



SCV
WATER



SCV WATER AGENCY ENGINEERING AND OPERATIONS COMMITTEE MEETING

THURSDAY, FEBRUARY 4, 2021

START TIME: 5:30 PM (PST)

Join the Committee meeting from your computer, tablet or smartphone:

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Can't attend? If you wish to still have your comments/concerns addressed by the Committee, all written public comments can be submitted by 4:00 PM the day of the meeting by either e-mail or mail.** Please send all written comments to Elizabeth Gallo. Refer to the Committee Agenda for more information.

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**All written comments received after 4:00 PM the day of the meeting will be posted to yourscvwater.com the next day. Public comments can also be heard the night of the meeting.

Disclaimer: Pursuant to the Executive Order N-29-20 issued by Governor Newsom, public may not attend meetings in person. Public may use the above methods to attend and participate in the public meetings.

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Date: January 27, 2021

To: **Engineering and Operations Committee**
William Cooper, Chair
Jeff Ford
Gary Martin
Piotr Orzechowski
Lynne Plambeck

From: Courtney Mael, Chief Engineer *CM*
Keith Abercrombie, Chief Operating Officer *KA*

The **Engineering and Operations Committee** is scheduled to meet via teleconference on **Thursday, February 4, 2021 at 5:30 PM**, call in information is listed below.

**TELECONFERENCE ONLY
NO PHYSICAL LOCATION FOR MEETING**

TELECONFERENCING NOTICE

Pursuant to the provisions of Executive Order N-29-20 issued by Governor Gavin Newsom on March 17, 2020, any Director may call into an Agency Committee meeting using the Agency's **Call-In Number 1-833-568-8864, Webinar ID 160-099-2301** or **Zoom Webinar by clicking on the link <https://www.zoomgov.com/j/1600992301>** without otherwise complying with the Brown Act's teleconferencing requirements.

Pursuant to the above Executive Order, the public may not attend the meeting in person. Any member of the public may listen to the meeting or make comments to the Committee using the call-in number or Zoom Webinar link above. Please see the notice below if you have a disability and require an accommodation in order to participate in the meeting.

We request that the public submit any comments in writing if practicable, which can be sent to **egallo@scvwa.org** or mailed to **Elizabeth Gallo, Executive Assistant**, Santa Clarita Valley Water Agency, 26521 Summit Circle, Santa Clarita, CA 91350. All written comments received before 4:00 PM the day of the meeting will be distributed to the Committee members and posted on the Santa Clarita Valley Water Agency website prior to the meeting. Anything received after 4:00 PM the day of the meeting will be posted on the SCV Water website the following day.

MEETING AGENDA

<u>ITEM</u>		<u>PAGE</u>
1.	Public Comments – Members of the public may comment as to items not on the Agenda at this time. Members of the public wishing to comment on items covered in this Agenda may do so now or at the time each item is considered. (Comments may, at the discretion of the Committee Chair, be limited to three minutes for each speaker.)	
2. *	Quarterly Safety Presentation	1
3. *	Recommend Approval of a Resolution Adopting the Supplemental Initial Study-Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program Under the California Environmental Quality Act for the Vista Canyon Recycled Water (Phase 2B) Project	11
4. *	Recommend Approval of the Interconnection between the NWD and SCWD systems and the VWD and SCWD systems in the area referred to as West Newhall	679
5. *	Monthly Operations and Production Report	683
6. *	Capital Improvement Projects Construction Status Report	789
7. *	Third Party Funded Agreements Quarterly Report	791
8. *	Committee Planning Calendar	797
9.	General Report on Treatment, Distribution, Operations and Maintenance Services Section Activities	
10.	General Report on Engineering Services Section Activities	
11.	Adjournment	
*	Indicates attachments	
◆	To be distributed	

NOTICES:

Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by telephoning Elizabeth Gallo, Executive Assistant, at (661) 259-2737, or in writing to Santa Clarita Valley Water Agency at 27234 Bouquet Canyon Road, Santa Clarita, CA 91350. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that Agency staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the Agency to provide the requested accommodation.

January 27, 2021

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Pursuant to Government Code Section 54957.5, non-exempt public records that relate to open session agenda items and are distributed to a majority of the Board less than seventy-two (72) hours prior to the meeting will be available for public inspection at the Santa Clarita Valley Water Agency, located at 27234 Bouquet Canyon Road, Santa Clarita, CA 91350, during regular business hours. When practical, these public records will also be made available on the Agency's Internet Website, accessible at <http://www.yourscvwater.com>.

Posted on January 28, 2021.

MBS

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Santa Clarita Valley Water Agency

FY 2020/21 - Q2

October 1, 2020 to December 31, 2020

Engineering and Operations Committee Meeting



February 4, 2021

Mark Passamani
Safety Officer

Jose Diaz
EPSC

Training Requirements and Accomplishments

FY 2020/21 - Q2
 October 1, 2020 to December 31, 2020

					
<p>HAZWOPER First Responder Awareness</p>	<p>Qualified Rigging & Signal Person M/U</p>	<p>First Aid / CPR / AED</p>	<p>FEMA Grants – PPE and Disinfection</p>	<p>New Hire Safety Orientation Multiple dates</p>	<p>Bloodborne Pathogens</p>

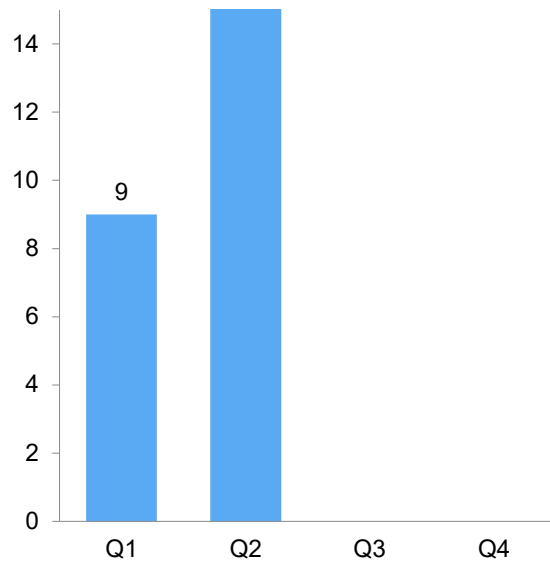


Safety Training Status

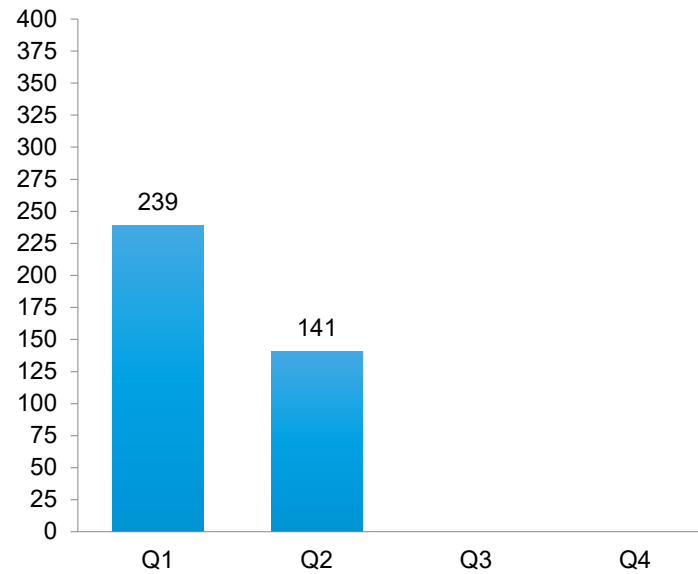
FY 2020/21 - Q2

October 1, 2020 to December 31, 2020

Safety Training
Classes Held



Number of
Employees Trained



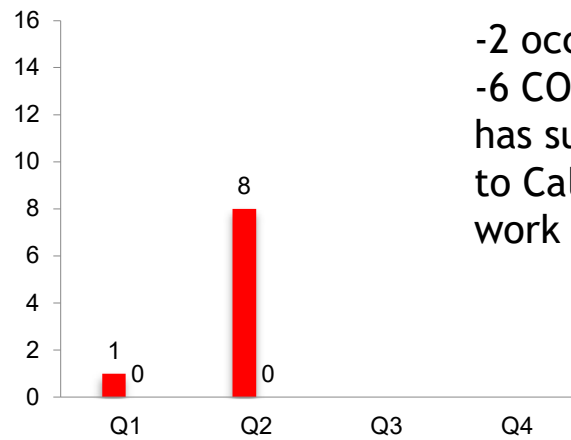
YOURSCVWATER.COM



Incident Data

FY 2020/21 - Q2
October 1, 2020 to December 31, 2020

- Recordable Incidents
- Reportable Incidents

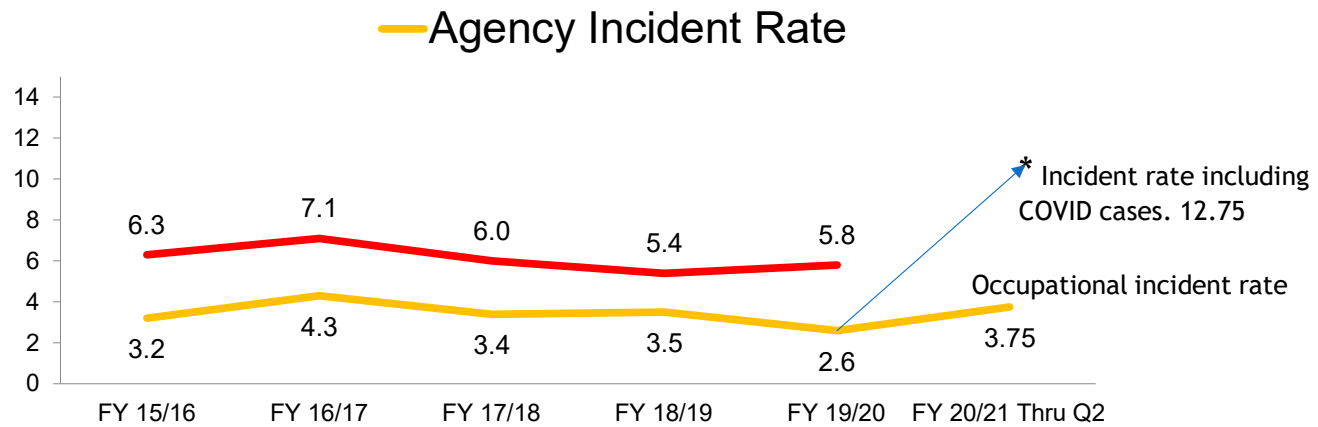


-2 occupational injuries.
-6 COVID-19 cases. Staff
has submitted information
to Cal OSHA challenging
work relatedness.



Recordable Incident Status

FY 15/16 to FY 20/21
5 Year Comparison



Metrics - Leading Indicators

Leading Indicator	FY 19/20 Q2	FY 19/20 Q3	FY 19/20 Q4	FY 20/21 Q1	FY 20/21 Q2
Safety Meetings: Tailgates, Committee, Pre- Construction	44	58	48	97	71
Safety Inspections: Internal	3	3	3	3	3
Safety Inspections: External	7	7	7	7	7
Management Participation: Safety Committee, Audits	9	4	7	8*	6*

*Does not include COVID calls.



Metrics - Lagging Indicators

Lagging Indicator	Source	Result: FY 19/20 Q2	Result: FY 19/20 Q3	Result: FY 19/20 Q4	Result: FY 20/21 Q1	Result: FY 20/21 Q2	Standard measure
Recordable Incident Rate	Cal-OSHA	~3.5	0	~3.5	~3.5	3.75 (12.5) CV	~6.7
Lost Workday Case (LWC) Rate	Cal-OSHA	1.6	0	0	0	3.75 (12.5) CV	~3.0
Severity Rate	Cal-OSHA	67.4	0	0	0	18.8 (120) CV	~4.4
Experience Modifier (X-Mod)	JPIA	0.84	0.84	0.84	0.84	0.78	<1.0 ideal
Citations issued	SCV Water	0	0	0	0	0	0 ideal

Vehicle Safety Metrics

Indicator	FY 19/20 Q2	FY 19/20 Q3	FY 19/20 Q4	FY 20/21 Q1	FY 20/21 Q2
Vehicle related training sessions	4	5	0	15	15
DMV Pull Program	0	0	0	0	0
DOT Driver Program	0	0	0	0	0
Vehicle related incidents (injuries)	1(0)	2(1)	0(0)	2(0)	0(0)
Vehicle related claims	0	0	0	0	0





Safety Activities



SCV Water's Safety Team:

(Mike Alvord, Mark Passamani, Jose Diaz, Jon Wallace)

- Combining efforts to create a Best-in-Class safety culture.
Review of each division's;
 - Safety Committees: 10/28 & 12/16 via Microsoft Teams
 - Field visits and inspections
 - Safety Specialist 1 position offer accepted
 - Regulatory updates and submittals
 - Emergency Communication
 - Emergency Mass Notification System
 - Vehicle Back-Up Camera and Alarm Project
 - 6 Operations and 3 Production Vehicles





THANK YOU



COMMITTEE MEMORANDUM

DATE: January 26, 2021

TO: Engineering and Operations Committee

FROM: Courtney Mael, P.E. *CM*
Chief Engineer

SUBJECT: Recommend Approval of a Resolution Adopting the Final Supplemental Initial Study-Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Program Under the California Environmental Quality Act for the Vista Canyon Recycled Water (Phase 2B) Project

SUMMARY

Staff is recommending approval of a resolution adopting the Final Supplemental Initial Study-Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Program Under the California Environmental Quality Act for the Vista Canyon Recycled Water (Phase 2B) project.

DISCUSSION

On November 20, 2017, the Castaic Lake Water Agency's Board of Directors adopted the Mitigated Negative Declaration (MND) and the Mitigation Monitoring and Reporting Program (MMRP) for the Vista Canyon Recycled Water (Phase 2B) project by Resolution 3211.

The project will provide recycled water to the east side of SCV Water's service area by using the surplus recycled water that will be available from the new water reclamation plant (termed The Water Factory) that was recently constructed as part of the Vista Canyon development. The Phase 2B project, as defined in the adopted CEQA IS/MND (Original Project), includes the construction of approximately 11,600 linear feet of recycled water distribution pipeline and a one-million-gallon recycled water tank to be constructed at a pad site located 600 feet west of the existing Cherry Willow potable water tanks along the southern boundary of the Fair Oaks Ranch community.

Due to evidence of a landslide and slope stability deficiencies in the immediate vicinity of the original tank site, the proposed recycled water tank was relocated to an alternate graded pad site approximately 200 feet west of the existing Cherry Willow Tanks. As a result, modifications to the Original Project (Modified Project) were required which include construction of two five-hundred-thousand-gallon recycled water tanks at the alternate pad site, earth removal and re-compaction work to develop a certified compacted pad, an earthen berm along the northern boundary to screen the new tanks, and the extension of approximately 350 feet of new recycled water pipeline from the original tank site to the alternate location.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) CONSIDERATIONS

With the assistance of Rincon Consulting Inc., a supplemental Initial Study-Mitigated Negative Declaration (IS-MND) and Mitigation Monitoring and Reporting Program (MMRP) was prepared to analyze the potential environmental impacts associated with project modifications to the Original Project.

In accordance with Section 15163 of the State CEQA Guidelines, a supplement study can be prepared instead of a full subsequent MND document if “only minor additions or changes would be necessary” to make the previous CEQA document adequately apply to the project in the changed situation. Since the alternate tank site is in the near vicinity of the original tank site, and the types of construction activities are similar in nature to the Original Project, the changes in the Modified Project were considered minor. Furthermore, major revisions to the adopted 2017 IS-MND were not necessary because no new unmitigable significant impacts or significant impacts of substantially greater severity than previously described would occur as a result of the Modified Project.

The adopted 2017 IS-MND for the Original Project identified potentially significant but mitigable impacts to aesthetics, cultural resources, noise, and tribal cultural resources. With implementation of Mitigation Measures AES-1, CUL-1, and Noise-1 from the 2017 IS-MND, all environmental impacts associated with the Original Project would be reduced to a less than significant level.

In addition to the impacts identified in the 2017 IS-MND, the Supplemental IS-MND determined that the Modified Project would have potentially significant but mitigable impacts to biological resources. With implementation of new Mitigation Measures BIO-1 and BIO-2, all environmental impacts associated with the Modified Project would be reduced to a less than significant level.

The Supplemental IS-MND has determined the following to be applicable:

- No further evaluation of environmental impacts is required for the Modified Project
- No subsequent MND is necessary per State CEQA Guidelines Section 15162
- The Supplemental IS-MND is the appropriate level of environmental analysis and documentation for the Modified Project

CEQA PUBLIC REVIEW PROCESS

On November 19, 2020, SCV Water circulated a Notice of Intent (NOI), provided notice in the *Santa Clarita Valley Signal*, and released the draft Supplemental IS/MND in compliance with CEQA requirements for a 30-day review and comment period by the public and reviewing agencies. The review period ended on December 21, 2020. No comments were received from the public or reviewing agencies during the comment review period.

FINAL CEQA DOCUMENTS FOR BOARD APPROVAL

The State CEQA Guidelines (California Code of Regulations (“CCR”) Section 15074, Public Resources Code Section 21092) require public agencies to review and consider an MND, the IS, and comments received during the public review period prior to the adoption of the MND. Adoption of the MND, here a Supplemental MND, is dependent on the finding by the Board that, based on the whole record before it, there is no substantial evidence, with the mitigation

measures required by the MND, that the proposed project will have a significant impact on the environment, and that the MND reflects the lead Agency's independent judgment and analysis. The Final Supplemental MND is attached as Exhibit A.

Additionally, the State CEQA guidelines (CCR, sec 15097) require public agencies adopting an IS/MND to adopt a program for monitoring or reporting to ensure that mitigation measures in the IS/MND are implemented to mitigate or avoid potentially significant environmental impacts. The Mitigation Monitoring and Reporting Program (MMRP) is incorporated into the Final Supplemental IS/MND in Exhibit A.

All of the above documentation, including other materials that constitute the record of proceedings upon which the lead Agency decision is based, is on file at Santa Clarita Valley Water Agency, 26521 Summit Circle, Santa Clarita, CA 91350.

FINANCIAL CONSIDERATIONS

None.

RECOMMENDATION

That the Engineering & Operations Committee recommends that the Board of Directors approve a resolution adopting the Final Supplemental Initial Study-Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Program Under the California Environmental Quality Act for the Vista Canyon Recycled Water (Phase 2B) project.

Attachment

M65

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Phase 2B Recycled Water Tank Project

Mitigation Monitoring and Reporting Program

Santa Clarita Valley Water Agency

26504 Summit Circle

Santa Clarita, California 91350

Contact: Rick Vasilopoulos, Water Resources Planner

January 2021

Overview

CEQA requires that a reporting or monitoring program be adopted for the conditions of project approval that are necessary to mitigate or avoid significant effects on the environment (Public Resources Code 21081.6). The Mitigation Monitoring and Reporting Program (MMRP) is designed to ensure compliance with adopted mitigation measures during project implementation. For each applicable mitigation measure recommended in the original 2017 Initial Study – Mitigated Negative Declaration (IS-MND) and in the 2021 Supplemental IS-MND, specifications are made herein that identify the action required and the monitoring that must occur. In addition, a responsible party is identified for verifying compliance with individual conditions of approval contained in the MMRP.

To implement this MMRP, the Santa Clarita Valley Water Agency (SCV Water) shall designate a Project Mitigation Monitoring and Reporting Coordinator (“Coordinator”). The coordinator shall be responsible for ensuring that the mitigation measures incorporated into the project are complied with during project implementation.



Mitigation Measure/Condition of Approval	Action Required	Timing	Monitoring Frequency	Responsible Agency or Party	Initial	Date	Comments
AESTHETICS							
AES-1. The exterior of above-ground facilities shall be finished with a non-reflective material in an earth tone that blends in with the natural environment.	Review engineering design to confirm finish material is consistent with these requirements.	Prior to start of construction.	Once.	Santa Clarita Valley Water Agency			
	Confirm with contractor.	Prior to start of construction.	Once.				
BIOLOGICAL RESOURCES							
BIO-1 Coastal California Gnatcatcher Avoidance. The project proponent shall conduct United States Fish and Wildlife Service (USFWS) protocol surveys in suitable habitat within the Modified Project site and all areas within 500 feet of access or construction-related disturbance areas. Suitable habitats, according to the protocol, include "coastal sage scrub, alluvial fan, chaparral, or intermixed or adjacent areas of grassland and riparian habitats." A permitted biologist shall perform these surveys according to the USFWS Coastal California Gnatcatcher Presence/Absence Survey Guidelines (USFWS 1997). If the species is not detected during these surveys, no further action is required. If a territory or nest is confirmed during protocol surveys, the USFWS shall be notified to determine whether take authorization is necessary. USFWS may require the implementation of additional impact avoidance measures including temporary sound barriers, noise attenuation devices, and/or additional dust control measures. Final impact avoidance measures would be determined based on the location of the territory or nest, and in coordination with USFWS. No clearing of occupied habitat (as determined by the presence of a nest or territory) shall occur during the breeding season (February – August). Clearing of occupied habitat during the non-breeding season must be conducted at the discretion of a qualified monitoring biologist	Verify that a qualified biologist has performed protocol surveys; review results submitted by biologist.	Prior to start of construction.	Once.	Santa Clarita Valley Water Agency			
	If a territory or nest is confirmed during protocol surveys, notify USFWS to determine whether take authorization is necessary.	Prior to start of construction, at time of identification.	Once.				
	If USFWS requires additional impact avoidance measures, review contractor specifications prior to construction to confirm that measures are included.	Prior to start of construction.	Once.				
	If USFWS requires additional impact avoidance measures, field verify that measures are implemented during construction.	During construction.	Periodically.				
	Verify that no clearing of occupied habitat will occur during the breeding season.	Prior to start of construction and during construction.	Periodically.				
	If clearing of occupied habitat during the non-breeding season is to occur, verify that a qualified biologist will monitor clearing activities and that USFWS has authorized the activities.	Prior to start of construction and during construction.	Periodically.				

Mitigation Measure/Condition of Approval	Action Required	Timing	Monitoring Frequency	Responsible Agency or Party	Initial	Date	Comments
and authorized by the USFWS.							
<p>BIO-2 Nesting Birds. Project-related activities shall occur outside of the bird breeding season (generally February 1 to August 31) to the extent practicable. If construction must occur within the bird breeding season, then no more than three days prior to initiation of ground disturbance and/or vegetation removal, a nesting bird pre-construction survey shall be conducted by a qualified biologist within the disturbance footprint plus a 100-foot buffer (300-for for raptors), where feasible. If the proposed Modified Project is phased or construction activities stop for more than one week, a subsequent pre-construction nesting bird survey shall be required prior to each phase of construction.</p> <p>Pre-construction nesting bird surveys shall be conducted during the time of day when birds are active and shall factor in sufficient time to perform this survey adequately and completely. A report of the nesting bird survey results, if applicable, shall be submitted SCV Water for review and approval prior to ground and/or vegetation disturbance activities.</p> <p>If nests are found, their locations shall be flagged. An appropriate avoidance buffer ranging in size from 25 to 50 feet for passerines, and up to 300 feet for raptors depending upon the species and the proposed work activity, shall be determined and demarcated by a qualified biologist with bright orange construction fencing or other suitable flagging. Active nests shall be monitored at a minimum of once per week until it has been determined that the nest is no longer being used by either the young or adults. No ground disturbance shall occur within this buffer until the qualified biologist confirms that the breeding/nesting is completed and all the young have fledged. If Modified Project activities must occur within the</p>	<p>Verify that a qualified biologist has performed a nesting bird pre-construction survey; review results submitted by biologist.</p> <p>If active bird nests are located during the pre-construction survey, qualified biologist establishes appropriate buffer zones and monitors nests.</p>	<p>Prior to start of construction (within three days of each renewed phase of construction), if during nesting season. Not required outside nesting season.</p> <p>During construction, based on conditions.</p>	<p>As needed depending on construction phasing.</p> <p>Periodically.</p>	<p>Santa Clarita Valley Water Agency</p>			

Mitigation Measure/Condition of Approval	Action Required	Timing	Monitoring Frequency	Responsible Agency or Party	Initial	Date	Comments
buffer, they shall be conducted at the discretion of the qualified biologist. If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.							
CULTURAL RESOURCES							
CUL-1. In the event that any historical, archeological or tribal cultural resources are discovered during excavation activities, work shall be stopped immediately and temporarily diverted from the vicinity of the discovery until a qualified archeologist and a member of the Fernandeano Tataviam Band of Mission Indians are notified and can identify and evaluate the importance of the find, conduct an appropriate assessment, and implement measures to mitigate impacts on significant resources.	If cultural resources are discovered, verify that work is stopped immediately. Notify a qualified archeologist and a member of the Fernandeano Tataviam Band of Mission Indians.	During construction.	As needed.	Santa Clarita Valley Water Agency			
NOISE							
N-1. [SCV Water] and its contractors shall implement the following measures when project-related construction is planned to occur within the City limits and/or within 1,500 feet of sensitive receptors: <ul style="list-style-type: none"> ▪ Construction activities shall meet municipal code requirements related to noise. Construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. Saturday to avoid noise-sensitive hours of the day. Construction activities shall be prohibited on Sundays and holidays. ▪ Construction equipment noise shall be minimized by muffling and shielding intakes and exhaust on construction equipment (per the manufacturer’s specifications) and by shrouding or shielding impact tools. ▪ Construction contractors shall locate fixed construction equipment (such as compressors and generators) and construction staging areas as far as possible from nearby sensitive 	Verify that construction noise muffling equipment and staging measures are included in contractor’s specifications. Field verify compliance with measures.	Prior to issuance of contractor’s specifications. During construction.	Once. Periodically.	Santa Clarita Valley Water Agency			

Mitigation Measure/Condition of Approval	Action Required	Timing	Monitoring Frequency	Responsible Agency or Party	Initial	Date	Comments
receptors including residences, schools, and hospitals. ■ If construction were to occur near a school, the construction contractor shall coordinate with the most noise producing construction activities with school administration in order to limit disturbance to the campus.							

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Phase 2B Recycled Water Tank Project

Final Supplemental Initial Study – Mitigated Negative Declaration

prepared by

Santa Clarita Valley Water Agency

26504 Summit Circle

Santa Clarita, California 91350

Contact: Rick Vasilopoulos, Water Resources Planner

prepared with the assistance of

Rincon Consultants, Inc.

180 North Ashwood Avenue

Ventura, California 93003

January 2021



RINCON CONSULTANTS, INC.

Environmental Scientists | Planners | Engineers

rinconconsultants.com

Phase 2B Recycled Water Tank Project

Final Supplemental Initial Study – Mitigated Negative Declaration

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Ventura, California 93003

January 2021



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Appendix B	Air Quality and Greenhouse Gas Modeling
Appendix C	Cultural Resources Assessment
Appendix D	Energy Calculations
Appendix E	Geotechnical Investigation
Appendix F	Slope Stability Report

1 Introduction

This document is a Supplemental Initial Study – Mitigated Negative Declaration (IS-MND), which is “tiered” from the 2017 IS-MND for the Phase 2B Recycled Water System Project (2017 IS-MND; State Clearinghouse No. 2017051028; Appendix A). This Supplemental IS-MND has been prepared in accordance with relevant provisions of the California Environmental Quality Act (CEQA) of 1970 (as amended) and the State CEQA Guidelines.

In accordance with Section 15163 of the State CEQA Guidelines, a lead agency shall prepare a Subsequent Environmental Impact Report (EIR) or MND if substantial changes are proposed to the project which will require major revisions of the previous EIR or MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

In accordance with Section 15164 of the State CEQA Guidelines, a supplement can be prepared instead of a subsequent document if “only minor additions or changes would be necessary” to make the previous CEQA document adequately apply to the project in the changed situation.

Pursuant to Section 15163 of the State CEQA Guidelines, a supplemental CEQA document need only contain the information necessary to analyze the project modifications, changed circumstances, or new information that triggered the need for additional environmental review. Therefore, this Supplemental IS-MND has been prepared to analyze the potential environmental impacts associated with the modifications to the Original Project, which include a newly proposed graded pad site located approximately 200 feet southeast of the original water tank site, and approximately 350 linear feet of water pipeline in the paved roadway needed to accommodate the new site.

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2 Project Description

2.1 Background

In 2011, Santa Clarita Valley Water (SCV Water), formerly Castaic Lake Water Agency (CLWA), certified the Vista Canyon Final Environmental Impact Report (EIR). Vista Canyon is a 185-acre mixed-use development currently under construction in Santa Clarita with up to 1,100 residential units and up to 950,000 square feet of commercial development. The development's estimated water demand is approximately 300,000 gallons per day (gpd) or 334 acre-feet per year (AFY). To offset some of its potable water demand, the development also includes the Vista Canyon Water Factory (Water Factory), a recycled water facility with a capacity of approximately 415 AFY. Wastewater generated from the Vista Canyon development will be conveyed by gravity flow to the Water Factory, where it will be treated to Title 22 tertiary disinfected recycled water standards for non-potable use at Vista Canyon. The Vista Canyon development is anticipated to use approximately 137 AFY of recycled water. Surplus recycled water will be made available to SCV Water. The 2011 Vista Canyon Final EIR covered the Water Factory, pump station, and recycled water piping within the Vista Canyon development.

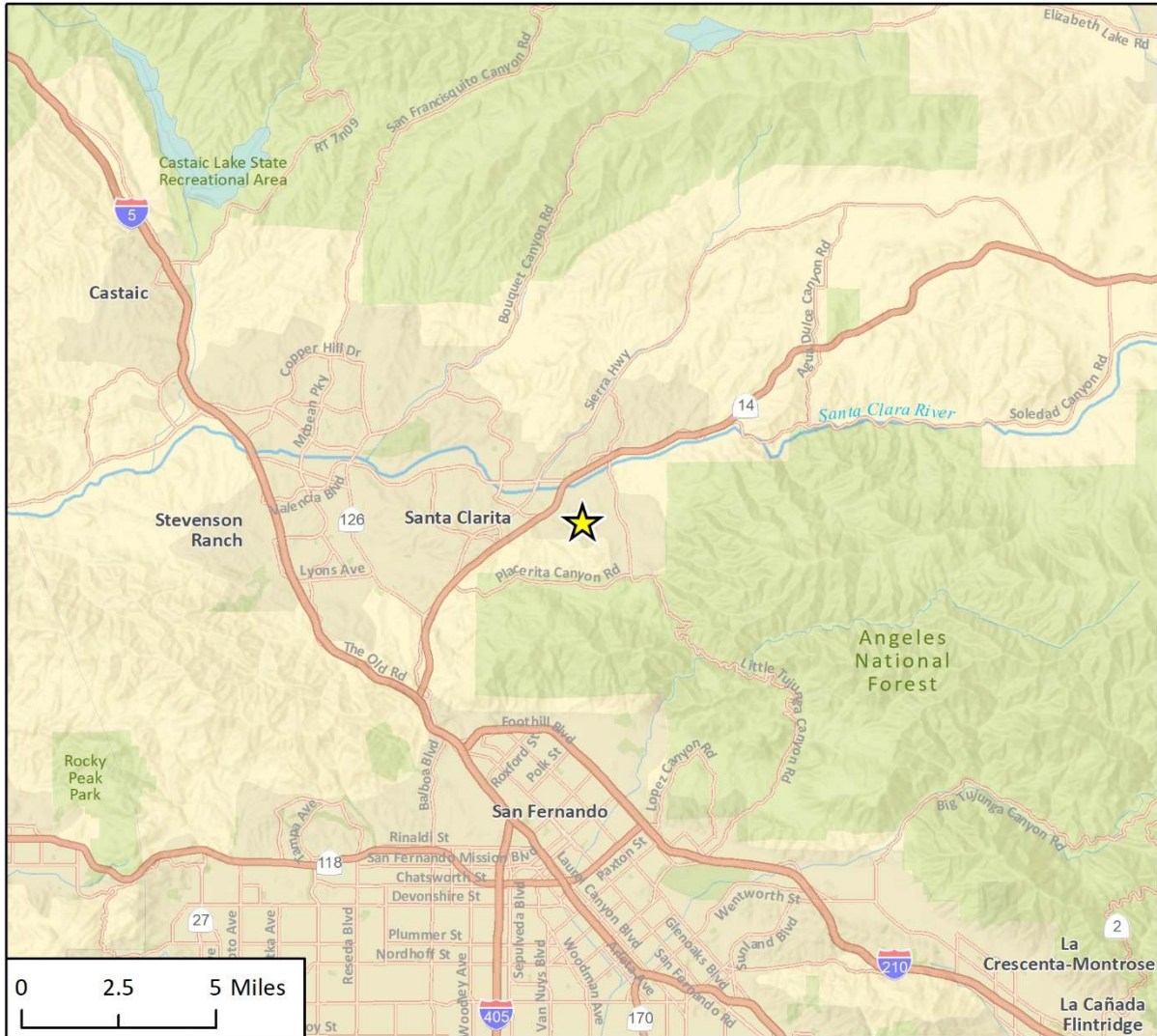
In 2016, SCV Water published its Recycled Water Master Plan. The objectives of the Recycled Water Master Plan are to accelerate implementation of recycled water projects, optimize expansion of the recycled water system, and explore opportunities for potable reuse. The Recycled Water Master Plan identifies four specific projects to expand recycled water use within Santa Clarita Valley, which are collectively known as Phase 2. Phases 2A, 2C, and 2D would use recycled water from the Valencia Water Reclamation Plant. Phase 2B would use water produced at the Vista Canyon Water Factory (SCV Water 2016).

In November 2017, SCV Water adopted an Initial Study-Mitigated Negative Declaration (IS-MND) for the Phase 2B Recycled Water System Project (Original Project). The 2017 IS-MND is attached to this Supplemental IS-MND as Appendix A. The Original Project includes a transmission pipeline from the Vista Canyon pump station, a one-million-gallon recycled water tank located approximately 1.25 miles southeast of the Vista Canyon development near existing Cherry Willow potable water tanks, distribution pipelines to serve major customers, and a backup potable water supply line from the existing Cherry Willow potable water tanks to the new recycled water tank in the event of an interruption in recycled water flow. In 2020, the original tank site was deemed unsuitable due to presence of a landslide and slope stability issue that would have required costly engineered buttress fill or drilled cast-in-place concrete piles and shear pins to resolve. Therefore, SCV Water elected to relocate the proposed recycled water tank site to an alternate existing graded pad site approximately 200 feet southeast of the original tank site.

2.2 Project Description

The Phase 2B Recycled Water Tank Project (Modified Project) involves the construction and operation of two 500,000-gallon recycled water tanks on the newly proposed graded pad site located approximately 200 feet southeast of the original tank site. Figure 1 shows the regional location of the Modified Project site, and Figure 2 shows the Original Project water tank site and Modified Project site locations. Similar to the Original Project, the Modified Project would be used to store recycled water generated by the nearby Vista Canyon Water factory and would supply

Figure 1 Regional Location



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★ Project Location

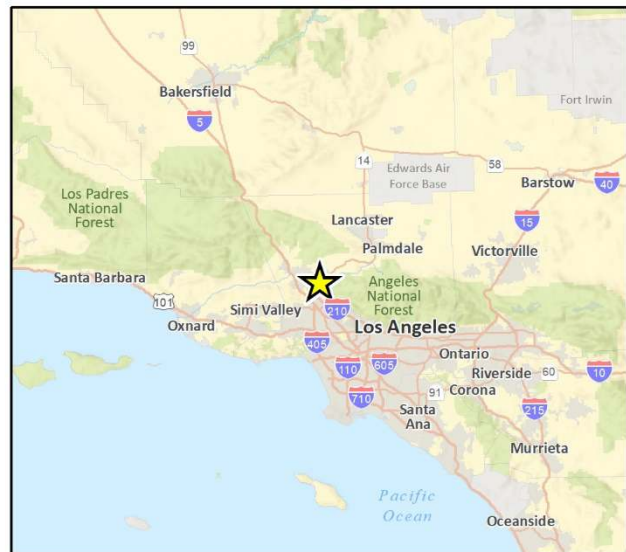


Fig. 1 Regional Location

Figure 2 Original and Modified Project Site Locations



Imagery provided by Microsoft Bing and its licensors © 2020.

Fig. 2 Project Location

irrigation water to customers in the Vista Canyon and Fair Oaks communities. Figure 3 shows site photographs of existing conditions at the Modified Project site. Figure 4 shows the site plan of the Modified Project.

The Modified Project would consist of two aboveground welded steel tanks with an approximate diameter of 55 feet and height of 34 feet each. The 0.55-acre graded pad site is situated on a northwest trending ridgeline, approximately 100 feet northwest of the existing Cherry Willow potable tanks, and 11 feet lower in elevation. The ridgeline descends to the northwest and the north flank of the ridge consists of a 100-foot-high north-facing slope with a series of concrete bench/terrace drains. The top of the slope has been previously graded to create a 15- to 20-foot-high visual berm that partially screens the two existing Cherry Willow potable tanks from the residences below on Cherry Willow Drive.

The proposed recycled water tanks would be painted an earthen tone color typically used by SCV Water to blend with the terrain surrounding the site. The site would include perimeter chain-link fencing for security.

A portion of the existing pad would require the top 20 feet of soil to be removed and recompact up to a proposed finish grade elevation of 1,810 feet to prepare a suitable pad to support the proposed recycled water tanks. Earth grading would be required to construct perimeter slopes and a vehicular entrance from the existing access road.

As part of the Modified Project, the existing Cherry Willow visual berm would be extended along the north side of the proposed recycled water tank site to provide visual screening from the residences below. It is anticipated that approximately 6,000 cubic yards of soil would be exported from the site.

In order to accommodate the newly proposed tank site, the recycled water transmission pipeline (currently under construction) would need to be extended by approximately 350 linear feet up the paved roadway between the original tank site and the new tank site. All other project components associated with the Original Project would be unchanged.

Final engineering design would incorporate geotechnical design recommendations from the Geotechnical Investigation (Appendix E) and companion Slope Stability Report (Appendix F) prepared for the Modified Project Site in October 2020.

Construction

Construction activities associated with the Modified Project would be similar to the Original Project with the exception of additional activities associated with construction of the visual berm. Construction of the recycled water tanks is anticipated to take approximately nine months, performed in two phases. Like the Original Project, the first phase would include clearing the area, fine grading, and construction of the foundation, site piping and erection of the steel tank structures, and would last approximately six months. Construction activities would involve welding equipment on-site as well as a crane, a concrete pumper, concrete delivery trucks, an excavator, dump trucks, water trucks, and a forklift. A crew of 10 to 15 workers is expected with three utility trucks. The second phase would involve coating the tank, and would last approximately three months. This phase would require painting equipment on-site as well as a crane, scaffolds, sand blasting equipment, and a forklift. A crew of eight workers is expected with three utility trucks. The maximum depth of excavation is twenty feet.

The additional construction activities associated with the 20 foot over-excavation and visual berm under the Modified Project would require use of an excavator, bulldozer, backhoe, front end loader,

skid steer loader, water truck, utility truck, and dump trucks. Construction of the visual berm would occur over approximately 40 working days in May 2021, and approximately 6,000 cubic yards of soil would be exported from the project site over the course of approximately five working days using 16-cubic-yard trucks.

The proposed pipeline extension would be installed at the end of the pipeline construction phase, as pipeline construction is progressing on a linear pathway towards the proposed recycled water tanks. Similar to the Original Project, the pipeline extension required by the Modified Project would be constructed using traditional cut-and-cover methods. First, an excavator would excavate a three foot-wide by 6.5 foot-deep trench and temporarily store the removed soils along the trench. Work crews would place the pipe in the trench, which would be backfilled by a loader or backhoe, and then compacted to match the existing grade. The temporary disturbance zone associated with pipe installation would be about 10 feet wide. The roadway would be restored to pre-construction conditions after pipeline installation. The expected rate of progress for pipeline installation is approximately 200 linear feet per day.

Construction of the new recycled water tanks and pipeline extension would occur between March 2021 and December 2021. Construction activities would typically occur between 7:00 a.m. and 7:00 p.m. Monday through Friday. No nighttime construction is proposed.

Construction personnel vehicles would be parked on the Modified Project site. Constructional materials would also be staged at the Modified Project site.

Operation and Maintenance

Operation and maintenance activities associated with the Modified Project would be the same as the Original Project. Similar to the Original Project, the Modified Project may include the installation of security lighting at the proposed water tanks.

Figure 3 Site Photographs

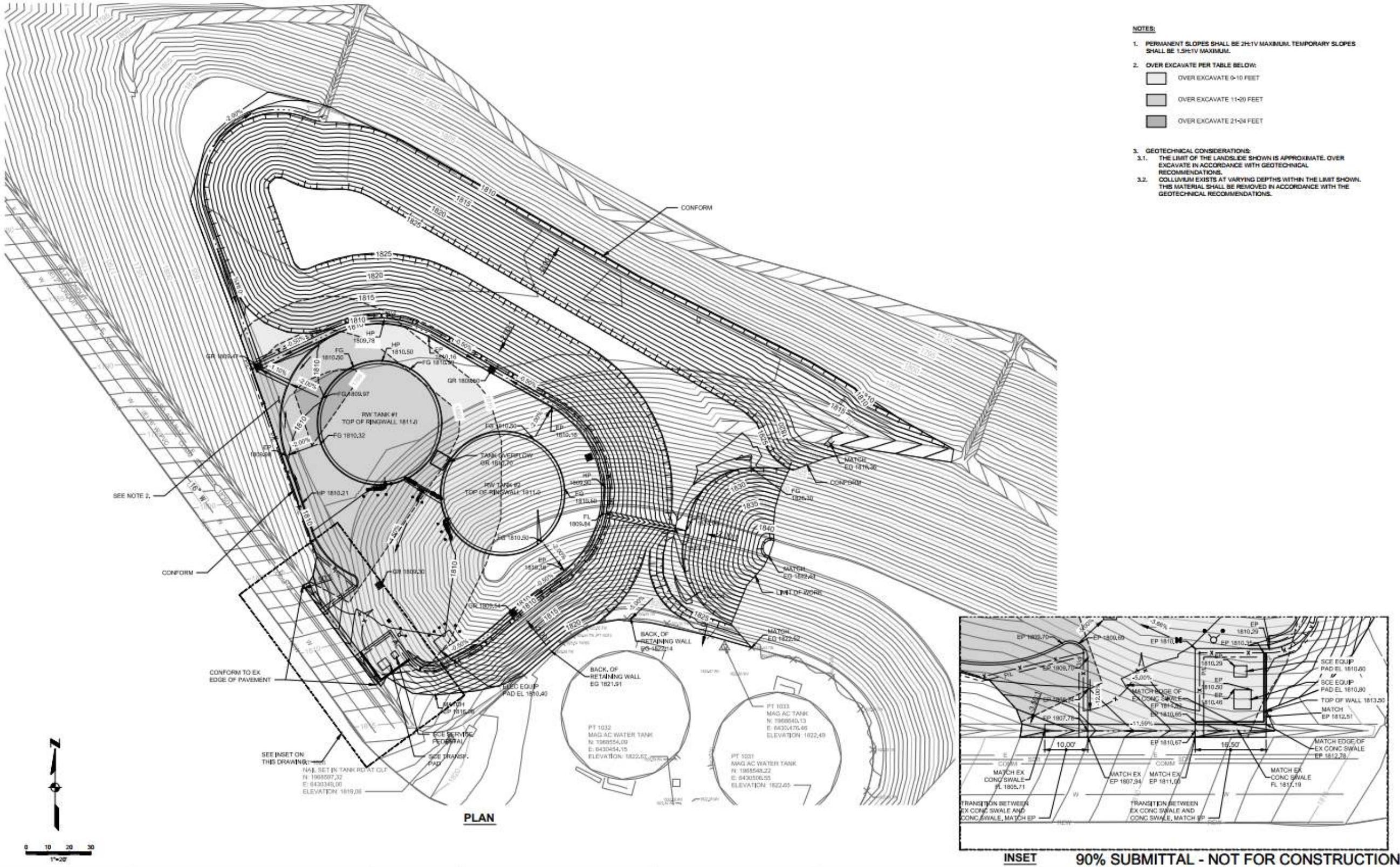


Photograph 1. View of Modified Project graded pad site, taken from southwestern portion of site facing northeast.



Photograph 2. View of Modified Project graded pad site in foreground, access road and pipeline corridor and Original Project graded pad site in mid-ground, and Fair Oaks residential community in background. Photo taken from existing berm directly south of Modified Project site, facing northwest.

Figure 4 Site Plan



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3 Environmental Checklist and Impacts of Modified Project

This Supplemental IS-MND evaluates potential environmental impacts which could result from the Modified Project.

Appendix G of the State CEQA Guidelines provides a checklist of environmental issues areas which are suggested as the issue areas which should be assessed in CEQA analyses. The 2017 IS-MND addressed all suggested environmental issue areas included in the version of Appendix G of the CEQA Guidelines in effect at the time of publication. In December 2018, the State CEQA Guidelines were updated. Checklist questions were revised and two new issue areas were added to the Appendix G checklist: Energy and Wildfire.

To provide a thorough and conservative analysis of potential impacts associated with the Modified Project, this Supplemental IS-MND addresses the updated list of Appendix G environmental issue areas, as listed below.

- | | |
|----------------------------------|--|
| 1. Aesthetics | 12. Mineral Resources |
| 2. Agriculture and Forestry | 13. Noise |
| 3. Air Quality | 14. Population/Housing |
| 4. Biological Resources | 15. Public Services |
| 5. Cultural Resources | 16. Recreation |
| 6. Energy | 17. Transportation |
| 7. Geology/Soils | 18. Tribal Cultural Resources |
| 8. Greenhouse Gas Emissions | 19. Utilities/Service Systems |
| 9. Hazards & Hazardous Materials | 20. Wildfire |
| 10. Hydrology/Water Quality | 21. Mandatory Findings of Significance |
| 11. Land Use/Planning | |

Potential environmental impacts of the Modified Project are analyzed to determine whether impacts are consistent with the impact analyses provided in the 2017 IS-MND, and whether additional mitigation measures are required to minimize or avoid potential impacts. For each checklist question in each issue area, this Supplemental IS-MND evaluates the four questions below to document consistency with Section 15164 of the State CEQA Guidelines:

- Do proposed changes require major revisions to the 2017 IS-MND?
- Do new circumstances require major revisions to the 2017 IS-MND?
- Any new information resulting in new or substantially more severe significant impacts?
- Do 2017 IS-MND mitigation measures address and/or resolve impacts?

Determination

Based on this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “less than significant with mitigation incorporated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

1/8/2021

Date

Matthew Stone

Printed Name

General Manager

Title

3.1 Aesthetics

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Have a substantial adverse effect on a scenic vista?	No	No	No	Yes
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No	No	No	N/A
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	No	No	No	Yes
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	No	No	No	N/A

According to the City of Santa Clarita’s General Plan Conservation and Open Space Element (2011), “scenic resources” can include “natural open spaces, topographic formations, and landscapes that contribute to a high level of visual quality.” The General Plan describes scenic resources in the Santa Clarita Valley, including mountains and canyons, woodlands, water bodies, and Vasquez Rocks County Park. The City’s General Plan does not specifically define scenic vistas and therefore there are no identified scenic vistas in the vicinity of the Original or Modified Project sites.

The City’s General Plan identifies the following goals and policies to protect and preserve the City’s scenic resources:

Goal CO 6: Preservation of scenic features that keep the Santa Clarita Valley beautiful and enhance quality of life, community identity, and property values.

Objective 6.1: Protect the scenic character of local topographic features

- Objective 6.2: Protect the scenic character of view corridors
- Objective 6.3: Protect the scenic character of major water bodies.
- Objective 6.4: Protect the scenic character of oak woodlands, coastal sage, and other habitats unique to the Santa Clarita Valley.
- Objective 6.5: Maintain the scenic character of designated routes, gateways, and vista points along roadways.
- Objective 6.6: Limit adverse impacts by humans on the scenic environment

The City specifically identifies several large mountain and canyon regions that are of aesthetic importance to the community, including Placerita Canyon, Whitney Canyon, Elsmere Canyon, Bouquet Canyon, San Francisquito Canyon, Sand Canyon, Pico Canyon, and Towsley Canyon (City of Santa Clarita 2011). Neither the Original Project site nor the Modified Project site are located in any of these identified regions of aesthetic importance.

Two existing City of Santa Clarita and County of Los Angeles recreational trails meander near the Original and Modified Project water tank sites.

Similar to the Original Project, the Modified Project water tank site is located on the southern edge of urban development in Santa Clarita and borders non-urbanized area to the direct south. The Original and Modified Project water tank sites are located approximately 200 feet apart from each other on graded pad sites situated on previously disturbed, north-facing terraced hillsides directly south of the Fair Oaks residential community. The Modified Project site is located approximately 100 feet northwest of the existing Cherry Willow potable tanks, and 11 feet lower in elevation. The ridgeline descends to the northwest and the north flank of the ridge consists of a 100-foot-high north-facing slope with a series of concrete bench and terrace drains. The top of the slope has been previously graded to create a 15- to 20-foot-high visual berm partially screening the two existing Cherry Willow potable tanks from the residences below on Cherry Willow Drive.

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

The 2017 IS-MND determined the Original Project's impacts to scenic vistas and the existing visual character would be less than significant with implementation of Mitigation Measure AES-1, requiring the exterior of above-ground facilities to be finished with a non-reflective material in an earth tone that blends in with the natural environment.

Visual impacts associated with the water tanks under the Modified Project would be similar or reduced in comparison to those analyzed under the Original Project. As previously discussed, the Modified Project site is not located in an area specifically identified as a scenic vista in the City of Santa Clarita's General Plan (2011).

The Original and Modified Project sites are located in between urbanized and non-urbanized land uses. Similar to the Original Project, the Modified Project would not substantially degrade the existing visual character or quality of public views of the site and would not conflict with applicable zoning and other regulations governing scenic quality. The existing hillside has been previously

graded and extensively terraced. In comparison to the Original Project, the Modified Project includes the construction of a visual berm to partially screen the proposed water tanks from the residences below on Cherry Willow Drive. The proposed visual berm would further reduce visual impacts of the water tanks on the residences below. In addition, as required by Mitigation Measure AES-1 from the 2017 IS-MND, the exterior of the water tanks would be finished with a non-reflective material in an earth tone that blends in with the natural environment.

Similar to the Original Project, the Modified Project would be visible from the nearby City and County recreational trails. The existing Cherry Willow potable tanks, located 100 feet southeast of the Modified Project site, are currently visible from these adjacent recreational trails. The proposed tanks would be visually consistent with the existing Cherry Willow potable tanks. As such, the Modified Project would not substantially degrade the existing visual character or quality of public views of the site.

The Modified Project would not degrade the scenic character of local topographic features; view corridors; major water bodies; oak woodlands, coastal sage, and other habitats unique to the Santa Clarita Valley; or designated routes, gateways, and vista points along roadways. Aesthetic impacts would be minimized such that the Modified Project would not introduce significant adverse impacts on the scenic environment. In comparison to the Original Project, aesthetic impacts related to the Modified Project would be slightly reduced due to the construction of a visual berm. Impacts related to scenic quality would be less than significant with mitigation.

Accordingly, the Modified Project would not introduce new impacts or substantially increased impacts related to scenic quality and would be consistent with the impact analysis provided in the 2017 IS-MND.

Mitigation Measures from 2017 IS-MND

AES-1: The exterior of above-ground facilities shall be finished with a non-reflective material in an earth tone that blends in with the natural environment.

Effects and Mitigation Measures

No new or substantially more severe effects would occur related to scenic quality, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

(Same as adopted 2017 IS-MND)

- b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The 2017 IS-MND determined impacts to scenic resources within a state scenic highway would be less than significant without mitigation. Similar to the Original Project, the Modified Project site is not located within the viewshed of a state scenic highway. Furthermore, as discussed under item a, visual impacts associated with the water tanks under the Modified Project would be similar or reduced in comparison to those analyzed under the Original Project. The Modified Project would not substantially damage scenic resources within a state scenic highway. Impacts would be less than significant.

Accordingly, the Modified Project would not introduce new impacts or substantially increased impacts related to scenic resources within state scenic highways and would be consistent with the impact analysis provided in the 2017 IS-MND.

Effects and Mitigation Measures

No new or substantially more severe effects would occur related to scenic resources within state scenic highways, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

- d. *Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?*

The 2017 IS-MND determined light and glare impacts associated with construction and operation of the Original Project would be less than significant without mitigation.

Similar to the Original Project, construction of the Modified Project may result in temporary light and glare due to the presence of construction vehicles and equipment. Construction activities would be temporary, and no nighttime construction is proposed. Also similar to the Original Project, the Modified Project may include the installation of security lighting at the proposed water tanks. Lighting would be shielded to reduce potential glare impacts to local areas, consistent with SCV Water design standards. Impacts related to light and glare would be less than significant.

Accordingly, the Modified Project would not introduce new impacts or substantially increased impacts related to light and glare and would be consistent with the impact analysis provided in the 2017 IS-MND.

Effects and Mitigation Measures

No new or substantially more severe effects would occur related to light and glare, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

3.2 Agriculture and Forestry Resources

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No	No	No	N/A
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	No	No	No	N/A
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	No	No	No	N/A
d. Result in the loss of forest land or conversion of forest land to non-forest use?	No	No	No	N/A
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	No	No	No	N/A

- a. *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*
- b. *Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?*
- c. *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*
- d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*
- e. *Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

The 2017 IS-MND determined no agricultural and forestry resources impacts associated with construction and operation of the Original Project would occur.

According to the California Department of Conservation, the Modified Project site is located on land designated as "Other Land." The Modified Project site is not on land currently in agricultural production and do not contain Prime Farmland, Unique Farmland, and Farmland of Statewide Importance (Farmland), or land with a Williamson Act contract (California Department of Conservation 2016). No portion of the Modified Project site is located on forest land or timber land.

Due to the absence of agricultural land on the Modified Project site or surrounding area, the Modified Project would not involve changes to the existing environment which could result in a new or substantially more severe impact related to conversion of Farmland to non-agricultural uses. Therefore, similar to the Original Project analyzed in the 2017 IS-MND, the Modified Project would result in no impact to agriculture and forestry resources.

Effects and Mitigation Measures

No new or substantially more severe effects would occur related to agriculture and forestry resources, and no new mitigation measures are necessary.

Conclusion

NO IMPACT

(Same as adopted 2017 IS-MND)

3.3 Air Quality

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	No	No	No	N/A
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	No	No	No	N/A
c. Expose sensitive receptors to substantial pollutant concentrations?	No	No	No	N/A
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No	No	No	N/A

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The 2017 IS-MND determined air quality impacts associated with implementation of the applicable air quality plan under the Original Project would be less than significant with no mitigation required.

The purpose of the Modified Project would be the same as that of the Original Project - to store recycled water generated by the nearby Vista Canyon Water factory and supply irrigation water to customers in the Vista Canyon and Fair Oaks communities. As such, similar to the Original Project, the Modified Project would not directly or indirectly induce population growth. In addition, similar to the Original Project, the Modified Project would not include new or modified permitted sources of air pollutant emissions. Therefore, the Modified Project would not exceed the Southern California Association of Governments’ (SCAG) projected growth forecasts, which underlie the emissions forecasts in the South Coast Air Quality Management District’s (SCAQMD) 2016 Air Quality Management Plan (SCAQMD 2017). Therefore, the Modified Project would not conflict with or obstruct implementation of the 2016 Air Quality Management Plan. Similar to the Original Project analyzed in the 2017 IS-MND, impacts would be less than significant.

Effects and Mitigation Measures

No new or substantially more severe effects related to consistency with the applicable air quality plan would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

- b. *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*
- c. *Would the project expose sensitive receptors to substantial pollutant concentrations?*

The 2017 IS-MND determined the Original Project’s air criteria pollutant emissions would be less than significant with no mitigation required.

Additional air pollutant emissions associated with the Modified Project would include temporary construction emissions generated by additional construction equipment and vehicle trips for construction of the visual berm beyond those required for the Original Project. Modeling of additional construction-related air pollutant emissions was performed using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 in accordance with project details provided by SCV Water, including the construction schedule and construction equipment list.

As with the Original Project site, the Modified Project site lies within the South Coast Air Basin. The SCAQMD has developed quantitative regional and localized significance thresholds that apply to projects within the South Coast Air Basin. The applicable thresholds adopted by the SCAQMD, which were also utilized in the 2017 IS-MND, are shown in Table 1.

