RESOLUTION NO. SCV-268

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SANTA CLARITA VALLEY WATER AGENCY APPROVING FUNDING FOR CONSTRUCTION CONTRACT TO THE ZIM INDUSTRIES, INC., FOR THE SAUGUS #3 & #4 WELLS CONSTRUCTION (REPLACEMENT WELLS) PROJECT

WHEREAS, Santa Clarita Valley Water Agency (SCVWA) desires to take steps to increase the reliability of its existing water system; and

WHEREAS, SCVWA's Capital Improvement Program includes construction of the Agency's future Saugus #3 & #4 Wells Construction (Replacement Wells) Project (formerly known as Replacement (Saugus 3 and 4) Well Project); and

WHEREAS, on September 14, 2005, Castaic Lake Water Agency (CLWA), as the lead agency under California Environmental Quality Act (CEQA), adopted the Mitigated Negative Declaration for the Groundwater Containment, Treatment, and Restoration Project (MND), and MND (Exhibit B) which evaluated the Replacement (Saugus 3 and 4) Well Project and adopted findings and the Mitigation Monitoring and Reporting Programs with the adoption of Resolution No. 2429; and

WHEREAS, Castaic Lake Water Agency (CLWA), as a CEQA Lead Agency, filed the Notice of Determination with the Los Angeles County Clerk's Office and the State Clearinghouse on September 19, 2005; and

WHEREAS, as a result of the integration of CLWA into SCVWA, SCVWA is now the lead agency under CEQA for the Saugus #3 & #4 Wells Construction (Replacement Wells) Project; and

WHEREAS, in its role as lead agency SCVWA has now evaluated and adopted the MND pursuant to CEQA Guideline 15162 to determine if, when taking subsequent discretionary actions in furtherance of a project for which an MND has been adopted, SCVWA is required to review any changed circumstances to determine whether any of the circumstances under Public Resources Code section 21166 and CEQA Guidelines section 15162 require additional environmental review; and

WHEREAS, an Addendum to the MND (Exhibit C) has been prepared by Woodard and Curran which analyzed the potential environmental impacts associated with the project modifications to the original project; and

WHEREAS, the environmental evaluation in the Addendum has concluded that there are no substantial changes proposed in the modified project, nor substantial changes in the circumstances under which the modified project would be undertaken, which would require major revisions of the MND due to new significant environmental effects or a substantial increase in the severity of previously identified significant effects; and

WHEREAS, the environmental evaluation in the Addendum has concluded that the impacts of the modified project are consistent with the impacts of the original approved project in the MND; and

WHEREAS, all bid proposals submitted to SCWA pursuant to the SCVWA's construction contract documents for the construction of the Saugus #3 & #4 Wells Construction (Replacement Wells) Project, as amended by Addenda, were publicly opened electronically on the SCVWA's bid website page on PlanetBids on Wednesday, January 26, 2022 by 2:00 p.m., in full accordance with the law and SCVWA customary procedures; and

WHEREAS, the Board of Directors finds, after considering the opinion of staff, that the total bid of Zim Industries, Inc., in the amount of $12,751,494 is the lowest responsible bid and only bid submitted, and that said bid substantially meets the requirements of said construction contract documents as amended by Addenda; and

WHEREAS, it is in the Agency's best interest that the Board of Directors, on behalf of the SCVWA, authorize its General Manager to accept the $12,751,494 bid from Zim Industries, Inc.

NOW, THEREFORE, BE IT RESOLVED, the SCVWA Board of Directors (Board) has reviewed and considered the MND and supporting materials and finds that those documents taken together contain a complete and accurate reporting of all of the environmental impacts associated with the project.

The Board further finds that the administrative record has been completed in compliance with CEQA, the CEQA Guidelines, and that the MND and supporting materials, taken together, reflect the Board's independent judgment.

Further, based on the substantial evidence set forth in the record, including but not limited to the MND and supporting materials the Board finds that, based on the whole record before it, none of the conditions under State CEQA Guidelines section 15162 requiring subsequent environmental review have occurred because the Project:

a) will not result in substantial changes that would require major revisions of the MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; and

b) will not result in substantial changes with respect to the circumstances under which the project is developed that would require major revisions of the MND due to the involvement of new significant environmental effects or a substantial increase in the severity of the previously identified significant effects; and

c) does not present new information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the MND was adopted, as applicable, showing any of the following: (i) that the modifications would have one or more significant effects not discussed in the earlier environmental documentation; (ii) that significant effects previously examined would be substantially more severe than shown in the earlier environmental documentation; (iii) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects, but the applicant declined to adopt such measures; or (iv) that mitigation measures or alternatives are considerably different from those analyzed previously would substantially reduce one or more significant effects on the environment, but which the applicant declined to adopt.

Further, based on the substantial evidence set forth in the record, including but not limited to the MND and supporting materials, the Board finds that the applicable mitigation measures identified in the MND have been incorporated into a specific mitigation monitoring program for the project and would ensure that any potential environmental impacts would be reduced to less than significant levels.

The Board re-adopts those mitigation measures identified in the MND that are relevant to the project as detailed specifically in the Mitigation Monitoring Program attached as Exhibit A, attached hereto and by this reference incorporated herein.

The documents and materials that constitute the record of proceedings on which this Resolution has been based are located at the Santa Clarita Valley Water Agency Summit Circle Office at 26521 Summit Circle, Santa Clarita, CA 91350. The custodian for these records is Robert Banuelos. This information is provided in compliance with Public Resources Code section 21081.6.

A Notice of Determination shall be filed with the County of Los Angeles and the State Clearinghouse within 5 (five) working days of the Board's final project approval.

RESOLVED FURTHER that the SCVWA's Board of Directors does authorize its General Manager to accept said low bid and does therefore authorize the SCVWA's General Manager or its Chief Engineer to issue a Notice of Award to Zim Industries, Inc., hereby found to be the "lowest responsible bidder" for the Saugus #3 & #4 Wells Construction (Replacement Wells) Project for the total sum of $12,751,494.

RESOLVED FURTHER that the SCVWA's General Manager or its President and Secretary are thereupon authorized, upon receipt of appropriate payment and performance bonds, appropriate certificates of insurance and an executed Contract Agreement from Zim Industries, Inc., all of which must be approved by General Counsel, to execute the said Contract Agreement on behalf of the SCVWA.

RESOLVED FURTHER that the SCVWA's General Manager or Chief Engineer are thereafter authorized to execute and forward to Zim Industries, Inc. an appropriate Notice to Proceed.

President

I, the undersigned, hereby certify: That I am the duly appointed and acting Secretary of the Santa Clarita Valley Water Agency, and that at a regular meeting of the Board of Directors of said Agency held on April 5, 2022 the foregoing Resolution No. SCV-268 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: April 5, 2022

SANTA CLARITA VALLEY WATER AGENCY ESTABLISHED JANUARY 1 2018 CALIFORNIA

Secretary

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EXHIBIT A

Mitigation and Monitoring Plan
Castaic Lake Water Agency
Groundwater Containment, Treatment, and Restoration Project

This Mitigation and Monitoring Plan (MMP) specifies mitigation actions and monitoring and reporting requirements for the *Castaic Lake Water Agency Groundwater Containment, Treatment, and Restoration Project*, consistent with the project Initial Study and Final Mitigated Negative Declaration. For each action or class of actions identified in the above documents, this plan specifies the following:

The required action
The schedule
The party responsible for implementing the action
The required reports
The entity to receive reports

For ease of use, the MMP is presented in tabular format. Adoption of this Mitigation and Monitoring Plan constitutes a commitment by Castaic Lake Water Agency (CLWA) to comply with and fund the require mitigation and monitoring. At its discretion, CLWA will implement the MMP through construction contractors and other independent contractors, as noted. In all cases, CLWA's Project Manager and/or designated compliance staff will routinely audit contractor compliance with the requirements of the MMP.

In general, construction contractors will implement aspects of the MMP related to the acquisition and compliance with construction permits from the City of Santa Clarita, the County of Los Angeles, and the State of California. If it is determined that such plans are required, this may include preparation of construction plans such as the State of California Storm Water Pollution Prevention Plan. CLWA's primary role in these efforts will be to require these activities as part of the scope of work for each construction project and contract, to review plans and specifications, to periodically conduct compliance audits to ensure that contractors are acting in accordance with their plans, and to maintain records of all compliance activities and reports. CLWA may independently contract for specialized compliance monitoring, such as monitoring related to biological and cultural resources; these independent monitors will work with construction contractors to ensure compliance with mitigation and monitoring plan requirements. The MMP is thus organized to make the responsibilities of CLWA, design engineers, construction contractors, and independent contractors clear, and thus focuses on the actions required by each entity.

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Table MMP-1. Mitigation and Monitoring Commitments Checklist (R = Review, C = Specify requirement in construction contract, A = Compliance Action, RP = Reporting Requirement, I = Inspect, M = Maintain during operation, NA = not applicable)

Impact Category	Mitigation Measure (See Initial Study for details)	Responsible Parties and Role			
		CLWA	Design Contractor	Construction Contractor	Independent Contractor
Aesthetics	Design and construct Treatment Plant to be consistent with Rio Vista Intake Pump Station	RC	A	AR	NA
	Landscape proposed treatment facility along the bike trail	RC	A	AR	NA
	Ensure Treatment Plant lights are directed away from bike trail	RC	A	AR	NA
	Contain wells in structures and landscape	RC	A	AR	NA
Air Quality	Comply with SCAQMD Rule 403	RI	NA	AR	NA
	Comply with SCAQMD Rule 1179 (b) (6)	RI	A	AR	NA
Biological Resources	Install automatic shut off valves in perchlorate pipeline to ensure pipeline shut down if pipeline is damaged during operation	RIM	A	AR	NA
	Schedule construction along south bank of Santa Clara River and Bouquet Canyon Road for September 1-February 1	RC	NA	AR	NA
	For construction outside of the September 1-February 1, survey weekly for raptor nests 30 days prior to initiation of construction.	RC	NA	NA	AR
	If nests are found within 300 feet of construction area (500 feet for raptors), suspend construction until nests are empty, young have fledged, and there is no evidence of new nesting activity	RC	NA	AR	AR
	Flag construction areas to clearly mark off-limits areas at 300-foot and 500-foot from active nests	RC	NA	AR	AR
	Survey for bats under the Bouquet Canyon Bridge. If bats are located, impacts may be avoided by scheduling work during the non-nesting season (after September 1 and before March 1). Bats leaving the structure at night may then be excluded from returning to the bridge with fine mesh. CLWA will consult with CDFG during implementation of such impact avoidance measures.	RC	NA	AR	AR
	Develop and conduct a CDFG and USFWS training program for workers along the south bank of the Santa Clara River and Bouquet Canyon Road; post species information at the site	RC	NA	AR	AR

	Following biological survey to confirm no special status species at the construction site, install fine-mesh drift fence along boundary between river and construction site along the south bank of the Santa Clara River and Bouquet Canyon Road	RC	NA	AR	AR
	For installation of pipelines at Bouquet Canyon Road bridge, comply with CDFG 1600 permit requirements. Specifically: a. All construction will be done in dry conditions; b. Construction equipment will access the river bed via an area without native riparian vegetation; c. Construction equipment fueling and maintenance will be performed outside of the riverbed or if necessary these activities will be performed using containment vessels; d. Spills of fuel or other materials used during construction will be immediately reported and cleaned up in accordance with rules of the Regional Water Quality Control Board.	RC	NA	AR	AR
	To the extent feasible, along Mainstem and South Fork of Santa Clara river, use landward right-of way for side casting of spoil and for construction laydown and vehicle fueling and maintenance to isolate these activities from the river.	RC	NA	AR	AR
Cultural Resources	Where there is potential to encounter buried cultural resources (roads and trails along the South Fork of the Santa Clara River): a. Prior to construction, train construction personnel regarding recognition of buried cultural remains and establish procedures to halt construction immediately and notify qualified archeologist. b. In areas near a known cultural resource site, a qualified archeologist shall monitor construction. If resources are found, initiate consultation with the State Historic Preservation Office. c. Comply with Department of Health Services requirements for treatment of buried human remains.	RC	NA	AR	AR
Geology and Soils	Install automatic shut off valves in perchlorate pipeline to ensure pipeline shut down if pipeline is damaged during operation	RIM	A	AR	NA
	On-going monitoring of Treatment Plant operation	A	NA	NA	NA
	Provide secondary containment vessels for hazardous treatment plant chemicals	AIM	A	AR	NA
Hazards and	Design, construct, and operate to provide for best management	AIM	A	AR	NA

Hazardous Materials	practices for handling of chemicals at chloramination facilities				
	Provide secondary containment vessels for hazardous treatment plant chemicals	AIM	A	AR	NA
	During construction, comply with City of Santa Clarita policies related to emergency response plans or evacuation plans	RC	NA	A	NA
	Comply with City of Santa Clarita Encroachment Policy and County of Los Angeles Code, Division 1, Title 16 (where appropriate) regarding trench backfill and covering	RC	NA	AR	NA
Hydrology and Groundwater Quality	Contain construction-site drainage and sediments: a. Daily pre-construction equipment inspections to detect and repair leaks b. Use of secondary containment for fueling and chemical storage areas c. Use of secondary containment for equipment wash water d. Use of silt traps or basins to control runoff e. Cover stockpiles to prevent runoff f. Protect loose soils areas from potentially erosive runoff g. For construction in the river channel, equipment shall be fitted with secondary containment materials at potential oil/fuel leakage sites.	RCI	NA	AR	NA
	Prepare a *Storm Water Pollution Prevention Plan* if required	RC	NA	AR	NA
Noise	For construction adjacent to housing, comply with City of Santa Clarita Noise ordinances: a. Permanent above-ground facilities (wells and treatment plant) will be contained in structures to ensure adjacent noise levels are below levels established for facilities in commercial and manufacturing areas; b. Limit construction to the period 7 am to 7 pm; c. Monitor noise levels adjacent to housing and if levels at adjacent housing exceed City Noise Ordinance permitted levels (65 dBA), install temporary noise attenuation barriers	RC	A	AR	NA
Recreation	No more than one segment of bike trail will be affected at any time	RC	NA	AR	NA
	Detours around the construction zone will be as short as possible and temporary. As part of this action, post and maintain	RC	NA	AR	NA

	signage related to trail closures and detours.				
Transportation and Traffic	Comply with City of Santa Clarita Encroachment Permit Policy and/or County of Los Angeles Public Works Encroachment Permit requirements, County Code Division 1, Title 16 As feasible, limit construction related truck trips on state highways to off-peak commute periods. Obtain Caltrans Transportation Permit for transport of oversized or over-weight vehicles on State highways. Avoid excessive or poorly timed truck platooning.	RC	NA	AR	NA

Table MMP-2. Mitigation and Monitoring Responsibilities

1. CLWA Responsibilities (CLWA Compliance Manager amd/or Project Manager)			
Action	**Schedule**	**Required Reports**	**Report provided to:**
Assign a staff person (compliance manager) to oversee compliance with the commitments of the Initial Study and Mitigated Negative Declaration.	Prior to issuing construction contracts	None	None
Incorporate monitoring requirements in construction contracts and scopes of work	Prior to issuing contracting documents	Memo Record of Review	PM
Review Designs and Specifications to ensure that mitigation commitments related to design and construction are met	Prior to approving designs and specifications	Memo Record of Review	PM
Review project schedule to ensure that mitigation commitments related to scheduling are met	Prior to approving schedule	Memo Record of Review	PM
Periodic inspection of contractor compliance records	On-going	Memo Record of Review	PM
Contracting for independent mitigation and monitoring services for biological monitoring and management for construction along the south bank of the Santa Clara River and at bridge crossings along Bouquet Canyon Road	Schedule to ensure that services will be available at least 30 days prior to initiation of construction in these alignments	Memo Record of Review Approved contract	PM
Contracting for independent mitigation and monitoring services for cultural resources monitoring and management for construction activities involving work where excavations may extend to previously undisturbed soils and to coordinate with permitting agencies and the State Historic Preservation office during pre-construction planning	Initiated upon CLWA Board adoption of MND or approval of the proposed project	Memo Record of Review Approved contract	PM
Periodic inspection of construction sites during construction to confirm contractor compliance with construction monitoring and mitigation requirements	During construction mobilization, activity, and demobilization	Inspection Report/Checklist	PM
On-going coordination with permitting agencies prior to, during, and following construction; resolution of construction-related issues	During construction mobilization, activity, and demobilization	Inspection Report/Checklist	PM
Resolution of issues raised by permitting agencies and/or the public related to contractor mitigation and monitoring activities	On-going following CLWA Board adoption of the mitigated negative declaration and approval of the project	Memo Report of issues and their resolution	PM
Maintain a file of mitigation and monitoring compliance documents	During design, construction, mobilization, demobilization, and	NA	PM

	initial start-up and inspection of facilities		
Apply for CDFG Section 1600 Permit for work in the Santa Clara River (installation of pipelines under bridge decks). Incorporate required monitoring and mitigation requirements into construction contracts.	Prior to issuance of construction contracts	Memo Report certifying that construction contracts include 1600 permit requirements	PM
Inspect, operate and maintain all facilities to minimize the potential for facility damage and associated release of water from pipelines and chemicals used in facility operations.	On-going	NA	NA
2. Design Engineers			
Action	**Schedule**	**Required Reports**	**Report provided to:**
Review Department of Health Services permit requirements for the treatment plant and ensure compliance with these requirements	During Design	Memo certifying compliance with approved plans and specifications	Compliance Manager and PM
Design facilities in accordance with (as appropriate) a. DHS requirements b. Standard Specifications for Public works Construction	During Design	Memo certifying compliance with approved plans and specifications	Compliance Manager and PM
Design above-ground facilities to be consistent with surrounding buildings per aesthetics commitments	During design	Memo certifying compliance with approved plans and specifications	Compliance Manager and PM
Design pipelines and treatment facilities to provide for pipeline automatic shutoff valves and hazardous materials containment	During design	Memo certifying compliance with approved plans and specifications	Compliance Manager and PM
3. Construction Contractors and Independent Monitoring Contractors (Biological and Cultural)			
Action	**Schedule**	**Required Reports**	**Report provided to:**
As needed, obtain permit applications and file permit requests with City of Santa Clarita for Encroachment Permit and/or County of Los Angeles Public works Encroachment Permit (including, as needed, development and processing of a State *Storm Water Pollution Prevention Plan*)	30 days prior to construction in the public right of way	Copy of Encroachment Permit Application	CLWA PM
Develop appropriate compliance and reporting procedures for all work for which action is specified on Table MMP-1.	Prior to initiation of construction	Copy of compliance and reporting procedures, with City/County approval as needed	CLWA PM
Comply with encroachment permits, including but not limited to:	On-going during mobilization,	Copies of insurance certificates,	CLWA PM

a. Notification of start of work b. Contact of Underground Service Alert c. 24-hour prior notification of persons within 300 feet of work d. Utility repair e. Caltrans MUTCD California Supplement f. Lane closure hours g. Reports of damage to traffic control equipment h. Trench/hole closure when work is not in progress i. Testing and certification of trench compaction j. Testing and certification of paving k. Removal of Underground Service Alert markings l. Compliance with utility cover requirements m. Use of non-skid steel plates to cover open trenches n. Use of recessed steel plating if required o. Night work plan approved by City as needed p. Backfill requirements met q. Concrete/asphalt removal requirements met r. Sidewalk removal and replacement requirements met s. Heavy equipment transportation requirements met	construction, and demobilization (Daily, weekly, monthly as specified in encroachment permits)	compliance reports, checklists, City/County inspection reports, correspondence with City and County, and other required reports or documentation	
Comply with SCAQMD Rule 403, including but not limited to: a. Designation of a dust control supervisor per Rule 403 b. Table 1: Best Available Control Measures	On-going during mobilization, construction, and demobilization (Daily, weekly, monthly as specified in encroachment permits)	Copies of insurance certificates, compliance reports, checklists, City/County inspection reports, correspondence with City and County, and other required reports or documentation	CLWA PM
Comply with biological resources mitigation measures per Table MMP-1. For work along the south bank of the Santa Clara River and Bouquet Canyon Road, the biological monitor shall periodically inspect construction and shall have the authority to stop construction if necessary to ensure compliance with biological resources mitigation measures.	On-going during mobilization, construction, and demobilization (Daily, weekly, monthly as specified in encroachment permits)	Copies of, compliance reports, checklists, results of field surveys prior to and during nesting season, correspondence with CDFG and USFWS, copies of construction training materials, and other required reports or documentation	CLWA PM
Comply with cultural resources mitigation measures per Table MMP-1.	On-going during mobilization, construction, and demobilization (Daily, weekly, monthly as specified in encroachment permits)	Copies of, compliance reports, checklists; correspondence with SHPO, DHS, and the Native American Heritage Commission,	CLWA PM

		as needed; copies of construction training materials; and other required reports or documentation	
Comply with plans and specifications with regard to all features related to leak prevention, and containment of hazards and hazardous materials.	On-going during mobilization, construction, and demobilization (Daily, weekly, monthly as specified in the noise ordinance)	Copies of insurance certificates, compliance reports, checklists, inspections, City inspection reports, correspondence with City, and other required reports or documentation	CLWA PM
Implementation of Best Management Practices for stormwater runoff control to contain runoff and sediment from construction. Preparation of a State *Storm Water Pollution Prevention Plan* if required. Specifically: a. Daily pre-construction equipment inspections to detect and repair leaks b. Use of secondary containment for fueling and chemical storage areas c. Use of secondary containment for equipment wash water d. Use of silt traps or basins to control runoff e. Cover stockpiles to prevent runoff f. Protect loose soils areas from potentially erosive runoff g. For construction in the river channel, equipment shall be fitted with secondary containment materials at potential oil/fuel leakage sites.	On-going during mobilization, construction, and demobilization (Daily, weekly, monthly as specified in the noise ordinance)	Copies of construction runoff control plan (a formal State *Storm Water Pollution Prevention Plan* as required), compliance reports, checklists, inspections, City inspection reports, correspondence with City, and other required reports or documentation	CLWA PM
Compliance with City of Santa Clarita Noise ordinances	On-going during mobilization, construction, and demobilization (Daily, weekly, monthly as specified in the noise ordinance)	Copies of insurance certificates, compliance reports, checklists, City inspection reports, correspondence with City, and other required reports or documentation	CLWA PM
Comply with MMP requirements for minimizing impacts to trails, including: a. Completion of construction and restoration of each segment of bike trail prior to initiation of construction of other segments b. Provide the shortest feasible detours around construction	On-going during mobilization, construction, and demobilization (Daily, weekly, monthly as specified in the noise ordinance)	Maps showing trail segments and proposed detours, schedule for construction,	CLWA PM

c. Post and maintain signs for trail closures and bike traffic detours d. Coordinate with City of Santa Clarita on bike trail closings and detours			

EXHIBIT B

PUBLIC NOTICE
INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
Castaic Lake Water Agency, Santa Clarita, CA

Project Title, Description, and Location: Groundwater Containment, Treatment, and Restoration Project

Castaic Lake Water Agency proposes a two-component Groundwater Containment, Treatment, and Restoration Project. The first component will involve construction and use of existing facilities to intercept perchlorate contaminated groundwater, convey this water to a new treatment plant for treatment, and put the resulting clean water to beneficial use. The second component will involve construction and use of existing facilities to restore historic production from several wells that will be permanently closed due to contamination by perchlorate. Facilities will involve a new treatment plant, pipelines constructed in road and bike-trail rights-of-way, modifications to existing wells and pipelines, and new wells. If the Proposed Project is implemented, construction of underground pipelines and other facilities will occur in the following locations:

1. On the west side of San Fernando Road south of Magic Mountain Parkway
2. Parallel to Magic Mountain Parkway from San Fernando Road to Valencia Boulevard
3. Parallel to Valencia Boulevard/Soledad Canyon Road from Magic Mountain Parkway to the bridge at Bouquet Canyon Road
4. Across the Santa Clara River along Bouquet Canyon Bridge
5. Within the levee/bike trail west of Bouquet Canyon Bridge to The Rio Vista Intake Pump Station
6. Within the trail corridor west of the South Fork of the Santa Clara River
7. Within the bike trail along the south levee of the Santa Clara River from the Valencia Boulevard bridge to McBean Parkway
8. At Castaic Lake Water District's existing facilities at Furnivall Avenue
9. Parallel to Magic Mountain Parkway from Interstate 5 west to an unpaved road west of Magic Mountain Amusement Park
10. Along the unpaved road west of Magic Mountain Amusement Park

California State Law requires Castaic Lake Water Agency to conduct environmental review to determine if a project may have a potentially significant effect on the environment. Environmental review examines the nature and extent of any potentially significant adverse impacts on the environment that could occur if a project is approved and implemented. The Board of Directors of the Castaic Lake Water Agency would require the preparation of an Environmental Impact Report if the review concluded that the proposed project could have significant unavoidable effects on the environment. The California Environmental Quality Act (CEQA) requires this notice to disclose whether any listed toxic sites are present; there are no listed toxic sites within the proposed construction areas.

Based on initial study, the General Manager has concluded that the project, which incorporates a number of impact avoidance, minimization, and mitigation measures, will not have significant adverse effects on the environment. The project has been formulated to avoid such impacts where there was a potential for them to occur. Castaic Lake Water Agency has sent this intent to adopt a Mitigated Negative Declaration for the proposed project to the State Clearinghouse, responsible agencies, trustee agencies, and the County Clerks of Los Angeles and Ventura to inform them of a public hearing on the project that will be on September 14, 2005 at the administration building of Castaic Lake Water Agency, 27234 Bouquet Canyon Road, Santa Clarita, CA 91350 at 5:00 PM. The draft Mitigated Negative Declaration, initial study, and the referenced technical documents are available for review under the above file number from 9:00 a.m. to 4:30 p.m., Monday through Friday at Castaic Lake Water Agency, 27234 Bouquet Canyon Road, Santa Clarita, CA 91350. The public review period for the Mitigated Negative Declaration is from August 9, 2005 through September 8, 2005. Written comments on the Proposed Project must be received by Castaic Lake Water Agency, 27234 Bouquet Canyon Road, Santa Clarita, CA 91350, ATTN: Mr. Ken Petersen, Project Manager on or before 5:00 PM, September 8, 2005.

Adoption of a Mitigated Negative Declaration does not constitute approval of the proposed project. The decision to approve or deny the project described will be made separately. For additional information or to obtain a copy of the draft Mitigated Negative Declaration, please call Ken Petersen, Project Manager, at 661-513-1260.

Dan Masnada
General Manager
Castaic Lake Water Agency

Circulated on: August 5, 2005

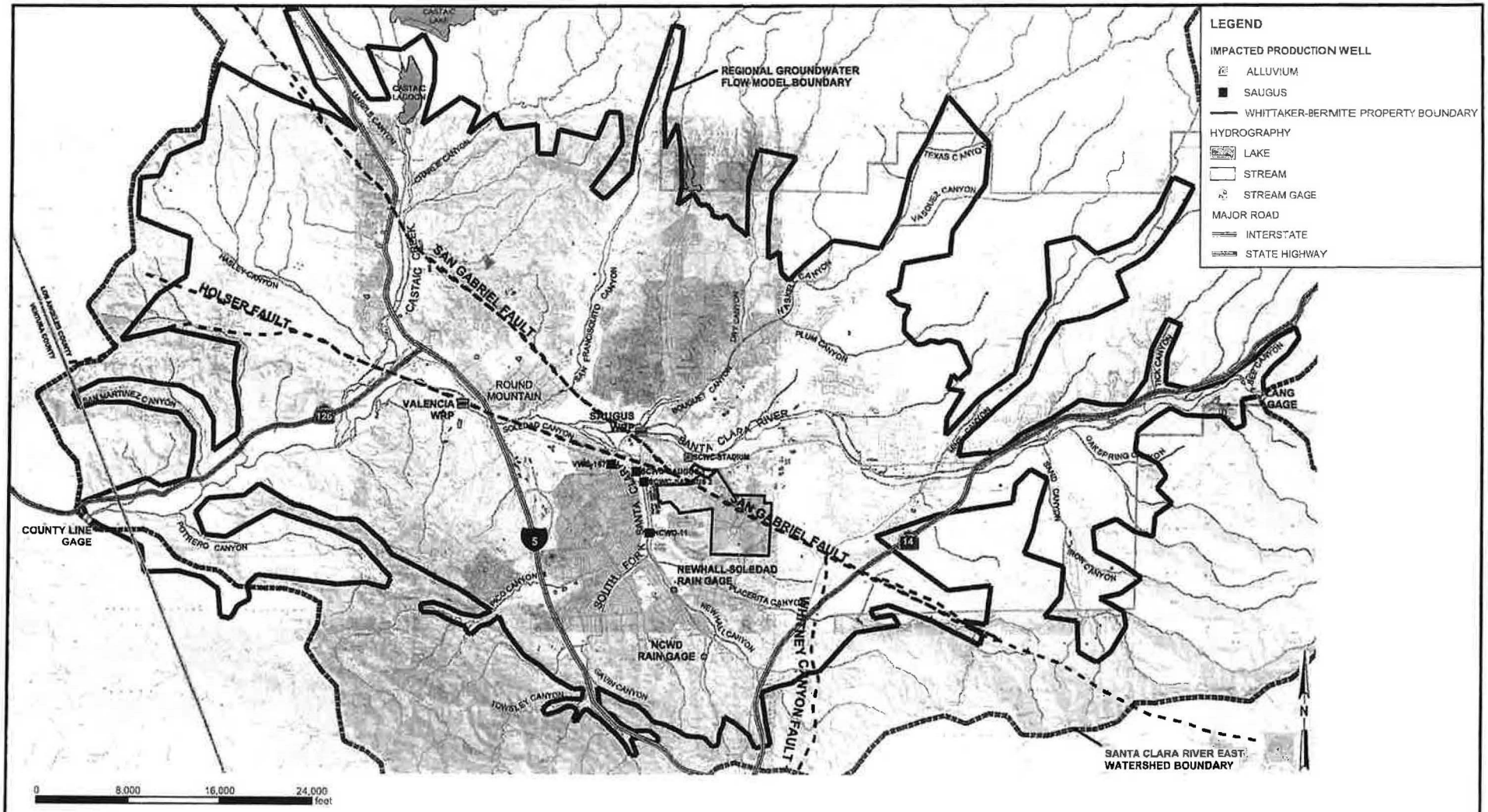

Figure 1
MAP OF STUDY AREA
ANALYSIS OF PERCHLORATE CONTAINMENT IN GROUNDWATER NEAR THE WHITTAKER-BERMITE PROPERTY
SANTA CLARITA, CALIFORNIA

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MITIGATED NEGATIVE DECLARATION

Project Name: Castaic Lake Water Agency, Groundwater Containment, Treatment, and Restoration Project

Project File Number: NA

Project Location: The project is located in the City of Santa Clarita and on lands west of the City of Santa Clarita and southwest of Magic Mountain Amusement Park.

County Supervisorial Districts: Fifth District (Michael Antonovich)

Mailing Address and Phone Number of Applicant Contact Person for this Project:

Mr. Ken Petersen,
Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350-2173
Phone 661-513-1260

Project Description:

The purpose of the proposed Castaic Lake Water Agency Groundwater Containment, Treatment, and Restoration Project (Proposed Project) is to prevent further perchlorate contamination of groundwater basins in the Santa Clarita Valley originating at an historic weapons manufacturing site located east of the South Fork of the Santa Clara River near the confluence of the South Fork and the Mainstem Santa Clara River. The Proposed Project will intercept the existing plume of perchlorate in the Saugus Formation groundwater and pump the contaminated water from intercepting wells to a new treatment plant, where perchlorate will be removed and the treated water utilized as part of Castaic Lake Water Agency's (CLWA) drinking water supply.

