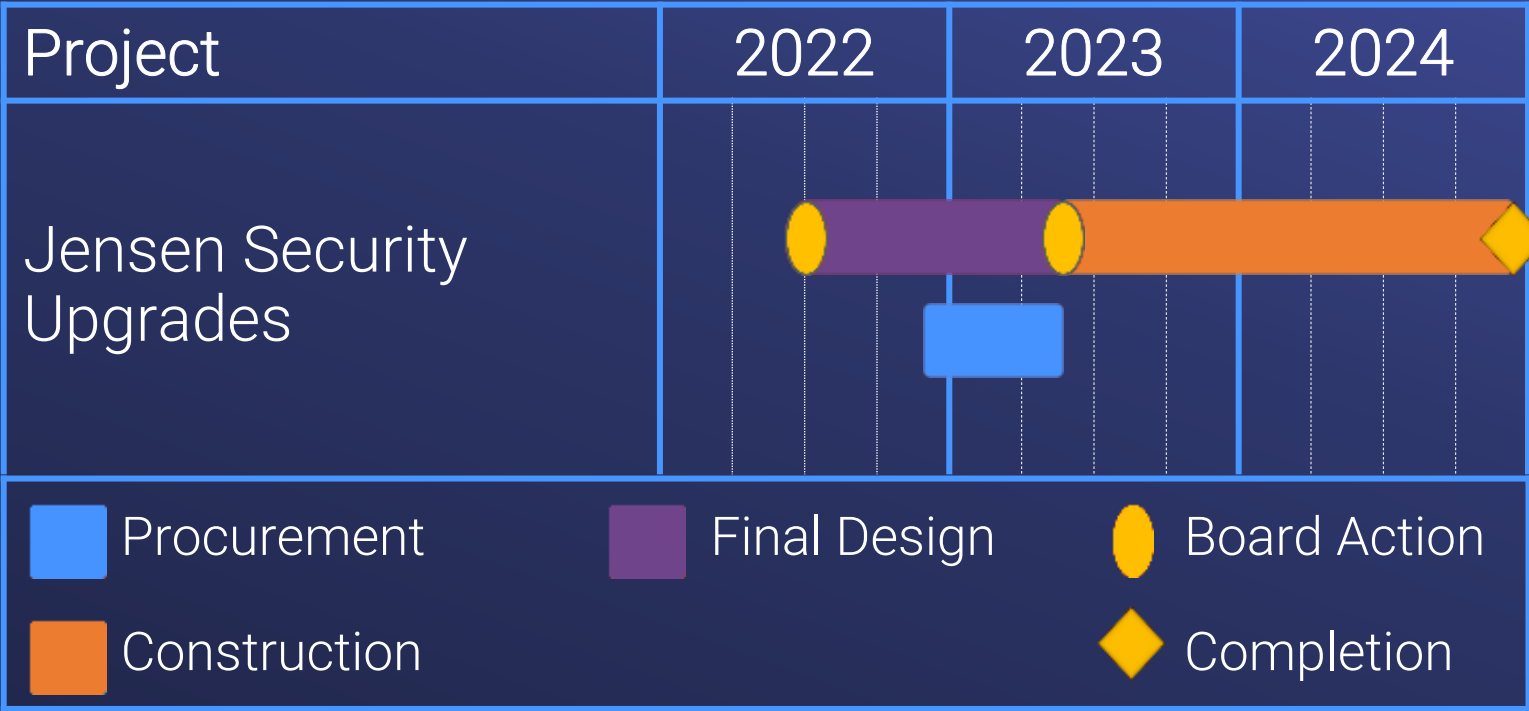
# Allocation of Funds

## Jensen Security Upgrades

Metropolitan Labor	
Final design	\$ 210,000
Program mgmt., contract admin. & envir. support	219,000
Professional Services	
Jacobs Engineering Group, Inc.	700,000
Remaining Budget	200,000
<hr/>	
Total	\$1,329,000



# Project Schedule



# Board Options

- Option #1

Authorize an agreement with Jacobs Engineering Group, Inc. for a not-to-exceed amount of \$700,000 to perform final design for security upgrades at the Jensen plant.

- Option #2

Do not proceed with an agreement at this time.

# Staff Recommendation

- Option #1







Engineering & Operations Committee

# State Water Project Dependent Area Solutions: Drought Action Planning Update

Item 6a  
July 12, 2022

# SWP Dependent Area Solutions: Overview

## Issue

Some areas face significant challenges in a severe drought on the SWP system

## Committed to Resolve this Issue

Identifying and implementing measures to ensure all portions of the service area attain a high level of reliability against multi-year, severe droughts

### Current Drought Emergency

Actively manage through current  
severe conditions

### Future Severe Drought

Urgently prepare for the next  
severe drought



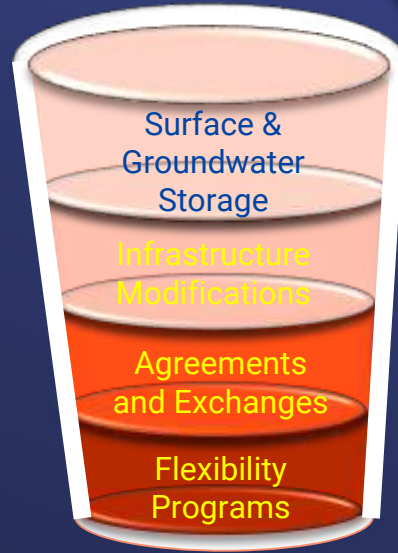
# SWP Dependent Area Solutions: Moving Forward



Region Wide  
Idea  
Generation and  
Alternative  
Identification



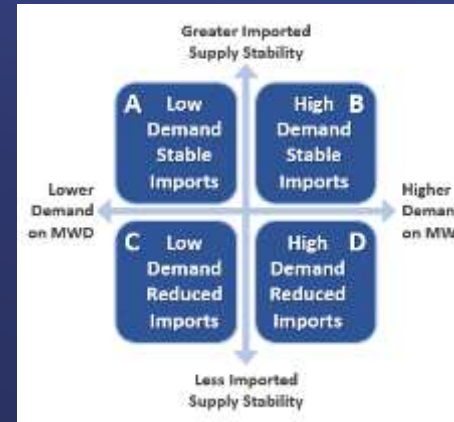
Drought  
Action  
Briefing  
Sheets



Portfolios of  
Drought  
Actions

Late Summer 2022

SWP Dependent Area Solutions (workshops)