Table 1 SCAQMD Regional Significance Mass Daily Thresholds

Pollutant	Construction Thresholds (pounds/day)	Operation Thresholds (pounds/day)
NO _x	100	55
VOC	75	55
PM ₁₀	150	150
PM _{2.5}	55	55
SO _x	150	150
CO	550	550
Lead	3	3

NO_x: nitrogen oxides; VOC: volatile organic compounds; PM₁₀: particulate matter 10 microns or less in size; PM_{2.5}: particulate matter 2.5 microns or less in size; SO_x: sulfur oxides; CO: carbon monoxide; SCAQMD = South Coast Air Quality Management District

Source: SCAQMD 2019

In addition to the above regional thresholds, SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board’s Environmental Justice Enhancement Initiative (1-4), which was prepared to update the CEQA Air Quality Handbook (SCAQMD 1993). LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for nitrogen oxides, carbon monoxide, particulate matter measuring 10 microns or less in diameter (PM₁₀), and particulate matter measuring 2.5 microns or less in diameter (PM_{2.5}). LSTs represent the maximum emissions from a project that would not cause

or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), distance to the sensitive receptor, and project size. LSTs have been developed for emissions generated in construction areas up to five acres in size. However, LSTs only apply to emissions in a fixed stationary location and are not applicable to mobile sources, such as cars on a roadway (SCAQMD 2008). As such, LSTs are typically applied only to construction emissions because the majority of operational emissions are associated with project-generated vehicle trips.

LSTs have been developed for emissions generated by construction sites up to five acres in size. The Modified Project site is located in SRA 13 (Santa Clarita Valley) and is approximately 0.55 acre. SCAQMD provides lookup tables for sites that measure up to one, two, or five acres. Pursuant to SCAQMD guidance, the one-acre LSTs were utilized for this analysis (SCAQMD 2008). LSTs are provided for receptors at a distance of 25 to 500 meters (82 to 1,640 feet) from the Modified Project site boundary. The closest sensitive receptors to the Original Project site were residences and a school located adjacent to the pipeline alignments. The closest sensitive receptors to the location of the proposed water tanks under the Modified Project are residences located approximately 230 feet to the north. Nevertheless, the same LSTs utilized in the 2017 IS-MND for receptors at a distance of 82 feet (the most restrictive thresholds available) were utilized for the purposes of a conservative analysis of the Modified Project. LSTs for construction on a one-acre site in SRA 13 for a receptor at 82 feet are shown in Table 2.

Table 2 SCAQMD LSTs for Construction

Pollutant	Allowable Emissions from a 1-acre Site in SRA 13 for a Receptor at 82 Feet (pounds/day)
Gradual conversion of NO _x to NO ₂	114
CO	590
PM ₁₀	4
PM _{2.5}	3

NO_x = nitrogen oxides; NO₂ = nitrogen dioxide; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = particulate matter measuring 10 microns or less in diameter; PM_{2.5} = particulate matter measuring 2.5 microns or less in diameter; SCAQMD = South Coast Air Quality Management District
Source: SCAQMD 2009

Construction Emissions

Additional temporary construction activities associated with the visual berm included in the Modified Project would generate criteria pollutant emissions, which would contribute to the existing non-attainment status of the SCAQMD region for the National Ambient Air Quality Standards for ozone and PM_{2.5} and the California Ambient Air Quality Standards for ozone, PM₁₀, and PM_{2.5} (SCAQMD 2016). Table 3 presents the estimated short-term emissions generated by the additional construction activities associated with the Modified Project. These emissions are combined with emissions associated with construction of the Original Project, which results in a conservative emissions estimate that assumes additional construction activities for the Original Project would occur simultaneously with those additional construction activities required for the Modified Project. The combined emissions are then compared the total maximum daily and on-site maximum daily emissions to the applicable SCAQMD thresholds. As shown in Table 3, additional

construction activities required for the Modified Project would result in greater emissions than those estimated for the Original Project. However, the combined maximum construction emissions would not exceed the SCAQMD regional thresholds or LSTs and would be substantially lower than the thresholds (between approximately 43 to 96 percent below the thresholds, depending on the pollutant). Therefore, construction-related air quality impacts associated with the Modified Project would be less than significant, similar to the Original Project analyzed in the 2017 IS-MND.

Table 3 Estimated Construction Maximum Emissions (pounds/ day)

Year	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Maximum Daily Construction Emissions						
Emissions Associated with the Original Project	2.7	29.5	18.1	< 0.1	1.7	1.3
Additional Emissions Associated with the Modified Project	1.9	46.2	17.7	0.1	3.7	1.4
Total Maximum Daily Construction Emissions	4.6	75.7	35.8	0.1	5.4	2.7
SCAQMD Regional Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Maximum Daily On-site Construction Emissions						
Emissions Associated with the Original Project	N/A	26.4	16.9	N/A	1.3	1.2
Additional Emissions Associated with the Modified Project	N/A	7.4	8.6	N/A	0.7	0.5
Total Maximum Daily On-site Emissions	N/A	33.8	25.5	N/A	2.0	1.7
SCAQMD Localized Significance Thresholds (LSTs)	N/A	114	590	N/A	4	3
Threshold Exceeded?	N/A	No	No	N/A	No	No

VOC = volatile organic compounds; NO_x = nitrogen oxides; CO = carbon monoxide; SO₂ = sulfur dioxide; PM₁₀ = particulate matter measuring 10 microns or less in diameter; PM_{2.5} = particulate matter measuring 2.5 microns or less in diameter; SCAQMD = South Coast Air Quality Management District; N/A = not applicable; CalEEMod = California Emissions Estimator Model

Notes: All emissions modeling was completed using CalEEMod. See Appendix B for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from “mitigated” results, which account for compliance with regulatory compliance measures such as SCAQMD Rule 403. Emissions presented are the highest of the winter and summer modeled emissions. Maximum on-site emissions are the highest emissions that would occur on the Modified Project site from on-site sources such as heavy construction equipment and architectural coatings and exclude off-site emissions from sources such as construction worker vehicle trips and haul truck trips.

Operational Emissions

Operation and maintenance of the Modified Project would be similar to that of the Original Project and would result in similar off gassing of coatings and similar routine maintenance trips. Therefore, operational emissions associated with the Modified Project would be similar to those of the Approved Project and would not exceed SCAQMD thresholds. As such, the operational air quality

impacts of the Modified Project would be less than significant, similar to the Original Project analyzed in the 2017 IS-MND.

Effects and Mitigation Measures

No new or substantially more severe effects related to criteria air pollutant emissions or exposure of sensitive receptors to substantial pollutant concentrations would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

- d. *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

The 2017 IS-MND determined the Original Project’s other emissions would be less than significant with no mitigation required.

The general nature of construction and operation of the Modified Project as recycled water infrastructure would be the same as that of the Original Project. As such, odors sources associated with construction (e.g., equipment exhaust) and operation (none) of the Modified Project would be similar to those of the Original Project. Therefore, similar to the Original Project analyzed in the 2017 IS-MND, odor impacts would remain less than significant.

Effects and Mitigation Measures

No new or substantially more severe effects related to other emissions (such as those leading to odors) would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

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3.4 Biological Resources

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	No	No	Yes	No – New Mitigation Required
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	No	No	No	N/A
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	No	No	No	N/A
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	No	No	No	N/A

	Do Proposed Changes Require Major Revisions to the EIR?	Do New Circumstances Require Major Revisions to the EIR?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do EIR Mitigation Measures Address and/or Resolve Impacts?
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No	No	No	N/A
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No	No	No	N/A

The Modified Project includes a newly proposed graded pad site located approximately 200 feet southeast of the original water tank site, and approximately 350 linear feet of water pipeline in the paved roadway needed to accommodate the new site. Rincon biologist Robin Murray conducted a biological reconnaissance survey of the Modified Project site plus a 100-foot buffer on September 24, 2020. Biological conditions in the Modified Project site were observed to be substantially similar to those reported in the 2017 IS-MND and the Biological/Regulatory Overview for the Original Project (Glenn Lukos Associates 2016).

a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The 2017 IS-MND determined biological resources impacts associated with construction and operation of the Original Project would be less than significant with mitigation incorporated.

The new tank site location and visual berm under the Modified Project would be situated within 250 feet from critical habitat for the coastal California gnatcatcher (*Polioptila californica californica*). The gnatcatcher is designated by the U.S. Fish and Wildlife Service (USFWS) as threatened under the federal Endangered Species Act. The Modified Project site is situated at the northern extent of the species’ geographic range where occurrences are sparsely scattered and is also situated near the upper limit of the species’ elevation range. Vegetation within the Modified Project does not provide the density or structural complexity the species requires for suitable nesting habitat. However, one coastal California gnatcatcher sighting is reported from 1998 within approximately one mile south of the Modified Project, within intact California sagebrush scrub (California Department of Fish and Wildlife [CDFW] 2020).

Nevertheless, if the species is present near the Modified Project during construction activities, the Modified Project has the potential to indirectly impact the species (through construction noise, dust, or other human disturbances that may cause a nest to fail). The Modified Project would introduce

new potentially significant impacts related to special-status biological resources not analyzed in the 2017 IS-MND. Implementation of new Mitigation Measure BIO-1 would include nine non-breeding season (July 1 through March 14) surveys conducted in accordance with USFWS protocol to determine presence/absence of coastal California gnatcatchers near the Modified Project site. As of October 2020, these surveys are in progress; the first survey conducted October 29 did not detect the species. As the California buckwheat scrub within the Modified Project footprint is not expected to support coastal California gnatcatcher territory, its removal is not expected to impact the species. Implementation of Mitigation Measure BIO-1 would maintain avoidance of potential indirect effects to coastal California gnatcatcher; accordingly, impacts to the species would be less than significant with mitigation incorporated.

Migratory or other common nesting birds, while not designated as special-status species, are protected by the California Fish and Game Code (CFGF) and Migratory Bird Treaty Act (MBTA) and may nest on site in vegetation. Therefore, construction of the Modified Project has the potential to directly (by destroying a nest) or indirectly (through construction noise, dust, and other human disturbances that may cause a nest to fail) impact nesting birds protected under the CFGF and MBTA. Implementation of new Mitigation Measure BIO-2 would include a pre-construction nesting bird survey if vegetation removal or construction occurs during the nesting bird season (typically February 1 to August 31). If active nests are identified, buffers would be implemented to minimize impacts to nesting birds. Implementation of Mitigation Measure BIO-2 would maintain compliance with CFGF 3503 and the MBTA.

Effects and Mitigation Measures

With implementation of the following new mitigation measures, potential impacts related to special-status species would be reduced to a less than significant level.

BIO-1 Coastal California Gnatcatcher Avoidance

The project proponent shall conduct USFWS protocol surveys in suitable habitat within the Modified Project site and all areas within 500 feet of access or construction-related disturbance areas. Suitable habitats, according to the protocol, include "coastal sage scrub, alluvial fan, chaparral, or intermixed or adjacent areas of grassland and riparian habitats." A permitted biologist shall perform these surveys according to the USFWS Coastal California Gnatcatcher Presence/Absence Survey Guidelines (USFWS 1997). If the species is not detected during these surveys, no further action is required.

If a territory or nest is confirmed during protocol surveys, the USFWS shall be notified to determine whether take authorization is necessary. USFWS may require the implementation of additional impact avoidance measures including temporary sound barriers, noise attenuation devices, and/or additional dust control measures. Final impact avoidance measures would be determined based on the location of the territory or nest, and in coordination with USFWS. No clearing of occupied habitat (as determined by the presence of a nest or territory) shall occur during the breeding season (February – August). Clearing of occupied habitat during the non-breeding season must be conducted at the discretion of a qualified monitoring biologist and authorized by the USFWS.

BIO-2 Nesting Birds

Project-related activities shall occur outside of the bird breeding season (generally February 1 to August 31) to the extent practicable. If construction must occur within the bird breeding season, then no more than three days prior to initiation of ground disturbance and/or vegetation removal, a

nesting bird pre-construction survey shall be conducted by a qualified biologist within the disturbance footprint plus a 100-foot buffer (300-foot for raptors), where feasible. If the proposed Modified Project is phased or construction activities stop for more than one week, a subsequent pre-construction nesting bird survey shall be required prior to each phase of construction.

Pre-construction nesting bird surveys shall be conducted during the time of day when birds are active and shall factor in sufficient time to perform this survey adequately and completely. A report of the nesting bird survey results, if applicable, shall be submitted to SCV Water for review and approval prior to ground and/or vegetation disturbance activities.

If nests are found, their locations shall be flagged. An appropriate avoidance buffer ranging in size from 25 to 50 feet for passerines, and up to 300 feet for raptors depending upon the species and the proposed work activity, shall be determined and demarcated by a qualified biologist with bright orange construction fencing or other suitable flagging. Active nests shall be monitored at a minimum of once per week until it has been determined that the nest is no longer being used by either the young or adults. No ground disturbance shall occur within this buffer until the qualified biologist confirms that the breeding/nesting is completed and all the young have fledged. If Modified Project activities must occur within the buffer, they shall be conducted at the discretion of the qualified biologist. If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.

Conclusion

The Modified Project would introduce new potentially significant impacts related to special-status biological resources not analyzed in the 2017 IS-MND. However, with implementation of Mitigation Measures BIO-1 and BIO-2, these impacts would be reduced to a less than significant level. For all other biological resources, the Modified Project would not introduce new unmitigable significant impacts or substantially increased significant impacts, and would be consistent with the impact analysis provided in the 2017 IS-MND.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

(Differs from adopted 2017 IS-MND)

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

The 2017 IS-MND determined the Original Project's biological resources impacts related to riparian habitat or other sensitive natural communities would be less than significant.

Neither the Original Project nor the Modified Project is situated within riparian habitat or a sensitive natural community. Therefore, construction of the new tank site and visual berm would not result in a new or substantially more severe impact related to riparian habitat or other sensitive natural community, when compared to the Original Project. Impacts would be less than significant under both the Original Project and the Modified Project.

Effects and Mitigation Measures

No new or substantially more severe effects related to riparian habitat or sensitive natural communities would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

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

The 2017 IS-MND determined the Original Project's biological resources impacts related to state or federally protected wetlands would be less than significant.

No state or federally protected wetlands or other water features that may be considered jurisdictional by CDFW, United States Army Corps of Engineers, or the Los Angeles Regional Water Quality Control Board occur within the Original or Modified Project. Therefore, no impact to jurisdictional waters or wetlands would occur.

Effects and Mitigation Measures

No new or substantially more severe effects related to state or federally protected wetlands would occur, and no new mitigation measures are necessary.

Conclusion

NO IMPACT

(Same as adopted 2017 IS-MND)

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

The 2017 IS-MND determined the Original Project's biological resources impacts related to movement or native resident or migratory fish or wildlife species, or migratory wildlife corridors would be less than significant.

Neither the Original Project nor the Modified Project is expected to hinder wildlife movement in the region, considering none of the Modified Project components are designed in such a way as to create a barrier to wildlife movement. The additional pipeline segment would be located within previously developed infrastructure, and the new tank location would not impede wildlife movement between open space areas. Impacts to wildlife movement would be less than significant under both the Original Project and Modified Project.

Effects and Mitigation Measures

No new or substantially more severe effects related to movement or native resident or migratory fish or wildlife species, or migratory wildlife corridors would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

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

The 2017 IS-MND determined the Original Project's biological resources impacts related to local policies and ordinances protecting biological resources would be less than significant.

As with the Original Project, the Modified Project would be subject to all City of Santa Clarita established environmental protection guidelines, and the project would not conflict with any local policies or ordinances protecting biological resources. The City of Santa Clarita has an Oak Tree Ordinance that includes restrictions on oak tree removal; however, no oak trees meeting the threshold requiring a tree permit for removal (six inches circumference measured 4.5 feet above natural grade) exist within the impact area of the Modified Project (or the Original Project), and therefore no conflicts with the Oak Tree Ordinance would occur.

Effects and Mitigation Measures

No new or substantially more severe effects related to local policies and ordinances protecting biological resources would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

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

The 2017 IS-MND determined the Original Project's biological resources impacts related to local, regional, or state habitat conservation plans would be less than significant.

The Modified Project site does not occur within any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan areas. Therefore, the Modified Project would not conflict with the provisions of any such plans, and no impact would occur, similar to the Original Project.

Effects and Mitigation Measures

No new or substantially more severe effects related to local, regional, or state habitat conservation plans would occur, and no new mitigation measures are necessary.

Conclusion

NO IMPACT

(Same as adopted 2017 IS-MND)

3.5 Cultural Resources

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	No	No	No	Yes
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	No	No	No	Yes
c. Disturb any human remains, including those interred outside of formal cemeteries?	No	No	No	Yes

In support of the modification to the Original Project site, Rincon prepared a Cultural Resources Study in support of the Modified Project in November 2020, which included: a cultural resources records search at the California Historical Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) located at California State University, Fullerton; a pedestrian field survey; and historical topographic map and aerial imagery review (Appendix C).

The SCCIC cultural resources records search was performed to identify previously conducted cultural resources studies, as well as previously recorded cultural resources within the Modified Project site and a 0.5-mile radius surrounding it. The CHRIS search included a review of available records at the SCCIC, as well as the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the Office of Historic Preservation Historic Properties Directory, the California Inventory of Historic Resources, the Archaeological Determinations of Eligibility list, and historic maps. Rincon received the SCCIC cultural resources records search results on October 15, 2020.

The SCCIC records search identified seven cultural resources studies conducted within a 0.5-mile radius of the Modified Project site, one of which evaluated portions of the Modified Project site. The study did not identify any cultural resources within the Modified Project site itself. The cultural resource study conducted for the Original Project (Foster 2017) was not identified by the SCCIC and is, therefore, most likely not in the SCCIC files. The Foster 2017 study did not record or observe any cultural resources within the Original Project site.

The SCCIC search identified one previously recorded cultural resource within the 0.5-mile radius surrounding the Modified Project site; no recorded cultural resources are within the Modified Project site.

- a. *Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?*
- b. *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

The 2017 IS-MND determined the Original Project would not cause a substantial adverse change in the significance of historical or archeological resources. Similar to the Original Project site, the Modified Project site has been previously disturbed by extensive grading and terracing. The Modified Project site is comprised of a flat pad and a 15- to 20-foot high visual berm on the southern side of the site.

Rincon completed a review of historical topographic maps and aerial imagery to confirm the site land use history as described in the 2017 IS-MND. Historical topographic maps from 1900 to 1955 depict the Modified Project site as undeveloped land (NETR Online 2020) and aerial imagery from 1947 to 1954 confirms the Modified Project site was undeveloped. Historical topographic maps and aerial imagery show the Modified Project site was planted with trees and a possible orchard from approximately 1959 to 1988, with a road developed to the south-east between 1974 and 1978 (NETR Online 2020). Imagery from 2002 to 2005 shows the continued development of the area and imagery from 2009 depicts the Cherry Willow potable tank site as developed and the Modified Project site in its current graded and terraced condition (NETR Online 2020).

Rincon conducted a pedestrian field survey of the Modified Project site on October 20, 2020. Pedestrian transects were spaced no more than 15 meters apart, where accessible, within the Modified Project site and a 100-foot buffer surrounding the site. A visual reconnaissance of the graded slopes was also conducted. Ground visibility ranged from poor (less than 15 percent) on vegetated, graded slopes to excellent (100 percent) in recently graded and flat areas. Exposed ground surfaces were inspected for prehistoric cultural materials (e.g., flaked stone tools, tool-making debris, stone milling tools, ecofacts [marine shell and bone]), soil discoloration that might indicate the presence of a prehistoric midden deposit, historic-period debris (e.g., metal, glass, ceramics), and features that indicate the presence of former historic-period structures or buildings (e.g., standing exterior walls, foundations). Rodent burrows allowed visual inspection of subsurface soils. The Modified Project site has been heavily disturbed by previous construction grading and terracing that created a flat, graded pad and a 15- to 20-foot high berm around the Cherry Willow potable tank site. These extensive previous construction disturbances likely removed the upper soil layers that might have contained cultural resources. Visible soils within the Modified Project site consisted of light brown to tan colored sandy and silty loam with imported gravel likely due to recent modification and site use. The Modified Project site exhibited modifications and archaeological sensitivity similar to conditions reported for the 2017 Original Project site, during which Greenwood and Associates noted a low sensitivity for archaeological resources due to heavy disturbance of the project site.

As with the 2017 IS-MND, although no historical or archaeological resources are known to exist within the Modified Project site, there is the potential for unanticipated discoveries during ground disturbance. In the unlikely event of an unanticipated discovery, impacts to unknown archaeological resources would be potentially significant and mitigation measures would be required, as determined and included in the 2017 IS-MND. The Modified Project would implement Mitigation Measure CUL-1, as identified in the 2017 IS-MND, to reduce potential impacts to a less than significant level.

Mitigation Measures from 2017 IS-MND

CUL-1: In the event that any historical, archeological or tribal cultural resources are discovered during excavation activities, work shall be stopped immediately and temporarily diverted from the vicinity of the discovery until a qualified archeologist and a member of the Fernandeño Tataviam Band of Mission Indians are notified and can identify and evaluate the importance of the find, conduct an appropriate assessment, and implement measures to mitigate impacts on significant resources.

Effects and Mitigation Measures

No new or substantially increased impacts to cultural resources would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

(Same as adopted 2017 IS-MND)

- c. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

The 2017 IS-MND determined no cemeteries are known to exist within the Original Project and the Original Project would likely not impact or disturb human remains.

Similar to the Original Project, the Modified Project is not likely to impact human remains. Although unlikely, if human remains are unexpectedly found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the Los Angeles County Department of Medical Examiner-Coroner would be notified immediately. If the human remains are determined to be prehistoric, the Medical Examiner-Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). The MLD will complete an inspection of the site within 48 hours of being granted access to the site. With adherence to existing regulations, impacts to human remains would be less than significant.

Effects and Mitigation Measures

No new or substantially increased impacts to cultural resources would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

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3.6 Energy

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	No	No	No	N/A
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No	No	No	N/A

- a. *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*
- b. *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

The 2017 IS-MND did not directly evaluate the energy impacts associated with construction and operation of the Original Project because this impact area was added to the CEQA Guidelines Appendix G checklist in December 2018, after adoption of the 2017 IS-MND. However, the environmental impacts of energy consumption such as air pollutant and greenhouse gas (GHG) emissions, were indirectly evaluated in the 2017 IS-MND. As discussed in Section 3.3, *Air Quality*, and Section 3.8, *Greenhouse Gas Emissions*, the 2017 IS-MND determined air quality and GHG emissions impacts would be less than significant. Therefore, the 2017 IS-MND indirectly concluded that the energy impacts of the Original Project would be less than significant with no mitigation required.

Energy use during construction of the Modified Project would be generally similar to the Original Project; however, the additional construction equipment usage and vehicle trips associated with construction of the visual berm under the Modified Project would require approximately 157 more gallons of gasoline and 3,418 gallons of diesel fuel (see Appendix D for energy consumption calculations that were based on the CalEEMod modeling results in Appendix B). Energy use during construction would be temporary in nature, and construction equipment used would be typical of construction projects in the region. In addition, construction contractors would be required to comply with the provisions of 13 California Code of Regulations Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes, which would minimize unnecessary fuel consumption. Construction equipment would be subject to the United States Environmental Protection Agency’s Construction Equipment

Fuel Efficiency Standard (40 Code of Federal Regulations Parts 1039, 1065, and 1068), which would minimize inefficient fuel consumption. Therefore, similar to the Original Project, construction of the Modified Project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources.

Operation of the Modified Project would be similar to that of the Original Project and would result in similar energy consumption associated with recycled water pumping and vehicle trips for routine maintenance activities. The California Air Resources Board's (CARB) 2017 Climate Change Scoping Plan, which was adopted to establish a pathway to achieving the State's GHG emission reduction target of 40 percent below 1990 levels by 2030, acknowledges that "the water-energy nexus provides opportunities for conservation of these natural resources as well as reductions of GHG emissions" (CARB 2017). Statewide GHG emissions reduction strategies for the water sector are aimed at reducing the energy intensity of water, which is "the amount of energy required to take a unit of water from its origin (such as a river or aquifer) and extract and convey it to its end use" (CARB 2017). Similar to the Original Project, the Modified Project would facilitate the use of recycled water in the project area. In doing so, the Modified Project would support the necessary provision of a new source of local water supply and would preclude the need for additional imports of future water supplies (beyond those already planned to accommodate growth), which would have a greater energy intensity than local recycled water. Accordingly, energy consumption during operation of the Modified Project would not be unnecessary. Furthermore, in the interest of cost savings, pump station equipment would be designed to minimize the wasteful and inefficient consumption of energy, and staff would not make unnecessary vehicle trips to the site for operation and maintenance activities. As a result, similar to the Original Project, energy consumption by the Modified Project during operation would not be wasteful, inefficient, or unnecessary. Therefore, impacts would be less than significant.

SCV Water does not have a specific renewable energy or energy efficiency plan. The Santa Clarita General Plan and City of Santa Clarita Climate Action Plan include several goals and policies related to renewable energy and energy efficiency (City of Santa Clarita 2011 and 2012). Similar to the Original Project, the Modified Project would support implementation of Measure WSW-1 (Use Reclaimed Water) of the City's Climate Action Plan, which encourages the use of reclaimed water for non-potable purposes because it is less energy intensive than other water supply sources. Furthermore, as discussed above, the Modified Project would be consistent with the energy conservation goals of the 2017 Climate Change Scoping Plan. Therefore, similar to the Original Project analyzed in the 2017 IS-MND, the Modified Project would not conflict with or obstruct the statewide or local plans for renewable energy and energy efficiency, and impacts would be less than significant.

Effects and Mitigation Measures

No new or substantially more severe effects related to energy would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

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3.7 Geology and Soils

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

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

1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	No	No	No	N/A
2. Strong seismic ground shaking?	No	No	No	N/A
3. Seismic-related ground failure, including liquefaction?	No	No	No	N/A
4. Landslides?	No	No	No	N/A
b. Result in substantial soil erosion or the loss of topsoil?	No	No	No	N/A
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	No	No	No	N/A

	Do Proposed Changes Require Major Revisions to the IS-MND?	Do New Circumstances Require Major Revisions to the IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS-MND Mitigation Measures Address and/or Resolve Impacts?
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	No	No	No	N/A
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	No	No	No	N/A
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No	No	No	N/A

In October 2020, a Geotechnical Investigation (Appendix E) and companion Slope Stability Report (Appendix F) were prepared for the Modified Project Site. The Geotechnical Investigation and companion Slope Stability Report evaluate the soils and geological materials at the Modified Project site and provide geotechnical design criteria for the Modified Project. In addition, slope stability analyses were performed to evaluate the adequacy of slope stability to accommodate the proposed infrastructure (Kennedy/Jenks Consultants 2020; Geolabs – Westlake Village 2020).

The Modified Project site contains an existing building pad that was graded atop a bedrock ridgeline between 2003 and 2006 as a part of Tract 28833 for the Fair Oaks residential development. The building pad is underlain by Towsley Formation bedrock. The northeast and western edges of the pad consist of compacted fill. A sloped stability fill ascends from the south side of the pad approximately 30 feet to the visual berm separating the building pad from the existing Cherry Willow tanks site (Geolabs – Westlake Village 2020).

The Modified Project site is located within the seismically active Southern California region. However, the Modified Project site contains no known active or potentially active faults, nor is it located within a state-mandated Earthquake Fault Zone (Geolabs – Westlake Village 2020).

The Modified Project components are not located in a Liquefaction Hazard Zone. Like the Original Project site, the Modified Project site is located in an Earthquake-Induced Landslide Hazard Zone (City of Santa Clarita 2020a).

According to the Geotechnical Investigation, some of the near-surface soils on the Modified Project site are expansive (Kennedy/Jenks Consultants 2020).

- a. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*
- a.1 *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*
 - a.2 *Strong seismic ground shaking?*
 - a.3 *Seismic-related ground failure, including liquefaction?*
 - a.4 *Landslides?*

The 2017 IS-MND determined geology and soils impacts associated with construction and operation of the Original Project would be less than significant with no mitigation required. However, during the course of final engineering design, it was determined there were landslide and slope stability risks at the Original Project site that would have required costly engineered buttress fill or drilled cast-in-place concrete piles and shear pins to resolve. Therefore, SCV Water elected to relocate the proposed recycled water tank site to the Modified Project site, located approximately 200 feet southeast of the original tank site.

Similar to the Original Project site, the Modified Project site is located in a seismically-active area of Southern California. However, also similar to the Original Project site, no portion of the Modified Project site is located in an Alquist-Priolo earthquake fault zone. As discussed in the 2017 IS-MND, the region is prone to occasional seismic ground shaking. Like the Original Project, the Modified Project would incorporate appropriate seismic safety design measures as required by the latest California Building Code (CBC), including shut-off valve requirements in the case of a pipeline rupture. As with the Original Project, regulatory compliance with the CBC would reduce seismic hazards associated with the Modified Project to a less than significant level. Impacts related to seismic-related ground failure, including liquefaction, would be less than significant with adherence to the CBC.

Additional geologic investigative work was completed to determine whether the Modified Project site was subject to similar geologic hazards as the Original Project site. Geologic findings in the Geotechnical Investigation (Appendix E) and companion Slope Stability Report (Appendix F) indicated evidence of fractured soil and rock within the upper 20 feet of soil material at the Modified Project site. The geological report recommends removing and recompacting the upper 20 feet of soil material to obtain an acceptable slope stability factor of safety and provide adequate soil bearing capacity for the proposed water tanks. As discussed in the *Project Description*, final engineering design would incorporate the geotechnical design recommendations from the Geotechnical Investigation and companion Slope Stability Report. The Slope Stability Report concludes the Modified Project, with incorporation of recommendations identified therein, would be safe against hazard from landslide, settlement, or slippage, and would have no adverse effect on the geologic stability of properties outside of the Modified Project site.

In addition, like the Original Project, the Modified Project does not include habitable structures and would therefore not expose people to loss, injury, or death involving landslides. Implementation of the 20-foot earth over-excavation and re-compaction of a portion of the existing pad at the Modified Project would alleviate the existing risk of earthquake-induced landslides in the immediate vicinity. In the event an earthquake compromised any project component due to landslides during operation, SCV Water would temporarily shut off the water supply and conduct emergency repairs as soon as possible. Impacts related to landslides would be less than significant.

Effects and Mitigation Measures

No new or substantially more severe effects would occur to seismic hazards, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

b. Would the project result in substantial soil erosion or the loss of topsoil?

The 2017 IS-MND determined geology and soils impacts associated with construction and operation of the Original Project would be less than significant with no mitigation required.

As discussed in Section 3.10, *Hydrology and Water Quality*, similar to the Original Project, grading, excavation, and other construction activities associated with the Modified Project could result in soil erosion. In comparison to the Original Project, the Modified Project would involve increased excavation and soil movement to accommodate creation of a visual berm. Grading, excavation, and other construction activities associated with the Modified Project could result in soil erosion due to exposed and stockpiled soils.

As discussed in Section 3.10, *Hydrology and Water Quality*, the Modified Project would be subject to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which requires implementation of a Stormwater Pollution Prevention Plan (SWPPP) outlining project-specific best management practices (BMPs) to control erosion. Erosion control BMPs may include measures such as silt fencing, temporary sediment basins, and an on-site supply of erosion control materials (gravel, straw bales, shovels, etc.). Implementation of a SWPPP as required by the Construction General Permit would reduce the Modified Project's potential impacts related to soil erosion to a less than significant level.

Effects and Mitigation Measures

No new or substantially more severe effects would occur to soil erosion, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

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

The 2017 IS-MND determined the Original Project's impacts to unstable geologic units or soils would be less than significant with no mitigation required.

Ground subsidence and associated fissuring have occurred in Los Angeles County due to falling and rising groundwater tables. Subsidence is caused by a variety of activities, which include, but are not limited to: withdrawal of groundwater, pumping of oil and gas from underground, the collapse of underground mines, liquefaction, and hydro-compaction. Like the Original Project, the Modified

Project would not increase the amount of water pumped from the underlying groundwater basin. Based on the Modified Project's elevated location on a hillside, construction activities are unlikely to encounter groundwater.

As discussed in the *Project Description*, final engineering design would incorporate the geotechnical design recommendations from the Geotechnical Investigation and companion Slope Stability Report. The Slope Stability Report concludes the Modified Project, with incorporation of recommendations identified therein, would be safe against hazard from landslide, settlement, or slippage, and would have no adverse effect on the geologic stability of properties outside of the Modified Project site.

Additionally, as discussed in the 2017 IS-MND, the CBC contains provisions for soil preparation to minimize hazards from liquefaction and other unstable geologic features. In the event landslides, lateral spreading, subsidence, liquefaction, or collapse compromised any Modified Project component during operation, SCV Water would temporarily shut off the facility and conduct emergency repairs as soon as possible. Therefore, the Modified Project would not result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse.

Effects and Mitigation Measures

No new or substantially more severe effects would occur to seismic hazards or unstable geologic units or soils, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

- d. *Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

The 2017 IS-MND determined the Original Project's impacts related to expansive soils would be less than significant with no mitigation required. A soil's potential to shrink and swell depends on the amount and types of clay in the soil. The additional segment of pipeline constructed under the Modified Project would involve construction of a water pipeline beneath the existing roadway on engineered fill, which is not subject to significant expansion.

According to the Geotechnical Investigation, some of the near-surface soils on the Modified Project water tanks site are expansive (Kennedy/Jenks Consultants 2020). As discussed in the *Project Description*, final engineering design would incorporate the geotechnical design recommendations from the Geotechnical Investigation and companion Slope Stability Report. The Geotechnical Investigation includes design recommendations to address risks associated with expansive soils. Design criteria are presented for pre-saturation of the supporting subgrade soils prior to placing concrete. With implementation of design criteria recommended in the Geotechnical Investigation, impacts related to expansive soils would be less than significant.

Effects and Mitigation Measures

No new or substantially more severe effects would occur to expansive soils, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

- e. *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

Neither the Original Project nor the Modified Project would involve septic tanks or alternative wastewater disposal systems, and therefore, no related impact would occur.

Effects and Mitigation Measures

No new or substantially more severe effects would occur to septic tanks, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

- f. *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

The 2017 IS-MND determined there were no unique paleontological resources located on or near the Original Project site, and no impact would occur to paleontological resources. In the 2017 IS-MND, this analysis was located in the Cultural Resources section. This checklist question was moved to the Geology and Soils section in the December 2018 CEQA Guidelines updates, after adoption of the 2017 IS-MND.

The Modified Project site is located within the same vicinity as the Original Project site. Similar to the Original Project site, the Modified Project water tank site was originally part of a ridge that has been subsequently graded to a level pad. Similar to the 2017 IS-MND, impacts would be less than significant.

Effects and Mitigation Measures

No new or substantially more severe effects would occur to paleontological resources, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as approved 2017 IS-MND)

3.8 Greenhouse Gas Emissions

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	No	No	No	N/A
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No	No	No	N/A

- a. *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*
- b. *Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

The 2017 IS-MND determined GHG emissions impacts associated with construction and operation of the Original Project would be less than significant with no mitigation required.

Additional GHG emissions associated with the Modified Project would include temporary emissions generated by additional equipment and vehicle trips for construction of the visual berm beyond those required for the Original Project. Modeling of additional construction-related GHG emissions was performed using CalEEMod version 2016.3.2 in accordance with project details provided by SCV Water, including the construction schedule and construction equipment list. Operation of the Modified Project would be the same as that of the Original Project and would result in similarly minimal levels of GHG emissions.

Consistent with the approach of the 2017 IS-MND, this analysis utilizes a threshold of 10,000 metric tons (MT) of carbon dioxide equivalents (CO₂e) because the Modified Project is considered a utility project and this threshold was adopted by the SCAQMD as a screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency. As shown in Table 4, total GHG emissions associated with the Modified Project combined with those of the Original Project would be approximately 202 MT of CO₂e, which would not exceed the threshold of 10,000 MT of CO₂e. Therefore, similar to the Original Project, the Modified Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and impacts would be less than significant.

Table 4 Estimated GHG Emissions

Emission Source	Emissions (MT of CO₂e)
Emissions Associated with the Original Project	160
Additional Emissions Associated with the Modified Project	42
Total	202
Threshold	10,000
Threshold Exceeded?	No

MT = metric tons; CO₂e = carbon dioxide equivalents; SCAQMD = South Coast Air Quality Management District
 See Appendix B for modeling results.

SCV Water does not have a specific GHG emission reduction plan. The Santa Clarita General Plan and City of Santa Clarita Climate Action Plan include several goals and policies related to GHG emission reductions (City of Santa Clarita 2011 and 2012). As discussed in Section 3.6, *Energy*, similar to the Original Project, the Modified Project would support implementation of Measure WSW-1 (Use Reclaimed Water) of the City’s Climate Action Plan, which encourages the use of reclaimed water for non-potable purposes because it is less energy intensive and results in fewer GHG emissions than other water supply sources. In addition, as discussed in Section 3.6, *Energy*, the Modified Project would be consistent with the GHG emission reduction goals of the 2017 Climate Change Scoping Plan related to water recycling (CARB 2017). Therefore, similar to the Original Project analyzed in the 2017 IS-MND, the Modified Project would be consistent with applicable plans for GHG emission reductions, and impacts would be less than significant.

Effects and Mitigation Measures

No new or substantially more severe effects related to GHG emissions would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

3.9 Hazards and Hazardous Materials

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	No	No	No	N/A
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	No	No	No	N/A
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	No	No	No	N/A
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No	No	No	N/A
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No	No	No	N/A

	Do Proposed Changes Require Major Revisions to the IS-MND?	Do New Circumstances Require Major Revisions to the IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS-MND Mitigation Measures Address and/or Resolve Impacts?
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No	No	No	N/A
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	No	No	No	N/A

- a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*
- b. *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*
- c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*
- d. *Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*
- e. *For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*
- f. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*
- g. *Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?*

The 2017 IS-MND determined hazards and hazardous materials impacts from the Original Project would be less than significant.

Hazardous materials conditions in and around the Modified Project site have not changed since the analysis included in the 2017 IS-MND. The Modified Project is located in the close vicinity of the Original Project and would not introduce any new or substantially more severe effects related to hazards near schools, airports, or mapped hazardous materials sites. Construction activities and materials associated with the Modified Project would be similar to those analyzed under the Original Project. There is the potential for an accidental spill or release of hazardous or potentially hazardous materials such as vehicle and equipment fuels to occur during Modified Project construction. Similar to the Original Project, the Modified Project would comply with all relevant

regulations, including the enforcement of hazardous materials treatment, handling, notification, and transportation regulations and implementation of best management practices (BMPs). Compliance with appropriate regulations and policies, specifically California Title 22 and Regional Water Quality Control Board recycled water permitting, would minimize risk associated with release of hazardous or potentially hazardous materials. Impacts would be less than significant.

Effects and Mitigation Measures

No new or substantially more severe effects would occur related to hazards and hazardous materials and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as approved 2017 IS-MND)

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3.10 Hydrology and Water Quality

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	No	No	No	N/A
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	No	No	No	N/A
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	No	No	No	N/A
(i) Result in substantial erosion or siltation on- or off-site	No	No	No	N/A
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site	No	No	No	N/A
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff	No	No	No	N/A

	Do Proposed Changes Require Major Revisions to the IS-MND?	Do New Circumstances Require Major Revisions to the IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do IS-MND Mitigation Measures Address and/or Resolve Impacts?
(iv) Impede or redirect flood flows?	No	No	No	N/A
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No	No	No	N/A
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No	No	No	N/A

- a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*
- c. *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*
 - i. *Result in substantial erosion or situation on- or off-site?*

The 2017 IS-MND determined hydrology and water quality impacts from implementation of the Original Project would be less than significant without mitigation required.

Construction

Similar to the Original Project, grading, excavation, and other construction activities associated with the Modified Project could adversely affect water quality due to erosion resulting from exposed soils and the generation of water pollutants, including trash, construction materials, and equipment fluids. Additionally, spills, leakage, or improper handling and storage of substances such as oils, fuels, chemicals, metals, and other substances from vehicles, equipment, and materials used during Modified Project construction could contribute to stormwater pollutants or leach to underlying groundwater. In comparison to the Original Project, the Modified Project would involve increased excavation and soil movement to accommodate creation of a visual berm.

Construction-related stormwater pollutant discharges are regulated pursuant to the NPDES Construction General Permit, which requires visual monitoring of stormwater and non-stormwater discharges, sampling, analysis, and monitoring of non-visible pollutants, and compliance with all applicable water quality standards established for receiving waters potentially affected by construction discharges. Furthermore, the Construction General Permit requires implementation of a SWPPP outlining project-specific BMPs to control erosion. Such BMPs include the use of temporary de-silting basins, construction vehicle maintenance in staging areas to avoid leaks, and installation of silt fences and erosion control blankets. Coverage under the Construction General Permit occurs for projects resulting in greater than one acre of disturbance area. The Modified

Project site would be greater than one acre in size and would therefore be subject to the Construction General Permit requirements.

As required by the Construction General Permit and as discussed in Section 3.7, *Geology and Soils*, the Modified Project would prepare and implement a SWPPP containing construction BMPs to reduce construction-related stormwater discharges and minimize potential downstream water quality impacts. As such, construction-related impacts related to the Modified Project would be less than significant.

Operation

Modified Project operation would not involve ground disturbance, limiting the potential for off-site migration of sediment and adsorbed pollutants in runoff. Similar to the Original Project, the Modified Project would increase impervious surface cover on the site due to the construction of the water tanks and foundation, but the majority of the Modified Project site would remain unpaved and pervious. Consistent with the Original Project, upon completion of construction, the roadway over the installed pipeline would be repaved and returned to pre-construction conditions.

Like the Original Project site, stormwater would flow from the Modified Project site into the existing series of concrete bench/terrace drains on the hillside. Increased impervious area on the Modified Project site could result in increased stormwater runoff flow and volume, which can carry pollutants to downstream water bodies and adversely affect water quality.

Effects and Mitigation Measures

No new or substantially more severe effects would occur related to water quality and soil erosion and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as approved 2017 IS-MND)

- b. *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

The 2017 IS-MND determined groundwater impacts from implementation of the Original Project would be less than significant without mitigation required. Similar to the Original Project, the Modified Project would not involve pumping of groundwater and would not interfere with groundwater recharge. No impact to groundwater supplies or recharge would occur.

Effects and Mitigation Measures

No new or substantially more severe effects would occur to groundwater, and no new mitigation measures are necessary.

Conclusion

NO IMPACT

(Same as approved 2017 IS-MND)

- c. *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - ii. *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*
 - iii. *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*
 - iv. *Impede or redirect flood flows?**
- d. *In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?*

The 2017 IS-MND determined the Original Project's impacts related to hydrology and flooding would be less than significant without mitigation required.

Consistent with the Original Project, upon completion of pipeline construction, the Modified Project would include repaving of the roadway to return it to pre-construction conditions. In comparison to the Original Project, the Modified Project would construct a visual berm on the Modified Project water tank site, which could slightly alter the existing drainage pattern of the site. However, the Modified Project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding, exceed the capacity of stormwater drainage systems, provide substantial additional sources of polluted runoff, or impede or redirect flood flows. Stormwater runoff from the Modified Project site would continue to flow into the existing series of concrete bench/terrace drains on the hillside. As previously discussed, the Modified Project would increase impervious surface cover on the site due to the construction of the water tanks and foundation, but the majority of the Modified Project site would remain unpaved and pervious.

Similar to the Original Project, the Modified Project site would not be located in an identified flood zone. According to the Federal Emergency Management Agency (2008), the Modified Project site is located in Zone X, an area of minimal flood hazard (Map Panel No. 06037C0845F). Like the Original Project, the Modified Project site is elevated on a hillside. As such, the Modified Project would not impede or redirect flood flows, nor would it risk release of pollutants due to inundation.

Effects and Mitigation Measures

No new or substantially more severe effects would occur to hydrology and flooding, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as approved 2017 IS-MND)

- e. *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

The 2017 IS-MND did not directly evaluate whether the Original Project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan because this checklist question was added to the Appendix G checklist of the CEQA Guidelines in December 2018, after adoption of the 2017 IS-MND.

The Los Angeles RWQCB's Basin Plan designates beneficial uses for surface waters in the Los Angeles region and associated water quality objectives to fulfill such uses. The Original Project and Modified Project site locations are within the Santa Clara River watershed and drain to Reach 6 of the Santa Clara River. Reach 6 and all downstream reaches have designated beneficial uses of Municipal and Domestic Supply (potential), Industrial Service Supply, Industrial Process Supply, Agricultural Supply, Groundwater Recharge, Freshwater Replenishment, Warm Freshwater Habitat, Wildlife Habitat, Rare, Threatened and Endangered Species, Wetland Habitat, Water Contact Recreation, and Non-contact Water Recreation (Los Angeles RWQCB 2020).¹ Multiple reaches of the Santa Clara River downstream of the Modified Project site are listed as impaired for numerous pollutants.

As described above, the Modified Project would implement stormwater BMPs to minimize potential temporary, construction-related water quality impacts as required under the Construction General Permit. Furthermore, Modified Project operation would not involve ground disturbance that would contribute to runoff of sediment or sediment-bound pollutants, and the Modified Project does not involve use of septic systems, pet parks, agricultural land, or other land uses commonly associated with high concentrations of nutrients, indicator bacteria, or chemical toxicity. The Modified Project would not conflict with Los Angeles RWQCB's Basin Plan. No impact would occur.

The Original Project and Modified Project sites do not overlie a defined Department of Water Resources Bulletin 118 groundwater basin. As such, there are no sustainable groundwater management plans in place for the Modified Project site. In addition, as previously discussed, similar to the Original Project, the Modified Project would not involve pumping of groundwater and would not interfere with groundwater recharge. No impact to sustainable groundwater management planning efforts would occur.

Effects and Mitigation Measures

No new or substantially more severe effects would occur related to a water quality control plan or sustainable groundwater management plan and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as approved 2017 IS-MND)

¹ Santa Clara River Reach 4B and downstream reaches also have a designated beneficial use of Migration of Aquatic Organisms. Santa Clara River Reach 2 and Reach 1 also have a designated beneficial use of Cold Freshwater Habitat.

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3.11 Land Use and Planning

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Physically divide an established community?	No	No	No	N/A
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No	No	No	N/A

-
- a. *Would the project physically divide an established community?*
 - b. *Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

The 2017 IS-MND determined no land use and planning impacts associated with construction and operation of the Original Project would occur. Similar to the Original Project, the Modified Project would not physically divide an established community given that the two water tanks would be located on an existing graded pad site. The land use plans, policies, and regulations applicable to the Modified Project have not changed substantially since the analysis included in the 2017 IS-MND, and the Modified Project proposes the same type of land use as the Original Project on a site with the same land use designation (SP – Specific Plan) and zoning (SP – Specific Plan) as the Original Project site. Therefore, similar to the Original Project analyzed in the 2017 IS-MND, the Modified Project would result in no impacts related to land use and planning.

Effects and Mitigation Measures

No new or substantially more severe effects related to land use and planning would occur, and no new mitigation measures are necessary.

Conclusion

NO IMPACT

(Same as adopted 2017 IS-MND)

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3.12 Mineral Resources

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No	No	No	N/A
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	No	No	No	N/A

- a. *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*
- b. *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

The 2017 IS-MND determined no mineral resources impacts associated with construction and operation of the Original Project would occur. According to Exhibit CO-2 of the City of Santa Clarita General Plan Conservation and Open Space Element, the Modified Project site is not located within an area designated as a Mineral Resource Zone 2 (i.e., an area of significant mineral resources; City of Santa Clarita 2011). Therefore, similar to the Original Project analyzed in the 2017 IS-MND, the Modified Project would result in no impacts related to mineral resources.

Effects and Mitigation Measures

No new or substantially more severe effects related to mineral resources would occur, and no new mitigation measures are necessary.

Conclusion

NO IMPACT

(Same as adopted 2017 IS-MND)

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3.13 Noise

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	No	No	No	Yes
b. Generate excessive groundborne vibration or groundborne noise levels?	No	No	No	N/A
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?	No	No	No	N/A

- a. *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

The 2017 IS-MND determined construction noise impacts associated with the Original Project would be less than significant with incorporation of Mitigation Measure Noise-1 and operational noise impacts would be less than significant with no mitigation required.

Operation and maintenance activities associated with the Modified Project would be the same as those of the Original Project and would be limited to daytime hours. Therefore, as with the Original Project, operation of the Modified Project would not result in a substantial permanent increase of ambient noise levels in the local area, and impacts would be less than significant.

The Modified Project would require similar types of construction equipment as the Original Project and would therefore generate similar levels of construction noise as those analyzed in the 2017 IS-MND. Therefore, the temporary increase in ambient noise levels associated with construction of the Modified Project would be significant, similar to the Original Project analyzed in the 2017 IS-MND. Implementation of Mitigation Measure Noise-1, as required for the Original Project in the 2017 IS-

MND, would continue to be required for the Modified Project. As with the Original Project, implementation of this mitigation measure would reduce construction noise impacts to a less than significant level.

Mitigation Measure from 2017 IS-MND

Noise-1: [SCV Water] and its contractors shall implement the following measures when project-related construction is planned to occur within the City limits and/or within 1,500 feet of sensitive receptors:

- Construction activities shall meet municipal code requirements related to noise. Construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. Saturday to avoid noise-sensitive hours of the day. Construction activities shall be prohibited on Sundays and holidays.
- Construction equipment noise shall be minimized by muffling and shielding intakes and exhaust on construction equipment (per the manufacturer's specifications) and by shrouding or shielding impact tools.
- Construction contractors shall locate fixed construction equipment (such as compressors and generators) and construction staging areas as far as possible from nearby sensitive receptors including residences, schools, and hospitals.
- If construction were to occur near a school, the construction contractor shall coordinate with the most noise producing construction activities with school administration in order to limit disturbance to the campus.

Effects and Mitigation Measures

No new or substantially more severe effects related to noise would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

(Same as adopted 2017 IS-MND)

b. Would the project generate excessive groundborne vibration or groundborne noise levels?

The 2017 IS-MND determined vibration impacts associated with construction and operation of the Original Project would be less than significant with no mitigation required.

The Modified Project would require similar types of construction equipment as the Original Project and would therefore generate similar levels of vibration during construction activities. As such, construction vibration impacts would be the same as those of Original Project analyzed in the 2017 IS-MND and would be less than significant. Neither the Original Project nor the Modified Project would include operational sources of vibration; therefore, no operational vibration impacts would occur.

Effects and Mitigation Measures

No new or substantially more severe effects related to vibration would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

- c. *Would the project be located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and expose people residing or working in the project area to excessive noise levels?*

The 2017 IS-MND determined there would be no impact related to aircraft noise due to the proximity of the Original Project site to a public or private airport.

The Modified Project site is located approximately 200 feet southwest of the Original Project site and is approximately 12 miles southwest of the Agua Dulce Airpark, similar to the Original Project site. As with the Original Project, the Modified Project would not accommodate residents or permanent on-site employees. Therefore, similar to the Original Project analyzed in the 2017 IS-MND, the Modified Project would not expose people residing or working in the Modified Project area to excessive noise levels from aircraft operations, and no impact would occur.

Effects and Mitigation Measures

No new or substantially more severe effects related to aircraft noise would occur, and no new mitigation measures are necessary.

Conclusion

NO IMPACT

(Same as adopted 2017 IS-MND)

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3.14 Population and Housing

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

<p>a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?</p>	No	No	No	N/A
<p>b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?</p>	No	No	No	N/A

-
- a. *Would the project induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?*
 - b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The 2017 IS-MND determined no population and housing impacts associated with construction and operation of the Original Project would occur. The purpose of the Modified Project would be the same as that of the Original Project – to store recycled water generated by the nearby Vista Canyon Water factory and supply irrigation water to customers in the Vista Canyon and Fair Oaks communities. As such, similar to the Original Project, the Modified Project would not directly or indirectly induce substantial unplanned population growth. In addition, the Modified Project site is an existing graded pad site located approximately 200 feet southwest of the Original Project site and does not currently contain housing. Therefore, the Modified Project would not displace people or housing. As such, similar to the Original Project analyzed in the 2017 IS-MND, the Modified Project would result in no impact related to population and housing.

Effects and Mitigation Measures

No new or substantially more severe effects related to population and housing would occur, and no new mitigation measures are necessary.

Conclusion

NO IMPACT

(Same as adopted 2017 IS-MND)

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3.15 Public Services

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

1	Fire protection?	No	No	No	N/A
2	Police protection?	No	No	No	N/A
3	Schools?	No	No	No	N/A
4	Parks?	No	No	No	N/A
5	Other public facilities?	No	No	No	N/A

- a. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for:*

1. *Fire protection?*
2. *Police protection?*
3. *Schools?*
4. *Parks?*
5. *Other public facilities?*

The 2017 IS-MND determined public services impacts associated with construction and operation of the Original Project would be less than significant with no mitigation required. The nature of the Modified Project as recycled water infrastructure would be the same as that of the Original Project;

therefore, the minimal level of police protection and fire protection services required to serve the Modified Project would be the same. Therefore, similar to the Original Project analyzed in the 2017 IS-MND, the Modified Project would result in less than significant impacts to public services.

Effects and Mitigation Measures

No new or substantially more severe effects related to public services would occur, and no new mitigation measures are necessary.

Conclusion

NO IMPACT

(Same as adopted 2017 IS-MND)

3.16 Recreation

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
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Would the project:

a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No	No	No	N/A
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No	No	No	N/A

- a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*
- b. *Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The 2017 IS-MND determined no recreation impacts associated with construction and operation of the Original Project would occur. The purpose of the Modified Project would be the same as that of the Original Project – to store recycled water generated by the nearby Vista Canyon Water factory and supply irrigation water to customers in the Vista Canyon and Fair Oaks communities. As such, similar to the Original Project, the Modified Project would not directly or indirectly induce population growth that would increase demand for parks and recreational facilities. In addition, the Modified Project site is an existing graded pad site located approximately 200 feet southwest of the Original Project site and does not contain existing parks or recreational facilities. Therefore, similar to the Original Project analyzed in the 2017 IS-MND, the Modified Project would result in no impact related to recreation.

Effects and Mitigation Measures

No new or substantially more severe effects would occur related to recreation, and no new mitigation measures are necessary.

Conclusion

NO IMPACT

(Same as adopted 2017 IS-MND)

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3.17 Transportation

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	No	No	No	Yes
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	No	No	No	Yes
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	No	No	No	N/A
d. Result in inadequate emergency access?	No	No	No	Yes

a. *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

The 2017 IS-MND determined impacts from the Original Project related to plans addressing the circulation system would be less than significant with no mitigation required.

The Modified Project would require similar construction and operational activities as the Original Project and similar quantities of associated vehicle trips, with the exception of additional construction worker, water truck, utility truck, and haul truck trips required temporarily for pad over-excavation and construction of the visual berm at the Modified Project site. These additional trips would be limited to an approximately 40-working-day period during construction of the visual berm. This temporary, minimal addition of vehicle trips to roadways in the Modified Project area would not result in a conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Therefore, similar to the Original Project analyzed in the 2017 IS-MND, the impacts of the Modified Project related to plans addressing the circulation system would be less than significant.

Effects and Mitigation Measures

No new or substantially more severe effects related to plans addressing the circulation system would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

- b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

CEQA Guidelines Section 15064.3(b) identifies criteria for evaluating transportation impacts. Specifically, the guidelines state vehicle miles traveled (VMT) exceeding an applicable threshold of significance may indicate a significant impact. According to Section 15064.3(b)(3) of the CEQA Guidelines, a lead agency may include a qualitative analysis of operational and construction traffic. A VMT calculation is typically conducted on a daily or annual basis for long-range planning purposes. Currently, official measures and significance thresholds related to VMT are still being developed and have not yet been adopted by SCV Water or the City of Santa Clarita. However, SCV Water has elected to apply the provisions of CEQA Guidelines Section 15064.3(b) and utilize guidance provided by the Governor's Office of Planning and Research *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018) to evaluate the significance of project impacts related to VMT.

The 2017 IS-MND did not directly evaluate the VMT impacts associated with construction and operation of the Original Project because this checklist question was added to the Appendix G checklist of the CEQA Guidelines in December 2018, after adoption of the 2017 IS-MND. However, the environmental impacts of VMT such as air pollutant and GHG emissions, were indirectly evaluated in the 2017 IS-MND. As discussed in Section 3.3, *Air Quality*, and Section 3.8, *Greenhouse Gas Emissions*, the 2017 IS-MND determined air quality and GHG emissions impacts would be less than significant.