The Proposed Project would involve (a) modification of existing production wells, (b) construction and operation of new monitoring and production wells, (c) modification of existing pipelines and construction of new pipelines, (d) construction of a new, modular perchlorate water treatment plant, and (e) closing of existing production wells.

The Propose Project has two interrelated elements. First, there are facilities for the containment and treatment of perchlorate-contaminated groundwater. Second, there are service restoration facilities to replace and relocate existing facilities which must be closed or modified to accomplish the containment program objectives. With the exception of two pipeline segments under bridge decks, pipelines will be buried. The Proposed Project incorporates a number of conservation/impact minimization measures into its project description, including measures related to:

- Facility Siting
- Construction Schedule
- River Crossings

- Best Management Practices, Construction in Roads
- Best Management Practices, Construction in Bike Trails
- Aesthetic Treatment of the Treatment Facility
- Air quality
- Noise
- Biological Resources
- Water Quality
- Cultural Resources

As appropriate, these conservation/impact minimization procedures will be incorporated into construction contracts and performance will be independently verified by CLWA and/or qualified monitors. These elements of the project, described in full in the attached Initial Study, result in reduction of potential environmental impacts to a level of less-than-significant. In addition, CLWA proposes an additional site-specific monitoring and mitigation measure related to noise that may be implemented if on-site monitoring determines that minimization measures have not reduced noise levels to the desired levels.

The Proposed Project is described in greater detail in the attached Initial Study.

Measures Included in the Project to Reduce Potentially Significant Effects to a Level of Less-Than-Significant (See Initial Study for more detail on the measures outlined below.)

Aesthetics: Facilities have been sited to avoid impact to scenic resources. Above ground facilities will be designed to be consistent with existing visual character of adjacent development.

Agricultural Resources: None. The Proposed Project will not affect agricultural resources.

Air Quality: The Proposed Project incorporates best management practices per Rule 403 of the South Coast Air Quality Management District, Table 1.

Biological Resources: The project has been sited to avoid direct impact to wildlife and wildlife habitat. Indirect effects associated with noise and visual disturbance are avoided/minimized by construction scheduling outside of nesting/breeding season for special-status birds in the adjacent Santa Clara River. The project includes construction crew training, on-site biological monitoring, and isolation of the construction area from any adjacent habitats during construction to prevent adverse impacts associated with wildlife incidental use of the construction area.

Cultural Resources: Project siting focuses on already heavily disturbed areas, reducing the potential for effects on cultural resources. Where buried cultural resources may occur, construction personnel training, construction monitoring and resource recovery, and compliance with California Department of Health Services requirements of treatment of buried human remains will reduce cultural resource impacts to a level of less-than-significant.

Geology and Soils: Mitigation measures to reduce erosion and drainage from construction sites are included, consistent with the requirements of the City of Santa Clarita Encroachment Permit Policy.

Hazards and Hazardous Materials: Materials associated with operation of the perchlorate treatment facility are stable and not considered hazardous. All water treatment materials will be transported,

handled, and stored in accordance with current regulations, including use of secondary containment vessels.

Hydrology and Water Quality: The project includes best management practices for construction to avoid and minimize potential construction-related effects on drainage and water quality.

Land Use and Planning: None. The Proposed Project would have no effects on land use.

Mineral Resources: None. The Proposed Project would have no effects on mineral resources.

Noise: Project siting reduces potential construction and operation related noise impacts. The Proposed Project incorporates measures that will reduce potential noise from above ground facilities. The Proposed Project includes noise monitoring and mitigation measures to reduce noise effects on residential housing adjacent to pipeline construction areas.

Population and Housing: None. The Proposed Project would have no effects on population and housing.

Public Services: None. The Proposed project has no effects on public service requirements or facilities.

Recreation: None. The Proposed Project will have only temporary and less-than-significant impacts on recreation facilities.

Transportation and Traffic: Construction best management practices defined in the City of Santa Clarita Encroachment Permit will be implemented to minimize traffic effects associated with construction in and adjacent to roads.

Utilities and Service Systems: Pre-construction coordination will identify potential utilities which may be affected by the project and coordination with owners and construction best management practices will avoid impacts to utilities.

Cumulative Impacts: None. The Proposed Project has no significant cumulative impacts.

Mandatory Findings of Significance: None. The Proposed Project does not cause impacts that require a mandatory finding of significance

FINDINGS

With the implementation of the mitigation measures outlined above and detailed in the attached Initial Study, the Proposed Groundwater Containment, Treatment, and Restoration Project will have less-than-significant impacts on the environment.

PUBLIC REVIEW PERIOD

Before 5:00 PM on September 8, 2005, any person may:

(1) Review the Draft Mitigated Negative Declaration (MND)

(2) Submit written comments regarding the information, analysis, and mitigation measures in the Draft MND. Before the MND is adopted, CLWA staff will prepare written responses to any comments, and revise the Draft MND, if necessary, to reflect any concerns raised during the public review period. All written comments will be included as part of the Final MND, and/or

(3) File a formal written protest of the determination that the project would not have a significant effect on the environment. This formal protest must be filed at the Castaic Lake Water Agency, 27234 Bouquet Canyon Road, Santa Clarita, CA 91350-2173, Attention: Mr. Ken Peterson. The written protest should make "fair argument" based on substantial evidence that the project will have one or more significant effects on the environment. If a valid written protest is filed with the Board of Directors of the Castaic Lake Water Agency within the noticed review period, the Board of Directors may (1) adopt the MND and set a noticed public hearing on the protest before the Board of Directors, (2) require the preparation of an environmental impact report and refund the filing fee to the person who filed the protest, or (3) require the draft MND to be revised and undergo additional noticed public review, and refund the filing fee to the person who filed the protest.

Dan Masnada
General Manager
For Castaic Lake Water Agency

Circulated on: August 5, 2005

CEQA Initial Study

Castaic Lake Water Agency
Groundwater Containment, Treatment, and Restoration Project

August 2005

Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, California 91350-2173

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CEQA Initial Study
Castaic Lake Water Agency
Groundwater Containment, Treatment, and Restoration Project

I. INTRODUCTION

A. Background

In 1962, Castaic Lake Water Agency (CLWA) was created by the California Legislature by the "Castaic Lake Water Agency Law." Under this and subsequent legislation, CLWA's mandate is to (a) acquire water from the State, (b) distribute such water wholesale through a transmission system to be acquired and constructed by CLWA, (c) reclaim (recycle) water, (d) sell water at retail within certain boundaries, and (e) exercise other related powers.

CLWA, through its Santa Clarita Water Division, also operates at a retail level in cooperation with Los Angeles County Waterworks District 36 (LACWD), Newhall County Water District (NCWD), and Valencia Water Company (VWC) to manage imported and local groundwater supplies. Historically, groundwater supplies have been derived from the Saugus Formation and the Santa Clara River Alluvial Aquifer (Kennedy/Jenks 2005a). The Saugus Formation is a deep aquifer covering approximately 85 square miles, contains about 1.65 million acre-feet of water which may be economically put to beneficial use, and has potential to produce approximately 35,000 acre-feet of water per year for short periods. The Alluvial Aquifer is shallower and is annually replenished by flow in the Santa Clara River, which percolates into the sandy-gravelly soils of the riverbed. Groundwater in the Alluvial Aquifer migrates downstream and, in the reach east of Interstate 5, recharges the Saugus Formation through percolation. In 2004, groundwater pumping in the Santa Clarita Valley totaled 40,300 acre-feet, with 33,800 acre-feet from the Alluvial Aquifer and 6,500 acre-feet from the deeper Saugus Formation (Luhdorff & Scalmanini 2005). CLWA's contractual rights to SWP water total 95,200 af/y, and include a water transfer of 41,000 af/y approved in 1999 from Wheeler Ridge-Maricopa Water Storage District, a member unit of the Kern County Water Agency[1]

1. CLWA's Environmental Impact report ("EIR") prepared in connection with the 41,000 af/y water transfer was challenged in *Friends of the Santa Clara River v. Castaic Lake Water Agency* (Los Angeles Superior Court, Case Number BS 056954) ("*Friends*"). On appeal, the Court of Appeal, Second Appellate District, held that since the 41,000 af/y EIR tiered off the Monterey Agreement EIR that was later decertified, CLWA would also have to decertify its EIR, as well as prepare a new EIR. On remand, however, the trial court refused to enjoin CLWA from using any water that is part of the 41,000 af/y transfer. Thereafter, CLWA prepared and circulated a draft EIR for the transfer; comments were received during the public comment period for the draft EIR. In addition, CLWA held two separate hearings on the EIR to give the public additional opportunities to comment. CLWA approved the revised EIR for the transfer on December 22, 2004 and lodged the revised EIR with the Los Angeles County Superior Court as part of its Return to the Preemptory Writ of Mandate in *Friends*. In January 2005, two new challenges to CLWA's environmental review were filed in the Ventura County Superior Court by the Planning and Conservation League and by the California Water Impact Network; these cases have been consolidated and transferred to Los Angeles Superior Court. In February, an order dismissing the original case, *Friends*, with prejudice was entered by the Los Angeles County Superior Court.

Based on the Department of Water Resources *Final State Water Project Delivery Reliability Report*, average SWP deliveries are anticipated to be 76% of Table A contractual supplies, or 72,352 af/y. Combined, groundwater and SWP supplies are adequate to provide an average of about 112,000 af/y. With available recycled water and supplemental SWP supplies, CLWA has more than 133,000 acre-feet of supply available in 2005. CLWA has entered into two ten-year agreements with Semitropic Water Storage District in Kern County, whereby CLWA banked almost 51,000 acre-feet of CLWA's Table A supply for later delivery in dry years, thus ensuring dry-year reliability through 2013. CLWA is also conducting environmental compliance of a long-term banking program with Rosedale-Rio Bravo Water Storage District as the first element of achieving full reliability of 76% of its Table A Amount. CLWA has an aggressive and successful voluntary water conservation program that, in the 1990's, resulted in a 10% to 20% decrease in water demand during that drought period.

Groundwater supplies and production in the Saugus Formation and downstream Alluvial Aquifer of the Santa Clara River are currently threatened by contamination from historic land uses at the Whittaker Corporation's Bermite Facility (Figure 1; hereafter "Whittaker-Bermite Property"). Past operations at this facility introduced perchlorate into the Saugus Formation. Recent Los Angeles District U. S. Army Corps of Engineers (USACE) and CLWA data (Slade 2001; CH2M HILL 2005) show elevated levels of perchlorate in 4 production wells downgradient from the Whittaker-Bermite Property and at other sites in and adjacent to the Alluvial Aquifer (Table 1; Figures 2 and 3 for site locations). The Office of Environmental Health Hazard Assessment established a Public Health Goal of 6 parts per billion (µg/L) in March 2005, which was adopted by the California Department of Health Services (DHS) as the notification level for perchlorate.

Characterization studies to date have detected perchlorate in the shallow groundwater on the Whittaker-Bermite Property. As the plume of perchlorate moves downgradient and downstream, it results in elevated concentrations in production wells, primarily along the South Fork of the Santa Clara River and south of the Mainstem of the Santa Clara River. These concentrations are 3 to 8 times the proposed DHS action levels. Further downstream, there is evidence of the plume as well. In this reach, perchlorate concentrations in the USACE data from reconnaissance studies are generally lower than those in the production wells, but still exceed 6 ppb in many locations. Other evidence of the need to intercept perchlorate moving downgradient includes recently detected migration of perchlorate-contaminated groundwater into the Alluvial Aquifer east of the alignment of San Fernando Road. Based on these data, it is clear that perchlorate has migrated offsite in the direction of groundwater flow. The maximum concentration was found to date was at the Whittaker-Bermite Property in shallow groundwater at concentrations up to 10,000 times the concentrations proposed by DHS for short-term exposure in drinking water. This occurrence presents a significant long-term risk to the Santa Clara River aquifer system. In 1997, CLWA Purveyors responded to indications of perchlorate contamination and ceased production from five production wells (Table 2).

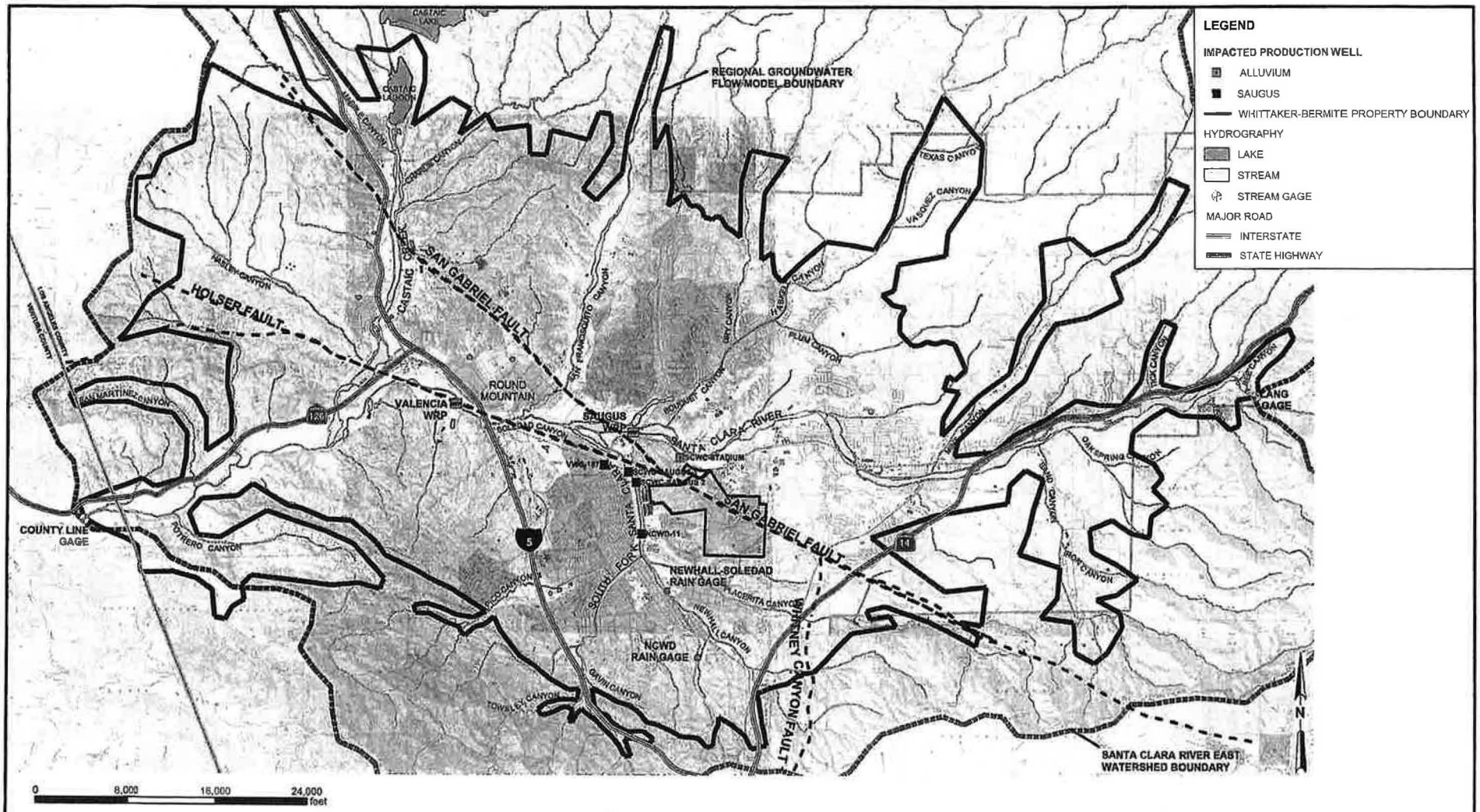

Figure 1
MAP OF STUDY AREA
ANALYSIS OF PERCHLORATE CONTAINMENT IN GROUNDWATER NEAR THE WHITTAKER-BERMITE PROPERTY SANTA CLARITA, CALIFORNIA

CH2MHILL

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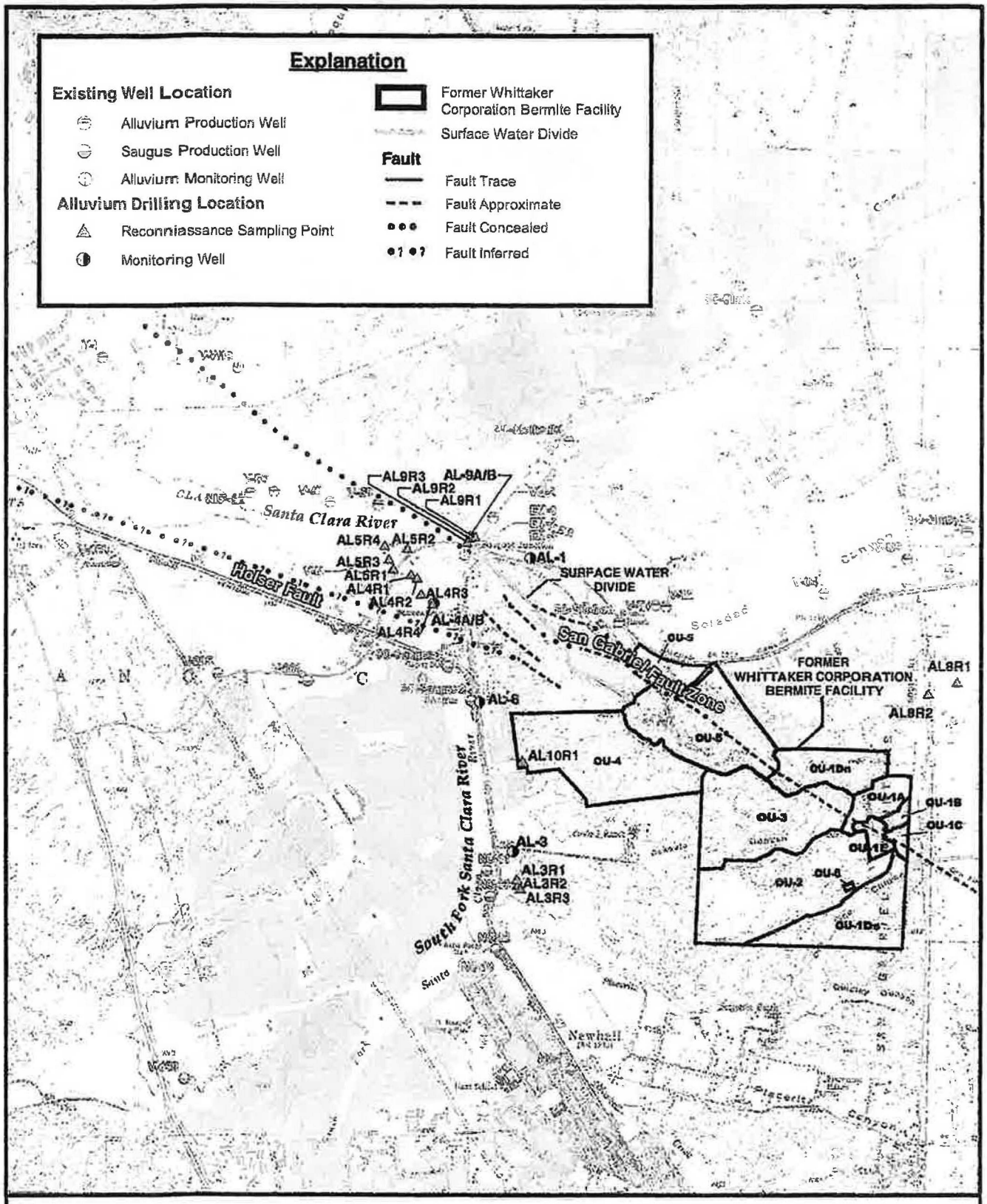


CH2MHILL

Figure 2
Alluvium Reconnaissance Sampling and Monitoring Well Locations
Santa Clarita, California

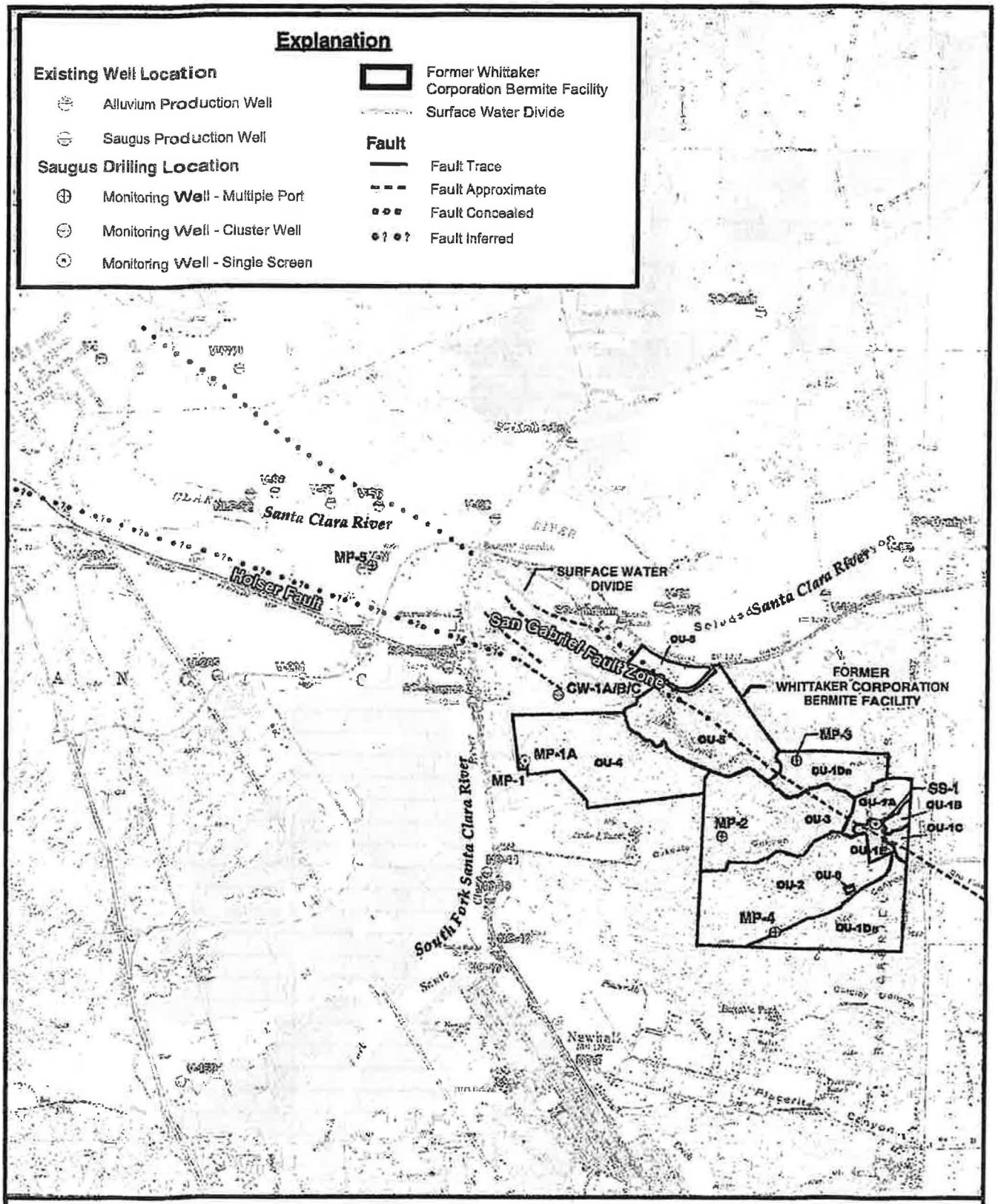


Figure 3
Saugus Formation
Monitoring Well Locations
Santa Clarita, California

Table 1. Results of perchlorate sampling in monitoring wells in the Saugus Formation and adjacent Alluvial Aquifer. (CH2M HILL 2005). Values in excess of 6 µg/l would exceed the California Department of Health Services Notification Level and are indicated in **bold type**.

AQUIFER: WELL	SURVEY DATES	PERCHLORATE CONCENTRATIONS (µg/l)
Alluvial: AL-1	10/09/03; 01/12/04; 04/20/04	**20.9 - 36.8**
Alluvial: AL-3	10/08/2003; 01/12/04; 04/20/04	**16.3 - 26.2**
Alluvial: AL-4A	10/08/03; 01/12/04; 04/20/04	**6.4 - 9.0**
Alluvial: AL-4B	10/08/03; 01/12/04; 04/20/04	**9.0-18.0**
Alluvial: AL-6	10/08/03; 01/13/04; 04/20/04	5.8 - **7.7**
Alluvial: AL-9A	10/08/03; 01/12/04; 04/20/04	**19.5 - 41.4**
Alluvial: AL-9B	10/09/03; 01/12/04; 04/20/04	**18.4 - 33.3**
Saugus: CW-1A	09/29/03; 01/13/04; 04/20/04	2.3 - 2.7
Saugus: CW-1B	09/30/03; 01/13/04; 04/20/04	1.2 - 3
Saugus: CW-1C	09/30/03; 01/13/04; 04/20/04	0.74 - 5.4
Saugus: EM-1	11/18/02; 07/10/03	3 - **6.5**
Saugus: EM-2	11/18/02; 07/10/03	3 - **23.0**
Saugus: EM3	07/10/03	**63.9**
Saugus: MP-1A	09/29/02; 01/13/04; 04/20/04	**19.3-21.0**
Saugus: MP1-01	01/16/03; 07/09/03; 01/15/04; 04/22/04	**20.9 - 25.0**
Saugus: MP1-02	01/16/03; 07/07/03; 01/15/04; 04/22/04	**9.1 - 114.0**
Saugus: MP1-03	01/16/03; 07/07/03; 01/15/04; 04/21/04	**14.9 - 29.9**
Saugus: MP1-04	01/16/03; 07/08/03; 01/15/04; 04/22/04	0.85-3.0
Saugus: MP1-05	01/15/03; 07/08/03	2.5 - 3.0
Saugus: MP1-06	01/15/03; 07/08/03	1.8 - 3.0
Saugus: MP1-07	01/14/03; 07/08/03	3.0 - 3.0
Saugus: MP1-08	01/14/03; 07/08/03	2.0 - 3.7
Saugus: MP1-09	01/13/03; 07/08/03	3.0 - **6.6**
Saugus: MP1-10	01/13/03; 07/08/03	3.0 - 3.0
Saugus: MP2-01	01/28/03; 07/10/03; 01/14/04	**56,000 - 64,500**
Saugus: MP2-02	01/29/03; 07/10/03; 01/13/04	**13,200 - 53,700**
Saugus: MP2-03	01/28/03; 07/10/03; 01/13/04	1.4 - **21,400**
Saugus: MP2-04	01/28/03; 07/10/03; 01/13/04	1.06 - **99.6**
Saugus: MP2-05	01/27/03; 07/10/03; 01/13/04	2.3 - 4.5
Saugus: MP2-06	01/27/03; 07/10/03; 01/13/04	**267 - 33,400**
Saugus: MP3-01	02/06/03; 07/10/03; 01/14/04; 04/21/04	3.0 - **7.0**
Saugus: MP3-02	02/06/03; 07/10/03; 01/14/04; 04/21/04	3.0 - **18.5**
Saugus: MP3-03	02/06/03; 07/09/03; 01/14/04; 04/21/04	3.0- **22.6**
Saugus: MP3-04	02/06/03; 07/10/03; 01/14/04; 04/20/04	3.0 - **29.0**
Saugus: MP4-01	02/05/03; 07/09/03; 01/15/04	2.0 - 3.0
Saugus: MP4-02	02/03/03; 07/09/03; 01/15/04	0.78 - 3.0
Saugus: MP4-03	02/03/03; 07/09/03	3.0 - 3.0
Saugus: MP4-04	02/03/03; 07/09/03	3.0 - 3.0
Saugus: MP4-05	02/03/03; 07/09/03	3.0 - 3.0
Saugus: MP5-01	02/03/03; 07/09/03; 10/02/03; 01/16/04; 04/22/04	3.0 - 4.9
Saugus: MP5-02	10/02/03; 01/16/04; 04/22/04	2.4 - 3.0
Saugus: MP5-03	10/01/03; 10/02/03; 01/16/04; 04/22/04	**7.6 - 9.1**
Saugus: MP5-04	10/01/03; 01/16/04; 04/22/04	**11 - 11.9**

Table 2. Production wells taken out of production due to perchlorate contamination, capacity in gallons per minute (gpm), historic production in af/y.

WELL NAME	AQUIFER	CAPACITY (GPM)	HISTORIC ANNUAL PRODUCTION (AF/Y)
Saugus (VWC-157)	Saugus	1500	NA
Saugus (Saugus 1)	Saugus	2600	NA
Saugus (Saugus 2)	Saugus	2600	NA
Saugus (NC-11)	Saugus	1200	NA
Subtotal		**7,900**	**4,000**
Stadium	Alluvial	800	1,300
Totals		**8,700**	**5,300**

B. Project Purpose and Need

Perchlorate contamination of water supplies is widely recognized as a potential threat to human health and safety. The perchlorate contamination in the vicinity of the Whittaker-Bermite Property threatens water quality in uncontaminated portions of the Saugus Formation and the Alluvial Aquifer, and has resulted in loss of about 5,300 acre-feet/year of production from five production wells. Without a program to contain and treat the contaminated water in the vicinity of the Whittaker-Bermite Property, the perchlorate is expected to migrate downstream and contaminate other portions of the Saugus Formation and Alluvial Aquifer groundwater basins. This, in turn, would result in further loss of local groundwater supply. To address these problems it is necessary to:

- Prevent further downstream migration of perchlorates (containment),
- Treat any water extracted as part of the containment process (containment); and
- Recover lost local groundwater production (production restoration).

Accomplishing these three objectives requires a coordinated strategy, because containment solutions involve the retirement of several wells and the conversion of existing treated water pipelines to convey untreated water to the new treatment facility. Treated water pipelines would then need to be replaced and re-aligned to (a) ensure reliable continued service and (b) connect replacement wells into the overall CLWA distribution system. The Proposed Project therefore has two functional but interrelated elements: containment/treatment facilities and service restoration facilities. These are treated distinctly below because the timing of their construction and operation varies. The primary objectives of the Proposed Project are to:

- Hydraulically contain perchlorate that is migrating westward in the Saugus Formation from the Whittaker-Bermite Property toward the impacted production wells;
- Hydraulically contain perchlorate that is present at wells MP-5 and VWC-157, which are located downgradient of the impacted wells;
- Protect downgradient production wells that are currently not impacted;
- Restore the annual volumes of water that were pumped from the impacted wells before they were shut down as a result of perchlorate contamination;

- Operate the impacted wells in a manner consistent with the CLWA's Amended 2000 Urban Water Management Plan (CLWA 2005) and the 2004 Santa Clarita Valley Water Report

In addition, it may be feasible to pump one or more of the impacted Saugus Formation production wells in a manner that also contains perchlorate migrating in the Alluvial Aquifer, but this is not a part of the Proposed Project.

