SCV Water Agency
Regular Board Meeting

Tuesday, November 21, 2023
Regular Board Meeting Begins at 6:00 PM

Members of the public may attend by the following options:

IN PERSON

Santa Clarita Valley Water Agency
Rio Vista Water Treatment Plant
Boardroom
27234 Bouquet Canyon Road
Santa Clarita, CA 91350

BY PHONE

Toll Free: 1-(833)-568-8864
Webinar ID: 160 570 6310

VIRTUALLY

Please join the meeting from your computer, tablet or smartphone:
https://scvwa.zoomgov.com/j/1605706310

Have a Public Comment?

Members of the public unable to attend this meeting may submit comments either in writing to ajacobs@scvwa.org or by mail to April Jacobs, Board Secretary, Santa Clarita Valley Water Agency, 27234 Bouquet Canyon Road, Santa Clarita, CA 91350. All written comments received before 4:00 PM the day of the meeting will be distributed to the Board members and posted on the Santa Clarita Valley Water Agency website prior to the start of the meeting. Anything received after 4:00 PM the day of the meeting will be made available at the meeting, if practicable, and posted on the SCV Water website the following day. All correspondence with comments, including letters or emails, will be posted in their entirety. (Public comments take place during Item 3 of the Agenda and before each Item is considered. Please see the Agenda for details.)

This meeting will be recorded and the audio recording for all Board meetings will be posted to yourSCVwater.com within 3 business days from the date of the Board meeting.

Disclaimer: Attendees should be aware that while the Agency is following all applicable requirements and guidelines regarding COVID-19, the Agency cannot ensure the health of anyone attending a Board meeting. Attendees should therefore use their own judgment with respect to protecting themselves from exposure to COVID-19.

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SANTA CLARITA VALLEY WATER AGENCY
REGULAR BOARD MEETING AGENDA

RIO VISTA WATER TREATMENT PLANT
BOARDROOM
27234 BOUQUET CANYON ROAD
SANTA CLARITA, CA 91350

TUESDAY, NOVEMBER 21, 2023, AT 6:00 PM

IMPORTANT NOTICES

5:15 PM DISCOVERY ROOM OPEN TO THE PUBLIC
Dinner for Directors and staff in the Discovery Room.
There will be no discussion of Agency business taking place prior to the Call to Order at 6:00 PM.

This meeting will be conducted in person at the address listed above. As a convenience to the public, members of the public may also participate virtually by using the **Agency's Call-In Number 1-(833)-568-8864, Webinar ID: 160 570 6310 or Zoom Webinar by clicking on the link https://scvwa.zoomgov.com/j/1605706310.** Any member of the public may listen to the meeting or make comments to the Board using the call-in number or Zoom Webinar link above. However, in the event there is a disruption of service which prevents the Agency from broadcasting the meeting to members of the public using either the call-in option or internet-based service, this meeting will not be postponed or rescheduled but will continue without remote participation. The remote participation option is being provided as a convenience to the public and is not required. Members of the public are welcome to attend the meeting in person.

Attendees should be aware that while the Agency is following all applicable requirements and guidelines regarding COVID-19, the Agency cannot ensure the health of anyone attending a Board meeting. Attendees should therefore use their own judgment with respect to protecting themselves from exposure to COVID-19.

Members of the public unable to attend this meeting may submit comments either in writing to ajacobs@scvwa.org or by mail to April Jacobs, Board Secretary, Santa Clarita Valley Water Agency, 27234 Bouquet Canyon Road, Santa Clarita, CA 91350. All written comments received before 4:00 PM the day of the meeting will be distributed to the Board members and posted on the Santa Clarita Valley Water Agency website prior to the start of the meeting. Anything received after 4:00 PM the day of the meeting, will be made available at the meeting, if practicable, and will be posted on the SCV Water website the following day. All correspondence with comments, including letters or emails, will be posted in their entirety.

1. **CALL TO ORDER**

2. **PLEDGE OF ALLEGIANCE**

3. **PUBLIC COMMENTS** – Members of the public may comment as to items within the subject matter jurisdiction of the Agency that are not on the Agenda at this time. Members of the public wishing to comment on items covered in this Agenda may do so at the time each item is considered. (Comments may, at the discretion of the Board's presiding officer, be limited to three minutes for each speaker.) Members of the public wishing to comment on items covered in Closed Session before they are considered by the Board must request to make comment at the commencement of the meeting at 6:00 PM. To participate in public comment from your computer, tablet, or Smartphone, click the "raise hand" feature in Zoom. You will be notified when it is your turn to speak, please unmute when requested. To participate in public comment via phone, dial *9 to raise your hand. When it is your turn to speak, dial *6 to unmute.