As discussed above, traffic on local roadways may be temporarily increased during construction under the Modified Project as compared to the Original Project due to additional construction worker, water truck, utility truck, and haul truck trips associated with construction of the visual berm. Increases in VMT associated with construction activities would be short-term, minimal, and temporary. Operation of the Modified Project would be the same as that of the Original Project and would require occasional operation and maintenance trips by SCV Water staff, which would result in a minimal increase in areawide VMT as compared to existing conditions. The Governor's Office of Planning and Research *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018) states, "Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less than significant VMT impact." As discussed in the 2017 IS-MND, staff vehicle trips for operation and maintenance activities would not occur on a regular daily basis. One daily vehicle trip would be sufficient on days when operation and maintenance activities are required, which would not exceed the screening criteria of 110 trips per day.

The implementation strategies of the SCAG 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) include focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies (SCAG 2020). In addition, the goals and policies of the Santa Clarita General Plan focus on reducing vehicle trips and VMT through smart growth concepts, travel demand and parking management, and use of alternative travel modes (City of Santa Clarita 2011). The project would not be inconsistent with the goals of the SCAG 2020-2045 RTP/SCS or Santa Clarita General Plan, which are aimed at reducing vehicle trips, VMT, and associated GHG

emissions from typical land use development projects such as residential and commercial development rather than from maintenance and operation of water infrastructure such as would occur under the proposed project.

Because the project would not exceed the Office of Planning and Research's recommended screening criteria of 110 trips per day for small projects, would generate a nominal increase in VMT, and would not be inconsistent with the SCAG 2020-2045 RTP/SCS or Santa Clarita General Plan, impacts associated with VMT per CEQA Guidelines Section 15064.3 would be less than significant.

Effects and Mitigation Measures

No new or substantially more severe effects related to VMT would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

- c. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?*

The 2017 IS-MND determined no impacts related to traffic hazards associated with construction and operation of the Original Project would occur.

The Modified Project facilities consist of recycled water tanks that would be located on an existing graded pad site, which would have no impact on street design. The tanks would be located along a private access road and would not have the potential to block motorists' line-of-sight on public roadways. The Modified Project would therefore not create or substantially increase a traffic hazard due to a design feature, and similar to the Original Project analyzed in the 2017 IS-MND, no impact would occur.

Effects and Mitigation Measures

No new or substantially more severe effects related to traffic hazards would occur, and no new mitigation measures are necessary.

Conclusion

NO IMPACT

(Same as adopted 2017 IS-MND)

- d. *Would the project result in inadequate emergency access?*

The 2017 IS-MND determined impacts from the Original Project related to emergency access would be less than significant with no mitigation required.

Construction activities associated with the Modified Project would occur on the Modified Project site and the adjacent private access road and therefore would not impede emergency access in the Modified Project area. As such, similar to the Original Project analyzed in the 2017 IS-MND, impacts related to emergency access would be less than significant.

Effects and Mitigation Measures

No new or substantially more severe effects related to emergency access would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

3.18 Tribal Cultural Resources

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
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Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	No	No	No	N/A
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	No	No	No	N/A

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a. *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or*
- b. *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

The 2017 IS-MND determined the Original Project would have a less than significant impact on tribal cultural resources with mitigation incorporated (Mitigation Measure CUL-1). As part of the 2017 IS-MND, SCV Water sent Assembly Bill 52 (AB 52) letters to three Native American tribes who are traditionally and culturally affiliated with the Project area: the Fernandeano Tataviam Band of Mission Indians (FTBMI) sent on June 7, 2017, the Gabrieleño Tongva San Gabriel Band of Mission Indians sent on May 30, 2017, and the Torres Martinez Desert Cahuilla Indians sent on June 7, 2017. FTBMI was the only tribe to respond to the Original Project.

The FTBMI responded to consult to the 2017 Original Project on August 1, 2017. In the FTBMI response, Kimia Fatehi, Tribal Historic and Cultural Preservation Officer (THCPO), stated that the Original Project was located within traditional and historical tribal territory and was associated with culturally sensitive spaces. The response additionally noted that due to the heavy development of the area, the Tribal Historical and Cultural Preservation Department did not identify potential impacts to tribal cultural resources at that time. FTBMI requested that should any tribal cultural resources discovered upon project excavation or project plans change, the agency immediately notify THCPO Fatehi. Consultation was concluded on August 8, 2017 when SCV Water sent a letter to FTBMI agreeing to incorporate a mitigation measure stating that the FTBMI would be notified in the event of inadvertent archaeological resource finds during the Original Project or Original Project changes (SCV Water 2017).

The AB 52 consultation determined that the Original Project would not potentially impact tribal cultural resources.

As a result of modifications to the Original Project, SCV Water sent AB 52 notification to the FTBMI on October 27, 2020 to inform them of the modifications. On November 4, 2020, Jairo Avila, Tribal Historic and Cultural Preservation Officer of the FTBMI, responded to the SCV Water outreach effort and stated the FTBMI has no further questions or concerns regarding the Modified Project site. Additionally, Mr. Avila requested that Mitigation Measure CUL-1 from the 2017 IS-MND be included for the Modified Project. Appendix C contains the correspondence between SCV Water and Mr. Avila on the Modified Project.

Similar to the Original Project, no tribal cultural resources have been identified within the Modified Project site, located approximately 200 feet southeast of the Original Project site. Mitigation Measure CUL-1 from the 2017 IS-MND would be required for the Modified Project. As such, similar to the Original Project analyzed in the 2017 IS-MND, impacts would be less than significant with mitigation incorporated.

Mitigation Measures from 2017 IS-MND

CUL-1: In the event that any historical, archeological or tribal cultural resources are discovered during excavation activities, work shall be stopped immediately and temporarily diverted from the vicinity of the discovery until a qualified archeologist and a member of the Fernandeano Tataviam Band of Mission Indians are notified and can identify and evaluate the importance of the find, conduct an appropriate assessment, and implement measures to mitigate impacts on significant resources.

Effects and Mitigation Measures

No new or substantially increased effects would occur to tribal cultural resources, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

(Same as approved 2017 IS-MND)

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3.19 Utilities and Service Systems

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	No	No	No	N/A
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	No	No	No	N/A
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	No	No	No	N/A
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No	No	No	N/A
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No	No	No	N/A

- a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*
- b. *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*
- c. *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*
- e. *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

The 2017 IS-MND determined the Original Project would have no impacts related to relocating or constructing new or expanded utilities, water supplies, wastewater treatment, and compliance with solid waste regulations.

The Modified Project would include construction of two recycled water tanks on the Modified Project site and would not require the relocation or construction of new or expanded utilities beyond those included as part of the Original Project. As such, no impact would occur. The nature of the Modified Project as recycled water infrastructure would be the same as that of the Original Project. As such, the Modified Project would also provide a source of long-term non-potable water supply to the project area, which would enhance water supply reliability and decrease demand for potable water. Thus, no impact would occur. Similar to the Original Project, the Modified Project would not require additional wastewater treatment, and no impact would occur. In addition, similar to the Original Project, the Modified Project would implement local code requirements related to solid waste disposal and would not affect the City of Santa Clarita's ability to continue to meet the requirements of Assembly Bill 939. No impact related to solid waste regulations would occur. Overall, similar to the Original Project analyzed in the 2017 IS-MND, the Modified Project would result in no impacts related to relocating or constructing new or expanded utilities, water supplies, wastewater treatment, and compliance with solid waste regulations.

Effects and Mitigation Measures

No new or substantially more severe effects related to relocating or constructing new or expanded utilities, water supplies, wastewater treatment, and compliance with solid waste regulations would occur, and no new mitigation measures are necessary.

Conclusion

NO IMPACT

(Same as adopted 2017 IS-MND)

- d. *Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

The 2017 IS-MND determined the solid waste generation associated with the Original Project would be less than significant with no mitigation incorporated.

The Modified Project would generate more construction waste associated with soil export for the visual berm; however, this solid waste generation would be temporary. Assuming that one cubic yard of soil is equivalent to 1.5 tons (SoilDirect 2020), additional construction activities associated with the visual berm under the Modified Project would generate approximately 9,000 tons of waste (6,000 cubic yards of soil * 1.5 tons per cubic yard), or 1,800 tons per day over the course of the five-day export period. Exported soil would be disposed of at local landfills including the Sunshine Canyon Landfill, the Antelope Valley Landfill, and the Chiquita Canyon Landfill. These three landfills have a combined maximum permitted throughput of 22,316 tons per day and currently accept a combined average of 12,646 tons per day (County of Los Angeles 2019). Therefore, these landfills have a combined excess capacity of 9,670 tons per day, which would be sufficient to accommodate the project's disposal of 1,800 tons of exported soil per day over the five-day soil hauling period. As such, similar to the Original Project, construction waste generated by the Modified Project would not exceed the permitted capacity of local landfills.

Operation and maintenance activities for the Modified Project would be the same as those of Original Project and would not generate solid waste. Accordingly, similar to the Original Project analyzed in the 2017 IS-MND, the impacts of the Modified Project related to solid waste generation would be less than significant.

Effects and Mitigation Measures

No new or substantially more severe effects related to solid waste generation would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

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3.20 Wildfire

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
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If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	No	No	No	N/A
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No	No	No	N/A
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No	No	No	N/A
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No	No	No	N/A

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

- a. Substantially impair an adopted emergency response plan or emergency evacuation plan?*
- b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

- c. *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*
- d. *Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

The 2017 IS-MND did not directly evaluate the wildfire impacts associated with construction and operation of the Original Project because this impact area was added to the Appendix G checklist of the CEQA Guidelines in December 2018, after adoption of the 2017 IS-MND. Impacts related to wildland fires were evaluated under question (h) in Section 8, *Hazards and Hazardous Materials*, of the 2017 IS-MND.

Similar to the Original Project, the Modified Project site is located in a Very High Fire Hazard Severity Zone in the State Responsibility Area (California Department of Forestry and Fire Protection 2020). Construction activities associated with the Modified Project would occur on the Modified Project site and the adjacent private roadway and therefore would not impede emergency access in the project area. Construction activities associated with the Modified Project would be similar in nature to those of the Original Project and would include similar sources of potential sparks/flames, such as welding torches or other tools. However, similar to the Original Project site, the Modified Project site has been graded and is largely devoid of natural vegetation that might result in increased wildfire risk (see Section 3.4, *Biological Resources*, for further discussion of on-site vegetation conditions). In addition, similar to the Original Project, recycled water storage and conveyance under the Modified Project would not include ignitable materials or processes. As with the Original Project, the Modified Project would not include housing that would accommodate on-site occupants who could be exposed to wildfire hazards or require installation or maintenance of associated infrastructure such as roads, fuel breaks, emergency water sources, or power lines that would exacerbate fire risk or result in temporary or ongoing impacts to the environment. Furthermore, as discussed in Section 3.7, *Geology and Soils*, and Section 3.10, *Hydrology and Water Quality*, construction of the Modified Project would not result in changes to hydrology and drainage patterns or slope stability that would expose people or structures in the nearby residential communities to significant risks associated with downslope flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. Therefore, similar to the Original Project analyzed in the 2017 IS-MND, the Modified Project would result in less than significant impacts related to wildfires.

Effects and Mitigation Measures

No new or substantially more severe effects related to wildfires would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

3.21 Mandatory Findings of Significance

	Do Proposed Changes Require Major Revisions to the 2017 IS-MND?	Do New Circumstances Require Major Revisions to the 2017 IS-MND?	Any New Information Resulting in New or Substantially More Severe Significant Impacts?	Do 2017 IS-MND Mitigation Measures Address and/or Resolve Impacts?
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	No	No	No	No – New Mitigation Required
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	No	No	No	N/A
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No	No	No	Yes

- a. *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

The 2017 IS-MND determined the Original Project would have no impact to the above mandatory finding of significance checklist question.

Potential impacts to biological resources are addressed in Section 3.4, *Biological Resources*. As described therein, there is low to moderate potential for certain special-status plant and wildlife species to occur on the Modified Project site, including the federally-threatened coastal California gnatcatcher. Implementation of new Mitigation Measures BIO-1 and BIO-2 would mitigate direct and indirect impacts to special-status plant and wildlife species to a less than significant level. Therefore, the Modified Project would not substantially reduce the habitat of fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. With mitigation incorporated, this impact would be reduced to a less than significant level.

In addition, as discussed in Section 3.5, *Cultural Resources*, the Modified Project would not eliminate important examples of the major periods of California history or prehistory because none are known to be present in the Modified Project area. No impact would occur.

Effects and Mitigation Measures

With implementation of Mitigation Measures BIO-1 and BIO-2, this impact would be reduced to a less than significant level.

Conclusion

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

(Differs from adopted 2017 IS-MND)

- b. *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

The 2017 IS-MND determined the Original Project would have no impact to the above mandatory finding of significance checklist question.

According to the City of Santa Clarita (2020), no new major development projects are proposed, approved, or under construction in the vicinity of the Modified Project site since the 2017 IS-MND was adopted. As described in the discussion of environmental checklist Sections 3.1 through 3.20, with respect to all environmental issues, the Modified Project would have no impact, a less than significant impact, or a less than significant impact with mitigation incorporated. Therefore, similar to the Original Project, the Modified Project would not result in a considerable contribution to any cumulative impact significant or otherwise. No impact would occur.

Effects and Mitigation Measures

No new or substantially more severe effects would occur, and no new mitigation measures are necessary.

Conclusion

NO IMPACT

(Same as adopted 2017 IS-MND)

c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

The 2017 IS-MND determined impacts related to the above mandatory finding of significance checklist question from the Original Project would be less than significant.

As detailed in the preceding sections, the Modified Project would not result, either directly or indirectly, in substantial adverse effects. Where potential environmental impacts would occur, mitigation measures would be implemented to reduce or avoid an impact. With adherence to the mitigation program, the Modified Project would not result in substantial adverse effects on either the environment or human beings.

Effects and Mitigation Measures

No new or substantially more severe effects would occur, and no new mitigation measures are necessary.

Conclusion

LESS THAN SIGNIFICANT IMPACT

(Same as adopted 2017 IS-MND)

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4 Conclusion

The 2017 IS-MND for the Original Project identified potentially significant but mitigable impacts to aesthetics, cultural resources, noise, and tribal cultural resources. With implementation of Mitigation Measures AES-1, CUL-1, and Noise-1 from the 2017 IS-MND, all environmental impacts associated with the Original Project would be reduced to a less than significant level.

In addition to the impacts identified in the 2017 IS-MND, this Supplemental IS-MND determines the Modified Project would have potentially significant but mitigable impacts to biological resources. With implementation of new Mitigation Measures BIO-1 and BIO-2, all environmental impacts associated with the Modified Project would be reduced to a less than significant level. As discussed in detail in the preceding sections, major revisions to the 2017 IS-MND are not necessary because no new unmitigable significant impacts or significant impacts of substantially greater severity than previously described would occur as a result of the Modified Project.

Therefore, the following determinations have been found to be applicable:

- No further evaluation of environmental impacts is required for the Modified Project;
- No Subsequent MND is necessary per State CEQA Guidelines Section 15162; and
- This Supplemental IS-MND is the appropriate level of environmental analysis and documentation for the Modified Project.

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5.2 List of Preparers

This Supplemental IS-MND was prepared by Rincon Consultants, Inc. under contract to SCV Water. Persons and firms involved in data gathering, analysis, project management, and quality control include:

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RINCON CONSULTANTS, INC.

Jennifer Haddow, Principal Environmental Scientist

Megan Jones, Principal

Amanda Antonelli, Environmental Planner/Project Manager

Annaliese Miller, Environmental Planner

Ken Victorino, Senior Principal Investigator

Courtney Montgomery, Archaeologist

Steven Hongola, Principal Biologist

Lindsay Griffin, Senior Biologist

Robin Murray, Senior Biologist

Allysen Valencia, GIS Analyst

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Appendix A

2017 Phase 2B Recycled Water System Project IS-MND

RESOLUTION NO. 3211

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE
CASTAIC LAKE WATER AGENCY
ADOPTING THE MITIGATED NEGATIVE DECLARATION
AND MITIGATION MONITORING AND REPORTING PROGRAM
UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT
FOR THE RECYCLED WATER VISTA CANYON EXTENSION (PHASE 2B) PROJECT**

WHEREAS, the Castaic Lake Water Agency (Agency) determined that recycled water is an important component of future water supplies; and

WHEREAS, the proposed Recycled Water Vista Canyon Extension (Phase 2B) Project is a component of the Draft 2016 Recycled Water Master Plan; and

WHEREAS, the proposed Recycled Water Vista Canyon Extension (Phase 2B) Project is a collaborative project between the Agency and the Santa Clarita Water Division (SCWD); and

WHEREAS, the Agency, acting as lead agency under the California Environmental Quality Act ("CEQA") circulated for public comment a proposed Initial Study and draft Mitigated Negative Declaration (collectively, the "Draft MND") for the Recycled Water Vista Canyon Extension Project (Phase 2B) ("Project"); and

WHEREAS, in accordance with State CEQA Guidelines Section 15072(b), on September 6, 2017 Agency mailed a Notice of Intent to Adopt the Draft MND to all responsible and reviewing agencies, the Office of Planning and Research, and members of the public that have requested notice; the Agency also published the Notice of Intent to Adopt the Draft MND in the *Santa Clarita Valley Signal*, a newspaper of general circulation; and

WHEREAS, as required by State CEQA Guidelines section 15072(d), the Notice of Intent to Adopt the Draft MND was concurrently posted by the Clerk of the Board for the County of Los Angeles; and

WHEREAS, in accordance with State CEQA Guidelines section 15073, the Draft MND was circulated for at least 30 days, from September 6, 2017 through October 5, 2017; and

WHEREAS, the Agency received no written public comments during the comment period; and one letter from the State of California Governor's Office of Planning and Research, State Clearinghouse after the close of the comment period indicating that no state agencies submitted comments by the closing date and that the Agency has complied with the State Clearinghouse review requirements for draft environmental documents pursuant to CEQA; and

WHEREAS, the Draft MND, the comments thereto and the Agency's responses to comments were incorporated into and together constitute the Final MND (hereinafter, the "MND"), and are attached as Exhibit A; and

WHEREAS, a notice of public meeting relating to the MND was duly given and posted in the manner and for the time frame prescribed by law, and the Planning and Engineering Committee held a public meeting on the Project at the Castaic Lake Water Agency located at 27234 Bouquet Canyon Road, Santa Clarita, CA 91350, in the Training Room on October 31, 2017, at 5:30 P.M., as part of its decision process concerning the Project, at which time no public comments were received; and

WHEREAS, the Planning and Engineering Committee recommended that the Agency's Board of Directors ("Board") approve a resolution adopting the MND and Mitigation Monitoring and Reporting Program ("MMRP"); and

WHEREAS, a notice of public meeting relating to the MND was duly given and posted in the manner and for the time frame prescribed by law, and the Agency's Board held a public meeting on the Project at its Boardroom, 27234 Bouquet Canyon Road, Santa Clarita, CA 91350 on November 20, 2017, at 6:15 P.M., as part of its decision process concerning the Project, at which time all persons wishing to comment in connection the MND were heard; and

WHEREAS, no comments made during the public review period, and no additional information submitted to the Agency have produced substantial new information requiring recirculation of the MND or additional environmental review of the Project under State CEQA Guidelines section 15073.5; and

WHEREAS, all the requirements of the Public Resources Code and the State CEQA Guidelines have been satisfied in connection with the preparation of the MND, which is sufficiently detailed so that all of the potentially significant environmental effects of the Project, as well as feasible mitigation measures, have been adequately evaluated; and

WHEREAS, the Agency Board reviewed the MND and MMRP; and

WHEREAS, the Agency Board, acting as a Lead Agency, will need to adopt the IS/MND; and

WHEREAS, the Agency's Board has determined that the proposed Project can be approved because there is no substantial evidence in light of the whole record that the Project may have a significant effect on the environment; and

WHEREAS, the Agency and its Board have considered all of the information presented to it as set forth above and this Resolution and action taken hereby is a result of the Board's independent judgment and analysis.

NOW, THEREFORE, BE IT RESOLVED that the Agency Board does hereby find and determine as follows:

SECTION 1. RECITALS. The Agency finds that the foregoing recitals are true and correct and are incorporated herein as substantive findings of this Resolution.

SECTION 2. COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT. As a decision-making body for the Project, the Agency has reviewed and considered the information contained in the MND, comments received, and other documents contained in the administrative record for the Project. Based on the

Agency's independent review and analysis, the Agency finds that the MND and administrative record contain a complete and accurate reporting of the environmental impacts associated with the Project, and that the MND has been completed in compliance with CEQA and the State CEQA Guidelines.

SECTION 3. FINDINGS ON ENVIRONMENTAL IMPACTS. Based on the whole record before it, including the MND, the administrative record, and all other written and oral evidence presented to the Agency, the Agency finds that all environmental impacts of the Project are either less than significant or can be mitigated to a level of less than significant under the mitigation measures outlined in the MND and the MMRP. The Agency finds that substantial evidence fully supports the conclusion that no significant and unavoidable impacts will occur and that, alternatively, there is no substantial evidence in the administrative record supporting a fair argument that the Project may result in any significant environmental impacts. The Agency finds that the MND contains a complete, objective, and accurate reporting of the environmental impacts associated with the Project and reflects the independent judgment and analysis of the Agency.

SECTION 4. ADOPTION OF THE MITIGATED NEGATIVE DECLARATION. The Agency hereby approves and adopts the MND as the Lead Agency.

SECTION 5. ADOPTION OF THE MITIGATION MONITORING AND REPORTING PROGRAM. In accordance with Public Resources Code section 21081.6, the Agency hereby adopts the MMRP, attached hereto as Exhibit "A". In the event of any inconsistencies between the Mitigation Measures as set forth in the MND and the MMRP, the MMRP shall control.

SECTION 6. LOCATION AND CUSTODIAN OF RECORDS. The documents and materials associated with the Project and the MND that constitute the record of proceedings on which these findings are based are located at the offices of Santa Clarita Water, a Division of the Castaic Lake Water Agency, 26521 Summit Circle, Santa Clarita, CA 91350. The Custodian of Record is Keith Abercrombie.

SECTION 7. NOTICE OF DETERMINATION. The Agency hereby directs staff to prepare, execute, and file a Notice of Determination with the Los Angeles County Clerk's office and the Office of Planning and Research within five (5) working days of adoption of this Resolution.



President

I, the undersigned, hereby certify: That I am the duly appointed and acting Secretary of the Castaic Lake Water Agency, and that at a special meeting of the Board of Directors of said Agency held on November 20, 2017, the foregoing Resolution No. 3211 was duly and regularly adopted by said Board, and that said resolution has not been rescinded or amended since the date of its adoption, and that it is now in full force and effect.

DATED: November 20, 2017





Secretary

EXHIBIT "A"

**Final Mitigated Negative Declaration
and
Mitigation Monitoring and Reporting Program**

**Recycled Water Vista Canyon
Extension (Phase 2B) Project**

Prepared for:

Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, California 91350

Prepared by:

Tebo Environmental Consulting, Inc.
300 E. Esplanade Drive, Suite 1660
Oxnard, CA 93036

October 2017

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MITIGATION MONITORING AND REPORTING PROGRAM

A Mitigation Monitoring and Reporting Program (MMRP) has been prepared, pursuant to the requirements of the State CEQA Guidelines,¹ identifying the monitoring of mitigation measures that would reduce potential significant impacts as stated in the Draft IS for the Project.

The State CEQA Guidelines² require public agencies adopting an IS/MND also adopt a program for monitoring or reporting to ensure that the mitigation measures it has imposed to mitigate or avoid significant environmental effects are implemented.

The MMRP will be required to be adopted by the CLWA should the Board of Directors approve the proposed Project.

The MMRP is available at the Castaic Lake Water Agency, Santa Clarita Water Division office, located at 26521 Summit Circle, Santa Clarita, CA 91350.

The MMRP may be modified by SCWD in response to changing conditions or circumstances. A summary table (**Table 1, Mitigation Monitoring and Report Program Matrix**) will guide SCWD in its evaluation and documentation of the implementation of mitigation measures. The MMRP is organized as follows:

- **Mitigation Measure:** Provides the text of the mitigation measures identified in the IS/MND.
- **Timing of Mitigation Monitoring:** Identifies the timeframe in which the mitigation will take place.
- **Responsible Entity:** Identifies the entity responsible for complying with mitigation measure requirements.
- **Verification Action:** Describes the type of action taken to verify implementation.
- **Date Completed:** Provides for the acknowledgement of completion of each mitigation measure as it is implemented. Entries should be dated and initialed by SCWD personnel based on the documentation noted in the mitigation measure and provided by the individual or entity responsible for implementing the measure.

Unless otherwise specified herein, SCWD is responsible for taking all actions necessary to implement the mitigation measures according to the provided specifications and for demonstrating that each action has been successfully completed. The CLWA and subsequently the SCWD, at its discretion, may delegate implementation responsibility or portions thereof to a licensed contractor.

¹ California Code of Regulations, sec. 15074(b)(6), State CEQA Guidelines.

² California Code of Regulations, sec. 15097, State CEQA Guidelines.

Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program Matrix

Mitigation Measure	Timing of Mitigation Monitoring	Responsible Entity	Verification Action	Date Completed
Impact – Aesthetics				
AES-1: The exterior of above-ground facilities shall be finished with a non-reflective material in an earth tone that blends in with the natural environment.	Prior to and during construction	SCWD	SCWD will approve the exterior tank coating/color prior to construction.	
Impact – Cultural Resources				
CUL-1 – In the event that any historical, archeological or tribal cultural resources are discovered during excavation activities, work shall be stopped immediately and temporarily diverted from the vicinity of the discovery until a qualified archeologist and a member of the Fernandefio Talaviam Band of Mission Indians (Tribe) are notified and can identify and evaluate the importance of the find, conduct an appropriate assessment, and implement measures to mitigate impacts on significant resources.	During excavation activities	SCWD and Construction Contractor	The SCWD Project Manager or their designee shall monitor excavations during construction. If resources are found, SCWD will stop construction, notify a qualified archeologist and a member of the Tribe for an assessment, and modify construction activities as required.	

October 2017

1

Mitigation Monitoring and Reporting Program

Mitigation Measure	Timing of Mitigation Monitoring	Responsible Entity	Verification Action	Date Completed
Impact – Noise				
<p>Noise-1: SCWD and its contractors shall implement the following measures when Project-related construction is planned to occur within the City limits and/or within 1,500 feet of sensitive receptors:</p> <ul style="list-style-type: none"> • Construction activities shall meet municipal code requirements related to noise. Construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. Saturday to avoid noise-sensitive hours of the day. Construction activities shall be prohibited on Sundays and holidays. • Construction equipment noise shall be minimized by muffling and shielding intakes and exhaust on construction equipment (per the manufacturer's specifications) and by shrouding or shielding impact tools. • Construction contractors shall locate fixed construction equipment (such as compressors and generators) and construction staging areas as far as possible from nearby sensitive receptors including residences, schools, and hospitals. • If construction were to occur near a school, the construction contractor shall coordinate with the most noise producing construction activities with school administration in order to limit disturbance to the campus. 	Prior to and during construction	SCWD and Construction Contractor	<ul style="list-style-type: none"> • Contractor shall comply with City encroachment permit conditions, with verification by SCWD inspector. • Contractor shall shield or muffle noise-generating equipment from nearby receptors where possible, with verification by SCWD inspector. • Contractor shall locate fixed equipment that generates noise as far as possible from sensitive receptors, with verification by SCWD inspector. • SCWD inspector will coordinate with the school and contractor to limit disturbance to the campus to the extent possible. 	
Impact – Tribal Cultural Resources				
<p>CUL-1 - Implementation of mitigation measure CUL-1 would reduce potentially significant impacts to less than significant.</p>	During excavation activities	SCWD and Construction Contractor	The SCWD Project Manager or their designee shall monitor excavations during construction. If resources are found, SCWD will stop construction, notify a qualified archeologist and a member of the Tribe for an assessment, and modify construction activities as required.	



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

October 6, 2017

Brent Payne
Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350

Subject: Recycled Water Program - Phase 2B - Pipeline, Pump Station and Tank
SCH#: 2017051028

Dear Brent Payne:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on October 5, 2017, and no state agencies submitted comments by that date. 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 call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse



1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

**Document Details Report
State Clearinghouse Data Base**

SCH# 2017051028
Project Title Recycled Water Program - Phase 2B - Pipeline, Pump Station and Tank
Lead Agency Castaic Lake Water Agency

Type MND Mitigated Negative Declaration
Description Note: refer to SCH #2011051020

The CLWA Phase 2B recycled system will include a recycled water tank (approx 1 MG), a transmission pipeline from the Vista Canyon pump station to the proposed recycled water tank, distribution pipelines to serve major customers, and a backup potable water supply line from the existing Cherry Willow potable water tanks to the new recycled water tank to maintain flow through the recycled water distribution system if recycled water supply is interrupted. In addition to the Vista Canyon development, recycled water supply will be used to serve irrigation customers with landscaped areas in the Fair Oaks Ranch community. CLWA's goal for the phase 2B project is to use all of the available recycled water to offset potable water demands.

Lead Agency Contact

Name Brent Payne
Agency Castaic Lake Water Agency
Phone 661-259-2737 **Fax**
email
Address 27234 Bouquet Canyon Road
City Santa Clarita **State** CA **Zip** 91350

Project Location

County Los Angeles
City Santa Clarita
Region
Lat / Long
Cross Streets Medley Ridge Dr and Cherry Willow Dr
Parcel No.

Township	Range	Section	Base
-----------------	--------------	----------------	-------------

Proximity to:

Highways SR 14
Airports
Railways
Waterways
Schools
Land Use Z & GP: SP

Project Issues Noise; Aesthetic/Visual; Archaeologic-Historic

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 7; Native American Heritage Commission; State Water Resources Control Board, Division of Drinking Water; State Water Resources Control Board, Division of Drinking Water, District 15; 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

Date Received 09/06/2017 **Start of Review** 09/06/2017 **End of Review** 10/05/2017

Environmental Checklist Form

1. Project title:
Recycled Water Program—Phase 2B – Pipeline, Pump Station and Tank
2. Lead agency name and address:
Castaic Lake Water Agency (CLWA)
27234 Bouquet Canyon Road
Santa Clarita, CA 91350
3. Contact person and phone number:
Brent Payne
Senior Engineer, (661) 259-2737
4. Project location:
The proposed Project is located in the City of Santa Clarita, as shown in **Figure 1 – Regional Location Map**. In addition, the proposed Project is located in the middle of the CLWA boundaries and service area, as shown in **Figure 2 – CLWA Service Area and Water Purveyor Boundaries**. The CLWA service area encompasses approximately 195 square miles of land in incorporated and unincorporated areas in the Santa Clarita Valley area of Los Angeles County, as well as into eastern Ventura County.
5. Project sponsor's name and address:
Same as Lead Agency
6. General plan designation: SP (Specific Plan)
7. Zoning: SP (Specific Plan)
8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

Proposed Project

The proposed Project is called Phase 2B of the CLWA Recycled Water System and includes pipelines and a Cherry Willow RW Tank to be constructed by CLWA. The Project will provide recycled water in the vicinity of the Vista Canyon development using recycled water from the Vista Canyon Water Factory as shown in **Figure 3 – Proposed Project: CLWA Phase 2B Recycled Water System**. The Water Factory is being constructed by Vista Canyon to provide a source of recycled water to the Vista Canyon development with surplus recycled water that will be available to CLWA. The Vista Canyon Final EIR was certified on April 26, 2011 and covered the Water Factory, the pump station, and recycled piping within the Vista Canyon development (Tract 69164); accordingly, this Initial Study/Negative Declaration only addresses potential impacts related to the CLWA Phase 2B recycled water project.

Vista Canyon is a 185-acre mixed-use development currently under construction in Santa Clarita that includes up to 1,100 residential units and up to 950,000 square feet of commercial units. The estimated potable water demand for Vista Canyon is approximately 300,000 gallons per day (gpd) or 334 acre-feet per year (AFY). To offset some of Vista Canyon's potable water demand, the Project includes a recycled water facility, herein referred to as the Vista Canyon Water Factory, which will produce Title 22 tertiary disinfected recycled water for non-potable use with an approximate capacity of about 371,000 gpd or 415 AFY (RWQCB-LA Order R4-2016-0220). Wastewater generated from the Vista Canyon development will be conveyed by gravity flow to the Water Factory. The project includes provisions to divert wastewater from an existing sewer interceptor that serves existing development upstream of the Project site in order to provide for sustainable plant operation during the initial development period for Vista Canyon, and as a supplement source of wastewater feed as needed.



Figure 1 – Regional Location Map

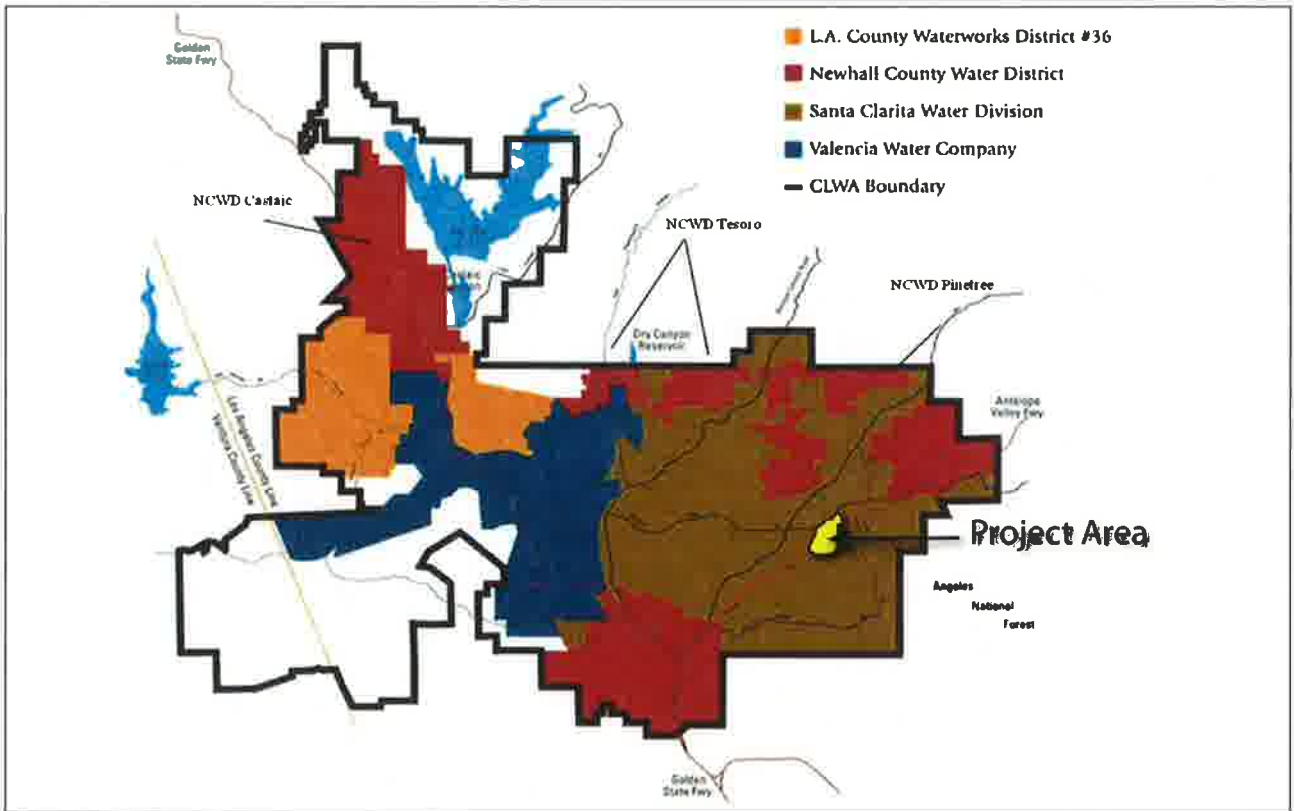


Figure 2 – CLWA Service Area and Water Purveyor Boundaries

The Vista Canyon development is estimated to use about 137 AFY of recycled water. The surplus recycled water is about 278 AFY and could be used to supply the CLWA Phase 2B recycled water system. Recycled water facilities associated with the Vista Canyon development were analyzed in the Vista Canyon Environmental Impact Report (April 2011) and included the Vista Canyon Water Factory, a 100,000-gallon effluent storage tank, effluent pumps sized for the requirements of the recycled system within the Vista Canyon development, and a recycled water distribution system within the Vista Canyon development. The scope of this Initial Study covers the infrastructure that extends outside the Vista Canyon development to be constructed by CLWA for the Phase 2B recycled system as shown in **Figure 3**.

The CLWA Phase 2B recycled system will include a recycled water Cherry Willow RW Tank with an approximate capacity of 1,000,000 gallon (1 MG), a transmission pipeline from the Vista Canyon pump station to the proposed recycled water Cherry Willow RW Tank, distribution pipelines to serve major customers, and a backup potable water supply line from the existing Cherry Willow potable water tanks to the new recycled water tank (with air gap separation) to maintain flow to the recycled water distribution system if recycled water supply is interrupted. In addition to the Vista Canyon development, major customers will include the Fair Oaks Ranch Park, the Fair Oaks Ranch Community School, and could be expanded to include other nearby irrigation customers with landscaped areas in the Fair Oaks Ranch community. CLWA's goal for the Phase 2B project is to use all of the available recycled water to serve existing irrigation customers to offset potable demands. The average annual recycled water demand for the Vista Canyon development is estimated to be about 137 AFY as stated above. The initial build-out of Phase 2B would include major SCWD irrigation customers with an estimated demand of approximately 163 AFY, and could be expanded to serve other SCWD customers to use the additional supply of 115 AFY in the near vicinity as needed¹.

The proposed 1.0 MG storage Cherry Willow RW Tank site (referred to as the Cherry Willow RW Tank herein) will be located approximately 1.25 miles southeast of the Vista Canyon development at a pad elevation of approximately 1,755 feet.

Access to the Cherry Willow RW Tank site is through existing paved roads and a fire trail road. The transmission pipeline will be 12-inch diameter and will extend approximately 5,400 lineal feet from the Vista Canyon pump station to the Cherry Willow RW Tank and will be routed along Lost Canyon Road, Medley Ridge Drive, and Cherry Willow Drive. A network of 8-inch- and 6-inch-diameter distribution lines will initially extend about 6,300 lineal feet to irrigation (recycled) water customers, with possible expansion of an additional 9,800 lineal feet to other nearby irrigation (recycled) water customers. For all proposed pipeline construction, the pipelines would be constructed using traditional cut and cover methods over the entire length. The typical trench would be approximately 3 feet wide with a depth of approximately 6.5 feet. Pipelines and infrastructure would be constructed in existing easements and in the public-right-of-way. The potential staging areas are located on **Figure 4 – Proposed Staging Areas**.

¹ Recycled water demands for Phase 2B were estimated using 2013 meter data provided by SCWD as reported in the Final Preliminary Design Report for the Recycled Water System Phase 2B (Kennedy/Jenks, October 2015). Estimated demands for the Vista Canyon development were reported in the Engineering Report for the Vista Canyon Water Factory (Dexter Wilson, November 2015). The Vista Canyon Specific Plan area was addressed in a previously prepared Final EIR; therefore, this Initial Study/Mitigated Negative Declaration only addresses those potential impacts related to the CLWA Phase 2B project.

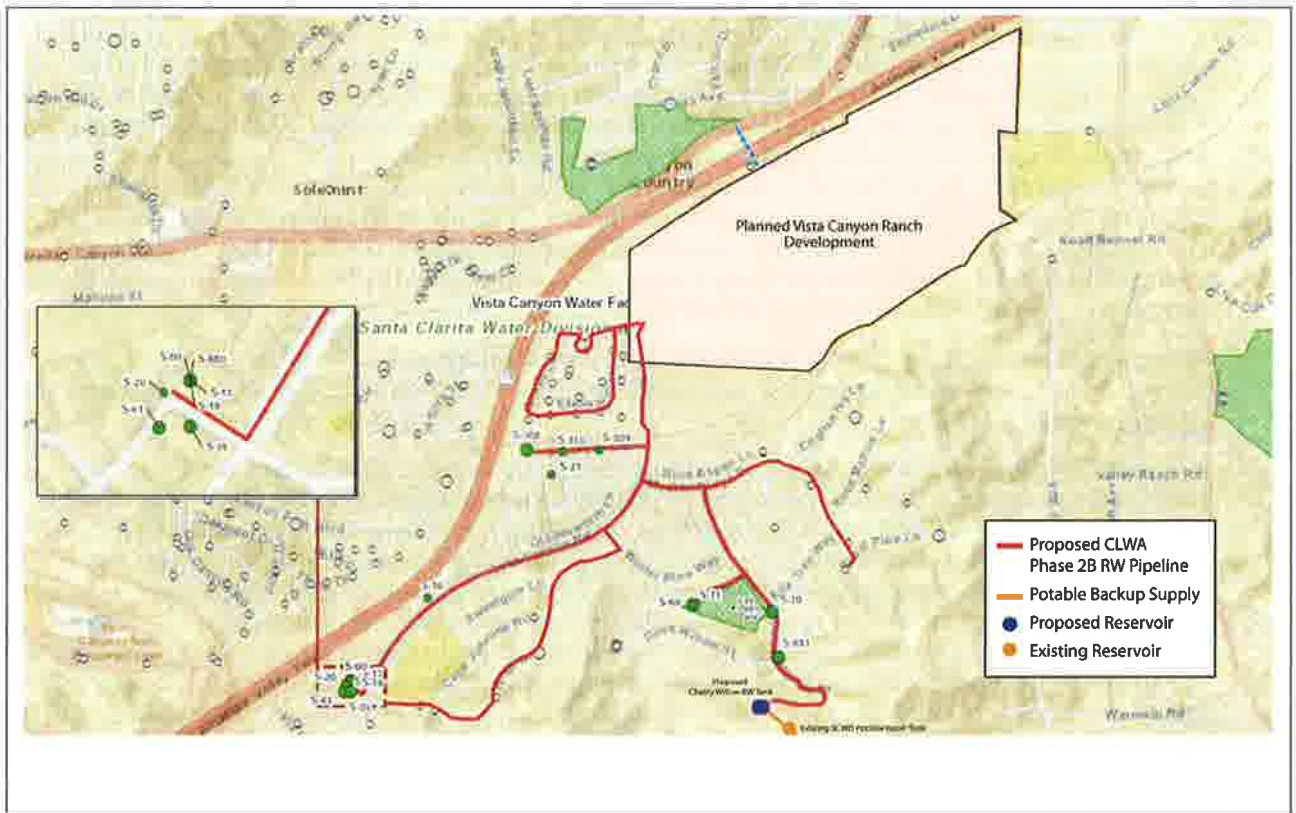


Figure 3 – Proposed Project: CLWA Phase 2B Recycled Water System



Figure 4 – Proposed Staging Areas

Construction

For all proposed pipeline construction, the pipelines would be constructed using traditional cut-and-cover methods over the entire length. The proposed pipelines would be installed with an excavator that would excavate a 3-foot-wide by 6.5-foot-deep trench and temporarily store the removed soils along the trench. Work crews would place the pipe in the trench, which would be backfilled by a loader or backhoe, and then compacted to match the existing grade. The temporary disturbance zone associated with pipe installation would be about 10 feet wide. The road would be restored to preconstruction conditions after pipe installation and trench backfill. The expected rate of progress for pipeline installation is approximately 200 lineal feet per day.

The Cherry Willow RW Tank site has been graded and is generally flat with an elevation of approximately 1,755 feet above mean sea level (msl). The pad elevation of the new Cherry Willow RW Tank will be approximately 1,755 feet (msl) with an approximate diameter of 70 feet and wall height of 32-feet. The Cherry Willow RW Tank will be painted an earthen tone color typically used by SCWD to blend with the terrain surrounding the site. The site will include perimeter chain-link fencing for security.

It is anticipated that construction of the Cherry Willow RW Tank will be approximately nine months performed in two phases. The first phase will include clearing the area, fine grading, and construction of the Cherry Willow RW Tank foundation, site piping and erection of the steel Cherry Willow RW Tank structure and will be approximately 6 months. There will be welding equipment on-site as well as a crane, a concrete pumper, concrete delivery trucks, an excavator, dump trucks, water trucks, and a fork lift. A crew of 10 to 15 workers is expected with three utility trucks. The second phase will be coating the tank and will be approximately 3 months. There will be painting equipment on-site as well as a crane, scaffolds, sand blasting equipment, and a forklift. A crew of eight workers is expected with three utility trucks.

9. Surrounding land uses and setting: Briefly describe the project's surroundings:

The Project site is adjacent to existing development. Major uses include Fair Oaks Ranch Community School, single family homes, open space (adjacent to the Cherry Willow RW Tank site) and parks and recreation fields.

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

The proposed Project would occur in the public roadway right-of-way. An encroachment permit from the City of Santa Clarita Department of Public Works would also be required. Other permits that would be required for the proposed Project—that could be the contractor's responsibility—are a General Construction Storm Water Permit and recycled water project permit from the Los Angeles Regional Water Quality Control Board, and a Trenching and Excavation Permit from the California Division of Occupational Safety and Health. The Project will be designed in accordance with the Water Main Separation requirements of Chapter 16, California Water Works Standards of Title 22, California Code of Regulations (CCR) and Section 7585 of Title 17, CCR for adequate backflow protection for the proposed backup potable water supply to the Cherry Willow Recycled Water Tank. Design plans will be submitted to the State Water Resources Control Board (SWRCB), Division of Drinking Water (DDW) for approval. No work will be performed within the State Right-of-Way, however, any over-sized transport vehicles performing project work that travel on State highways will require a Caltrans transportation permit.

The following approvals and actions are required:

- Adoption of the Mitigated Negative Declaration by CLWA
- City of Santa Clarita encroachment permit
- SWRCB, DDW approval of design plans

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology /Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input checked="" type="checkbox"/> Tribal Cultural Resources | <input type="checkbox"/> Utilities / Service Systems |
| <input type="checkbox"/> Mandatory Findings of Significance | | |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Keith Abernethy
Signature

9/5/17
Date

Signature

Date

Evaluation of Environmental Impacts:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance

Pursuant to the California Environmental Quality Act (CEQA) Guidelines,² an Initial Study is a preliminary environmental analysis that is used by the lead agency as a basis for determining whether an Environmental Impact Report (EIR), a Mitigated Negative Declaration, or a Negative Declaration is required for a project. The State CEQA Guidelines require that an Initial Study contain a project description; a location map; a description of the environmental setting; an identification of environmental effects by checklist or other similar form; an explanation of environmental effects; a discussion of mitigation for potentially significant environmental effects; an evaluation of the project's consistency with existing, applicable land use controls; and the names of persons who prepared the study.

This section provides an evaluation of the various topics considered for environmental review.

A brief explanation for the determination of significance is provided for all impact determinations except "No Impact" determinations that are adequately supported by the information sources the Lead Agency (Castaic Lake Water Agency) cites in the parentheses following each question. A "No Impact" determination is adequately supported if the referenced

² California Code of Regulations, Title 14, §15063.

information sources show that the impact simply does not apply to the proposed project (e.g., the project falls outside a fault rupture zone). A “No Impact” determination includes an explanation of its bases relative to project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

Explanations take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

Once the Lead Agency has determined that a particular physical impact may occur, then the checklist indicates whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant.

“Mitigated Negative Declaration: Less than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level.

Earlier analyses may be used where, pursuant to the tiering of a program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. In this case, a brief discussion should identify the following:

- a) Earlier Analysis Used. Identify and state where they are available for review.
- b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
- c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

1. Aesthetics

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a) Would the project have a substantial adverse effect on a scenic vista?

A scenic vista is a scene, view, or panorama and it is typically seen when climbing to the top of a mountain, or at a “scenic view” highway rest stop. Major facilities include a 1.0 MG recycled water Cherry Willow RW Tank and an associated transmission line to the proposed recycled water Cherry Willow RW Tank, distribution lines, and a backup potable water backup supply line from the existing Cherry Willow water tanks to the new recycled water tank to maintain flow through the recycled water distribution system in case recycled water supply is interrupted.

The major new facility that will be visible with the Project is the Cherry Willow RW Tank (a 1.0 MG storage tank site that is located approximately 1.25 miles southeast of the Vista Canyon development), having a pad elevation of approximately 1,755 feet.

Impacts to scenic vistas can occur when the visible scenic landscape itself is altered or when a new contrasting object is introduced that blocks or obstructs a scenic vista from a particular public vantage point.

Construction of proposed plan-related facilities, including a Cherry Willow RW Tank and pipelines could, result in short-term impacts to aesthetics and visual resources. Construction activities would require the use of heavy equipment and storage of materials on-site. During construction, excavated areas, stockpiled soils, and other materials at the construction site and staging areas would constitute negative aesthetics elements in the visual landscape. Although these temporary effects would be limited to construction, they could result in potentially significantly impacts to the long-term visual character of the area if not restored. However, any native or landscaped vegetation that was disturbed during construction would be restored upon completion of construction activities.

Pipelines would be located underground and would have no long-term visual impacts. The only significant above-ground facility is the Cherry Willow RW Tank which could contrast with existing surroundings. As a result, it would be painted with non-reflective earthen tones consistent with other SCWD water tanks in the vicinity to blend with the surrounding environment according to **Mitigation Measure AES-1**. Impacts related to scenic vistas would be less than significant with mitigation.

Mitigation Measures

AES-1: The exterior of above-ground facilities shall be finished with a non-reflective material in an earth tone that blends in with the natural environment.

Significance Determination

Less than significant with mitigation incorporated

State Scenic Highway

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

There are no substantial rock outcroppings that would be impacted by the project and no mature trees will be removed. Based on review of the California Department of Transportation (Caltrans) Scenic Highway Mapping System, there are no officially designated State Scenic Highways in the vicinity of the proposed plan area (Caltrans, 2015). As a result, the proposed plan would not degrade scenic resources within a state scenic highway. The SR-126 is considered an eligible state scenic highway (Caltrans, 2015). Pipelines, once constructed, would be underground and would not be visible from the SR-126. Currently the plan does not include any above-ground structures within the SR-126 corridor. As a result, impacts associated with implementation of the proposed plan would not visually impact an officially designated State Scenic Highway. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

Visual Character

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Construction activities associated with the Project facilities would require the use of construction equipment and storage of materials on-site, thus introducing contrasting features into the visual landscape that would affect the visual quality of proposed plan area. Contrasting features would include demolition materials, excavated areas, stockpiled soils, and other materials generated and stored on-site during construction. However, adverse effects to visual character associated with construction would be temporary and are considered less than significant.

The Cherry Willow RW Tank has been graded and is generally flat with an elevation of approximately 1,755 feet above mean sea level (msl), and will have an approximate diameter of 70 feet and wall height of 32 feet. The Cherry Willow RW Tank will be painted an earthen tone color typically used by SCWD to blend with the terrain surrounding the site. The Project area is located within the SCWD service area in previously disturbed areas, adjacent to potable water storage tanks that are also visible. There are two existing SCWD water 0.5 MG potable water tanks located approximately 550 feet southeast of the proposed recycled water (Cherry Willow RW Tank). Because the proposed recycled Cherry Willow RW Tank site is near existing SCWD potable water tanks, and the design is consistent with other tanks in the SCWD service area, there would be less-than-significant effect on the visual character of the surroundings. In addition, the Cherry Willow RW Tank site is partially screened from homes, based upon its setback from slopes and homes below the Cherry Willow RW Tank site.

Project pipelines would be installed underground and would not result in any long-term visual impacts. However, above-ground proposed plan facilities could have the potential to create long-term effects upon visual character of the area. Implementation of **Mitigation Measure AES-1** would require the painting of above-ground facilities with earth tone colors that would blend with the surrounding environment. Implementation of this mitigation measure would reduce impacts related to visual character to less than significant levels.

Mitigation Measures

Implement Mitigation Measure AES-1.

Significance Determination

Less than significant with mitigation incorporated

Light and Glare

- d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

If security lighting is necessary during the construction or operation of the Project facilities, it may introduce new sources of light and glare to the proposed plan area. It is not anticipated that nighttime construction would occur or that above-ground facilities would require the installation of permanent new outdoor lighting. However, if security lighting is needed for Project facilities, lighting would be shielded to reduce potential glare impacts to local areas, consistent with implementing agency design standards. Impacts associated with light and glare would be less than significant.

Any necessary security lighting during construction or operation of proposed facilities shall be designed to be consistent with City zoning code and applicable design guidelines and to minimize glare to adjacent areas. To mitigate potential impacts due to nighttime lighting for construction activities near sensitive receptors, such as residential homes, construction activities shall be restricted to daytime hours on residential streets. If nighttime construction is required, temporary lighting must be directed onto the worksite and avoid any spill-over light or glare onto adjacent properties. Compliance with these codes and Project design will reduce any light and glare impacts to less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

2. Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) **Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

The Project area is primarily residential or commercial and is not currently used for agricultural operations. According to the California Department of Conservation “Los Angeles County Important Farmland 2014” map, the proposed construction staging areas are designated as “Grazing Land” or “Urban and Built-Up Land.” The Project Site is designated as “Urban and Built-Up Land,” “Grazing Land,” and “Other Land.” The Project Site is not designated as Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. Accordingly, no impacts would occur.³

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

3 California Department of Conservation (DOC), Division of Land Resource Protection, “Los Angeles County Important Farmland 2014” <http://maps.conservation.ca.gov/ciff/ciff.html>. Accessed November 2016. 8 DOC, Division of Land Resource Protection, “State of California Williamson Act Contract Land Statewide Map” (2012), ftp://ftp.consrv.ca.gov/pub/dlrp/wa/2012%20Statewide%20Map/WA_2012_11x17.pdf. Accessed November 2016.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

None of the staging areas, proposed transmission pipeline, and Cherry Willow RW Tank site are zoned for agricultural uses. The proposed Project and the proposed construction staging areas are not zoned for agricultural uses. The proposed pipelines and Cherry Willow RW Tank would not conflict with the existing zoning designations. Therefore, impacts would be less than significant.

The location of the proposed Project is not subject to a Williamson Act contract. Accordingly, no impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

The Project area is not currently designated as, or located near land designated for, forest, timberland, or timberland zoned Timberland Production. The land uses surrounding the Project Site include residential and commercial uses. Accordingly, no impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

As previously discussed, the Project Site is not located within a forest area. All construction activities would occur within the public roadway right-of-way or on land to be deeded to CLWA by the developer, and the storage of construction equipment would not result in the loss of existing trees. The Project would not result in the loss of forestland or in the conversion of forestland to non-forest use.⁴ Accordingly, no impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

4 City of Santa Clarita General Plan, "Zoning Map" (updated November 2016), <http://www.santa-clarita.com/home/showdocument?id=6970>.

- e) **Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?**

As previously noted, the Project site is not designated as either farmland or forestland and does not involve farming or forestry operations. Furthermore, there are no agriculture or forestry operations in the vicinity of the Project site. Therefore, no such land would be converted and no impacts would occur.

Mitigation Measures

No mitigation measures are required.

Significance Determination

No impact

3. Air Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The SCAQMD is the regional agency that provides air quality guidance with jurisdiction over the entire County. The most recently adopted comprehensive plan applicable to the proposed Project is the 2016 AQMP (March 2017). Regional growth projections are used by SCAQMD to forecast future emission levels in the South Coast Air Basin. The AQMP is implemented to meet the federal and State emission standards identified in both Clean Air Acts.

The Project does not include any changes to housing or population and would therefore not have the potential to conflict with the regional growth projections utilized in the formulation of the AQMP. In addition, and further discussed herein, the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The proposed Project would meet the objectives and policies of the AQMP and would not establish new or modified permitted sources of non-attainment air contaminants or precursors, and would not conflict with the population projections identified within the latest SCAQMD AQMP. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

The Project Site is located in the Santa Clarita Valley (Source Receptor Area 13) within the South Coast Air Basin, which is designated as nonattainment for ozone and fine particulate matter (PM_{2.5}) under the National Ambient Air Quality Standards (AAQS), as well as particulate matter (PM₁₀) under the California Air Quality Standards.⁵ To address potential impacts from construction and operational activities, the SCAQMD currently recommends that impacts from projects with mass daily emissions that exceed any of the thresholds outlined in **Table 1** below be

⁵ California Environmental Protection Agency (CalEPA), Air Quality Standards and Area Designation (December 2015), <http://www.arb.ca.gov/degis/adm/adm.htm>.

considered significant. The Lead Agency defers to these thresholds for the evaluation of construction and operational air quality impacts.