II. PROPOSED PROJECT

A. Containment/Treatment Facilities

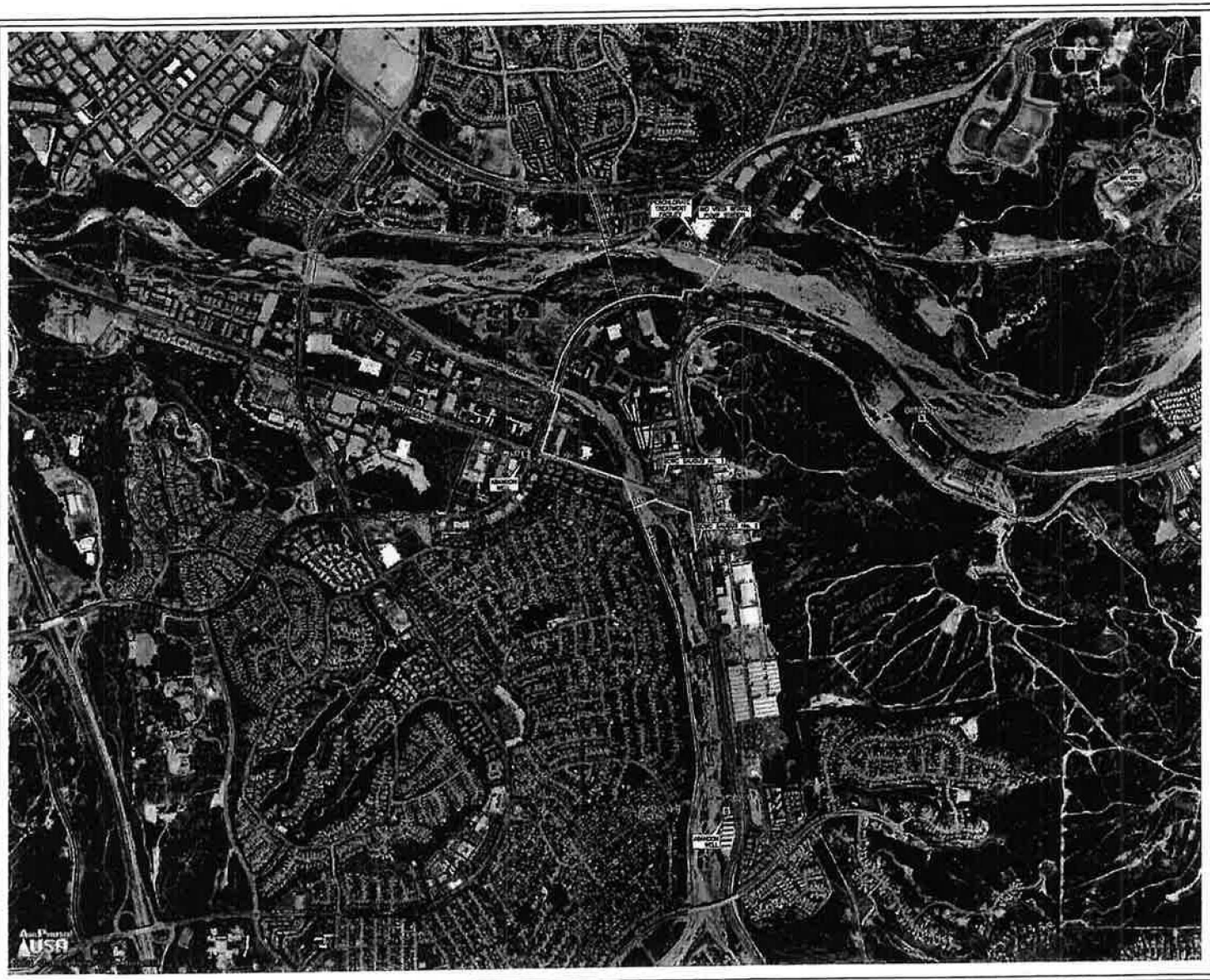
The Proposed Project for containment/treatment is based on analysis of temporal and spatial variations in groundwater flow patterns using the Regional Groundwater Flow Model for Santa Clarita Valley (Kennedy/Jenks 2005a). Model development and calibration are described in CH2M HILL (2004). Based on the model, the movement of contaminated water from the Whittaker-Bermite Property in the Saugus Formation was in a westerly direction. The San Gabriel Fault Zone, which runs east-west through the northern portion of the Whittaker-Bermite Property, was determined to provide a partial barrier to northward migration of the perchlorate-contaminated groundwater, and perchlorate-contaminated water could therefore be intercepted at the existing Saugus 1 and Saugus 2 wells, which are located near the intersection of Magic Mountain Parkway and San Fernando Road. Pumping of groundwater along the leading edge of the plume at these wells would effectively create a cone of depression adjacent to the wells. Perchlorate-contaminated water would then flow into this cone of depression where it would be extracted. The volume of extraction was evaluated to match it to the inflow of perchlorate-contaminated water, thereby maintaining a cone of depression that does not induce migration of better quality groundwater from the Alluvial Aquifer into the cone of depression. An extraction rate of from 1,100 gpm to 1,250 gpm is proposed.

Once extracted, the contaminated water would then be treated to remove the perchlorate and utilized. Over time, this interception of the contaminated plume would (a) reduce downstream migration of the plume and (b) collect the perchlorate and permanently remove it from the groundwater basin. Given that no new contamination would occur up-gradient from the interceptor wells, this strategy should eventually remediate the perchlorate problem.

The primary elements of the Containment Facilities to be constructed and operated (Figure 4; Table 3) are new pumps for existing production wells, new monitoring wells, new pipelines, and a new treatment plant for perchlorate removal. In addition, several existing wells would be removed. These facilities would provide for extraction of contaminated groundwater, conveyance of this water to a treatment facility, and treatment to remove perchlorates. The treatment plant would be tied into existing CLWA distribution pipelines to deliver treated water. Containment facility elements and specifications are shown on Table 3.

Table 3. Proposed Project Perchlorate Containment Facilities

FACILITY	SITE	DESCRIPTION (SEE FIGURE 4)
New pumps	Saugus-1 and Saugus-2 wells	**New** variable speed up to 1200 gpm each, installed at existing well site.
Network of monitoring wells	North of Saugus-2 and adjacent to alluvial basin	**New** Small-diameter wells not used for production, located to characterize the contaminant plume and to monitor program effectiveness; included up gradient wells managed in cooperation with other entities.
Conveyance to Treatment Plant	Road rights of way and bike trail	**Segment 1: New** 10" pipeline from Saugus-2, along San Fernando Road to connect with an existing 14-21 inch pipeline on the east side of the South Fork of the Santa Clara River.
		Segment 2: Connection of segment 1 to an existing 14-21" pipeline under the Santa Clara River, along Magic Mountain Parkway, and north along Valencia Blvd. to the bridge at the South Fork of the Santa Clara River.
		Segment 3. New 16" pipeline under the Valencia Blvd. bridge at the South Fork of the Santa Clara River, along the north/west right-of-way of Valencia Boulevard, along a bike path around the gas station at Bouquet Canyon Bridge, suspended on the west side of Bouquet Canyon Bridge, then west along a bike path to the Rio Vista Intake Pump Station.
Treatment Plant	At Rio Vista Intake Pump Station	**New** one-train, two vessel ion exchange system using Amberlite PWA2 strong-base anion exchange resin followed by chloramination disinfection with a rated capacity of 2400 gpm.
Conveyance from Treatment Plant	West of Treatment Plant	**Connect new Treatment Plant to existing Rio Vista Intake Pump Plant** and CLWA's existing treated water pipeline.



N

APPROX. SCALE IN FEET
1" = 800'

LEGEND

(E) CLWA PIPELINE

(E) CLWA PIPELINE CONVERTED TO CONTAMINATED WATER

(N) CONTAMINATED WATER PIPELINE

Kennedy/Jenks Consultants

Castaic Lake Water Agency

Figure 4
Containment Facilities

April 2005
K/J 034845.00

B. Containment Facility Operation

Containment wells would initially be operated at 1,100 gpm, and then adjusted based on monitoring well data to achieve effective containment of perchlorates. Adjustments would be made in consultation with the Department of Toxic Substance Control (DTSC). Contaminants would be treated in accordance with DHS requirements.

The containment treatment facility utilizes disposable filters to remove perchlorates (US Filter). The dual vessel design of the facility would provide for continuous operation. Primary filtration would occur in Vessel 1, with Vessel 2 providing a final "polishing." When the filter in Vessel 1 requires replacement, primary filtration would switch to Vessel 2 while the filter in Vessel 1 is removed and replaced. Filters would then be collected from the facility and transported off site to an approved commercial disposal facility. The perchlorate treatment plant would be monitored on a continuous 24-hour basis at the adjacent Rio Vista Intake Pump Station using a Supervisory Control and Data Acquisition (SCADA) program.

C. Facilities for Restoration of Service

The containment element of the Proposed Project would restore up to 43% of production from the Saugus-1 and Saugus-2 wells. The permanent closure of VWC's V-157 well (V-157), NCWD's well number 11 (NC 11), and the Stadium well operated by CLWA's Santa Clara Water Division has created a deficit in local groundwater production of 6,300 gpm capacity, or about 3,838 af/y. The containment project would also convert several existing pipelines from treated water use for conveyance of perchlorate-contaminated water to the treatment plant.

To restore local well production to pre-contamination levels and to restore service affected by conversion of existing facilities to carry untreated water, CLWA proposes to relocate production wells to areas outside of the zone of perchlorate contamination and to construct new conveyance facilities to replace the existing treated water pipelines that will be converted to convey water from Saugus 1 and Saugus 2 to the new treatment plant. This involves two elements (Figures 5 and 6).

First, to replace lost production east of the confluence of the Santa Clara River and the South Fork of the Santa Clara River from closure of the Stadium Well, CLWA would relocate the Stadium Well from its location adjacent to the Stadium along the south bank of the Santa Clara River to a location about 0.6 miles upstream from the Stadium site to an existing CLWA facility at Furnivall Avenue and Santa Clara Street and would construct a short (50-100 foot) pipeline from the well to an existing 8" distribution line.

Second, in addition to VWC's new 2500 gpm well northwest of Magic Mountain Amusement Park (hereafter MMA Park), CLWA would:

- Construct a new multiple-well 4,000 gpm facility (with chloramination facilities) along a dirt road to the west of the MMA Park), with wells connected via a 12" pipeline;
- Construct a new 18" treated water pipeline from CLWA's 48" pipeline at the McBean Parkway Bridge to a site opposite from NC 11; and
- Construct a new 18" groundwater pipeline along new road alignments that would connect these new wells directly to CLWA's existing 42" pipeline.

Long-term planning for CLWA's water storage and conveyance facilities includes potential development of a regulating reservoir southwest of the two proposed new wells. The regulating reservoir and the pipelines, which may be developed to connect it to the Proposed Project, are shown on Figure 6 for informational purposes and because they are addressed in the cumulative impacts discussion in this Initial Study. However, this reservoir facility and the pipelines needed to connect it to the Proposed Project are not a part of the Proposed Project and the Proposed Project does not depend upon them.

The wells, 12" connecting pipeline, chloramination facility, and 12" to 18" pipeline would be constructed within the road alignments of future planned roads. CLWA facilities would be constructed following the initial grading for these roads and the adjacent development. In combination with yield from the Saugus-1 and Saugus-2 wells and associated treatment plant, these actions would restore production lost due to perchlorate contamination and would restore service to areas previously served by the NC-11, V-157, and Stadium wells. Siting and details of the proposed restoration-of-service facilities are summarized on Table 4. Note that the planned reservoir is not a part of the Proposed Project.

D. Chloramination Facilities

Chloramination facilities would be constructed at two sites: (a) at the new perchlorate treatment facility and (b) at the new well field west of MMA Park. Chloramines are formed by mixing sodium hypochlorate and ammonia, which are produced or stored in separate areas prior to mixing into the water stream. Several types of facilities would be considered during final design. Regardless of facility type, these facilities would be fully contained, and storage of water treatment chemicals would be within double-walled containers with separate containment back-up systems capable of holding 1.5 times the capacity of each chemical tank.

Table 4. Proposed Project facilities for Restoration of Service

FACILITY	SITE	DESCRIPTION (SEE FIGURES 5 AND 6)
To replace Stadium Well		
New alluvial well	Furnivall Ave. & Santa Clara St.	**New** 800 gpm well and up to 100 foot long pipeline to connect to existing 8" pipeline.
To replace pumping capacity from contaminated wells to restore local dry year water supplies		
Well field and chloramination facility	West of MMA Park	**New** wells with a combined capacity of 4,000 gpm to be constructed along the unpaved perimeter road on the west boundary of the MMA Park, with a chloramination facility located at the last well along the 12" to 18" pipeline connecting these wells.
Pipeline from new wells to Existing 42" CLWA	West Magic Mountain Parkway to I-5	**Segment 4: New** 18" pipeline from the chloramination facility to Magic Mountain Parkway and then east along Magic Mountain Parkway to the terminus of CLWA's 42" pipeline at I-5.
Pipeline to serve area west of McBean Parkway	McBean Parkway to NC-11	**Segment 5. New** 33" pipeline along bikeway on south levee of the South Fork of the Santa Clara River to Valencia Boulevard; **Segment 6. New** 39" pipeline along Valencia Blvd. and Magic Mountain Parkway with a turnout west of San Fernando Road. **Segment 7. New** 18" pipeline from the Segment 5 turnout to San Fernando Road; and **Segment 8. New** turnout, connection to the CLWA existing 21" pipeline along the west side of the South Fork of the Santa Clara River, and 18" pipeline from the turnout parallel to CLWA's existing 21" pipeline along an access road to a site opposite NC-11, connecting to existing turnouts.

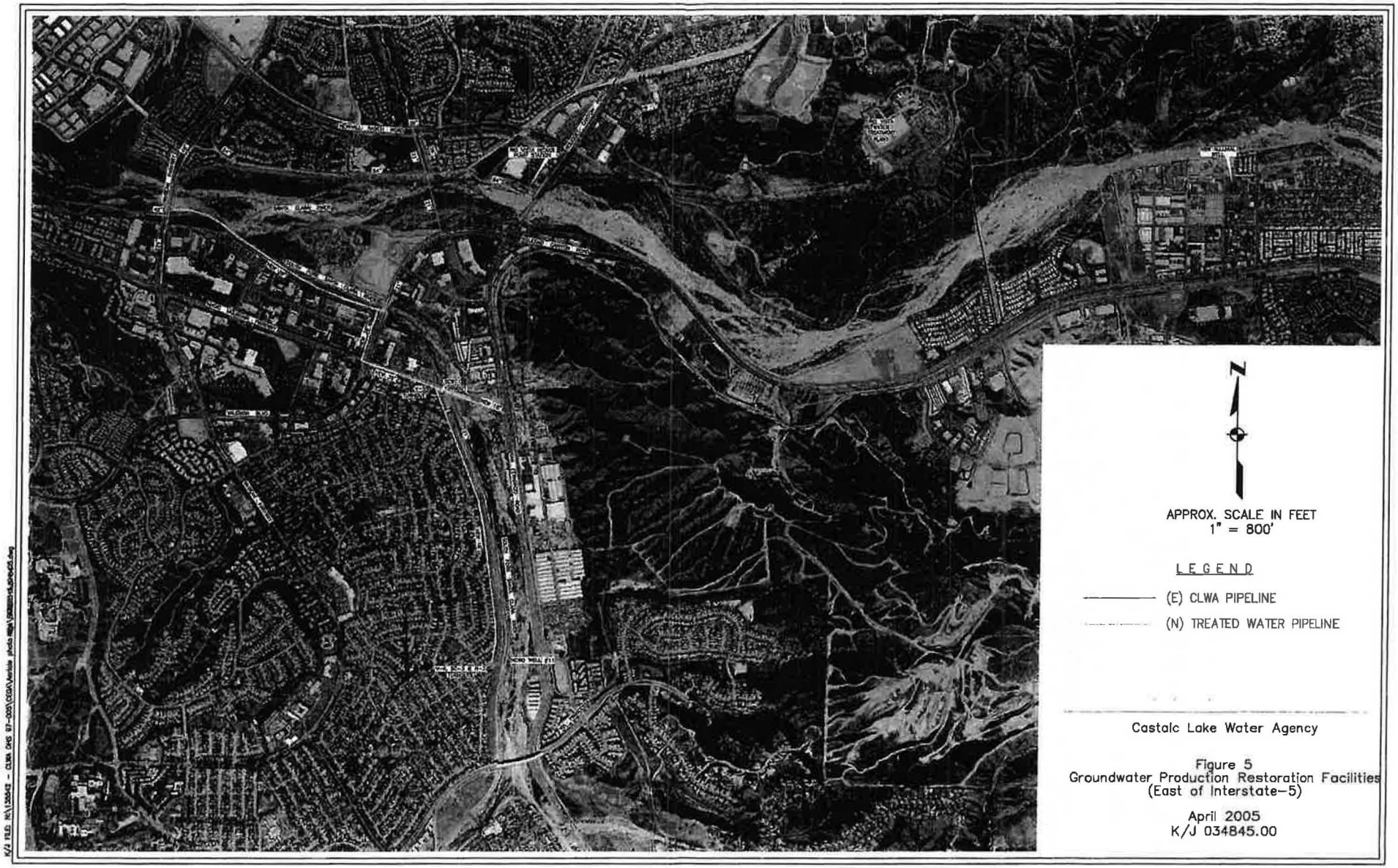
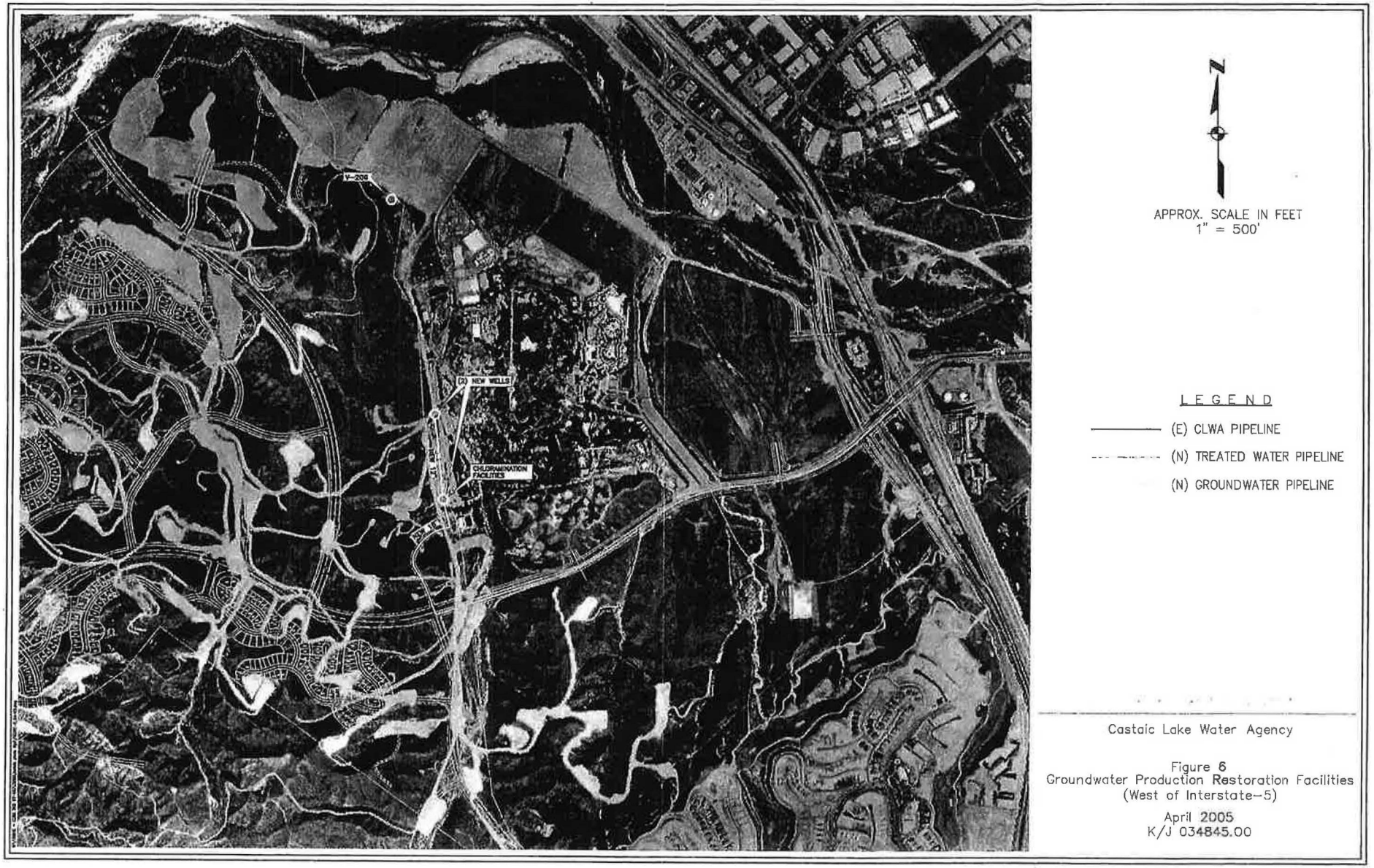


Figure 5
Groundwater Production Restoration Facilities
(East of Interstate-5)

April 2005
K/J 034845.00


V-206
(2) NEW WELLS
CHLORAMINATION FACILITIES
N
APPROX. SCALE IN FEET
1" = 500'
LEGEND
(E) CLWA PIPELINE
(N) TREATED WATER PIPELINE
(N) GROUNDWATER PIPELINE
Castaic Lake Water Agency
Figure 6
Groundwater Production Restoration Facilities
(West of Interstate-5)
April 2005
K/J 034845.00

E. Operation of Service Restoration Facilities

These replacement production and service facilities would be operated in a manner consistent with CLWA's Amended 2000 Urban Water Management Plan (CLWA 2005). Based on demands and capacity of the perchlorate treatment system to meet demands, CLWA would determine whether excess demands may be met with imported water or by initiating operation of replacement wells. This decision would be based on the availability of imported water and in conformance to the plan for use of the Saugus Formation as described in the Amended 2000 Urban Water Management Plan (CLWA 2005). VWC would determine the operation of well V-206 according to the requirements of its water system.

F. Construction Methods and Schedule

The proposed facilities are of a conventional nature and no special construction measures would be required. The proposed treatment plant is modular in design and would be placed within a structure adjacent to the existing Rio Vista Intake Pump Station.

Most pipelines would be constructed in or immediately adjacent to existing paved and unpaved road rights-of-way and/or existing paved bike and hiking trails. Construction at the Bouquet Canyon Road Bridge would involve placement of the 16" pipeline under the bridge deck and use of construction equipment within the Santa Clara River (to avoid traffic impacts at the bridge). The pipeline crossings under the South Fork of the Santa Clara River at the Valencia Boulevard Bridge and along Magic Mountain Parkway would be constructed under the river using techniques that avoid open trenching.

Most pipelines would be constructed in open trenches along bike paths and in road rights-of-way. A continuous excavation, pipe placement, and backfill operation would result in a maximum of 200 to 300 feet of open trench at any time. Trenches would be backfilled as each pipeline segment was completed. When a defined segment of pipeline has been completed, it will be repaved prior to initiating the next segment. Construction would occur during daylight, and trenches would be covered with steel plates prior to shutting down construction each evening. It is estimated that about 200 feet of pipeline may be constructed per day. Including a 2-to-4-day mobilization and demobilization at each site, approximate construction times for pipeline segments are shown on Table 5.

Table 5. Estimated construction time for pipeline segments. (MD = mobilization and demobilization; CON = construction; MM Pkwy. = Magic Mountain Parkway; SF = South Fork of the Santa Clara River; SCR = mainstem of the Santa Clara River).

PIPELINE SEGMENT (FIGURES 5 & 6 FOR REFERENCE)	LENGTH IN FEET	CONSTRUCTION TIME IN DAYS		
		MD	CON	Total
Containment Facility Pipelines				
Segment 1. 10" pipeline from Saugus-2, along San Fernando Road to connect with an existing 14-21 inch pipeline on the east side of the South Fork of the Santa Clara River. Repaving as needed.	1300	2-4	8-12	10-16
Segment 2. Connection to existing 14-21" pipeline under the Santa Clara River, along Magic Mountain Parkway, and north along Valencia Blvd. to the bridge at the South Fork of the Santa Clara River.	NA	2-4	2-4	4-8
Segment 3. 16" pipeline under the Valencia Blvd. Bridge at the South Fork of the Santa Clara River, in the bike path along the north/west right-of-way of Valencia Boulevard, along a bike path around the gas station at Bouquet Canyon Bridge, suspended on the west side of Bouquet Canyon Bridge, then west along a bike path to the Rio Vista Intake Pump Station. Repaving as needed.	4620	2-4	24-30	26-34
Service Restoration Facility Pipelines				
Segment 4: New 12"-18" pipeline from the new well field and chloramination facility to Magic Mountain Parkway and then east along Magic Mountain Parkway to terminus of CLWA's 42" pipeline at I-5.	2000	2-4	10-12	14
Segment 5. New 33" pipeline along bikeway on south levee of the South Fork of the Santa Clara River to Valencia Boulevard. Repaving of bike trail.	4540	2-4	23-30	25-34
Segment 6. New 39" pipeline along Valencia Blvd. and Magic Mountain Parkway with a turnout west of San Fernando Road.	2810	2-4	14-20	16-24
Segment 7. New 18" pipeline from the turnout to San Fernando Road;	1310	2-4	7-15	9-19
Segment 8. New turnout, connection to the CLWA existing 21" pipeline along the west side of the South Fork of the Santa Clara River, and 18" pipeline from the turnout parallel to CLWA's existing 21" pipeline along an access road to a site opposite NC-11, connecting to existing turnouts.	5610	2-4	28-40	30-44

Including site preparation and installation of wells, new pumps, and the treatment plant, it is estimated that all elements of the Proposed Project east of Interstate 5 can be constructed and placed into operation within a 6 to 7 month period, beginning in August 2005 and ending in mid-March 2006.

Construction of project elements west of Interstate 5 would be separately scheduled, depending on the timing for construction of roads and other infrastructure for future development in the area. Road grading for this project would involve substantial cut and fill, and it is thus prudent to defer construction of pipeline elements associated with the western portion of conveyance until these roads have been initially graded. Pending construction of these facilities, CLWA currently has adequate supply from the SWP (either current year Table A, supplemental SWP supply, or banked supply) to make up for the short-term reduction in production associated with deferring construction of these facilities.

G. Mitigation Measures Incorporated into the Project

CLWA proposes a number of mitigation and/or impact avoidance measures to be incorporated into the project description. As such, they would be incorporated, as appropriate, into various construction contracts and compliance would be made a condition of the contracts. CLWA construction managers would then monitor compliance routinely as part of construction management. Compliance with biological resources mitigation measures and cultural resources mitigation measures would be monitored by a qualified biologist or archeologist, respectively.

1. Facility Site Selection

To the extent feasible, facilities have been sited to optimize interception of the plume of perchlorate-contaminated water, to utilize existing pipelines, to avoid wildlife habitats, and to avoid construction within roads. Given that small-diameter pipelines may be constructed under road intersections without trenching, the pipelines proposed for the containment element of the Proposed Project would avoid work in roads except between Saugus 2 and the proposed monitoring wells (Segment 1). The entire alignment of the containment pipeline is to be constructed in this short road section and within the alignment of existing bike trails, therefore avoiding impacts to wildlife habitat.

Most portions of the pipelines and wells for the service-restoration portion of the Proposed Project would be confined to existing roads (or constructed during construction of new roads). Wells would be constructed in areas where previous activity has removed all wildlife habitats. About 40% of the pipeline to be constructed for service restoration would be within the alignments of regional bike trails, thus minimizing traffic impacts.

2. Construction Schedule

With the exception of pipeline segments jacked under the river, suspended under the decks of bridges, and a few segments routed around commercial buildings, pipeline construction would take place within existing paved and unpaved roads or bike paths and there is no potential for direct impacts to special-status species habitat, nesting migratory birds could be affected by construction noise and visual disturbance. This would occur only in areas where construction would be in bike paths: (a) along the South Fork of the Santa Clara River and (b) along Valencia Boulevard/Soledad Canyon Road. The construction schedule provides for construction of pipelines adjacent to the river to occur in September through Mid-March, outside of the nesting period.

3. River Crossings

There are four river crossings included in the Proposed Project:

- A pipeline to carry contaminated water from Saugus 1 and Saugus 2 under the South Fork of the Santa Clara River from the new monitoring wells. This crossing would be accomplished by connecting to an existing CLWA pipeline.

- A pipeline to carry contaminated water under the South Fork of the Santa Clara River at Valencia Boulevard. This crossing would be made by jacking the pipe under the river without trenching.
- A pipeline to carry contaminated water across the mainstem of the Santa Clara River at the Bouquet Canyon Boulevard Bridge. This pipeline would be suspended under the bridge, with construction equipment working in the riverbed along an alignment heavily disturbed by recent (2005) bridge modifications.
- A pipeline to carry treated water under the South Fork of the Santa Clara River along the alignment of Magic Mountain Boulevard to an existing pipeline at San Fernando Road. This pipeline crossing would be accomplished by jacking the pipeline under the river without trenching.

Use of these construction measures would minimize disturbance of vegetation within the river.

4. Best Management Practices when Constructing in the Public Right-of-Way

CLWA would request a permit from and comply with the City of Santa Clarita Transportation and Engineering Services Encroachment Permit Policy (Appendix A). This policy specifies work schedules and work practices intended to minimize construction impacts on traffic, local businesses, local residents, storm water runoff, and utilities and public services. Although most work in public roads in Los Angeles County will occur during the initial construction of new roads associated with development west of Interstate 5, CLWA will also comply with County of Los Angeles Department of Public Works Encroachment Permit requirements, as outlined in County Code Division 1, Title 16.

5. Best Management Practices when Constructing in Bike Trails

No more than one section of bike trail would be affected at any time and each section of bike trail would be fully restored prior to initiation of construction of the next section; detours around the construction zone would be relatively short and temporary in nature. Bike path closing and detour routes would be coordinated with the City of Santa Clarita Parks Department and with the local cycling community. CLWA would ensure that detours are clearly marked.

In addition to minimizing impacts to cyclists, whenever work is occurring adjacent to the mainstem of the Santa Clara River or the South Fork of the Santa Clara River, CLWA would also utilize the landward right of way for temporary side casting of spoil and for construction laydown and vehicle fueling and maintenance. This would limit potential disturbance of vegetation on the river-side of the trail and place the active pipeline trench between these support activities and the river.

6. Aesthetic Treatment of the Water Treatment Plant

The water treatment plant would be sited next to the Rio Vista Intake Pump Station, which was designed to be consistent with the Spanish-American architecture of many historic buildings in the region. Located in a site which is visible from a major bike trail, the new treatment plant

would be screened and the screens would be consistent with the aesthetics of the existing pumping plant. The visual character of the site would therefore not conflict with the existing character of adjacent buildings.

7. Air Quality

CLWA would adopt best management practices for control of fugitive dust from construction, per Rule 403 of the South Coast Air Quality Management District, Table 1 (Amended April 2, 2004), which is attached as Appendix B and incorporated by reference herein.

8. Noise

The siting of the Proposed Project contributes to avoidance of noise impacts to adjacent business and residents. No portion of the containment element facilities would be constructed adjacent to residential development and a majority of containment facility pipelines would be separated from nearby commercial development by a major arterial road.

For the two sections of service-restoration pipeline which are adjacent to residential development (along the west side of the South Fork of the Santa Clara River south of Magic Mountain Parkway and along the bike trail between McBean Parkway and Valencia Boulevard), CLWA would comply with City of Santa Clarita noise policies. Specifically:

- Permanent above-ground facilities (wells and treatment plant) would be contained within structures that would ensure that adjacent ambient noise levels are below the levels established for facilities in commercial and manufacturing areas.
- Except when more stringent standards apply to construction in the roadway, construction work would be limited to the hours from 7 AM to 7 PM, with no construction on weekends.
- Construction noise would be monitored on site by the construction contractor and portable noise attenuation barriers would be erected between construction and housing if construction noise measured at the exterior of adjacent housing exceeds levels permitted in the City's Noise Ordinance.