Evaluate the  
benefits of each  
option or  
portfolio, and  
test benefits



Develop an  
action plan



Implement  
Action  
Plan

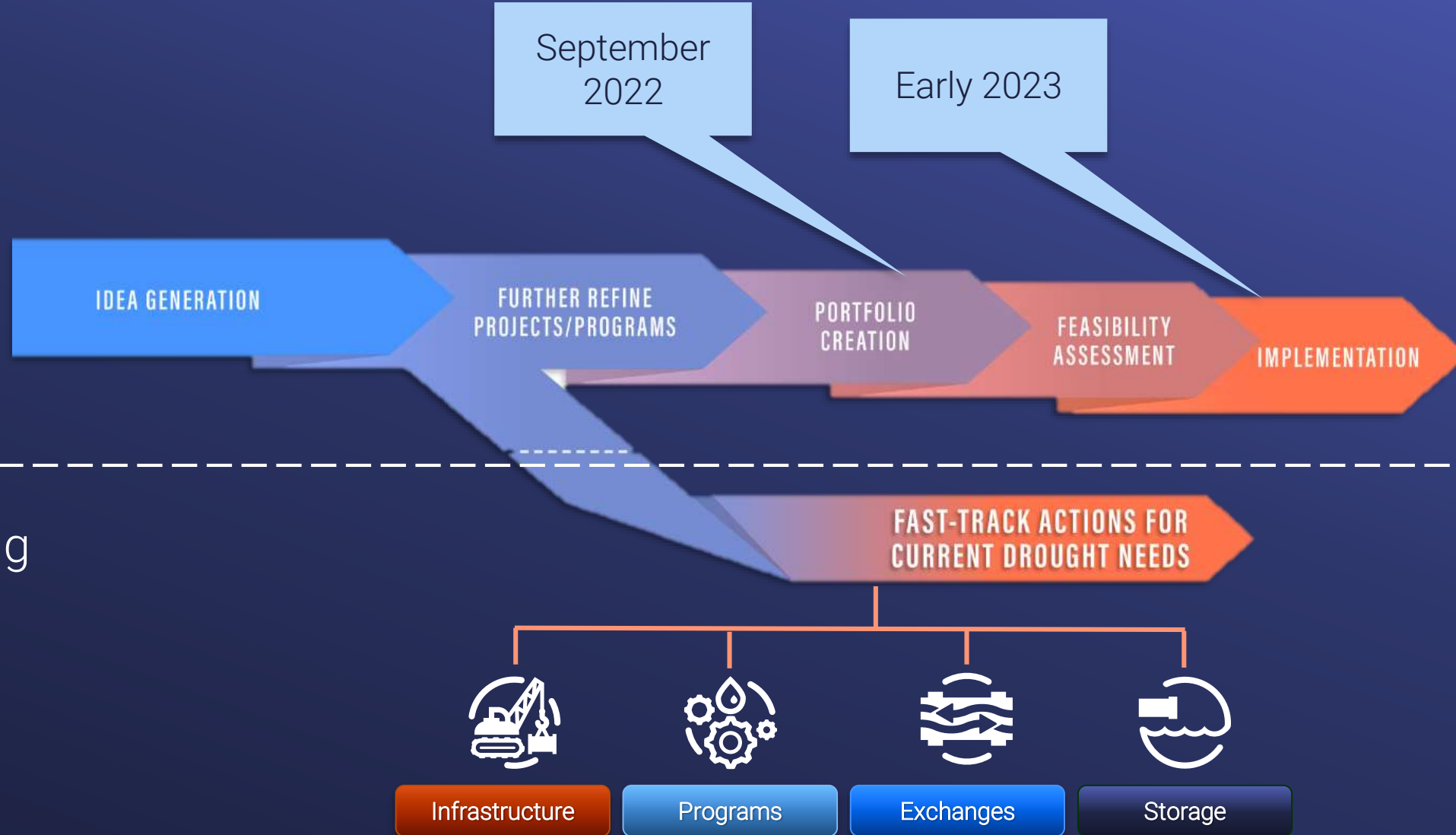
SWP Dependent Area Solutions – Decision Process

# Drought Action Development

## Two Parallel Tracks

Planning long-term actions for future extreme drought

Implementing near-term actions for current drought emergency



# Process for Drought Mitigation Planning: **SWP Dependent Areas**

MAs brainstorm ideas internally, discuss w/ MET staff as needed

MAs working with MET staff to document ideas on Briefing Sheets & score based on criteria

MET staff prepares draft portfolios based on Workshop 4 inputs

MET staff revises portfolios based on MAs comments

Workshop 1

(Apr 22)

Identify Drought Mitigation Functions

Workshop 2

(Jun 10)

Brainstorm Ideas Addressing Functions

Workshop 3

(Jun 17)

Identify & Select Top Evaluation Criteria

Workshop 4

(Jul 15)

Review & Discuss Evaluation Results

Workshop 5

(Aug 12)

Review Draft Portfolios

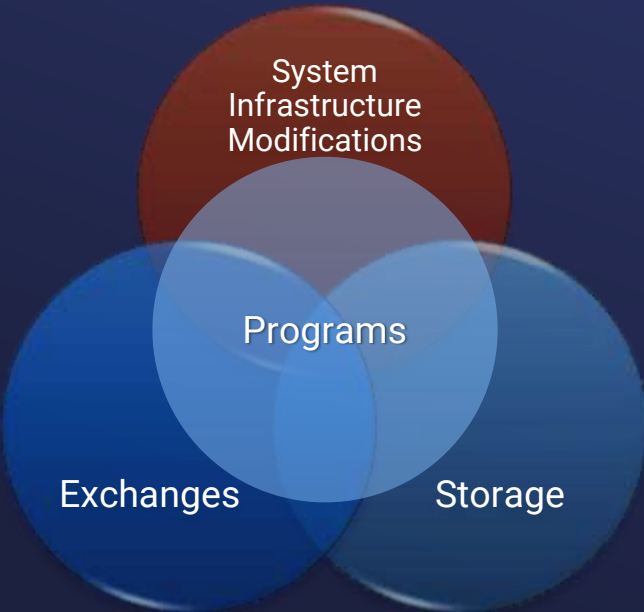
MET staff report findings to the Board

(September)