4. **APPROVAL OF THE AGENDA**

5. **CONSENT CALENDAR** **PAGE**

5.1 *	Approve Minutes of the November 7, 2023 Santa Clarita Valley Water Agency Regular Board of Directors Meeting	7
5.2 *	Approve a Resolution Authorizing the General Manager to Apply for Funding from the Bureau of Reclamation WaterSMART Drought Response Program and Accept and Execute a Grant Agreement for the Newhall Wells (N11, N12, N13) Groundwater Treatment Improvements	13
5.3 *	Approve, Pursuant to a Previously Adopted Addendum to the Adopted 2005 Groundwater Containment, Treatment, and Restoration Project MND and MMRP, of a Purchase Order to Lee & Ro, Inc for Planning and Final Design Services for Wells 206 and 207 Groundwater Treatment Improvements Project	27

6. **GENERAL MANAGER'S REPORT ON ACTIVITIES, PROJECTS AND PROGRAMS**

7. **COMMITTEE MEETING RECAP REPORT FOR INFORMATIONAL PURPOSES ONLY** **PAGE**

7.1 *	November 2, 2023 Engineering and Operations Committee Meeting Recap Report	185

8. **PRESIDENT'S REPORT**

9. **AB 1234 WRITTEN AND VERBAL REPORTS** **PAGE**

9.1 *	October 22-25, 2023 California Special District Association – Leadership Academy – Director Marks	191
9.2 *	November 9, 2023 Santa Clarita Valley Water Agency Water Academy – Director Marks	193
9.3	Other AB 1234 Reports	

10. DIRECTOR REPORTS

10.1 November 14, 2023 Ad Hoc Committee Board Remodel Meeting Report – President Martin

11. CLOSED SESSION

11.1 Conference with Legal Counsel – Existing Litigation (Paragraph (1) of Subdivision (d) of Section 54956.9), Santa Clarita Valley Water Agency v. 3M Company, et. al., Case No: 2:20-cv-3771-RMG

12. CLOSED SESSION ANNOUNCEMENTS

13. DIRECTOR REQUESTS FOR FUTURE AGENDA ITEMS

14. ADJOURNMENT

* Indicates Attachment
♦ Indicates Handout

Note: The Board reserves the right to discuss or take action or both on all of the above Agenda items.

NOTICES

Any person may make a request for a disability-related modification or accommodation needed for that person to be able to participate in the public meeting by telephoning April Jacobs, Secretary to the Board of Directors, at (661) 297-1600, or in writing to Santa Clarita Valley Water Agency at 27234 Bouquet Canyon Road, Santa Clarita, CA 91350. Requests must specify the nature of the disability and the type of accommodation requested. A telephone number or other contact information should be included so that Agency staff may discuss appropriate arrangements. Persons requesting a disability-related accommodation should make the request with adequate time before the meeting for the Agency to provide the requested accommodation.

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

Posted on November 15, 2023.

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DRAFT

ITEM NO. 5.1

Minutes of the Regular Meeting of the Board of Directors of the Santa Clarita Valley Water Agency – November 7, 2023

A regular meeting of the Board of Directors of the Santa Clarita Valley Water Agency was held at Santa Clarita Valley Water Agency, 27234 Bouquet Canyon Road, Santa Clarita, CA 91350 at 6:00 PM on Tuesday, November 7, 2023. A copy of the Agenda is inserted in the Minute Book of the Agency preceding these minutes. The meeting recording can be accessed by clicking on the following link: Board Meeting Recording.

DIRECTORS PRESENT: Kathye Armitage, Beth Braunstein, Ed Colley, William Cooper, Maria Gutzeit, Dirk Marks, Gary Martin, Piotr Orzechowski and Ken Petersen.

DIRECTORS ABSENT: None.

Also present: Assistant General Manager Steve Cole, Board Secretary April Jacobs, Chief Engineer Courtney Mael, Chief Financial and Administrative Officer Rochelle Patterson, Chief Operating Officer Keith Abercrombie, Communications Manager Kevin Strauss, Director of Water Resources Ali Elhassan, General Counsel Tom Bunn, Information Technology Technician I Oliver Molina, Information Technology Technician II Jonathan Thomas, Right of Way Agent Kristina Jacob (Virtually), Senior Water Resources and Data Scientist Najwa Pitois, as well as additional SCV Water Agency staff (Virtually), and members of the public (In Person and Virtually).