9. Construction Crew Training, On-Site Biological Monitoring, and Isolation of the Construction Area

Although no construction would occur in wildlife habitats and construction laydown areas would be maintained on the landward side of bike trails to the extent feasible, there is a small potential for special-status wildlife species to move into the construction area, primarily during the night when there is no construction activity. To prevent adverse impacts associated with wildlife incidental use of the construction area, CLWA would implement the following avoidance and minimization measures:

- Construction and maintenance personnel would participate in an environmental awareness program approved by the United States Department of Interior, Fish and

Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) . Under the program, workers shall be informed about the potential presence of special-status species and that unlawful take of these species is a violation of the Federal Endangered Species Act (FESA) and/or the California Endangered species act (CESA). Prior to construction activities, a qualified biologist would instruct construction personnel about the identification and the life history of the various special status species which may inhabit the Santa Clara River and its tributaries within the Proposed Project area. Color photographs would be provided for maintenance on site. Proof of instruction shall be provided to USFWS and CDFG.

- Prior to initiation of construction activities in bike trails adjacent to the two river channels, a qualified biologist would survey the area to confirm that no special-status species are present. If special-status species are present, they would be allowed to move away from construction activities.
- Once it has been determined that no special-status species are within the construction area, the construction contractor may isolate the construction area from the area to the river side of the bike path using a fine-mesh nylon drift fence at least 2 feet high and angled away from the construction site.

10. Water Quality

CLWA would implement best management practices to avoid construction runoff during construction activities, including:

- Daily pre-construction inspection of all construction equipment to ensure that oil and/or gas/diesel fuel are not leaking from equipment;
- Secondary containment for fueling and chemical storage areas shall be provided during construction and Proposed Project operation;
- Secondary containment for equipment wash water shall be provided to ensure that wash water is not allowed to run off the site;
- Silt traps and/or basins would be provided to prevent runoff from the construction site;
- Materials stockpiles would be covered to prevent runoff;
- Loose soils would be protected from potentially erosive runoff;
- If construction equipment is used within the river channel, the equipment would be fitted with secondary containment materials at potential oil/fuel leakage sites.

11. Cultural Resources Management

In general, siting and construction scheduling have reduced the potential for construction of the Proposed Project to impact cultural resources in many areas. Construction within the levees of the Santa Clara River would not have potential to affect cultural resources because excavations would not extend to undisturbed soils. Similarly, construction west of Interstate 5 would be within roadbeds that would already have been graded to depths below which prehistoric cultural resources are not likely to be found. Construction of two pipelines under the South Fork of the Santa Clara River would be in recently disturbed alluvium.

There is potential for construction to encounter buried cultural resources within existing roads and trails along the western edge of the South Fork of the Santa Clara River. In these areas, CLWA would address potential impacts to buried cultural resources through:

- Construction Personnel Training. Prior to initiation of construction, all construction personnel shall be trained regarding (a) the recognition of possible buried cultural remains and (b) procedures to be followed if archeological materials are discovered. Training would provide that construction in the area of a discovery shall be halted immediately and a qualified archeologist notified.
- Construction Monitoring and resource recovery. In areas near known cultural resource sites, construction monitoring shall be undertaken by a qualified archeologist familiar with the types of historic and prehistoric resources that could be found within the Proposed Project area. Monitored locations shall include all areas designated as having a high probability of finding subsurface cultural resources. If cultural resources are discovered during excavations, then the monitor would initiate consultation with the State Historic Preservation Office and develop and implement an appropriate resource recovery program.
- Compliance with DHS requirements for the treatment of buried human remains. If human remains are found during construction, CLWA would immediately halt construction and implement the notification and treatment protocols required by DHS.

III. ENVIRONMENTAL SETTING

A. General

The Proposed Project area is located in the inland alluvial valley about 35 miles north of downtown Los Angeles, at the base of the Tehachapi Mountains at an elevation of about 1,000 to 1,300 feet. The climate is classified as "southern California Mediterranean," characterized by warm dry summers with temperatures from 75 F to 100 F, temperate and semi-moist conditions (15 to 18 inches annual rainfall between November and March). Mean annual precipitation varies from year to year, and this is reflected in annual and monthly river flows along the Santa Clara River and the South Fork of the Santa Clara River. Based on U.S.G.S. streamflow monitoring, there is high variability in annual peak flows. At USGS, Station 11108000 (Santa Clara River at Saugus) annual peak flows ranged from 317 cubic feet per second (cfs) to 24,500 cfs. In addition to annual flow variability, mean monthly flows also reflect the high variability in climate. Even in years of very high peak flows, these flows have short duration and mean monthly flow may be several orders of magnitude below the peak flow.

The highly variable precipitation and hydrologic regimes of the region create variable conditions for plants and wildlife. In the rivers, flows may briefly inundate a wide floodplain in some years, but by summer flows are confined to a low-flow channel and much of the channel is dry.

In the Proposed Project area, the Santa Clara River and the South Fork of the Santa Clara River have highly variable habitat conditions. Infrequent floods scour the sandy streambed and remove

vegetation. Floods frequently alter the location of the low flow channel. During the intervening years between floods, riverine riparian vegetation recovers.

B. Demographics and Land Use

The Santa Clarita Valley (Valley) is one of the faster growing regions of southern California, with an annual growth rate of about 3.0%, compared to the overall Los Angeles County growth rate of about 1.7%. In 2002, the unemployment rate in the Valley was 3.6%, compared to 7.5% for Los Angeles County as a whole. Median income was also high ($73,000 per household), with over one-third of households earning between $75,000 and $150,000 per year. The number of people living below the poverty line was 4.9% in the Valley versus 14.7% in Los Angeles County as a whole. This reflects a business community dominated by recreation (MMA Park), public services, high technology industry, film production, and retail. Combined with this local employment base, numerous residents commute to high level jobs and 40% of employed residents are in management-level positions. The Valley has a low crime rate (about 45% of the national average).

The Southern California Association of Governments (SCAG) projects that population in the Valley will rise from 213,000 (2000) to 352,400 (2025). Population growth in the region is being driven by a booming southern California economy and by the relative lack of alternative building sites elsewhere in southern California. The Valley thus shares high growth rates with San Bernardino County and Riverside County, which also have available developable lands.

In the Proposed Project vicinity east of McBean Parkway, land use is industrial, commercial, and moderate-to-high density residential. Land use adjacent to new facilities to be constructed for the containment facilities is commercial and industrial. The new wells and pipelines proposed for the restoration-of-service facilities east of McBean Parkway would be between residential-commercial development and either the South Fork of the Santa Clara River or an open-space corridor along the South Fork of the Santa Clara River. Land use adjacent to the pipelines and wells proposed for the area west of Interstate 5, includes currently undeveloped areas along Magic Mountain Parkway, the MMA Park, and the historic Castaic Junction Oil Field (Newhall Ranch).

C. Traffic and Circulation

The Proposed Project would take place in and adjacent to a transportation, commercial, and residential hub. Magic Mountain Parkway is one of the primary connections to Interstate 5 and provides access to MMA Park to the west and to the City to the east. Major east-west arterial roads in the Proposed Project area include Newhall Ranch Road north of the Santa Clara River, Valencia Boulevard/Soledad Canyon Road south of the Santa Clara River and Magic Mountain Parkway. These east-west arterials are crossed and connected to the north-south San Fernando Road/Bouquet Canyon Road arterial. Average daily (weekday) traffic (City of Santa Clarita 2005) on these roads is shown on Table 6. Table 6 also reflects California Department of Transportation (CalTrans) data on average daily traffic and peak hour traffic loads for the state highway system (Caltrans 2003). These data for over 600 segments of State-maintained road show that peak hourly traffic (the 2 highest hours of traffic, morning plus evening) in the vicinity of Santa Clarita (such as Highway 126) is generally from 16% to 30% of average daily traffic

volume, reflecting high use during rush hours. CalTrans data show heavy traffic flow in one direction in the morning and heavy flow in the reverse direction in the evening. The City of Santa Clarita notes that average daily traffic varies. It is therefore not possible to precisely project traffic volumes on any given day or at any given time. The data and calculations on Table 6 are thus generalizations reflecting overall traffic trends.

Table 6. Recorded average daily traffic and calculated average daily traffic in each direction on major arterials in the Proposed Project area, with calculated peak traffic based on peak traffic equal to 16% to 30% (average 23% or 11.5% each way) of average daily traffic in the peak direction at 55% to 75% (average 65%) of peak hour traffic.

ROAD SEGMENT	TRAFFIC VOLUME (CARS PER DAY)		
	COLUMN A Average Daily Both Directions	Calculated Peak Am and PM Traffic at peak = 11.5% of average daily traffic	Calculated peak traffic in the heavy direction at 65% of peak traffic
Magic Mountain Parkway at Interstate 5:	28,250	3249	2112
Valencia Boulevard at Magic Mountain Parkway	43,900	5049	3282
Magic Mountain Parkway west of Valencia Boulevard	21,200	2438	1585
Magic Mountain Parkway east of Valencia Boulevard	13,000	1495	972
Valencia Boulevard at Santa Clara River Bridge:	47,450	5457	3547
San Fernando Road at Magic Mountain Parkway	70,270	8081	5253

Given that CalTrans data on peak hourly traffic for 2003 shows that peak hourly traffic in each direction is almost always about 55% to 75% of average daily traffic in that direction, Table 6 represents a probable range of peak traffic conditions on the major arterials in the Proposed Project area. A calculated peak1-hour morning and evening traffic equal to 11.5% of average daily traffic is most likely to apply to traffic in the Proposed Project portion of the City of Santa Clarita because this is similar to the traffic volume data for Highway 126, the nearest data point for Caltrans. If this 11.5% estimate is assumed and applied to a 2-hour morning and 2-hour evening rush hour period, it would mean that almost half of the average daily traffic in either direction would occur during the morning/evening rush hours.

D. Water Resources and Water Quality

- CLWA is the wholesale water supplier for the Santa Clarita Valley. Current water supplies are locally derived from groundwater in the Alluvial Aquifer and the Saugus Formation and are purchased from the SWP. CLWA does not utilize surface water flow as water supply. Estimates of existing local supplies available from the two groundwater basins are variable, depending on water year type. The May 2005 Santa Clarita Valley Water Report (Luhdorff & Scalmanini 2005) estimates normal-to-wet-year supply from the Alluvial Aquifer at 30,000 to 40,000 acre-feet and from the Saugus Formation at 7,500 to 15,000 acre feet. In dry/drought years, the Alluvial Aquifer supply is estimated

at from 30,000 to 35,000 acre feet per year and the supply from the Saugus Formation is estimated at up to 35,000 af/y.

CLWA's contractual rights to SWP water total 95,200 af/y, and include a water transfer of 41,000 afy approved in 1999 from Wheeler Ridge-Maricopa Water Storage District, a member unit of the Kern County Water Agency. Based on the Department of Water Resources *Final State Water Project Delivery Reliability Report,* average SWP deliveries are anticipated to be 76% of Table A contractual supplies, or 72,352 af/y. Combined, groundwater and SWP supplies are adequate to provide an average of about 110,000 to 120,000 af/y. With available recycled water and supplemental SWP supplies, CLWA has more than 133,000 acre-feet of supply available in 2005. CLWA has entered into two ten-year agreements with Semitropic Water Storage District in Kern County, whereby CLWA banked almost 51,000 acre-feet of CLWA's Table A supply for later delivery in dry years, thus ensuring dry-year reliability through 2013. The CLWA 2002 Ground Water Banking Project was challenged in the Ventura Superior Court. The Court held in favor of CLWA and the case is now on appeal. CLWA is also conducting environmental compliance of a long-term banking program with Rosedale-Rio Bravo Water Storage District as the first element of achieving full reliability of 76% of its Table A Amount. CLWA has an aggressive and successful voluntary water conservation program that, in the 1990's, resulted in a 10% to 20% decrease in water demand during that drought period.

Groundwater quality in both the Saugus Formation and Alluvial Aquifer generally meet Los Angeles Regional Water Quality Control Board (Regional Board) objectives/criteria, although there are some reaches of the Santa Clara River which have concentrations of ammonia, chloride, nitrates and nitrites, low dissolved oxygen, coliform bacteria, and/or sulfate in excess of Regional Board criteria. A majority of these problems occur in downstream reaches near the estuary at the mouth of the river well outside of the Proposed Project area. Groundwater in the Alluvial Aquifer has mineral concentrations (total dissolved solids or TDS) of 550 to 610 mg/l in the eastern portion of the aquifer to 660 to 710 mg/l in the western portion of the aquifer. TDS levels in the Saugus Formation can be higher (> 800 mg/l). Most wells in the Valley have non-detectable levels of arsenic, and blended drinking water supplies meet current DHS standards. Groundwater produced from both aquifers meets EPA and DHS standards for drinking water.

E. Air Quality

The Proposed Project is in the South Coast Air Basin. In this region, air quality does not meet California Ambient Air Quality Standards. Specifically, the South Coast Air Basin is in a "non-attainment" status for particulates (PM_{10}), in "serious non-attainment" for carbon monoxide (CO) and in "extreme non-attainment" for ozone (O_3).

F. Biological Resources

1. General

Like much of southern California, the Santa Clarita Valley and adjacent uplands habitats are complex ecologically as a result of complex topography, soils, and associated micro-climate conditions. Habitats are patchy and subject to significant disturbance from flood and wildfire. Historic regional development in the 6-county southern California area has resulted in loss of habitat and habitat diversity in the region as a whole. As a result, many native species are now rare. In the overall CLWA service area, there are a total of 76 special-status plant and animal species (Appendix C, attached), including 17 species that are listed as threatened or endangered or are proposed for such listing under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA).

Of the six FESA/CESA listed plant species and seven plant species potentially eligible for listing in the CLWA service area, four are likely to occur adjacent to the vicinity of the Proposed Project area (Table 7): Nevin's barberry, the slender-horned spineflower, the San Fernando Valley spineflower, and the many-stemmed dudleya. The other special-status plant species in the general CLWA service area are found in chaparral and dense coastal sage scrub habitats, rocky outcrops, and vernal pools. These habitats are not found within or immediately adjacent to the Proposed Project area. Of the 49 special-status animal species in the CLWA service area, 32 may occur in habitats adjacent to the Proposed Project area, primarily in the South Fork of the Santa Clara River and the Santa Clara River Mainstem (Table 8 summarizes probability of occurrence).

The Santa Clara River is the last significant southern California river not controlled by a major dam and thus represents a continuous wildlife corridor from its headwaters to its estuary. The highly variable flows of the Santa Clara River and its tributaries create a dynamic vegetative community. Much of the floodplain in the Proposed Project area has been preserved between "set-back" levees and the river is free to meander within this floodplain, which ranges from about 200 feet to 800 feet in width in the Proposed Project reach. Riparian vegetation grows in the bars and benches adjacent to the sandy river channel. In floods, much of this vegetation is removed by erosive flows which re-shape the riverbed. The result is a dynamic system that includes a mix of sparse and dense riparian habitats. The distribution of riparian species within these habitats varies from year to year, depending on habitat characteristics. Riparian habitats tend to be most robust at sites where the river has more room to meander (and where flood flows spread out and are less erosive). At constraining points, such as bridges and narrow portions of the canyon, high flows often erode the entire river bed and eliminate much of the riparian vegetation.

As a result of a variable flow regime, habitats in the Proposed Project reach of the Santa Clara River are patchy, and dense riparian tends to occur on benches and bars and along the low-flow channel. Riparian vegetation in areas where there is scour is patchy and sparse, and often fails to reach maturity due to repeated scour. The highly variable flow regime also creates conditions unsuitable to species such as the California red-legged frog, which generally requires perennial

ponds and slow moving water. While there is some potential for the red-legged frog to exist in patches of habitat in some reaches of the river or tributaries, it is not likely that the frog would occur in the Proposed Project reach, where recent flood flows covered the entire width of the river. This is particularly true of the Proposed Project reach of the South Fork of the Santa Clara River, where the 100-year floodplain includes all open space and developed areas up to the base of the hills on the east and to the fence line along the west side of an open space corridor on the west.

Upland habitats adjacent to the proposed wells, chloramination facility, and pipelines to the south and west of MMA Park are dominantly native and non-native grasslands, with sparse shrubs. Much of the area has been heavily disturbed by oil and gas exploration, and there are large areas which have been graded for oil and gas facilities and support no vegetation at all. Habitat for chaparral and sage scrub species in this area is limited.

2. Presence of Threatened and Endangered Species

Other than those listed on Table 7, special-status plant and animal species which may occur in the overall CLWA service area are not likely to occur in the vicinity of the Proposed Project itself because suitable habitat does not exist for them in this area. For example, the western spadefoot toad may occur in some portions of the CLWA service area, but requires non-riverine ponds or vernal pools in a grassland or shrub matrix. No habitat of this nature occurs in the Proposed Project area. Similarly, although there may be potentially suitable habitat for the California gnatcatcher within CLWA's service area, the habitat in the vicinity of the Proposed Project lacks patches of coastal sage scrub (CSS) large enough to support gnatcatchers (> 1 hectare in dry inland portions of the gnatcatcher's range). Review of the California Natural Diversity Data Base (CNDDB 2004) also shows no records of California gnatcatcher in the Proposed Project vicinity, although there are records of the species in coastal Ventura County to the west and in the foothills of the San Gabriel Mountains to the east. Similarly, the frequently high flows in the Proposed Project reach of Santa Clara River basin are likely to exclude California red-legged frogs from this area; they are not known to occur in this reach of the river and have not been found in recent surveys (Cadre Environmental 2004).

The presence of the southwestern arroyo toad in the floodplain of the Santa Clara River (between levees) has been confirmed in recent surveys conducted in 2003 and 2004 (Cadre Environmental 2004, see Appendix D). These surveys covered the river channel over the entire length of the Proposed Project reach. In these surveys, no arroyo toads, southwestern pond turtles, or red-legged-frogs were found in the reach immediately adjacent to proposed facilities, but arroyo toads and southwestern pond turtles were found about 800 feet downstream from the McBean Parkway Bridge, adjacent to benches of good quality riparian and upland grassland/shrubland vegetation. There is perennial flow in the low flow channel of the Santa Clara River Mainstem downstream of the water treatment plant at the Valencia Boulevard Bridge, and there are benches or bars along the meandering river which may provide suitable fall-winter estivation habitat.

Winter foraging and estivation habitat for the arroyo toad in Proposed Project reach of the Santa Clara River basin is constrained by roads (which separate the toad from upland areas) and

development (which eliminates potential burrowing habitat). The portion of the South Fork Trail that would be used as the alignment for pipelines from McBean Parkway to north of Via Princessa consists of:

- The riverside slope of levees, which is maintained free of vegetation;
- The levee top, which is dedicated to a wide asphalt bike and hiking trails;
- The edges of the trail, which are landscaped; and
- Adjacent land uses on the landside of the levees (from McBean Parkway), which consist of fenced paved parking lots for a number of auto dealerships and a mowed non-native grass strip of open space backing up to the fenced boundary of a residential development.

There are similar conditions along the portion of the Santa Clara River trail that would be used as the alignment of the proposed pipelines from the Valencia Boulevard Bridge over the South Fork of the Santa Clara River to the Bouquet Canyon Road Bridge over the Mainstem Santa Clara River. Along about 40% of this alignment, habitat on the river side of the channel has been disturbed by construction of the existing Pumping Plant. There is no suitable wildlife habitat to the landside of the bike trail.

The South Fork of the Santa Clara River goes dry in almost every summer, and thus there is no recent record of, nor likelihood of, arroyo toads or southwestern pond turtles in this reach. Vegetation is also sparse and there is a major arterial and commercial/industrial development between the east bank of the river and adjacent hills. This development/road probably limits wildlife movement between the river and upland habitats.

Table 7. Special-status plant and animal species which may occur in habitats adjacent to the Proposed Project area.

SPECIES	STATUS	HABITAT TYPE	POTENTIAL AREAS OF OCCURRENCE?	
			West of I-5	Santa Clara River: Mainstem and South Fork
Listed Species				
Arroyo toad (*Bufo californicus*)	FE/CSC	Perennial streams and adjacent	No	Yes
Least Bell's vireo (*Vireo bellii pusillus*)	FE/CE	Dense willow riparian with significant overstory.	No	Potential
Nevin's barberry (*Berberis nevinii*)	FE/CE	Coastal scrub and chaparral along sandy washes	No	Unlikely, but possible along river margin
Slender-horned spineflower (*Dodecahemia leptoceras*)	FE/CE	Alluvial fan and other sandy soil areas near drainage	Near drainage	Potential on berms and bars in the river
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE/CE	Dense willow thickets near slow-moving water	No	Yes
Unarmored three-spined stickleback (*Gasterosteus aculeatus williamsoni*)	FE/CE	Flowing water with emergent vegetation	No	Yes
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	FT/CSC	Dense riverine woodlands and thickets	No	Potential

Unlisted Species				
Birds				
Bell's sparrow (*Amphispiza belli*)	FSC/CSC	Coastal slopes of CSS; known to avoid development	Potential	Not probable
Burrowing owl (*Athene cunicularia hypugea*)	FSC/CSC	Dry grasslands; berms, ditches, and grasslands adjacent to rivers.	Potential	Potential
California horned lark (*Eremophila alpestris actia*)	FSC/CSC	Grasslands, fields, open areas	Probable	Yes
Cooper's hawk (*Accipiter cooperii*)	-/CSC	Wooded to semi-open areas. Breeding in riparian and oak woodlands	Foraging only	Yes, summer breeder
Loggerhead shrike (*Lanius ludovicianus*)	FSC/CSC	Open grasslands and chaparral.	Yes	Potential
Long-eared owl (*Asio otus*)	-/CSC	Riparian. Coniferous and oak woodlands -- dense.	No	Potential in some dense riparian
Sharp-shined hawk (*Accipiter straitus*)	-/CSC	Wooded to semi-open areas.	Winter visitant	Winter visitant
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)	FSC/CSC	CSS, recently burned areas	Probable	Not probable
Summer tanager (*Piranga rubra*)	-/CSC	Cottonwood willow riparian	No	Probable
Tricolored blackbird (*Agelaius tricolor*)	FSC/CSC	Freshwater marshes and riparian scrub	No	Potential but uncommon in region
White-tailed kite (*Elanus leucurus*)	-/FP	Riparian nesting; forages in open meadows	Foraging	Yes
Yellow warbler (*Dendroica petechia brewsteri*)	-/CSC	Willow riparian	No	Possible
Herpetofauna				
Coastal western whiptail (*Cnemidophorus tigris multiscutalus*)	FSC/-	Sparse vegetation, loose soils in scrub habitats	Probable	Probable along river banks
Coast horned lizard (*Phrynosoma coronatum*)	FSC/CSC	Scrubland, grassland, sandy loose soils along washes	Yes	Yes
Coast patch-nosed snake (*Salvadora hexalepis virgultea*)	FSC/CSC	Dry scrub and chaparral, sandy washes	Potential	Unlikely; no winter burrows
Southwestern Pond Turtle (*Clemmys marmorata marmorata*)	FSC/CSC	Perennial ponds and slow-moving river channels	No	Recently found about 800 feet downstream from McBean Parkway
Two-striped garter snake (*Thamnophis hammondii*)	FSC/CSC	Riparian and freshwater marshes with perennial water	No	Potential in Mainstem; hibernate in winter
Fish				
Arroyo chub (*Gila orcutti*)	FSC/CSC	Warm fluctuating streams, slow moving water	No	Not in action area (dry during construction).
Mammals				
American badger (*Taxidea taxus*)	-/CSC	Open areas with sandy soils	Potential	Not likely; potential food limitation.
Pale Townsend's big-eared bat (*Plecotus towndsendii pallescens*	FSC/CSC	Forages in woodlands to grasslands; nest in rocks and caves	Foraging	Foraging
Pallid bat (*Antrozous pallidus*)	-/CSC	Forage in open areas; nest in rocks and caves	Foraging	Foraging
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	FSC/CSC	Open brushlands	Potential	Potential
San Diego woodrat (*Neotoma lepida intermedia*)	FSC/CSC	Dense riparian and chaparral	NONE	Potential

Plants				
Many-stemmed dudleya (*Dudleya multicaulis*):	–/–	Grassland and scrub habitats east of Simi Valley	Potential	No
San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*):	FSC/CSC	Sandy washes in coastal sage scrub	Potential	Potential on benches and bars adjacent to river channel

FEDERAL STATUS:
FE: Federal Endangered
FT: Federal Threatened
FSC: Federal Species of Concern
–: No formal status

STATE STATUS:
CE: California Endangered
CT: California Threatened
FP: California Fully Protected
CSC: California Species of Concern
–: No formal status

G. Cultural Resources

The CLWA service area is located in Ventura and Los Angeles counties, where at least four distinct ethno-linguistic groups were living at the time of first European contact. The area around Castaic Lake itself was the home of the Tataviam, a group of about 1,000 people who lived in villages along Piru Creek, Castaic Creek, and the upper portions of the Santa Clara River drainage (King and Blackburn 1978). The lower Santa Clara River drainage was home to the Ventureño Chumash, a much larger (about 4,000 people) and more maritime oriented group (Grant 1978b). The upper portions of Piru Creek, along with much of the inland portions of Ventura County, were inhabited by the Emigdiano and Castac Chumash (Grant 1978a). Native American archaeological sites from various time periods exists within the CLWA service area, especially along the Piru and Castaic drainage systems, at the Vasquez Rocks and Escondido Canyon, and along major ridgelines (CLWA 1999). Spanish contact with Native American groups along the coast began as early as the mid 1500s, but it was not until the late 1700s that the Spanish, and then Mexicans, established any kind of continuous presence. The discovery of gold in Placerita Canyon near Newhall during the 1840s attracted many miners to the area, and agricultural and livestock operations rose up in the Santa Clara River valley to support their need for provisions.

Oil was discovered in the area in the 1870s, and settlement accelerated throughout the late 1800s with the development of regional and interregional transportation systems. Historic resources documented in the CLWA service area are usually associated with major routes of travel, watercourses, and early homesteading practices in and around Newhall (Scientific Resource Surveys 1988). The CLWA service area contains at least three types of geologic units that have yielded fossilized material. Fossilized fish, shark teeth, and invertebrate remains have been recovered from the Castaic Formation, remains of Clarendonian land mammals have been recorded in the Saugus Formation, and marine invertebrates are often common in Quaternary terrace deposits (Scientific Resource Surveys 1988).

Field surveys of the Proposed Project area were not undertaken because the surface of all facility alignments has been paved or heavily disturbed or (west of I-5) would be excavated prior to

construction of CLWA pipelines and other facilities. A records search identified known cultural resource sites in the general project area, including a sparse lithic scatter and evidence of nine burials below fill on property owned by Hydraulic Research and Manufacturing Company within a mile of the Proposed Project area. Additional evidence of prehistoric Native American occupation would be expected given the long period of prehistoric and historic operation. Based on this records search and the history of previous disturbance, significant cultural resources are not likely to be found (a) within the levees of the Santa Clara River or South Fork of the Santa Clara River and (b) in the active channels of these rivers. Previous construction activity along the concrete-lined levees has mounded earth from the river channel to a height of 10 to 15 feet, and the Proposed Project is unlikely to excavate below this level. In the river bed itself, periods of high scour and deposition have affected the integrity of any cultural resource sites (although individual artifacts may be found). Intact buried cultural resource sites may occur on the alluvial benches of the two river channels, to the land side of the levees.

H. Geology and Soils

The Proposed Project would be constructed in two distinctive geological areas: (a) the alluvial basin at the confluence of the South Fork of the Santa Clara River and the Santa Clara River Mainstem and (b) the hills south of the Santa Clara River Mainstem west of Interstate 5. The alluvial basin reach of the Proposed Project consists of the historic floodplain of the Santa Clara River, an area of gravel, sand, silt, and clay deposits up to 200 feet deep underlying and immediately adjacent to major stream channels. The adjacent hills are characterized by sandy silts underlain by tertiary sedimentary rocks and soil erosion potential in the steep hillsides is high.

Like all of southern California, the CLWA service area is located in a seismically active zone, within about 18 miles northeast of the San Andreas Fault and crossed by two known smaller faults, the active San Gabriel Fault and the potentially active Hosler Fault. The San Fernando and Sierra Madre faults are also located in the vicinity of the Valley. These faults are capable of producing earthquakes of Richter-scale magnitude ranging from 6.7 to 8.25. Liquefaction in response to seismic events is likely in the alluvial plain.

The river basin is a potential sand and gravel mineral resource and sandstone in the hills is also considered a potential source of mineral resources. Oil and gas exploration occurred throughout much of the Proposed Project area, and the western element of the Proposed Project would be constructed within the boundary of the Castaic Junction Oil Field.

I. Related Projects

Containment of contaminants in groundwater and subsequent treatment and distribution of such supplies is a feature of groundwater management in many places in southern California. There are a number of groundwater basins which have contamination problems and a substantial portion of the groundwater in southern California has been affected by various forms of chemical pollution. There are impaired groundwater basins in all six southern California counties.

Perchlorate contamination has been found in 350 California groundwater basins, often associated with military weapons manufacturing or petroleum refining. Clean-up programs are underway throughout California. Examples include: (a) Pasadena in Los Angeles County (Jet Propulsion Laboratory), (b) Potrero Canyon in Riverside County (Lockheed), (c) Edwards AFB, and (d) Morgan Hill in Santa Clara County (petroleum refining). Containment and/or clean-up operations are complete or in progress in these areas. These efforts are part of a national program to address perchlorate contamination. As of 2004, over 65 perchlorate treatment technology projects had been funded. Ritchey (2004) notes that the anion exchange resin-based treatment process being proposed is currently in use in a number of locations.

In the Santa Clarita Valley, containment of the perchlorate-contaminated plume of groundwater would also be accomplished at VWC's existing well along the north side of the Santa Clara River east of the Bouquet Canyon Road Bridge.

The Proposed Project also takes place in the context of numerous other residential, commercial, and infrastructure development projects in the rapidly growing Valley.

IV. ALTERNATIVES CONSIDERED

A. No Action

Under the No Action Alternative, CLWA would not construct or improve wells at Saugus 1 and Saugus 2, which would continue to be out of service. No contaminated water would be treated. The plume of perchlorate from the Whittaker-Bermite Property would continue to spread within the Saugus Formation and into the Alluvial Aquifer.

The No Action Alternative would result in further contamination of the Alluvial Aquifer. Perchlorates have been found to affect iodide uptake in the thyroid, so use of highly contaminated groundwater would be a significant human health risk. Avoiding this risk under the No Action Alternative would result in loss of existing water supply as the Alluvial Aquifer became contaminated. More wells would have to be shut down. Given that CLWA and downstream agencies rely on this aquifer for a substantial portion of their existing groundwater supply, the No Action Alternative could potentially reduce drinking water and irrigation supplies throughout the Santa Clara River basin. The result would be a need to acquire additional SWP supplies to offset losses of local supplies. This would put additional stress on the SWP system, require additional export of water from the Sacramento-San Joaquin Bay Delta, and/or require purchase of supplies from other SWP contractors. Given that the availability of SWP supplies is limited, the No Action Alternative would reduce overall water supply in CLWA's service area.

The No Action Alternative could also have adverse impacts on fish and wildlife, because groundwater in the Alluvial Aquifer may surface downstream and become surface flow in areas designated as important habitat for threatened and endangered species such as steelhead and Southwestern arroyo toad (USFWS 2004). The effects of perchlorate on these and other aquatic species, and on the aquatic food chain, are not well understood.

B. Containment Elements Only: No New Facilities for Service Restoration

A "containment only" alternative would involve construction of only the facilities needed to (a) intercept the perchlorate-contaminated groundwater water and (b) treat this water to remove the contaminants. The resulting supply would be introduced into CLWA's distribution system as described. No new distribution facilities would be constructed.

A "containment only" alternative would not meet CLWA's project objectives and would constrain CLWA's ability to deliver treated water to CLWA retail purveyors and their customers because some existing facilities for distribution in the area east of McBean Parkway must be converted by the Proposed Project to provide an efficient route for the movement of perchlorate-contaminated groundwater to the treatment plant site. In short, the containment element of the Proposed Project could reduce service reliability to some customers and at best could create service bottlenecks. A containment-only alternative would thus not meet objectives. Full restoration of service requires replacement of lost conveyance capacity.