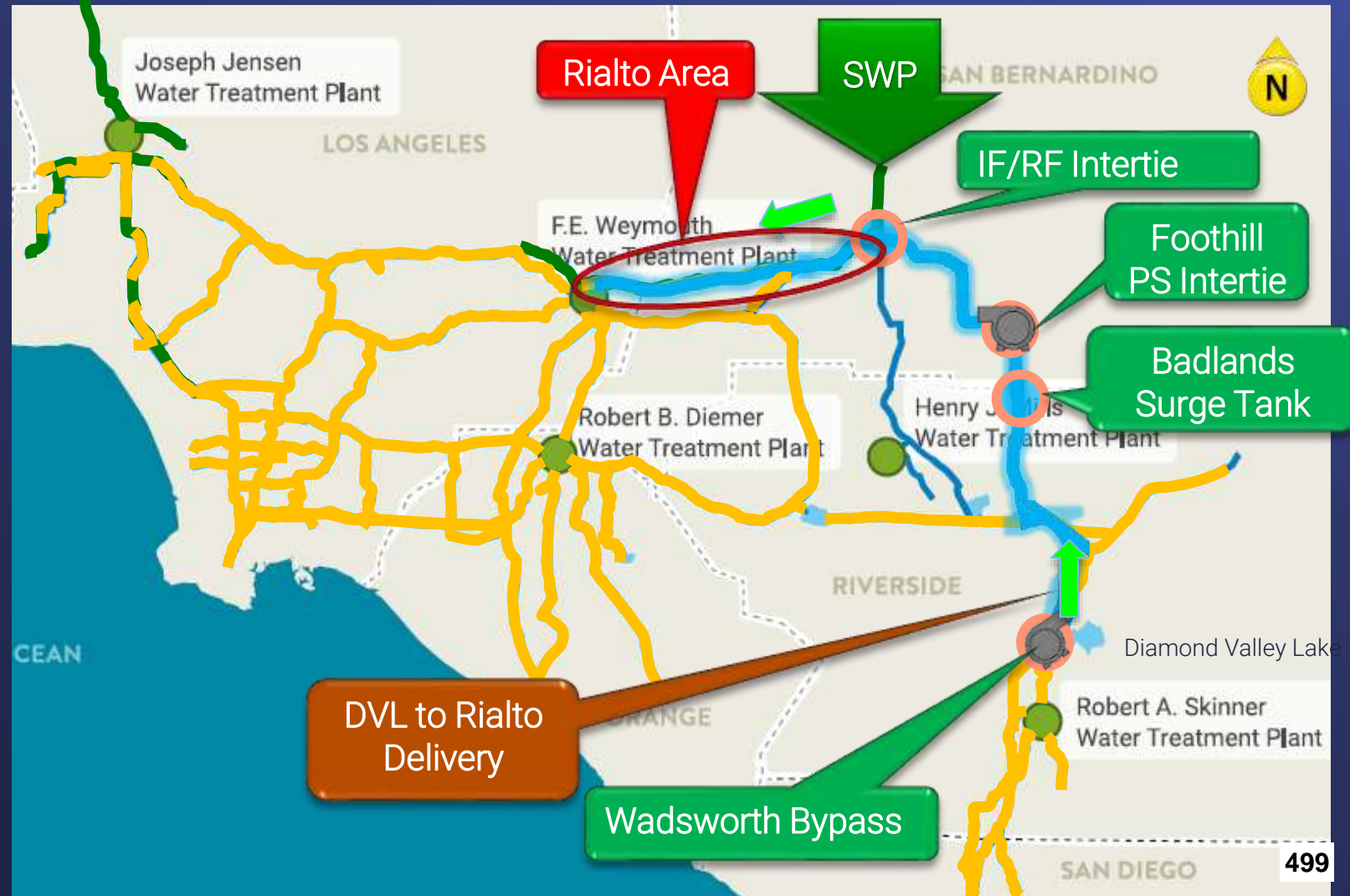
SWP Dependent Area

# Rialto Area Drought Actions



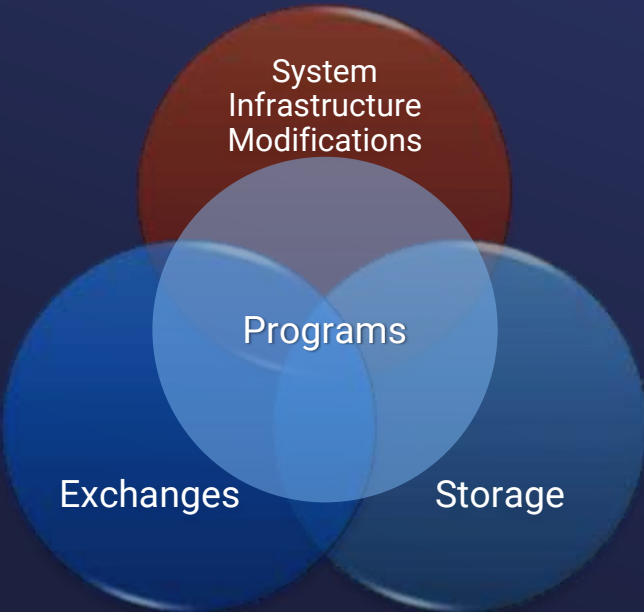
July 12, 2022

## Near-Term Actions



SWP Dependent Area

# Rialto Area Drought Actions



July 12, 2022

## Additional Near-Term Actions

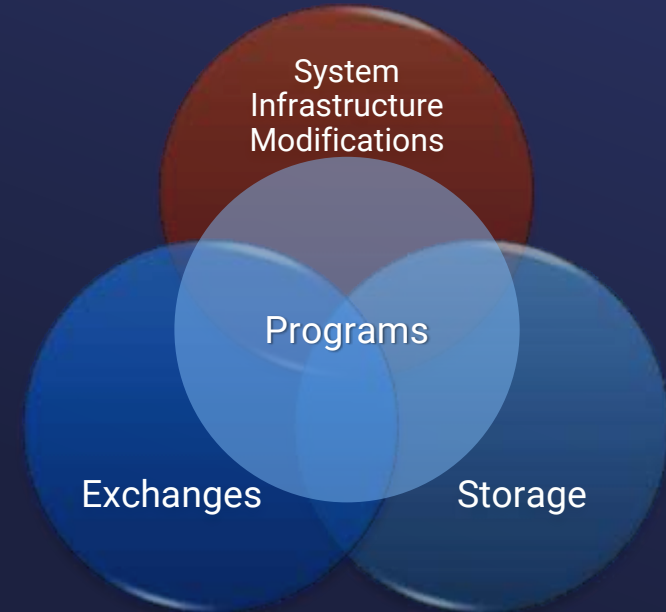


AVEK supply to  
East Branch



SWP Dependent Area

# Rialto Area Drought Actions



July 12, 2022