Table 1 – SCAQMD Thresholds of Significance

Pollutant	Construction Thresholds (pounds/day)	Operational Thresholds (pounds/day)
Reactive Organic Gases (ROG)	75	55
Nitrogen Oxides (NO _x)	100	55
Carbon Monoxide (CO)	550	550
Sulfur Oxides (SO _x)	150	150
Particulate Matter (PM ₁₀)	150	150
Fine Particulate Matter (PM _{2.5})	55	55

Source: SCAQMD CEQA Handbook (SCAQMD, 1993), SCAQMD Air Quality Significance Thresholds, website: <http://aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>; accessed April 2017.

Regional Construction Emissions

For purposes of analyzing impacts associated with air quality, this analysis assumes a construction schedule of approximately 7 to 8 months. With a maximum of 21,500 total lineal feet of water line installation and an average of 200 lineal feet installed per day, approximately 108 construction days would be needed for line installation and approximately 60 days would be needed for paving. Thus, a total of 168 construction days is estimated in this analysis, which equates to approximately 7 to 8 months of construction (based on an average of 22 construction days available per month). For purposes of this analysis, the following equipment mix would be considered the worst-case daily scenario: two excavators, one tractor/loader/backhoe, one paver, one grinder, up to five daily haul truck trips for spoils, concrete for slurry backfill, asphalt and sand. See **Appendix I** to this Draft IS/MND for additional details regarding construction assumptions.

These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. Trenching and line installation activities would primarily generate PM_{2.5} and PM₁₀ emissions. Mobile sources (such as diesel-fueled equipment on-site and traveling to and from the Project Site) would primarily generate NO_x emissions. The amount of emissions generated on a daily-basis would vary, depending on the amount and types of construction activities occurring at the same time. The analysis of daily construction emissions has been prepared utilizing the California Emissions Estimator Model (CalEEMod 2016.3.1) recommended by the SCAQMD. **Table 2, Estimated Peak Daily Construction Emissions**, identifies the Project’s peak daily construction emissions.

These calculations assume that appropriate dust control measures would be implemented as part of the Project during each phase of development, as required by SCAQMD Rule 403 - Fugitive Dust. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes (two times per day), applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, and maintaining effective cover over exposed areas. As shown in **Table 2** associated with the project would not exceed any regional SCAQMD thresholds of significance. Therefore, construction impacts would be less than significant.

Table 2 – Estimated Peak Daily Construction Emissions

Calendar Year	Emissions in Pounds per Day					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2018 Peak Day	2.66	29.50	18.14	0.04	1.65	1.32
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00	55.00
Significant Impact?	No	No	No	No	No	No

Note: Calculations assume compliance with SCAQMD Rule 403 – Fugitive Dust. Calculation sheets are provided in Appendix I to this IS/MND.

Operational Emissions

The operation of the proposed pipeline and Cherry Willow RW Tank would not generate substantive air quality emissions, and any air quality emissions associated with motor vehicle trips for maintenance and operations would be minimal. Motor vehicle trips associated with routine maintenance would not occur on a regular daily basis, and a single daily motor vehicle trip would be sufficient for project operation and would be less than the worker trips analyzed under the more impactful construction scenario above. As shown above, all construction emissions, including emissions associated with daily worker trips, would be under the SCAQMD thresholds of significance. The proposed Project would also be required to comply with SCAQMD Rule 1113 to limit VOC content of architectural coatings, consistent with RWMP PEIR RR 3.3-1; SCAQMD Rule 201 which requires a Permit To Construct if a backup generator or an engine would be installed at either the pump station or Cherry Willow RW Tank that is greater than 50 brake horsepower; and SCAQMD Rule 402, which prohibits the discharge from a facility of air pollutants that cause injury, detriment, nuisance, or annoyance to the public or that damage business or property. Accordingly, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

- c) **Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**

Los Angeles County is in nonattainment for ozone, PM_{10} , and $PM_{2.5}$ at the state level. Related projects may exceed an air quality standard or contribute to an existing or projected air quality exceedance. With respect to determining the significance of the Project contribution, the SCAQMD neither recommends quantified analyses of construction and/or operational emissions from multiple projects nor provides methodologies or thresholds of significance to be used to assess the cumulative emissions generated by multiple cumulative projects. Instead, the SCAQMD recommends that a project's potential contribution to cumulative impacts be assessed utilizing the same significance criteria as those for project specific impacts. Furthermore, the SCAQMD states that if an individual development project generates less-than-significant construction or operational emissions impacts, then the development project would not contribute to a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

As discussed above, the mass daily construction and operational emissions generated by the Project would not exceed any of thresholds of significance recommended by the SCAQMD. Also, as discussed below, localized emissions generated by the Project would not exceed the SCAQMD's Localized Significance Thresholds (LSTs). Therefore, the Project would not contribute a cumulatively considerable increase in emissions for the pollutants which the Basin is in nonattainment. Thus, cumulative air quality impacts associated with the Project would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are defined as schools, residential homes, hospitals, resident care facilities, daycare centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. The proposed Project and its alternatives would be sited adjacent to the Fair Oaks Ranch Community School and single-family homes.

Emissions from construction activities have the potential to generate localized emissions that may expose sensitive receptors to harmful pollutant concentrations. The SCAQMD has developed localized significance threshold (LST) look-up tables for project sites that are one, two, and five acres in size to simplify the evaluation of localized emissions at small sites. LSTs are provided for each Source Receptor Area (SRA) and various distances from the source of emissions. SCAQMD, White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, Appendix D: Cumulative Impact Analysis Requirements Pursuant to CEQA, August 2003, page D-3.

In the case of this analysis, the Project site is located within SRA 13 covering the Santa Clarita Valley area. The nearest sensitive receptors to the Project site are the adjacent residences and school use identified above. The closest receptor distance in the SCAQMD’s mass rate look-up tables is 25 meters (about 82 feet). Projects that are located closer than 25 meters to the nearest receptor are directed to use the LSTs for receptors located within 25 meters. For the purposes of a conservative analysis, this analysis applies the 1-acre LSTs with sensitive receptors located within 25 meters of the Project area (this is the most restrictive threshold available).

As shown in **Table 3** below, peak daily emissions generated on-site during construction activities would not exceed the applicable construction LSTs for a 1-acre site in SRA 13. Therefore, localized air quality impacts from Project construction activities on the off-site sensitive receptors would be less than significant.

Table 3 – Localized On-Site Peak Daily Construction Emissions

Construction Phase ^a	Total On-Site Emissions (pounds per day)			
	NO _x ^b	CO	PM ₁₀	PM _{2.5}
On-Site Trenching/Grading Emissions	16.04	6.61	0.74	0.68
On-Site Paving Emissions	10.31	10.26	0.58	0.54
Total On-Site Emissions	26.35	16.87	1.32	1.22
<i>SCAQMD Localized Thresholds</i>	<i>114.00</i>	<i>590.00</i>	<i>4.00</i>	<i>3.00</i>
Potentially Significant Impact?	No	No	No	No

Note: Calculations assume compliance with SCAQMD Rule 403 – Fugitive Dust.

a The localized thresholds for all phases are based on a one-acre site with a receptor distance of 25 meters (82 feet) in SCAQMD’s SRA 13.

b The localized thresholds listed for NO_x in this table takes into consideration the gradual conversion of NO_x to NO₂, and are provided in the mass rate look-up tables in the “Final Localized Significance Threshold Methodology” document prepared by the SCAQMD. As discussed previously, the analysis of localized air quality impacts associated with NO_x emissions is focused on NO₂ levels as they are associated with adverse health effects. Calculation sheets are provided in Appendix I to this IS/MND.

With respect to localized operational emissions, the LST methodology typically applies to operational projects such as warehouse/transfer facilities.⁶ As the Project would include a Cherry Willow RW Tank and pipeline with minimal operational air emissions, an operational analysis against the LST methodology would not be applicable and these impacts would be considered less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

6 SCAQMD, Sample Construction Scenarios for Projects Less than Five Acres in Size, February 2005, page 1-3.

e) Would the project create objectionable odors affecting a substantial number of people?

According to the California Air Resources Board's Air Quality and Land Use Handbook⁷, odors are the most common sources of air pollution complaints, and as with other types of air pollution, a number of factors need to be considered when determining potential effects on land use. Land uses that are more likely to produce odors include agriculture, chemical plants, composting operations, dairies, fiberglass molding, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants. None of these uses are adjacent to the proposed Project.

Construction activities associated with the proposed Project (including the pipeline and the Cherry Willow RW Tank) would generate odors from heavy-duty equipment exhaust, including diesel and gasoline. Construction related odors associated with diesel and gasoline fumes will be transitory in nature and would not create objectionable odors affecting a substantial number of people. The impacts from these odors would be short term and would cease upon the completion of the pipeline and Cherry Willow RW Tank. The Project's operational use would not have any significant emission sources and would not result in odor complaints, considering the distance between the Cherry Willow RW Tank site and sensitive receptors, and is not categorized as a use typically associated with odor generation or complaints (see the list of these uses noted above). Accordingly, odor impacts during construction and operation would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

⁷ California Air Resources Board (CARB), Air Quality and Land Use Handbook: A Community Health Perspective (2005), p. 32.

4. Biological Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) **Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

The Project site is largely located in residential areas surrounded by landscaping with ornamental plant communities and largely devoid of habitat. Developed areas represent the majority of the ROW along the proposed alignment. These areas consist of paved areas, including the road and the paved shoulder, gutters, curbs, and sidewalks. The proposed pipeline and the staging areas would be located within the ROW and were determined to have minimal to no potential impact on federally threatened or endangered species (California Natural Diversity Database (CNDDDB) based on the Results of a Biological/Regulatory Overview for the Recycled Water Program-Phase 2B, Santa Clarita, Los Angeles County, California prepared by Glenn Lukos Associates, December 6, 2016 (available from CLWA upon request)). The Biological/Regulatory Overview included site reconnaissance of the entire study area, and a review of CNDDDB for the Mint Canyon quadrangle and surrounding quadrangles, a review of the 2016 California Native Plant Society on-line inventory, and a soil map review. The Vista Canyon EIR addressed the impacts from the Vista Canyon Water Factory, pump station and on-site pipelines. The Cherry Willow RW Tank site was addressed in the Fair Oaks Ranch EIR.

Species were considered based on a number of factors, including: 1) species identified by the November 2016 California Natural Diversity Database (CNDDDB) as occurring (either currently or historically) on or in the vicinity of the proposed alignment; and 2) any other species that are known to occur within the vicinity of the proposed alignment, or for which potentially suitable habitat occurs on-site.

No special-status plants were observed on-site during the general survey. Twenty-three special- status plant species were identified by the CNDDDB as occurring within the vicinity of the study area. Of these, eleven species were determined to have reasonable potential to occur within the study area, with a likelihood of occurrence ranging from very low to moderate. These species range in regulatory status and include San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*; federal candidate [FC] and SE; California Rare Plant Rank [CRPR] 1B.1),

Parry's spineflower (*Chorizanthe parryi* var. *parryi*; CRPR 1B.1), mesa horkelia (*Horkelia cuneate* var. *puberula*; CRPR 1B.1), slender mariposa lily (*Calochortus clavatus* var. *gracilis*; CRPR 1B.2), Santa Susana tarplant (*Deinandra minthornii*; CRPR 1B.2), Davidson's bush-mallow (*Malacothamnus davidsonii*; CRPR 1B.2), white rabbit-tobacco (*Pseudognaphalium leucocephalum*; CRPR 2B.2), chaparral ragwort (*Senecio aphanactis*; CRPR 2B.2), Plummer's mariposa lily (*Calochortus plumerias*; CRPR 4.2), Peirson's morning-glory (*Calystegia peirsonii*; CRPR 4.2), and Palmer's grapplinghook (*Harpagonella palmeri*; CRPR 4.2).

Species were considered based on a number of factors, including: 1) species identified by the November 2016 CNDDDB as occurring (either currently or historically) on or in the vicinity of the proposed alignment; and 2) any other special-status species that are known to occur within the vicinity of the proposed alignment, or for which potentially suitable habitat occurs on-site.

No special-status animals were observed on-site during the general survey (based on Results of a Biological/Regulatory Overview for the Recycled Water Program-Phase 2B, Santa Clarita, Los Angeles County, California; Glenn Lukos Associates, December 6, 2016 (available from CLWA upon request)). Thirty-five special-status animal species were identified by CNDDDB as occurring within the vicinity of the study area. Of these, fifteen species were determined to have reasonable potential to occur within the study area, with a likelihood of occurrence ranging from very low to moderate, and for some of which use of the study area is restricted to foraging opportunities. These species range in regulatory status and include coastal California gnatcatcher (*Poliophtila californica*; FT and SSC), white-tailed kite (*Elanus leucurus*; FP), Swainson's hawk (*Buteo swainsoni*; ST), pallid bat (*Antrozous pallidus*; foraging only; SSC), coastal whiptail (*Aspidoscelis tigris stejnegeri*; SSC), burrowing owl (*Athene cunicularia*; SSC), spotted bat (*Euderma maculatum*; foraging only; SSC), western mastiff bat (*Eumops perotis californicus*; foraging only; SSC), loggerhead shrike (*Lanius ludovicianus*; SSC), hoary bat (*Lasiurus cinereus*; foraging only; SSC), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*; SSC), California leaf-nosed bat (*Macrotus californicus*; foraging only; SSC), San Diego desert woodrat (*Neotoma lepida intermedia*; SSC), southern grasshopper mouse (*Onychomys torridus ramona*; SSC), and coast horned lizard (*Phrynosoma blainvillii*; SSC).

A review of the November 2016 CNDDDB identified the following special-status habitats as occurring within the vicinity of the proposed alignment: California walnut woodland, mainland cherry forest, Riversidean alluvial fan sage scrub, Southern California threespine stickleback stream, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern mixed riparian forest, southern riparian scrub, southern sycamore alder riparian forest, southern willow scrub, and valley oak woodland. These habitats are not present within the site, and no additional special-status habitats were observed based on the Results of a Biological/Regulatory Overview for the Recycled Water Program – Phase 2B, Santa Clarita, Los Angeles County, California (available from CLWA upon request). The Cherry Willow Tank pad site and access road is relatively void of vegetation and was previously graded. No vegetational resources exist on the Cherry Willow RW Tank pad site.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

The proposed Project would locate recycled water pipeline beneath existing streets and therefore would not have an impact on riparian areas. The proposed pump station would not result in significant direct or indirect impacts to riparian habitat and would be located in the developed part of the Vista Canyon project, as described and analyzed in Vista Canyon Draft EIR. The proposed Cherry Willow RW Tank location would be located on a hillside with open

space. The footprint would be approximately 0.5 acres in size and there are no riparian resources located at the site or along the proposed alignment of the pipeline serving the Cherry Willow site. The site is a previously graded pad and the impacts of the proposed tank site were evaluated in the Fair Oaks Ranch EIR. Operation of the Vista Canyon Water Factory will result in less than significant impacts to downstream discharges to the Santa Clara river since the Water Factory is sized to treat only wastewater from the Vista Canyon development. Any intercepted flows from existing upstream sewer flows would only be required to provide for plant operation during the initial development of Vista Canyon, and as a supplemental source of wastewater as needed for sustainable plant operations. Any potential flow reductions in downstream wastewater plants would be offset by future growth in effluent at the Saugus Water Reclamation Plant and Valencia Water Reclamation Plant and considered de minimus with less than significant impacts.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

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

Section 404 of the Federal Clean Water Act authorizes the State of California to certify that federal permits and licenses do not violate the state's water quality standards. Executive Order 11990 aids in the protection of wetlands existing or under evaluation by the U.S. Army Corps of Engineers. The proposed recycled water pipelines would not adversely affect federally protected wetlands, because the pipelines will be located in developed areas with residential land uses. Construction activities for the proposed Cherry Willow RW Tank would be located in the disturbed area west of the existing Cherry Willow tank site. Because this area is not designated as a federally protected wetland (based on Results of a Biological/Regulatory Overview for the Recycled Water Program-Phase 2B, Santa Clarita, Los Angeles County, California; available from CLWA upon request), no impacts to wetlands would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

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

Construction of the proposed Project would last approximately nine months beginning in the second quarter of 2017. All activities except for the construction of the tank would occur within existing paved roadway right-of-way. No trees would be removed as a result of construction activities. At the completion of construction, the pipeline would be located below ground and would not interfere with the movement of wildlife.

This hillside location for the Cherry Willow RW Tank is surrounded nearby by residential development to the south, west, east, and north and the tank would not impede movement between open space areas. Areas available as opportunities for wildlife movement would include the Santa Clara River located north of the proposed Project. The South Coast Missing Linkages (SCML) project has developed a comprehensive plan for a regional network that

would maintain and restore critical habitat linkages between existing open space reserves.⁸ As described in the SCML project, the Santa Clarita Valley contains portions of three linkages identified in the Missing Linkages project: the Santa Monica-Sierra Madre Mountains Connection, the Sierra Madre-Castaic Connection, and the San Gabriel-Castaic Connection. The Project would not impinge on any of these linkages. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

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

The City of Santa Clarita’s Oak Tree Preservation ordinance requires the preservation of all healthy oak trees, including scrub oaks, within the City, unless compelling reasons justify the cutting, pruning, encroachment, and/or removal of such trees. Additionally, the ordinance states that no person shall cut, prune, remove, relocate, endanger, damage, or encroach into the protected zone of any oak on any public or private property within the City except in accordance with the conditions of a valid oak tree permit issued by the City. This generally applies to trees that are 6 inches or more in circumference (2 inches in diameter). The proposed pipelines would be located within urbanized and paved areas. Therefore, there would be no impact.

The area near the proposed Cherry Willow RW Tank site does not contain any trees. No other local policies or ordinances protecting biological resources would be applicable to the Project. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

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

The Project site does not lie within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impacts would occur from the proposed Project.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

⁸ South Coast Wildlands, South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion (2008), http://www.scwildlands.org/reports/SCML_RegionalReport.pdf.

5. Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

An Archaeological Inventory was performed by Greenwood and Associates. The effort included an archaeological record search and field survey. The field survey was conducted on November 21, 2016 by John M. Foster, Register of Professional Archaeologists (RPA), Greenwood and Associates. Transects were spaced at 10-meter intervals based on the potential for archaeological resources, and visibility within the Project site was excellent. Rodent and ground squirrel activity provided adequate supporting evidence of the absence of buried cultural resources in the impact areas.

The area had favorable environmental conditions to sustain or attract historical populations. California was claimed by Spain during the sixteenth century as part of the empire it was establishing in the New World. Europeans arrived in Los Angeles in 1769 with the Gaspar de Portolá expedition. To solidify their claims, the Spanish government fortified San Diego and Monterey and started to establish Mission outposts. San Fernando Mission was established in 1797, and by the early 1800s, most of the Tataviam population, with the exception of those who had fled into the interior mountains and valleys, had come into the Mission system. There is one known historical site (CA-LAN 4356H, the 1860 Mitchell Ranch) in the vicinity (i.e., within 1 mile) of the project area. Based on results of the Archaeological Inventory, there was no evidence of historical resources in the project area; therefore, the Project would not impact any historical resources.

While the Archeological Inventory did not identify any historical or archeological resources recorded or observed in the project area, the following mitigation measure (described below) is included to ensure that the potential for impact is less than significant.

Mitigation Measures

CUL-1 – In the event that any historical, archeological or tribal cultural resources are discovered during excavation activities, work shall be stopped immediately and temporarily diverted from the vicinity of the discovery until a qualified archeologist and a member of the Fernandeano Tataviam Band of Mission Indians are notified and can identify and evaluate the importance of the find, conduct an appropriate assessment, and implement measures to mitigate impacts on significant resources.

Significance Determination

Less than significant impact with mitigation.

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

An Archaeological Inventory was performed by Greenwood and Associates. The effort included an archaeological record search and a field survey. The field survey was conducted on November 21, 2016 by John M. Foster, Register of Professional Archaeologists (RPA), Greenwood and Associates. Transects were spaced at 10-meter intervals based on the potential for archaeological resources, and visibility within the Project site was excellent. Rodent and ground squirrel activity provided adequate supporting evidence of the absence of buried cultural resources in the impact areas.

The pipelines, pumping station, and Cherry Willow RW Tank sites are located in previously disturbed areas that have been graded. The Cherry Willow RW Tank area was originally part of a ridge that has been subsequently graded to a level pad. The various pipelines are in new residential neighborhoods that have been terraced to create building pads. The pump station is located within the Vista Canyon development. No evidence of archaeological deposits or features were observed.

Recommended mitigation measures indicate that if archaeological resources are encountered during ground-disturbing activities, work should be temporarily diverted from the vicinity of the discovery until a qualified archaeologist and a member of the Fernandefio Tataviam Band of Mission Indians can identify and evaluate the importance of the find, conduct any appropriate assessment, and implement measures to mitigate impacts on significant resources.

Mitigation Measures

Implementation of mitigation measure CUL-1 would reduce potentially significant impacts to less than significant.

Significance Determination

Less than significant impact with mitigation

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

There are no unique paleontological resources or unique geologic resources on or near the Project site (field survey conducted on November 21, 2016 by John M. Foster, RPA, Greenwood and Associates).

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

d) Disturb any human remains, including those interred outside of formal cemeteries?

The Archaeology Inventory prepared by Greenwood and Associates did not identify any human remains or cemeteries in either the literature or the field survey. In the event that any human remains are found, the steps and procedures specified in the *California Health and Safety Code 7050.5*, CEQA Guidelines §15064.5 (d), and the *California Public Resources Code 5097.98* shall be implemented.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

6. Geology and Soils

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

Discussion

- a) **Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
- i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?**

The nearest regional faults are the San Gabriel and Holser faults with numerous regional faults in the Valley that are capable of producing strong seismically induced ground shaking. The San Gabriel Fault travels from the northwest to the southeast through Santa Clarita and crosses the proposed Project through the northeast end of Rye Canyon Road, which is not located close to the Project.⁹ The development of the proposed Project would involve trenching a non-potable water pipeline approximately 5 feet below ground, and would not expose people to risks from earthquakes, because there are no proposed habitable structures intended for human occupancy—including the pump station and the Cherry Willow RW Tank. Additionally, the Project site is not located within an Alquist-Priolo Earthquake Fault Rupture Zone, as delineated by the California Geological Survey¹⁰ and therefore there would be less than significant impact.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

9 Southern California Earthquake Data Center, "Faults of Southern California: Los Angeles Region" (2013), <http://scecdc.caltech.edu/significant/losangeles.html>. Accessed June 2016.

10 DOC, California Geological Survey, CGS Information Warehouse: Regulatory Maps (2015), <http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm>.

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

ii) Strong seismic ground shaking?

The area is subject to ground shaking and potential damage in the event of earthquakes. As noted previously, the most likely source of strong ground shaking within the region would be a major earthquake along the San Andreas Fault Zone or from the San Gabriel or Holser faults. Because the Project site is located in a seismically active area, occasional seismic ground shaking is likely to occur within the lifetime of the proposed Project. One potential adverse effect on the Project from strong seismic ground shaking would be a fracture or rupture in the pipeline causing limited water flow. Implementation of appropriate engineering design measures as required by the latest California Building Code (CBC), including shut-off valve requirements, would minimize potential structural failures caused by earthquakes or other geologic hazards. The proposed Project, including the tank design, would be required to adhere to the provisions of the latest CBC. Compliance with the requirements of the latest CBC for structural safety during a seismic event would reduce hazards from strong seismic ground shaking. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

iii) Seismic-related ground failure, including liquefaction?

Liquefaction refers to loose, saturated sand or gravel deposits that lose their load-supporting capability when subjected to intense shaking. Liquefaction usually occurs during or shortly after a large earthquake. The movement of saturated soils during seismic events from ground shaking can result in soil instability and possible structural damage.¹¹

The Project Site is located within an identified liquefaction zone.¹² However, the project does not have structures that would be habitable or occupied thereby the potential for adverse effects is significantly reduced. Furthermore, the pipeline would be located in paved right-of-way and surrounded by certified base and fill, and the design and construction of the proposed pipeline and Cherry Willow RW Tank would be required to adhere to the latest CBC, which contains provisions for soil preparation to minimize hazards from liquefaction and other seismic-related ground failures. Accordingly, potential liquefaction impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

¹¹ City of Santa Clarita General Plan, "Safety Element" (2011), S-9.

¹² DOC, "Newhall Quadrangle Zones of Required Investigations GIS Data," newh_lq layer.

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

iv) Landslides?

Landslides are the downslope movement of geologic materials that occur when the underlying geological support on a hillside can no longer maintain the load of material above it, causing a slope failure. The term “landslide” also commonly refers to a falling, sliding, or flowing mass of soil, rocks, water, and debris that may include mudslides and debris flows. The risks associated with landslides occur when buildings or structures are placed on slopes. The Project site is located within an area susceptible to landslides. However, the project does not have structures that would be habitable or occupied thereby the potential for adverse effects is significantly reduced. Furthermore, the proposed pipeline would be buried beneath right-of-way and would be designed and constructed to adhere to the latest CBC, which contains provisions for soil preparation to minimize hazards from seismically induced landslides, including that area associated with the Cherry Willow RW Tank pad. With adherence to the latest CBC, potential landslide impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

b) Would the project result in substantial soil erosion or the loss of topsoil?

Erosion is the movement of rock fragments and soil from one place to another. Precipitation, running water, waves, and wind are all agents of erosion. Significant erosion typically occurs on steep slopes where storm water and high winds can carry topsoil down hillsides.

Construction of the proposed Project would result in the removal of soils from existing paved right-of-way and removal of topsoil for construction of the Cherry Willow RW Tank. Any topsoil removed from the pipeline trench would be stockpiled on-site and replaced after the pipeline is installed and the tank constructed. Standard best management practices as required under the National Pollutant Discharge Elimination System (NPDES) permit would require covering exposed material to minimize erosion impacts. Impacts would be less than significant.

Because this would not occur within open space areas, no loss of topsoil or soil erosion would occur. No impact would occur during operation of the proposed Project.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

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

The proposed pipeline would be located within the roadway right-of-way. Where the pipeline would be installed beneath the paved road, the asphalt surface would be saw cut, and a backhoe would be used to excavate a trench for the pipe. The road would be restored to preconstruction conditions after installing the pipe and backfilling the trench. The proposed Cherry Willow RW Tank will also be constructed as part of the project. The proposed Project would not result in substantial hazards from unstable or expansive soils and would be required to adhere to the

latest CBC, which contains provisions for soil preparation to minimize hazards from liquefaction and other unstable geologic features. With adherence to the latest CBC standards, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

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

Expansive soils contain significant amounts of clay particles that have the ability to give up water (shrink) or take on water (swell). When these soils swell, the change in volume can exert pressures that are placed on them, and structural distress and damage to buildings could occur. The proposed pipeline would be constructed beneath the existing roadway and right-of-way, which are constructed on engineered fill. This fill material is not subject to significant expansion. Moreover, the impervious cover would minimize water infiltration, thereby minimizing soil expansion. Finally, proposed Cherry Willow RW Tank would be subject to a geotechnical study and would be required to adhere to the latest CBC, which contains provisions for soil preparation to minimize hazards from soil expansion. Accordingly, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Development of the proposed Project would not require the installation of a septic tank or alternative wastewater disposal system. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

7. Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**
- b) **Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

Gases that trap heat in the atmosphere are called greenhouse gases (GHGs). Greenhouse gases are emitted by natural processes and human activities. The accumulation of greenhouse gases in the atmosphere regulates the earth’s temperature. The State of California has undertaken initiatives designed to address the effects of greenhouse gas emissions, and to establish targets and emissions reduction strategies for greenhouse gas emissions in California. Activities associated with the Project would have the potential to generate greenhouse gas emissions.

The principal GHGs are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H₂O). CO₂ is the reference gas for climate change, because it is the predominant greenhouse gas emitted. To account for the varying warming potential of different GHGs, GHG emissions are often quantified and reported as CO₂ equivalents (CO₂e).

GHG Significance Threshold

In December 2008, the SCAQMD adopted an interim 10,000 metric tons CO₂e (MT CO₂e) per year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency. Because the Project is considered a utility project, this threshold will be utilized for the purposes of illustrating the scope of the Project’s GHG emissions.

Project GHG Emissions

Construction emissions represent an episodic, temporary source of GHG emissions. Emissions are generally associated with the operation of construction equipment and the disposal of construction waste. To be consistent with the guidance from the SCAQMD for calculating criteria pollutants from construction activities, only GHG emissions from on-site construction activities and off-site hauling and construction worker commuting are considered as Project-generated. Emissions of GHGs were calculated using CalEEMod 2016.3.1 for construction of the Project. As shown in **Appendix II** to this IS/MND, the construction of the Project would generate a one-time total of 160 metric tons of CO₂e.

The operation of the Project would not generate substantive GHG emissions, and any GHG emissions associated with motor vehicle trips for maintenance and operations of the project would be minimal. In addition, GHG impacts generated by a pump station would be less than significant through compliance with all applicable rules and regulations, including but not limited to SCAQMD Rule 201 (Permit to Construct) and Rule 402 (Nuisance). It should also be noted that implementation and ongoing operation of the project would allow the Lead Agency to provide recycled water within its jurisdiction to offset importing state water. As a result, the Project could decrease the use of relatively energy-intensive imported water, thereby reducing energy-related GHG emissions. Based on the above, it is clear the Project would not have the potential to exceed the 10,000 MT CO₂e per year screening level threshold adopted by the SCAQMD, and the Project would not have the potential to conflict with an

applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

8. Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

Development under proposed Project would not increase density and population within the Project area as the Project would only supply recycled water in place of potable water for existing large landscaped areas. Routine transportation of hazardous materials, including through traffic, poses a risk to residents within the City as a result of potential accidents involving trucks, rail, and other modes that are used to transport hazardous materials and wastes and are shared with the public. The proposed Project involves the use of recycled water and will not involve the routine use, transport, or disposal of significant amounts of hazardous materials, including hazardous chemical, radioactive, and biohazardous materials.

The operation of land uses that use, create, or dispose of hazardous materials is regulated and monitored by federal, state, and local regulations and policies. Specifically, future development within the City of Santa Clarita would be subject to compliance with the programs administered by the Agency and the County of Los Angeles. The owners or operators of businesses that handle or store hazardous materials equal to or above the reportable quantities would be subject to compliance with regulatory agencies. These programs, as well as other federal, state, and local regulations and policies, provide a high level of protection to the public and the environment. Compliance with appropriate regulations and policies would limit the impact from routine use, transport, or disposal of significant amounts of hazardous materials to less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

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

Because the proposed Project is in a residential area and is either in or adjacent to developed right-of-way, there is a potential for accident conditions to occur during construction. However, compliance with the traffic management requirements of the City of Santa Clarita’s encroachment permit and the RWQCB’s storm water permitting will reduce the risk of any hazard during construction. As a result, the impact to construction workers or the public would be less than significant.

Operation

Businesses that store large quantities of hazardous materials (e.g., fuel storage facilities, chemical warehouses) can be subject to accidents that result from transporting, pumping, pouring, emptying, injecting, spilling, and dumping or disposing of hazardous materials and wastes and that could be released into the environment. The severity of potential effects varies with the activity conducted and the concentration and type of waste involved. However, as discussed above, the proposed Project would not significantly increase the amount of hazardous materials used as it is conveying and storing California Title 22 disinfected tertiary recycled water in accordance with applicable regulations and permits. Additionally, federal, state, and local regulations and policies governing the use of hazardous materials strictly regulate the proper handling of such materials and their containers to ensure that accidents involving the release of toxic materials into the environment do not occur. Compliance with appropriate regulations and policies, specifically Title 22 and RWQCB recycled water permitting, would limit the impact from release of hazardous materials to less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

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

Fair Oaks Community School is located at the edge of being within the proposed Project area. Hazardous materials could be used during construction of pavement and uses within the specific plan area, including the use of standard construction materials (e.g., paints, solvents, and fuels), cleaning and other maintenance products (used in the maintenance of pumps, pipes, and equipment), and diesel and other fuels (used in construction and maintenance equipment and vehicles). The Cherry Willow RW Tank site is more than one-quarter mile from the Fair Oaks Community School and not anticipated to store hazardous waste.

Federal, state, and local regulations and policies governing the use of hazardous materials strictly regulate the proper handling of such materials and their containers to ensure that accidents involving the release of toxic materials into the environment do not occur. Compliance with appropriate regulations and policies would limit the impact from release of hazardous materials to less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

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

A geographical search for hazardous materials sites, as defined in *California Government Code* §65962.5, utilizing the online environmental database GeoTracker,¹³ produced no locations of potential hazardous material within 1 mile of the Project site. Therefore, would be no hazard to the public or environment.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

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

The closest airport to the Project site is the Agua Dulce Airpark located approximately 13 miles to the northeast. Therefore, the proposed pipeline would not be located within an airport land use plan or within 2 miles of a public airport or public use airport. No safety hazard impacts would occur to people residing or working in the area of the proposed Project.

All structures would be subsurface; no structures will be constructed aboveground that would obstruct any airport operations. Therefore, no safety hazards resulting from airport proximity are expected. No impact would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

The nearest airport, public or private, is the Agua Dulce Airpark located approximately 12 miles to the northeast. The proposed Project site would not be located near a private airstrip; therefore, the Project would not create a safety hazard for those working within the Project site. No impact would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

¹³ State Water Resources Control Board, GeoTracker, <http://geotracker.waterboards.ca.gov/>. Accessed November 21, 2016.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

When installed, the Project would not interfere with traffic flow or otherwise hamper emergency response or evacuation plans because all of the components will be located in the streets or rights-of-way. The Cherry Willow RW Tank site is not located where it might interfere with the movement of emergency vehicles. The Project construction (pump station, pipelines, and the Cherry Willow RW Tank) would be consistent with the Traffic Control Plan to ensure that no excavations result in road closure or lane shutdown that interfere with emergency evacuation plans. The size and number of maintenance vehicles present at these components would not interfere with traffic flow. Operation-related impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The Project pipelines will be located in existing streets and rights-of-way with irrigated landscaping and there wouldn't be an increased risk of wildfire. The proposed tank site is in a Very High Fire Hazard Severity Zone (VHFHSZ).³⁴ Construction activities (e.g., the use of welding torches or other tools) within these areas may increase fire danger. The use of flames/sparks in hillside brushy areas would likewise increase the risk of wildfire. However, the tank site has been graded and is largely devoid of natural vegetation that might result in an increased wildfire risk. Operation of the proposed Project would not exacerbate the potential for wildfires because there are no ignitable materials or processes from moving recycled water that would have the potential to create a fire. Therefore, impacts related to exposing people or structures to adverse effects from wildfires would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

9. Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a) Would the project violate any water quality standards or waste discharge requirements?

Water quality in surface and groundwater bodies is regulated by the State Water Quality Control Board (SWQCB) and Regional Water Quality Control Boards (RWQCBs). The Los Angeles RWQCB is responsible for implementation of State and federal water quality protection guidelines near the Project Site.¹⁴ The proposed Project is located within paved and urbanized areas within existing City street right-of-way. No construction will occur within State Right of Way, and no discharge to state highway facilities will be permitted. Construction of the recycled water pipeline and Cherry Willow RW Tank would include excavation activities that would have the potential to generate sediment-laden runoff during rain events. Storm water runoff from construction sites is regulated by the General Permit for Storm Water Discharges Associated with Construction Activity from Small Linear Underground Projects (Water Quality Order 2009-0009-DWQ, amended by 2010-0014-DWQ & 2012-0006-DWQ) issued by the SWQCB. According to the fact sheet for Order 2012-0006-DWQ, construction activities associated with small linear underground projects that result in land disturbances greater than one acre (referred to as linear utility projects [LUPs]), are not like traditional construction projects. Small LUPs have a lower potential to impact receiving waters because these projects are typically short in duration and are constructed within or around

¹⁴ CalEPA, State Water Control Board, “State and Regional Water Boards,” http://www.waterboards.ca.gov/waterboards_map.shtml. Accessed June 2016.

hard-paved surfaces that result in minimal disturbed land areas being exposed at the close of the construction day.¹⁵ Therefore, Water Quality Order 2012-0006-DWQ, and the NPDES General Permit have been adopted statewide for storm water discharges associated with construction activity from small linear underground/overhead projects.

Construction of the recycled water system Cherry Willow RW Tank would be located within an elevated open space area. Grading activities for the construction of the Cherry Willow RW Tank will occur at a previously rough graded pad and the immediately surrounding vegetation has been removed. Construction activities that impact more than 1 acre are subject to the requirements of the NPDES Construction General Permit. The area disturbed by the Cherry Willow RW Tank would be between 0.25 acre and 0.75 acres, including the Cherry Willow RW Tank footprint, staging areas, and access roadways. Therefore, the Cherry Willow RW Tank construction would not be subject to the NPDES Construction General Permit.

Furthermore, the proposed Project would be required to comply with all applicable federal, state, and local regulations including the California Water Code, CCR Title 22, CCR Title 17, California Department of Public Health Guidelines, the Los Angeles Regional Water Quality Control Board, and the Los Angeles County Department of Health Services Cross-Connection and Water Pollution Control Program. For construction activities that are regulated by the NPDES permit, coverage under and compliance with the NPDES Construction General Permit would ensure that the impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

The construction of the pipeline would occur under existing roadways and would not result in an increase in the amount of impervious surface that would interfere with groundwater recharge. The proposed Cherry Willow RW Tank would be located in the eastern portion of the site. The footprint of the Cherry Willow RW Tank would range from 0.25 to 0.75 acre in size. As described in Section 6, Geology and Soils (beginning on page 28), the soils of the hillside west and adjacent to the Cherry Willow RW Tank facilities are well drained. The proposed Project would not involve pumping of groundwater and would not otherwise have an impact on the depletion of groundwater supplies or interfere with groundwater recharge. The purpose of the proposed Project is to provide retail recycled water to users in the City of Santa Clarita. The project includes provisions to divert wastewater from an existing sewer interceptor that serves existing development upstream of the Project site in order to provide for sustainable plant operation during the initial development period for Vista Canyon, and as a supplement source of wastewater feed as needed. The Project will treat wastewater generated from the Vista Canyon development, and will only use sewage intercepted for initial startup of the Vista Canyon Water Factory, or to sustain plant operations as required. Accordingly, any potential flow reductions in downstream wastewater plants would be offset by future growth in effluent at the Saugus Water Reclamation Plant and Valencia Water Reclamation Plant and considered de minimus. Therefore, the proposed Project would have no impact on the groundwater basin.

Mitigation Measures

No mitigation is required.

¹⁵ Los Angeles Regional Water Quality Control Board. Water Quality Order 2009-0009-DWQ, as amended by 2012-0006

Significance Determination

No impact

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?**

The construction of the proposed pipeline would occur within the existing roadways and the construction of the Cherry Willow RW Tank would occur on a previously graded pad atop a small knoll. Storm water runoff from the Project Site during construction could contain soils and sediments from these activities. Spills or leaks from heavy equipment and machinery, construction staging areas, or building sites can also enter runoff, which typically include petroleum products such as fuel, oil and grease, and heavy metals. According to the requirements of the NPDES permit, appropriate BMPs would be applied during construction activities to minimize water quality impacts.

The BMPs most often used during construction activities include surrounding the construction site with sand bags and/or silt fencing (to minimize sediment-laden runoff entering the storm drain system or downstream waters) and timing the grading activities to avoid the rainy season. Construction activities associated with the proposed Project would be less than significant.

Operation of the recycled water pipeline and Cherry Willow RW Tank would not alter the existing drainage pattern of the Project site. Existing drainage would only be slightly modified until the pipes have been inserted and soil replaced and then the area will be returned to its previous grade. The tank access road would be modified and after construction any excavated soils would be replaced. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

As described in Section 9.c, the BMPs most often used during construction activities include surrounding the construction site with sand bags and/or silt fencing (to minimize sediment-laden runoff from entering the storm drain system or downstream waters) and timing the grading activities to avoid the rainy season. Compliance with the NPDES Construction General Permit, the preparation and implementation of an SWPPP, and implementation of erosion and treatment control BMPs would ensure that any impacts to downstream waters resulting from construction activities associated with the proposed Project would be less than significant.

The use of recycled water instead of potable water for irrigation purposes would not change existing irrigation application practices, and the application of recycled water for landscape irrigation would be managed to meet the transpiration demand. Therefore, the use of recycled water would not alter the rate or amount of surface runoff in a manner that would result in flooding.

Additionally, the design of the proposed Project pipelines would allow post-construction water runoff to continue in existing directions since the grades will be restored. The development of the tank site and access road would not alter the rate or amount of surface runoff in a manner that would result in flooding due to the modest increase in impermeable surface and the restoration of the grade for the tank. As such, the proposed Project would not alter the existing drainage pattern of the site or area, including through the alternation of the course of a stream or river, or

substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. Less than significant impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The proposed Project would construct a pipeline within City roadway right-of-way. Large areas of impervious surfaces would not be created as a result of the proposed Project including the tank site and the access road. Construction would be temporary and implementation of BMPs to during a rain event would minimize the amount of runoff entering the existing storm drain system. Construction impacts would be less than significant.

The roadways would be restored to existing conditions to ensure that the existing surface water runoff is not altered. Impacts during operation would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

f) Otherwise substantially degrade water quality?

Construction activities would include BMPs to minimize erosion and surface water runoff from the site. The amount of impervious surface on-site at Project completion would be similar to that for existing conditions. The amount of runoff from the site would not be substantially changed to that of existing conditions because Project development would not increase the amount of runoff or contribute to the degradation of water quality. Recycled water would meet applicable federal, state, and local regulations including the California Water Code, CCR Title 17, and CCR Title 22 water quality standards and the Los Angeles County Department of Health Services Cross-Connection and Water Pollution Control Program. Therefore, no new pollutants that would degrade water quality would be added to the Project Site. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

According to the City of Santa Clarita Digital Flood Insurance Rate Map (DFIRM) Flood Zones the proposed pipeline or pump station would not redirect flood flows. The Cherry Willow RW Tank would be located on a hillside outside of the identified flood zone along Santa Clarita River. Impacts would be less than significant.

Furthermore, the proposed Project would not construct any new homes and would not have any aboveground structures that would impede or redirect flood flows. There would be no impacts.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

The proposed Project would construct a recycled water pipeline within the roadway right-of-way, a Cherry Willow RW Tank and a pump station adjacent to Vista Canyon WTP facilities. The recycled water pipelines would be located beneath the street right-of-way. As a result, they would not expose people or structures to flooding. The proposed Cherry Willow RW Tank would be located on a hillside. There would be potential to expose the residential land uses to the south to flooding from structural failure as a result of Cherry Willow RW Tank failure. The design of the Cherry Willow Tank site would be based on the most current CBC standards to minimize the potential for structural failure in compliance with the UBC. As a result, the proposed Project would not expose people or structures to a significant risk of flooding.

The proposed Project would not involve the construction of any housing, or inhabitable structures. As such, it would not expose people or structures to flooding. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

j) Inundation by seiche, tsunami, or mudflow?

Tsunamis are large-scale sea waves produced from tectonic activities along the ocean floor. Seiches are freestanding or oscillatory waves associated with large enclosed or semi-enclosed bodies of water. Given that the Project Site is not located near the ocean or any large enclosed or semi-enclosed bodies of water, the proposed Project would not be located within designated tsunami or seiche zones. Debris and mudflows are typically a hazard experienced in the floodplains of streams that drain very steep hillsides within the watershed. These types of hazards are not expected to impact the Project because the proposed Project would not place people or structures at risk of inundation by seiche, tsunami, or mudflow. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

10. Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) **Would the project physically divide an established community?**
- b) **Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**
- c) **Conflict with any applicable habitat conservation plan or natural community conservation plan?**

The proposed Project would not physically divide an established community as the pipelines are proposed to be constructed underground in the right-of-way. There would be no impacts due to the Cherry Willow Tank site or the pump station. No plan conflicting with jurisdiction over the site plan would be applicable. Additionally, no habitat conservation or plan natural community conservation plan is applicable to the proposed Project site.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

11. Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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

The proposed Project pipelines would be constructed within existing roadways and within the public right-of-way., The Cherry Willow Tank site and pump station are structures that are not significantly long and might, thereby, divide a community. None of the project components would restrict access to resources due to the limited footprints. Mineral resources conditions would remain unchanged from how they currently exist, and therefore, no impact would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

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

The proposed Project would be constructed within the public right-of-way in existing roadways, and mineral resources conditions would remain unchanged from how they currently exist. Both the pipelines and the Cherry Willow RW Tank site are not delineated as mineral resource recovery sites in any local plans. Therefore, the proposed Project would not result in the loss of availability of locally important mineral resource recover sites delineated on the Santa Clarita Valley Area Plan and no impact would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

12. Noise

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a) Would the project result in 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?

The Santa Clarita General Plan requires that construction noise is controlled adjacent to sensitive uses through hours of operation, noise reduction requirements on equipment, and other appropriate measures. The City has developed standards for construction noise and limits construction work which requires a building permit from the City on sites within 300 feet of a residentially zoned property except between the hours of 7:00 a.m. to 7:00 p.m. (Monday through Friday), and 8:00 a.m. to 6:00 p.m. on Saturday. As shown in **Table 4** below, the maximum allowable level for noise received on a property during the day ranges from 65 dBA at residential uses to 80 dBA at commercial/manufacturing uses.

Table 4 – City of Santa Clarita Noise Limits (dBA)

Construction Time	Residential	Commercial/ Manufacturing
7:00 a.m. to 8:00 p.m. except Sundays and legal holidays	65	80
8:00 p.m. to 7:00 a.m. except Sundays and legal holidays	55	70

Construction

It should be noted that the California Government Code exempts the development of water and wastewater infrastructure projects initiated by water agencies from County and City building and zoning ordinances. However, for analysis purposes construction noise levels will be compared to City of Santa Clarita Municipal Code.

Estimated noise levels associated with the trenching activities are presented in **Table 5** below.

Table 5 – Typical Maximum Noise Levels for Construction Equipment

Equipment	Approximate Leq (Equivalent Sound Level)			
	25 feet	50 feet	100 feet	200 feet
Grader	91 dBA	85 dBA	79 dBA	73 dBA
Truck	90 dBA	84 dBA	78 dBA	72 dBA
Backhoe	86 dBA	80 dBA	74 dBA	68 dBA

Source: U.S. Department of Transportation, Construction Noise Handbook, ch. 9.0, August 2006.

As previously discussed, the City does not have specific construction noise limits, only construction timeframes. No uses of a commercial nature are located in close proximity to the Project.

Pipeline construction is proposed for the right-of-way on existing streets. The nearest residential use to the proposed pipeline alignment is located approximately 100 feet to the south. Only a truck and backhoe would be utilized in this location.

Due to the temporary nature of the construction activities, the proposed Project construction phase, including the tank and access road, would not expose residents to noise levels exceeding the established standards for more than several days at a time.

To minimize construction noise levels on adjacent sensitive receptors, policies within the Santa Clarita General Plan require noise attenuating buffers near residential areas and orienting stationary sources to direct noise way from sensitive uses. With mitigation consistent with the Santa Clarita General Plan, the proposed construction noise levels would result in less than significant impacts during construction.

Mitigation Measure

Noise-1: SCWD and its contractors shall implement the following measures when Project-related construction is planned to occur within the City limits and/or within 1,500 feet of sensitive receptors:

- Construction activities shall meet municipal code requirements related to noise. Construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. Saturday to avoid noise-sensitive hours of the day. Construction activities shall be prohibited on Sundays and holidays.
- Construction equipment noise shall be minimized by muffling and shielding intakes and exhaust on construction equipment (per the manufacturer's specifications) and by shrouding or shielding impact tools.
- Construction contractors shall locate fixed construction equipment (such as compressors and generators) and construction staging areas as far as possible from nearby sensitive receptors including residences, schools, and hospitals.
- If construction were to occur near a school, the construction contractor shall coordinate with the most noise producing construction activities with school administration in order to limit disturbance to the campus.

Significance Determination

Less than significant with mitigation incorporated

Operation

Sound associated with pipeline maintenance would result in short-term, random incidences that would not result in an increase of ambient noise levels within the surrounding area. In addition, pipeline work would be limited to daylight hours to avoid disturbing any sensitive receptors. Therefore, operation-related impacts would be less than significant. The operation activities associated with the Cherry Willow RW Tank would be limited to routine inspections and maintenance during daylight hours and would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Construction activities could generate varying degrees of ground vibration, depending on the construction procedures, construction equipment used, and proximity to vibration-sensitive uses. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. Ground vibrations from construction activities rarely reach levels that could damage structures, but can achieve the perceptible ranges in buildings close to a construction site.

The closest receptor to the proposed pipeline is approximately 100 feet east of the pipeline. Both the proposed Cherry Willow RW Tank and pump station are located further away from sensitive uses. It is assumed for the purpose of analysis that a loaded truck would generate the highest vibration levels at the sensitive receptor. The Federal Transit Administration (FTA) threshold for architectural damage to nonengineered timber and masonry buildings is approximately 94 VdB (vibration decibels). Loaded trucks are capable of producing approximately 92 VdB at 15 feet. Vibration levels attenuate (decrease) 6 decibels every doubling of distance. Vibration levels would be approximately 50 VdB at the commercial use to the east, below the FTA vibration threshold. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

As stated above, the construction phase of the proposed Project would be considered temporary and would not result in a substantial permanent increase in the ambient noise levels in the proposed Project's vicinity. Operation of the pipeline portions of the proposed Project would occur below ground. As discussed in Section 12.a above, the proposed operation-related activities at the Cherry Willow RW Tank would fall below 65 dBA at the nearest sensitive receptor property line and would be less than significant. Therefore, the proposed Project would not result in the permanent increase in ambient noise levels.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

As stated in Section 12.a above, the proposed Project would generate temporary elevated noise levels due to the construction phase of the proposed Project. These levels were determined to be consistent with Santa Clarita Noise Ordinances with implementation of Mitigation Measure Noise-1. Therefore, temporary or periodic noise impacts would be less than significant with mitigation.

Mitigation Measures

With mitigation, impacts would be less than significant.

Significance Determination

Less than significant with mitigation incorporated

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

The closest airport to the Project Site is the Agua Dulce Airpark located approximately 12 miles to the northeast. Therefore, the proposed Project would not be located within an airport land use plan or within 2 miles of a public airport or public use airport. The project would not create new residents or have any permanent workers on-site. The proposed Project would not expose people residing or working in the area to excessive noise levels. No impact would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

- f) **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**

The proposed Project is located 12 miles to the southwest of the Agua Dulce Airpark. Therefore, the proposed Project would not expose people residing or working in the Project area to excessive noise levels. The project would not create new residents or have any permanent workers on-site. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

13. Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. <u>POPULATION AND HOUSING</u> . Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The proposed Project would include the construction of a recycled water pipeline that would serve already established residential/public developments that are currently using potable water for non-potable use. The proposed Project would include the construction of a Cherry Willow RW Tank to store the recycled water for daily use. As previously discussed in the Project Description, there is a push towards use of non-potable water to help offset use of potable water. The 2015 UWMP identified the need for a cost-effective recycled water system. As a result, the proposed Project has been appropriately placed and sized as a 12-inch-diameter water pipeline to provide recycled water service to existing and future developments in the Santa Clarita Water Division service area. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Construction and operation of the proposed Project would occur within the roadway right-of-way and would utilize three existing open areas for construction staging areas and for a Cherry Willow RW Tank site. A site has been reserved in the Vista Canyon site for a pump station. Accordingly, the proposed Project would not displace existing housing, necessitating the construction of replacement housing elsewhere. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

As mentioned above, construction and operation of the proposed Project would occur within the roadway right-of-way and would utilize three existing open areas for construction staging areas. A site has been reserved in the Vista Canyon site for a pump station. Accordingly, the proposed Project would not displace people, necessitating the construction of replacement housing elsewhere. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

14. Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES.				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**
- i) **Fire protection?**
 - ii) **Police protection?**
 - iii) **Schools?**
 - iv) **Parks?**
 - v) **Other public facilities?**

The proposed Project would normally not require services from the Los Angeles County Sheriff’s Department, except in the cases of trespass, theft, and/or vandalism. Construction activity could increase traffic in the Project area and conceivably could incrementally increase response times and incrementally increase vehicle accident potential. During construction of the Project the Department would require ample access for emergency vehicles including routine patrol vehicles. With adequate access, response times would not be extended and the ability of officers to provide proactive policing and efficient crime suppression would not be diminished. In addition, as necessary the Project would be required to include standard construction-traffic control procedures such as flagmen and signage. These measures would further reduce any potential impacts to police services during construction activities. Therefore, impacts related to police services during construction of the Project would be less than significant.

If the Project site requires emergency or fire services, the Los Angeles County Fire Department would be able to provide adequate response. Therefore, the proposed Project would not increase demand on the existing Los Angeles County Fire Department services. Indirect impacts to public services would be reduced to less than significant if the local government implements the policies of the Santa Clarita General Plan as it contains adequate measures to reduce or avoid potential impacts to public services including Sheriff’s Department, Fire Department, schools, and libraries. Specific mechanisms for implementing these policies would be determined in the course of Project specific environmental review, as required by CEQA. Implementation of the adopted policies would reduce indirect Project impacts to less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

15. Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The City of Santa Clarita provides local and regional parks within City boundaries. The implementation of the proposed Project would not directly result in short-term growth in the Project area, and therefore would not directly increase the use of recreational facilities. The project would not add any residents or permanent workers on-site. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The implementation of the proposed Project would not directly result in growth in the Project area, and therefore would not require the construction or expansion of recreational facilities. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

16. Transportation/Traffic

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) **Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

The proposed Project would not conflict with an applicable plan, ordinance or policy affecting performance of the circulation system, including mass transit and non-motorized travel including intersections, highways and freeways, pedestrian and bicycle paths and streets.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

- b) **Would the project 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?**

The 2010 Congestion Management Program (CMP) in effect in Los Angeles County was adopted by the Los Angeles County Metropolitan Transportation Authority on October 28, 2010. The nearest CMP- designated roadway is the I-5 Freeway. The proposed Project would generate an incremental increase in additional construction-related trips during off-peak hours and would not affect intersections along I-5. During project operation, there would be no impacts to the I-5 Freeway. Therefore, there would be no impact.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

- c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

The Project is located approximately 12 miles to the southwest of Agua Dulce Airpark. The proposed Project would not result in a change in air traffic patterns since facilities would either be underground or less than 30 feet in height. Airplane takeoffs and landing are at a sufficient distance from the locations not to pose as a safety risk. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

- d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

The construction activities of the proposed pipeline would require excavations and trenching within existing roadways, which would require traffic to be re-routed around the construction site.

No changes are proposed as part of the proposed Project to the surrounding road system upon completion of construction activities. Clear and uninterrupted access to the pipeline for emergency response vehicles would continue to be provided. The proposed Project would be compatible with the surrounding zoning designations and the existing uses. No impacts would occur during operation.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

- e) Would the project result in inadequate emergency access?**

The construction of the proposed Project could temporarily impact emergency access from construction activities within the roadways and could impact normal traffic flow and create roadway conditions that may delay emergency response times. However, the City of Santa Clarita employs a traffic control plan, and the implementation of construction zone traffic control measures would reduce potential impacts to less than significant.

No changes are proposed as part of the proposed Project to the surrounding road system upon completion of construction activities. Clear and uninterrupted access to the pipeline for emergency response vehicles would continue to be provided. The proposed Project would be compatible with the surrounding zoning designations and the existing uses. No impacts would occur during operation.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

As previously stated, the proposed Project would not result in the increase of people, thereby eliminating the need for additional public transit services, nor would it result in straining the current system. Because the proposed Project would not result in any changes to the roadway system, current bus routes would remain the same.

No changes to any of the roadway systems along the pipeline are proposed with respect to the proposed Project upon completion of construction. The proposed Project would not involve the alteration of or conflict with any policies, plans, or programs regarding public transit or other pedestrian facilities. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

17. Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRIBAL CULTURAL RESOURCES. Would the project:				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe,	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)?**

An Archaeological Inventory was performed by Greenwood and Associates. The effort included an archaeological record search and field survey. The field survey was conducted on November 21, 2016 by John M. Foster, Register of Professional Archaeologists (RPA), Greenwood and Associates. Transects were spaced at 10-meter intervals based on the potential for archaeological resources, and visibility within the Project site was excellent. Rodent and ground squirrel activity provided adequate supporting evidence of the absence of buried cultural resources in the impact areas. Based on the Archaeological Inventory by Greenwood and Associates, no historical or archeological resources were recorded or observed.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

- b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe?**

An Archaeological Inventory was performed by Greenwood and Associates. The effort included an archaeological record search and field survey. The field survey was conducted on November 21, 2016 by John M. Foster, Register of Professional Archaeologists (RPA), Greenwood and Associates. Based on the Archaeological Inventory by Greenwood and Associates, the area had favorable environmental conditions to sustain or attract historical populations.