C. Restoration Elements Only

A restoration-only alternative would involve construction of new wells and pipelines as proposed, but not the use of Saugus 1 and Saugus 2 wells to intercept perchlorate-contaminated water supplies.

A restoration-only alternative would result in long-term contamination of the alluvial aquifer as perchlorate continued to move north and west from the Whittaker-Bermite Facility. This would affect more wells in and around the alluvial aquifer, ultimately resulting in greater loss of well capacity, as well as long-term adverse impacts to biological resources throughout the Santa Clara River drainage to the west. A restoration-only alternative therefore only defers accomplishment of perchlorate cleanup. Because cleanup is essential to meeting project objectives and to maintaining the alluvial aquifer as a viable source of water supply, deferring cleanup and allowing the plume of contaminated water to spread would only complicate the effort to intercept and clean up contaminated groundwater.

V. ASSESSMENT OF POTENTIAL EFFECTS

A. Mechanisms of Potential Effect

The Proposed Project has been sited to exclude the potential for direct impacts to fish and wildlife habitat and to housing or commercial buildings. The Proposed Project has potential to affect the physical environment in several ways:

- Construction would create noise and dust; noise and dust may affect sensitive people and wildlife;
- Construction would involve excavation to a depth of 6-12 feet in some areas where buried cultural resources may be present;

- Construction in the public right-of-way would cause temporary traffic delays and would interrupt bike traffic;
- Construction would generate additional traffic along roads used to access the construction sites; and
- Construction would temporarily disturb the (dry) river bed adjacent to the Bouquet Canyon Bridge.

Long-term operation would involve infrequent inspection and maintenance of facilities, including routine removal of disposable filtration modules from the proposed treatment plant and routine maintenance of equipment. Inspection and maintenance of wells and pipelines may involve short-term disturbance of auto and bike traffic in the event that underground pipelines need to be repaired. This is not anticipated at any given location more than once during the 100-year life of the Proposed Project.

These potential mechanisms for effect are discussed in terms of their potential to create significant adverse effects on various CEQA categories of effect. Under some CEQA categories of effect, the significance criteria from CEQA Guidelines Appendix G have been referenced explicitly in the analysis below. Explicit reference to these criteria is not made where it is clear that there is no mechanism by which the Proposed Project could have an effect.

B. Aesthetics

The Proposed Project would be considered to have a significant impact on aesthetics if it substantially affected a scenic vista by blocking the public view, damaged scenic resources, degraded the existing visual character of a site or its surroundings, or created a new light source which would adversely affect views in the area.

A majority of the Proposed Project facilities would be underground. Above-ground facilities would include:

- Two existing wells (Saugus 1 and Saugus 2), located adjacent to a commercial-industrial zone;
- A new well located at an existing CLWA facility between an industrial and residential area along the Santa Clara River Mainstem;
- Two new wells and a chloramination facility, outside of the western boundary of the MMA Park; and
- The proposed perchlorate treatment facility, located next to the existing Rio Vista Intake Pump Station, adjacent to large retail center and commercial offices, and next to an existing bike lane.

No changes to existing wells would be made that alter their current exterior condition. New wells, located in disturbed areas, would be contained within small structures and landscaped to reduce visual effects. The treatment plant screening would be designed to be architecturally consistent with the existing Pumping Plant.

The only facility which could affect a public viewshed is the new treatment plant, which would be on the landside of a bike trail along the Santa Clara River. The present view from this bike trail is of a parking lot, a gravel/landscaped area, and the side of the home improvement retail center. The proposed treatment facility would be landscaped along the bike trail. Given the impact minimization measure proposed for this site, it is probable that the view from the bike trail would be more visually pleasing than the present view of the home improvement center and parking lot.

The proposed perchlorate treatment facility is in an area already lighted by an adjacent pumping plant, storage facility, and large home improvement store with parking lot lighting. The perchlorate treatment plant would have lighting at its entrance, its lights would be directed away from the bike path between it and the Santa Clara River, and there would be landscape screening between it and the Santa Clara River. No lighting impacts on this viewshed would occur.

Based on these considerations, the Proposed Project would not have significant aesthetic impacts and no additional mitigation is required.

C. Agricultural Resources

The Proposed Project could be considered to have a significant impact on agricultural resources if it directly or indirectly resulted in conversion of a significant amount of prime or unique farmland or conflicted with existing zoning or Williamson Act designations. The State Department of Conservation considers conversion of 100 acres of farmland to be significant enough to require preparation of an EIR.

The Proposed Project occurs entirely within an urban setting, with facilities located within existing public rights-of-way and proposed road rights of way. No farmland would be converted to other uses as a result of the Proposed Project. The Proposed Project would not conflict with existing zoning for agricultural uses or a Williamson Act contract. The Proposed Project would reduce potential for contaminated water from the historic Whittaker-Bermite Property to affect either urban or agricultural water supplies in the Santa Clara River Basin, and thereby existing urban and agricultural water uses. The Proposed Project would therefore have no significant impacts on agricultural resources and no mitigation is required.

D. Air Quality

The proposed Project would be considered to have a significant air quality impact if it contributed substantially to an existing or projected air quality violation. The relevant regulations and thresholds of significance are contained in South Coast Air Quality Management District (SCAQMD) rules for fugitive dust and emissions from stationary sources.

1. Fugitive Dust

The Proposed Project would not involve exposure of more than approximately 0.2 acres at any given time (25-foot construction right-of-way, 300 feet long). Roads would be repaved as construction proceeds; bike trails in each pipeline segment would be backfilled and compacted on an ongoing basis and repaved prior to initiating construction along other segments. During construction, implementation of SCAQMD Rule 403 Best Management Practices (Appendix B) would control emissions of fugitive dust. Proposed Project-generated fugitive dust would thus be fully in compliance with Rule 403, Section (d). Exposed areas would be repaved. Construction contracts would specify that all construction equipment be equipped with current emissions reduction technology and would be inspected at manufacturer-recommended intervals to ensure that it is working properly. The construction schedule also reduces the potential for the Proposed Project to contribute to violation of air quality standards. Construction would occur in the fall and winter, when air quality in Los Angeles County is generally better due to prevailing winds from the west and reduced sunlight (and associated ozone creation). The small size of the Proposed Project, the implementation of best management practices, compliance with SCAQMD and City of Santa Clarita regulations, and construction scheduling reduce the potential for the Proposed Project to contribute to an air quality violation to less-than-significant.

2. Volatile Organic Compounds (VOC's)

The proposed perchlorate treatment plant would be a small-capacity Publicly-Owned Treatment Works (POTW), as defined in SCAQMD Rule 1179 (b) (6). As such, the Proposed Plant would provide the SCAQMD with appropriate reports related to emissions of VOC's from the proposed facility. The treatment plant would be a self-contained modular facility that utilizes a resin-based anion exchange technology which replaces the perchlorate ion with a chloride ion, which is non-toxic. No perchlorate would be released from the site. No VOC emissions are projected.

3. Other Emissions from Stationary Sources and Cumulative Energy Use

The proposed stationary facilities (well pumps and treatment plant) would be operated with electric power and would not make releases of NO_x, CO, or PM_{10}. The Proposed Project's electric usage would not constitute a significant portion of total electric use in the Valley and the Proposed Project would restore local production from groundwater wells. Within the framework of SCAG's population projections and CLWA's projected water demands within CLWA's service area, the Proposed Project would restore lost well capacity. For any given level of demand, without this well capacity there would need to be offsetting deliveries from the SWP, which must be conveyed from the Sacramento-San Joaquin Bay Delta to CLWA's service area. Energy use during this 250 to 300 mile conveyance would exceed that of the Proposed Project Facilities. The Proposed Project therefore reduces net energy use associated with meeting projected water demands within CLWA's service area.

4. Cumulatively considerable impacts

Construction impacts of the project would be considered significant if there was a "cumulatively considerable" increase in emissions of criteria pollutants. These would include particulates and ozone. The exposed construction area at any given time would not be greater than about 0.2 acres and best management practices for construction would be incorporated into construction contractors to minimize potential for fugitive dust generation on this small area. For comparison purposes, exposed soils in the Santa Clara River bed and adjacent levees in the Proposed Project Area constitute about 160 to 200 unwetted acres; at a maximum, then, the Proposed Project could increase wind blown dust in the project area by about 0.01 percent above the levels generated from the dry river bed. Following construction, project sites would be repaved and no long-term fugitive dust would be generated. A short-term increase in wind-blown dust of 0.01 percent or less would not be considered cumulatively considerable.

Construction equipment would consist of a backhoe, a small dozer for grading, a generator, and other pieces of small equipment. Assuming operation of 5-6 individual pieces of construction equipment and comparing this to the emissions from car and truck traffic on only major roads in the vicinity of the project, vehicle emissions from this equipment would constitute a small fraction of total emissions. As noted in Section III(C) (above), average daily traffic volume on the 6 major arterials in the Proposed Project area (not including Interstate 5) is about 224,000 per day. The City of Santa Clarita notes that these average daily traffic volumes vary. Within this context, emissions from construction equipment would fall within the range of daily variability related to emissions from traffic and would not be considered "cumulatively considerable."

5. Objectionable Odors

Along pipeline alignments, the project would involve repaving of roads and paved bike trails. This may create odors from asphalt use. Given that the project pipelines would be constructed at a rate of about 200 feet per day, no individuals would be subject to such common odors for more than 1-3 days. This is equivalent to a normal neighborhood street repair operation and would not be considered a significant impact.

Based on these considerations, and with the implementation of mitigation measures incorporated into the project, the Proposed Project would not conflict with or obstruct implementation of the SCAQMD's Basin Plan, would not violate any air quality standard or contribute to such a violation, would not result in a cumulatively considerable net increase for any air quality criteria as defined in SCAQMD Rule 1702, would not expose sensitive receptors to substantial pollutant concentrations, and would not create objectionable odors affecting a substantial number of people. No significant impacts are anticipated and no additional mitigation is required.

E. Biological Resources

Proposed Project would be considered to have a significant impact on biological resources if it: (a) had a substantial adverse effect on special-status species, on any riparian habitat or other sensitive natural community, on federally protected wetlands; (b) interfered substantially with

the movement of any resident or migratory fish or wildlife species; or (c) conflicted with local policies or ordinances protecting biological resources and/or with provisions of approved habitat conservation plans. The effects of the Proposed Project related to these issues are described below.

1. Habitat Loss

No rare plant, fish, or wildlife habitat would be either temporarily disturbed or permanently lost due to facility construction and/or operation because (a) the Proposed Project facilities would be sited within existing and planned paved public roads, paved/graded bike trails, and/or at existing CLWA developed facilities. Vegetation along the bike trails to be used as a part of the Proposed Project is landscaped and routinely maintained (mowed and weeded). In addition, the Proposed Project would not have indirect effects on habitat because implementation of best management practices for water quality would effectively prevent erosion, sedimentation, and/or spills of oil and gasoline from the construction site. In areas adjacent to the river, fueling and maintenance would be conducted on the landward side of the pipeline trench and appropriate spill containment pads would be used. Erosion control mats and/or fencing would minimize potential erosion and sedimentation during periods of rainfall.

For Proposed Project service restoration facilities west of Interstate 5, project construction would be deferred until the proposed subdivision in this location initiated grading. This can be accomplished in the short-term by substituting available water supplies for the supplies which would be restored at the three wells west of Interstate 5. Once the subdivision contractor begins grading roads and adjacent land for construction, the facilities to be constructed west of Interstate 5 would be constructed in an area which is substantially devoid of habitat and undergoing a level of disturbance such that the Proposed Project facilities would themselves have no potential for impact to wildlife or wildlife habitat.

2. Direct Effects on Special-Status Species Individuals

Given the implementation of conservation measures to prevent erosion, sediment discharge to the river, and discharge of oil, gas, and other construction-related hydrocarbons to the river, the Proposed Project has a negligible potential to directly affect fish and or amphibians. Given the disturbed nature of the proposed pipeline, well, and treatment plant sites, it is not likely that special-status terrestrial species would utilize these areas.

There is a small potential that special-status terrestrial species may incidentally stray into the areas along bike trails, although there is no habitat for any of these species in the actual bike trail alignment. The species which may utilize this habitat on an incidental basis include coastal western whiptail, San Diego black-tailed jackrabbit, coast horned lizard, coast patch-nosed snake, and two-striped garter snake. To access bike trails, these species would need to move from patches of habitat on benches in the river corridor, across the open river channel and up the face of the flood control levees. While this is feasible, it is not likely during the construction period for several reasons:

- Many of the species of the Santa Clara River basin, such as the two-striped garter snake, move out of the river channel in the winter and utilize adjacent coastal sage scrub and chaparral habitats;
- When there is no flow in the channel between habitat patches and the levee, animals moving towards the construction zone would be exposed to predation; and
- It is likely that there would be flow in the river during much of the fall-winter construction period, and that flow would isolate patches of habitat on bars and benches from the construction zone along the crest of the flood control levees.

In addition, all of these species may be readily identified in pre-construction surveys and subsequently excluded from the active construction site with fine-mesh exclusion fencing between the construction site and the river. In the unlikely event that special-status species did approach the construction site along the river, implementation of the best management practices would avoid and minimize potential for injury or death of special status individuals.
In the Proposed Project area west of Interstate 5, there is potential for burrowing owls, coastal western whiptail, coast horned lizard, San Diego black-tailed jackrabbit, and American badger to be found in the non-native grasslands and sparse shrubs adjacent to the proposed pipelines. As noted above, deferral of construction until planned development in the area occurs would mean that the Proposed Project would be undertaken in an existing construction zone where virtually all habitats would have been impacted by the subdivision.

3. Potential Impacts of a Perchlorate or Chloramine Spill due to Pipeline Failure

There is a potential for pipeline failure due to accidents or seismic events (as outlined in discussion of Geology and Soils). Spills of perchlorate-contaminated water would have potential to affect species in the river and their habitat. The magnitude and importance of spills is best examined in the context of the without-project alternative.

Perchlorate contamination of the Santa Clara River under the Without Project Alternative

The Proposed Project will intercept and treat about 3,000 to 4,500 acre-feet of perchlorate contaminated water per year. Over a 50-year project life, this will mean that 150,000 to 225,000 acre-feet of perchlorate contaminated water would be treated. Without the Proposed Project, this perchlorate-contaminated water would enter the alluvial aquifer and move downstream into the lower Santa Clara River basin, upwelling and becoming surface flow in the river itself. Based on the data in Table 1 (above), concentrations of perchlorate in this untreated groundwater would range from about 10 to 20 µg/l (micrograms per liter or 1 millionth of a gram per liter). Using the median value of 15 µg/l, this equates to approximately 18.5 grams/acre-foot. Over the 50-year project life, the containment of perchlorate will thus prevent approximately 6,000 to 9,000 pounds of perchlorate from entering the groundwater and surface water of the Santa Clara River.

The potential effects of perchlorate on wildlife are only partially understood, but perchlorate has been found to affect thyroid function in humans and wildlife (McNabb et al 2002), which affects basic metabolism and growth. Smith et al (2001) have shown that perchlorate is taken up by a variety of plants and wildlife, with plant accumulations that are often quite high (up to 1 part per

500). Animals consuming highly contaminated vegetation would be subject to perchlorate toxicity. In this study at a Texas ammunition plant, wildlife found to have accumulated perchlorate included green tree frogs, harvest mouse, cotton mouse, weed shiner, mosquitofish, sunfish, northern cricket frog, American toad, bullfrog (adults and larvae), blackstripe top minnow, chorus frog, largemouth bass. In short, perchlorate is actively assimilated by a variety of plant and wildlife species and it must be assumed that thyroid-related developmental effects occur in these species. Thuett et al (2002) note that exposure may occur in utero and lactationally, and that developmental effects may include low growth and low heart size in juveniles (mice). In a relatively large-scale investigation in the field (Las Vegas Wash), Tuttle et al (2002) found perchlorate in a mix of environmental toxicants, and that perchlorate in the wash affected downstream water quality below Hoover Dam, reflecting the relatively stability of perchlorate in the environment. In addition, Urbansky (2002) summarizes potential perchlorate effects and notes that perchlorate's persistence allows it to move up the food chain. Urbansky (2002) further notes that precise estimates of perchlorate toxicity in the environment are not feasible given the status of current research.

Nevertheless, it is clear that the 6,000 to 9,000 pounds of perchlorate that will enter the Santa Clara River system without the containment element of the Proposed Project would affect whole wildlife populations over many generations. Perchlorate would be expected to persist for some time, affecting aquatic and terrestrial resources from the Whittaker-Bermite Facility to the ocean. Without the Proposed Project, this long-term and persistent problem would result in bioaccumulation of perchlorates in plant communities and potentially significant adverse effects to wildlife throughout the Santa Clara River system.

Perchlorate contamination due to accidental or seismically-induced pipeline failure.

The maximum potential perchlorate spill from a broken pipeline would be limited by automatic shutoff valves to about 1 acre-foot. Pipeline failures would be either underground, where leakage would be relatively slow prior to detection and initiation of automatic shutoff, or along the undercarriage of bridges, where the leaks would be immediately visible. In dry conditions, spills would rapidly percolate into the sandy soils of the river bed. Leakage would be over a period of hours, and the surface area affected before percolation into groundwater would be low. In wet conditions, the spills would mix with surface water and be diluted. A 1 acre-foot spill would release about 0.041 pounds of perchlorate into the river, compared to 6,000 to 9,000 pounds of perchlorate introduced into the river without the proposed project, or about 0.00045% to 0.0007% of the potential perchlorate contamination likely without the Proposed Project.

Such accidental releases would occur only infrequently. New pipeline is expected to have a minimum life of 50+ years. There are no activities on the Santa Clara River or the South Fork of the Santa Clara River that would damage pipelines under bridge decks and there is very little possibility of activities that would damage underground pipelines in roads, rights, of way and/or in the few segments of pipe in private property. These pipelines will be recorded in general data bases related to utility facilities, and construction in the vicinity will require identification of these pipelines prior to any future construction. Accidents from normal levels of activity will therefore be rare.

Pipelines may fail during seismic events, but automated shut-off valves will limit spills to about 1 acre-foot. Seismic damage to pipelines is anticipated at some point because the proposed site is near the (inactive) San Gabriel Fault and is about 15 miles from the (active) San Andreas Fault. The San Andreas Fault has a record of movement on an average of 170 years. Predicting earthquake frequency is speculative, but given that the last movement on the San Andreas Fault in this region was in 1857 at Fort Tejon, there is a realistic potential for a seismic event in the project area over the life of the facility. Only one such event may occur, or several events may occur. Pipelines are designed to minimize damage; but there is potential for 1-2 spills related to accidents and/or seismic events. These spills would release miniscule amounts of perchlorate contaminated water when compared to the volume of such water entering the river ecosystem system without the Proposed Project. In this context, the potential impacts to biological resources associated with accidental or seismically-induced pipeline failure would be considered insignificant.

Further, if spills were to occur in dry periods, they would rapidly percolate into the sandy river bed, and it is not likely that they would have immediate effects on nearby downstream plants and animals. Temporary installation of a well in the vicinity of the spill could also allow for remediation of spills. If spills were to occur in wet periods, then they would be diluted and again would have little potential for short term effects on nearby plants and animals, passing downstream as surface flow to the ocean.

With regard to potential impacts on threatened and endangered species in the vicinity of the spill, spills from pipeline failure and the relatively small volume of release associated with pipelines governed by automatic shut-off valves would be no more than about 1 acre-foot. In dry conditions this volume would be contained in a small area of dry river bed and would percolate into groundwater. In wet conditions, such a small spill would be rapidly diluted. Effects to habitat and individuals would be substantially lower than the effects of continued seepage of perchlorate into the Santa Clara River system under the without-project condition.

Potential spills of treated water (chloramines).

Spills of chloramine-treated water are also possible, and chloramines are known to be toxic to fish and may have impacts to other aquatic species. Chloramines are not as persistent in the environment as perchlorate and would degrade relatively rapidly during percolation into the alluvial aquifer. In addition, potential for chloramine-contaminated spills would not vary as a result of the proposed project. The volume of treated water moved in CLWA pipelines for delivery to customers would not change as a result of the Proposed Project. In addition, given that several older water lines would be replaced by new facilities, the potential for spills and subsequent contamination of surface water and groundwater with chloramines would be marginally reduced by the Proposed Project when compared to the without-project condition. Potential impacts of the Proposed Project on the probability and magnitude of chloramine release as a result of pipeline failure would be considered beneficial (but not significant).

3. Noise and Visual Disturbance Effects

A number of special-status avian species which may utilize the riparian habitats of the Santa Clara River and the South Fork of the Santa Clara River may be sensitive to noise and visual disturbance during their nesting season. The nesting season for these species is shown on Table 8.

Table 8. Nesting season for special-status avian species (sources: CDFG 2005; USFWS 2005; Audubon 2005, Cornell University 2005)

SPECIES	FEDERAL-STATE STATUS	NESTING SEASON
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis)*	T/CSC	June - August
Southwestern willow flycatcher (*Empidonax traillii extimus*)	E/E	May-August
Least Bell's vireo (*Vireo bellii pusillus*)	E/E	March-early September
California gnatcatcher (*Polioptila californica californica*)	T/CSC	March-August
Cooper's hawk (*Accipiter cooperii*)	-/CSC	April-August
Sharp-shined hawk (*Accipiter straitus*)	-/CSC	Does not breed in project area
Tricolored blackbird (*Agelaius tricolor*)	FSC/CSC	March-July
Southern california rufous-crowned sparrow (*Aimophila ruficeps canescens*)	FSC/CSC	March-July
Bell's sparrow (*Amphispiza belli*)	FSC/CSC	April-August
Long-eared owl (*Asio otus*)	-/CSC	March-August
Burrowing owl (*Athene cunicularia hypugea*)	FSC/CSC	April-July
Yellow warbler (*Dendroica petechia brewsteri)*	-/CSC	May-August
White-tailed kite (*Elanus leucurus*)	-/FP	Feb.- Sept. (peak May)
California horned lark (*Eremophila alpestris actia*)	FSC/CSC	Late February-June
Loggerhead shrike (*Lanius ludovicianus*)	FSC/CSC	March-August
Summer tanager (*Piranga rubra*)	-/CSC	May-August

As Table 8 indicates, the nesting/breeding season for special-status birds which may be found in the general project area is from March through early September, with the exception of the white-tailed kite, which may begin breeding in late February and rear nestlings into late September. Breeding season varies by location and annually, depending on weather, and the estimates of breeding season shown on Table 8 reflect the earliest and latest dates for breeding. The peak breeding season for the white-tailed kite, for example, is mid-spring to summer. For all but the white-tailed kite, then, the Proposed Project's construction schedule eliminates potential to cause noise and visual disturbance during nesting and therefore avoids noise and visual disturbance effects on nesting of special-status birds. For white-tailed kite, the Proposed Project may cause noise and visual disturbance during periods when the species may occasionally breed, but not during any portion of the peak breeding season.

Several special-status birds are potential year-round residents or winter visitants in the vicinity of the Proposed Project west of Interstate 5, including California gnatcatcher, Cooper's hawk, tricolored blackbird, southern California rufous-crowned sparrow, Bells sparrow, long-eared owl, burrowing owl, yellow warbler, white-tailed kite, California horned lark, loggerhead shrike, and summer tanager. None of these species exhibits strong territorial responses during the non-breeding season. Most of these species are non sensitive to human disturbance during the non-

breeding season, although the rufous-crowned sparrow and Bell's sparrow are generally sensitive to noise and human activity. In this portion of the Proposed Project area, however, pipeline and well construction would occur during or immediately following the grading of road alignments for a subdivision. Pipeline/well construction would therefore be only a minor component of an overall disturbance regime and would not in itself cause substantial levels of disturbance.

Finally, the Proposed Project would not affect special status bat roosting habitats. The only potential bat roosting habitat which could occur within proposed construction areas is the underdeck of the Bouquet Canyon Bridge, but this structure is currently being improved and no roosting is likely to occur prior to initiation of the Proposed Project. Bats may forage over the entire Proposed Project area, but construction activity would be limited to daylight hours and impacts on bat foraging would be negligible.

Given the implementation of the mitigation measures described in Section II(G), no significant project effects are anticipated and no further mitigation is required.

F. Cultural Resources

The Proposed Project would be considered to have a significant effect on cultural resources if it (a) caused a substantial adverse change in the significance of an historic or archeological resource, (b) directly or indirectly destroyed a unique paleontological resource, site, or a unique geologic feature, (c) if the project was sited in a manner that would disturb a known burial site or (d) buried remains identified during project construction were not treated in a manner consistent with applicable law and regulation.

A cultural resources literature survey was conducted and determined that no known significant historic or archeological resources have been found in the Proposed Project area. There are no known burial sites in the project area, and most of the proposed project is being constructed in areas that have been previously excavated and disturbed. Burials are not likely to be found. If burials are found, the implementation of proposed mitigation measures would ensure compliance with applicable State and Federal laws. Mitigation measures would be incorporated into construction contracts, with independent verification by a qualified archeologist, to ensure compliance.

The monitoring and mitigation measures outlined in Section II(G) would ensure compliance with procedures outlined in CEQA Section 15064.5 and would reduce impacts to cultural resources resulting from the Proposed Project to a level of less-than-significant.

G. Geology and Soils

The Proposed Project could be considered to have significant impacts related to geology and soils if it exposed people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving (a) rupture of a known earthquake fault, (b) strong seismic ground shaking, (c) seismic-related ground failure, including liquefaction, or (d) landslides. Significant impacts would also occur if the Proposed Project (a) resulted in substantial soil

erosion or the loss of topsoil, (b) was 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, (c) was located on expansive soil creating substantial risks to life or property or (d) had 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. Project effects related to geology and soils are described below.

Based on review of mapping for the City of Santa Clarita, elements of the Proposed Project are within a Seismic Hazard Zone, with facilities located near the San Gabriel Fault Zone. All project facilities would be designed to comply with standards for construction within such a zone. However, there is no physical mechanism by which the Proposed Project could cause or contribute to rupture of an earthquake fault, strong seismic ground shaking, seismic-related ground failure or liquefaction, or landslides.

In a seismic-related event, there is a potential for damage to pipelines and the perchlorate treatment plant. There is a risk of leakage from the buried pipeline. The risks associated with such damage and leakage are substantially reduced because rapid shutdown of pipeline flow and treatment plant operation would ensure that pipeline or treatment plant failure would not create a significant hazard due to erosion and/or release of large quantities of water. Only the amount of water contained in the pipelines at the time of damage would escape, and the proposed pipelines are relatively small and volumes released would be small. For example, the largest pipeline, a 39" diameter pipeline approximately 2800 feet in length would hold about 23,900 cubic feet of water, less than the volume of a small community swimming pool (a pool 30 x 100 x 8 feet deep). With automatic shutdown and the associated reduction in water pressure, drainage from a ruptured underground pipe would take several hours and would not create a significant risk.

The perchlorate treatment plant would be located on/adjacent to stable engineered levees, and would be monitored 24 hours a day by staff at the adjacent pumping plant. The perchlorate treatment plant can therefore be rapidly shut down should a seismic event result in damage to the plant. Secondary containment vessels are designed to retain their integrity during seismic events, would prevent mixing of stored chemicals, and therefore reduce the risk of release of hazardous materials from perchlorate treatment plant damage to a level of less-than-significant.

Constructed entirely in existing or planned public rights of way, the Proposed Project would not be in a landslide area and would not be affected by landslides. Implementation of best management practices incorporated into the project would eliminate potential for substantial soil erosion or loss of topsoil. No change in existing uses would result. The project facilities would be located under existing roads, in engineered levees, and adjacent to existing facilities. These are stable, engineered environments. Soils in the Proposed Project area are sandy loam alluvial soils, not expansive clays. The Proposed Project does not involve the use of septic tanks or the discharge of wastewater. Further, even if a pipeline were to fail as a result of a seismic event, rapid shut-off of flow to the pipeline would eliminate significant erosive flow, and significant landslides would not occur.

Based on these considerations and implementation of proposed best management practices, the Proposed Project has no significant effects and no further mitigation is required.

H. Hazards and Hazardous Materials

The Proposed Project would have a significant effect related to hazards and hazardous materials if it (1) created a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; (2) created 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; (3) emitted hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; (4) was 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 create a significant hazard to the public or the environment; (5) 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 result in a safety hazard for people residing or working in the project area; (6) for a project within the vicinity of a private airstrip, would result in a safety hazard for people residing or working in the project area; (7) would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or (8) would 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.

(1) Significant hazards associated with transport, use, or disposal of hazardous materials are not anticipated. First, construction of the Proposed Project would not involve the use or transport of hazardous materials except for fuels, and this transportation would be managed in accordance with the most current regulations in effect at the time of construction. Second, the resin units used in the proposed perchlorate treatment plant consist of filter units with polymer beads to which perchlorate ions bind in a process similar to water softening. These units are stable and non-toxic. They would be delivered to the site and collected by the manufacturer or an agent of the manufacturer and would be shipped to a proprietary disposal site. Chemical handling for the chloramination facilities would be in accordance with best management practices described above. Chloramination eliminates the use of free chlorine, and the chemicals utilized (sodium hypochlorate and ammonia) would be stored separately, with secondary containment vessels able to contain 1.5 times the volume held by the storage tanks. The excellent safety record of drinking water treatment facilities in transport and use of water treatment chemicals suggests that the potential for public exposure to such chemicals is negligible.

(2-3) The possibility of release of hazardous materials as a result of accident conditions is remote. The Proposed Project design incorporates features for handling and transport of chemicals used in the water treatment process. Chemicals transported, stored, and used in chloramination are sodium hypochlorate and ammonia. They would be transported in a manner consistent with all safety regulations. They would remain separated and stored in secondary containment vessels that preclude leakage even if the primary vessel is damaged. No release of

hazardous materials is anticipated. The project is not within 0.25 miles of an existing or proposed school.

(4) The Proposed Project is not located on a hazardous materials site.

(5-6) The Proposed project is not located within an airport use plan area or 2 miles of a public airport and is not located in the vicinity of a private airstrip.

(7) During construction, the Proposed Project would occupy one lane of several multi-lane arterial roads for a short period of time, and only outside of peak traffic hours. The Proposed Project would comply with City of Santa Clarita policies to ensure that construction does not have an effect on emergency response plans or evacuation plans.

City of Santa Clarita Encroachment Policy (incorporated into the Project description, see attached Initial Study) also requires daily backfill and re-paving of areas where excavation and pipeline placement have been completed. Similar requirements are included in the County of Los Angeles Code, Division 1, Title 16. Implementation of this policy means that there would be no more than about 200 feet of open trench at any time. In the event of an evacuation necessity, the City can immediately notify CLWA and its construction contractor, following which the short segment of trench can be rapidly backfilled by the construction crew and road function restored. Construction crews retain required steel plates to cover the exposed soils in the roadway and can place them rapidly if needed. It is likely that backfill and covering with steel plates would occur before significant emergency response or evacuation could be initiated or early in the implementation process. As a result, the Proposed Project would not cause a significant delay in the implementation of any emergency response plan or emergency evacuation plan.

(8) Review of data from the City of Santa Clarita indicates that none of the Proposed Project facilities would be within a fire hazard zone. Constructed entirely within existing or planned public roads and trails and existing facilities and constructed in compliance with local fire regulations, the Proposed Project facilities would not affect wildland fires.

Therefore, the Proposed Project, with implementation of best management practices, would have a less than significant impact related to hazards and hazardous materials. No additional mitigation is required.