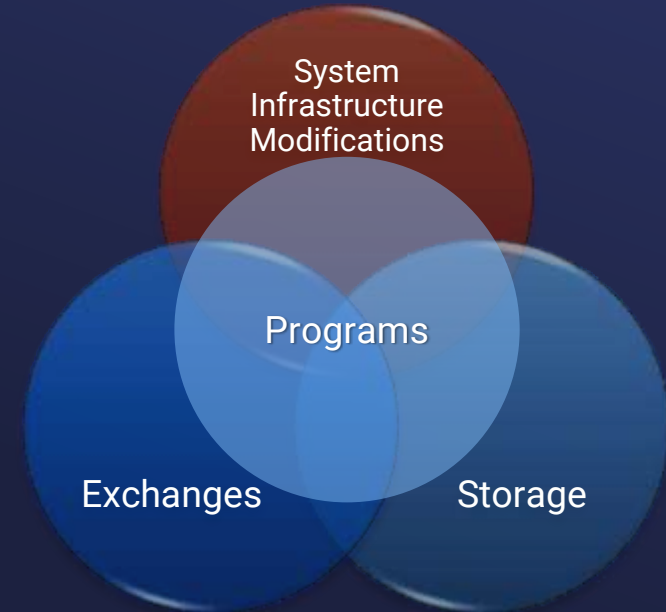
## Long-Term Actions





SWP Dependent Area

# West Region Drought Actions



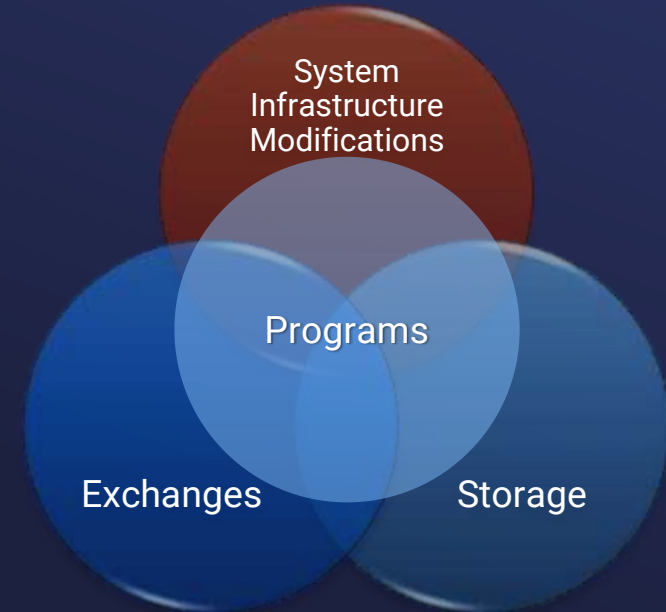
July 12, 2022

## Near-Term Actions



SWP Dependent Area

# West Region Drought Actions



July 12, 2022

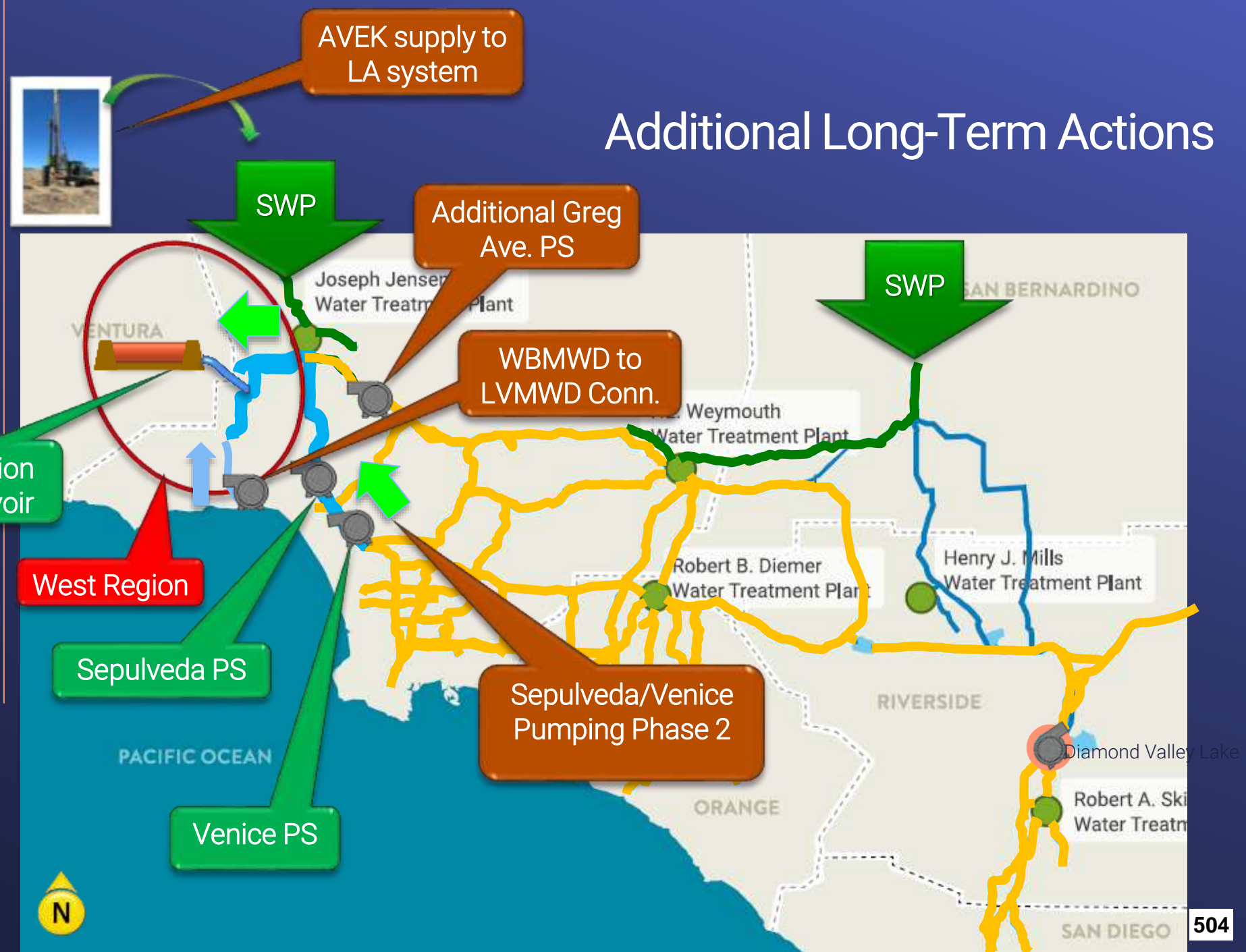
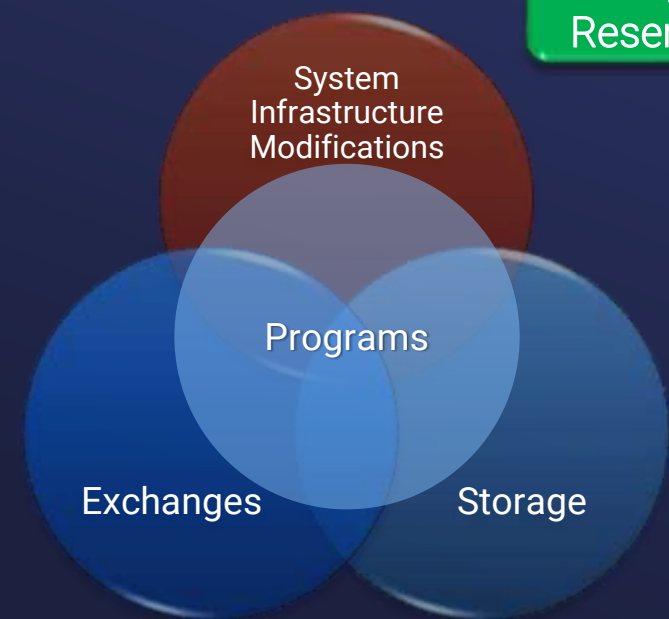
## Long Term Actions