President Martin called the meeting to order at 6:00 PM. A quorum was present.

There were no changes to the November 7, 2023 Amended Board Agenda and it was accepted as shown (Item 4).

Upon motion of Director Colley, seconded by Vice President Orzechowski and carried, the Board approved the Consent Calendar including Resolution No. SCV-392 by the following roll call votes (Item 5):

Director Armitage	Yes	Director Braunstein	Yes
Director Colley	Yes	Director Cooper	Yes
Vice President Gutzeit	Yes	Director Marks	Yes
President Martin	Yes	Vice President Orzechowski	Yes
Director Petersen	Yes*		

*Director Petersen abstained from voting on Item 5.2.

RESOLUTION NO. SCV-392

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SANTA CLARITA VALLEY WATER AGENCY AUTHORIZING AN APPLICATION FOR GRANT FUNDING UNDER THE BUREAU OF RECLAMATION'S FY 2023 WATERSMART APPLIED SCIENCE

GRANT PROGRAM FOR THE AGENCY'S GROUNDWATER MODEL REFINEMENT AND CALIBRATION PROJECT
FULL RESOLUTION MAY BE VIEWED BY VISITING THE SCV WATER WEBSITE

Upon motion of Director Cooper, seconded by Director Petersen and carried, the Board authorized the General Manager to approve a contract with Waste Management Services to transport and dispose of approximately 2,800 tons of treatment by-products from the RVWTP in an amount not to exceed $380,000 by the following roll call votes (Item 6.1):

Director Armitage	Yes	Director Braunstein	Yes
Director Colley	Yes	Director Cooper	Yes
Vice President Gutzeit	Yes	Director Marks	Yes
President Martin	Yes	Vice President Orzechowski	Yes
Director Petersen	Yes		

Senior Water Resources and Data Scientist Najwa Pitois gave a presentation on the Water Resources Integration Model (Item 7).

General Manager's Report on Activities, Projects and Programs (Item 8).

Assistant General Manager Cole, sitting in for the General Manager, reported on the following:

He thanked Najwa Pitois for the presentation that she gave to the Board at tonight's meeting regarding the Water Resources Integration Model.

He informed the Board that he would be traveling to Sacramento the next day to take part in the Delta Conveyance Partners workshop. The workshop will provide a full update on the status of the Delta Conveyance Plan along with possible cost updates, which he stated will be shared with the Board.

He updated the Board on the Sites Reservoir Project. He mentioned that Senate Bill 149, which deals with streamlining CEQA was something that the Governor had advocated for in this last session. It is focused on judicial review as it applies to CEQA. He informed the Board that he will be present for the voting at the Sites Joint Reservoir Committee and Authority Board meeting next Friday, when the CEQA document will be discussed and voted on.

He spoke about the Water Academy, which began on November 1, 2023. He pointed out that a nice mixture of the community was participating, and that each session is now a little longer than it was during the previous Academy.

He then congratulated the SCV Water Outreach Department on winning 5 PRISM Awards from the Public Relations Society of America's Los Angeles Chapter. He announced that SCV Water received the top prize for the Drought Ready SCV Campaign, the Water Currents Public Newsletter and the Agency's Pipeline Employee Newsletter. He advised the Board that the 2023

Consumer Confidence Report earned second place and the Drought Ready SCV was also named the best in Community Relations taking the top award across all industries. He expressed that it has been a banner year for the Outreach Department.

To hear the full comments, please refer to the Board recording by clicking the meeting recording link on the first page of these minutes or visiting the SCV Water Website.

Committee Meeting Recap Reports for Informational Purposes Only (Item 9).

There were no comments on the recap reports.

Written Reports for Informational Purposes Only (Item 10).

Director Armitage had comments on the following: (1) Finance, Administration and Information Technology Services Section Report regarding IT's efforts to stay up to date on cyber security; (2) the Water Resources and Outreach Section report regarding staffs presentation on Water Resources Management at CSUN; (3) congratulated the communications team on their award for their work on conservation efforts with multifamily apartments and; (4) the staff meeting with the City of Santa Clarita staff to develop data sharing processes and protocols for model water efficient landscaping ordinance procedures.

To hear the full comment(s), please refer to the Board recording by clicking the meeting recording link on the first page of these minutes or visiting the SCV Water Website.

There were no other comments on the written reports.