I. Hydrology and Groundwater Quality

The Proposed Project would have a significant effect on the environment related to hydrology and groundwater quality if it (1) violated any water quality standards or waste discharge requirements; (2) substantially depleted groundwater supplies or interfered substantially with groundwater recharge; (3) substantially altered 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; (4) substantially altered 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; (5) created or contributed runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff (6) otherwise substantially degraded water quality (7) placed 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; (8) placed within a 100-year flood hazard area structures which would impede or redirect flood flows; or (9) exposed 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 or inundation by seiche, tsunami, or mudflow.
The primary purpose of the Proposed Project is to remediate a serious groundwater quality problem and prevent further degradation of the Saugus Formation and the Alluvial Aquifer from perchlorates. There would be no waste discharges; spent treatment materials would be removed from the site and disposed of by the service contractor. Even if there is a pipeline failure, the Proposed Project incorporates flow monitoring and control features that would limit discharges from the Proposed Project's small diameter pipelines so that only short-term and local discharges could occur. Specifically:

(1) The Proposed Project would comply with all existing water quality standards and would not involve discharges to a water body.

(2) The Proposed Project would protect groundwater water quality production from pre-existing wells (which would be relocated to areas where groundwater quality is not impaired).

(3-4) The footprint of the Proposed Project is small, and even the construction of the longest pipeline segment (5610 feet) would temporarily affect less than two acres of flat land (assuming an exposed soil area 15 feet wide during excavation and soil stockpiling). During construction, the implementation of best management practices, incorporated into construction contracts and independently verified by CLWA inspectors, would contain construction-site drainage and no substantial change in drainage patterns would occur. The Proposed Project would not permanently change topography, slope, or surface conditions and no long-term alteration of drainage patterns would occur. The Proposed Project would contain sediments within the construction site and discharges to waters of the United States would never approach levels requiring a discharge permit from regulatory agencies such as the US Army Corps of Engineers. The Proposed Project would not create or contribute runoff water to storm drains.

(5) There is no mechanism by which the Proposed Project would create substantial runoff. Project facilities will be located in areas that are currently paved and therefore have high runoff rates. During construction, runoff will be controlled to prevent erosion of sediment and runoff.

(6) The Proposed Project would enhance, not degrade water quality. As noted in discussion of biological resources (above), automatic shut-off valves will minimize potential for spill of perchlorate-contaminated water resulting from accidental pipeline failure. The maximum potential spill of about 1 acre-foot would release about 0.04 pounds of perchlorate to groundwater compared to the 6,000 to 9,000 pounds of perchlorate removed from groundwater by the Proposed Project.

(7) The Proposed Project would not affect the location of housing or cause a change in the designation of floodplains.

(8) None of the Proposed Project facilities is located in a manner that would impede or redirect flood flows. The Proposed Project facilities would not affect the structure of a levee or dam. Only the Proposed Project facilities on the west side of the South Fork of the Santa Clara River would be within the 100-year floodplain of this river; they would be buried. They would be outside of the portion of the river affected by high velocity flows that may significantly scour sediments and thus would not be affected by flooding or affect flood flows. The Proposed Project facilities would therefore not affect flood flows or the potential for such flows to affect people.

(9) The Proposed Project is not located in an area where seiche, tsunami, or mudflow would occur.

Based on these considerations, the Proposed Project would not have significant adverse effects related to hydrology and groundwater quality and no mitigation is required.

J. Land Use and Planning

The Proposed Project could have significant effects on the environment related to land use and planning if it (1) physically divided an established community (2) conflicted 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; or (3) conflicted with any applicable habitat conservation plan or natural community conservation plan.

There is no mechanism by which the Proposed Project could divide an established community. The Proposed Project would be constructed within the constraints of existing roads, trails, and water utility facilities and would be consistent with applicable land use plans. No changes in land use are anticipated to result from Proposed Project construction or operation. As noted above, the Proposed Project would not conflict with any habitat conservation plan or natural community conservation plan (none currently exist for the project area). No significant effects are anticipated and no mitigation is required.

K. Mineral Resources

East of Interstate 5, the Proposed Project is outside of any potential mineral extraction area. West of Interstate 5, the Proposed Project is within the historic Castaic Junction Oil Field, but no facilities planned would affect mineral extractions from this field. All Proposed Project facilities would be within existing and planned road alignments with the minor exception of pipelines under the river, the treatment plant (on public land), and short sections of pipeline routed around commercial buildings.

Therefore, the Proposed Project would not adversely affect regional or local mineral resources or their extraction. No mitigation is required.

L. Noise

The Proposed Project could have significant effects on the environment related to noise if it (1) exposed persons to or generated of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; (2) exposed persons to or generated excessive groundborne vibration or groundborne noise levels; (3) caused a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or (4) caused a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. The Proposed Project is not located in an airport land use plan or in the vicinity of a public or private airport and could not affect noise associated with such facilities.

The City of Santa Clarita has established noise thresholds for specific land uses. Allowable daytime noise levels in residential areas and commercial areas are 65 decibels (dBA) and 80dBA, respectively. In residential/commercial areas, ambient daytime noise is likely to be in excess of 75 dBA. The Proposed Project would cause construction noise adjacent to residences and businesses in some reaches of the project area:

- RESIDENTIAL: Along a 5610-foot bike trail west of the South Fork of the Santa Clara River;
- RESIDENTIAL/COMMERCIAL: Along a 1300-foot portion of Magic Mountain Parkway east of Valencia Boulevard;
- COMMERCIAL: Along a 800-foot portion of the west side of Valencia Boulevard;
- RESIDENTIAL/COMMERCIAL: Along about 3600 feet of bike trail from Valencia Boulevard to McBean Parkway,
- COMMERCIAL: At the CLWA facility at Furnivall and Santa Clara Street, where a single new alluvial well would be constructed.

The Proposed Project will involve use of several pieces of construction equipment at each work site, including backhoes, small dozers, small water trucks, small cranes, asphalt paving equipment, and associated small machinery and tools. EPA (1971) estimates of noise levels from construction equipment are often used as a basis for impact analysis associated with multiple pieces of equipment. These estimates are:

- 78 dBA to 89 dBA (50 feet)
- 72 dBA to 83 dBA (100 feet)
- 66 dBA to 77 dBA (200 feet)
- 60 dBA to 71 dBA (400 feet)

The impacts associated with the Proposed Project are likely to fall at the low end of these EPA estimates for several reasons. First, since 1971, modern construction equipment design has been

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Appendix A.
City of Santa Clarita Encroachment Permit Policy

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City of Santa Clarita Transportation & Engineering Services

ENCROACHMENT PERMIT POLICY

I. GENERAL

1.1 Encroachment permits are required for all work or placement of objects within the public right-of-way. Permits help to protect the public and the contractor from unsafe conditions, ensure proper placement of materials in the right-of-way, prevent obstruction of underground facilities, protect against damage to existing facilities, guarantee that the work will be done in accordance with all applicable standards and specifications, and establish quality control inspections.

1.2 The permit assures that all the work will be done in accordance with applicable design and construction standards as well as insurance requirements needed to safeguard the public interest. Any person working within the public right-of-way must obtain a permit from the City and maintain a copy of the permit on site at all times during construction. Failure to obtain an encroachment permit will result in the assessment of a double fee penalty.

1.3 If determined necessary by the City, the applicant will be required to submit an encroachment permit plan. Depending upon the complexity of the proposed work, a plan may be required to provide sufficient detail regarding the horizontal and vertical placement of proposed facilities. Information required may include the area of placement, proximity to existing utility lines, safety measures needed to safeguard the public, and methods of protection of public and private facilities from damage during and after construction. All construction activity must comply with requirements of Dig Alert and California Government Code 4216, Code 7110, as outlined in State Assembly Bill No. 73, as well as design and construction standards approved by the City of Santa Clarita.

1.4 The holder of any encroachment permit, or any agent or employee working for said permit holder on any excavation, shall inform him/herself and obtain all necessary information as to the existence and location of all existing surface and underground facilities. The applicant shall protect The City against any damage caused to such structures. The applicant shall be responsible for any loss incurred as a result of the work performed under the permit. If the City must take immediate action to provide safety for the public or repairs to City property, such repairs shall be made or be caused to be made by the City and shall be billed to the applicant. In the event that damage occurs to property not under the jurisdiction of the City, the permittee shall be required to make repairs to the satisfaction of the facility owner.

II. REQUIREMENTS FOR SECURING AN ENCROACHMENT PERMIT

2.1 Encroachment permit applications may be obtained at the City of Santa Clarita Engineering/Planning Counter located on the third floor of City Hall. For your convenience, City Hall is located at 23920 Valencia Boulevard. An encroachment permit application may also be obtained by calling 661-255-4942.

2.2 A resident, or contractor acting as an agent, may secure an encroachment permit for work being done within the public right-of-way. By signing the encroachment permit application, the applicant accepts all responsibility for work associated with that permit.

2.3 Prior to the issuance of an encroachment permit, the applicant may be required to satisfy some or all of the following requirements:

a. The applicant should be familiar with the type of work or activity planned to occur within the public right-of-way or secure the assistance of a qualified agent or contractor to represent the applicant.

b. The applicant should be prepared to discuss with a member of the City's staff at the Engineering/Planning Counter at City Hall the type of work planned to take place within the public right-of-way.

c. Depending on the scope and size of the project, some plans may be required. Some work may require only an informal drawing, while more complicated work may call for detailed plans to be reviewed by the City's Engineering Division.

d. A certificate of insurance, with an endorsement naming the City as additionally insured, must be submitted with each permit application.

e. Three sets of plans must be submitted along with an encroachment permit application for work including, but not limited to, general construction, tract or parcel map developments, or public utilities.

III. ENCROACHMENT PERMIT REQUIREMENTS

3.1 All work in the public right-of-way shall be performed in accordance with the City Code, standards, policies, and these general provisions, as well as any special provisions attached. All work shall be done under the supervision of, and to the satisfaction of, the City Engineer or his representatives.

3.2 All work shall be done in accordance with the latest addition (including addendums) of the *Standard Specifications for Public Works Construction*, unless otherwise specified.

3.3 All work on City streets, other than travel lanes, shall be done between the hours of 7:00 a.m. and 4:30 p.m. Additional limitations may be applied as circumstances dictate.

3.4 The City of Santa Clarita Construction and Engineering Services Division shall be notified at least twenty-four (24) hours in advance of the start of work by phoning 661-255-4942. All forms for concrete work shall be inspected one hour prior to pour. Should the City inspector find work

in progress prior to notification by the applicant and/or a permit not on site during construction, work will be stopped until all permit requirements have been met.

3.5 As required by law the applicant must contact Underground Service Alert (USA): 1-800-422-4133 for underground locating two (2) working days before digging begins. The USA number must be attached to or noted on the permit.

3.6 Upon completion of the work, the applicant shall remove all USA marks.

3.7 All excavation work must be in compliance with Cal/OSHA standards. The Cal/OSHA number shall be attached to your permit. For questions or concern, contact CAL/OSHA directly at 818-901-5403.

3.8 Construction operations must be conducted in a manner that causes as little inconvenience as possible to abutting property owners. Convenient access to driveways, houses, and buildings along the area of the work shall be maintained at all times unless previously arranged in writing with the affected party. Any temporary approaches to crossings or intersecting highways shall be pre-approved by the City and kept in good condition. All business establishments or homes within 300 feet of this work shall be notified 24 hours in advance of any work and shall have access during construction at all times.

3.9 All inspection costs incurred as a result of this work or incidental thereto shall be borne by the applicant. Any overtime charges or night work inspections shall also be borne by the applicant. The cost for those hours shall be calculated prior to the start of work, with a four-hour minimum charge being paid 24 hours in advance of the work being performed.

3.10 Any utilities damaged by the applicant or his/her contractor must be repaired or replaced to the satisfaction of the owner of the facility at the applicant or contractor's expense. Any trees, shrubbery, or landscaping damaged shall be replaced as directed by the City Engineer or his representative if owned by the City or the owner if on private property. If any work is being done in a Landscape Maintenance District, the applicant or their contractor must notify the City's Landscape Maintenance District at 661-286-4005 prior to the start of any work.

3.11 Debris or spoils: no debris spoils or stockpiling of materials shall be allowed unless specifically authorized. Under no circumstances shall material stockpiles be left in the street or on sidewalks of the City right-of-way overnight. All proper traffic control devices shall be in place and maintained to provide adequate protection for vehicular and pedestrian traffic in accordance with the Caltrans *Work Area Traffic Control Handbook* or as approved by the City Engineer.

3.12 No above ground structures shall be located in a sidewalk less than six feet (6') in width when said sidewalk is adjacent to the curb. Compliance with A.D.A. Standards is required.

3.13 Traffic controls within any permit construction zone shall conform to the current *State of California Manual of Traffic Controls for Construction and Maintenance Work Zones*, and/or work area traffic control handbook, *The Watch Manual*. In areas where the above standards do not apply, a traffic control plan prepared by a licensed engineer may be required.

3.14 Lane Closures: a minimum of one, twelve-foot (12') lane in each direction on local streets shall be provided for traffic unless otherwise approved by the City Engineer. No lanes will be closed before 8:30 a.m. and all lanes will be reopened by 3:30 p.m., unless approved by the City

Engineer. If any damage to existing or temporary traffic control equipment occurs, the applicant shall bring it to the immediate attention of the Inspector. All work will be suspended until such time as the necessary repairs are completed. Public safety shall be the primary consideration at all times.

3.15 All trenches, open holes, and excavations shall be filled, covered, or plated and adequately barricaded at the end of each workday, or whenever work is not in progress.

3.16 Compaction of trenches in all pavement and traffic areas shall be a minimum ninety percent (90%) relative density in the pipe zone and ninety-five percent (95%) in the upper three feet (3') measured from the pavement sub-grade. Compaction tests are required at locations and depths as determined by the City Engineer or his representatives, and shall be performed at the cost of the applicant. Compaction of materials in the parkway and sidewalk areas shall be a minimum ninety percent (90%) relative density.

3.17 Repairs to asphalt concrete pavement shall be made with plant mix surfacing AR-4000. Asphalt patches shall be a minimum of four inches (4") but not less than existing pavement, plus one inch (1"), and placed on base material a minimum of six inches (6") thick. All edges shall be treated with tack coat. Base course shall be three-quarters of an inch (3/4") hot mix. The top course design shall be approved by the City inspector for the location in question.

3.18 All utilities shall be placed with a minimum thirty inches (30") of cover, measured from the flow line of the gutter on the low side of the street, except for water and sewer lines. For these facilities, the minimum shall be 42 inches (42") from the top of pipe to finish grade or as specified by the facility's owner.

3.19 Excavations in major roadways planned to be left open beyond the normal working hours shall be protected by Caltrans approved non-skid steel plates over open excavations. On roadways with speed limits of 40 miles per hour or greater, the plates shall be recessed in accordance with Caltrans guidelines to provide a smooth transition of traffic movement without bumps.

3.20 In roadways with speed limits below 40 mph, steel plates may be utilized for a period not to exceed 48 hours without recessing, provided an asphalt transition ramp is installed at a width not less 12 inches (12") per inch of plate thickness. (i.e., a 1-1/2" plate requires an 18" transition). Should the work extent beyond the 48-hour period, all plating will be recessed as described in Section 3.19.

3.21 Non-compliance with this or other permit conditions will be cause for permit revocation.

IV. EVENING CONSTRUCTION WORK WITHIN THE PUBLIC RIGHT-OF-WAY (NIGHT WORK)

4.1 In the event that a contractor, developer, or utility company requests to perform work activities at night, considerations must be made for the type of area where the construction will take place (residential, commercial, or industrial). Consideration must also be given for the type of street being affected and the corresponding volume of traffic. Encroachment permit applicants must meet the following requirements prior to the City's approval of a permit for night work.

4.2 Considerations for Night Work

a. Signs are to be posted at each end of the project area stating the dates and times that night work will occur. Signs must be placed as early as possible, but in no instances shall notice be given less than 72 hours prior to commencement of work.
b. Door hangers or letters are to be hand circulated to each resident or business in the affected area, with proof of distribution provided to The City Public Works Inspector 72 hours prior to the start of work.
c. Traffic plan approval must be obtained from the City's Traffic Engineer prior to the start of work.

4.3 All fees for overtime for City Inspection services must be paid in advance of work. Fees must be paid by noon the day prior to the start of work.

V. TRENCH BACKFILL REQUIREMENTS

5.1 All backfill material shall be as follows:

a. Pipe zone – One foot (1') of cover over top pipe or conduit with sand or slurry

b. Trenches thirty inches (30") in depth or more – If suitable native material is available, it may be used and compacted in 8-inch (8") lifts, and compaction shall be ninety percent (90%) relative density. If acceptable native material is not available, the contractor shall import appropriate material as determined by the City Engineer. Slurry may be used as an alternative backfill material.

c. Trench resurfacing shall be one inch (1") greater in thickness than existing pavement.

d. The asphalt pavement repair shall be compacted in four-inch (4") lifts. Compaction shall be ninety-five percent (95%) relative density.

e. The base section shall match existing or a minimum of eight inches (8") of crushed aggregate base, whichever is greater (Section 200-2.1 of the *Standard Specifications for Public Works Construction*). Base shall be thoroughly compacted in layers not to exceed four inches (4") in depth. Compaction tests may be required as determined by the City inspector and shall be paid for by the applicant. A copy of such test results shall be given to the inspector. Densities shall meet the requirements of Section 300-4-7 and 301-1.3 of the *Standard Specifications for Public Works Construction*.

f. All trenches crossing travel lanes or in intersections shall be slurry backfilled with a two-sack per cubic yard cement slurry, from one foot (1') above pipe or conduit zone to within four inches (4") of finish pavement grade, then capped with AR-4000 asphalt.

VI. REMOVAL REQUIREMENTS

6.1 Saw Cutting: The contractor must comply with N.P.D.E.S. Regulations at all times. All water and grindings resulting from the saw cut operation shall be removed from the site by vacuum or other approved method to prevent materials from entering the storm water system.

6.2 Any concrete removed shall be saw cut and replaced score line to score line or full panel, as directed by the City Engineer or his representatives. Concrete must be replaced to match existing color, finish, and scoring. Pavement to be removed shall be saw cut. Permanent sidewalk, parkway, and pavement repairs shall be completed within 30 days of installation of facilities covered under the permit.

6.3 Curb and Gutter Removal and Replacement: Contractor must saw cut curb and gutter at the nearest score line or natural joint, and saw cut between the lip of gutter and existing asphalt. Where necessary, the contractor shall saw cut between the back of curb and sidewalk. No saw cutting shall be done at the shiner unless approved by the City inspector. If curb and gutter is removed without damage to the asphalt, contractor may use asphalt edge for the header plate or form. Under no circumstances shall concrete be placed against an uneven edge of pavement. When joining new curb and gutter to existing curb and gutter, contractor must dowel both sections. Concrete shall be class 520-C-2500, concrete.

6.4 Sidewalk Removal and Replacement: Concrete sidewalks shall be cut to the nearest cold joint or score. No partial panel sections will be allowed, all removals and replacements shall consist of full panel sections. Sidewalks shall be Class 520-C-2500, concrete four inches (4") thick.

VII. STORM WATER PERMIT REQUIREMENTS

7.1 The applicant or contractor shall utilize Best Management Practices (BMP's) to minimize to the Maximum Extent Practicable (MEP) pollutant discharge to the storm drain system. Storm Water BMP's shall be implemented for all work. BMP's must be installed, which will be monitored to insure their effectiveness to protect all channels, catch basins, storm drains, and bodies of water from pollutants. The Contractor shall conduct and schedule operations that minimize and avoid muddying and silting of channels, drains, and waterways.

VIII. PUBLIC UTILITY ENCROACHMENT PERMITS

8.1 There are two types of permits for utility companies.

a. **Blanket Permits** -This permit allows the performance of noninvasive maintenance work, while maintaining proper traffic control per the *Watch Manual*, within the public right-of-way.

b. **Annual Open Permit** - This permit allows utility companies to perform normal construction activities that will require inspections such as potholing for utilities, trench excavation, boring of utilities, installing telephone or television lines, water lines, etc.

8.2 Permits must be pulled thirty (30) days prior to any work, and the notification to the City Inspection Division must be made twenty-four (24) hours prior to start of work. A copy of the permit must be given to the field crew doing such work. All work must be started and completed within thirty (30) days, unless otherwise stated, so all fees can be billed within thirty (30) days after construction is completed.

a. **Exception: In the event of an emergency situation, the utility may act without a permit after notifying the City of the emergency and the location of the emergency, as well as notifying Dig Alert. The utility company must process an encroachment permit within 30 days of repair. Failure to do so will result in the utility being charged a double fee.**

8.3 Utility Company Encroachment Permit Billing Process – Upon submittal of an application to the City, the process to issue an encroachment permit will commence. The encroachment permit is forwarded to the City's Construction Services Section. Encroachment permits will be activated 24 hours following the date that the applicant requests inspection services to commence. Applicants will be charged for each inspection conducted by a City Public Works Inspector at the project. Following project completion, the inspector will forward a copy of the encroachment permit and the applicable inspection charges to the City's Finance Division for billing processing. The City's Finance Division processes utility invoices every thirty (30) days.

8.4 Except for absolute emergency situations, no utility will be allowed to enter a street for a period of five (5) years after an overlay or slurry has been performed. Newly constructed streets shall likewise not be disturbed for the same period of time.

IX. HEAVY EQUIPMENT TRANSPORTATION OR OVERSIZE-LOAD PERMITS

9.1 Heavy equipment or trucks hauling in excess of 10,000 cubic yards of material require a designated haul route and shall be approved by the City's Planning Division and Traffic Division prior to execution. Heavy equipment oversize loads shall conform to the *California Vehicle Code* as to height, length, width, and axle loads. Vehicles classified as a legal load can be moved in daylight hours. Any oversize load must be moved at night and on designated roadways, with a CHP/Sheriff and City Public Works Inspector escort through the City. Annual transportation permits may be obtained at the City of Santa Clarita, Third Floor, Engineering/Planning Counter.

X. HIGHWAY CODE ORDINANCE

10.1 All information contained in this policy shall be in addition to those set forth in Highway Code Ordinance 89-20, Title 13 – Division 1.

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Appendix B.
SCAQMD Best Management Practices for Fugitive Dust (Rule 403)

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Appendix B.
SCAQMD Best Management Practices for Fugitive Dust (Rule 403)

(Adopted May 7, 1976) (Amended November 6, 1992) (Amended July 9, 1993) (Amended February 14, 1997) (Amended December 11, 1998)(Amended April 2, 2004)

RULE 403. FUGITIVE DUST

(a) Purpose

The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this Rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

(1) ACTIVE OPERATIONS means any source capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy-and light-duty vehicular movement.

(2) AGGREGATE-RELATED PLANTS are defined as facilities that produce and / or mix sand and gravel and crushed stone.

(3) AGRICULTURAL HANDBOOK means the region-specific guidance document that has been approved by the Governing Board or hereafter approved by the Executive Officer and the U.S. EPA. For the South Coast Air Basin, the Board-approved region-specific guidance document is the Rule 403 Agricultural Handbook dated December 1998. For the Coachella Valley, the Board-approved region-specific guidance document is the Rule 403 Coachella Valley Agricultural Handbook dated April 2, 2004.

(4) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook.

(5) BEST AVAILABLE CONTROL MEASURES means fugitive dust control actions that are set forth in Table 1 of this Rule.

(6) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.

(7) CEMENT MANUFACTURING FACILITY is any facility that has a cement kiln at the facility.

(8) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.

Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR
	(4b) (4c)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a) (5b)	Apply chemical stabilizers; OR Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c) (5d)	Install temporary coverings; OR Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.
Earth-moving	(1A) (2A)	Cease all active operations; OR Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) (1B) (2B) (3B) (4B)	On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR Apply chemical stabilizers prior to wind event; OR Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR Take the actions specified in Table 2, Item (3c); OR Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) (2C) (3C)	Apply chemical stabilizers prior to wind event; OR Apply water twice per hour during active operation; OR Stop all vehicular traffic.
Open storage piles	(1D) (2D)	Apply water twice per hour; OR Install temporary coverings.
Paved road track-out	(1E) (2E)	Cover all haul vehicles; OR Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Appendix C.
USFWS List of Special Status Species with Potential to Occur in the Santa Clarita Valley

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SCIENTIFIC NAME / COMMON NAME	STATUS FED/STATE CNPS	HABITAT AND REGIONAL OCCURRENCE
State or Federally Listed Species		
PLANTS		
Astragalus brauntonii Braunton's milk-vetch	E/-/1B	Recently burned chaparral vegetation, limestone soils; known from Simi Hills, Santa Monica Mountains.
Berberis nevinii Nevin's barberry	E/E/1B	Coastal scrub and chaparral along sandy washes; scattered occurrences in Transverse Ranges.
Brodiaea filifolia Thread-leaved brodiaea	T/E/1B	Vernal pools, recently rediscovered in Los Angeles County (1996).
Dodecahema leptoceras Slender-horned spineflower	E/E/1B	Restricted to alluvial fan sage scrub; known from SantaClara River tributaries.
Navarretia fossalis Spreading navarretia	T/-/1B	Chenopod scrub, shallow fresh water marshes, and vernal pools; reported from Cruzan Mesa.
Orcuttia californica California Orcutt grass	E/E/1B	Vernal pools; historic and recent records from Cruzan Mesa.
ANIMALS		
Bufo californicus Arroyo toad	E/CSC	Sandy stream terraces with closed canopies and grassy groundcover next to perennial stream. Primarily in Ventura and northern Los Angeles counties; Santa Clara River.
Buteo swainsoni Swainson's hawk	—/T	Forages over grasslands, savannas, and open areas. Nests in scattered trees near open areas. Nesting rare in Southern California. Possible as brief migrant, not likely to breed.
Catostomus santaanae Santa Ana sucker	T/CSC	Found in flowing streams with coarse substrate and little modification or pollution. Present in Santa Clara River but may have hybridized with the introduced Owens sucker.
Coccyzus americanus occidentalis Western yellow-billed cuckoo	—/E	Riverine woodlands, thickets, and farms. Known to occur in the region.
Empidonax trailii extimus Southwestern willow flycatcher	E/E	Dense willow thickets near slow-moving streams. Nests along Santa Clara River and other large streams.
Falco peregrinus anatum American peregrine falcon	DM/E	Forages over open areas, especially over water. Nests on cliffs with small caves.
Gasterosteus aculeatus williamsoni	E/E	Unarmored threespine stickleback Found in streams and pools with flowing water and emergent vegetation. Inhabits Santa Clara River.
Gymnogyps californianus California condor	E/E	Open savannahs and grassland. Nests on cliffs with small caves. Possibly forages over open areas.
Polioptila californica californica Coastal California gnatcatcher	T/CSC	Inhabits coastal sage scrub. Scattered observations throughout the area.
Rana aurora draytonii California red-legged frog	T/CSC	Inhabits unpolluted freshwater streams and marshes with emergent aquatic vegetation such as tules, bulrushes, or cattails. Known from Piru Creek, San Francisquito Creek; possible elsewhere.
Vireo bellii pusillus Least Bell's vireo	E/E	Extensive, dense willow riparian thicket. Nests along Santa Clara River and other large streams.
Federal and State Special Status Species and CNPS Lists 1 and 2 Species that Could Be Eligible for Listing		
PLANTS		
Calochortus clavatus var. *gracilis* Slender mariposa lily	-/-/1B	Foothill canyons in chaparral; occurs in San Gabriel Mountains.
Calochortus plummerae Plummer's mariposa lily	-/-/1B	Chaparral, other habitats, usually on granitic soils; Transverse and Peninsular Ranges
Chorizanthe parryi var. *fernandina* San Fernando Valley spineflower	FL/SL/1B	Sand/gravel washes in coastal scrub; historically near Castaic, Newhall; recently discovered in Simi Hills.
Deinandra (= Hemizonia) minthornii Santa Susana tarplant	-/R/1B	Rocky areas in chaparral, coastal scrub; common in Santa Susana Pass.
Many-stemmed dudleya	-/-/1B	Grassland and scrub habitats, associated with rock outcrops on clay soils; known east of Simi Valley.

Dudleya multicaulisGalium grande San Gabriel bedstraw	-/-/1B	Lower montane coniferous forest, south slope of San Gabriel Mountains.
Opuntia basilaris var. *brachyclada* Short-joint beavertail	-/-/1B	Dry slopes in chaparral (at higher elevations than on project site); known from Santa Susana Pass.
		ANIMALS
Accipiter cooperii Cooper's hawk	—/CSC	Heavily wooded, semi-open areas, breeds in riparian and oak woodlands. Known to occur throughout the region.
Accipiter striatus Sharp-shinned hawk	—/CSC	Uncommon migrant and winter visitor in heavily wooded semi-open areas. Mostly likely during winter, unlikely breeder.
Agelaius tricolor Tricolored blackbird	FSC/CSC	Freshwater marshes and riparian scrub. Few occurrences in region.
Aimophila ruficeps canescens Southern California rufous crowned sparrow	FSC/CSC	Generally, steep, rocky areas within coastal sage scrub and chaparral, often with scattered bunches of grass; prefers relatively recently burned areas. Observed on Newhall Ranch; locally common.
Amphispiza belli Bell's sparrow	FSC/CSC	Dense, dry chamise chaparral and coastal slopes of coastal sage scrub. Locally common.
Anniella pulchra pulchra Silvery legless lizard	FSC/CSC	Several habitats but especially in coastal dune, valley foothill, chaparral, and coastal scrub habitats; loose sandy soil. Known to occur throughout the region.
Antrozous pallidus Pallid bat	—/CSC	Forages in open areas; roosts in rock crevices and caves.
Aquila chrysaetos Golden eagle	—/CSC	Mountains, deserts, and open country. Suitable nest habitat is primarily cliffs and rocky ledges, sometimes trees, and occasionally ground and man-made structures. Occasionally observed in the region.
Asio otus Long-eared owl	—/CSC	Riparian and live oak woodlands. Known to occur in region.
Athene cunicularia hypugea Burrowing owl	FSC/CSC	Dry grasslands, desert habitats, open pinyon-juniper, ponderosa pine woodlands below 5,300 feet elevation; berms, ditches, and grasslands adjacent to rivers, agricultural, and scrub areas. Occasional visitor.
Buteo regalis Ferruginous hawk	--/CSC	Rivers, lakes, and coasts; open tracts of sparse shrubs and grasslands, and agricultural areas during winter. Rare migrant through region.
Circus cyaneus Northern harrier	—/CSC	Forages in marshes and grassy meadows; uncommon; occasionally forages over open desert and brushlands.
Cnemidophorus tigris multiscutalus Coastal western whiptail	FSC/—	Arid and semi-arid desert to open woodlands, where vegetation is sparse; loose soils in chaparral and scrub habitats. Known to occur throughout the region.
Dendroica petechia brewsteri Yellow warbler	—/CSC	Inhabits willow-riparian habitats. Numerous records from region.
Elanus leucurus White-tailed kite	—/FP	Forages in meadows and open areas. Nests in riparian woodland. Nesting in woodlands along Santa Clara River, Live Oak Springs and Placerita Canyon; near Pico Canyon; common locally.
Eremophila alpestris actia California horned lark	FSC/CSC	Open grasslands, fields, and agricultural areas. Known to occur throughout the region.
Euderma maculatum Spotted bat	FSC/CSC	Deserts, scrublands, chaparral, and coniferous woodlands. At least one record from the region.
Eumops perotis californicus Greater western mastiff-bat	FSC/CSC	Forages over chaparral and grasslands; roosts in rock crevices and old buildings.
Falco mexicanus Prairie falcon	—/CSC	Forages in dry open habitat. Nests on cliffs with potholes. Known to breed in area.
Felis concolor Mountain lion	—/CSC	Rare residents of rugged terrain with dense cover, forages over large area. Tracks observed in Newhall Ranch area and presumed to occasionally forage at this site.