SWP Dependent Area

# West Region Drought Actions

## Additional Long-Term Actions





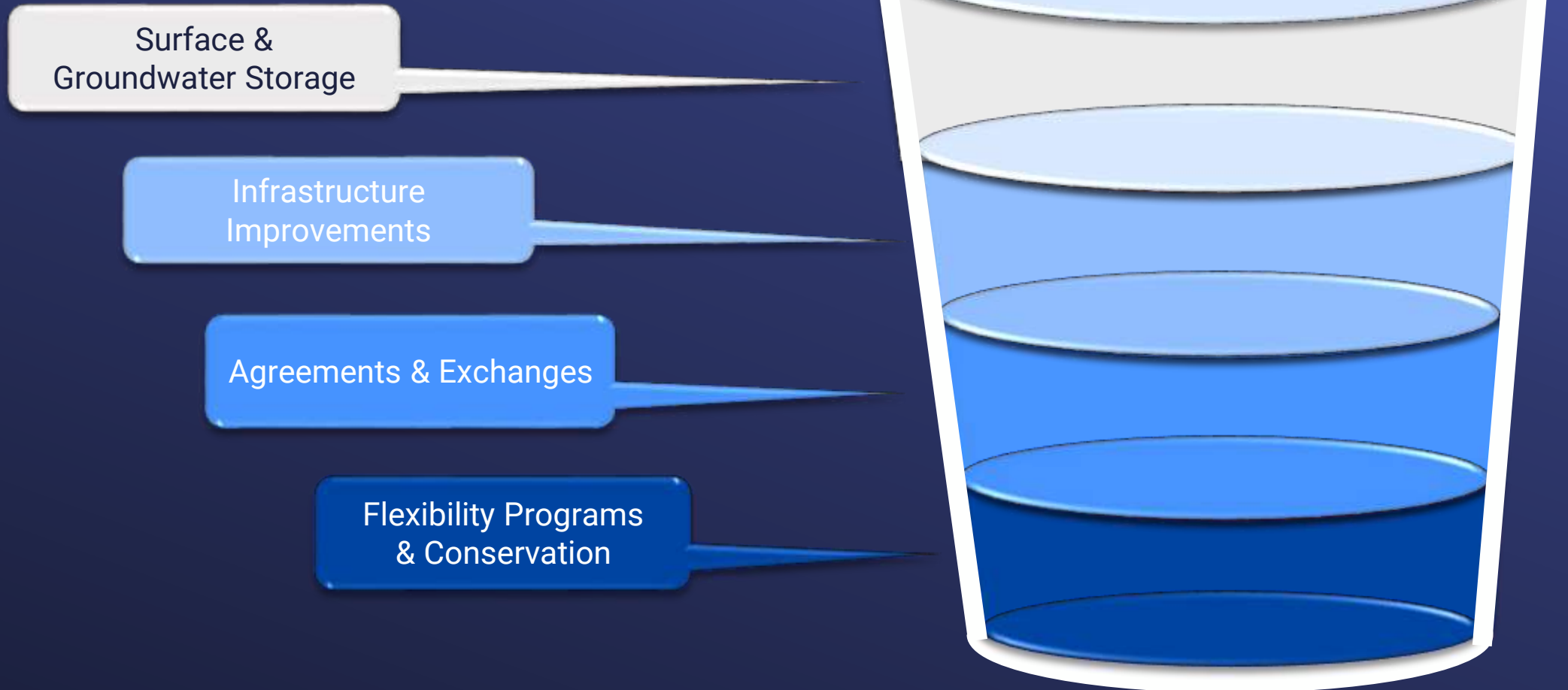
# East Side Drought Actions – Upcoming **Contract Awards**

Project	Action	Schedule	Design Team
Three 84-inch valves for Rialto Water Supply Improvements projects	Award procurement contract	Aug-22	Metropolitan
Foothill Pump Station/Inland Feeder Intertie	Award final design agreement	Aug-22	HDR
Wadsworth Pumping Plant Bypass Pipeline	Award pipe procurement contract	Sep-22	Metropolitan
Badlands Tunnel Surge Protection	Award tank procurement contract	Oct-22	AECOM
Wadsworth Pumping Plant Bypass Line	Award construction contract	Nov-22	Metropolitan
Badlands Tunnel Surge Protection	Award pipe procurement contract	Dec-22	AECOM
Inland Feeder/Rialto Pipeline Intertie	Award construction contract	Feb-23	Metropolitan
Badlands Tunnel Surge Protection	Award construction contract	Mar-23	AECOM