President's Report (Item 11).

President Martin updated the Board on upcoming meetings and events.

AB 1234 Written and Verbal Reports (Item 12).

A written report was submitted by Vice President Gutzeit which was posted to the SCV Water website and is part of the record.

Director Branstein reported that she attended the Water Bottle Refill Ribbon Cutting held at Hart Hight School on October 23, 2023.

Director Cooper reported that he virtually attended the ACWA Executive Board Committee Assignments meeting on October 16 and 19, 2023, the Region 8 Committee Nominations meeting on October 24, 2023 and attended in person the State of the City held at the Canyon Country Community Center on October 26, 2023.

Director Armitage reported that she virtually attended the Executive Committee meeting of the Special Districts Association of North Los Angeles County on October 18, 2023 and attended the Water Bottle Refill Ribbon Cutting held at Hart Hight School on October 23, 2023.

Director Marks reported that attended the State of the City held at the Canyon Country Community Center on October 26, 2023 and attended the CSDA Special District Leadership Academy held in Santa Rosa on October 22-25, 2023.

President Martin reported that he virtually attended the DCA Board meeting from the Santa Clarita Valley Water Agency Boardroom on October 19, 2023 and attended the State of the City held at the Canyon Country Community Center on October 26, 2023.

There were no other AB 1234 Reports.

Director Reports (Item 13).

Vice President Orzechowski thanked Assistant General Manager Steve Cole and Chief Operating Officer Keith Abercrombie for the Agency's participation in the "Touch of Truck" held on November 4, 2023 at Central Park.

Director Armitage commented on the following:

- She was happy to see the letter from a customer offering thanks to SCV Water employee Sean Lopez for his outstanding customer service.

- She thanked all who were involved in the Dickason Drive Pipeline Replacement project for keeping the impact to the area and school to a minimum.

- She mentioned the City of Santa Clarita's Rain Barrel program where they offer low costs rain barrel's to City residence, she advised the Board that she participated in the program. She noted that a customer had reached out to her regarding the SCV Water Rain Barrel Rebate program where she was able to help direct him to the appropriate individuals at the Agency that could help him with that rebate. She wanted to personally thank Sustainability Manager Matt Dickens and Water Conservation Specialist II Chavon Halushka for their efforts in helping him out.

- Lastly, she thanked staff for including the Board in the Water Academy program.

To hear the Directors report in their entirety, please refer to the Board recording by clicking the meeting recording link on the first page of these minutes or visiting the SCV Water website.

There were no other Director reports.

The Board went into Closed Session at 7:37 PM to discuss Item 14.1:

Conference with Real Property Negotiators, Government Code Section 54956.8:
Property Location: Approximately 0.48 +/- Acre in Unincorporated Los Angeles County, Los Angeles County Assessor's Parcel Nos. 2826-037-066
Negotiating Parties: JD Pleasant Group, LLC
SCV Water's Authorized Negotiator: General Manager Matthew Stone
Under Negotiation: Price and Terms of Payment

The Zoom meeting was put on hold while the Board went into Closed Session. President Martin advised the public and staff for those who wanted to stay, to remain on the current teleconference line and once Closed Session ends, the Board would reconvene for Closed Session announcements and the conclusion of the meeting.

President Martin reconvened the Open Session at 8:33 PM.

Tom Bunn, Esq., reported that there were no actions taken in Closed Session that were reportable under the Ralph M. Brown Act (Item 15).

Director Requests For Approval for Event Attendance (Item 16).

There were no requests for event attendance.

The meeting was adjourned at 8:34 PM (Item 17).

April Jacobs, Board Secretary

ATTEST:

President of the Board

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ITEM NO.
5.2

BOARD MEMORANDUM

DATE: November 6, 2023

TO: Board of Directors

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

SUBJECT Approve a Resolution Authorizing the General Manager to Apply for Funding from the Bureau of Reclamation WaterSMART Drought Response Program and Accept and Execute a Grant Agreement for the Newhall Wells (N11, N12, N13) Groundwater Treatment Improvements

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SUMMARY

The Bureau of Reclamation has published a funding opportunity for the FY 2024 WaterSMART Drought Response Program's (DRP) Drought Resiliency Projects. This funding opportunity supports the implementation of drought mitigation projects that will build long-term resilience to drought. Through this funding opportunity, the Bureau of Reclamation (BOR) provides financial assistance for projects that, when implemented, will increase water supply reliability, and improve water management. Projects eligible for funding include the construction of small-scale water treatment facilities to treat impaired groundwater that can be used as additional sources of water supply.