The Project Site has been disturbed and excavated in the past, and construction would occur within previously disturbed areas. As a result, the potential for any impact to Tribal Cultural Resources is considered low.

While the Archeological Inventory did not identify any historical or archeological resources recorded or observed, the mitigation measure CUL-1 identified in Section 5.a) of this MND is included to ensure that the potential for impact is less than significant.

Mitigation Measures

Implementation of mitigation measure CUL-1 would reduce potentially significant impacts to less than significant.

Significance Determination

Less than significant impact

Native American Consultation, Assembly Bill 52 (AB 52)

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to *California Public Resources Code* §21080.3.1? If so, has consultation begun?

Assembly Bill 52 (AB 52) establishes a formal consultation process for California Native American tribes to identify potential significant impacts to tribal cultural resources, as defined in Public Resources Code Section 21074 as part of CEQA. In accordance with AB 52, the CLWA notified three tribes that are traditionally and culturally affiliated within the CLWA service area.

June 7, 2017

Caitlin B. Gulley, Tribal Historic and Cultural Preservation Officer
Fernandeño Tataviam Band of Mission Indians
1019 Second Street, Suite 1
San Fernando, CA 91340

May 30, 2017

The Honorable Anthony Morales, Chief
Gabrieleno Tongva
San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, CA 91778

June 7, 2017

Michael Mirelez, Cultural Resource Coordinator
Torres Martinez Desert Cahuilla Indians
P.O. Box 1160
Thermal, CA 92274

On July 7, 2017, the Fernandeño Tataviam Band of Mission Indians (Tribe) requested consultation and a lead contact person was designated, Kimia Fatehi, Tribal Historic and Cultural Preservation Officer. CLWA and the Tribe agreed to one measure to include notification to the Fernandeño Tataviam Band of Mission Indians in the event that archeological resources are found inadvertently. This mitigation measure is incorporated into the mitigation measure CUL-1 in Section 5.a) of this MND. Conclusion of the Consultation was documented on August 1, 2017. No responses from the other two Tribes that were notified were received as of August 21, 2017. Documentation of the AB 52 notifications and consultation is included in Appendix III of this MND.

18. Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The proposed Project would construct a recycled water pipeline and the Cherry Willow RW Tank. The proposed Project would result in the delivery of recycled water to customers in the City of Santa Clarita and would not result in wastewater generation. The proposed Project would not generate industrial wastewater or new point sources of wastewater such as mining, animal feed lots, or wastewater treatment facilities that would require an individual permit beyond the capabilities of the existing wastewater treatment facilities serving the City of Santa Clarita. The Regional Water Quality Control Board will issue a permit project only if the project meets all of its requirements. Accordingly, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The proposed Project would not result in the expansion of wastewater treatment facilities other than those proposed by the SCVSD in the 2015 Joint Facilities Plan. The proposed Project would construct a recycled water pipeline, pump station and Cherry Willow RW Tank to transport and supply the Project area with recycled water for use as irrigation. The 2015 UWMP identifies the future need for recycled water within the CLWA service area. Therefore, proposed Project development would not require the construction or expansion of existing water treatment facilities other than those proposed in the latest 2015 UWMP. No other additional facilities are required. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

- c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

The proposed Project would not produce substantial amounts of additional runoff to the existing storm water drainage facilities. There would not be a substantial increase in impervious surfaces from implementation of the proposed Project as the roadway would be restored to existing conditions. The proposed Cherry Willow RW Tank would be located on approximately 8,000-square-foot development pad, as discussed in Section 9, Hydrology and Water Quality (beginning on page 38). The increase in impervious area would not impact the offsite storm drain system as runoff would be collected and percolated naturally on-site. Project development would not require the construction or expansion of storm water drainage facilities. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

- d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

The proposed Project would construct a pipeline to transmit non-potable water to offset potable water demands for SCWD customers and construct a Cherry Willow RW Tank. The proposed Project would provide a source of long-term non-potable water supply for the area, as projected in the 2015 UWMP to enhance water supply reliability and decrease demand for potable water. The project itself would not require a water supply during operation. Accordingly, there would be no impact.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

- e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

The proposed Project would not generate any potential wastewater. No direct impact to wastewater treatment capacity would occur. As a result, no impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?

The proposed Project would generate small amounts of solid waste construction debris from the disposal of excess soils or other debris. The nominal amount of construction debris generated by the proposed Project would not be expected to exceed the permitted capacity of the Sunshine Canyon Landfill, the Antelope Valley Landfill, or the Chiquita Canyon Landfill. Impacts would be less than significant.

Operation of the Project would not generate solid waste and would not require additional landfill capacity. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

Less than significant impact

g) Comply with federal, state, and local statutes and regulations related to solid waste?

CLWA SCWD is not required to comply with local zoning and building permits and ordinances. However, to reduce potential impacts to solid waste facilities that could result from the disposal of construction debris, implementation of approved code requirements would ensure that potential impacts would be less than significant. The proposed Project would not affect the City’s ability to continue to meet the required AB 939 waste diversion requirements. The project would not conflict with federal, state, and local statutes and regulations. No impacts would occur.

Mitigation Measures

No mitigation is required.

Significance Determination

No impact

19. Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

- a) The Project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal as the Project can be considered infill and is immediately adjacent to SR-14 which would not provide for suitable habitat for endangered species. There are no indications that the site has the potential to eliminate important examples of the major periods of California history or prehistory. The Project will use wastewater from the Vista Canyon development to produce recycled water, with provisions to intercept wastewater from existing developments upstream as needed for initial startup and to sustain on-going operations as required. Any potential reductions in flow in downstream Water Reclamation Plants would be offset by future growth and be considered de minimus with less than significant impacts as discussed in the Biological Resources Section.
- b) No past, current, or probable future projects were identified in the Project vicinity that, when added to Project-related impacts, would result in significant cumulative impacts on any other environmental resources. Based on the analysis provided in this Initial Study, the proposed Project would not make a cumulatively considerable incremental contribution to any significant cumulative adverse impact. To offset some of Vista Canyon’s potable water demand, the Project includes a recycled water facility, herein referred to as the Vista Canyon Water Factory, which will produce Title 22 tertiary disinfected recycled water for non-potable use with an approximate capacity of about 371,000 gpd or 415 AFY (RWQCB-LA Order R4-2016-0220). The Vista Canyon Water Factory will treat wastewater flows from the Vista Canyon development which are estimated to be approximately 392000 gpd or 440 AFY at build-out (Dexter Wilson November 2015). The project includes provisions to divert wastewater from an existing sewer interceptor that serves existing development upstream of the Project site in order to provide for sustainable plant operation during the initial development period for Vista Canyon, and as a supplement source of wastewater feed as needed. Any potential reductions in flow in downstream Water Reclamation Plants would be offset by future growth in effluent and be considered de minimus with less than significant impacts.
- c) The proposed Project does not have the Environmental effects which will cause substantial adverse effects on human beings either directly or indirectly. The Initial Study outlined above did not conclude that the proposed Project would impact short term environmental goals to the disadvantage for long-term environmental goals.

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; *Sundstrom v. County of Mendocino*, (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors*, (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

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Santa Clarita Valley Area Plan, Appendix II: Maps, Flood Plains, Figure S-4 (2012)
Santa Clarita Valley Area Plan, Appendix II: Maps, Generalized Land Use and Limited H5 Districts, Figure L-2 (2012)
Santa Clarita Valley Area Plan, Appendix II: Maps, Hillside and Designated Ridgelines, Figure CO-1 (2012)
Santa Clarita Valley Area Plan, Appendix II: Maps, Mineral Resources, Figure CO-2 (2012)
Santa Clarita Valley Area Plan, Appendix II: Maps, Seismic Hazards, Figure S-3 (2012)
Santa Clarita Valley Area Plan, Appendix II: Maps, Very High Fire Hazard, Figure S-6 (2012)
Santa Clarita Valley Area Plan, Circulation Element (2012)
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Santa Clarita Valley Area Plan, Safety Element (2012)
Santa Clarita Valley Area Plan, Scenic Resources (2012)
Santa Clarita Valley Area Plan, Noise Element (2013)

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**Appendix I – Air Quality Analysis, Los Angeles-South Coast
County – Winter and Summer**



Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

Phase 2B Recycled Water
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	21,500.00	User Defined Unit	1.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project includes up to approximately 21,500 total linear feet of water line installation on a daily maximum of one acre

Construction Phase - estimated schedule

Off-road Equipment - estimated equipment

Off-road Equipment - equipment estimate

Trips and VMT - estimate of 13 daily worker trips, and 5 haul trucks per day for 108 trenching days,

Construction Off-road Equipment Mitigation -

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	5.00	60.00
tblConstructionPhase	PhaseEndDate	4/30/2019	9/27/2019
tblConstructionPhase	PhaseEndDale	4/30/2019	9/27/2019
tblConstructionPhase	PhaseStartDate	5/1/2019	7/8/2019
tblLandUse	LotAcreage	0.00	1.00
tblOffRoadEquipment	HorsePower	85.00	132.00
tblOffRoadEquipment	LoadFactor	0.78	0.36
tblOffRoadEquipment	OffRoadEquipmentType	Paving Equipment	Crushing/Proc. Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblProjectCharacteristics	OperationalYear	2018	2021
tblTripsAndVMT	HaulingTripNumber	0.00	1,080.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00

2.0 Emissions Summary

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.6570	29.4980	18.1362	0.0395	0.3202	1.3307	1.6509	0.0865	1.2303	1.3167	0.0000	3,957,961.2	3,957,961.2	0.9346	0.0000	3,981,325.6
Maximum	2.6570	29.4980	18.1362	0.0395	0.3202	1.3307	1.6509	0.0865	1.2303	1.3167	0.0000	3,957,961.2	3,957,961.2	0.9346	0.0000	3,981,325.6

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.6570	29.4980	18.1362	0.0395	0.3202	1.3307	1.6509	0.0865	1.2303	1.3167	0.0000	3,957,961.2	3,957,961.2	0.9346	0.0000	3,981,325.6
Maximum	2.6570	29.4980	18.1362	0.0395	0.3202	1.3307	1.6509	0.0865	1.2303	1.3167	0.0000	3,957,961.2	3,957,961.2	0.9346	0.0000	3,981,325.6

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

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003		4.7053	4.7053	0.0125		5.0177
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.2058	0.0202	2.2037	1.6000e-004	0.0000	7.8800e-003	7.8800e-003	0.0000	7.8800e-003	7.8800e-003		4.7053	4.7053	0.0125	0.0000	5.0177

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003		4.7053	4.7053	0.0125		5.0177
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.2058	0.0202	2.2037	1.6000e-004	0.0000	7.8800e-003	7.8800e-003	0.0000	7.8800e-003	7.8800e-003		4.7053	4.7053	0.0125	0.0000	5.0177

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Trenching	5/1/2019	9/27/2019	5	108	
2	Paving	Paving	7/8/2019	9/27/2019	5	80	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Excavators	2	6.00	156	0.38
Paving	Cement and Mortar Mixers	1	6.00	9	0.58
Architectural Coating	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.39
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Crushing/Proc. Equipment	1	4.00	132	0.36
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	1,080.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

3.2 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775		1,396,390 9	1,396,390 9	0.4418		1,407,435 9
Total	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775		1,396,390 9	1,396,390 9	0.4418		1,407,435 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0963	3.1037	0.6972	7.8500e-003	0.1748	0.0115	0.1863	0.0479	0.0110	0.0589		849,8497	849,8497	0.0618		851,3949
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0443	0.0325	0.3540	9.2000e-004	0.0894	7.7000e-004	0.0902	0.0237	7.1000e-004	0.0244		91,3705	91,3705	3.1400e-003		91,4491
Total	0.1406	3.1362	1.0511	8.7700e-003	0.2643	0.0122	0.2765	0.0716	0.0117	0.0833		941,2202	941,2202	0.0650		942,8439

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

3.2 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775	0.0000	1,396.3909	1,396.3909	0.4418		1,407.4359
Total	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775	0.0000	1,396.3909	1,396.3909	0.4418		1,407.4359

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0963	3.1037	0.6972	7.8500e-003	0.1748	0.0115	0.1863	0.0479	0.0110	0.0589		849.8497	849.8497	0.0618		851.3949
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0443	0.0325	0.3540	9.2000e-004	0.0894	7.7000e-004	0.0902	0.0237	7.1000e-004	0.0244		91.3705	91.3705	3.1400e-003		91.4491
Total	0.1406	3.1362	1.0511	8.7700e-003	0.2643	0.0122	0.2765	0.0716	0.0117	0.0833		941.2202	941.2202	0.0650		942.8439

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

3.3 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0690	10.3057	10.2573	0.0161		0.5816	0.5816		0.5406	0.5406		1,563.2437	1,563.2437	0.4259		1,573.8902
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0690	10.3057	10.2573	0.0161		0.5816	0.5816		0.5406	0.5406		1,563.2437	1,563.2437	0.4259		1,573.8902

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0277	0.0203	0.2212	5.7000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		57.1065	57.1065	1.9600e-003		57.1557
Total	0.0277	0.0203	0.2212	5.7000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		57.1065	57.1065	1.9600e-003		57.1557

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

3.3 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0690	10.3057	10.2573	0.0161		0.5816	0.5816		0.5406	0.5406	0.0000	1,563.2437	1,563.2437	0.4259		1,573.8902
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0690	10.3057	10.2573	0.0161		0.5816	0.5816		0.5406	0.5406	0.0000	1,563.2437	1,563.2437	0.4259		1,573.8902

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0277	0.0203	0.2212	5.7000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		57.1065	57.1065	1.9600e-003		57.1557
Total	0.0277	0.0203	0.2212	5.7000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		57.1065	57.1065	1.9600e-003		57.1557

4.0 Operational Detail - Mobile

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	Net- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Natural Gas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Natural Gas Unmitigated	0.0000	0.0500	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Mitigated	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003			4.7053	4.7053	0.0125		5.0177
Unmitigated	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003			4.7053	4.7053	0.0125		5.0177

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Landscaping	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003			4.7053	4.7053	0.0125		5.0177
Total	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003			4.7053	4.7053	0.0125		5.0177

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Landscaping	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003			4.7053	4.7053	0.0125		5.0177
Total	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003			4.7053	4.7053	0.0125		5.0177

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Phase 2B Recycled Water - Los Angeles-South Coast County, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

Phase 2B Recycled Water
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	21,500.00	User Defined Unit	1.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project includes up to approximately 21,500 total linear feet of water line installation on a daily maximum of one acre

Construction Phase - estimated schedule

Off-road Equipment - estimated equipment

Off-road Equipment - equipment estimate

Trips and VMT - estimate of 13 daily worker trips, and 5 haul trucks per day for 108 trenching days.

Construction Off-road Equipment Mitigation -

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	5.00	60.00
tblConstructionPhase	PhaseEndDate	4/30/2019	9/27/2019
tblConstructionPhase	PhaseEndDate	4/30/2019	9/27/2019
tblConstructionPhase	PhaseStartDate	5/1/2019	7/8/2019
tblLandUse	LotAcreage	0.00	1.00
tblOffRoadEquipment	HorsePower	85.00	132.00
tblOffRoadEquipment	LoadFactor	0.78	0.36
tblOffRoadEquipment	OffRoadEquipmentType	Paving Equipment	Crushing/Proc. Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblProjectCharacteristics	OperationalYear	2018	2021
tblTripsAndVMT	HaulingTripNumber	0.00	1,080.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00

2.0 Emissions Summary

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.6476	29.4520	18.1436	0.0397	0.3202	1.3305	1.6507	0.0865	1.2301	1.3165	0.0000	3,981,830.1	3,981,830.1	0.9326	0.0000	4,005,145.6
Maximum	2.6476	29.4520	18.1436	0.0397	0.3202	1.3305	1.6507	0.0865	1.2301	1.3165	0.0000	3,981,830.1	3,981,830.1	0.9326	0.0000	4,005,145.6

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.6476	29.4520	18.1436	0.0397	0.3202	1.3305	1.6507	0.0865	1.2301	1.3165	0.0000	3,981,830.1	3,981,830.1	0.9326	0.0000	4,005,145.6
Maximum	2.6476	29.4520	18.1436	0.0397	0.3202	1.3305	1.6507	0.0865	1.2301	1.3165	0.0000	3,981,830.1	3,981,830.1	0.9326	0.0000	4,005,145.6

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

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003		4.7053	4.7053	0.0125		5.0177
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.2058	0.0202	2.2037	1.6000e-004	0.0000	7.8800e-003	7.8800e-003	0.0000	7.8800e-003	7.8800e-003		4.7053	4.7053	0.0125	0.0000	5.0177

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003		4.7053	4.7053	0.0125		5.0177
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.2058	0.0202	2.2037	1.6000e-004	0.0000	7.8800e-003	7.8800e-003	0.0000	7.8800e-003	7.8800e-003		4.7053	4.7053	0.0125	0.0000	5.0177

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Trenching	5/1/2019	9/27/2019	5	108	
2	Paving	Paving	7/6/2019	9/27/2019	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Excavators	2	6.00	158	0.38
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Architectural Coating	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Crushing/Proc. Equipment	1	4.00	132	0.36
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	1,080.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

3.2 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775		1,396,390.9	1,396,390.9	0.4418		1,407,435.9
Total	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775		1,396,390.9	1,396,390.9	0.4418		1,407,435.9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0940	3.0628	0.6530	7.9900e-003	0.1748	0.0112	0.1861	0.0479	0.0108	0.0587		884.5118	884.5118	0.0595		886.0002
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0400	0.0294	0.3857	9.7000e-004	0.0894	7.7000e-004	0.0902	0.0237	7.1000e-004	0.0244		97.0362	97.0362	3.3300e-003		97.1196
Total	0.1339	3.0922	1.0388	8.9600e-003	0.2643	0.0120	0.2763	0.0716	0.0115	0.0831		961.5480	961.5480	0.0629		963.1198

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

3.2 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775	0.0000	1,396.3909	1,396.3909	0.4418		1,407.4359
Total	1.4197	16.0357	6.6065	0.0141		0.7365	0.7365		0.6775	0.6775	0.0000	1,396.3909	1,396.3909	0.4418		1,407.4359

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0940	3.0628	0.6530	7.9900e-003	0.1748	0.0112	0.1861	0.0479	0.0108	0.0587		864.5118	864.5118	0.0595		868.0002
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0400	0.0294	0.3857	9.7000e-004	0.0894	7.7000e-004	0.0902	0.0237	7.1000e-004	0.0244		97.0362	97.0362	3.3300e-003		97.1198
Total	0.1339	3.0922	1.0388	8.9600e-003	0.2643	0.0120	0.2763	0.0716	0.0115	0.0831		961.5480	961.5480	0.0629		963.1198

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

3.3 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0690	10.3057	10.2573	0.0161		0.5816	0.5816		0.5406	0.5406		1,563,243 7	1,563,243 7	0.4259		1,573,890 2
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0690	10.3057	10.2573	0.0161		0.5816	0.5816		0.5406	0.5406		1,563,243 7	1,563,243 7	0.4259		1,573,890 2

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0250	0.0184	0.2411	6.1000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		60.6476	60.6476	2.0800e-003		60.6997
Total	0.0250	0.0184	0.2411	6.1000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		60.6476	60.6476	2.0800e-003		60.6997

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

3.3 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0690	10.3057	10.2573	0.0161		0.5816	0.5816		0.5406	0.5406	0.0000	1,563.2437	1,563.2437	0.4259		1,573.8902
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0690	10.3057	10.2573	0.0161		0.5816	0.5816		0.5406	0.5406	0.0000	1,563.2437	1,563.2437	0.4259		1,573.8902

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0250	0.0184	0.2411	6.1000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		60.6476	60.6476	2.0800e-003		60.6997
Total	0.0250	0.0184	0.2411	6.1000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		60.6476	60.6476	2.0800e-003		60.6997

4.0 Operational Detail - Mobile

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003		4.7053	4.7053	0.0125		5.0177
Unmitigated	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003		4.7053	4.7053	0.0125		5.0177

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003		4.7053	4.7053	0.0125		5.0177
Total	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003		4.7053	4.7053	0.0125		5.0177

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003			4.7053	4.7053	0.0125	5.0177
Total	0.2058	0.0202	2.2037	1.6000e-004		7.8800e-003	7.8800e-003		7.8800e-003	7.8800e-003			4.7053	4.7053	0.0125	5.0177

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Phase 2B Recycled Water - Los Angeles-South Coast County, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

**Appendix II – Greenhouse Gas Emissions Analysis,
Los Angeles-South Coast County – Annual**



Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

Phase 2B Recycled Water
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	21,500.00	User Defined Unit	1.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project includes up to approximately 21,500 total linear feet of water line installation on a daily maximum of one acre

Construction Phase - estimated schedule

Off-road Equipment - estimated equipment

Off-road Equipment - equipment estimate

Trips and VMT - estimate of 13 daily worker trips, and 5 haul trucks per day for 108 trenching days.

Construction Off-road Equipment Mitigation -

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	5.00	60.00
tblConstructionPhase	PhaseEndDate	4/30/2019	9/27/2019
tblConstructionPhase	PhaseEndDate	4/30/2019	9/27/2019
tblConstructionPhase	PhaseStartDate	5/1/2019	7/8/2019
tblLandUse	LotAcreage	0.00	1.00
tblOffRoadEquipment	HorsePower	85.00	132.00
tblOffRoadEquipment	LoadFactor	0.78	0.36
tblOffRoadEquipment	OffRoadEquipmentType	Paving Equipment	Crushing/Proc. Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblProjectCharacteristics	OperationalYear	2018	2021
tblTripsAndVMT	HaulingTripNumber	0.00	1,080.00
tblTripsAndVMT	WorkerTripNumber	15.00	5.00

2.0 Emissions Summary

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1168	1.3484	0.7272	1.7400e-003	0.0157	0.0579	0.0735	4.2400e-003	0.0534	0.0577	0.0000	159.1304	159.1304	0.0364	0.0000	160.0407
Maximum	0.1168	1.3484	0.7272	1.7400e-003	0.0157	0.0579	0.0735	4.2400e-003	0.0534	0.0577	0.0000	159.1304	159.1304	0.0364	0.0000	160.0407

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1168	1.3484	0.7272	1.7400e-003	0.0157	0.0579	0.0735	4.2400e-003	0.0534	0.0577	0.0000	159.1303	159.1303	0.0364	0.0000	160.0405
Maximum	0.1168	1.3484	0.7272	1.7400e-003	0.0157	0.0579	0.0735	4.2400e-003	0.0534	0.0577	0.0000	159.1303	159.1303	0.0364	0.0000	160.0405

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

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-1-2019	7-31-2019	0.7774	0.7774
2	8-1-2019	9-30-2019	0.6649	0.6649
		Highest	0.7774	0.7774

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBro- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0257	2.5300e-003	0.2755	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5336	0.5336	1.4200e-003	0.0000	0.5690
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0257	2.5300e-003	0.2755	2.0000e-005	0.0000	9.9000e-004	9.9000e-004	0.0000	9.9000e-004	9.9000e-004	0.0000	0.5336	0.5336	1.4200e-003	0.0000	0.5690

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0257	2.5300e-003	0.2755	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5336	0.5336	1.4200e-003	0.0000	0.5690
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0257	2.5300e-003	0.2755	2.0000e-005	0.0000	9.9000e-004	9.9000e-004	0.0000	9.9000e-004	9.9000e-004	0.0000	0.5336	0.5336	1.4200e-003	0.0000	0.5690

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Trenching	5/1/2019	9/27/2019	5	108	
2	Paving	Paving	7/8/2019	9/27/2019	5	60	

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Excavators	2	6.00	158	0.38
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Architectural Coating	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Crushing/Proc Equipment	1	4.00	132	0.36
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	1,080.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

Water Exposed Area

Clean Paved Roads

3.2 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0767	0.8659	0.3568	7.6000e-004		0.0398	0.0398		0.0366	0.0366	0.0000	68.4064	68.4064	0.0216	0.0000	68.9474
Total	0.0767	0.8659	0.3568	7.6000e-004		0.0398	0.0398		0.0366	0.0366	0.0000	68.4064	68.4064	0.0216	0.0000	68.9474

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3.2 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.1300e-003	0.1709	0.0363	4.3000e-004	9.2800e-003	6.1000e-004	9.8900e-003	2.5500e-003	5.9000e-004	3.1300e-003	0.0000	42.0490	42.0490	2.9700e-003	0.0000	42.1231
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1600e-003	1.8000e-003	0.0196	5.0000e-005	4.7300e-003	4.0000e-005	4.7800e-003	1.2600e-003	4.0000e-005	1.3000e-003	0.0000	4.5505	4.5505	1.6000e-004	0.0000	4.5544
Total	7.2900e-003	0.1727	0.0559	4.8000e-004	0.0140	6.5000e-004	0.0147	3.8100e-003	6.3000e-004	4.4300e-003	0.0000	46.5995	46.5995	3.1300e-003	0.0000	46.6776

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0767	0.8659	0.3568	7.6000e-004		0.0398	0.0398		0.0366	0.0366	0.0000	68.4063	68.4063	0.0216	0.0000	68.9474
Total	0.0767	0.8659	0.3568	7.6000e-004		0.0398	0.0398		0.0366	0.0366	0.0000	68.4063	68.4063	0.0216	0.0000	68.9474

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

3.2 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.1300e-003	0.1709	0.0363	4.3000e-004	9.2800e-003	6.1000e-004	9.8900e-003	2.5500e-003	5.9000e-004	3.1300e-003	0.0000	42.0490	42.0490	2.9700e-003	0.0000	42.1231
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1600e-003	1.8000e-003	0.0196	5.0000e-005	4.7300e-003	4.0000e-005	4.7800e-003	1.2600e-003	4.0000e-005	1.3000e-003	0.0000	4.5505	4.5505	1.6000e-004	0.0000	4.5544
Total	7.2900e-003	0.1727	0.0559	4.8000e-004	0.0140	6.5000e-004	0.0147	3.8100e-003	6.3000e-004	4.4300e-003	0.0000	46.5995	46.5995	3.1300e-003	0.0000	46.6776

3.3 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0321	0.3092	0.3077	4.8000e-004		0.0175	0.0175		0.0162	0.0162	0.0000	42.5445	42.5445	0.0116	0.0000	42.8343
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0321	0.3092	0.3077	4.8000e-004		0.0175	0.0175		0.0162	0.0162	0.0000	42.5445	42.5445	0.0116	0.0000	42.8343

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

3.3 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	6.3000e-004	6.8100e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5800	1.5800	5.0000e-005	0.0000	1.5814
Total	7.5000e-004	6.3000e-004	6.8100e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5800	1.5800	5.0000e-005	0.0000	1.5814

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0321	0.3092	0.3077	4.8000e-004		0.0175	0.0175		0.0162	0.0162	0.0000	42.5445	42.5445	0.0116	0.0000	42.8342
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0321	0.3092	0.3077	4.8000e-004		0.0175	0.0175		0.0162	0.0162	0.0000	42.5445	42.5445	0.0116	0.0000	42.8342

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

3.3 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lbs/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	6.3000e-004	6.8100e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5800	1.5800	5.0000e-005	0.0000	1.5814
Total	7.5000e-004	6.3000e-004	6.8100e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5800	1.5800	5.0000e-005	0.0000	1.5814

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

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

4.2 Trip Summary Information

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

5.2 Energy by Land Use - NaturalGas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tch/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Unmitigated

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

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

5.3 Energy by Land Use - Electricity

Mitigated

Land Use	Electricity Use kW/yr	Total CO2	CH4	N2O	CO2e
		MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tans/yr											MT/yr					
Mitigated	0.0257	2.5300e-003	0.2755	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5336	0.5336	1.4200e-003	0.0000	0.5690
Unmitigated	0.0257	2.5300e-003	0.2755	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5336	0.5336	1.4200e-003	0.0000	0.5690

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0257	2.5300e-003	0.2755	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5336	0.5336	1.4200e-003	0.0000	0.5690
Total	0.0257	2.5300e-003	0.2755	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5336	0.5336	1.4200e-003	0.0000	0.5690

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0257	2.5300e-003	0.2755	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5336	0.5336	1.4200e-003	0.0000	0.5690
Total	0.0257	2.5300e-003	0.2755	2.0000e-005		9.9000e-004	9.9000e-004		9.9000e-004	9.9000e-004	0.0000	0.5336	0.5336	1.4200e-003	0.0000	0.5690

7.0 Water Detail

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

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

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

7.2 Water by Land Use

Mitigated

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

Phase 2B Recycled Water - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use

Unmitigated

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

Mitigated

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

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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SANTA CLARITA WATER, A DIVISION OF CASTAIC LAKE WATER AGENCY



26521 SUMMIT CIRCLE • SANTA CLARITA, CALIFORNIA 91350-3049 • (661) 259-2737
MAILING ADDRESS: P.O. BOX 903 • SANTA CLARITA, CALIFORNIA 91380-9003

June 7, 2017

Caitlin B. Gulley
Tribal Historic and Cultural Preservation Officer
Fernandeño Tataviam Band of Mission Indians
1019 Second Street, Suite 1
San Fernando, CA 91340

Re: Formal Notification of Castaic Lake Water Agency Phase 2B Recycled Water Project

Dear Ms. Gulley:

In response to your request dated July 1, 2015 for formal notification of projects for which Castaic Lake Water Agency (CLWA) prepares a Mitigated Negative Declaration pursuant to Public Resources Code section 21080.3.1(b), this letter serves as formal notification of the CLWA's consideration of the CLWA Phase 2B Recycled Water Project (Project).

Accordingly, as required by Public Resources Code section 21080.3.1(d), this letter provides a brief description of the Project and its location:

The Project would provide recycled water in the vicinity of the Vista Canyon Development by using recycled water from the Vista Canyon Water Factory (Water Factory). The project would construct a recycled water tank (approximately one million gallons), a transmission pipeline to the tank from a pump station at the Water Factory, distribution pipelines to serve existing CLWA irrigation customers in the Fair Oaks Ranch community, and a backup potable water supply from the existing Santa Clarita Water Division (SCWD) potable water tanks near Cherry Willow Drive.

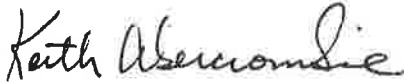
The Project site is located in the City of Santa Clarita, Los Angeles County, California and is within the CLWA service area. The proposed recycled water tank will be located approximately one mile south of the Vista Canyon Development near the existing SCWD Cherry Willow potable water tanks. The transmission pipeline will be routed along Lost Canyon Road, Medley Ridge Drive, and Cherry Willow Drive. A network of distribution pipelines will be located within public right of way within the Fair Oaks Ranch community. See attached Figure 1 for regional location and Figure 2 for proposed project location.

Pursuant to Public Resources Code section 21080.3.1 (b) and (d), the Gabrieleno Tongva, San Gabriel Band of Mission Indians now has 30 days to inform CLWA, in writing, of its request to consult with CLWA on the Project. Such a request must provide the name of the Tribe's designated lead contact person and should be directed to:

Keith Abercrombie
Retail Manager
26521 Summit Circle
Santa Clarita, CA 91350

Please do not hesitate to contact me with any questions or concerns regarding the above at (661) 259-2737 or kabercrombie@scwater.org.

Sincerely,



Keith Abercrombie
Retail Manager

KA/tbp/elb
TJA

Attachments

cc: State of California, Native American Heritage Commission, Environmental and Cultural Department, 1550 Harbor Boulevard, Suite 100, West Sacramento, CA 95691

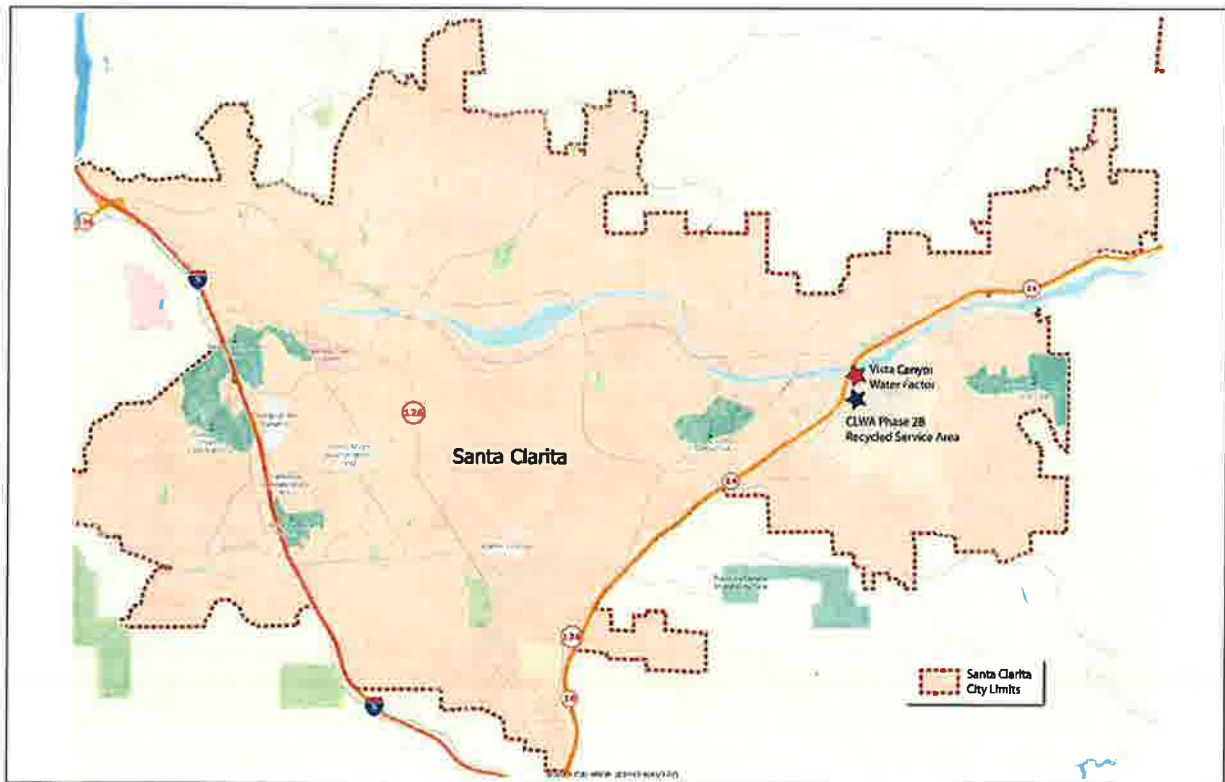


Figure 1 – Regional Location Map

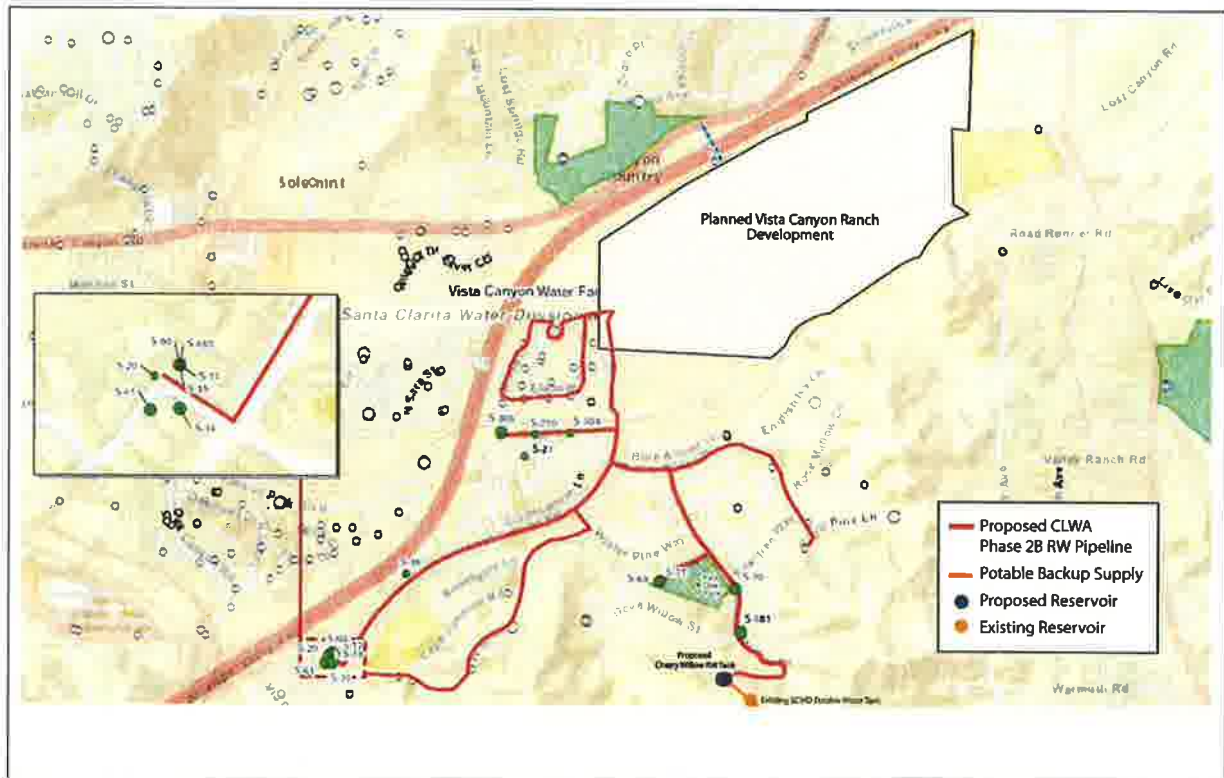


Figure 2 – Proposed Project: CLWA Phase 2B Recycled Water System



Fernandeano Tataviam Band of Mission Indians
Tribal Historic & Cultural Preservation

Rudy Ortega Jr.
Tribal President

*Tribal Historic & Cultural
Preservation Committee*
Steve Ortega
Chairman
David Ortega

July 1, 2015

Dan Masnada, General Manager
Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, California 91350

AUG 3 2015

**RE: California Environmental Quality Act Public Resources Code section 21080.3, subd. (b)
Request for Formal Notification of Proposed Projects Within the Fernandeano Tataviam Band of
Mission Indians Tribe's Geographic Area of Traditional and Cultural Affiliation**

Dear Mr. Masnada:

As of July 1, 2015, in accordance with Public Resources Code Section 21080.3.1, subd. (b), Fernandeano Tataviam Band of Mission Indians, which is traditionally and culturally affiliated with a geographic area within or the entirety of your agency's geographic area of jurisdiction, requests formal notice of and information on proposed projects for which your agency will serve as a lead agency under the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq.

Pursuant to Public Resources Code section 21080.3.1, subd. (b), and until further notice, we hereby designate the following person as the tribe's lead contact person for purposes of receiving notices of proposed projects from your agency:

Caitlin B. Gulley
Tribal Historic and Cultural Preservation Officer
Fernandeano Tataviam Band of Mission Indians
1019 Second Street
San Fernando CA, 91340
Phone (818) 837-0794
Fax (818) 837-0796
cgulley@tataviam-nsn.us

We request that all notices of proposed projects be sent via certified U.S. Mail with return receipt. Following receipt and review of the information your agency provides, within the 30-day period proscribed by Public Resources Code section 21080.3.1, subd. (d), the Fernandeano Tataviam Band of Mission Indians may request consultation, as defined by Public Resources Code section 21080.3.1, subd. (b), pursuant to Public Resources Code section 21080.3.2 to mitigate any project impacts a specific project may cause to tribal cultural resources.

If you have any questions or need additional information, please contact our lead contact person listed above.

1019 Second Street, Suite 1 | San Fernando | California, 91340 | (818) 837-0794 | Fax (818) 837-0796

Sincerely,



Caitlin B. Gulley
Tribal Historic and Cultural Preservation Officer

Attachments:

Fernandeño Tataviam Band of Mission Indians:
~~Historical Tribal Territory~~

CC: California Native American Heritage Commission

1019 Second Street, Suite 1 | San Fernando | California, 91340 | (818) 837-0794 | Fax (818) 837-0796



Fernandeño Tataviam Band of Mission Indians Historical Tribal Territory



Tribal boundary depicted is based on registered tribal citizens' ancestral villages. Due to kinship networks and social exchange, this hard boundary does not include all of the abundant locations associated with Tataviam cultural resources and ancestry. Therefore, the overlap yellow boundary accommodates the natural mobility of ancestral and contemporary Tataviam people, which are also known to be well associated with the tribe and sensitive cultural resources.

All projects breaking soil within the tribal boundary are subject to Tataviam jurisdiction, whereas any projects occurring within the yellow boundary may be subject to further analysis by other surrounding Tribal Governments.

SANTA CLARITA WATER, A DIVISION OF CASTAIC LAKE WATER AGENCY



26521 SUMMIT CIRCLE • SANTA CLARITA, CALIFORNIA 91350-3049 • (661) 259-2737
MAILING ADDRESS: P.O. BOX 903 • SANTA CLARITA, CALIFORNIA 91380-9003

May 30, 2017

Gabrieleno Tongva
San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, CA 91778

Attention: The Honorable Anthony Morales, Chief

Re: Formal Notification of Castaic Lake Water Agency Phase 2B Recycled Water Project

Dear Mr. Morales:

In response to your request dated December 1, 2016 for formal notification of projects for which Castaic Lake Water Agency (CLWA) prepares a Mitigated Negative Declaration pursuant to Public Resources Code section 21080.3.1(b), this letter serves as formal notification of the CLWA's consideration of the CLWA Phase 2B Recycled Water Project (Project).

Accordingly, as required by Public Resources Code section 21080.3.1(d), this letter provides a brief description of the Project and its location:

The Project would provide recycled water in the vicinity of the Vista Canyon Development by using recycled water from the Vista Canyon Water Factory (Water Factory). The project would construct a recycled water tank (approximately one million gallons), a transmission pipeline to the tank from a pump station at the Water Factory, distribution pipelines to serve existing CLWA irrigation customers in the Fair Oaks Ranch community, and a backup potable water supply from the existing Santa Clarita Water Division (SCWD) potable water tanks near Cherry Willow Drive.

The Project site is located in the City of Santa Clarita, Los Angeles County, California and is within the CLWA service area. The proposed recycled water tank will be located approximately one mile south of the Vista Canyon Development near the existing SCWD Cherry Willow potable water tanks. The transmission pipeline will be routed along Lost Canyon Road, Medley Ridge Drive, and Cherry Willow Drive. A network of distribution pipelines will be located within public right of way within the Fair Oaks Ranch community. See attached Figure 1 for regional location and Figure 2 for proposed project location.

Pursuant to Public Resources Code section 21080.3.1 (b) and (d), the Gabrieleno Tongva, San Gabriel Band of Mission Indians now has 30 days to inform CLWA, in writing, of its request to consult with CLWA on the Project. Such a request must provide the name of the Tribe's designated lead contact person and should be directed to:

Keith Abercrombie
Retail Manager
26521 Summit Circle
Santa Clarita, CA 91350

Please do not hesitate to contact me with any questions or concerns regarding the above at (661) 259-2737 or kabercrombie@scwater.org.

Sincerely,



Keith Abercrombie
Retail Manager

KA/tbp/elb

TBP
Attachments

cc: State of California, Native American Heritage Commission, Environmental and Cultural Department, 1550 Harbor Boulevard, Suite 100, West Sacramento, CA 95691



Figure 1 – Regional Location Map

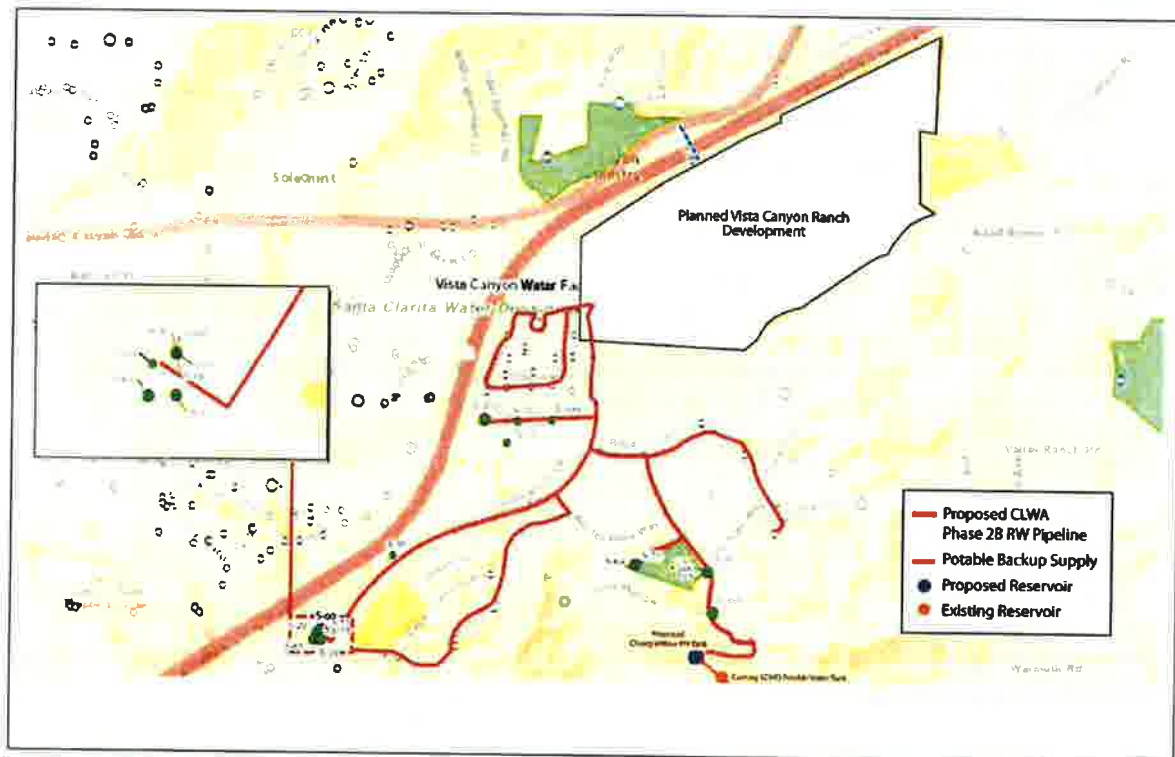


Figure 2 – Proposed Project: CLWA Phase 2B Recycled Water System



GABRIELENO TONGVA
SAN GABRIEL BAND OF MISSION INDIANS

December 1, 2016

Santa Clarita Water Division of the Castaic Lake Water Agency
26521 Summit Circle
Santa Clarita, CA 91350

RE: California Environmental Quality Act Public Resources Code section 21080.3, subd. (b) Request for Formal Notification of Proposed Projects Within the San Gabriel Band of Mission Indians Tribe's Geographic Area of Traditional and Cultural Affiliation

CC: Native American Heritage Commission

To whom it may concern:

As of the date of this letter, in accordance with Public Resources Code Section 21080.3.1, subd. (b), San Gabriel Band of Mission Indians, which is traditionally and culturally affiliated with a geographic area within your agency's geographic area of jurisdiction, requests formal notice of, and information on, proposed projects for which your agency will serve as a lead agency under the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq. Pursuant to Public Resources Code section 21080.3.1, subd. (b), and until further notice, we hereby designate the following person as the tribe's lead contact person for purposes of receiving notices of proposed projects from your agency:

San Gabriel Band of Mission Indians
Anthony Morales, Chief
P. O. Box 693
San Gabriel, CA 91778
Fax: (626) 286-1262
Phone: (626) 483-3564
GTTribalcouncil@aol.com

We request that all notices be sent via certified U.S. Mail with return receipt. Following receipt and review of the information your agency provides, within the 30-day period prescribed by Public Resources Code section 21080.3.1, subd. (d), the San Gabriel Band of Mission Indians may request consultation, as defined by Public Resources Code section 21080.3.1, subd. (b), pursuant to Public Resources Code section 21080.3.2 to mitigate any project impacts a specific project may cause to tribal cultural resources.

If you have any questions or need additional information, please contact our lead contact person listed above.

Sincerely,

Anthony Morales
San Gabriel Band of Mission Indians
Chief



**GABRIELENO TONGVA
SAN GABRIEL BAND
OF MISSION INDIANS**



October 15, 2016

To Whom It May Concern,

I am sending this letter on behalf of the **Morales family of the San Gabriel Band of Mission Indians** to help facilitate communication regarding the Gabrieleno cultural resources and archaeological studies. The San Gabriel Band of Mission Indians gained recognition from the state of California in 1994 as an indigenous tribe within the Los Angeles basin (California Legislature Assembly Joint Resolution No. 96, adopted in Senate August 11, 1994). The Morales family has been an active participant in the preservation of Gabrieleno tribal resources since the early 1970s. As early as 1978, the Native American Heritage Commission identified the Morales family as important Tribal Leaders in Southern California for their tenacious efforts to preserve Gabrieleno cultural resources. Today, the Morales family continues to help preserve their culture through a new partnership with Scientific Resource Surveys, Inc (SRSINC).

SRSINC is recognized as the oldest Cultural Resource Management (CRM) firm in Southern California, if not the United States. For over 43 years, SRSINC has worked side-by-side with the Gabrieleno in the Los Angeles basin to provide support to the Southern California building industry. SRSINC was formed in 1973 (incorporated in 1977) and currently operates as a California and Alaska Small Business, UDBE, DBE, and Woman-owned Corporation out of Orange County, California. As an equal opportunity employer, SRSINC employs a diverse staff of specialists to conduct archaeological, ethnographic, historic, and paleontological studies throughout Southern California. SRSINC is more than a Cultural Resource Management firm; it is a consortium of very talented scientists, artists, and support staff who have worked for decades in the fields of **Archaeology, History, Ethnography, Genealogy, Archival Research, Museum Displays, Graphic Arts, Paleontology, Zoology, Bioarchaeology and Forensic Sciences.** Each person has his/her own exceptional skills, which together, overlap and intertwine to form a cohesive team.

The San Gabriel Band of Mission Indians have united with SRSINC to facilitate seamless interaction between developers and the tribe, as dictated by the new CRM laws. The most recent changes to state statutes were put into effect in 2015. Assembly Bill No. 52 (AB-52) was passed late-2014 to amend the current policy surrounding Native American resources. The implementation of AB-52 mandates tribal consultation and emphasizes tribal knowledge during CEQA review. Additionally, AB-52 has broadened the definition of what constitutes as a cultural resource. Previously, a cultural resource was reserved to archaeological and historical objects and buildings. AB-52 has coined a new term, Tribal Cultural Resources (TCR), to be more inclusive of culturally valued resources, whether they be tangible objects or conceptual. The enactment of AB-52 has placed a new emphasis on collaboration with tribal governments to help understand how indigenous populations used, and continue to use, local landscapes.

The San Gabriel Band of Mission Indians have requested to be consulted for all developments located within the Los Angeles Basin. As a partner and qualified expert, SRSINC can provide the required information to help save time and money. **By working together, we can help you navigate through your legal obligations and facilitate all of your cultural resource management needs for the Los Angeles basin.** Please feel free to contact SRSINC's tribal liaison, Kassie Sugimoto, for additional information or with any questions. We look forward to working with you in the near future.

Kassie Sugimoto
Tribal Liaison
Scientific Resource Surveys, Inc.
2324 N. Betavia St. Ste. 109, Orange, CA 92865
Tel: 714-685-0204
Fax: 714-685-0082

Sincerely,

Nancy "Anastasia" Wiley
Scientific Resource Surveys, Inc.

Anthony Morales
San Gabriel Band of Mission Indians

Adrian Morales
San Gabriel Band of Mission Indians

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 663-8251
Fax (916) 657-5390



September 2, 1978

Mr. Fred Morales
Gabrieleno/Tongva Tribal Council
211 East Main Street
San Gabriel, CA 91776

Dear Mr. Morales:

As you know, the State of California Native American Heritage Commission was created by AB 4239 in 1976 and the Commission began its work January 1, 1977 with new authority codified in Public Resources Code Section 5097. 9.

You have been identified as an important Tribal Leader in Southern California. The Commission looks forward to working with you and Tribal Elders as it makes plans and services to protect California Native American burial sites and artifacts associated with burials. The Commission is also concerned about development activities that might threaten Native American sacred sites.

Please feel free to contact me with your concerns and your suggestions that will make the work of the Commission effective in cooperation with California Native American Tribes.

Sincerely,

A handwritten signature in dark ink, appearing to read "Steve Rios".

Steve Rios
Executive Secretary

Assembly



RESOLUTION

By Assembly Members Diane Martinez, Barbara Alby, Doris Allen, DeDe Albert, Margarita Archibaldson, Joe Baca, Julia Borstel, Vivien Brannaman, Verleen Brown, John Burton, Cruz M. Bustarante, Sol Canino, Dominic L. Curtin, Denise Dorado Ducheny, Helaine Estin, Bob Cottle, Martha H. Escalio, Robert Frazer, Terry Friedman, Jan Goldsmith, Mike Golch, Tom Hannagan, Irene Harvey, Gus Houser, Paul V. Hoser, Betty Karnette, Richard Kala, Barbara Lee, Juanita McDonald, Gwen Moore, Bill Morrow, Richard Mountjoy, Willard Purroy, Gene F. Napolitano, Richard Palumbo, Charles M. Shucksmith, Joyce Rosen, Andrea Spinkford, Margaret T. Sawyer, Heidi L. Solis, Ann Takano, Tom Uehring, and Ted Wergeland; Relative to

The Gabrielinos

Whereas, Gabrielino tribal territory encompasses the entire Los Angeles Basin area and the Channel Islands of Santa Catalina, San Nicholas, and San Clemente; and

Whereas, The Gabrielino were, at one time, one of the most prosperous and generous Native American tribes of southern California. Long before European contact, the Gabrielinos already had a major society in place with a government, laws, religion, music, dance, art, a monetary system, and cultural exchange; and

Whereas, The State of California has had consistent interaction with the Gabrielinos, known originally as the San Gabriel Band of Mission Indians; and

Whereas, The State of California recognizes that the Gabrielino Indian community existed and has continued to exist without interruption to the present day; and

Whereas, The State of California recognizes that the Gabrielinos have held general membership meetings in the San Gabriel, California region for over 100 years; and

Whereas, The State of California recognizes that Gabrielino members participate consistently in tribal affairs; and, therefore, be it

Resolved by THE ASSEMBLY AND SENATE OF THE STATE OF CALIFORNIA, JOINTLY, that the State of California recognizes the Gabrielinos as the aboriginal tribe of the Los Angeles Basin and takes great pride in recognizing the Indian Inhabitance of the Los Angeles Basin and the continued existence of the Indian community within our state; and be it further

Resolved, that the California Legislature respectfully memorialize the President and Congress of the United States to likewise give recognition to the Gabrielinos as the aboriginal tribe of the Los Angeles Basin; and be it further

Resolved, that the Chief Clerk of the Assembly transmit copies of this resolution to the President and Vice President of the United States, to the Speaker of the House of Representatives, to each Senator and Representative from California in the Congress of the United States.

Assembly Joint Resolution No. 96

Adopted in Assembly August 11, 1994

Signed:

Willie L. Brown, Jr.
Willie L. Brown, Jr.
Speaker of the Assembly

Attest:

E. Otis Wilson
E. Otis Wilson
Chief Clerk of the Assembly

Adopted in Senate August 31, 1994

Signed:

Leo J. McCarthy
Leo J. McCarthy
President of the Senate

Attest:

Mark Rollins
Mark Rollins
Secretary of the Senate



SANTA CLARITA WATER, A DIVISION OF CASTAIC LAKE WATER AGENCY



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MAILING ADDRESS: P.O. BOX 903 • SANTA CLARITA, CALIFORNIA 91380-9003

June 7, 2017

Michael Mirelez
Cultural Resource Coordinator
Torres Martinez Desert Cahuilla Indians
P.O. Box 1160
Thermal, CA 92274

Re: Formal Notification of Castaic Lake Water Agency Phase 2B Recycled Water Project

Dear Mr. Mirelez:

In response to your request dated May 9, 2016 for formal notification of projects for which Castaic Lake Water Agency (CLWA) prepares a Mitigated Negative Declaration pursuant to Public Resources Code section 21080.3.1(b), this letter serves as formal notification of the CLWA's consideration of the CLWA Phase 2B Recycled Water Project (Project).