# West Side Drought Actions – Upcoming **Milestones**

Project	Action	Schedule	Design Team
Westside Pumping Options	Complete Reconnaissance Study	Jul-22	Carollo
Sepulveda Feeder North - PCCP Relining	Award Preliminary Design agreement	Aug-22	HDR
Sepulveda/Venice Pump Stations Phase 1	Complete Feasibility Study	Sep-22	Carollo
AVEK HDWB to Supply Westside Agencies	Complete Feasibility Study	Sep-22	Tetra Tech
Interconnection between WBMWD & LVMWD	Complete Reconnaissance Study	Sep-22	Metropolitan
Shift of Burbank B-5 Supply to B-5A	Complete Feasibility Study	Oct-22	Metropolitan
Surface Storage Options	Complete Reconnaissance Study	Oct-22	Stantec
Expansion of Greg Ave. Pumping Operation	Complete Feasibility Study	Dec-22	Brown & Caldwell

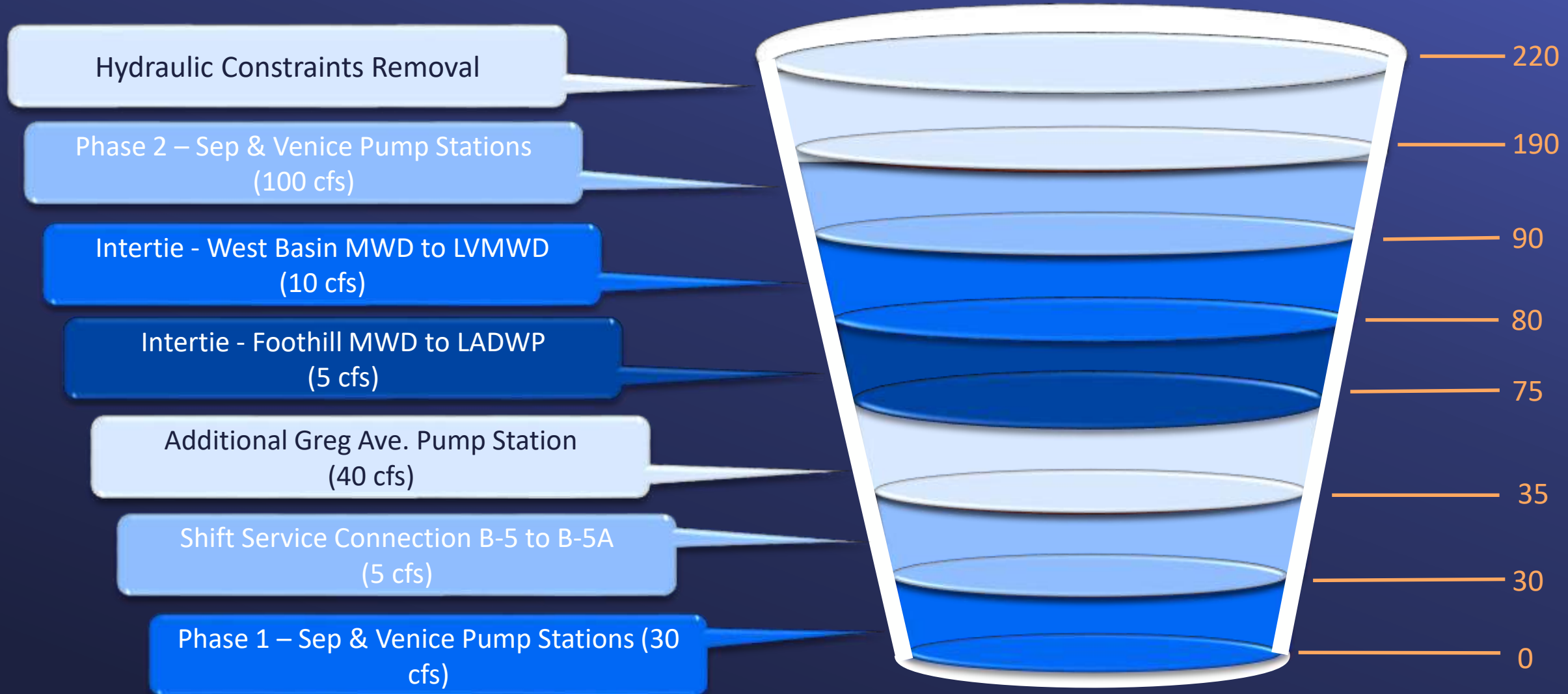
# Categories of Possible Drought Action Solutions