Gila orcutti Arroyo chub	FSC/CSC	Adapted to the warm fluctuating streams of the Los Angeles Plain. Prefers the slowest moving sections of stream where bottom is sand or mud. Inhabits Santa Clara River and Castaic Creek.
Icteria virens Yellow-breasted chat	—/CSC	Prefer dense willow-riparian habitats. At least one record from San Francisquito Creek.
Ixobrychus exilis hesperis Western least bittern	—/CSC	Emergent wetlands of cattails and tules. Records from the Santa Clara River.
Lanius ludovicianus Loggerhead shrike	FSC/CSC	Open grassland, savannas, and chaparral. Fairly common.
Lepus californicus bennettii San Diego black-tailed jackrabbit	FSC/CSC	Open brushlands and scrub habitats between sea level and 4,000 feet elevation. Known to occur in region.
Macrotus californicus California leaf-nosed bat	FSC/CSC	Desert riparian, desert wash, desert scrub, desert succulent shrub, alkali desert scrub, and palm oasis. Roosts in tunnels, caves and possible buildings and bridges. Becoming rare locally.
Myotis thysanodes Fringed myotis	FSC/—	Dry, rocky habitats/caves, crevices in rocks, arid habitats, chaparral. Known to occur in region.
Myotis yumanensis Yuma myotis	FSC/CSC	Open forests and woodlands with water are optimal but uses a variety of habitats. Known to occur in region.
Neotoma lepida intermedia San Diego desert woodrat	FSC/CSC	Dense riparian and chaparral. Observed on Newhall Ranch and likely elsewhere.
Phrynosoma coronatum Coast horned lizard	FSC/CSC	Scrubland, grassland, coniferous forest, broad-leaf woodlands; sandy loose soils in chaparral scrub and washes. Known to occur throughout the region.
Onychomys torridus Ramona Southern grasshopper mouse	FSC/CSC	Grasslands, desert areas, especially scrub with friable soils. Recorded in Soledad Canyon.
Plecotus townsendii pallescens Pale Townsend's big-eared bat	FSC/CSC	Forages in forests, woodlands, grasslands, and open areas; roosts in caves and man-made structures.
Piranga rubra Summer tanager	—/CSC	Cottonwood-willow woodland and riparian scrub. Record from Santa Clara River near Lang.
Salvadora hexalepis virgultea Coast patch-nosed snake	FSC/CSC	Found in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas. Barren creosote bush desert flats. Sagebrush semi-deserts; sea level to 7,000 feet. Known to occur throughout the region.
Scaphiopus hammondii Western spadefoot toad	FSC/CSC	Lowland washes, floodplains, temporary ponds and vernal pools. Observed in Potrero Canyon Pond (Aspen 1996) and likely elsewhere.
Strix occidentalis occidentalis California spotted owl	—/CSC	Oak and oak-conifer habitats. Reported within the region.
Taxidea taxus American badger	—/CSC	Open areas with sandy soils.
Thamnophis hammondii Two-striped garter snake	FSC/CSC	Riparian and freshwater marshes with perennial water. Several records within the region.

Source: CDFG (2004), USFWS (2005), CNPS (2001), Aspen Environmental Group (1996), Hickman (1993), PCR (2000), and County of Los Angeles (1996).

Status:

Federal:
E = Listed as Endangered.
T = Listed as Threatened.
FL = Federal Candidate for Listing.
DM = Delisted Taxon, Recovered, Being Monitored First 5 Years

State:
E = Listed as Endangered.
R = Listed as Rare.
SL = State Candidate for Listing.
CSC = California Species of Special Concern.

CNPS:
1B = List 1B - Plants rare and endangered in California and elsewhere
4 = List 4 - A watch list, plants of limited distribution

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Appendix D.
Aerial Photograph of location of arroyo toads and southwestern pond turtles in 2003 surveys, from Cadre Environmental, 2004

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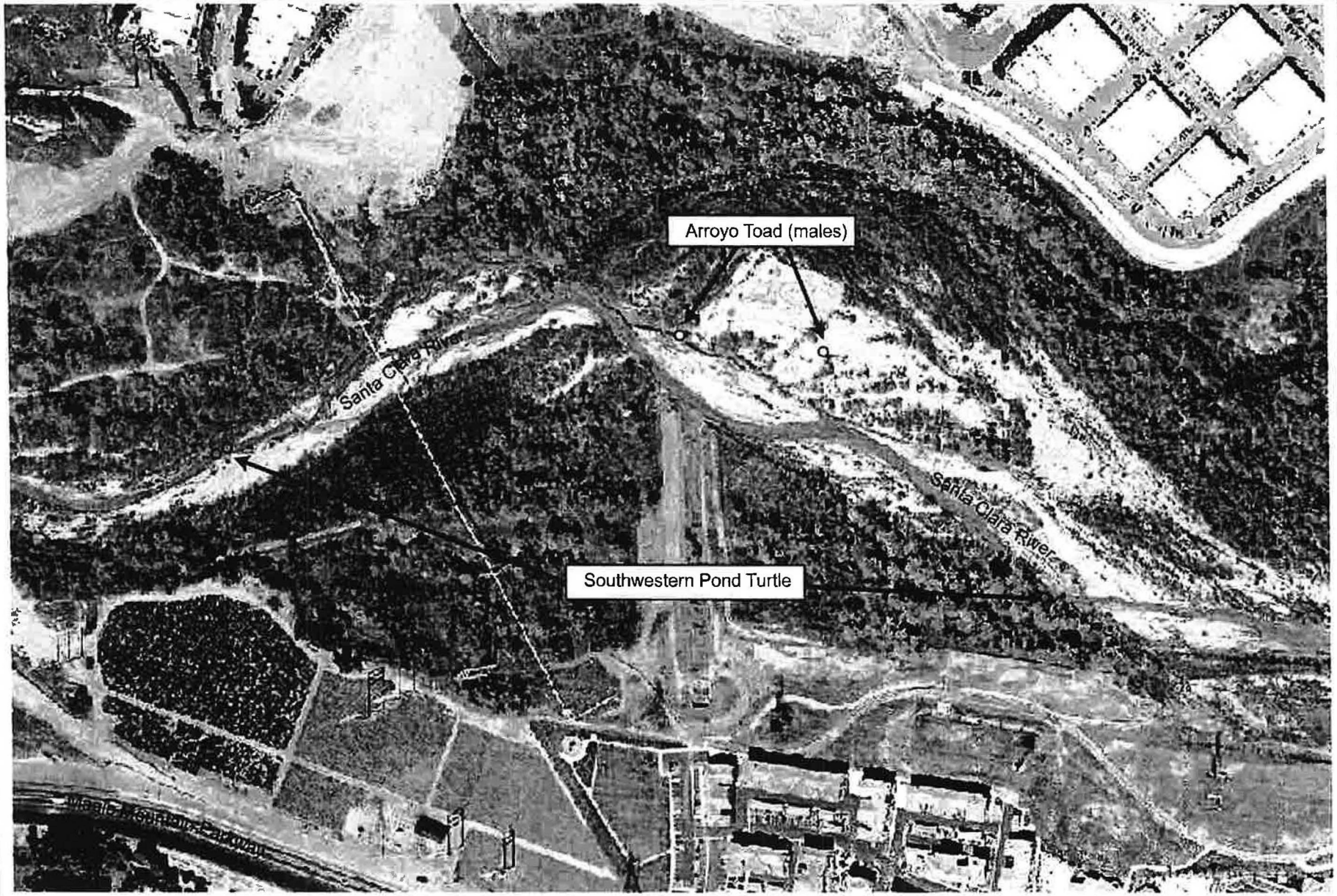

Arroyo Toad Focused Surveys 2003
Santa Clara River, Santa Clarita - California

CADRE

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Appendix E.
(CEQA Appendix G)
Environmental Checklist

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CEQA Appendix G
Environmental Checklist

1. Project title:

Castaic Lake Water Agency, Groundwater Containment, Treatment, and Restoration Project

2. Lead agency name and address:

Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350-2173

3. Contact person and phone number:

Mr. Ken Petersen, 661-513-1260

4. Project location:

The project is located in the City of Santa Clarita and on lands west of the City of Santa Clarita and southwest of Magic Mountain Amusement Park.

5. Project sponsor's name and address:

Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350-2173

6. General plan designation: NA

7. Zoning: NA

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.)

The purpose of the proposed Castaic Lake Water Agency Groundwater Containment, Treatment, and Restoration Project (Proposed Project) is to prevent further perchlorate contamination of groundwater basins in the Santa Clarita Valley originating at an historic weapons manufacturing site located east of the South Fork of the Santa Clara River near the confluence of the South Fork and the Mainstem Santa Clara River. The Proposed Project will intercept the existing plume of perchlorate in the Saugus Formation groundwater and pump the contaminated water from intercepting wells to a new treatment plant, where perchlorate will be removed and the treated water utilized as part of Castaic Lake Water Agency's (CLWA) drinking water supply.

The Proposed Project would involve (a) modification of existing production wells, (b) construction and operation of new monitoring and production wells, (c) modification of existing pipelines and construction of new pipelines, (d) construction of a new, modular perchlorate water treatment plant, and (e) closing of existing production wells.

The Propose Project has two interrelated elements. First, there are facilities for the containment and treatment of perchlorate-contaminated groundwater. Second, there are service restoration facilities to replace and relocate existing facilities which must be closed or modified to accomplish the containment program objectives. Except for pipelines under the decking of two bridges, all pipelines will be buried. The Proposed Project incorporates a number of conservation/impact minimization measures into its project description, including measures related to:

- Facility Siting
- Construction Schedule
- River Crossings
- Best Management Practices, Construction in Roads
- Best Management Practices, Construction in Bike Trails
- Aesthetic Treatment of the Treatment Facility
- Air quality
- Noise
- Biological Resources
- Water Quality
- Cultural Resources

As appropriate, these conservation/impact minimization procedures will be incorporated into construction contracts and performance will be independently verified by CLWA and/or qualified monitors. These elements of the project, described in full in the attached Initial Study, result in reduction of potential environmental impacts to a level of less-than-significant. In addition, CLWA proposes an additional site-specific monitoring and mitigation measure related to noise that may be implemented if on-site monitoring determines that minimization measures have not reduced noise levels to the desired levels.

The Proposed Project is described in greater detail in the attached Initial Study.

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

All containment element facilities and some service restoration facilities will be constructed within public rights-of-way (roads, paved bike trails, and existing CLWA facility sites) in the urbanized area of the City of Santa Clarita near the confluence of the Santa Clara River Mainstem and the South Fork of the Santa Clara River. In addition, two new production wells, a small chloramination facility, and about 3000 feet of buried pipeline will be constructed outside of the City of Santa Clarita, along existing and planned roads (Magic Mountain Parkway and its planned extension) west of Interstate 5. Within the City of Santa Clarita, the project will occur in an urban setting, with all project facilities located in or adjacent to development. To the west of Interstate 5, the Proposed Project will be within a planned development.

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

City of Santa Clarita
County of Los Angeles
California Department of Fish and Game
United States Department of Interior, Fish and Wildlife Service

U.S. Army Corps of Engineers
California Department of Health Services
California Department of Toxic Substances Control

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.

- [x] Aesthetics (mitigated to less than significant)
- [ ] Agriculture Resources (less than significant effects)
- [x] Air Quality (mitigated to less than significant)
- [x] Biological Resources (mitigated to less than significant)
- [x] Cultural Resources (mitigated to less than significant)
- [x] Geology/Soils (mitigated to less than significant)
- [x] Hazards & Hazardous Materials (mitigated to less than significant)
- [x] Hydrology/Water Quality (mitigated to less than significant)
- [ ] Land Use/Planning (less than significant effects)
- [ ] Mineral Resources (less than significant effects)
- [x] Noise (mitigated to less than significant)
- [ ] Population/Housing (less than significant effects)
- [ ] Public Services (less than significant effects)
- [ ] Recreation (less than significant effects)
- [x] Transportation/Traffic (mitigated to less than significant)
- [ ] Utilities/Service Systems (less than significant effects)
- [ ] Cumulative Impacts (less than significant effects)
- [ ] Mandatory Findings of Significance (less than significant effects)

DETERMINATION:

On the basis of this initial evaluation:

- [ ] I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- [ ] The Castaic Lake Water Agency Board of Directors finds that although the proposed

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

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

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

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

Signature: _____ Date: August 5, 2005

Dan Masnada, General Manager
Printed Name

For: Castaic Lake Water Agency

EVALUATION OF ENVIRONMENTAL IMPACTS (See also attached Initial Study)

I. AESTHETICS: Would the project:

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

☐ Potentially Significant Impact ☒ Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

All above-ground project facilities have been sited at or adjacent to existing CLWA facilities or outside of a public viewshed. As a result of siting, above-ground facilities will therefore not affect a scenic vista.

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact ☒ No Impact

No scenic resources will be affected. The Proposed Project facilities will be constructed within an urban commercial matrix or have otherwise been disturbed by past activity, such as oil exploration.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact ☒ No Impact

Above ground facilities which may be viewed by the public will be designed to be consistent with adjacent architecture and land uses. No change in the existing visual character of the site will occur.

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

☐ Potentially Significant Impact ☒ Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

Only the proposed modular perchlorate treatment plant will be lighted. The facility is in an area already lighted by an adjacent pumping plant, a storage facility, and a large home improvement store with parking-lot lighting. The modular perchlorate treatment plant will have lighting at its entrance, its lights will be directed away from the bike path between it and the Santa Clara River, and there will be landscape screening between it and the Santa Clara River. No lighting impacts on this viewshed will occur.

II. AGRICULTURE 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. 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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

No farmland is affected by the Proposed Project.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

No farmland is affected by the Proposed Project.

c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

Agricultural water uses and volumes will not be affected; the project will not cause conversion of farmland to other uses. No impacts will occur.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project facilities will not emit criteria pollutants. The Proposed Project is consistent with the rules of the South Coast Air Quality Management District (SCAQMD) and its Basin Plan.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

☐ Potentially Significant Impact | Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

In the long-term, the Proposed Project will not emit criteria pollutants (volatile organic compounds or ozone). No long-term operational effect is therefore anticipated.

Proposed Project construction may result in short-term generation of fugitive dust but the project incorporates City of Santa Clarita and SCAQMD best management practices for fugitive dust control (See attached Initial Study). These best management practices will be incorporated into construction contracts. In addition, the total area of soil exposed at any time during construction will be small (< 0.2 to 0.5 acres). Exposed areas will be repaved as construction proceeds. Construction contracts will specify that all construction equipment be equipped with current emissions reduction technology and will be inspected at manufacturer-recommended intervals to ensure that it is working properly.

The construction schedule reduces potential for the Proposed Project to contribute to violation of air quality standards. Construction will occur in the fall and winter, when air quality in Los Angeles County is generally better due to prevailing winds from the west and reduced sunlight/ozone creation.

The small size of the Proposed Project, the implementation of best management practices, compliance with SCAQMD and City of Santa Clarita regulations, and construction scheduling reduce the potential for the Proposed Project to contribute to an air quality violation to less-than-significant.

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)?

☐ **Potentially Significant Impact** ☐ **Less Than Significant with Mitigation**

☒ **Less Than Significant Impact** ☐ **No Impact**

The Proposed Project, including the modular perchlorate treatment plant and the chloramination facilities, is essentially a closed system and will not generate emissions. The construction project will generate some fugitive dust (particulates) and ozone precursors from operation of construction equipment.

Regarding fugitive dust, the exposed construction area at any given time will not be greater than about 0.2 to 0.5 acres and best management practices, such as watering and suspension of construction during periods of high wind, will be incorporated into construction contractors to minimize potential for fugitive dust generation on this small area. The magnitude of these effects is less-than-significant when compared to fugitive dust generated by exposed soils in the Santa Clara River bed and adjacent levees in the Proposed Project Area. The dry river bed and levees constitute about 160 to 200 acres, much of this area exposed fine sediment deposited as river flow declines. At a maximum, then, the Proposed Project could increase wind blown dust in the project area by about 0.02 percent. Given mitigation proposed, the actual contribution of the Proposed Project to fugitive dust will be lower. Following construction, project sites will be repaved and no long-term fugitive dust will be generated. A short-term increase in wind-blown dust of 0.02 percent or less would probably not be detectable and would not be considered cumulatively considerable.

Regarding emissions from construction equipment, construction equipment will consist of a backhoe, a small dozer for grading, a small crane, a small water truck, a generator, paving equipment, and other pieces of small equipment. Assuming operation of 5-6 individual pieces of construction equipment and comparing this to the emissions from car and truck traffic on only major roads in the vicinity of the project, vehicle emissions from this equipment will constitute a small fraction of total emissions. As

noted in Section III(D) of the Initial Study (attached), average daily traffic volume on the 6 major arterials in the Proposed Project area (not including Interstate 5) is over 200,000 cars and trucks per day. The City of Santa Clarita notes that these average daily traffic volumes vary. Within this context, emissions from construction equipment would fall within the range of daily variability related to emissions from traffic and would not be considered "cumulatively considerable."

d) Expose sensitive receptors to substantial pollutant concentrations?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

This is a small project using conventional construction equipment. It will not generate substantial pollutant concentrations. See (c) above.

e) Create objectionable odors affecting a substantial number of people?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

| Less Than Significant Impact ☐ No Impact

Proposed Project pipelines will involve repaving of roads and paved bike trails. This may create odors from asphalt use. Given that the project pipelines will be constructed at a rate of about 200 feet per day, no individuals will be subject to these common construction odors for more than 1-3 days. This is equivalent to a normal neighborhood street repair operation and is not considered a significant impact.

IV. BIOLOGICAL RESOURCES: Would the project:

a) Have a substantial adverse impact, either directly or through habitat modifications, on an species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by California Department of Fish and Game or US Fish and Wildlife Service?

☐ Potentially Significant Impact | Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

The Proposed Project has been sited to avoid direct impact to wildlife and fish habitat and Proposed Project scheduling of facilities west of Interstate 5 provides for construction following initial grading for proposed development; no fish or wildlife habitat will be taken by the project. There will be no habitat for special status species affected by the Proposed Project. Pipelines crossing rivers will be constructed in dry conditions, without open trenching and/or by placing the pipeline under the decking of existing bridges. If construction equipment is used in the river bed beneath a bridge, this will be done in dry conditions, using best management practices for avoidance and minimization of fuel and oil spills during construction, and will occur in an area with no riparian vegetation.

The Proposed Project schedule effectively eliminates potential for the Proposed Project to affect nesting of special-status birds in adjacent habitats, because the project will be constructed out of the nesting season. No avian habitat will be affected by the project.

The Proposed Project has been sited to minimize potential for special-status terrestrial species to access the construction site. Within the City of Santa Clarita, there is virtually no wildlife habitat adjacent to the

construction site, and construction is isolated from any such habitat by the levees of the Santa Clara Mainstem and South Fork of the Santa Clara River. The fall-winter construction schedule eliminates potential for terrestrial species nesting to be indirectly affected by noise and visual disturbance associated with construction activity. Implementation of best management practices incorporated into the project will further reduce potential for incidental terrestrial wildlife access to the active construction zone.

For project elements west of Interstate 5, CLWA will initiate construction following proposed grading of roads and other infrastructure associated with an unrelated subdivision. This is necessary because grading of such roads and adjacent lands for construction may involve significant excavation below existing grade. CLWA actions related to these elements of the proposed project will therefore occur during the construction period for these roads and other infrastructure. In the interim, CLWA will meet service restoration objectives using SWP water supplies and the Proposed Project facilities constructed east of Interstate 5.

There is a potential for a perchlorate spill during conveyance to the treatment plant resulting from accidental or seismically-related pipeline failure. Given new pipeline and a project life of 50+ years, the potential for a spill is small and the volume spilled would be equal to less than 0.001% of the volume of perchlorate-contaminated water that would otherwise reach the alluvial aquifer and then become surface flow further downstream. Potential effects of a spill on wildlife would be minimal because (a) slow release from a ruptured pipeline fitted with automatic shut-off valves would percolate into groundwater rapidly (in dry conditions) or be rapidly diluted (during wet conditions). In the context of the No Project Alternative, with the mitigation provided by automatic shut-off valves, the significance of a potential spill is less than significant.

A similar spill of chloramine-treated water from treated-water pipelines is also possible. The proposed Project probably reduces this potential because (a) new pipeline will be constructed and will replace segments of older pipeline nearing the end of its useful life and (b) the volume of chloramine-treated water used would not change as a result of the Proposed Project because it only replaces existing capacity.

In summary, (a) the Proposed Project will not involve take of fish or wildlife habitat and, (b) as a result of project scheduling, no threatened, or endangered bird species will be in the project area during construction, and (c), as a result of implementation of avoidance and minimization measures, the project will be isolated from the riverine habitat of other threatened and endangered species. With siting, scheduling and other proposed mitigation, biological impacts will be less than significant.

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

☐ **Potentially Significant Impact** ☒ **Less Than Significant with Mitigation**

☐ **Less Than Significant Impact** ☐ **No Impact**

The Proposed Project will not affect riparian or other habitats because, as part of mitigation, it has been sited to avoid such effects.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project does not occur where these habitats are found. Construction of the pipeline under the Bouquet Canyon Bridge will be under dry conditions and no discharge or habitat alteration will occur.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

Except at the bridge crossing of the Santa Clara River Mainstem, the Proposed Project does not occur where wildlife movement would be affected. In this highly disturbed area, wildlife movement along the Santa Clara River would generally occur at night, after all construction activity had been ceased and all construction materials had been removed from the area under the bridge.

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

Because Proposed Project facilities will be constructed within existing road and/or bike path rights of way, and all of these rights-of-way are paved or otherwise disturbed, the Proposed Project will not affect protected resources or be in conflict with any local protection policies.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project has no potential effects on wildlife habitat and will not conflict with any current Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved plan.

V. CULTURAL RESOURCES: Would the project:

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

Based on a cultural resources literature search, no known significant historic resource occurs within the Proposed Project area. No change in the significance of an historical resource would occur.

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

Because there are no known archeological resources in the Proposed Project area, the Proposed Project will not affect the significance of a known archeological resource.

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

There are no known paleontological resources in the Proposed Project area. The Proposed Project excavations will be less than 10 feet deep, in soils that have been subject to scour and deposition. Relatively young alluvial soils are not likely to contain unique paleontological resources. The project occurs in a disturbed floodplain; no unique geologic features exist in the Proposed Project action area.

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

☐ Potentially Significant Impact | Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

Per the Initial Study, there are no known burial sites in the project area, and most of the proposed project is being constructed in areas that have been previously excavated and disturbed. Burials are not likely to be found. If burials are found, the implementation of proposed mitigation measures (Initial Study, attached) will ensure compliance with applicable State and Federal laws. Mitigation measures will be incorporated into construction contracts, with independent verification by a qualified archeologist.

VI. GEOLOGY AND SOILS: Would the project:

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

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not alter the physical environment in a manner that would affect seismic processes. The Proposed Project will be monitored during operation, and flow in pipelines shut down in the event that seismic shaking causes a pipeline or other facility failure.

ii) Strong seismic ground shaking?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will be monitored during operation and flow in pipelines shut down in the event that seismic shaking causes a pipeline or other facility failure. No adverse effect is anticipated.

iii) Seismic-related ground failure, including liquefaction?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

| Less Than Significant Impact ☐ No Impact

In the event of seismic-related ground failure, rapid shut down of pipeline flow will ensure that pipeline failure will not create a significant hazard due to erosion and/or release of large quantities of water. The perchlorate treatment plant will be located on/adjacent to stable engineered levees, and will be monitored 24 hours a day by staff at the adjacent pumping plant. The perchlorate treatment plant can therefore be rapidly shut down should a seismic event result in damage to the plant. Secondary chemical containment vessels are capable of holding any chemicals released during a seismic event.

iv) Landslides?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

To be constructed within existing or planned public rights of way, the Proposed Project will not be in a landslide area and will not create conditions likely to lead to landslides. During operation, rapid shut down of pipeline flow will ensure that pipeline failure could not create erosion or other adverse effects likely to cause, or exacerbate the effects of, a landslide.

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

☐ Potentially Significant Impact ☒ Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

Implementation of best management practices will contain soil from excavations within the project right-of-way and eliminate potential for substantial soil erosion or loss of topsoil. Post-construction repaving and planting will return roads, bike trails, and adjacent landscaping to pre-project conditions.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact ☒ No Impact

The project facilities will be located under existing roads, in engineered levees, and adjacent to existing facilities. These are stable, engineered environments.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact ☒ No Impact

Soils in the Proposed Project area are sandy loam alluvial soils, not expansive clays.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact ☒ No Impact

The Proposed Project does not involve the use of septic tanks or the discharge of wastewater.

VII. 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?

☐ Potentially Significant Impact ☒ Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

Significant hazards associated with transport, use, or disposal of hazardous materials are not anticipated. The resin units used in the proposed perchlorate treatment plant consist of polymer resin beads to which perchlorate ions bind in a process similar to water softening. These polymer resin beads are stable and non-toxic. The new resin units will be delivered to the site and spent resin units will be collected by the

manufacturer or an agent of the manufacturer and will be transported to a proprietary solid waste incineration facility. Chemicals utilized in chloramination will be handled in a manner consistent with current regulations and stored with secondary containment vessels.

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?

☐ Potentially Significant Impact | Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

The possibility of release of hazardous materials as a result of accident conditions is remote. The Proposed Project design incorporates features for handling and transport of chemicals used in the water treatment process. Chemicals transported, stored, and used in chloramination are sodium hypochlorite and aqueous ammonia. They will be transported in a manner consistent with all safety regulations. They will remain separated and stored in secondary containment vessels that preclude leakage even if the primary vessel is damaged. With appropriate handling and transport of materials and use of containment vessels during operations, no release of hazardous materials is anticipated.

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

Chemicals transported, stored, and used in chloramination are sodium hypochlorite and aqueous ammonia. The proposed treatment facilities are not within 1/4th of a mile of a school.

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project is not located at a hazardous materials site.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project is not 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.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The project is not within the vicinity of a private airstrip.

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

☐ Potentially Significant Impact | Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

During construction, the Proposed Project will occupy one lane of several multi-lane arterial roads for a short period of time, and only outside of peak traffic hours. The Proposed Project will comply with City of Santa Clarita policies to ensure that construction does not have an effect on emergency response plans or evacuation plans. City of Santa Clarita Encroachment Policy (incorporated into the Project description, see attached Initial Study) also requires daily backfill and re-paving of areas where excavation and pipeline placement have been completed. Implementation of this policy means that there will be no more than about 200 feet of open trench during active construction. In the event of an evacuation necessity, the City can immediately notify CLWA and its construction contractor, following which the short segment of trench can be rapidly backfilled by the construction crew and road function restored. Construction crews retain required steel plates to cover the exposed soils in the roadway and can place them rapidly if needed. It is likely that backfill and covering with steel plates would occur before significant emergency response or evacuation could be initiated or early in the implementation process. The Proposed Project will not cause a significant delay in the implementation of any emergency response or emergency evacuation plan.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

Constructed entirely within existing or planned public roads, paved bike trails, and existing facilities and constructed in compliance with local fire regulations, the Proposed Project facilities will not affect wildland fires.

VIII. HYDROLOGY AND WATER QUALITY -- Would the project:

a) Violate any water quality standards or waste discharge requirements?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The project will comply with applicable water quality standards and will not discharge to a water body.

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)?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact ☒ No Impact

The Proposed Project will protect groundwater water quality production from pre-existing wells (which will be relocated to areas where groundwater quality is not impaired).

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?

☐ Potentially Significant Impact ☒ Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

The footprint of the Proposed Project is small, and even the construction of the longest pipeline segment (5600 feet) will temporarily expose about two acres of flat land. During construction, the implementation of best management practices, incorporated into construction contracts and independently verified by CLWA inspectors, will contain construction-site drainage and no substantial change in drainage patterns will occur. The Proposed Project will not permanently change topography, slope, or surface conditions and no long-term alteration of drainage patterns will occur.

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?

☐ Potentially Significant Impact ☒ Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

The Proposed Project has a small footprint and will implement best management practices for control of drainage from construction zones. Construction would alter the course of a stream or river. Containment of runoff within the construction area will ensure that there is no increase in surface runoff to a river.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact ☒ No Impact

Containment of runoff will ensure that the Proposed Project will not create or contribute runoff water to storm drains.

f) Otherwise substantially degrade water quality?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will enhance, not degrade water quality.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not 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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

None of the Proposed Project facilities is located in a manner that would impede or redirect flood flows.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project facilities would not affect the structure of a levee or dam. Only the Proposed Project facilities on the west side of the South Fork of the Santa Clara River will be within the 100-year floodplain of this river; they will be buried. They will be outside of the portion of the river affected by high velocity flows that may significantly scour sediments and thus will not be affected by flooding or affect flood flows. The Proposed Project facilities will therefore not affect flood flows or the potential for such flows to affect people.

j) Inundation by seiche, tsunami, or mudflow?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project is not located in an area where seiche, tsunami, or mudflow would occur.

IX. LAND USE AND PLANNING - Would the project:

a) Physically divide an established community?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

None of the Proposed Project facilities will 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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project is consistent with local and regional land use plans.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

There is no habitat conservation plan or natural community conservation plan in effect in the Proposed Project area; no conflicts will occur.

X. 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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project facilities are not to be located in any area where mineral resource extraction is anticipated. No effects will occur.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project facilities are not to be located in any area where resource extraction is potential. No effects will occur.

XI. 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?

☐ Potentially Significant Impact | Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

The Proposed Project includes noise minimization measures required by the City of Santa Clarita (which reference CALTRANS standards), including monitoring, and will comply with all applicable standards. Specifically, the Proposed Project will utilize modern construction equipment that is not likely to generate noise levels in excess of those mandated by the City of Santa Clarita. In addition, as an added precaution, CLWA will periodically monitor noise conditions during the construction of the pipeline along the west side of the South Fork of the Santa Clara River, where construction will be near existing homes. If monitoring detects noise levels in excess of 65 dBA, at the fence line of these homes, CLWA will require the contractor to place temporary noise barriers between the active construction area and adjacent housing.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

Construction will occur on sandy alluvial soils and will not involve pile driving or other construction methods that would generate significant groundborne vibration.

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The project facilities will be buried or enclosed and no permanent noise increase above ambient levels will occur.

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

☐ Potentially Significant Impact | Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

Daylight ambient noise levels from heavy traffic and other activity in most portions of the Proposed Project area equal or will exceed noise generated by construction equipment at a distance of 100 feet. Ambient noise levels in urban commercial areas are often equal to or in excess of 80 dBA, and commonly used construction equipment may generate noise of approximately 69 dBA at 100 feet (see Initial Study, attached). There is a small potential for construction noise to marginally exceed ambient noise levels

along the pipeline alignment on the South Fork Trail. If construction noise levels at the boundary of residential development are found to exceed 65 dBA during monitoring, additional mitigation measures (temporary sound barriers) will be installed to reduce noise in the construction area to a level of less than significant.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project is not 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.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project is not located within the vicinity of a private airstrip.

XII. POPULATION AND HOUSING -- Would the project:

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project does not directly or indirectly affect housing or population. The Proposed Project restores groundwater quality and groundwater production that was assumed during land use planning for the major developments already proposed and approved. It thus returns conditions of groundwater production to a pre-1997 baseline condition that was assumed in prior planning, and will not induce additional growth

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

No housing will be displaced by the Proposed Project.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

No people will be displaced by the Proposed Project.

XIII. 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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not create a need for new public services or facilities.

Police protection?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not affect police facilities. No impacts to police protection will occur.

Schools?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not affect schools or access to schools.

Parks?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not create a need for additional park facilities, as all facilities impacted during construction will be returned to pre-project condition.

Other public facilities?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

No other public facilities are located in the project area.