Accordingly, as required by Public Resources Code section 21080.3.1(d), this letter provides a brief description of the Project and its location:

The Project would provide recycled water in the vicinity of the Vista Canyon Development by using recycled water from the Vista Canyon Water Factory (Water Factory). The project would construct a recycled water tank (approximately one million gallons), a transmission pipeline to the tank from a pump station at the Water Factory, distribution pipelines to serve existing CLWA irrigation customers in the Fair Oaks Ranch community, and a backup potable water supply from the existing Santa Clarita Water Division (SCWD) potable water tanks near Cherry Willow Drive.

The Project site is located in the City of Santa Clarita, Los Angeles County, California and is within the CLWA service area. The proposed recycled water tank will be located approximately one mile south of the Vista Canyon Development near the existing SCWD Cherry Willow potable water tanks. The transmission pipeline will be routed along Lost Canyon Road, Medley Ridge Drive, and Cherry Willow Drive. A network of distribution pipelines will be located within public right of way within the Fair Oaks Ranch community. See attached Figure 1 for regional location and Figure 2 for proposed project location.

Pursuant to Public Resources Code section 21080.3.1 (b) and (d), the Gabrieleno Tongva, San Gabriel Band of Mission Indians now has 30 days to inform CLWA, in writing, of its request to consult with CLWA on the Project. Such a request must provide the name of the Tribe's designated lead contact person and should be directed to:

Keith Abercrombie
Retail Manager
26521 Summit Circle
Santa Clarita, CA 91350

Please do not hesitate to contact me with any questions or concerns regarding the above at (661) 259-2737 or kabercrombie@scwater.org.

Sincerely,



Keith Abercrombie
Retail Manager

KA/tbp/elb



Attachments

cc: State of California, Native American Heritage Commission, Environmental and Cultural Department, 1550 Harbor Boulevard, Suite 100, West Sacramento, CA 95691



Figure 1 – Regional Location Map

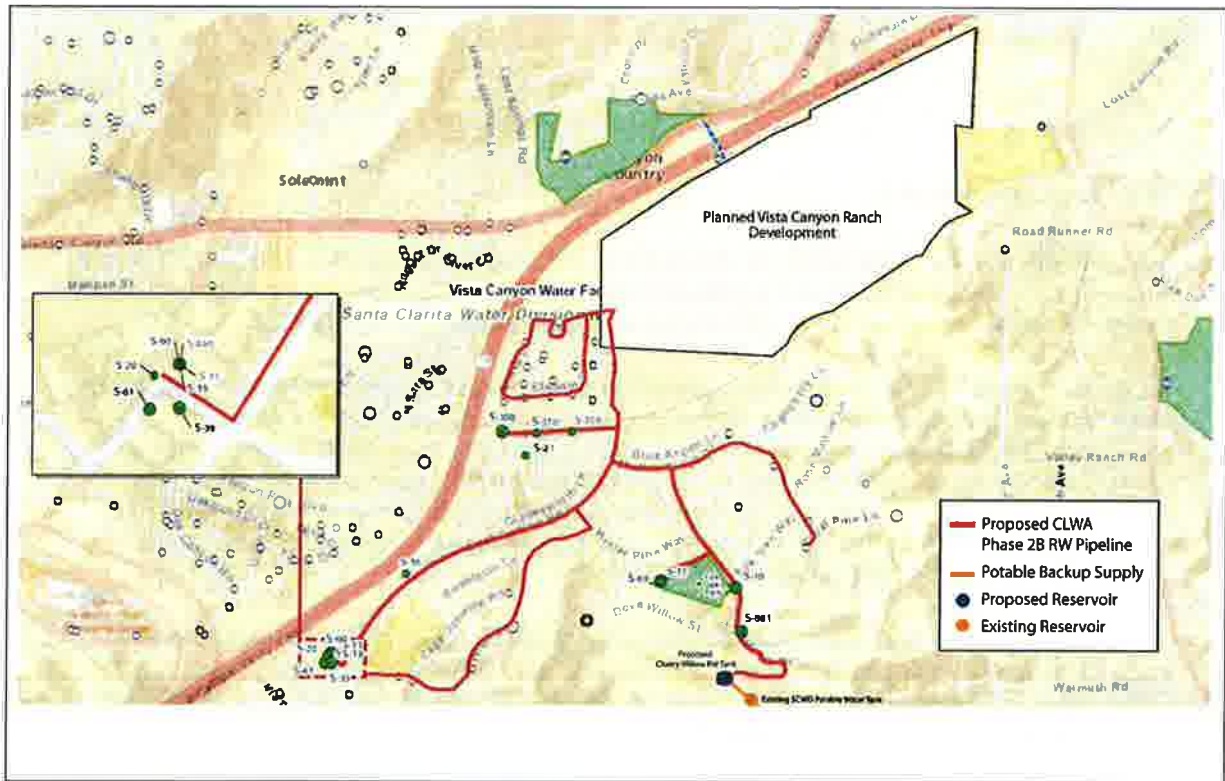


Figure 2 – Proposed Project: CLWA Phase 2B Recycled Water System



TORRES MARTINEZ DESERT CAHUILLA INDIANS

P.O. Box 1160
Thermal, CA 92274
(760) 397-0300 – FAX (760) 397-8146



May 9, 2016

To whom it may concern:

Re: California Environmental Quality Act Public Resources Code section 21080.3, subd. (b) ; California Assembly Bill 52, Request for Formal Notification of Proposed Projects within your jurisdiction that is traditionally and culturally affiliated with the Torres Martinez Desert Cahuilla Indians.

The purpose of this letter is to request formal notification of proposed projects within your jurisdiction that is traditionally and culturally affiliated with the Torres Martinez Desert Cahuilla Indians, in accordance with Public Resources Code Section 21080.3.1, subd. (b). As of the date of this letter, you have been formally notified that the boundaries of your local government's jurisdiction fall within the area that is traditionally and culturally affiliated with the Torres Martinez Desert Cahuilla Indians. Additionally, Torres Martinez Desert Cahuilla Indians has created specific requests and formal procedures in accordance with California Assembly Bill 52:

- Formal notice of and information on proposed projects for which your agency will serve as a lead agency under the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq. Pursuant to Public Resources Code section 21080.3.1, subd. (b) shall be sent to Torres Martinez Desert Cahuilla Indians
- Within 14 days of determining that an application for a project is complete or of a decision by your agency to undertake a project, a lead agency must provide formal notification to Cultural Monitoring Coordinator, Michael Mirelez, who is the designated contact and tribal representative for the traditionally and culturally affiliated Torres Martinez Desert Cahuilla Indians regarding notifications pertaining to California Assembly Bill 52

Contact Information:

***Michael Mirelez
Cultural Resource Coordinator
Torres Martinez Desert Cahuilla Indians***

Address: P.O. Box 1160 Thermal, CA 92274

Office: 760-397-0300 ext:1213

Cell: 760-399-0022

Email: mmirelez@tndci.org

This notice shall consist of a formal written letter that includes:

- A description of the proposed project
 - The project's location
 - The lead agency contact information
 - A clear and definitive statement that the tribe has 30 day to request consultation
 - An Aerial Photo of the project Area
 - Copies of the CHRIS Archaeological Record Search
- Once the Torres Martinez Desert Cahuilla Indians has received the notification, we will respond within 30 days as to whether we wish to initiate consultation as prescribed by Public Resources Code section 21080.3.1, subd. (d), the Torres Martinez Desert Cahuilla Indians, may request consultation, as defined by Public Resources Code section 21080.3.1, subd. (b), pursuant to Public Resources Code section 21080.3.2 to mitigate any project impacts a specific project may cause to tribal cultural resources.
- The lead agency shall begin the consultation process within 30 days of receiving the Torres Martinez Desert Cahuilla Indians request for consultation and prior to the release of a negative declaration, mitigated negative declaration, or environmental impact statement.
- Once a review of inadvertent discoveries has been completed by the Cultural Resource Director, all information will then be transferred to the Torres Martinez Desert Cahuilla Indians Tribal Council for a final decision and directive.

Sincerely,

Michael Mirelez
Cultural Resource Coordinator
Torres Martinez Desert Cahuilla Indians



Fernandeano Tataviam Band of Mission Indians
Tribal Historic & Cultural Preservation

Rudy J. Ortega, Jr.
Tribal President

*Tribal Historic & Cultural
Preservation Committee*
Richard Ortega
Chairman

August 1, 2017

SENT VIA EMAIL to kabercrombie@scwater.org

RE: Formal Comments for *Castaic Lake Water Agency Phase 2B Recycled Water Project (Project)*

Dear Mr. Abercrombie,


Thank you for the opportunity to consult and comment on the above referenced Project. I am writing to you on behalf the Tribal Historic and Cultural Preservation Department (“THCP”) of the Fernandeano Tataviam Band of Mission Indians (the “Tribe”), a sovereign Indian nation of northern Los Angeles County.

The Project property is located within the traditional and historic territory of the Tribe. It is associated with culturally sensitive spaces heavily utilized and settled by ancestors of the Tribe near the Santa Clara River drainage and surrounding foothills.

However, due to the facts that (1) all areas previously identified by THCP as areas of concern have been previously and heavily developed, (2) some areas of concern have been previously monitored and given cultural resources oversight by the Tribe for another project entitled *Vista Canyon Development*, whose boundaries overlap with the above referenced Project, (3) no additional ground disturbance is to take place in areas of native soil or areas that have not been graded to 5 to 20 ft in depth, and (4) the Project is a new recycled water pipeline that will not be placed deeper than other existing pipelines (e.g., storm drains, sewer), THCP finds that the project has no potential impact on its tribal cultural resources. Additionally, THCP requests that, should any tribal cultural resources be discovered upon excavation or Project plans be changed, the THCPO Kimia Fatehi shall be notified immediately at (818)837-0794 or kfatehi@tataviam-nsn.us.

Consultation with the Tribe may be considered concluded. Thank you for your time.

Sincerely,


Kimia Fatehi

Tribal Historic and Cultural Preservation Officer

SANTA CLARITA WATER, A DIVISION OF CASTAIC LAKE WATER AGENCY



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MAILING ADDRESS: P.O. BOX 903 • SANTA CLARITA, CALIFORNIA 91380-9003

August 8, 2017

Kimia Fatehi
Tribal Historic and Cultural Preservation Officer
Fernandeño Tataviam Band of Mission Indians
1019 Second Street, Suite 1
San Fernando, CA 91340

Re: Formal Comments for Castaic Lake Water Agency Phase 2B Recycled Water
Project and Conclusion of Tribal Consultation

Dear Ms. Fatehi,

Thank you for your August 1, 2017 letter with formal comments for the above referenced project concluding Consultation with the Fernandeño Tataviam Band of Mission Indians (the "Tribe"). This letter is to confirm that the Castaic Lake Water Agency (CLWA) will include a recommended mitigation measure in the CLWA Mitigated Negative Declaration to immediately notify the Tribal Historic and Cultural Preservation Department (as noted in your August 1, 2017 letter) should any tribal cultural resources be discovered upon excavation, or if Project plans are changed significantly.

It is our understanding that this concludes our consultation with the Tribe pursuant to AB 52. Thank you for your interest in our project.

Sincerely,

A handwritten signature in blue ink that reads 'Keith Abercrombie'.

Keith Abercrombie
Retail Manager

cc: State of California, Native American Heritage Commission, Environmental and
Cultural Department, 1550 Harbor Boulevard, Suite 100, West Sacramento, CA
95691

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Appendix B

Air Quality and Greenhouse Gas Modeling

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

SCV Water Phase 2B Tank Project
South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	0.55	Acre	0.55	23,958.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2022
Utility Company	User Defined				
CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction emissions only.

Land Use - Size of disturbance area

Construction Phase - Provided by SCV Water.

Off-road Equipment - Provided by SCV Water

Off-road Equipment - Grader is proxy to allow for soil export

Trips and VMT - Two trips for water truck, two trips for utility truck

Grading - Provided by SCV Water

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	2.00	5.00
tblGrading	MaterialExported	0.00	6,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Soil Export
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00

2.0 Emissions Summary

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.9075	46.1908	17.7216	0.1281	3.6805	0.5008	4.1812	1.1986	0.4651	1.6637	0.0000	13,708.5462	13,708.5462	1.2818	0.0000	13,740.5919
Maximum	1.9075	46.1908	17.7216	0.1281	3.6805	0.5008	4.1812	1.1986	0.4651	1.6637	0.0000	13,708.5462	13,708.5462	1.2818	0.0000	13,740.5919

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.9075	46.1908	17.7216	0.1281	3.1918	0.5008	3.6926	0.9597	0.4651	1.4248	0.0000	13,708.5462	13,708.5462	1.2818	0.0000	13,740.5919
Maximum	1.9075	46.1908	17.7216	0.1281	3.1918	0.5008	3.6926	0.9597	0.4651	1.4248	0.0000	13,708.5462	13,708.5462	1.2818	0.0000	13,740.5919

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	13.28	0.00	11.69	19.93	0.00	14.36	0.00	0.00	0.00	0.00	0.00	0.00

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0103	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0103	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0103	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0103	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Berm Construction	Grading	5/3/2021	5/28/2021	5	20	
2	Soil Export	Grading	5/3/2021	5/7/2021	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.55

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Berm Construction	Excavators	1	8.00	158	0.38
Berm Construction	Rubber Tired Dozers	1	1.00	247	0.40
Berm Construction	Skid Steer Loaders	1	8.00	65	0.37
Berm Construction	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Soil Export	Graders	1	0.00	187	0.41

Trips and VMT

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Berm Construction	5	13.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Soil Export	1	0.00	0.00	750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Berm Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7164	7.3721	8.5568	0.0130		0.3795	0.3795		0.3491	0.3491		1,255.1595	1,255.1595	0.4059		1,265.3081
Total	0.7164	7.3721	8.5568	0.0130	0.7528	0.3795	1.1323	0.4138	0.3491	0.7629		1,255.1595	1,255.1595	0.4059		1,265.3081

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

3.2 Berm Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0117	0.3803	0.1013	9.9000e-004	0.0256	7.9000e-004	0.0264	7.3700e-003	7.6000e-004	8.1300e-003		105.8201	105.8201	7.0800e-003		105.9971
Worker	0.0600	0.0390	0.4401	1.3500e-003	0.1453	1.0700e-003	0.1464	0.0385	9.9000e-004	0.0395		134.6368	134.6368	3.6100e-003		134.7270
Total	0.0717	0.4193	0.5414	2.3400e-003	0.1709	1.8600e-003	0.1728	0.0459	1.7500e-003	0.0477		240.4569	240.4569	0.0107		240.7241

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7164	7.3721	8.5568	0.0130		0.3795	0.3795		0.3491	0.3491	0.0000	1,255.1595	1,255.1595	0.4059		1,265.3081
Total	0.7164	7.3721	8.5568	0.0130	0.3387	0.3795	0.7182	0.1862	0.3491	0.5353	0.0000	1,255.1595	1,255.1595	0.4059		1,265.3081

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

3.2 Berm Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0117	0.3803	0.1013	9.9000e-004	0.0256	7.9000e-004	0.0264	7.3700e-003	7.6000e-004	8.1300e-003		105.8201	105.8201	7.0800e-003		105.9971
Worker	0.0600	0.0390	0.4401	1.3500e-003	0.1453	1.0700e-003	0.1464	0.0385	9.9000e-004	0.0395		134.6368	134.6368	3.6100e-003		134.7270
Total	0.0717	0.4193	0.5414	2.3400e-003	0.1709	1.8600e-003	0.1728	0.0459	1.7500e-003	0.0477		240.4569	240.4569	0.0107		240.7241

3.3 Soil Export - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1357	0.0000	0.1357	0.0206	0.0000	0.0206			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.1357	0.0000	0.1357	0.0206	0.0000	0.0206		0.0000	0.0000	0.0000		0.0000

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

3.3 Soil Export - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1194	38.3995	8.6234	0.1128	2.6211	0.1194	2.7405	0.7183	0.1143	0.8326		12,212.9298	12,212.9298	0.8652		12,234.5597
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.1194	38.3995	8.6234	0.1128	2.6211	0.1194	2.7405	0.7183	0.1143	0.8326		12,212.9298	12,212.9298	0.8652		12,234.5597

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0611	0.0000	0.0611	9.2500e-003	0.0000	9.2500e-003			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0611	0.0000	0.0611	9.2500e-003	0.0000	9.2500e-003	0.0000	0.0000	0.0000	0.0000		0.0000

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

3.3 Soil Export - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1194	38.3995	8.6234	0.1128	2.6211	0.1194	2.7405	0.7183	0.1143	0.8326		12,212.92 98	12,212.92 98	0.8652		12,234.55 97
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.1194	38.3995	8.6234	0.1128	2.6211	0.1194	2.7405	0.7183	0.1143	0.8326		12,212.92 98	12,212.92 98	0.8652		12,234.55 97

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896

5.0 Energy Detail

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0103	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004
Unmitigated	0.0103	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.8200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.4900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004
Total	0.0103	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.8200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.4900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004
Total	0.0103	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004

7.0 Water Detail

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Winter

7.1 Mitigation Measures Water**8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

SCV Water Phase 2B Tank Project
South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	0.55	Acre	0.55	23,958.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2022
Utility Company	User Defined				
CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction emissions only.

Land Use - Size of disturbance area

Construction Phase - Provided by SCV Water.

Off-road Equipment - Provided by SCV Water

Off-road Equipment - Grader is proxy to allow for soil export

Trips and VMT - Two trips for water truck, two trips for utility truck

Grading - Provided by SCV Water

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	2.00	5.00
tblGrading	MaterialExported	0.00	6,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Soil Export
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00

2.0 Emissions Summary

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.8708	45.7375	17.1700	0.1304	3.6805	0.4990	4.1794	1.1986	0.4634	1.6619	0.0000	13,951.1908	13,951.1908	1.2465	0.0000	13,982.3543
Maximum	1.8708	45.7375	17.1700	0.1304	3.6805	0.4990	4.1794	1.1986	0.4634	1.6619	0.0000	13,951.1908	13,951.1908	1.2465	0.0000	13,982.3543

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.8708	45.7375	17.1700	0.1304	3.1918	0.4990	3.6908	0.9597	0.4634	1.4230	0.0000	13,951.1908	13,951.1908	1.2465	0.0000	13,982.3543
Maximum	1.8708	45.7375	17.1700	0.1304	3.1918	0.4990	3.6908	0.9597	0.4634	1.4230	0.0000	13,951.1908	13,951.1908	1.2465	0.0000	13,982.3543

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	13.28	0.00	11.69	19.93	0.00	14.37	0.00	0.00	0.00	0.00	0.00	0.00

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0103	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0103	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0103	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0103	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Berm Construction	Grading	5/3/2021	5/28/2021	5	20	
2	Soil Export	Grading	5/3/2021	5/7/2021	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.55

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Berm Construction	Excavators	1	8.00	158	0.38
Berm Construction	Rubber Tired Dozers	1	1.00	247	0.40
Berm Construction	Skid Steer Loaders	1	8.00	65	0.37
Berm Construction	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Soil Export	Graders	1	0.00	187	0.41

Trips and VMT

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Berm Construction	5	13.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Soil Export	1	0.00	0.00	750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Berm Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.7164	7.3721	8.5568	0.0130		0.3795	0.3795		0.3491	0.3491		1,255.1595	1,255.1595	0.4059		1,265.3081
Total	0.7164	7.3721	8.5568	0.0130	0.7528	0.3795	1.1323	0.4138	0.3491	0.7629		1,255.1595	1,255.1595	0.4059		1,265.3081

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

3.2 Berm Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0111	0.3815	0.0905	1.0200e-003	0.0256	7.7000e-004	0.0264	7.3700e-003	7.3000e-004	8.1000e-003		108.9754	108.9754	6.5900e-003		109.1402
Worker	0.0549	0.0356	0.4897	1.4400e-003	0.1453	1.0700e-003	0.1464	0.0385	9.9000e-004	0.0395		143.9624	143.9624	3.8700e-003		144.0592
Total	0.0660	0.4171	0.5803	2.4600e-003	0.1709	1.8400e-003	0.1728	0.0459	1.7200e-003	0.0476		252.9378	252.9378	0.0105		253.1994

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.7164	7.3721	8.5568	0.0130		0.3795	0.3795		0.3491	0.3491	0.0000	1,255.1595	1,255.1595	0.4059		1,265.3081
Total	0.7164	7.3721	8.5568	0.0130	0.3387	0.3795	0.7182	0.1862	0.3491	0.5353	0.0000	1,255.1595	1,255.1595	0.4059		1,265.3081

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

3.2 Berm Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0111	0.3815	0.0905	1.0200e-003	0.0256	7.7000e-004	0.0264	7.3700e-003	7.3000e-004	8.1000e-003		108.9754	108.9754	6.5900e-003		109.1402
Worker	0.0549	0.0356	0.4897	1.4400e-003	0.1453	1.0700e-003	0.1464	0.0385	9.9000e-004	0.0395		143.9624	143.9624	3.8700e-003		144.0592
Total	0.0660	0.4171	0.5803	2.4600e-003	0.1709	1.8400e-003	0.1728	0.0459	1.7200e-003	0.0476		252.9378	252.9378	0.0105		253.1994

3.3 Soil Export - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1357	0.0000	0.1357	0.0206	0.0000	0.0206			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.1357	0.0000	0.1357	0.0206	0.0000	0.0206		0.0000	0.0000	0.0000		0.0000

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

3.3 Soil Export - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0884	37.9483	8.0329	0.1150	2.6211	0.1176	2.7387	0.7183	0.1125	0.8308		12,443.09 35	12,443.09 35	0.8301		12,463.84 68
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0884	37.9483	8.0329	0.1150	2.6211	0.1176	2.7387	0.7183	0.1125	0.8308		12,443.09 35	12,443.09 35	0.8301		12,463.84 68

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0611	0.0000	0.0611	9.2500e-003	0.0000	9.2500e-003			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0611	0.0000	0.0611	9.2500e-003	0.0000	9.2500e-003	0.0000	0.0000	0.0000	0.0000		0.0000

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

3.3 Soil Export - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0884	37.9483	8.0329	0.1150	2.6211	0.1176	2.7387	0.7183	0.1125	0.8308		12,443.0935	12,443.0935	0.8301		12,463.8468
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0884	37.9483	8.0329	0.1150	2.6211	0.1176	2.7387	0.7183	0.1125	0.8308		12,443.0935	12,443.0935	0.8301		12,463.8468

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896

5.0 Energy Detail

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0103	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004
Unmitigated	0.0103	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.8200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.4900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004
Total	0.0103	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.8200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.4900e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004
Total	0.0103	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-004	1.2000e-004	0.0000		1.3000e-004

7.0 Water Detail

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Summer

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Annual

SCV Water Phase 2B Tank Project
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	0.55	Acre	0.55	23,958.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2022
Utility Company	User Defined				
CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction emissions only.

Land Use - Size of disturbance area

Construction Phase - Provided by SCV Water.

Off-road Equipment - Provided by SCV Water

Off-road Equipment - Grader is proxy to allow for soil export

Trips and VMT - Two trips for water truck, two trips for utility truck

Grading - Provided by SCV Water

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	2.00	5.00
tblGrading	MaterialExported	0.00	6,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Soil Export
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripNumber	3.00	0.00

2.0 Emissions Summary

SCV Water Phase 2B Tank Project - South Coast AQMD Air District, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0106	0.1757	0.1118	4.4000e-004	0.0160	4.1100e-003	0.0201	6.4100e-003	3.7900e-003	0.0102	0.0000	41.6068	41.6068	5.6900e-003	0.0000	41.7492
Maximum	0.0106	0.1757	0.1118	4.4000e-004	0.0160	4.1100e-003	0.0201	6.4100e-003	3.7900e-003	0.0102	0.0000	41.6068	41.6068	5.6900e-003	0.0000	41.7492

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0106	0.1757	0.1118	4.4000e-004	0.0117	4.1100e-003	0.0158	4.1100e-003	3.7900e-003	7.9000e-003	0.0000	41.6068	41.6068	5.6900e-003	0.0000	41.7491
Maximum	0.0106	0.1757	0.1118	4.4000e-004	0.0117	4.1100e-003	0.0158	4.1100e-003	3.7900e-003	7.9000e-003	0.0000	41.6068	41.6068	5.6900e-003	0.0000	41.7491

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.01	0.00	27.02	0.00	21.49	35.88	0.00	22.55	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-3-2021	8-2-2021	0.1493	0.1493
		Highest	0.1493	0.1493

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8800e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.8800e-003	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.8800e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.8800e-003	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Berm Construction	Grading	5/3/2021	5/28/2021	5	20	
2	Soil Export	Grading	5/3/2021	5/7/2021	5	5	

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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.55

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Berm Construction	Excavators	1	8.00	158	0.38
Berm Construction	Rubber Tired Dozers	1	1.00	247	0.40
Berm Construction	Skid Steer Loaders	1	8.00	65	0.37
Berm Construction	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Soil Export	Graders	1	0.00	187	0.41

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Berm Construction	5	13.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Soil Export	1	0.00	0.00	750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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3.2 Berm Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5300e-003	0.0000	7.5300e-003	4.1400e-003	0.0000	4.1400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1600e-003	0.0737	0.0856	1.3000e-004		3.7900e-003	3.7900e-003		3.4900e-003	3.4900e-003	0.0000	11.3866	11.3866	3.6800e-003	0.0000	11.4787
Total	7.1600e-003	0.0737	0.0856	1.3000e-004	7.5300e-003	3.7900e-003	0.0113	4.1400e-003	3.4900e-003	7.6300e-003	0.0000	11.3866	11.3866	3.6800e-003	0.0000	11.4787

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1000e-004	3.8700e-003	9.6000e-004	1.0000e-005	2.5000e-004	1.0000e-005	2.6000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.9766	0.9766	6.0000e-005	0.0000	0.9781
Worker	5.4000e-004	4.0000e-004	4.5300e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2424	1.2424	3.0000e-005	0.0000	1.2432
Total	6.5000e-004	4.2700e-003	5.4900e-003	2.0000e-005	1.6800e-003	2.0000e-005	1.7000e-003	4.5000e-004	2.0000e-005	4.7000e-004	0.0000	2.2190	2.2190	9.0000e-005	0.0000	2.2213

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3.2 Berm Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3900e-003	0.0000	3.3900e-003	1.8600e-003	0.0000	1.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1600e-003	0.0737	0.0856	1.3000e-004		3.7900e-003	3.7900e-003		3.4900e-003	3.4900e-003	0.0000	11.3866	11.3866	3.6800e-003	0.0000	11.4787
Total	7.1600e-003	0.0737	0.0856	1.3000e-004	3.3900e-003	3.7900e-003	7.1800e-003	1.8600e-003	3.4900e-003	5.3500e-003	0.0000	11.3866	11.3866	3.6800e-003	0.0000	11.4787

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1000e-004	3.8700e-003	9.6000e-004	1.0000e-005	2.5000e-004	1.0000e-005	2.6000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.9766	0.9766	6.0000e-005	0.0000	0.9781
Worker	5.4000e-004	4.0000e-004	4.5300e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2424	1.2424	3.0000e-005	0.0000	1.2432
Total	6.5000e-004	4.2700e-003	5.4900e-003	2.0000e-005	1.6800e-003	2.0000e-005	1.7000e-003	4.5000e-004	2.0000e-005	4.7000e-004	0.0000	2.2190	2.2190	9.0000e-005	0.0000	2.2213

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3.3 Soil Export - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.4000e-004	0.0000	3.4000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	3.4000e-004	0.0000	3.4000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7500e-003	0.0977	0.0207	2.9000e-004	6.4500e-003	3.0000e-004	6.7400e-003	1.7700e-003	2.8000e-004	2.0500e-003	0.0000	28.0012	28.0012	1.9200e-003	0.0000	28.0492
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.7500e-003	0.0977	0.0207	2.9000e-004	6.4500e-003	3.0000e-004	6.7400e-003	1.7700e-003	2.8000e-004	2.0500e-003	0.0000	28.0012	28.0012	1.9200e-003	0.0000	28.0492

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3.3 Soil Export - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.5000e-004	0.0000	1.5000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	1.5000e-004	0.0000	1.5000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7500e-003	0.0977	0.0207	2.9000e-004	6.4500e-003	3.0000e-004	6.7400e-003	1.7700e-003	2.8000e-004	2.0500e-003	0.0000	28.0012	28.0012	1.9200e-003	0.0000	28.0492
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.7500e-003	0.0977	0.0207	2.9000e-004	6.4500e-003	3.0000e-004	6.7400e-003	1.7700e-003	2.8000e-004	2.0500e-003	0.0000	28.0012	28.0012	1.9200e-003	0.0000	28.0492

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.549559	0.042893	0.201564	0.118533	0.015569	0.005846	0.021394	0.034255	0.002099	0.001828	0.004855	0.000709	0.000896

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.8800e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Unmitigated	1.8800e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Total	1.8800e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Total	1.8800e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Appendix C

Cultural Resources Assessment



Rincon Consultants, Inc.

180 North Ashwood Avenue
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November 9, 2020
Project No: 20-10278

Mr. Rick Vasilopoulos, Water Resources Planner
Santa Clarita Valley Water Agency
26521 Summit Circle
Santa Clarita, California 91350
Via email: rvasilopoulos@scvwa.org

**Subject: Cultural Resources Assessment for the Phase 2B Recycled Water Tank Project,
Santa Clarita, Los Angeles County California**

Dear Mr. Vasilopoulos:

The Santa Clarita Valley Water Agency (SCV Water) retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources assessment for the proposed Phase 2B Recycled Water Tank Project (Modified Project), in Santa Clarita, Los Angeles County, California. Rincon understands that an Initial Study-Mitigated Negative Declaration (IS-MND) was adopted by SCV Water for the Phase 2B Recycled Water System Project in 2017 (Original Project). The Modified Project site lies approximately 60 meters (200 feet) east of the Original Project site. This letter report documents the results of a cultural resources records search and pedestrian field survey for the Modified Project. The Modified Project is subject to the California Environmental Quality Act (CEQA). SCV Water is the lead agency under CEQA.

Project Background

The Original Project included a transmission pipeline from the Vista Canyon pump station, a one-million-gallon recycled water tank located approximately 1.25 miles southeast of the Vista Canyon development near the existing Cherry Willow potable water tanks, distribution pipelines to serve major customers, and a backup potable water supply line from the existing Cherry Willow potable water tanks to the new recycled water tank in the event of an interruption in recycled water flow.

Greenwood and Associates conducted an archaeological inventory for the Original Project in 2017. The Greenwood and Associates cultural resources assessment included a records search of the California Historical Resources Information System's (CHRIS) South Central Coastal Information Center (SCCIC) located at California State University, Fullerton, archival research, and a pedestrian field survey of the Original Project site. The records search included a 0.5-mile search radius that encompassed the Modified Project site. The records search identified eight previously conducted cultural resources studies and four previously recorded cultural resources within the 0.5-mile radius of the Original Project site (Foster 2017). Greenwood and Associates do not indicate if the studies and/or resources are within the Original Project site; however, the fact that no resources were recorded or observed during the pedestrian survey suggests that none of the previously recorded resources were within the Original Project site. Greenwood and Associates did identify a known historical resource, CA-LAN-4356H, the remnants of the 1860 Mitchell Ranch, approximately 1,600 meters (5,250 feet) east of the Original Project site.



In 2020, the Original Project tank site was deemed unsuitable due to landslide and slope stability issues that would require costly engineered buttress fill and/or drilled cast-in-place concrete piles/shear pins. SCV Water, therefore, relocated the proposed recycled water tank site to an alternate existing graded pad site approximately 60 meters (200 feet) southeast of the Original Project tank site.

Project Site

The Modified Project site consists of an approximately 0.55-acre graded pad atop a northwest trending ridgeline, approximately 30 meters (100 feet) northwest of the existing Cherry Willow potable tanks. The Modified Project site is north of Cherry Willow Drive in Santa Clarita, Los Angeles County, California. The Modified Project site lies within the United States Geological Survey (USGS) *Mountain Canyon* quadrangle, Township 4 North, Range 15 West, and Section 26, 27, 34, and 35 (Figure 1 and Figure 2, Attachment A). The Modified Project site has been previously disturbed by development and extensive grading and terracing for the Cherry Willow potable tank site.

Project Description

The Modified Project involves the construction and operation of two 500,000-gallon recycled water tanks on the newly proposed graded pad site located approximately 60 meters (200 feet) southeast of the Original Project tank site. The Modified Project would be used to store recycled water generated by the nearby Vista Canyon Water factory and would supply irrigation water to customers in the Vista Canyon and Fair Oaks communities. The Modified Project would consist of two aboveground, welded steel tanks approximately 55 feet in diameter and 34 feet high. The 0.55-acre graded pad site is situated on a northwest trending ridgeline, approximately 30 meters (100 feet) northwest of the existing Cherry Willow potable tanks, and 11 feet lower in elevation. Removal of the top 20 feet of soil (maximum excavation depth) and recompaction would be required in part of the existing pad, to support the proposed recycled water tanks. Grading would be required to construct perimeter slopes and a vehicular entrance from the existing access road. The visual berm will be extended along the north side of the proposed recycled water tanks to provide screening. Approximately 6,000 cubic yards of soil are anticipated to be exported from the site.

To accommodate the newly proposed tank site, the recycled water transmission pipeline (currently under construction) would need to be extended by approximately 105 linear meters (350 linear feet) within the paved roadway from the original tank site to the new tank site. All other project components associated with the Original Project would be unchanged.

Cultural Resources Records Search

Rincon received records search results from the CHRIS SCCIC at California State University, Fullerton on October 15, 2020. The purpose of the records search was to identify previously conducted cultural resources studies and previously recorded cultural resources within the Modified Project site and a 0.5-mile radius extending from the Modified Project site. The records search included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the Office of Historic Preservation Historic Properties Directory, the California Inventory of Historic Resources, and the Archaeological Determinations of Eligibility list.



The SCCIC records search identified seven previously conducted cultural resources studies performed within the 0.5-mile radius of the Modified Project site (Table 1 and Attachment B); one of the studies, LA-00467, evaluated portions of the current Modified Project site. LA-00467 is described below. The Greenwood and Associates archaeological inventory conducted for the Original Project, discussed above, was not identified by the SCCIC and is, therefore, most likely not in the SCCIC files.

The SCCIC search identified one previously recorded cultural resource within the 0.5-mile radius extending from the Modified Project site; no cultural resources are within the Modified Project site itself. Resource P-19-101228 was recorded as an isolated rhyolite core tool with a high domed scraper plane by Michael McIntyre in 1978. Due to the location and alteration of the landscape, McIntyre interpreted the deposition as due to current human occupation and tractor use in the area. The survey team collected the resource.

Table 1 Previous Cultural Resource Studies within 0.5-mile of the Modified project Site

Report Number	Author	Year	Title	Relationship to Modified Project Site
LA-00467	McIntyre, M. J. and R. S Greenwood	1979	<i>Cultural Resource Survey of a Proposed Class I Landfill Near Sand Canyon, Upper Santa Clara River Valley, Los Angeles County, California</i>	Within
LA-01369	Rector, C. H.	1984	<i>Cultural Resources Inventory for the 1984 and Part of 1985 California Metropolitan Project Area Public Lands Sale Program</i>	Outside
LA-01515	Bissell, R. M.	1986	<i>Cultural Resources Assessment of the Mitchell Properties, Santa Clarita Valley Area, Los Angeles County, California</i>	Outside
LA-02193	Romani, J. F.	1990	<i>Archaeological Assessment for the Proposed Santa Fe Specific Plan Southeast and Adjacent to the City of Santa Clarita Los Angeles County, California</i>	Outside
LA-02442	Norwood, R. H.	1991	<i>Cultural Resource Survey for Tentative Tract No. 50449 12.1 Acres in Canyon Country Los Angeles County California</i>	Outside
LA-03690	Wlodarski, R. J.	1997	<i>Cultural Resources Evaluation City of Santa Clarita Circulation Element EIR</i>	Outside
LA-04058	Wlodarski, R. J.	1998	<i>Cultural Resources Evaluation: Golden Valley Ranch EIR City of Santa Clarita, Los Angeles County, California</i>	Outside
*-	Foster, J. M.	2017	<i>Archeological Inventory – Santa Clarita Water Phase 28 Project – Pipeline, Pump Station and Tank, City of Santa Clarita</i>	Outside

Source: SCCIC 2020

*Report not on file at the SCCIC; report provided by SCV Water



LA-00467

Michael McIntyre and Roberta S. Greenwood prepared LA-00467, *Cultural Resource Survey of a Proposed Class I Landfill Near Sand Canyon, Upper Santa Clara River Valley, Los Angeles County, California*, in 1979. The study evaluated 307 acres for the development of a Class I Landfill for Liquid Wastes near Sand Canyon. The study included a historical review of the project site and surrounding areas, a review of state landmarks, a review of archaeological surveys in the general area, and a surface reconnaissance survey. The study efforts identified one prehistoric isolate (resource P-19-101228), outside the Modified Project site. The study included the entirety of the current Modified Project site; no cultural resources were identified within the Modified Project site during the study.

Aerial Imagery and Historical Topographic Maps Review

Rincon completed a review of historical topographic maps and aerial imagery to ascertain the development history of the Modified Project site. Historical topographic maps from 1900 to 1955 depict the Modified Project site as undeveloped land (NETR Online 2020). Aerial imagery from 1947 to 1954 confirm the historical topographic mapping. From 1959 to 1978, aerial imagery depicts the Modified Project site planted with trees and a possible orchard, and a road to the south-east appearing in imagery from 1974 to 1978 (NETR Online 2020). Historical topographic maps confirm that from 1961 to 1988 the Modified Project site was lined with trees (NETR Online 2020). Imagery from 2002 to 2005 shows further development of the area and imagery from 2009 depicts the Cherry Willow potable tank site as developed and the Modified Project site in its current condition (NETR Online 2020).

Assembly Bill 52

As part of the Assembly Bill 52 (AB 52) consultation conducted for the Original Project, SCV Water (formerly Castaic Lake Water Agency [CLWA]), sent AB 52 consultation letters to three Native American tribes who are traditionally and culturally affiliated with the Project area; the Fernandeano Tataviam Band of Mission Indians, the Gabrieleno Tongva San Gabriel Band of Mission Indians, and the Torres Martinez Desert Cahuilla Indians. The Fernandeano Tataviam Band of Mission Indians requested consultation for the Original Project. A meeting was held between SCV Water and Kimia Fatehi, Tribal Historical and Cultural Preservation Officer of the Fernandeano Tataviam Band of Mission Indians. Consultation was concluded with the agreement to incorporate a mitigation measure stating that the Fernandeano Tataviam Band of Mission Indians would be notified in the event of inadvertent archaeological resource finds during the Original Project (Tebo Environmental 2017).

As a result of modifications to the Original Project, SCV Water sent AB 52 notification to the Fernandeano Tataviam Band of Mission Indians on October 27, 2020 to inform them of the modifications. On November 4, 2020, Jairo Avila, Tribal Historic and Cultural Preservation Officer of the FTBMI, responded to the SCV Water outreach effort and stated that the FTBMI has no further questions or concerns regarding the Modified Project site. Additionally, Mr. Avila requested that Mitigation Measure CUL-1 from the 2017 IS-MND be included for the Modified Project. Attachment C contains the full correspondence.

Similar to the Original Project, no tribal cultural resources have been identified within the Modified Project site, located approximately 200 feet southeast of the Original Project site.



Pedestrian Field Survey

Rincon Archaeologist Alyssa Newcomb, MS, Registered Professional Archaeologist (RPA), conducted a pedestrian field survey of the Modified Project site on October 20, 2020. Ms. Newcomb walked a series of pedestrian transects spaced no more than 15 meters apart where accessible and also conducted a visual reconnaissance of the graded slopes within the Modified Project site and a 100-foot buffer surrounding the site. Exposed ground surfaces were inspected for prehistoric cultural materials (e.g., flaked stone tools, tool-making debris, stone milling tools, ecofacts [marine shell and bone]), soil discoloration that might indicate the presence of a prehistoric midden deposit, historic-period debris (e.g., metal, glass, ceramics), and features that indicate the presence of former historic-period structures or buildings (e.g., standing exterior walls, foundations). Rodent burrows allowed visual inspection of subsurface soils. The Modified Project site has been extensively terraced with areas that have been heavily used and recently graded. Ground visibility ranged from poor (less than 15 percent) on vegetated, graded slopes to excellent (100 percent) in recently graded and flat areas. The Modified Project site has been heavily disturbed by previous construction grading and terracing that created a flat, graded pad and a 15- to 20-foot high berm around the Cherry Willow potable tank site. These extensive previous construction disturbances likely removed the upper soil layers that might have contained cultural resources. Visible soils within the Modified Project site consisted of light brown to tan colored sandy and silty loam with imported gravel likely due to recent modification and site use. Figure 3 through Figure 6 in Attachment A depict site conditions during the pedestrian field survey.

Findings and Recommendations

The background research did not identify any cultural resources within the Modified Project site and no cultural resources were identified during the October 20, 2020 pedestrian field survey. The Modified Project site has been heavily disturbed, as evidenced by the site's prior land use history including planting and removal of trees and a possible orchard, and extensive grading and terracing during the construction/installation of the Cherry Willow potable tanks. Given the negative results of the background research, the negative results of previous studies in the vicinity, the negative results of the current pedestrian survey of the Modified Project site, and the extent to which the Modified Project site has been disturbed, Rincon recommends a finding of ***less than significant impact to historical and archaeological resources*** for the purposes of CEQA and does not recommend any additional cultural resources work at this time. The following best management practices are recommended in the unlikely case of unanticipated discoveries during ground-disturbing activities.

Unanticipated Discovery of Archaeological Resources

In the unlikely event archaeological resources are unexpectedly encountered during ground-disturbing activities, work in the immediate area should be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the find is prehistoric, then a Native American representative should also be contacted to participate in the evaluation of the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for California Register of Historical Resources (CRHR) eligibility. If the discovery proves to be eligible for the CRHR and cannot be avoided by the modified project, additional work, such as data recovery excavation, may be warranted to mitigate any significant impacts to historical resources.



Unanticipated Discovery of Human Remains

In the unlikely event of an unexpected discovery of human remains, all ground-disturbing activities in the vicinity of the discovery will be immediately suspended and redirected elsewhere. All steps required to comply with State of California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 will be implemented including contacting the Los Angeles County Department of Medical Examiner-Coroner. If the human remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD shall complete an inspection of the site and provide recommendations for treatment to the landowner within 48 hours of being granted access.

Please do not hesitate to contact Rincon with any questions regarding this cultural resources assessment.

Sincerely,

Rincon Consultants, Inc.

Courtney Montgomery, MA
Archaeologist

Ken Victorino, MA, RPA
Senior Principal Investigator

Christopher A. Duran, MA, RPA
Principal/Senior Archaeologist

Attachments

- Attachment A Figures
- Attachment B SCCIC Records Search Results
- Attachment C AB 52 Correspondence



References

Foster, John M.

- 2017. Archaeological Inventory – Santa Clarita Water Phase 2B Project – Pipeline, Pump Station, and Tank, City of Santa Clarita

McIntyre, Michael J. and Roberta S. Greenwood

- 1979. Cultural Resource Survey of a Proposed Class I Landfill Near Sand Canyon, Upper Santa Clara River Valley, Los Angeles County, California

National Park Service

- 1983. Archaeological and Historic Preservation: Secretary of the Interior's Standards and Guidelines. Electronic document, online at http://www.nps.gov/history/local-law-Arch_Standards.htm accessed December 6, 2011.

NETR Online

- 2020. *Historic Aerials*. <https://www.historicaerials.com/viewer>. Accessed October 2020.

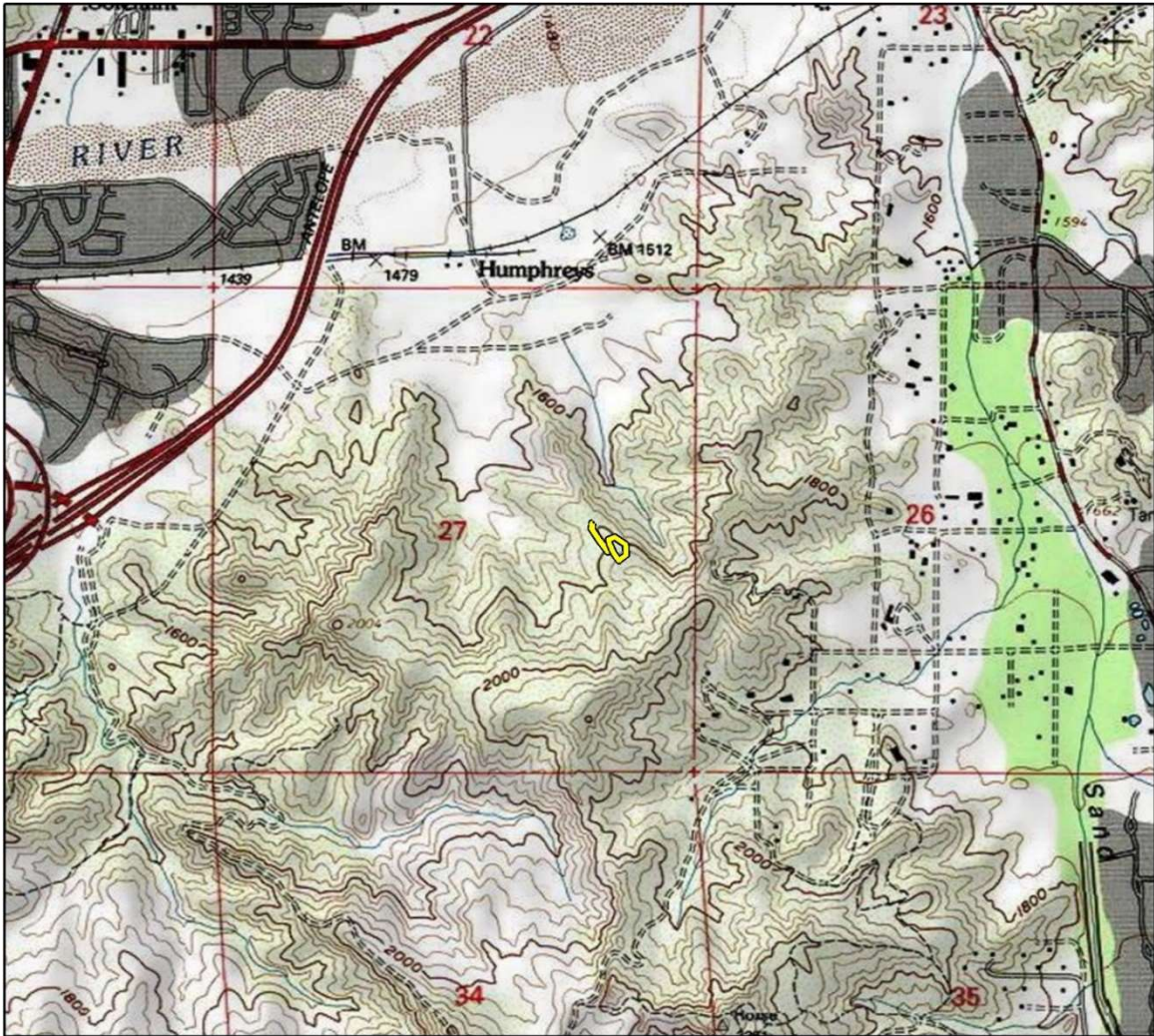
Tebo Environmental Inc.

- 2017. Final Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program, Recycled Water Vista Canon Extension (Phase 2B) Project

Attachment A

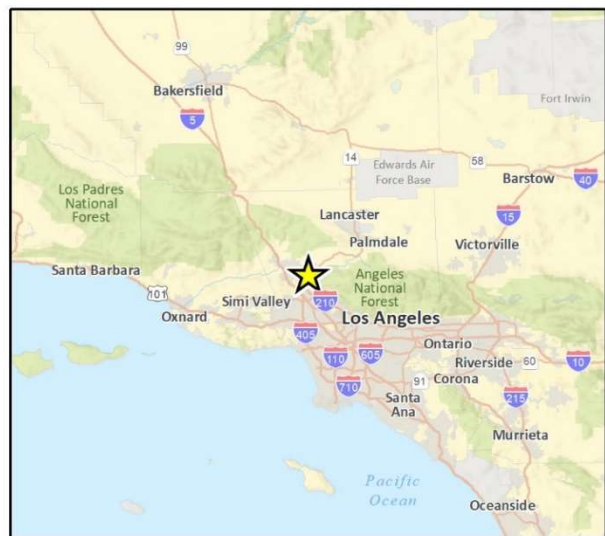
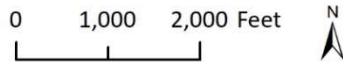
Figures

Figure 1 Project Location Map



Imagery provided by National Geographic Society, Esri and its licensors © 2020. Mint Canyon Quadrangle. T04N R15W S27. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Project Location



GRFig 1 Proj Loc Map

Figure 2 Project Boundary Map



Figure 3 Overview of Modified Project Site atop Slope, Facing East



Figure 4 Overview of Modified Project Site Down Slope, Facing North



Figure 5 Overview of Modified Project Site, Facing Northeast



Figure 6 Overview of Pipeline Extension Area, Facing North



Attachment B

SCCIC Records Search Results

CHRIS Data Request Form

ACCESS AND USE AGREEMENT NO.: 56 IC FILE NO.: _____

To: South Central Coastal Information Center

Print Name: Courtney Montgomery Date: September 25, 2020

Affiliation: Rincon Consultants, Inc.

Address: 180 N. Ashwood Avenue

City: Ventura State: CA Zip: 93003

Phone: 805-644-4455 Fax: 805-644-4455 Email: cmontgomery@rinconconsultants.com

Billing Address (if different than above): _____

Billing Email: ap@rinconconsultants.com Billing Phone: 805-644-4455

Project Name / Reference: 20-10278 Phase 2B Recycled Water Tank

Project Street Address: 34.401150, -119.435317

County or Counties: Los Angeles

Township/Range/UTMs: T 4N, R 15W, S 26, 27, 36, 35

USGS 7.5' Quad(s): Mnt. Canyon

PRIORITY RESPONSE (Additional Fee): yes / no

TOTAL FEE NOT TO EXCEED: \$ 600

(If blank, the Information Center will contact you if the fee is expected to exceed \$1,000.00)

Special Instructions:

Information Center Use Only

Date of CHRIS Data Provided for this Request: _____

Confidential Data Included in Response: yes / no

Notes: _____

CHRIS Data Request Form

Mark the request form as needed. Attach a PDF of your project area (with the radius if applicable) mapped on a 7.5' USGS topographic quadrangle to scale 1:24000 ratio 1:1 neither enlarged nor reduced and include a shapefile of your project area, if available. Shapefiles are the current CHRIS standard for submitting digital spatial data for your project area or radius. **Check with the appropriate Information Center for current availability of digital data products.**

- Documents will be provided in PDF format. Paper copies will only be provided if PDFs are not available at the time of the request or under specially arranged circumstances.
- Location information will be provided as a digital map product (Custom Maps or GIS data) unless the area has not yet been digitized. In such circumstances, the IC may provide hand drawn maps.

For product fees, see the CHRIS IC Fee Structure on the [OHP website](#)

1. Map Format Choice:

Select One: Custom GIS Maps GIS Data Custom GIS Maps **and** GIS Data No Maps

Any selection below left unmarked will be considered a "no."

2. Location Information:

ARCHAEOLOGICAL Resource Locations¹
NON-ARCHAEOLOGICAL Resource Locations
Report Locations¹
"Other" Report Locations²

Within project area Within 0.5 mi. radius

yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>
yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>
yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>
yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>

3. Database Information:

(contact the IC or CHRIS Coordinator for product examples)

ARCHAEOLOGICAL Resource Database¹

List
 Detail
 Excel Spreadsheet

Within project area Within 0.5 mi. radius

yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>
yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>
yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>

NON-ARCHAEOLOGICAL Resource Database

List
 Detail
 Excel Spreadsheet

yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>
yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>
yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>

Report Database¹

List
 Detail
 Excel Spreadsheet
 Include "Other" Reports²

yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>
yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>
yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>
yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>

4. Document PDFs (paper copy only upon request):

ARCHAEOLOGICAL Resource Records¹
 NON-ARCHAEOLOGICAL Resource Records
 Reports¹
 "Other" Reports²

Within project area Within 0.5 mi. radius

yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>
yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>
yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>
yes <input type="checkbox"/> / no <input type="checkbox"/>	yes <input type="checkbox"/> / no <input type="checkbox"/>

CHRIS Data Request Form

5. Eligibility Listings and Documentation:

Within project area Within 0.5 mi. radius

OHP Built Environment Resources Directory³:

(only available as Excel spreadsheet, digital database rows)

Directory listing only yes / no yes / no
 Associated documentation⁴ yes / no yes / no

OHP Archaeological Resources Directory^{1, 3}:

(only available as Excel spreadsheet, digital database rows)

Directory listing only yes / no yes / no
 Associated documentation⁴ yes / no yes / no

California Inventory of Historic Resources (1976):

Directory listing only yes / no yes / no
 Associated documentation⁴ yes / no yes / no

6. Additional Information:

The following sources of information may be available through the Information Center. However, several of these sources are now available on the [OHP website](#) and can be accessed directly. The Office of Historic Preservation makes no guarantees about the availability, completeness, or accuracy of the information provided through these sources. Indicate below if the Information Center should review and provide documentation (if available) of any of the following sources as part of this request.

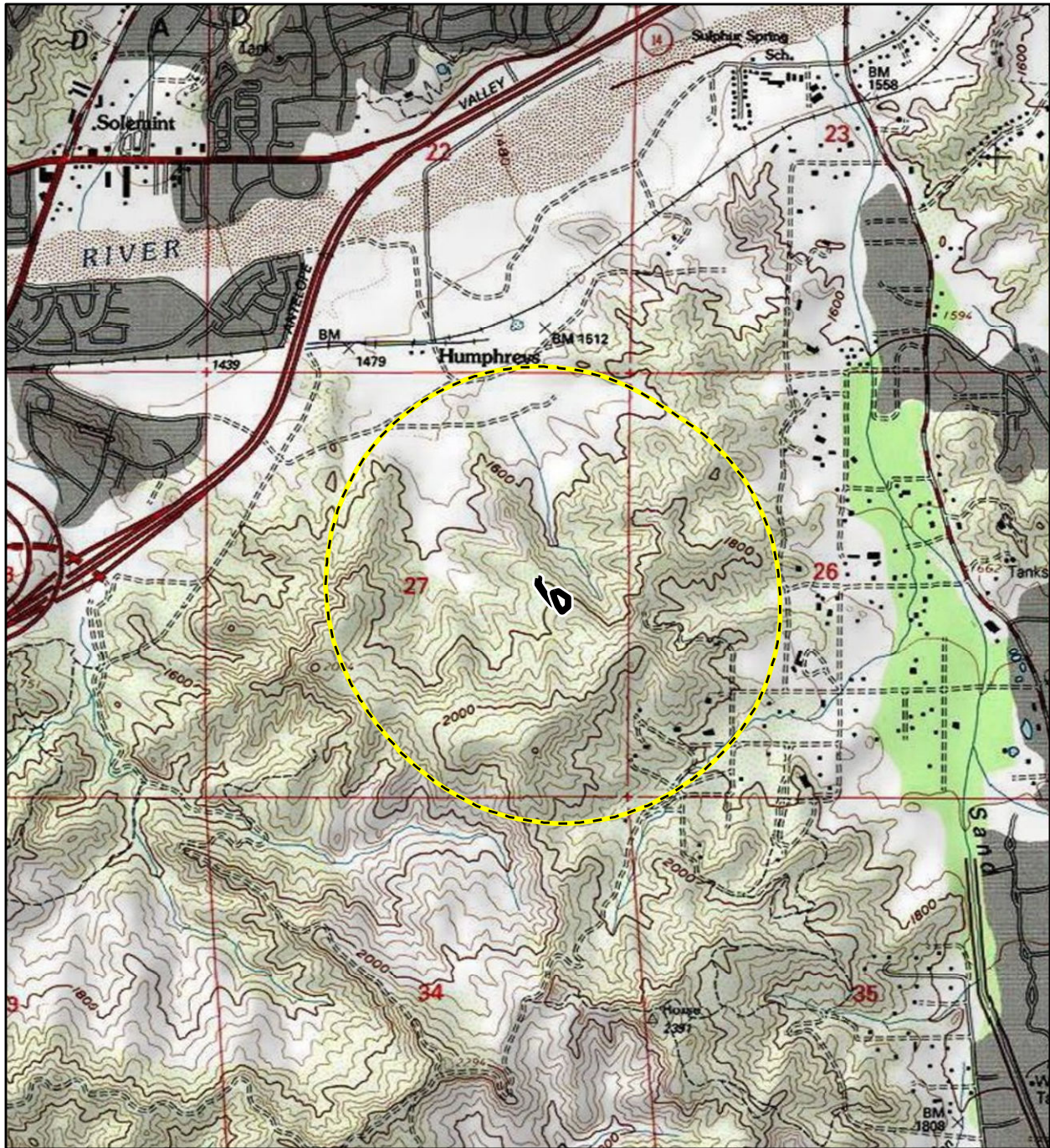
Caltrans Bridge Survey	yes <input type="checkbox"/> / no <input type="checkbox"/>
Ethnographic Information	yes <input type="checkbox"/> / no <input type="checkbox"/>
Historical Literature	yes <input type="checkbox"/> / no <input type="checkbox"/>
Historical Maps	yes <input type="checkbox"/> / no <input type="checkbox"/>
Local Inventories	yes <input type="checkbox"/> / no <input type="checkbox"/>
GLO and/or Rancho Plat Maps	yes <input type="checkbox"/> / no <input type="checkbox"/>
Shipwreck Inventory	yes <input type="checkbox"/> / no <input type="checkbox"/>
Soil Survey Maps	yes <input type="checkbox"/> / no <input type="checkbox"/>

¹ In order to receive archaeological information, requestor must meet qualifications as specified in Section III of the current version of the California Historical Resources Information System Information Center Rules of Operation Manual and be identified as an Authorized User or Conditional User under an active CHRIS Access and Use Agreement.