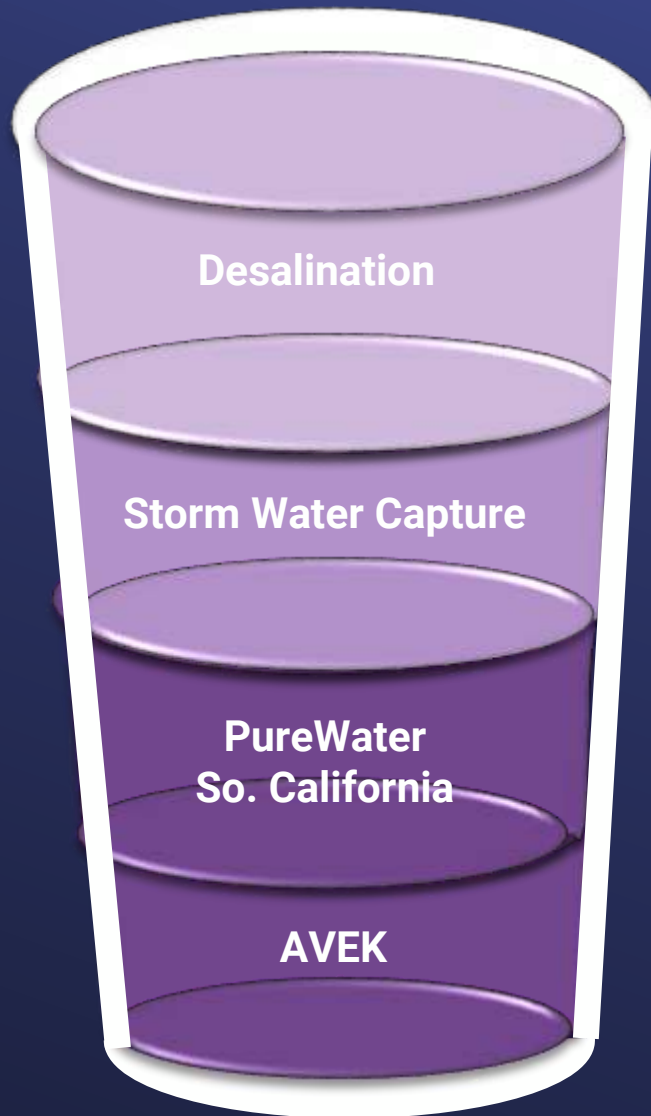


# Drought Actions

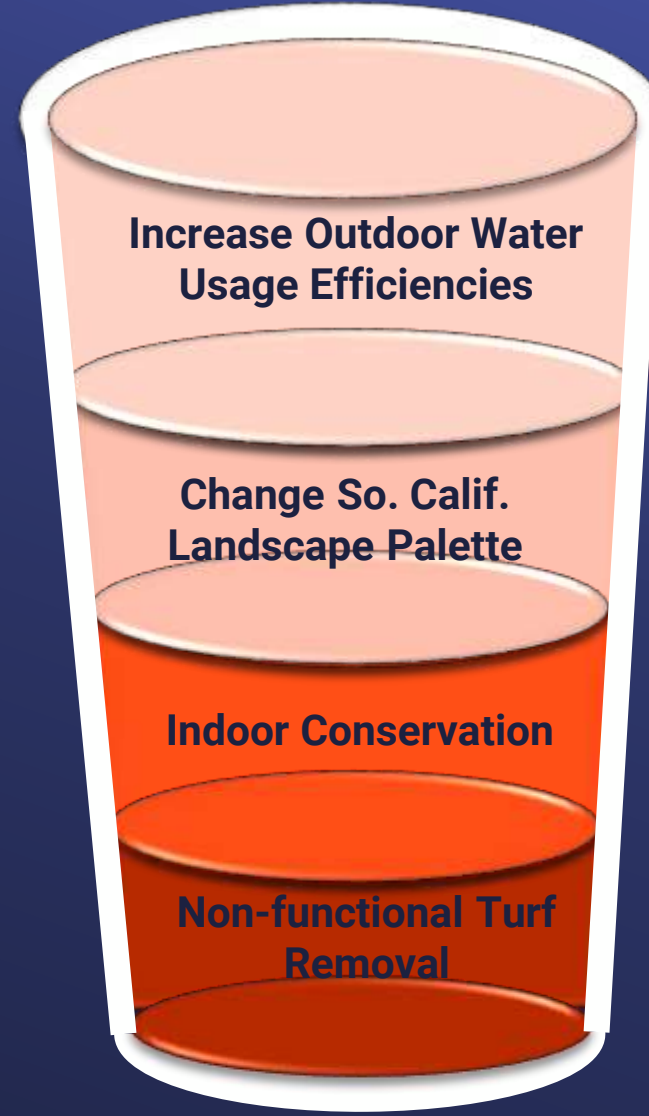
## Sample Portfolio: Infrastructures Improvements



# Drought Actions – More **Sample Portfolios**



Supply Improvements



Demand Reductions

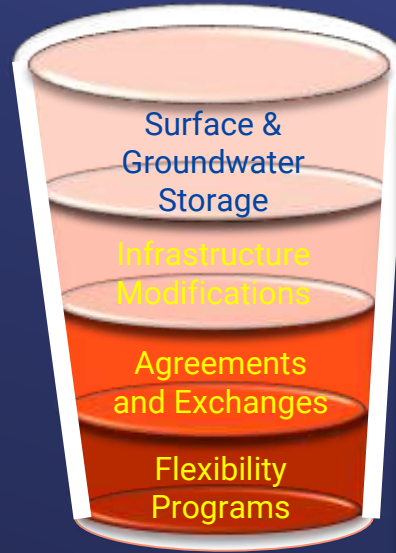
# SWP Dependent Area Solutions: Generating Ideas & Actions



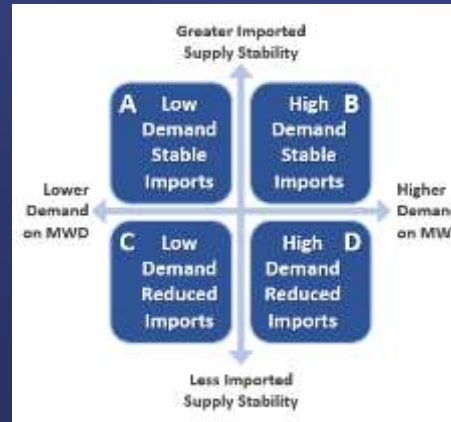
Region Wide  
Idea  
Generation and  
Alternative  
Identification



Drought  
Action  
Briefing  
Sheets



Portfolios of  
Drought  
Actions



Evaluate the  
benefits of each  
option or  
portfolio, and  
test benefits



Develop an  
action plan



Implement  
Action  
Plan

SWP Dependent Area Solutions (workshops)

SWP Dependent Area Solutions – Decision Process



# SWP Dependent Area Solutions: Proposed **Decision Process**

Activity	Schedule
Board action item on Metropolitan's Commitment to Action for SWP Dependent Areas	Aug-22
Board report on the Process for Drought Mitigation Planning of SWP-Dependent Areas (results of the workshop process)	Sep-22
Board report of the Benefits of Various Project Portfolios (IRP testing)	Dec-22
Board action item on Portfolio Action Plan (determine the path forward)	Feb-23





Engineering & Operations Committee

# Water System Operations Manager's Report

Item 7a

Tuesday, July 12, 2022  
9:30 a.m.



## Current Operational Conditions

# Continuing Drought Operations

- 2022 SWP Allocation is 5%
- SWP blend targets are 0% at Weymouth, Diemer, and Skinner plants
- DVL to Mills drought operation continues to perform well
- Managing storage based on WSDM principles
- June 2022 deliveries of 142 TAF were 12 TAF lower than June 2021

# Adapting Operations with Upper Feeder Constrained



## Maximizing Colorado River Deliveries

- Operating Weymouth to maximize Colorado River deliveries to SWP Dependent Area
- Operating Culver City Feeder to increase demand on Diemer and free up Weymouth capacity for SWP Dependent Area
- Continuing to look for additional shift opportunities
- Developing conservation messaging for a September Upper Feeder shutdown to repair the leak and restore feeder capacity

# Safety Awareness Days at our field facilities throughout June reinforced that **Safety is Essential to everything we do**

## Celebrating **National Safety Month**

Site-wide cleanups, awards, facility tours, technical workshops, vendor exhibits, staff celebratory luncheons, and more.