XIV. 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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project does not change long-term recreational use levels.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not require construction of additional recreation facilities.

XV. TRANSPORTATION/TRAFFIC -- Would the project:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not create long-term changes in traffic.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not create conditions that would change a level of service.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not involve activities that would affect air traffic patterns.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not change the design of a roadway or have incompatible uses.

e) Result in inadequate emergency access?

☐ Potentially Significant Impact | Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

For short periods during construction, the Proposed Project will involve the closure of 1 lane of traffic on multi-lane roads for only a distance of several hundred feet in any given day. Construction will be limited to off-peak hours, when hourly traffic volume is generally less than peak hourly traffic volume. A one-lane closure therefore will result in traffic congestion no worse than that occurring during peak hours and a lower level of congestion is probable. See the attached Initial Study analysis. When emergency vehicles utilize these roads, their sirens will signal that emergency access is needed. It will be feasible to clear traffic from the lane adjacent to the 200-foot long construction zone rapidly and to maintain an open lane for emergency passage. Significant impacts to emergency access during construction are thus not anticipated. In the long-term, the Proposed Project will have no effect on emergency access.

f) Result in inadequate parking capacity?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not affect parking access or capacity.

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not affect alternative transportation facilities.

XVI. UTILITIES AND SERVICE SYSTEMS -- Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not generate wastewater nor change wastewater treatment facilities.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project is a water treatment facility for groundwater, but would not result in wastewater nor change wastewater treatment facilities.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not affect runoff or drainage from areas adjacent to the Santa Clara River or South Fork of the Santa Clara River and will not require construction of new facilities.

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project does not generate new water supply, nor cause a demand for new water supply.

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?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will not generate wastewater.

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The disposal of spent treatment resin will be accomplished by a licensed vendor with suitable, permitted disposal facilities. It is anticipated that the spent resin will be incinerated.

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

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

☐ Less Than Significant Impact | No Impact

The Proposed Project will require the disposal vendor to comply with applicable federal, state, and local statutes related to solid waste.

XVII. 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?

☐ Potentially Significant Impact | Less Than Significant with Mitigation

☐ Less Than Significant Impact ☐ No Impact

The Proposed Project has no direct effect on wildlife habitat; no habitat is lost due to the Proposed Project. The Proposed Project's siting and schedule avoid indirect effects to nesting birds and to special-status species in adjacent habitats by avoiding the nesting season and thereby avoiding effects that could reduce a fish and wildlife population. Because no part of the Proposed Project occurs on wildlife habitat, the Proposed Project will not restrict the range of a species. No known cultural sites reflecting important examples of major periods of California history or prehistory exist within the Proposed Project area.

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)?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation

| Less Than Significant Impact ☐ No Impact

When viewed from the perspective of the long-term trend towards groundwater degradation as a result of domestic and industrial activities and discharges to groundwater, the Proposed Project runs counter to this trend towards groundwater degradation in southern California and elsewhere in California. The Proposed

Project does not, therefore, contribute to an adverse trend; rather, it will contribute to a trend towards remediating these historic problems.

Other construction projects in the Santa Clarita Valley (a) may have short-term temporary impacts and (b) may have long-term effects on land and other resource use, traffic, population, housing, public services, utilities, biological resources, cultural resources, and aesthetics. From the perspective of short-term construction-related effects, the Proposed Project will contribute to the overall level of short-term construction-related inconvenience associated with this construction activity. However, the Proposed Project activities are located in a generally fully-developed area or will occur during development of infrastructure for other development.

An estimate of the magnitude of the Proposed Project's contribution to overall construction activity in the Santa Clarita Valley can be made by comparing the acreage affected by the project to acreage affected by other projects. In an 8-year period (1996 through 2003), a total of 3320 new single-family buildings were permitted, an average of 415 per year, with yearly building permits ranging from 146 to 595. Assuming 5 units per acre, this represents 664 acres, or 83 acres per year within the City of Santa Clarita alone. The Proposed Project's footprint at any given time will be less than 2 acres (2.4% of average annual residential construction) and the total area of construction would be about 10 acres (1.5% of total 1996-2003 residential construction. Given that construction activity in the City of Santa Clarita varied by over 75% in any given year, the Proposed Project's impacts (2.4% of average annual construction) fall within the range of normal variation in the level of construction. Impacts are insignificant in terms of a contribution to overall construction activity.

In addition, all of the Proposed Project's construction-related impacts are temporary. The Proposed Project will not contribute directly or indirectly to the suite of permanent effects associated with the majority of other existing and future construction, because the Proposed Project has no long-term effects on land and other resource use, traffic, population, housing, public services, utilities, biological resources, cultural resources, and aesthetics.

The Proposed Project's cumulative effects are thus less than significant.

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

☐ **Potentially Significant Impact** ☐ **Less Than Significant with Mitigation**

☐ **Less Than Significant Impact** | **No Impact**

Outside of less-than-significant short-term construction impacts, the project has only long-term beneficial effects on human beings, by protecting them from potential contamination of essential groundwater supplies. There are no adverse effects on human beings from the Proposed Project facilities and their operation to remediate a serious groundwater quality problem.

EXHIBIT C

ADDENDUM TO 2005 MITIGATED NEGATIVE DECLARATION

GROUNDWATER CONTAINMENT, TREATMENT AND RESTORATION PROJECT

State Clearinghouse # 2005081053

February 2022

1. BACKGROUND

In 2005, acting as the California Environmental Quality Act (CEQA) lead agency, Castaic Lake Water Agency prepared a Mitigated Negative Declaration (MND) for the Groundwater Containment, Treatment, and Restoration Project (the "Approved Project"). On September 14, 2005, the MND was adopted. The purpose of the Approved Project is to prevent further perchlorate contamination of groundwater basins in the Santa Clarita Valley originating at a historic weapons manufacturing site located east of the South Fork of the Santa Clara River, near the confluence of the South Fork and Mainstem Santa Clara River. The Approved Project intercepts the existing perchlorate plume in groundwater of the Saugus Formation, and pumps the contaminated groundwater from intercepting wells to a new treatment plant, where perchlorate is removed, and the treated water used as part of the drinking water supply.

2. APPROVED PROJECT

The Approved Project evaluated in the 2005 MND was proposed as two elements. The first included facilities for containment and treatment of perchlorate-contaminated groundwater. The second element was comprised of service restoration facilities designed to replace and relocate existing facilities that needed to be closed or modified. The overall Approved Project facilities included: modification of existing production wells; construction and operation of new monitoring and production wells; modification of existing pipelines and construction of new pipelines; construction of a new modular perchlorate water treatment plant; and closing of existing production wells. As described in the 2005 MND, these various facilities would be located within portions of the City of Santa Clarita and unincorporated Los Angeles County as follows:

1. On the west side of Railroad Avenue (previously known as San Fernando Road) south of Magic Mountain Parkway
2. Parallel to Magic Mountain Parkway from Railroad Avenue (San Fernando Road) to Valencia Boulevard
3. Parallel to Valencia Boulevard/Soledad Canyon Road from Magic Mountain Parkway to the bridge at Bouquet Canyon Road

4. Across the Santa Clara River along Bouquet Canyon Bridge
5. Within the levee/bike trail west of Bouquet Canyon Bridge to The Rio Vista Intake Pump Station
6. Within the trail corridor west of the South Fork of the Santa Clara River
7. Within the bike trail along the south levee of the Santa Clara River from the Valencia Boulevard bridge to McBean Parkway
8. At existing water agency facilities at Furnivall Avenue
9. Parallel to Magic Mountain Parkway from Interstate 5 west to an unpaved road west of Magic Mountain Amusement Park
10. Along the unpaved road west of Magic Mountain Amusement Park

Construction has already taken place at locations 1 through 8 above. Santa Clarita Valley Water Agency (SCV Water) (which formed as a consolidation of three different water agencies, including Castaic Lake Water Agency) is contemplating modifications to the Approved Project (referred to hereafter as the "Modified Project").

3. MODIFICATIONS TO THE PROJECT

The Modified Project includes: 1) refinements to a subset of the components included in the Approved Project; and 2) minor additional facilities identified after approval of the project and not previously evaluated in the 2005 MND. All components of the Modified Project would be located within unincorporated Los Angeles County. Modified Project components are described in detail below and shown in Figure 1.

3.1 Refinements to Components in Approved Project

The new well field and chloramination facility west of Six Flags Magic Mountain and described in the 2005 MND would include the following components, which were generally evaluated in the 2005 MND and are shown in Figures 5 and 6 of the 2005 MND:

- Equip Saugus Wells #3 & #4 with permanent well equipment,
- Construct a new chloramination facility,
- Construct pipelines connecting the new wells and chloramination facility, and
- Connect the chlorination facility to existing transmission and distribution pipelines.

Since preparation of the 2005 MND, design of this facilities has been further refined. Although specific design details (e.g., pipe sizes) may have changed somewhat since the 2005 MND, these facilities would be sited in the same locations, utilize the same construction techniques and staging locations, and generally include the same components as those evaluated in the 2005 MND. Further facility details are listed below, and shown on Figure 1.

- New permanent well equipment at Saugus Wells #3 and #4 (each of which has a footprint of approximately 3,680 square feet), including a 16-inch discharge line from each well to

the chloramination facility (approximately 300 linear feet from Well #3 and approximately 550 linear feet from Well #4, totaling 850 linear feet of discharge line).

- Chloramination facility, including:
    - A new chemical building, measuring approximately 45 feet by 32 feet (total footprint 1,440 square feet) with a height of approximately 21 feet
    - Concrete pad for a potential future treatment facility, if needed (approximately 29,000 square feet)
    - Electrical service and SCADA improvements
    - Site improvements (fence/wall enclosure, site grading, site pavement, site drainage, chemical building, concrete pads)
- 1,060 linear feet of 30-inch pipeline to connect the chloramination facility to the existing 30-inch transmission cement-mortar lined and coated (CML&C) pipeline in North Commerce Center Drive
- A turnout from the new transmission line connection (named V-10 turnout), and 1,060 linear feet of 20-inch pipeline from the turnout to the existing 20-inch distribution pipeline in North Commerce Center Drive

Numerous components of the Approved Project are not included in the Modified Project, including the perchlorate containment facilities and additional pipelines along bikeways, levees, and four river crossings.

3.2 Additional Project Modifications

Since approval of the 2005 MND, additional project modifications were deemed necessary and would require construction of the following facilities not previously evaluated in the 2005 MND:

- Two parallel 24-inch pipelines between the chloramination facility and existing Well V207 (each approximately 3,250 linear feet, totaling 6,500 linear feet) located in the existing dirt road along the west side of Six Flags Magic Mountain
- A 16-inch well pump-to-waste line from Saugus Wells #3 and #4 to the existing concrete channel near Well V207, totaling approximately 3,600 linear feet, also located in the existing dirt road along the west side of Six Flags Magic Mountain
- Connection from well pump-to-waste line to existing concrete drainage channel (near Well V207), to allow discharge from Saugus Wells #3 and #4 and Well V207. Discharges would consist of test water upon completion of well construction and equipping, and occasional discharges during the course of normal operation and maintenance and after periods of inactivity.

These facilities are shown in Figure 1.

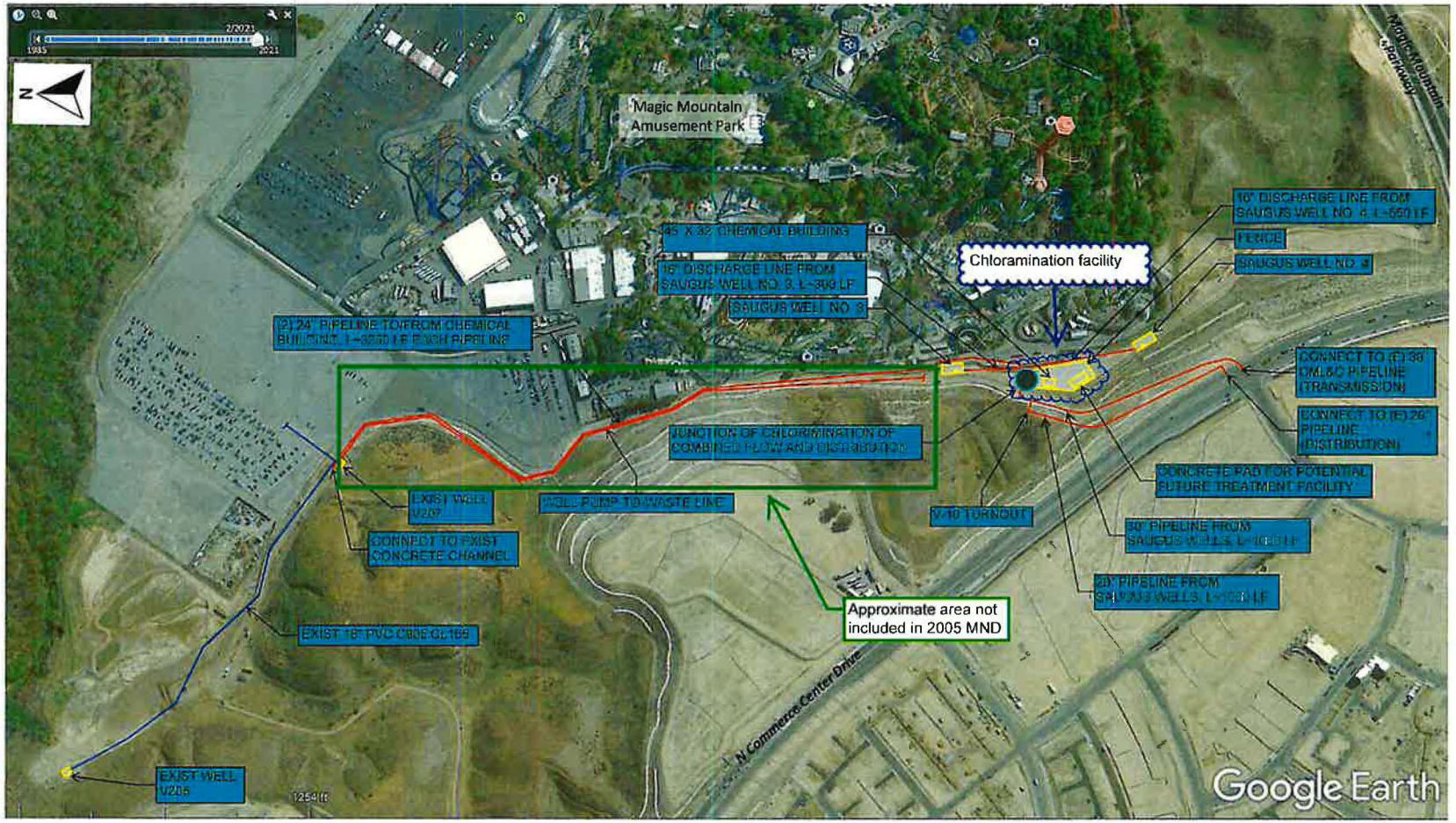

Figure 1: Modified Project Components

4. PURPOSE OF ADDENDUM

This Addendum addresses potential environmental effects of the construction and operation of the Modified Project as shown in Figure 1 and described in Section 3. The MND and Addendum, together with the other documents incorporated by reference herein, serve as the environmental review of the Groundwater Containment, Treatment and Restoration Project (Modified Project), as required pursuant to the provisions of CEQA, the CEQA Guidelines, 14 California Code of Regulations (CCR) Section 15164 et seq. The environmental analysis in this Addendum and all feasible mitigation measures identified in the MND would be incorporated into the resolutions approving the Modified Project.

5. BASIS OF ADDENDUM

Section 15164(b) of the CEQA Guidelines states: "An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred." Pursuant to Section 15162 of the CEQA Guidelines, no subsequent EIR or negative declaration may be required for the project unless the lead agency determines, on the basis of substantial evidence, that one or more of the following conditions are met:

A. When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Substantial changes are proposed in the project which would require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which would require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

The project would have one or more significant effects not discussed in the previous EIR or negative declaration;

Significant effects previously examined would be substantially more severe than shown in the previous EIR;

Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

B. If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision a). Otherwise, the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.

C. Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval on that project is required. Information appearing after an approval does not require reopening of that approval. If after the project is approved, any of the conditions described in subdivision a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any. In this situation no other responsible agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.

SCV Water, as the Lead Agency for the Groundwater Containment, Treatment and Restoration Project, has assessed the proposed project modifications in light of the requirements defined under Section 15162 of the CEQA Guidelines. As discussed in this Addendum, none of the conditions requiring preparation of a subsequent negative declaration under Section 15162 of the CEQA Guidelines are satisfied.

6. IMPACT EVALUATION

Table 1 describes the impacts of the Modified Project as compared to the Approved Project for each environmental resource topic discussed in the 2005 MND. Applicable mitigation measures from the 2005 MND are identified in the table. This analysis focuses on the components of the Modified Project that were not previously evaluated in the 2005 MND (i.e., the pipelines between Well V207 and the chloramination facility, and connection from Well V207 to the existing concrete drainage channel), because the other Modified Project components (i.e., equipping Saugus Wells #3 & #4, construction a new chloramination facility, constructing pipelines connecting the new wells and chloramination facility, and connecting the chlorination facility to existing transmission and distribution pipelines) are refinements and have not changed substantially from the Approved Project. Thus, environmental impacts of the refined components discussed in the 2005 MND would remain unchanged and are not specifically addressed in Table 1.

Table 1: Summary of Modified Project Impacts

Resource Topic	Impact Conclusion from 2005 MND	Description of Changes and Applicable Mitigation Measures (if any)	Impact of Modified Project
Aesthetics	Less Than Significant with Mitigation	The above ground components of the Modified Project (i.e., chloramination facility and well facilities) do not differ from those evaluated in the 2005 MND. The additional components of the Modified Project include buried pipelines and a connection from Well V207 to the existing concrete drainage channel, which would not result in permanent alteration of views or lighting in the area. The 2005 MND identified a mitigation measure for aesthetics, however, it applies only to the water treatment plant in the Approved Project. This measure would not apply to the Modified Project. There would be no new or substantial increase in the severity of aesthetic impacts as compared to the impacts described in the 2005 MND and no additional mitigation would be required	No new or increased impact
Agricultural Resources	Less Than Significant	The additional components of the Modified Project would be located in an existing dirt road and would not impact agricultural or forest resources or related zoning. Thus, there would be no new or substantial increase in the severity of agricultural resource impacts as compared to the impacts described in the 2005 MND, and no mitigation would be required.	No new or increased impact
Air Quality	Less Than Significant with Mitigation	The additional components of the Modified Project would consist of two parallel 24-inch pipelines between Well V207 and the chloramination facility, a 16-inch well pump-to-waste line from Saugus Wells #3 and #4 to Well V207, and a connection from Well V207 to the adjacent concrete drainage channel. The pipelines would all be located in the existing dirt road between Well V207 and the chloramination facility; this stretch of road is approximately 3,250 feet. These components of the Modified Project (buried pipelines and drainage channel connection) would create criteria air pollutant emissions during construction through use of construction	No new or increased impact

		equipment, soils and materials transport, and worker vehicle trips. Operation of the pipeline facilities would not consume electricity or fuel. The Approved Project included approximately 22,000 linear feet of new pipelines (as summarized in Table 5 of the 2005 MND). Pipeline construction methods, equipment use, and rate of construction for the Modified Project are not expected to vary materially from those evaluated in the 2005 MND. Given the overall length of pipeline in the Approved Project, construction of pipelines in an additional 3,250-foot segment of dirt road is not expected to create a new significant impact in terms of air pollutant emissions. As discussed in the 2005 MND, pipeline construction would proceed in segments of approximately 300 feet at a time, and applicable South Coast Air Quality Management District (SCAQMD) rules (e.g., construction best management practices for fugitive dust) would be implemented. Construction emissions from the additional Modified Project facilities would be insignificant in comparison to the Approved Project as a whole. Thus, the Modified Project would not be expected to violate air quality standards or conflict with applicable air quality management plans. The additional components of the Approved Project would not include facilities with the potential to create objectionable odors. Section II(G) of the 2005 MND identifies a mitigation measure to ensure compliance with SCAQMD Rule 403 (for fugitive dust control). Compliance with this rule, and other applicable SCAQMD rules, is a statutory requirement. Thus, this measure would be implemented during construction of the Modified Project. There would be no new or substantial increase of the severity of air quality impacts as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	
Biological Resources	Less Than Significant	The additional components of the Modified Project would be constructed in a graded dirt road and would not disturb habitat. The pipeline area is not located within a habitat conservation plan area or a Los Angeles County Significant	No new or increased impact

	with Mitigation	Ecological Area (California Department of Fish and Wildlife, 2022; Los Angeles County, 2022). Construction methods for the additional components and associated indirect impacts (such as noise) would not differ from those evaluated in the 2005 MND. Because the footprint of the Modified Project is limited to a previously disturbed and graded area, construction in this area would not create a new significant impact. The 2005 MND identified a mitigation measure to prevent adverse impacts associated with incidental wildlife use of the construction areas, which requires steps such as construction crew training (described in Section II (G) of the 2005 MND). This measure would be implemented during construction of the Modified Project. There would be no new or substantial increase of the severity of impacts on biological resources as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	
Cultural Resources	Less Than Significant with Mitigation	The additional components of the Modified Project would be located in a previously graded dirt road west of Six Flags Magic Mountain. Although work in this portion of the road was not explicitly evaluated in the 2005 MND, the discussion notes that elements of the Approved Project west of Interstate 5 (which would include the Modified Project) would be located within roadbeds that have already been graded to depths below which prehistoric cultural resources are not likely to be found. Thus, it is not anticipated that the Modified Project would create a new potential to encounter buried cultural resources. The 2005 MND identified a cultural resources management mitigation measure, although it is focused on portions of the Approved Project along the South Fork of the Santa Clara River, and not in the Modified Project area. Thus, this measure would not apply to the Modified Project.	No new or increased impact

		There would be no new or substantial increase of the severity of impacts on cultural resources as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	
Geology and Soils	Less Than Significant with Mitigation	The additional components of the Modified Project would consist of buried pipelines and a connection from Well V207 to the nearby existing concrete drainage channel. These facilities would be constructed and operated in the same fashion as the pipelines evaluated in the 2005 MND and would not carry additional risks or pose geological hazards that were not evaluated previously (such as crossing a fault zone). The 2005 MND stated that the Approved Project could release perchlorate from the treatment plant during seismic events, but this impact would be mitigated to a less-than-significant level through use of secondary containment vessels. The perchlorate treatment plant is not included in the Modified Project and thus this mitigation measure would not apply. There would be no new or substantial increase of the severity of impacts on geology and soils as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	No new or increased impact
Hazards and Hazardous Materials	Less Than Significant with Mitigation	The additional buried pipelines and drainage channel connection included in the Modified Project would not require use of hazardous materials during operation, and these facilities would not be located near a school or on a listed hazardous waste site (SWRCB, 2022; DTSC, 2002). The additional components would not create new hazards that were not previously evaluated in the 2005 MND. The 2005 MND included mitigation to reduce the Approved Project's impact on emergency response plans and evacuation plans. Mitigation consists of compliance with City of Santa Clarita and Los Angeles County encroachment permit requirements, which limit the length of open trench at a given time and ensure rapid restoration of road function if needed. The additional buried pipelines and drainage channel connection included in the Modified Project would not be located	No new or increased impact

		in a public road, and thus the potential to impact emergency response or evacuation is less than significant and no mitigation would be required. There would be no new or substantial increase of the severity of impacts related to Hazards and Hazardous Materials as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	
Hydrology and Groundwater Quality	Less Than Significant with Mitigation	The additional components of the Modified Project would be similar to pipelines evaluated in the 2005 MND. The new connection to the drainage channel would allow test water discharges from the existing Well V207 and the new Saugus Wells #3 and #4, in accordance with NPDES discharge permit to protect water quality, and would not violate water quality standards, create substantial new runoff or significantly alter drainage patterns. Due to the nature of the Modified Project facilities, and with the use of standard best management practices specified in a Stormwater Pollution Prevention Plan (SWPPP) as required by the State Water Resources Control Board's Construction General Permit for storm water discharges, there would be no new impact on hydrology or water quality. Construction of the Modified Project would include the same best management practices identified in Section II(G) of the 2005 MND (such as inspection for leaking equipment, measures to prevent runoff from construction sites, and secondary containment for fueling and chemical storage areas during both construction and operation). These measures would be included in the project construction SWPPP. There would be no new or substantial increase of the severity of impacts on hydrology and water quality as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	No new or increased impact
Land Use and Planning	Less Than Significant	The additional components of the Modified Project would be below ground and located in an existing dirt road. Therefore, they would not have the potential to divide a community or conflict with zoning or land use plans.	No new or increased impact

		There would be no new or substantial increase of the severity of impacts related to land use as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	
Mineral Resources	Less Than Significant	The Modified Project would be within the historic Castaic Junction Oil Field (discussed in the 2005 MND). However, the Modified Project facilities would not affect mineral extraction from this field. All components of the Modified Project would be within existing roads, and would not affect regional or local mineral resources or their extraction. There would be no new or substantial increase of the severity of impacts on mineral resources as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	No new or increased impact
Noise	Less Than Significant with Mitigation	Construction noise impacts from the additional components of the Modified Project would be similar to those evaluated in the 2005 MND, because similar construction activities would occur (e.g., open trench installation of pipeline) and the same types of equipment would be used. The additional components of the Modified Project (pipelines between Well V207 and the chloramination facility, and drainage channel connection) would not be closer to sensitive receptors than the Approved Project facilities. The additional components would not generate operational noise. The noise mitigation measures identified in Section II(G) of the 2005 MND apply to specific portions of the Approved Project that are not included in the Modified Project (i.e., certain portions of the service restoration pipeline adjacent to residential development within the city of Santa Clarita). Thus, no mitigation measures would apply to the Modified Project facilities. There would be no new or substantial increase of the severity of noise impacts as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	No new or increased impact

Population and Housing	Less Than Significant	The Modified Project would have no direct impact on housing or population and would not interfere with approved residential land uses. Groundwater pumping from the Modified Project would help to restore system capacity to compensate for reduced production from other wells as a result of perchlorate pollution. The Modified Project wells would be operated consistent with applicable planning documents (such as the Urban Water Management Plan and Groundwater Sustainability Plan) and thus would not indirectly affect population or housing. There would be no new or substantial increase of the severity of impacts associated with population and housing as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	No new or increased impact
Public Services	Less Than Significant	The Modified Project would not require new or physically altered government facilities, and would not adversely impact public services. No mitigation measures are required. There would be no new or substantial increase of the severity of impacts on public services as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	No new or increased impact
Recreation	Less Than Significant	The Modified Project would be located in existing unpaved roads and would not alter recreation facilities. The Approved Project would require construction within trails; however, the Modified Project does not include construction of these facilities and would not impact any recreational trails. Section II(G) of the 2005 MND identifies best management practices when constructing in bike trails, which would not apply to any components of the Modified Project. There would be no new or substantial increase of the severity of impacts on recreation as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	No new or increased impact

Transportation and Traffic	Less Than Significant with Mitigation	The additional pipelines of the Modified Project would be constructed in an existing dirt road along the western edge of Six Flags Magic Mountain. The road is not yet developed and is not open to the public, and therefore construction of additional pipelines in the road (between Well V207 and the chloramination facility) would not impact traffic or transportation or emergency access in the local or regional area. The Modified Project also includes connections to the existing transmission and distribution lines in North Commerce Center Drive, which could require work in the road. This portion of the Modified Project was evaluated in the 2005 MND and has not been modified from the Approved Project. The 2005 MND identified a mitigation measure to ensure compliance with applicable City of Santa Clarita and Los Angeles County policies. The Modified Project is located entirely in Los Angeles County, and thus would implement the portion of the mitigation measure ensuring compliance with County of Los Angeles Department of Public Works Encroachment Permits as described in Section II(G) of the 2005 MND. There would be no new or substantial increase of the severity of impacts on transportation and traffic as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	No new or increased impact
Utilities and Service Systems	Less Than Significant	The Modified Project components not included in the 2005 MND include buried pipelines between Well V207 and the chloramination facility and a connection from Well V207 to an existing drainage channel for discharges of test water from construction and equipping of Saugus Wells #3 and #4, and thereafter for discharges of test water during operation and maintenance of Saugus Wells #3 and #4 and Well V207 and after periods of inactivity. As described throughout this document, these facilities would not have significant environmental effects. No other new utility facilities would be required to support the Modified Project.	No new or increased impact

		There would be no new or substantial increase of the severity of impacts on utilities and service systems as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	
Cumulative Effects	Less Than Significant	The additional Modified Project components would not create a new significant impact or substantial increase in the severity of impacts for any resource topics as compared to the Approved Project, and thus no new cumulative impacts would occur and no additional mitigation measures would be required.	No new or increased impact
Mandatory Findings of Significance	Less Than Significant	The additional Modified Project components would not have a significant impact on biological or cultural resources. As described above, the Modified Project would not create new cumulative impacts. Lastly, as described in the applicable sections of this table, the Modified Project would not create new impacts on human beings such as air quality, hazards and hazardous materials, noise, or transportation impacts. There would be no new or substantial increase of the severity of environmental impacts on as compared to impacts described in the 2005 MND, and no new mitigation measures would be required.	No new or increased impact

Table 2: Topics New to CEQA Since 2005 MND

Resource Topic	Impact Conclusion from 2005 MND	Description of Changes and Applicable Mitigation Measures (if any)	Impact of Modified Project
Energy	N/A	The additional Modified Project components would require energy resources for construction. Construction would be completed using typical techniques and equipment and would not result in wasteful, inefficient, or unnecessary consumption of energy resources. The Modified Project would not consume more energy for operation than the Approved Project would, thus the additional Modified Project components would not conflict with or obstruct a renewable energy or energy efficiency plan. Thus, there would be no new significant impacts and no new mitigation measures would be required.	No new or increased impact
Greenhouse Gas Emissions	N/A	The additional Modified Project components would create minor greenhouse gas emissions during construction. These would not be expected to increase the emissions substantially from the Approved Project. The additional Modified Project components would not result in new long-term operational greenhouse gas emissions. Therefore, the additional Modified Project components would not result in new significant impacts to the environment or conflict with an applicable plan and no new measures would be required.	No new or increased impact
Tribal Cultural Resources	N/A	As discussed in this table under "Cultural Resources" the additional Modified Project components would be located within graded roadbeds where unknown tribal or cultural resources are not anticipated to occur. Thus, it is not anticipated that the Modified Project would create a new or increased potential impact to tribal cultural resources. Thus, there would be no new significant impacts and no new mitigation measures would be required.	No new or increased impact
Wildfire	N/A	The additional Modified Project components would be located in a Very High Fire Hazard Severity Zone (VHFHSZ) (CalFire, 2020). The Approved Project is also located in a VHFHSZ. The additional Modified Project components would be located in graded dirt roads adjacent to the Approved Project, and would use similar construction techniques and equipment to the Approved Project. Therefore, the Modified Project would not create a new significant impact related to wildfire and no new mitigation measures would be required.	No new or increased impact

7. CONCLUSION

The environmental evaluation in this Addendum has concluded that major revisions of the MND due to new significant environmental effects or a substantial increase in the severity of previously identified significant effects are not required. There are no substantial changes proposed in the Modified Project; no substantial changes in the circumstances under which the Modified Project would be undertaken; and no new information of substantial importance which was unknown or could not have been known at the time the MND was certified. The impacts of the Modified Project are consistent with the impacts of the original Approved Project in the MND. There are no new significant impacts resulting from implementation of the Modified Project, nor are there any substantial increases in the severity of any previously identified environmental impacts, and no new mitigation measures would be required. The environmental analysis in this Addendum and all feasible and applicable mitigation measures identified in the MND would be incorporated into the resolutions approving the Modified Project.

8. REFERENCES

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