² "Other" Reports GIS layer consists of report study areas for which the report content is almost entirely non-fieldwork related (e.g., local/regional history, or overview) and/or for which the presentation of the study area boundary may or may not add value to a record search.

³ Includes, but is not limited to, information regarding National Register of Historic Places, California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and historic building surveys. Previously known as the HRI then as HPD, now it is known as the Built Environment Resources Directory (BERD). Electronic fees will apply at 25¢ per excel line up to 999, 10¢ following. This documentation is the source of the official status codes for evaluated resources and compiled by the Office of Historic Preservation.

⁴ Associated documentation will vary by resource. Contact the IC for further details.



Imagery provided by National Geographic Society, Esri and its licensors © 2020. Mt. Canyon Quadrangle. T04N R15W S26,27,34,35. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

-  Half-Mile Buffer
-  Area of Potential Effects



0 1,000 2,000 Feet

0 250 500 Meters

1:24,000

Records Search Map



South Central Coastal Information Center

California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542
sccic@fullerton.edu

California Historical Resources Information System
Orange, Los Angeles, and Ventura Counties

10/15/2020

Records Search File No.: 21731.7833

Courtney Montgomery
Rincon Consultants, Inc.
180 N. Ashwood Avenue
Ventura CA 93003

Re: Records Search Results for the 20-10278 Phase 2B Recycled Water Tank Project

The South Central Coastal Information Center received your records search request for the project area referenced above, located on the Mint Canyon, CA USGS 7.5' quadrangle). Due to the COVID-19 emergency, we have temporarily implemented new records search protocols. With the exception of some reports that have not yet been scanned, we are operationally digital for Los Angeles, Orange, and Ventura Counties. See attached document for your reference on what data is available in this format. The following reflects the results of the records search for the project area and a ½-mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: custom GIS maps shape files hand drawn maps

Resources within project area: 0	None
Resources within ½-mile radius: 1	SEE ATTACHED LIST
Reports within project area: 1	LA-00467
Reports within ½-mile radius: 6	SEE ATTACHED LIST

- Resource Database Printout (list):** enclosed not requested nothing listed
- Resource Database Printout (details):** enclosed not requested nothing listed
- Resource Digital Database (spreadsheet):** enclosed not requested nothing listed
- Report Database Printout (list):** enclosed not requested nothing listed
- Report Database Printout (details):** enclosed not requested nothing listed
- Report Digital Database (spreadsheet):** enclosed not requested nothing listed
- Resource Record Copies:** enclosed not requested nothing listed
- Report Copies:** enclosed not requested nothing listed
- OHP Built Environment Resources Directory (BERD) 2019:** available online; please go to https://ohp.parks.ca.gov/?page_id=30338
- Archaeo Determinations of Eligibility 2012:** enclosed not requested nothing listed
- Los Angeles Historic-Cultural Monuments** enclosed not requested nothing listed

Historical Maps: enclosed not requested nothing listed
Ethnographic Information: not available at SCCIC
Historical Literature: not available at SCCIC
GLO and/or Rancho Plat Maps: not available at SCCIC
Caltrans Bridge Survey: not available at SCCIC; please go to
<http://www.dot.ca.gov/hq/structur/strmaint/historic.htm>
Shipwreck Inventory: not available at SCCIC; please go to
http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp
Soil Survey Maps: (see below) not available at SCCIC; please go to
<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the [California Historical Resources Information System](#),

Michelle Galaz
Assistant Coordinator

Enclosures:

(X) Emergency Protocols for LA, Orange, and Ventura County BULK Processing Standards – 2 pages

(X) GIS Shapefiles – 8 shapes

(X) Resource Database Printout (list) – 1 page

(X) Report Database Printout (list) – 1 page

(X) Resource Record Copies – (all) – 3 pages

(X) Report Copies – (within project area) – 30 pages

(X) Invoice # 21731.7833

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-00467		1979	McIntyre, Michael J. and Greenwood, Roberta S.	Cultural Resource Survey of a Near Sand Canyon, Upper Santa Clara River Valley, Los Angeles County, California.	Greenwood and Associates	19-101228
LA-01369		1984	Rector, Carol H.	Cultural Resources Inventory for the 1984 and Part of 1985 California Metropolitan Project Area Public Lands Sale Program	Bureau of Land Management	19-001145
LA-01515	Paleo -	1986	Bissell, Ronald M.	Cultural Resources Assessment of the Mitchell Properties, Santa Clarita Valley Area, Los Angeles County, California	RMW Paleo Associates, Inc.	19-002651, 19-002652, 19-002653
LA-02193		1990	Romani, John F.	Archaeological Assessment for the Proposed Santa Fe Specific Plan Southeast and Adjacent to the City of Santa Clarita Los Angeles County, California	Greenwood and Associates	19-001877
LA-02442		1991	Norwood, Richard H.	Cultural Resource Survey for Tentative Tract No. 50449 12.1 Acres in Canyon Country Los Angeles County California	RT Factfinders	
LA-03690		1997	Wlodarski, Robert J.	Cultural Resources Evaluation City of Santa Clarita Circulation Element Eir	Historical, Environmental, Archaeological, Research, Team	19-000065, 19-000951
LA-04058		1998	Wlodarski, Robert J.	Cultural Resources Evaluation: Golden Valley Ranch Eir City of Santa Clarita, Los Angeles County, California	Historical, Environmental, Archaeological, Research, Team	19-002651, 19-002652, 19-002653

Attachment C

AB 52 Correspondence

From: Jairo Avila <jairo.avila@tataviam-nsn.us>
Sent: Wednesday, November 4, 2020 11:46 AM
To: Rick Vasilopoulos <rvasilopoulos@scvwa.org>
Cc: Kimia Fatehi <kfatehi@tataviam-nsn.us>
Subject: Re: SCV Water Phase 2B Supplemental MND Cultural Resources Update

CAUTION - EXTERNAL SENDER

Hello Rick,

Thank you for the opportunity to comment on the change in Project location and review environmental documents. The Tribal Historic and Cultural Preservation Department is aware of the two cultural resources within 1/2 mile of the project. However, we have no further questions nor concerns regarding the newly proposed tank location. As this Project proceeds, we do request that the previously agreed measure be included under the Tribal Cultural Resources section/consultation of the Supplemental MND (see measure below).

Mitigation Measure from 2017 IS-MNDCUL-1:

In the event that any historical, archeological or tribal cultural resources are discovered during excavation activities, work shall be stopped immediately and temporarily diverted from the vicinity of the discovery until a qualified archeologist and a member of the Fernandeano Tataviam Band of Mission Indians are notified and can identify and evaluate the importance of the find, conduct an appropriate assessment, and implement measures to mitigate impacts on significant resources.

Should you have any questions, please let me know. I appreciate your time and the opportunity to comment on this Project.

Respectfully,

Jairo F. Avila, M.A., RPA.
Tribal Historic and Cultural Preservation Officer
Cultural Resources Management Division
Tribal Historic and Cultural Preservation Department

Fernandeano Tataviam Band of Mission Indians
1019 Second Street, Suite 1
San Fernando, California 91340
Office: (818) 837-0794
Website: <http://www.tataviam-nsn.us>

From: Rick Vasilopoulos <rvasilopoulos@scvwa.org>
Sent: Wednesday, November 4, 2020 7:37 AM
To: Jairo Avila <jairo.avila@tataviam-nsn.us>
Cc: Kimia Fatehi <kfatehi@tataviam-nsn.us>
Subject: SCV Water Phase 2B Supplemental MND Cultural Resources Update

[CAUTION] EXTERNAL Email. Exercise caution.

Good Morning Jairo,

Just checking that you received all of the information you needed to make your decision whether you would like to see additional mitigation measures for our Phase 2B Project due to the change in site location?

Please let me know that you received the documents I sent over last week and that they were what you were looking for.

Thanks.

Rick Vasilopoulos
Water Resources Planner
Santa Clarita Valley Water Agency
26501 Summit Circle
Santa Clarita, CA 91350
Office: (661) 705-7912
rvasilopoulos@scvwa.org

Appendix D

Energy Calculations

SCV Water Phase 2B Tank Project

Last Updated: 10/21/2020

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors [1]:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529
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Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT						
Construction Equipment	#	Hours per Day	Horsepower	Load Factor	Construction Phase	Fuel Used (gallons)
Excavators	1	8	158	0.38	Berm Construction	507.78
Rubber Tired Dozers	1	1	247	0.4	Berm Construction	104.45
Skid Steer Loaders	1	8	65	0.37	Berm Construction	226.12
Tractors/Loaders/Backhoes	2	6	97	0.37	Berm Construction	506.17
Total Fuel Used						1,344.53

(Gallons)

Construction Phase	Days of Operation
Berm Construction	20
Total Days	20

WORKER TRIPS				
Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Berm Construction	24.4	13	14.7	156.64
Total				156.64

HAULING AND VENDOR TRIPS				
Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
HAULING TRIPS				
Berm Construction	7.5	750	20.0	2000.00
Total				2,000.00
VENDOR TRIPS				
Berm Construction	7.5	4	6.9	73.60
Total				73.60

Total Gasoline Consumption (gallons)	156.64
Total Diesel Consumption (gallons)	3,418.13

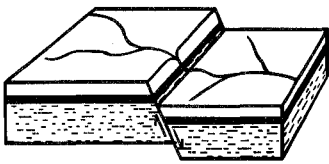
Sources:

[1] United States Environmental Protection Agency. 2018. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b*. July 2018. Available at: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100UXEN.pdf>.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2019. *National Transportation Statistics 2019*. Available at: <https://www.bts.gov/topics/national-transportation-statistics>.

Appendix E

Geotechnical Investigation



a dba of
R & R Services
Corporation

GEOLABS-WESTLAKE VILLAGE

Foundation and Soils Engineering, Geology

31119 Via Colinas, Suite 502 • Westlake Village, CA 91362

Voice: (818) 889-2562 (805) 495-2197

Fax: (818) 889-2995 (805) 379-2603

October 30, 2020

W.O. 8485

Kennedy/Jenks Consultants
1676 N. California Blvd., Suite 430
Walnut Creek, California 94596

Attention: Mr. Brandon Hale

SUBJECT: Preliminary Geotechnical Investigation,
Proposed PH2B Recycled Water Storage Tanks,
Lot 940, Tract 52833, Santa Clarita Area,
County of Los Angeles, California

Mr. Hale:

In accordance with your request, our firm has undertaken a geotechnical investigation for proposed recycled water storage tanks at the subject property. Our purpose was to evaluate the engineering characteristics and distribution of subsurface materials at the planned tank site in order to prepare geotechnical design criteria for the project.

This site is adjacent to existing water tanks constructed during the initial development of Tract 52833. A companion report is prepared under separate cover that discusses the geology and stability of this subject site (GWV 23 September 2020). The on-site geology and soil data for this site is available in the companion report. This report addresses geotechnical design criteria pertinent to the design of the subject tanks.

The design guidelines of the American Water Work Association (AWWA) D100-11 have been referenced in preparing design criteria presented in this report.

SITE DESCRIPTION AND PROPOSED IMPROVEMENTS

The subject site includes an approximately half-acre, triangular-shaped building pad that was graded atop a bedrock ridgeline between 2003 and 2006 as a part of Tract 52833. The building pad is underlain by Towsley Formation bedrock. The northeast and west edges of the pad consist of compacted fill placed as part of stability fills that descend from those sides of the pad up to 100

vertical feet at 2:1 (horizontal:vertical) gradients. A 2:1 gradient stability fill ascends from the south side of the pad approximately 30 feet to a berm that separates the building pad from the existing water tank pad. No groundwater was encountered during the field exploration for the companion report, or during grading of the water tank pads.

Based on the Grading Exhibit provided to our office by SCVWD, grading is proposed to move the berm to the north edge of the subject building pad and extend the existing level of the pad toward the south, beneath the existing berm. Two water tanks will be located in the pad area south of the new berm location. Site access is via a new driveway off the existing access road.

It is planned to construct two 0.5 million gallon (MG) recycled water storage steel tanks. Each tank will be 55 feet in diameter, with 27 feet maximum water height, and will be surrounded with asphalt pavement. Information provided by your office assigns the tanks to AWWA seismic use category 1 and ASCE 7 risk category 3. The tanks will be supported by continuous ringwall foundation. A plan showing the tank layout and other pertinent information is provided (Plate 1).

FAULTING AND SEISMICITY

The subject site contains no known active or potentially active faults, nor is it within a State-mandated Earthquake Fault Zone. Therefore, the potential for fault generated ground rupture is considered to be very low. However, the property is situated within the seismically active Southern California region and significant ground shaking is likely to occur due to earthquakes caused by movement along nearby faults.

SEISMIC GROUND MOTION VALUES – (MAPPED)

This report includes preliminary seismic ground motion values in accordance with AWWA Standard D100-11, which follows the methodology of ASCE Standard 7-16. Seismic ground motion values were determined using the U.S. Seismic Design Maps website (<https://seismicmaps.org>) provided by OSHPD and SEA. These seismic design maps present data for a maximum considered earthquake ground motion, defined by an earthquake with a 2 percent probability of exceedance within a 50-year return period (recurrence interval of 2,475 years). The site class at the project location is considered to be Site Class C – very dense soil and soft rock. Tanks are assigned to AWWA seismic use category 1, and ASCE 7-16 risk category III. Output from these analyses are provided in Appendix B and summarized herein.

Latitude: 34.4014° Longitude: -118.435°	Factor/Coefficient	Value
Site Profile Type	Site Class	C
Short-Period MCE at 0.2s	S_s	2.226
1.0s Period MCE	S_1	0.803
Site Coefficient	F_a	1.2
Site Coefficient	F_v	1.4
Adjusted MCE Spectral Response Parameters	S_{ms}	2.671
	S_{m1}	1.124
Design Spectral Acceleration Parameters	S_{DS}	1.781
	S_{D1}	0.749
Long-Period Transition Period	T_L	8.0 sec
Peak Ground Acceleration	PGA_M	1.13

AWWA D100-11 defines the vertical design acceleration (A_v) for use in design of the tank and anchorage to be equal to $0.14 S_{DS}$ with some exceptions. Based on the mapped seismic ground motion value S_{DS} of 1.781, the vertical design acceleration using this methodology is considered to be 0.258g.

The mean earthquake magnitude was approximated using the USGS Unified Hazard Tool website (<https://earthquake.usgs.gov/hazards/interactive/index.php>). The deaggregated mean earthquake magnitude is estimated at $M=6.93$ with a mean source distance of 7.75 km.

DISCUSSION AND RECOMMENDATIONS

Data from our field exploration and laboratory testing in the companion report, along with engineering analyses are the bases for the following discussion. Design criteria, based upon the presently available data, are presented for your consideration. The project is feasible from a geotechnical stand point provided the considerations addressed herein and in the companion report are incorporated in the design and construction.

Document AWWA D100-11 discusses five foundation types for ground-supported flat-bottomed tanks, such as those planned for this project. Initial design documents and discussions with your office addressed tanks using Type 1 support consisting of the tank supported on ringwall footings. From a geotechnical perspective, this foundation type appears appropriate for the geotechnical and geologic site conditions.

GRADING-ENGINEERED FILLS

Rough grading is anticipated to be completed as part of this project and is discussed in detail in the companion soil report. Fine grading for pad drainage, establishing pavement subgrade, etc. will be a part of the tank construction project.

The following recommendations pertain to, preparation for, and placement of, engineered fill to support the water tanks;

1. The on-site earth materials are suitable for use as engineered fill. Any import materials that are to be used as structural fill should be approved by this office prior to placement.
2. All vegetation, trash, debris, or other deleterious material should be stripped from the area to be graded and wasted from the site.
3. Exposed surfaces should be scarified, moistened or air dried as appropriate, and compacted to at least 95% of the material's maximum dry density prior to placement of fill.
4. Fill materials to support the water tanks should be placed in thin lifts not to exceed eight inches in thickness prior to compaction, watered to near the material's optimum moisture content, and compacted to at least 95% of the material's maximum dry density prior to placing the next lift.

EXPANSIVE SOILS

Some of the near-surface soils on the site are expansive. Mitigation options typically include such options as: (1) design foundations to penetrate or resist the expansive soils (deep foundations), (2) design for the expansive condition (methods such as Post-Tension-Institute), (3) removal of expansive soil, or (4) stabilization of expansive soil. Considering the type of construction and our experience with expansive soils in this area, design criteria have been presented for pre-saturation of the supporting subgrade soils. In consultation with the design team, mitigation option 3 is the preferred option for this project. Any future site improvements (flatwork, walls, landscaping, etc.) should be designed to accommodate the expansive characteristics of the soil. A final testing for expansion indices should be performed for each structural area at the conclusion of grading.

Subgrades for footings and slab-on-grade should be pre-saturated in accordance with the requirements of the local governing agency prior to placing concrete. Pre-saturation of

expansive soils should begin no less than two days prior to the anticipated time of concrete placement. Use of detergent or "thin water" may facilitate moisture penetration.

FOUNDATIONS

A continuous ringwall footing may be used to support the proposed tank walls, while steel plates in the tank bottom typically distribute roof loads with, or without, columns. The ring wall footings should be founded a minimum of 36 inches into the bedrock or engineered fill (not partially in each), with the concrete placed against in-place, undisturbed, engineered fill material. Foundation design criteria are based, in part, upon the expansive properties of the materials anticipated to be present near the pad grade.

FOUNDATION DESIGN PARAMETER	DESIGN CRITERIA	UNITS	NOTES
	EI=21-50		
Pre-Saturation depth below pad subgrade	21	in	
Allowable Bearing Capacity (net) (FS>3)	3000	psf	1
Allowable Lateral Resistance (FS=1.5)	400	psf/ft	1,2
Maximum Allowable Lateral Resistance	2000	psf	1,2
Coefficient of Friction (FS=1.0)	0.35		
Minimum Embedment Below Adjacent Grade			
Ring Ftg	36	in	4
Misc. Appurtenances	18	in	4
Minimum Reinforcement	2 - #4, 1 near top and 1 near bottom		
TANK BEDDING			
Minimum Bedding Thickness	4 in. Oiled Sand On 6 in. CAB	in	
NOTES			
1) May be increased by 1/3 for short duration loading such as by wind or seismic forces.			
2) Decrease by 1/3 when combined with friction.			

SETTLEMENT

The planned foundations will bear on in-place compacted engineered fill soils. The anticipated maximum total static settlement is on the order ¾ inch at the center of the tank. The differential settlement between the center of the tank and the side of the tank may be assumed to be on the order of ½ inch.

CORROSION POTENTIAL

For structural elements, a site is considered to be corrosive if one or more of the following conditions exist for the representative soil samples taken at the site: Chloride concentration is 500 ppm or greater, sulfate concentration is 2000 ppm or greater, or the pH is 5.5 or less (Caltrans, 2015; GMED, 2013). For structural elements, the minimum resistivity of soil and/or water indicates the relative quantity of soluble salts present in the soil or water. In general, a minimum resistivity value for soil and/or water less than 1000 ohm-cm indicates the presence of high quantities of soluble salts and a higher propensity for corrosion.

At the completion of the original rough grading corrosion testing was performed (GWV, 30 June 2006). Those resistivity results indicate resistivity of saturated samples to be in the range of 580 to 790 ohm-cm. Soluble sulfate test results yielded concentrations of 0.01 to 0.45 percent by mass. This level of soluble sulfate ranges from the S0 to the S2 exposure class per Table 19.3.1.1 of ACI 318-14. Chlorides were 20 to 50 ppm or less. The pH was determined to range from 7.6 to 8.2.

Based on these results, the on-site soil does meet some of the corrosion criteria. The on-site soils are considered corrosive to structural elements based on the aforementioned definition. Corrosion potential of the soils will be re-evaluated when the tank pad elevation has been established.

Temporary Excavations

The materials encountered in the geotechnical investigation are considered to be type "C" soils using the OSHA classification system. Cal/OSHA requires the contractor be responsible for providing a "competent person" to evaluate soil conditions. During construction the soil conditions and classification should be confirmed by the "competent person". The excavations should also be observed by the geotechnical consultant. Supplemental geotechnical recommendations may be warranted if soil or groundwater conditions vary from those encountered anticipated in this report.

Excavation for utility trenches will require temporary excavations. Excavation temporary works are typically the responsibility of the contractor to design, install, maintain, and monitor. Temporary excavations may be considered stable if cut vertical, providing they are restricted to

a maximum of 5 feet in height, are provided with permanent support as soon as possible, and are protected from erosion and saturation. Portions of temporary excavations in excess of 5 feet high should be laid down to 1.5:1 unless specific alternative treatments, such as shoring or shielding, are evaluated and found acceptable. Spatial restrictions, if present along the alignment may limit the viability of sloping.

Utility Trench Bedding and Backfill

Utility trench bedding and backfill should comply with the SCVWA trench detail standard drawing 101. This trench detail requires six inches of sand bedding below the pipe. The sand should extend to 12 inches minimum over the top of pipe. The sand should be compacted prior to placing soil backfill. The native material is appropriate for use as trench backfill. The material should be free of deleterious material and rocks greater than 6 inches in any dimensions within the depth zone between the bedding up to one foot below the pavement subgrade. Rocks greater than 2½ inches should not be permitted in the upper one foot of the pavement subgrade. Backfill should not be compacted by means of jetting. Backfill should be placed in lifts not exceeding three feet in thickness and compacted by mechanical means in accordance with SSPWC 306-12.3. Backfill for utility trench excavations should be moisture conditioned to at least the optimum moisture and compacted to at least 90% relative compaction in unpaved areas and 95% relative compaction in paved areas. Where installed in sloping areas, the backfill should be properly keyed and benched. Compaction should be tested at least every 100 linear feet. Standard drawing 101 calls for any pipe with less than three feet of cover to be backfilled with one sack slurry per SSPWC Greenbook Standards (latest edition) from invert to subgrade.

PAVEMENT SECTION DESIGN

Final pavement structural sections will be evaluated when the pavement subgrade elevation has been achieved. For preliminary purposes, the following pavement structural sections are provided. Concrete section design utilizes a modulus of subgrade reaction of 150 pci and concrete with a minimum compressive strength of 2500 psi. The following tables present the pavement section recommendations.

AC PAVEMENT RECOMMENDATION

	Thickness of Asphalt Concrete (inches)	Thickness of Crushed Aggregate Base (inches)
Access Pavement at Tank4	3.0	6.0

CONCRETE PAVEMENT RECOMMENDATION

Assumed Traffic Category (per ACI 330R)	Thickness of Concrete (inches)	Thickness of Crushed Aggregate Base (inches)
Entrance and Exterior Lanes – Category C	6.75	4.0

The upper 12 inches of the subgrade soil should be compacted to at least 90% relative compaction. Base materials should be compacted to at least 95% relative compaction.

R-value tests should be performed at the completion of grading and final pavement section designs should be developed at that time.

DRAINAGE

Positive drainage should be established to carry pad waters away from the tank foundations, and to prevent uncontrolled or sheet flow over manufactured slopes. We recommend as steep a gradient as practical be established around the structures. Fine-grade fills placed to create pad drainage should be compacted in order to retard infiltration of surface water.

SERVICES DURING CONSTRUCTION

Grading, foundation, retaining wall or other plans should be forwarded to our office for review as they are developed. We may offer additional discussion and/or design criteria as warranted.

Placement of all fill and backfill should be monitored by representatives of this office. This includes our observation of prepared bottoms prior to filling.

Backfill for utility should be tested per the requirements in SCVWA Standard Drawing 101. Daily compaction reports must be provided to Agency's inspector or representative.

Foundation excavations should be observed by representatives of this office to see if the recommended penetration of proper supporting strata has been achieved. Such observations

should be made prior to placing concrete, steel or forms. This office should be notified at least 24 hours prior to placing concrete.

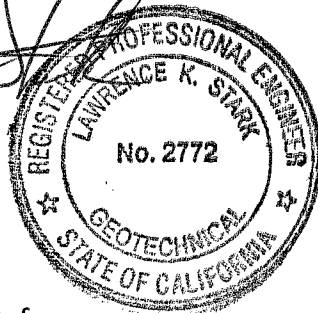
CLOSURE


This geotechnical report has been prepared in accordance with generally accepted engineering practices at this time and location. No other warranties, either express or implied, are made as to the professional advice provided under the terms of our agreement and included in this report.

Thank you for this opportunity to be of service. Please do not hesitate to call if you have any questions regarding this report.

Respectfully submitted,
GEOLABS-WESTLAKE VILLAGE


Lawrence K. Stark
G.E. 2772

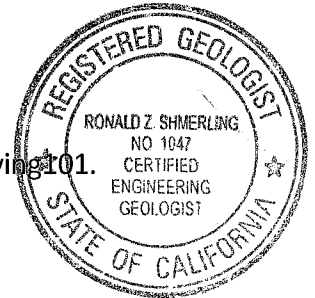



Ronald Z. Shmerling
C.E.G. 1047
R.C.E. 35444



LKS: af

- Enclosures:
- References R1
 - Site Map Plate 1
 - Trench Detail SCVWA Standard Drawing 101.
 - Seismicity Appendix A



XC: (2) Addressee

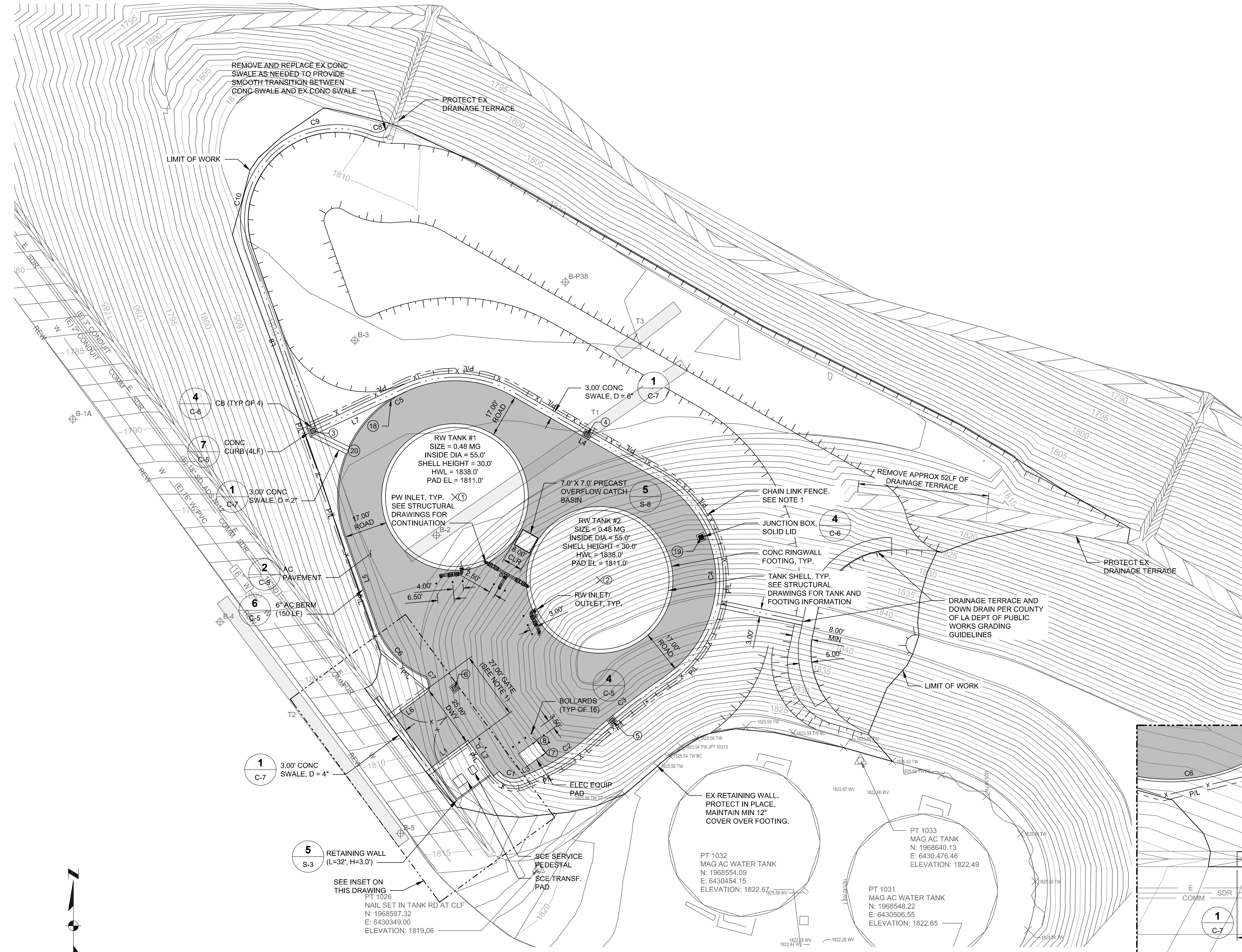
REFERENCES:

American Water Works Association, July 1, 2011; AWWA Standard for Welded Carbon Steel Tanks for Water Storage. ANSI/AWWA D100-11

Geolabs – Westlake Village, June 29, 2004; Geotechnical Report for Proposed Water Reservoir Site, Portions of Lots 94 and 95 of Tr. 52833, Phase 3B of Fair Oaks Ranch, Santa Clarita Area, County of Los Angeles, California.

..., June 30, 2006; Supervised Final Compacted Fill and Geologic Report for Water Reservoir Site, Lots 94 and 95 and a Portion of Lot 90 (Open Space Lot), of Tr. 52833, Phase 3B of Fair Oaks Ranch, Santa Clarita Area, County of Los Angeles, California.

..., September 23, 2020; Preliminary Geotechnical Investigation, Proposed Vista Canyon Recycled water Tanks (Phase 2), Lot 940 of Tract 52833, Santa Clarita Area, County of Los Angeles, California.

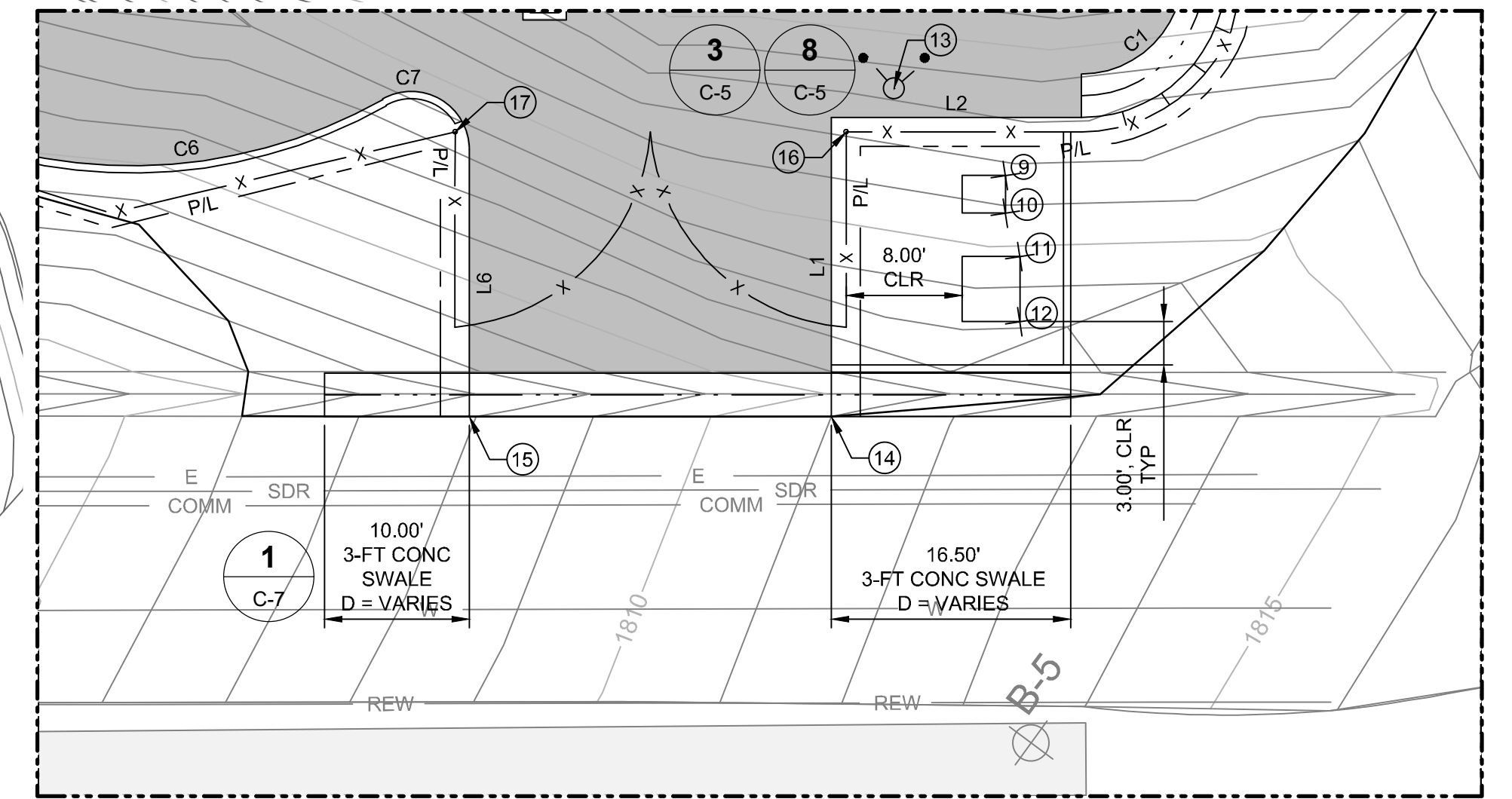


- NOTES:**
1. CHAIN-LINK FENCE AND DRIVE GATE. HEIGHT = 7 FEET, WITH 3 STRANDS OF BARBED WIRE ON 45° ARMS (FACING OUTWARD), PER SPPWC STANDARD PLAN 600-3 (2012).
 2. SEE STRUCTURAL DRAWINGS FOR TANK STAIRS AND BRIDGE BETWEEN TANK #1 AND #2.
 3. SEE STRUCTURAL DRAWINGS FOR CONTINUATION OF PW TANK INLET PIPING AND TANK OVERFLOW PIPING TO OVERFLOW CATCH BASIN.

Point Table			
Point #	Description	Northing	Easting
1	CENTER OF TANK #1	1968744.41	6430315.93
2	CENTER OF TANK #2	1968711.60	6430373.20
3	CENTER OF CB #1	1968770.61	6430259.75
4	CENTER OF CB #2	1968769.22	6430368.17
5	CENTER OF CB #3	1968655.84	6430378.09
6	CENTER OF CB #4	1968668.86	6430315.85
7	CORNER OF ELEC EQUIP PAD	1968643.21	6430351.78
8	CORNER OF ELEC EQUIP PAD	1968648.05	6430348.22
9	CORNER OF SCE SERVICE PAD	1968635.97	6430324.84
10	CORNER OF SCE SERVICE PAD	1968634.43	6430322.75
11	CORNER OF SCE TRANSF PAD	1968631.85	6430320.92
12	CORNER OF SCE TRANSF PAD	1968629.19	6430317.30
13	FIRE HYDRANT	1968645.73	6430325.12
14	TIE-IN TO EX RD	1968635.78	6430304.31
15	TIE-IN TO EX RD	1968655.93	6430289.50
16	GATE POST	1968646.61	6430320.75
17	GATE POST/END AC BERM	1968668.37	6430304.77
18	START AC BERM	1968782.80	6430290.58
19	CENTER OF JUNCTION BOX	1968728.45	6430413.38
20	CL OF CONC SWALE	1968762.77	6430273.75

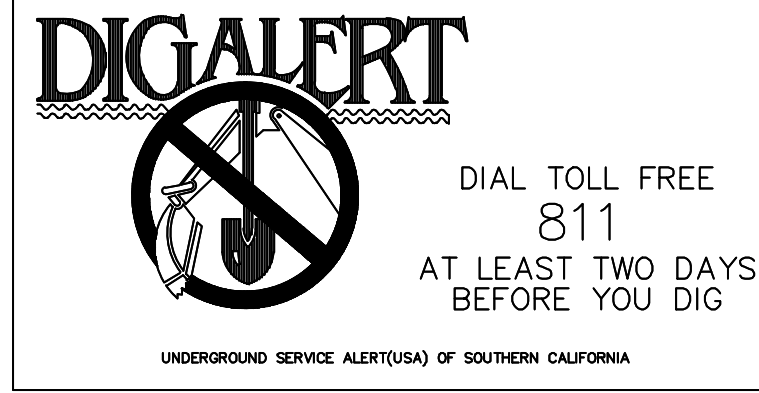
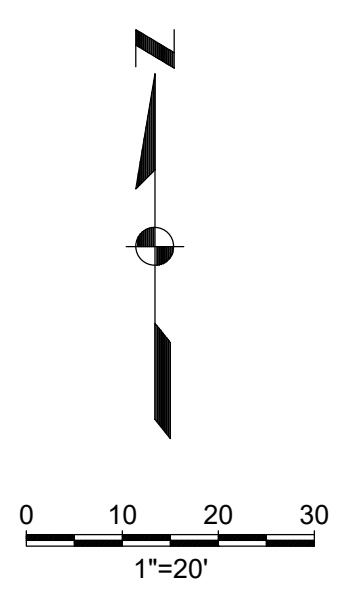
Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	9.27	7.00	75.89	S74° 15' 45"E	8.61
C2	26.54	77.00	19.75	N57° 55' 05"E	26.41
C3	39.71	303.00	7.51	N51° 47' 55"E	39.68
C4	92.93	46.00	115.75	N2° 19' 11"W	77.91
C5	111.71	46.00	139.15	S50° 14' 05"W	86.21
C6	28.50	35.00	46.65	S42° 39' 44"E	27.72
C7	8.35	4.00	119.67	N6° 09' 06"W	6.92
C8	7.58	5.00	86.81	S68° 14' 46"W	6.87
C9	45.07	38.00	67.96	S77° 40' 25"W	42.48
C10	41.81	38.00	63.03	S12° 10' 39"W	39.73

Line Table		
Line #	Length	Direction
L1	20.66	S53° 40' 59.66"W
L2	17.25	S36° 19' 00.34"E
L3	4.09	S67° 47' 31.28"W
L4	66.00	N60° 11' 33.04"W
L5	37.18	S19° 20' 16.42"E
L6	18.43	S53° 40' 59.66"W
L7	38.61	S64° 58' 38.03"W
L8	74.05	N19° 20' 15.95"W



INSET

PLAN



REVISIONS			
NO.	DESCRIPTION	APP.	DATE

PLANS PREPARED BY:
 Kennedy Jenks
 2775 N. VENTURA ROAD, #100
 OXNARD, CA. 93036
 (805) 973-5700

CHECKED BY:
 BRENT PAYNE, PRINCIPAL ENGINEER DATE
 RECOMMENDED BY:
 KEITH ABERCROMBIE, CHIEF OPERATING OFFICER DATE
 APPROVED BY: SANTA CLARITA VALLEY WATER AGENCY
 BRIAN J. FOLSOM, CHIEF ENGINEER DATE

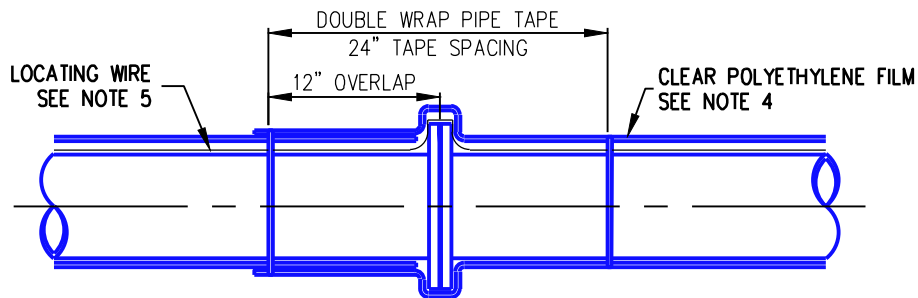
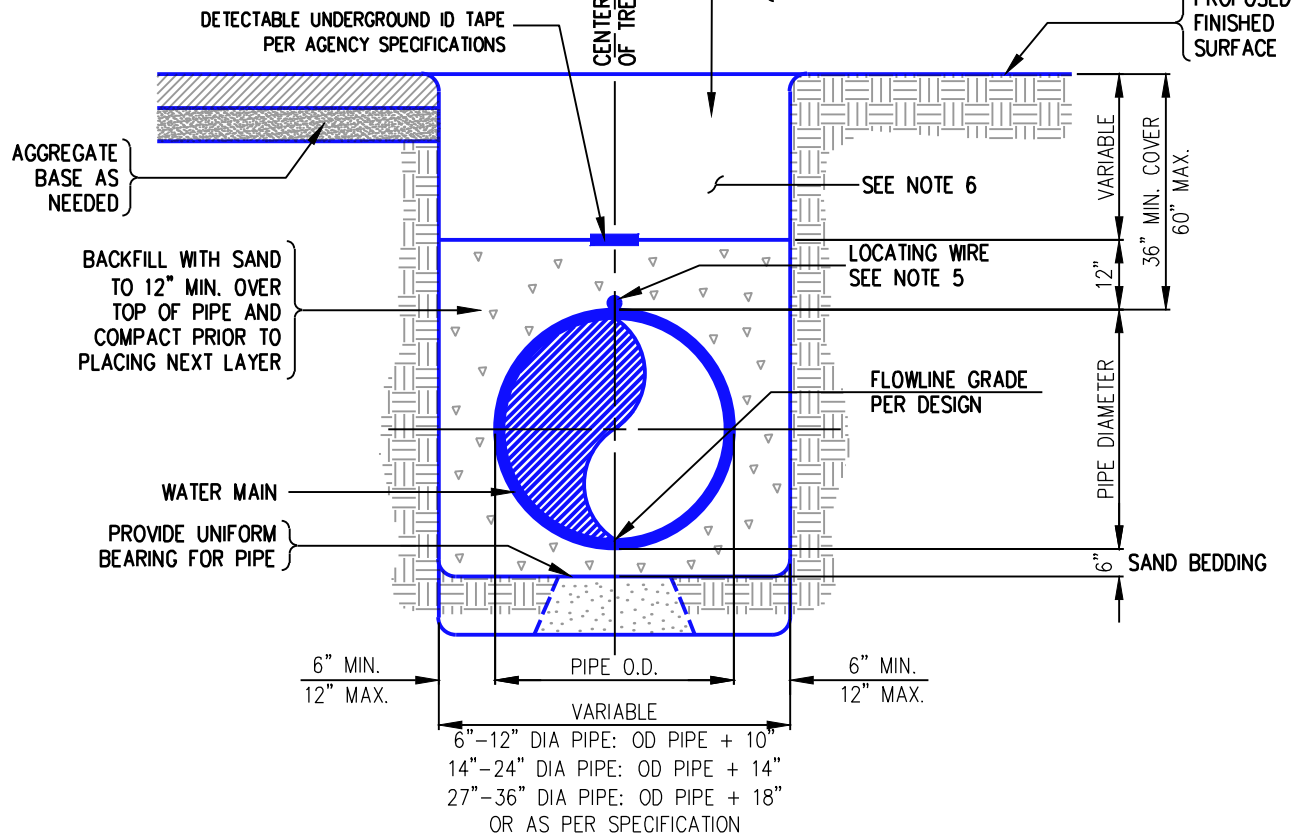
SANTA CLARITA VALLEY WATER AGENCY
ENGINEERING SERVICES SECTION
26521 SUMMIT CIRCLE
SANTA CLARITA, CA. 91350
(661) 259-2737

LOT 940, TRACT NO. 52833
 PHASE 2B RECYCLED WATER TANKS AT CHERRY WILLOW
 SANTA CLARITA, CALIFORNIA
 UNINCORPORATED COUNTY OF LOS ANGELES
SITE AND PAVING PLAN

DATE: 08-31-2020
 SCALE: 1"=XX'
 PROJECT NO. 2044231-00
 DRAWN BY: ---
 CHECKED BY: ---
 SHEET: C-2
 PLATE 1

PAVEMENT REPLACEMENT FOR ROADWAYS, SIDEWALKS, AND DRIVEWAYS SHALL MATCH EXISTING ROAD SECTION AND COMPLY WITH LA COUNTY, CALTRANS, OR CITY OF SANTA CLARITA PAVEMENT REQUIREMENTS

BALANCE OF TRENCH TO BE BACKFILLED WITH MATERIAL FROM EXCAVATION IN LAYERS NOT EXCEEDING 3' IN DEPTH PER SOILS ENGINEER AND TESTING AT LEAST EVERY 100 LINEAR FEET



NOTES:

1. ALL PAVEMENT SHALL BE CUT NEATLY PRIOR TO TRENCHING.
2. IMPORTED BACKFILL MATERIAL TO BE INSTALLED AS DIRECTED IN THE FIELD BY THE AGENCY'S INSPECTOR.
3. ALL MATERIALS SUPPLIED BY SCV WATER OR OTHERS SHALL MEET OR EXCEED AWWA SPECIFICATIONS.
4. ENCASE FERROUS OR METALLIC PIPE AND FITTINGS WITH ONE LAYER OF CLEAR 8-MIL POLYETHYLENE FILM.
5. LOCATING WIRE MUST BE HMWPE 12 GAUGE AND SHALL BE INSTALLED ON ALL PIPE. ATTACH WIRE WITH 2" WIDE TAPE AND TAPED AT 12" INTERVALS.
6. COMPACT BACKFILL TO 95% RELATIVE COMPACTION WHEN PIPE IS IN PAVED AREAS AND COMPACT TO 90% RELATIVE COMPACTION WHEN PIPE IS IN UNPAVED AREAS.
7. PROVIDE HAND EXCAVATABLE ONE SACK SLURRY PER GREENBOOK STANDARDS (LATEST EDITION) FOR ANY PIPE WITH LESS THAN 3' COVER. BACKFILL WITH ONE SACK SLURRY FROM INVERT TO SUBGRADE.
8. 12" MINIMUM VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN WATER MAIN AND ALL OTHER UTILITIES.
9. WATER MAIN DEPTH SHALL BE 60" MAXIMUM AND 36" MINIMUM UNLESS OTHERWISE DIRECTED BY THE AGENCY.
10. COMPACTION REPORTS MUST BE PROVIDED DAILY TO AGENCY'S INSPECTOR OR AGENCY REPRESENTATIVE.

TRENCH DETAIL



SANTA CLARITA VALLEY WATER AGENCY
ENGINEERING SERVICES SECTION

APPROVED BY:

Brian J. Folsom

BRIAN J. FOLSOM, R.C.E. 44723
CHIEF ENGINEER

5/15/19

DATE

STD. DWG.
101

SHEET 1 OF 1

REV.	DATE	DESCRIPTION	BY

APPENDIX A
SEISMICITY

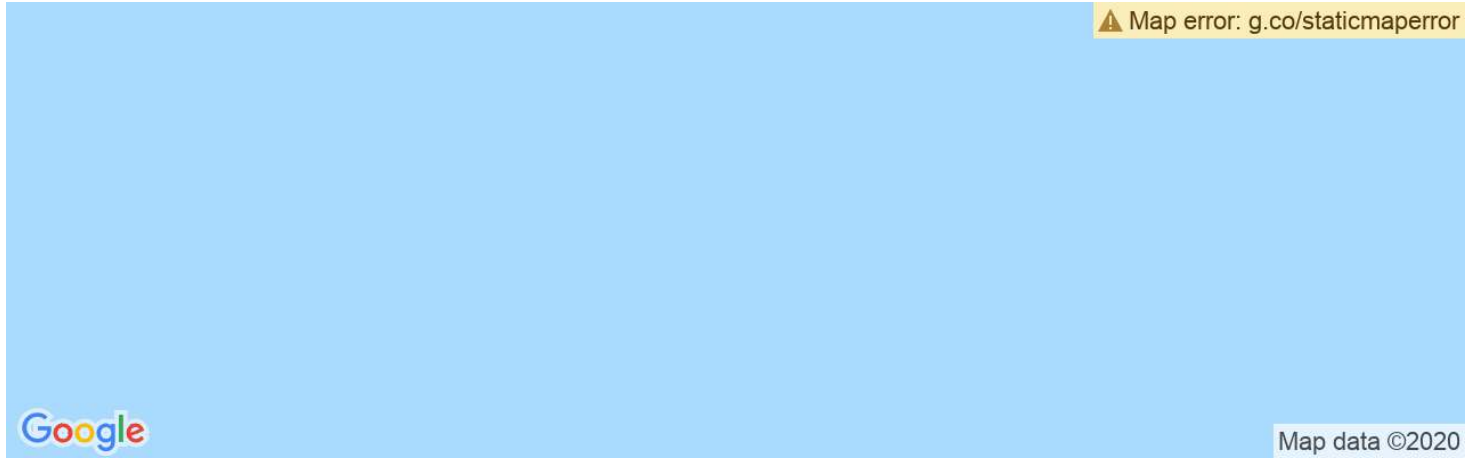
October 30, 2020
W.O. 8485



Proposed Water Tanks, Lot 94-95, Tract 52833

Latitude, Longitude: 34.4014, -118.4.35

Map error: g.co/staticmaperror




Date	8/28/2020, 10:44:20 AM
Design Code Reference Document	ASCE7-16
Risk Category	III
Site Class	C - Very Dense Soil and Soft Rock

Type	Value	Description
S_S	2.226	MCE_R ground motion. (for 0.2 second period)
S_1	0.803	MCE_R ground motion. (for 1.0s period)
S_{MS}	2.671	Site-modified spectral acceleration value
S_{M1}	1.124	Site-modified spectral acceleration value
S_{DS}	1.781	Numeric seismic design value at 0.2 second SA
S_{D1}	0.749	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	E	Seismic design category
F_a	1.2	Site amplification factor at 0.2 second
F_v	1.4	Site amplification factor at 1.0 second
PGA	0.942	MCE_G peak ground acceleration
F_{PGA}	1.2	Site amplification factor at PGA
PGA_M	1.13	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
S_{sRT}	2.226	Probabilistic risk-targeted ground motion. (0.2 second)
S_{sUH}	2.456	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
S_{sD}	2.492	Factored deterministic acceleration value. (0.2 second)
S_{1RT}	0.803	Probabilistic risk-targeted ground motion. (1.0 second)
S_{1UH}	0.894	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S_{1D}	0.869	Factored deterministic acceleration value. (1.0 second)
PGA_d	1.023	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.906	Mapped value of the risk coefficient at short periods
C_{R1}	0.898	Mapped value of the risk coefficient at a period of 1 s

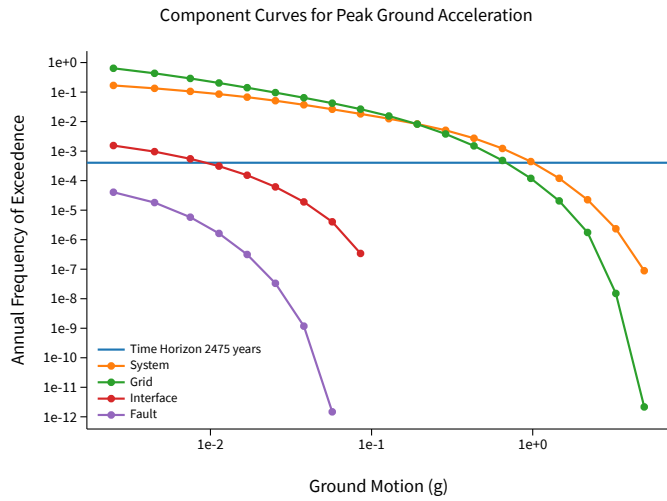
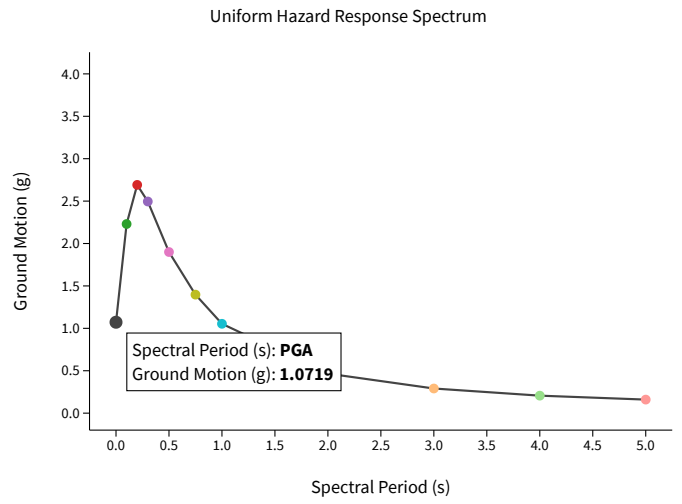
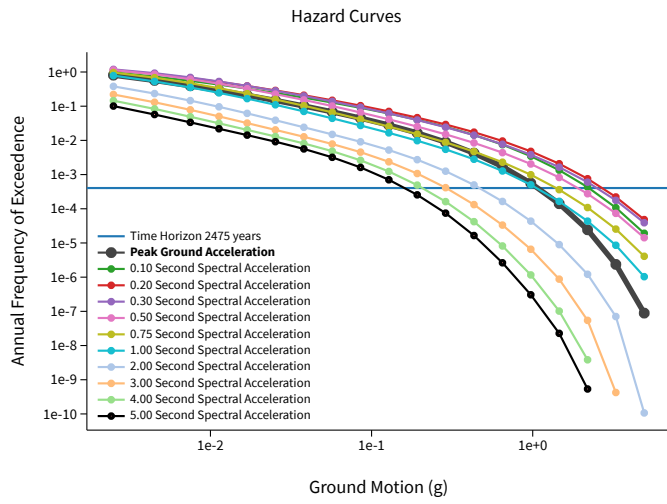
Unified Hazard Tool

 Please do not use this tool to obtain ground motion parameter values for the design code reference documents covered by the [U.S. Seismic Design Maps web tools](#) (e.g., the International Building Code and the ASCE 7 or 41 Standard). The values returned by the two applications are not identical.