# 2022 Annual Drinking Water Quality Report



## Equal to or better than required by regulations

- Summary of water quality monitoring results for CY 2021
- Guide to understanding the information
- Description of key water quality issues

2021 WATER QUALITY TABLE											
	B	C	D	F	G	H					I
	Parameter	Units	State (Federal) MCL	PHG	Treatment Plant Effluents and Distribution System					Major Sources in Drinking Water	
					Range Average	Diemer Plant	Jensen Plant	Mills Plant	Skinner Plant	Weymouth Plant	
A	Percent State Water Project	%	NA	NA	Range Average	0 - 100 11	100	100	0 - 85 6	0 - 100 24	Not Applicable
E	PRIMARY STANDARDS - Mandatory Health-Related Standards										
	CLARITY										
	Combined Filter Effluent (CFE) Turbidity*	NTU %	TT	NA	Highest % ± 0.3	0.03 100	0.06 100	0.06 100	0.09 100	0.03 100	Soil runoff
	MICROBIOLOGICAL*										
	Total Coliform Bacteria*	% Positive Monthly Samples	3.0	MCLB = 0	Range Average	Distribution Systemwide: 0 - 0.4					Naturally present in the environment
	INORGANIC CHEMICALS										
	Aluminum*	ppb	1,000	600	Range Highest RAA	ND - 210 141	ND - 120 64	ND - 85 ND	ND - 200 119	ND - 240 148	Residue from water treatment process, runoff and leaching from natural deposits







Engineering & Operations Committee

# Engineering Services Manager's Report

Item 7b

July 12, 2022



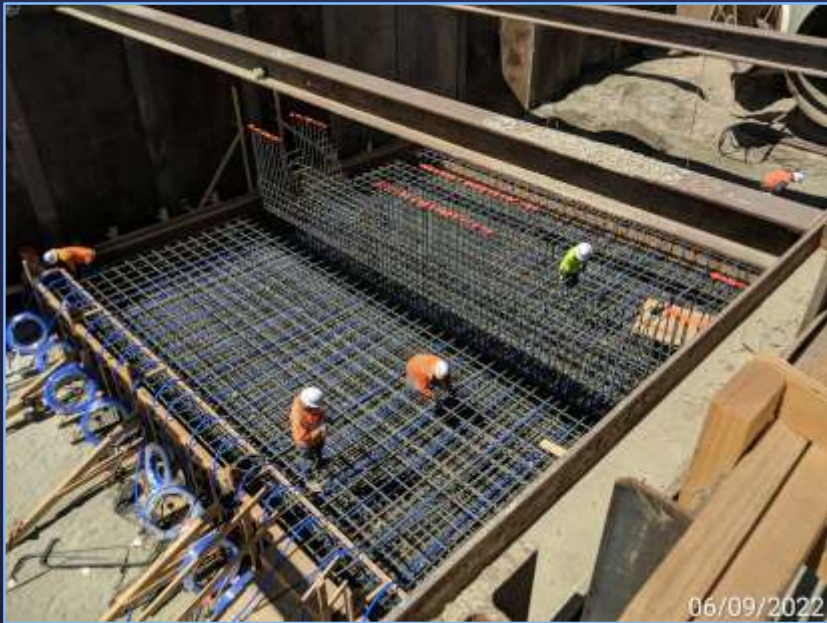
## Construction & Procurement Contracts May 2022

### Construction & Procurement Contracts Through May 2022

Number of Contracts at end of May 2022	43
Total Bid Amount of Contracts in Progress at end of May 2022	\$425M
Contracts Awarded in May 2022	5
Contracts With Notice To Proceed Issued in May 2022	1
Contracts Completed in May 2022	1
Contract Gross Earnings in May 2022	\$6.7M

# CRA Replacement of Casa Loma Siphon Barrel No. 1

- Contract Amount: \$11,499,000 / Paid to Date: 44.0%
- Original Contract Duration: 350 Working Days / 31.1% to date



Rebar Placement with Cooling Pipes



Supported Excavation for ERDIP Pipe



Placement of Steel Transition Pipe



# Skinner Water Treatment Plant Area Paving

- Contract Amount: \$1,936,977 / Paid to Date: 99.4%
- Original Contract Duration: 140 Working Days / 67.1% to date



Paving Near Administration Building



Slurry Paving of Dam Access Road



Paving of Lower Patrol Road



# Pure Water Southern California: Potential-Early Start & Early-Delivery Opportunities

Early-Delivery Projects	Early-Start Activities (Pre-CEQA completion)
<ul style="list-style-type: none"><li>• Designs for Early Delivery facilities<ul style="list-style-type: none"><li>❖ 1-2 mgd Title 22 recycled water supplies for local use</li><li>❖ Up to 30 mgd AWT treatment and associated facilities</li><li>❖ Up to 6.5 miles of pipeline through City of Carson</li><li>❖ Early delivery connections to LACSD, LADWP, WBMWD</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Program Management support</li><li>• Preliminary Designs:<ul style="list-style-type: none"><li>❖ Santa Fe Area conveyance</li><li>❖ Portions of tunneling for conveyance alignment</li><li>❖ Portions of conveyance alignment as cities approve alignment</li><li>❖ AWT site preparation</li></ul></li></ul>

# Pure Water Southern California: Next Steps & Potential Milestones

- Complete Cost of Service analysis
- Conduct Board workshops/discussion on program/rates
- Prepare Board action to capitalize program
- Continue pursuit of grants from State and Federal governments
- Incorporate Early Start/Delivery projects into Program



Key Actions	Timeframe
Board action to include the RRWP in the CIP	December 2022
PM support consultant on-board	1 <sup>st</sup> Quarter 2023
Early-delivery water agreements framework	2 <sup>nd</sup> Quarter 2023
Early Delivery/Start design consultants on-board	Mid 2023

# Engineering Services Group 2022/2023 Internship Program

- Start Date: July 5, 2022
- 11 year-round interns (9-month program) for FY 2022-23
- CSU Long Beach, CSU Los Angeles, CSU Fullerton, and Cal Poly Pomona