^ Input

Edition Dynamic: Conterminous U.S. 2014 (update) (v4.2.0)	Spectral Period Peak Ground Acceleration
Latitude Decimal degrees 34.4014	Time Horizon Return period in years 2475
Longitude Decimal degrees, negative values for western longitudes -118.435	
Site Class 537 m/s (Site class C)	

^ Hazard Curve

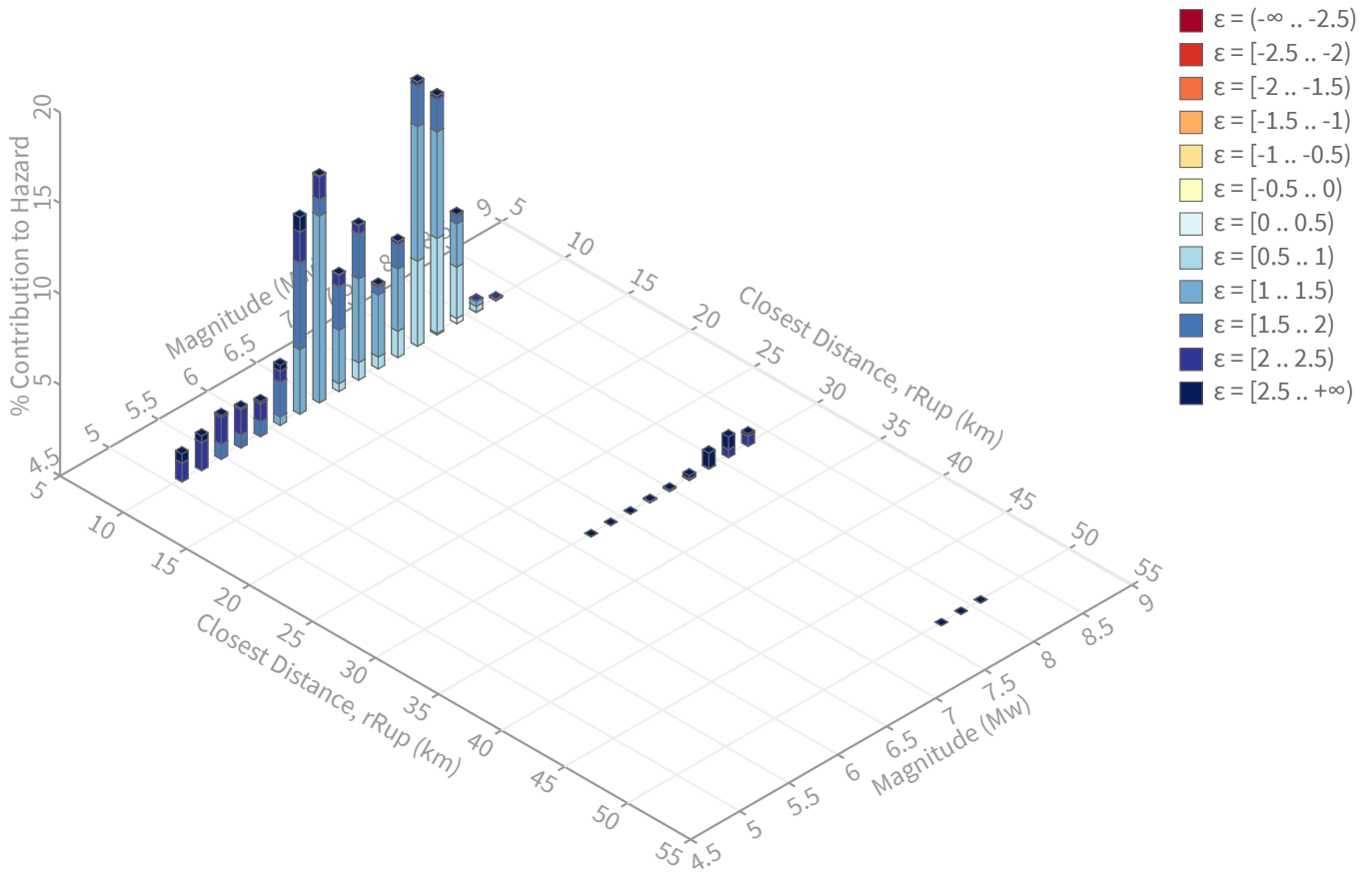


[View Raw Data](#)

^ Deaggregation

Component

Total



Summary statistics for, Deaggregation: Total

Deaggregation targets

Return period: 2475 yrs
Exceedance rate: 0.0004040404 yr⁻¹
PGA ground motion: 1.0719359 g

Totals

Binned: 100 %
Residual: 0 %
Trace: 0.04 %

Mode (largest m-r bin)

m: 7.51
r: 7.78 km
ε₀: 1.16 σ
Contribution: 14.53 %

Discretization

r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ

Recovered targets

Return period: 2891.8786 yrs
Exceedance rate: 0.00034579598 yr⁻¹

Mean (over all sources)

m: 6.93
r: 7.75 km
ε₀: 1.45 σ

Mode (largest m-r-ε₀ bin)

m: 6.46
r: 5.58 km
ε₀: 1.3 σ
Contribution: 10.27 %

Epsilon keys

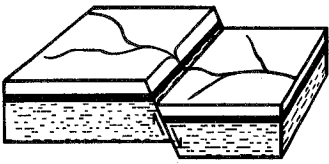
ε0: [-∞ .. -2.5)
ε1: [-2.5 .. -2.0)
ε2: [-2.0 .. -1.5)
ε3: [-1.5 .. -1.0)
ε4: [-1.0 .. -0.5)
ε5: [-0.5 .. 0.0)
ε6: [0.0 .. 0.5)
ε7: [0.5 .. 1.0)
ε8: [1.0 .. 1.5)
ε9: [1.5 .. 2.0)
ε10: [2.0 .. 2.5)
ε11: [2.5 .. +∞]

Deaggregation Contributors

Source Set	Source	Type	r	m	ϵ_0	lon	lat	az	%
UC33brAvg_FM32		System							50.36
	Santa Susana alt 2 [1]		6.47	6.85	1.23	118.438°W	34.336°N	182.24	24.34
	Santa Susana alt 2 [2]		7.35	6.95	1.41	118.477°W	34.336°N	207.56	7.72
	Sierra Madre (San Fernando) [2]		8.09	7.62	0.98	118.421°W	34.312°N	172.62	5.03
	San Gabriel [2]		2.52	7.37	0.96	118.442°W	34.384°N	197.60	3.65
	San Gabriel [1]		2.81	7.13	1.00	118.432°W	34.380°N	173.42	2.52
	Mission Hills 2011 [0]		11.37	7.14	1.66	118.455°W	34.287°N	188.10	1.73
	San Andreas (Mojave S) [2]		27.35	8.08	2.55	118.314°W	34.626°N	23.85	1.33
	Northridge Hills [0]		9.55	7.49	1.08	118.503°W	34.269°N	203.05	1.30
	Northridge [3]		12.14	7.42	1.88	118.460°W	34.325°N	194.93	1.30
UC33brAvg_FM31		System							31.79
	Sierra Madre (San Fernando) [2]		8.09	7.53	1.03	118.421°W	34.312°N	172.62	9.13
	Santa Susana alt 1 [0]		8.72	7.32	1.47	118.494°W	34.334°N	215.80	7.00
	San Gabriel [2]		2.52	7.49	0.95	118.442°W	34.384°N	197.60	4.45
	Mission Hills 2011 [0]		11.37	6.46	1.88	118.455°W	34.287°N	188.10	2.78
	San Gabriel [1]		2.81	6.47	1.24	118.432°W	34.380°N	173.42	1.89
	Northridge [3]		12.14	7.38	1.87	118.460°W	34.325°N	194.93	1.59
	San Andreas (Mojave S) [2]		27.35	8.08	2.55	118.314°W	34.626°N	23.85	1.33
	Northridge Hills [0]		9.55	7.40	1.09	118.503°W	34.269°N	203.05	1.20
UC33brAvg_FM31 (opt)		Grid							8.99
	PointSourceFinite: -118.435, 34.433		6.07	5.77	1.93	118.435°W	34.433°N	0.00	2.25
	PointSourceFinite: -118.435, 34.433		6.07	5.77	1.93	118.435°W	34.433°N	0.00	2.25
	PointSourceFinite: -118.435, 34.451		7.00	5.89	2.05	118.435°W	34.451°N	0.00	1.72
	PointSourceFinite: -118.435, 34.451		7.00	5.89	2.05	118.435°W	34.451°N	0.00	1.72
UC33brAvg_FM32 (opt)		Grid							8.86
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	PointSourceFinite: -118.435, 34.433		6.10	5.74	1.95	118.435°W	34.433°N	0.00	2.48
	PointSourceFinite: -118.435, 34.451		7.01	5.88	2.06	118.435°W	34.451°N	0.00	1.45
	PointSourceFinite: -118.435, 34.451		7.01	5.88	2.06	118.435°W	34.451°N	0.00	1.45

Appendix F

Slope Stability Report



a dba of
R & R Services
Corporation

GEOLABS - WESTLAKE VILLAGE

Foundation and Soils Engineering, Geology

31119 Via Colinas, Suite 502 • Westlake Village, CA 91362

Voice: (818) 889-2562 (805) 495-2197

Fax: (818) 889-2995 (805) 379-2603

October 30, 2020

W.O. 8485

SCV Water
26521 Summit Circle
Santa Clarita, California 91350

Attention: Orlando Moreno

SUBJECT: Preliminary Geotechnical Investigation,
Proposed Phase 2B Recycled Water Tanks at Cherry Willow,
Lot 940 of Tract 52833,
Santa Clarita Area, County of Los Angeles, California

Mr. Moreno:

In accordance with your request, Geolabs – Westlake Village (GWV) has undertaken a study of the geotechnical conditions at the subject property (Plate 1.1). Our purpose was to evaluate the distribution and engineering characteristics of the earth materials that occur at the site in order to provide geotechnical design criteria for grading of the proposed development.

This site is adjacent to existing water tanks constructed during the initial development of Tract 52833. A companion report is prepared under separate cover that addresses geotechnical design criteria pertinent to the design of the subject tanks (GWV 24 September 2020).

The scope of work for this project included the following tasks:

- review of previous exploration, testing, and reports for the subject site
- review of the Grading Plans prepared by Kennedy Jenks
- drilling, sampling, and logging of six LoDril borings (WB1A through WB5)
- excavation, sampling, and logging of three backhoe trenches (T1 through T3)
- laboratory testing of select samples
- soils engineering analyses
- and preparation of this report.

Field data and the approximate locations of exploratory excavations are shown on the enclosed Geologic Maps (Plates 1.2 & 1.3). Plate 1.2 uses the grading plan sheet as a base and was drawn at 1"=20' scale; while Plate 1.3 includes all adjacent areas that affect the subject site and was drawn at 1"=40' scale. Cross sections shown on the geologic maps are presented on Plates 2.1 to 2.7. The WT series cross sections were drawn at 1"=40' scale. Plates 2.1 through 2.4 illustrate subsurface geologic information. Plates 2.2E

through 2.4E illustrate the subsurface model used for slope stability analyses. Their numbering continues from our preliminary geotechnical investigation of the existing water tank site (GWV 29 June 2004). New cross sections drawn for this study begin with section WT13. The R series cross sections (Plates 2.5 to 2.7) were drawn at 1"=20' scale and were used to illustrate recommended removals and evaluate temporary stability of remedial grading backcuts. General descriptions of earth materials encountered on the site are presented in the "EARTH MATERIALS" section below, while detailed descriptions are provided on the exploratory logs in Appendix A. Logs of relevant excavations from prior on-site studies are included in Appendix A for convenience. A summary of laboratory tests and test results performed on samples collected during this study, as well as laboratory test results from Fugro's work on the westernmost tank pad (Fugro 15 June 2018), are presented in Appendix B. Slope stability calculations performed for this study are presented in Appendix C. Typical details illustrating our grading recommendations are presented in Appendix D. Our findings are presented in the following sections, followed by a discussion of these findings and geotechnical design criteria for the proposed development.

SITE DESCRIPTION AND PROPOSED IMPROVEMENTS

The subject site includes an approximately half-acre, triangular-shaped building pad that was graded atop a bedrock ridgeline between 2003 and 2006 as a part of Tract 52833. The building pad is underlain by Towsley Formation bedrock. The northeast and west edges of the pad consist of compacted fill placed as part of stability fills that descend from those sides of the pad up to 100 vertical feet at 2:1 (horizontal:vertical) gradients. A 2:1 gradient stability fill ascends from the south side of the pad approximately 30 feet to a berm that separates the building pad from the existing water tank pad.

Based on the Grading Exhibit provided to our office by SCVWA, grading is proposed to move the berm to the north edge of the subject building pad and extend the existing level of the pad toward the south, beneath the existing berm. Two water tanks will be located in the pad area south of the new berm location. An access driveway will be provided at the south end of the pad that connects to the existing access road for the adjacent tanks. Proposed grading and tank locations are shown on the enclosed Geologic Maps (Plates 1.2 and 1.3).

It is planned to construct two 0.5 million gallon (MG) recycled water storage steel tanks. Each tank will be 55 feet in diameter, with 27 feet maximum water height, and will be surrounded with asphalt pavement. Information provided by your office assigns the tanks to AWWA seismic use category 1 and ASCE 7 risk category 3. The tanks will be supported by continuous ringwall foundation.

PREVIOUS GEOTECHNICAL STUDIES

The first record of geotechnical work at the subject site and available to our office is of several borings excavated and logged by LeRoy Crandall and Associates in June of 1980. These were a series of 20-inch-diameter bucket-auger borings that were logged from the surface. We surmise they were excavated for the purpose of installing piezometers for groundwater or environmental monitoring. They were located near the proposed water tank site along the ridgeline and in the canyon area to the south (see Plate 1.2). Of the borings for which we were able to obtain logs, only B6 is near the subject site. This log is included in Appendix A.

Various geotechnical studies were performed by Pacific Soils Engineering, Inc. in the late 1980's and early 1990's as Tentative Parcel Map No. 21525. Reports are listed in the enclosed references. Exploratory excavations for those studies included bucket-auger borings with downhole logs, hollow-stem auger borings, and backhoe trenches. Most of their exploration targeted debris-bearing fill soils in the canyon areas of current Tract 52833 and is not useful for this study.

This office has produced a variety of geotechnical studies in support of the grading of Tract 52833, primarily in the 1990's and 2000's (see reference list for relevant studies). These include preliminary investigations, grading plan reviews, response reports, and final compacted fill reports for both tract grading and the water reservoir site, both existing and proposed. Numerous exploratory excavations were conducted as a part of these studies including bucket-auger borings with downhole logs, hollow-stem auger borings, and backhoe trenches. Data gathered from our field work was evaluated and used to provide recommendations for removals, structures, utilities and grading of the site. This office was also contracted to perform grading observation for Tract 52833 and the water reservoir site to see that our recommendations were carried out. This afforded us a unique opportunity to observe the geologic structure and stratigraphy of the site exposed on a large scale. The body of work included as a part of this discussion is listed in the references. Relevant exploratory excavations from this work are shown on the enclosed Geologic Maps (Plates 1.2 and 1.3) and included in Appendix A. Bedding attitudes, geologic contacts, and faults observed during grading operations are also shown on the enclosed Geologic Map.

Fugro produced a draft geotechnical evaluation of the western water tank pad in 2018. Their evaluation was based on review of geologic literature, aerial photos, our published work for the existing water tank site, additional field exploration consisting of two bucket-auger borings with downhole logging, and laboratory testing of retrieved samples. The locations of the exploratory excavations performed by Fugro are shown on the enclosed Geologic Map (Plate 1.3) and included in Appendix A.

Laboratory test data from their work was incorporated into the overall body of data from the subject site; particularly shear test data, atterberg limits, and in-situ moisture and density information.

FIELD INVESTIGATION

Our office selected several exploratory locations in order to characterize the nature of the earth materials throughout the subject site. The locations of exploratory excavations were selected to refine information on geologic structure underlying the subject site and to identify the approximate limits of a possible landslide that was discovered during this recent investigation. Excavations included six borings and three trenches. Locations are shown on the enclosed Geologic Maps (Plates 1.2 and 1.3). Borings were excavated using a LoDril with a two-foot-diameter flight auger to depths ranging from 18.5 to 74 feet below ground surface. Each boring was downhole logged by a representative of this office. Trenches were excavated with a backhoe to depths ranging from 5 to 10 feet below ground surface. Total trench length excavated was approximately 275 feet. Both disturbed and relatively undisturbed samples were collected from exploratory excavations, secured, and transported to our laboratory for testing. Relatively undisturbed samples were obtained using a lined modified California Split Spoon sampler (2.375 inch id.) driven by Kelly bar. All excavations were backfilled with spoils.

EARTH MATERIALS

The Geologic Maps included herein as Plates 1.2 and 1.3 illustrate the spatial distribution of surficial geologic units across the subject site. General descriptions of these units are provided below, while detailed descriptions of materials encountered in our exploratory excavations are included in logs of those excavations provided in Appendix A.

UNDOCUMENTED ARTIFICIAL FILL (AFU): Undocumented artificial fill is mapped in the drainage that runs along the southern boundary of landslide I7 (see Plate 1.3). It was placed during construction of dozer roads to provide access to exploratory boring locations during previous geotechnical studies.

ENGINEERED FILL (AFE): Engineered fill was encountered in portions of excavations that passed through stability fills. It consists predominantly of yellowish brown to pale brown silty sand with gravel and cobbles, and minor interlayers of grayish brown fine sandy silt. It is dense and moist. This fill was placed during grading of Tract 52833. Documentation of fill placement, including site preparation and compaction, is provided in the referenced reports (GWV 30 June 2006 & 27 October 2006).

COLLUVIUM (QC): Colluvium was encountered within the topographic swale that defines the northern margin of landslide L7 and continues uphill and eastward into the area of the proposed tank pad. It was observed in borings WB1A, WB1B, and WB3 to a maximum depth of 16 feet. It consists of gravel, cobbles, and sparse boulders in a matrix of dark brown clayey sand. Jumbled, boulder-sized blocks of bedrock are

also present as yellowish brown silty sandstone. It is loose to medium dense, dry to moist, and pores up to 1/16-inch diameter are common.

ALLUVIUM (QAL): Relatively thin deposits of alluvium, on the order of five to ten feet thick, are present filling the narrow canyons south of the subject site. It was not encountered in any of the exploratory excavations. Observations of this material from our work for the off-site disposal fill indicate it is notably coarse-grained and contains abundant pebbles, cobbles, and boulders (GWV 5 April 2006).

LANDSLIDE DEPOSITS (QLS): Landslide deposits may have been encountered in borings WB1B, WB2, WB4; and in trenches T1 and T2. The maximum depth of these materials in exploratory excavations was 21 feet in boring WB1B. They consist of yellowish brown to brown conglomerate in a silty to clayey sand matrix, and siltstone with sparse sandstone interbeds. Units are predominantly massive. What sparse bedding was observed is discontinuous and truncated by channels or offset along small faults and fractures. Units are medium dense to dense and moist to seeping. A ½ to 1-inch-thick clay shear was observed along the base of this material in WB1B@21' and WB4 @19.3'.

TOWSLEY FORMATION (TT): The Pliocene-age Towsley Formation consists of interbedded marine sandy siltstone, clayey siltstone, and occasional sandstone and conglomerate. These lithologies are typically brownish gray to gray in color, poorly indurated and weakly cemented. Below roughly 20 to 40 feet in depth, these materials are commonly found to be unoxidized. Shearing was observed along fine-grained beds at the base of the possible landslide deposits in WB1B@21' and WB4@18.9' and @19.3', as well as along fine-grained beds in WB3@40.5' and WB4@47'.

GROUNDWATER

Seepage was noted within some of the borings, both from previous and recent work. These occurrences were commonly associated with beds of contrasting permeabilities or along faults or fractures. In the vicinity of the subject site, seepage was encountered at depth within borings P1, P9, P36, P37, WB1B, WB2, WB4, and WB5. Where encountered during grading operations, such seepage shall be mitigated through installation of backdrains. We do not anticipate these seeping zones will impede grading activities nor adversely impact the stability of the site.

REGIONAL GEOLOGY

The site is located in Transverse Ranges geomorphic province of Southern California. The Transverse Ranges are essentially east-west trending elongate mountain ranges and valleys that are geologically complex. Structurally, the province reflects the north-south compressional forces that are the result of a bend in the San Andreas Fault. As the Pacific Plate (westerly side of the fault) and the North American Plate (easterly side) move past one another along the fault the bend creates a deflection which

allows for large accumulations of compressional energy. Some of these forces are spent in deforming the crust into roughly east-west trending folds and secondary faults. The most significant of these faults are typically reverse or thrust faults, which allow for crustal shortening taking place regionally.

More locally, the site is situated within the western Soledad Basin portion of the Transverse Ranges. This geologic region is bounded to the east by the San Andreas Fault, to the west by the San Gabriel Fault, to the north by the Sierra Pelona Mountains, and to the south by the San Gabriel Mountains. The geologic history of the Soledad Basin is described by Sexton (1990) and summarized in the following. Original formation of the basin is thought to be a result of continental rifting in the Oligocene epoch as much as 34 Ma (million years ago). The first materials deposited in the basin were volcanic flows as well as debris flows and alluvial fans from the elevated regions surrounding the basin. Basin development continued into the early to middle Miocene epoch due to movement along the San Gabriel fault with sediments from an eastern source being deposited in an alluvial wash and at least one shallow lake which covered much of the western portion of the basin. As deformation in the southern California region continued, the basin was down-warped, allowing a marine transgression which began in the late Miocene epoch and lasted throughout much of the Pliocene epoch. This is the environment in which the onsite Towsley formation was deposited. In the late Pliocene a marine regression occurred and terrestrial sediments have been deposited ever since. Late Pleistocene and Holocene deformation have resulted in uplift and erosion of portions of the formerly buried basin deposits so that they are exposed at the surface today.

GEOLOGIC STRUCTURE

Information on geologic structure in the vicinity of the subject site was obtained from exploratory excavations, both recent and older, and field mapping during grading of Tract 52833. Approximately the upper 20 to 40 feet of bedrock materials exposed in borings tend to have less obvious and less continuous bedding due to a more massive and coarse-grained texture and to numerous small faults with offsets ranging from 1 to 12 inches that disrupt bedding. Attitudes in this upper portion of the bedrock have shallow to moderate dips toward the northwest, east, and south. Below this interval bedding is far more consistent and typically identified by thin sandy interbeds or laminated zones within the otherwise massive siltstone. The orientation of this lower portion of the bedrock is consistently shallowly dipping toward the west and southwest. This is in good agreement with the abundance of attitudes measured during grading as discussed in our impacts report (GWV 5 February 2020). Near the existing tank site, including boring WB5 and portions of trench T2, bedding dips shallow to moderately toward the south and southeast. Finally, to the west and south of the proposed tank site, bedding in borings P8, P34, and P35 exposed shallow southeast, horizontal, and shallow south dips respectively. This indicates there is a structural transition west

and south of the proposed tank site and that the shallow westerly dips do not continue beyond the vicinity of borings P8 or WB5.

FAULTING

The subject site contains no known active or potentially active faults, nor is it within a State-mandated Earthquake Fault Zone. Therefore, the potential for fault generated ground rupture is considered to be very low. However, the property is situated within the seismically active Southern California region and significant ground shaking is likely to occur due to earthquakes caused by movement along nearby faults.

LANDSLIDES

Much of the subject site is comprised of sloping terrain within areas designated as slopes susceptible to seismically-induced failures as delineated by the Seismic Hazard Map of the Mint Canyon Quadrangle (CGS, 1999). Cross sections, slope stability analyses, and recommendations presented in this report address this potential hazard. Portions of four landslide deposits are shown on the enclosed Geologic Map in the vicinity of the proposed tank site: L5a and L5c, L7, L8, and L11 adjacent.

LANDSLIDES L5A AND L5C

These landslides are part of the L5 landslide complex that is located along the southwestern edge of the Geologic Map (see Plate 1.3). They were identified based on topography and exploratory excavations that took place for the original grading of Tract 52833. They were placed in a Restricted Use Area during evaluation of the grading plan for Tract 52833 and for the existing water tank site. They are located within a different drainage basin from the proposed water tanks and do not pose a hazard to the proposed project.

LANDSLIDE L7

This slide is located downhill and west of the proposed water tank site. It was identified based on topography and GWV borings P4, P8, and Leroy Crandall and Associates (LCA) boring B6. Its limits are shown on the enclosed Geologic Map (Plate 1.3). It was placed in a Restricted Use Area during evaluation of the grading plan for Tract 52833 and for the adjacent existing water tank site. Where explored it is up to 30 feet thick. The toe area of this slide was partially removed and then replaced with compacted fill during grading for the offsite disposal fill. Documentation of this work is provided in our interim compacted fill report (GWV 5 November 2007).

Our recent exploration encountered earth materials that could be the result of landsliding in borings WB1A, WB1B, WB2 and WB4, and trenches T1 and T2. Hereafter these materials are called postulated landslide materials and they are identified on the enclosed Geologic Maps as "Qls L7?" (see

Plates 1.2 and 1.3). They consist of yellowish brown to brown conglomerate in a silty to clayey sand matrix, and siltstone with sparse sandstone interbeds. Units are predominantly massive. What sparse bedding was observed is discontinuous and truncated by channels or offset along small faults and fractures. The units are moderately to highly weathered, and weathering is laterally inconsistent. Exposures in boring WB4 in particular contained random cobble-sized pockets of silty sand with gravel that appears to have experienced a different weathering environment than adjacent materials in that it was more friable and did not contain clay films on clasts.

Postulated landslide materials extended to depths up to 21 feet below the current ground surface where explored and may be a previously unidentified part of landslide L7. The pre-grading topography between the original headscarp of L7 and the crest of the ridge shows a topographic reversal in the vicinity of recent boring WB5. It is possible the headscarp was located farther up the slope than originally mapped. The lack of any slide debris in boring WB5 indicates that this portion was removed by the grading for Tract 52833. The southern limit of these materials is based on topography and the mapped southern limits of landslide L7. The eastern limit is based on exposures in trenches T1 and T2, and the lack of landslide debris in boring WB5. The northern limit is interpreted to be the colluvium filled swale along the north edge of landslide L7 that extends up into the proposed water tank pad. This is supported by observations from boring WB1B which encountered potential landslide materials below the colluvium between depths of 16 and 21 feet.

The postulated landslide materials could also be related to faulting. Several faults were identified and mapped during the original grading for Tract 52833, and their locations are shown on the enclosed Geologic Maps (Plates 1.2 and 1.3). In Trench T1 there is a zone of near vertical material (Unit 3 on the logs) at station 0+70 with different grain size, sorting, and weathering than the adjacent materials. The zone defines a sharp contact between sandstone on the north, and siltstone on the south. Near the bottom of the trench, the zone has cobble sized blocks of remnants of the adjacent materials. The zone could be fault gouge. On the other hand, it could be infill of a tension crack that opened up during landslide movement. The exact nature of the deposits remains unclear, but for the purposes of this report, they are assumed to be related to landsliding.

LANDSLIDE L8

This slide is located south of the proposed water tank site. Its headscarp is near the crest of the ridge and it toes out into the natural drainage south of the proposed and existing water tank sites. It was placed in a Restricted Use Area during evaluation of the grading plan for Tract 52833 and for the existing

water tank site. Since this landslide toes out within a canyon below the water tank site, it is not anticipated to adversely impact the proposed water tank site (GWV 3 October 2003).

LANDSLIDE L11 ADJACENT

This slide is located downhill and east of the proposed tank site. The majority of the slide was removed during grading of Tract 52833 and what remains is buttressed by the fill slope that descends from the northeast side of the proposed tank pad. This small portion of landslide L11 adjacent was placed in a Restricted Use Area during evaluation of the grading plan for Tract 52833 and for the existing water tank site. It does not pose a hazard to the proposed tank site.

LIQUEFACTION AND RELATED SEISMIC HAZARDS

Liquefaction is a condition where the soil undergoes continued deformation at a constant low residual stress due to the build-up of high porewater pressures. The possibility of liquefaction occurring at a given site is dependent upon the occurrence of a significant earthquake in the vicinity; sufficient groundwater to cause high pore pressures; and on the grain size, relative density, and confining pressures of the soil at the site.

The proposed water tank site is not located within a Seismic Hazard Zone for potential liquefaction areas as delineated by the Seismic Hazard Map of the Mint Canyon Quadrangle (CGS, 1999). Groundwater encountered onsite is present as isolated seeps along fractures or in interbedded materials – generally less than one foot thick – with different permeabilities, and is likely of insufficient quantity to cause high pore pressures. Additionally, the area of the proposed water tanks is underlain by bedrock, potential landslide debris, colluvium, and engineered fill. Bedrock and engineered fill are not considered to be susceptible to liquefaction. Potential landslide debris and colluvium will be removed to bedrock in the vicinity of the tanks and replaced with engineered fill. Considering the planned removals and relative lack of groundwater, the potential for liquefaction to affect the proposed project is very remote. The potential for “dry” seismic settlement is also considered remote.

HYDROCONSOLIDATION POTENTIAL

Hydroconsolidation is a condition where dry or moist soils undergo settlement upon being wetted. In many cases, no additional surcharge load is necessary to trigger the hydroconsolidation. Typically, soils that are susceptible to hydroconsolidation include soils containing silt and clay particles, or soils cemented with such agents as iron oxide or calcium carbonate. The geologic environment for these soils is typically loose fills, altered wind-blown sands, or colluvium of loose consistency.

The area of the proposed water tanks is underlain by bedrock, potential landslide debris, colluvium, and engineered fill. Bedrock and engineered fill are not considered to be susceptible to

hydroconsolidation. Potential landslide debris and colluvium will be removed to bedrock in the vicinity of the tanks and replaced with engineered fill. Considering the planned removals, the potential for hydroconsolidation to affect the proposed project is very remote.

SLOPE STABILITY

Stability analyses were performed using the Spencer’s Method as coded in the computer program SLIDE v8.032 (Rocscience, 1998-2020). Spencer’s Method is a limit-equilibrium method of analyses which satisfies moment and force equilibrium. A search of postulated failure surfaces was performed in order to determine the critical failure surface. Except as noted in the discussion below, the Block Search method was used. The results of the analyses are provided as a factor of safety. The factor of safety is defined as the quotient of available shear strength divided by the shear strength mobilized. Per the County of Los Angeles (GMED, 2013), the minimum computed factor of safety for the static permanent case is in excess of 1.5, 1.25 for temporary cases, and 1.1 for the seismic permanent case considering a horizontal pseudo-static coefficient of 0.15. The input parameters and results are presented and discussed in the following sections. The computer output is presented in Appendix C.

SHEAR STRENGTHS

Shear strengths used in the slope stability analyses for this report are the same as the approved strengths used in the underlying reports (GWV 3 October 2003; 29 June 2004; 5 April 2006; 30 June 2006; 5 November 2007). They are summarized in the following table.

MATERIAL	COHESION (PSF)	ANGLE OF INTERNAL FRICTION (DEG)	SATURATED UNIT WEIGHT (PCF)
Engineered Fill	200	32	130
Landslide Debris	200	30	130
Alluvium, Colluvium, & Undocumented Fill	150	35	130
Towsley Fm. – Across Bedding	700	36	135
Towsley Fm. – Parallel to Bedding	150	10	135

The shear strengths for colluvium and undocumented fill were not provided in the underlying reports. Based on the descriptions of the colluvium observed in recent exploratory excavations, it is similar enough to the alluvium that it is reasonable to assign it the same strength. The undocumented fill

strength is inconsequential to the slope stability analyses. Multi-cycle direct shear testing from this current investigation, used to evaluate the fine-grained Towsley formation encountered, produced results that were similar, yet stronger than results collected in the underlying report (see Plate B.10 in Appendix B). The residual strength from earlier reports was used for these analyses. Strength of coarse-grained Towsley formation was modeled using ultimate values from direct shear testing. Results from our current testing ranged both higher and lower than some of the previous tests (see Plate B.9 in Appendix B). The coarse-grained Towsley material plays only a minor role in the slope stability analyses. Considering the body of data for this material, the earlier strength values were used.

SLOPE STABILITY RESULTS

Several cross sections were drawn for the purpose of evaluating the stability of slopes that affect or are affected by the proposed grading. Assignment of shear strengths to the various subsurface layers is based on available information on geologic structure and stratigraphy, including observations from downhole logs of exploratory borings and records of geologic field mapping during grading. A shear strength was assigned to each depth interval from the borings as well as a rationale for the strength assignment; these are summarized in Table 2 in Appendix C. Boring and field mapping data were projected to the cross sections to create a geologic model for use with slope stability analyses. Shear strength assignments are illustrated in output from the slope stability analyses (see Appendix C) and on the enclosed cross sections (Plates 2.2E to 2.4E, 2.5 & 2.7). The results of slope stability analyses are provided in Appendix C. A summary of results is provided in the following table. Stability analyses are described in more detail in the following sections.

DESCRIPTION	ANALYSIS TYPE	FACTOR OF SAFETY	COMPUTER OUTPUT LOCATION IN APPENDIX C
WT13-WT13' Base of slide	STATIC PSEUDO-STATIC	2.12 0.98	PLATES C.4 – C.23
WT13-WT13' Deep bedrock	STATIC PSEUDO-STATIC	2.24 1.28	PLATES C.24 – C.43
WT13-WT13' Fill slope	STATIC PSEUDO-STATIC	2.27 1.59	PLATES C.44 – C.61
WT14-WT14' Base of slide	STATIC PSEUDO-STATIC	1.67 0.82	PLATES C.62 – C.82
WT14-WT14' Deep bedrock	STATIC PSEUDO-STATIC	2.58 1.22	PLATES C.83 – C.103

DESCRIPTION	ANALYSIS TYPE	FACTOR OF SAFETY	COMPUTER OUTPUT LOCATION IN APPENDIX C
WT15-WT15' Base of slide	STATIC PSEUDO-STATIC	1.30 0.77	PLATES C.104 – C.123
WT15-WT15' Deep bedrock	STATIC PSEUDO-STATIC	2.08 1.25	PLATES C.124 – C.143
R1-R1' ¾:1 Backcut	TEMPORARY	1.41	PLATES C.144 – C.151
R3-R3' 1:1 Backcut	TEMPORARY	1.51	PLATES C.152 – C.158

BASE OF LANDSLIDE AND POSTULATED LANDSLIDE

As discussed in the LANDSLIDES section above, previously unidentified material that could be associated with Qls L7 was encountered underlying the proposed tank pad. The limits of these materials are illustrated on the enclosed Geologic Maps as unit “Qls L7?” (Plates 1.2 and 1.3). Three cross sections were used to evaluate the impact of these deposits on the proposed project: WT13-WT13’, WT14-WT14’, and WT15-WT15’. As noted in borings WB1B @21’and WB4 @19.3’, an up to one inch thick sheared clay layer was observed at the base of these deposits. To simulate this, a one foot thick layer was added to the slope model along the base of the existing landslide L7 and extending beneath the postulated landslide deposits. This layer was assigned the “Towsley Fm. – Parallel to Bedding” shear strength.

For each cross section, a translational failure mechanism was considered for failures within the “Towsley Fm. – Parallel to Bedding” material modeled along the base of landslide Qls L7 and the postulated landslide materials. Both static and pseudo-static conditions were evaluated. Details of the slope stability evaluation and mitigation are presented in the following sections. For cross sections drawn through proposed water tanks (WT14-WT14’ and WT15-WT15’), the tank was modeled as a 2,000 psf vertical distributed load over a length of 55 feet corresponding to the planned diameter of the tank.

Cross Section WT13-WT13’

Factors of safety for the critical slip surface were above the County minimum for static conditions, but below the County minimum for pseudo-static conditions. A search was performed to determine the limit of all surfaces with inadequate pseudo-static factors of safety. A line was added to the cross section to indicate this limit, which is located outside the proposed water tank pad.

Cross Section WT14-WT14'

As discussed in the "REMOVALS" section below, remedial grading is proposed to mitigate potential settlement from postulated landslide debris and/or colluvium situated within a 1:1 projection down and out from the edge of pavement surrounding the proposed water tanks. Slope stability analyses incorporated this removal into the slope model as a zone of engineered fill.

For both static and pseudo-static analyses, failure surfaces generated by the Block Search method had unrealistic interslice forces resulting from tension near the top of each postulated failure mass that extended into the tank pad. This was a result of the block search polyline forcing failures beneath a thin wedge of fill between the edge of the removal (at the north edge of the access road) and the tank pad. To generate more realistic and kinematically valid failure surfaces, the Cuckoo Search method was used for the analyses that considered failures along the base of the landslide and postulated landslide materials along cross section WT14-WT14'. Other search methods available in the software were also used with similar results. For this report, the Cuckoo Search results are produced as representative of these overall results.

Factors of safety for the critical slip surface were above the County minimum for static conditions, but below the County minimum for pseudo-static conditions. A search was performed to determine the limit of all surfaces with inadequate pseudo-static factors of safety. A line was added to the cross section to indicate this limit, which is located outside the proposed water tank pad.

Cross Section WT15-WT15'

As discussed in the "REMOVALS" section below, remedial grading is proposed to mitigate potential settlement from postulated landslide debris and/or colluvium situated within a 1:1 projection down and out from the edge of pavement surrounding the proposed water tanks. Slope stability analyses incorporated this removal into the slope model as a zone of engineered fill.

Factors of safety for the critical slip surface were below County minimums for both static and pseudo-static conditions. A search was performed to determine the limit of all surfaces with inadequate factors of safety. A line was added to the cross section to indicate this limit, which is located at the edge of the proposed water tank pad.

DEEP BEDROCK IN NATURAL SLOPES SOUTHWEST OF TANK PAD

As discussed in the "GEOLOGIC STRUCTURE" section above, measurement of geologic bedding exposed in recent borings excavated in the vicinity of the proposed water tank pad encountered a zone of subsurface bedrock with a bedding orientation dipping shallowly toward the west and southwest. Depending on location, the top of this zone ranges from approximately 20 to 40 feet below the ground

surface, and extends to the total depth explored. Fine-grained portions of this zone were assigned anisotropic shear strength with the “Towsley Fm. – Parallel to Bedding” strength being used over a dip range of 6 to 9 degrees, and the “Towsley Fm. – Across Bedding” strength outside that range. The bedding orientation of this zone is unfavorable for the natural slopes that descend to the southwest of the proposed water tank pad.

The zone of unfavorable dips extends westward from boring WB4 some distance before the average bedding orientation changes to dip shallowly toward the east as indicated by the bedding attitudes starting at a depth of 12 feet in boring P8. To simulate the transition to a favorable bedding orientation, the zone of bedrock assigned the anisotropic shear strength is truncated at the approximate location of the transition as indicated by the vertical material boundary in the enclosed geotechnical cross sections (Plates 2.2E to 2.4E).

A prominent fault was identified during grading for the existing water tanks that was found to be continuous from the southern limit of grading to the backcut for the stability fill that descends to the northeast from the tank site. It is shown on the enclosed Geologic Maps (Plates 1.2 and 1.3) as a northeast-southwest trending fault located just east of boring WB5. From field measurements during grading, its orientation is approximately N46E dipping 53 degrees northwest. This feature was incorporated into the slope model for section WT15-WT15'. Bedding attitudes southeast of this fault dip toward the south, which is a favorable orientation for the slope evaluated in cross section WT15-WT15'. Therefore a sloping material boundary was incorporated into that cross section at the apparent dip of the fault which truncates the zone of anisotropic materials used to model bedrock with an unfavorable bedding orientation.

Three cross sections were used to evaluate global slope stability considering parallel to bedding failures in portions of the bedrock with unfavorable bedding orientation: WT13-WT13', WT14-WT14', and WT15-WT15'. They were drawn parallel to the average dip direction of the bedrock zone with an unfavorable bedding orientation. For all three cross sections, factors of safety for the critical slip surface were above County minimums for both static and pseudo-static conditions.

STABILITY FILL SLOPES DESCENDING FROM TANK PAD

Stability fill slopes descend from the proposed water tank pad toward the southwest, west, and northeast. These slopes were constructed as a part of the original grading for Tract 52833. Documentation of grading operations and fill placement is contained in the referenced reports (GWV 30 June 2006 & 27 October 2006). Two cross sections were drawn through these slopes to illustrate critical conditions: WT9-WT9' and WT13-WT13'. Slope stability analyses were performed as needed to

demonstrate adequate global stability of these slopes. Details of each cross section are provided in the following sections.

Cross Section WT9-WT9'

This cross section was originally presented in our preliminary evaluation of the existing water tank pad (GWV 29 June 2004). It is reproduced herein and revised to illustrate the additional fill slope height resulting from the proposed berm grading. The berm will increase the height of the stability fill slope that descends to the northeast by approximately 15 feet: from 108 to 123 feet at the location of the cross section. A taller slope (height = 140 feet) with similar subsurface materials was evaluated using cross section WT6-WT6' in our preliminary evaluation of the existing water tank pad (GWV 29 June 2004). WT6-WT6' was considered to be the critical section for this slope at the time of the preliminary evaluation, and remains the tallest and most critical considering the proposed water tank grading. Factors of safety for the critical slip surface were above County minimums for both static and pseudo-static conditions. Considering these results, slope stability analyses were not performed for cross section WT9-WT9' because adequate global slope stability is demonstrated by the results of our analyses from cross section WT6-WT6'.

Cross Section WT13-WT13'

This cross section was drawn through the slope that descends from the southwest side of the proposed water tank pad to the access road. It illustrates the additional slope height that will result from the proposed berm grading: the slope height will increase from approximately 25 feet to 40 feet at the location of the cross section. Despite the small slope height, slope stability analyses were performed because portions of the slope are underlain by colluvium. Rotational analyses were used to evaluate potential circular failures through the berm and descending stability fill slope. Factors of safety for the critical slip surface were above County minimums for both static and pseudo-static conditions.

CUT SLOPE ASCENDING FROM TANK PAD

The grading plan indicates a 2:1 gradient (50%) cut slope is planned ascending as much as 32 feet from the east side of the proposed tank site to the top of the existing berm around the existing tank site. This slope is illustrated in the enclosed cross section R3-R3' (Plate 2.7). It is anticipated the cut slope will expose Towsley Formation bedrock. Bedding attitudes measured in the vicinity during grading indicate bedding dips shallowly toward the south, which is neutral to the proposed cut slope orientation. Considering the short height of the slope, and the high across-bedding strength of the bedrock, slope stability analyses are trivial and were not performed. The proposed slope is anticipated to have adequate global factors of safety.

The majority of the cut slopes exposed during original grading of the existing water tank pads were rebuilt as stability fills to mitigate surficial stability concerns that arose from exposure of friable, erosion-prone bedrock, and unoxidized bedrock (GWV 30 June 2006). Proposed cut slopes should be observed by a representative of this office during grading to determine the need for a stability fill to mitigate surficial stability concerns. Given the performance of the previous slopes, it should be anticipated that the proposed cut slopes will need to be stabilized.

BACKCUTS FOR REMEDIAL GRADING OF TANK PAD

Remedial grading is recommended beneath the proposed water tank pad to mitigate potential settlement of postulated landslide deposits underlying the tank footprints, and material transitions beneath the tanks. It is described in detail in the "REMOVALS" section below. Backcut gradients for this grading range from $\frac{3}{4}$:1 (133%) to 1:1 (100%). Slope stability analyses were performed to demonstrate factors of safety are above County minimums for the temporary condition. It is important to note that these analyses assume the proposed water tank pad will be cut to grade (approximately elevation 1810) prior to excavation of the backcuts, and that no fills are placed in the areas of the proposed berms. Analyses for other specific grading scenarios can be performed upon request. Details of analyses are discussed in the following sections.

Cross Section R1-R1'

This cross section was drawn through the tallest portion of the $\frac{3}{4}$:1 gradient (133%) backcut located at the northwest end of the removal adjacent to the existing access road. The backcut is anticipated to expose postulated landslide materials. Nearby borings WB1B and WB4 indicate bedding within the postulated landslide materials is discontinuous and neutral to the proposed backcut, and materials are coarse-grained. Accordingly a rotational failure mechanism was considered for slope stability analyses. The factor of safety of the critical failure surface is above the County minimum for the temporary condition.

Cross Section R3-R3'

This cross section was drawn through the tallest portion of the 1:1 gradient backcut. The backcut is anticipated to expose engineered fill at the top, colluvium in the middle, and Towsley Formation bedrock near the bottom. Bedrock at the depths anticipated to be exposed in the backcut from nearby borings includes massive siltstone in WB3, and primarily sandstone with deeper interbedded siltstone in P38. Bedding attitudes from P38 indicate bedding is neutral to the slope. Accordingly, a rotational failure mechanism was considered for slope stability analyses. The factor of safety for the critical failure surface is above the County minimum for the temporary condition.

DISCUSSION AND RECOMMENDATIONS

Information and analyses from previous and current investigations provide the basis for the following discussion. Recommendations, based on the presently available data, are presented for your consideration.

REMOVALS

The enclosed Removal Map (Plate 1.4) and cross sections R1-R1', R2-R2', and R3-R3' (Plates 2.5 to 2.7), illustrate the recommended remedial grading. The objective of remedial grading is to: (1) remove and recompact all colluvium (Qc), postulated landslide materials (Qls L7?), and weathered bedrock down to firm bedrock within a 1:1 projection down and out from the edge of pavement surrounding the proposed water tanks; and (2) provide a fill cap for the southeast proposed water tank to mitigate against differential fill thickness, variable expansion potential due to the exposure of differing lithologies, and to provide for uniformity of bearing and footing excavation performance. Soils removed as part of remedial grading may be used to construct engineered fills. Criteria for doing so are provided in the following sections.

Backcuts to achieve recommended removals are shown at a 1:1 gradient, except along the existing access road where they are shown at a ¾:1 gradient (133%).

BACKDRAINS

The proposed grading and recommended remedial grading will sever portions of an existing stability fill backdrain along the northeast side of the existing access road. The upstream portion of the backdrain should be provided with a cutoff wall and solid outlet to a non-erodible device at the ground surface (see Plate D.1). The downstream stub of backdrain should be capped.

The need for a backdrain for the remedial grading shown on the Removal Map (Plate 1.4) should be assessed in the field. Several seeping zones were noted in boring logs in the vicinity. If these are encountered during removals, a backdrain (see Plate D.2) should be installed to collect this water and outlet it to a suitable location. This may be a non-erodible device at the ground surface, or the downstream end of the severed backdrain. The best location for the backdrain outlet should be assessed in the field.

Backdrains should be constructed in all stability fills as shown in the enclosed details (see Plate D.5). The need for backdrains and their spacing should be evaluated by a representative of this office and may be adjusted as field conditions dictate.

COMPACTION SPECIFICATIONS

In order to reduce settlement of deep engineered fills and to provide adequate foundational support for the proposed water tanks, the following compaction criteria are presented for your

consideration. These compaction criteria apply to all rough grading for this project. Fine grading for pad drainage, establishing pavement subgrade, etc. are discussed in the companion report.

Fills within the tank footprint and five horizontal feet beyond (tank zone) shall be moistened to near optimum moisture content and compacted to at least 95% relative compaction. This compaction standard applies to the entire vertical column of fill beneath the tanks.

Fills outside the tank zone and within 20 feet from finish grade should be moistened or air-dried to near optimum moisture content and compacted to at least 90% relative compaction.

Fills outside the tank zone placed in excess of 20 feet from finish grade should be moistened or air-dried as necessary to near 2% over optimum moisture content and compacted to at least 92% of the material’s maximum dry density prior to placement of the next lift.

Compaction specifications are summarized in the following table.

Fill Location	Fill Depth	Moisture Content	Minimum Relative Compaction
Outside tank zone	0 to 20 feet	near optimum	90%
Outside tank zone	> 20 feet	near 2% over optimum	92%
Within tank zone	All depths	near optimum	95%

ROCK DISPOSAL

Oversize rocks (greater than 12 inches in diameter) were encountered within the colluvium and postulated landslide materials. Oversize rocks should be disposed of in accordance with the Rock Disposal Detail (Plate D.4). All oversize materials should be placed at least 10 feet below finish grade or below the deepest utility, whichever is deeper. No rock disposal should be performed within fills placed for the proposed water tanks.

RIPPABILITY OF CUT AREAS

Past grading experience and recent exploratory excavations indicate onsite bedrock is uncemented to weakly cemented. We anticipate cut operations can be achieved with normal ripping.

UNOXIDIZED BEDROCK

The upper 20 to 40 feet of the Towsley Formation is generally weathered and oxidized. Below this depth, this bedrock formation is generally unoxidized and may contain significant concentrations of sulfides. These sulfide-bearing materials can generate sulfate ions which attack concrete. Accordingly, unoxidized bedrock should be isolated from future concrete foundations or sulfate-resistant concrete (Type V) should be utilized. Isolation of unoxidized bedrock is commonly accomplished by its placement in deeper fills and the overexcavation of unoxidized bedrock and replacement with compacted fill.

Where unoxidized bedrock is exposed in the face of a cut slope, it should be reconstructed as a

typical stability fill with backdrains. Fill soils used in the stability fill construction should consist of oxidized soils. Recommendations for capping the proposed water tank pad will be provided should unoxidized bedrock be exposed at pad grade.

LOT CAPS AND EXPANSIVE SOILS

As discussed in the "REMOVALS" section above, the water tank pad should be capped with a blanket of fill material. The thickness of the fill cap depends on the depth of fill under proposed structures, or on the expansion properties of the underlying material, whichever results in a greater thickness. Typical lot cap construction is shown on Plate D.3 of Appendix D. The remedial grading will provide a cap of sufficient thickness for the western tank. At this time, a seven-foot-thick fill cap is anticipated for the eastern tank and is incorporated into the remedial grading design shown on the enclosed Removal Map (Plate 1.4). This thickness may be adjusted depending on the expansion properties of the materials exposed during grading.

STABILITY FILLS

Some cut slopes may expose daylighted bedding, friable sand, unoxidized bedrock, and/or possibly expansive siltstone or claystone beds. We anticipate these slopes will need to be rebuilt as typical stability fills. All stability fills should be provided with backdrains. During construction of stability fills or sliver fill slopes, a minimum 20 foot horizontal distance should be maintained from face of the finished slope to the benches at the back of the fill, other than at the upper and side joins. Typical stability fill and backdrain construction details are shown on Plates D.2 & D.5 of Appendix D. Should a stability fill height exceed the interval between adjoining slope drainage terraces, then the additional width of the terrace(s) should be added to the base width of the stability fill.

GRADING – ENGINEERED FILLS

The following recommendations pertain to the preparation for, and placement of, engineered fills.

1. The onsite soils are suitable for use as structural fill. Any import materials that are to be used as structural fill should be approved by this office prior to placement.
2. Shrinkage refers to the lesser volume of fill that result from a given volume of excavation. The shrinkage of the colluvial materials is anticipated to be between 10% and 15%. Postulated landslide debris is anticipated to shrink between 0% and 5%. Towsley Formation bedrock is anticipated to bulk between 0% and 5%.
3. Subsidence includes the general lowering of the ground due to in-place compaction by construction equipment. Subsidence is anticipated to range from 1.0 to 2.0 tenths of a foot.

4. All vegetation, trash, construction debris, asphalt, or other deleterious material should be stripped from the area to be filled and wasted from the site.
5. Compressible soils that lie within the areas to receive engineered fill should be removed to relatively incompressible material, moisture conditioned, and replaced as properly compacted fill. Portions of the compressible materials that are sufficiently thin may be scarified, watered or air dried to approximately the material's optimum moisture content, and compacted in-place. A combination of removal and recompaction in-place may be used, providing the recommended compaction is obtained throughout the recommended depth interval. Based upon the materials exposed in our exploratory excavations, we anticipate the removals to extend to depths of 10 to 30 feet. Preliminary anticipated removal depths are illustrated on the enclosed Removal Map (Plate 1.4) and cross sections (Plates 2.5 to 2.7). Final removal bottoms must be field verified by a representative of the geotechnical consultant. Where the ground slopes steeper than 5:1 (H:V), the fill should be properly benched into bedrock. Typical benching is illustrated in Plate D.5.
6. Exposed surfaces should be scarified, moistened or air dried as appropriate, and compacted to the appropriate percentage of the material's maximum dry density prior to placement of fill (see "Compaction Specifications" section).
7. Where the ground slopes steeper than 5:1 (H:V), the engineered fill should be properly benched into competent material. Typical benching is illustrated in Appendix D.
8. Fill materials should be placed in lifts of a thickness appropriate to achieve the specified relative compaction throughout the lift considering the equipment used to construct the fill (typically six to eight inches uncompacted), watered to near the material's optimum moisture content (or to near 2% over optimum moisture content), and compacted to the applicable level of relative compaction prior to placing the next lift. Compaction criteria vary depending on the depth of fill as outlined in the "Compaction Specifications" section above.
9. Fill slopes constructed of clean sand are commonly subject to excessive erosion or shallow slope failures. Similarly, fill slopes constructed with clayey soils may be subject to desiccation, cracking, creep or other surficial deterioration. Utilizing mixed soils (sand with some proportion of fines, i.e. clayey sand) in the outer 20 feet of the fill slope may serve to minimize the potential for surficial slope deterioration.

10. The compaction standard applies to the face of fill slopes. This may be achieved by overfilling the constructed slope and trimming to a compacted finished surface, rolling the slope face with a sheepsfoot, or any method that achieves the desired product.
11. All grading should comply with the grading specifications and requirements of the local governing agency.

GRADING – CUT SLOPES

Cut grading proposed at the site will provide more continuous exposure of the subsurface materials. Variations in the structural geology uncovered by the grading may warrant revisions in cut slope grading criteria.

1. Cut slopes exposing surficial soils and/or weathered bedrock should be rebuilt as typical stability fills with backdrains. Typical stability fill construction and backdrain specifications are illustrated in Appendix D.
2. Fill-over-cut slopes should have the fill founded on a 20 foot wide bench cut into the bedrock, or where bedrock is not present in the cut portion of the slope, on a key cut below the toe of the slope. The 20 foot bench should be graded to provide at least 1 foot of fall toward its upslope side. If keyed below the toe of slope, then the key should be at least 20 feet wide, 3 feet deep (below the toe), and tilted (at least 1 foot) into the slope. The cut portion of the slope should be exposed (and observed by a representative of this firm) prior to constructing the fill portion of the slope. Typical fill-over-cut slope construction is illustrated in Appendix D Plate D.6.

TEMPORARY EXCAVATIONS

Temporary excavations (such as backcuts for stability fills, removals, and retaining wall excavations) may be considered stable if cut vertical, providing they are restricted to a maximum of 5 feet in height, are provided with permanent support as soon as possible, and they are protected from erosion and saturation. Portions of temporary excavations in excess of 5 feet high should be laid back to 1.5:1 (67% slope) except for those that have been addressed herein; specifically the $\frac{3}{4}$:1 backcut (200% slope) along the existing access road, and the 1:1 backcut, both illustrated in the Removal Map (Plate 1.4). Specific alternative treatments can be evaluated upon request.

Temporary excavations (such as utility trenches and backcuts for retaining wall construction) should comply with OSHA requirements. The safety and stability of excavations for the planned improvements are the responsibility of the contractor. The materials encountered in the exploratory excavations are classified as stable bedrock or Type "B" or "C" soils.

FOOTING SETBACKS AND CLEARANCES

Building Adjacent to an Ascending Slope

The California Building Code, as adopted or amended by the local agency, requires buildings to have sufficient clearance from stable, ascending slopes to provide protection from slope drainage, erosion, and shallow failures. A horizontal separation of one-half the height of the slope, but not more than 15 feet, is assumed to provide this level of protection. Retaining walls can be used to achieve this clearance. For this purpose, the height of the ascending slope can be measured from the top of a retaining wall. When freestanding retaining walls or freeboard (un-backfilled portion of a retaining wall) is used, the clearance can be measured at the elevation of the top of the freestanding wall or freeboard. Such retaining walls can also be incorporated into the structure.

Footing Setbacks

Bearing portions of footings should not be closer to nearby descending stable slopes than one-third the height of the slope, measured horizontally, up to a maximum of 40 feet. The height of the slope is commonly taken as that portion of the slope where the gradient is 3:1 (33% slope) or steeper. In no case should the footings be less than five feet to daylight or the Geotechnical Setback line.

Footings may need to be deepened to achieve the setbacks noted above. Portions of the stem wall above the depth where the setback is achieved should be designed to accommodate the unbalanced load that would persist should the downslope material move away from the stemwall.

DRAINAGE

Positive drainage should be established to carry pad waters away from structures and foundations, and to prevent uncontrolled or sheet flow over manufactured slopes. We recommend as steep a gradient as practical be established around the structures, to the street or other non-erosive drainage devices. Fine-grade fills placed to create pad drainage should be compacted in order to retard infiltration of surface water.

Preserving proper surface drainage is also important. Planters, decorative walls, plants, trees or accumulations of organic matter should not be allowed to retard surface drainage. Planters adjacent to a structure should be constructed so that irrigation water will not saturate the soils underlying the footings and slabs. Area drains and roof gutters (if present) should be kept free of obstruction. Roof gutters (if present) and condensation lines from air conditioners should be directed to the street via a non-erodible device (i.e. outlet to a splash block that directs the water to a swale or an area drain, or, tie directly to an area drain). Positive drainage along the backs of retaining walls should be maintained.