The DRP funding opportunity offers three funding groups: Funding Group I is up to $500,000 in federal cost-share for projects that can be completed in 2 years, Funding Group II is up to $2 million in federal cost-share for projects that can be completed in 3 years, and Funding Group III is up to $5 million in federal cost-share for projects that can be completed in 3 years. Federal cost-share contribution is limited to 50% of total project costs, not to exceed the maximum grant amount. The grant recipient is responsible for a 50% cost-share contribution and up to the balance of funds needed to complete the construction of the project.

The Santa Clarita Valley Water Agency (Agency) will submit an application for DRP funding for the proposed Newhall Wells (N11, N12, N13) Groundwater Treatment Improvements Project (Project) at the Group III, $5 million funding level. The funding application requires that a resolution, which is attached to this memorandum, be adopted by the Agency's Board of Directors prior to entering into a grant agreement.

The grant application process is competitive, and submissions will be evaluated and scored based on the program's evaluation criteria. The BOR estimates that 15 to 21 projects will be awarded, contingent upon available federal funding, and anticipates that funding will be awarded in October 2024.

DISCUSSION

Project Scope and Background:

The Agency operates three (3) existing wells, N11, N12, N13, located along the west side of Railroad Avenue between Oak Ridge Drive and 15th Street. The three (3) wells have a combined groundwater production of up to 5,400 gallons per minute (8,710 acre-feet per year) of potable water that is distributed to the Agency's service area. Trace amounts of Per- and Polyfluoroalkyl substances (PFAS) have been detected in the groundwater. Historical water quality data shows N12 and N13 to have detections of Perfluorohexane sulfonic acid, or PFHxS, above the response limit of 20 ng/L. The Agency has relied on the purchase of additional imported water and its water banking and exchange programs to meet the water need of our service area.

The Agency plans to construct a PFAS groundwater treatment facility adjacent to the existing Newhall Disinfection Facility, that will treat N11, N12, N13 and reduce our dependency on costly imported waters. Upgrades including a new liquid ammonium sulfate building will be constructed within the facility to improve water quality in our distribution system.

Project Schedule:

The grant's anticipated project completion deadline is November 7, 2027. Staff is working diligently to complete the California Environmental Quality Act (CEQA) process by February 2024. Final engineering completion and contractor bidding is expected to occur in March 2025. Construction is scheduled to be substantially completed by September 2026.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) CONSIDERATIONS

A decision by the Agency to submit a grant application that does not commit the Agency to a definite course of action regarding a proposed project is not a project approval subject to CEQA review. (*City of Irvine v. County of Orange* (2013) 221 Cal.App.4th 846, 865 [decision to apply for funding for potential jail expansion was not project approval under CEQA].)

Further, the Agency has recently retained an environmental consultant to prepare CEQA documentation for the Project. Additionally, biological and cultural resource compliance reports will be prepared, in accordance with National Environmental Policy Act (NEPA).

STRATEGIC PLAN NEXUS

The award of this planning contract will help meet the Agency's Objective and Strategic Plan Objective D.1: "Achieve 100% compliance with all environmental regulations and standards" and Strategic Plan Objective D.2: "Proactively install, operate, and maintain groundwater treatment infrastructure to avoid impacts on water supply reliability (e.g. VOCs, perchlorate, PFAS, etc.)."

On November 2, 2023, the Engineering and Operations Committee met to consider staff's recommendation to approve a resolution authorizing the General Manager to apply for funding from the Bureau of Reclamation WaterSMART Drought Response Program and accept and execute a grant agreement for the Newhall Wells (N11, N12, N13) Groundwater Treatment Improvements.

FINANCIAL CONSIDERATIONS

The cost of the Newhall Wells (N11, N12, N13) Groundwater Treatment Improvements Project is estimated to be $18 million. It is anticipated that the engineering and design cost will be approximately $1.5 million and construction cost will be approximately $16.5 million. If successful, the BOR WaterSMART DRP grant would provide $5 million to offset Project costs. Engineering and design costs for the Project will be initially funded from the Agency's Capital Improvement Program, currently approved in the FY 2023/24 CIP Budget. Funds to finalize engineering plans are included in the FY 2024/25. Funds for the construction of the Project will be allocated in the FY 2025/26 and 2026/27 CIP Budget.

RECOMMENDATION

The Engineering and Operations Committee recommends that the Board of Directors adopt the attached resolution authorizing the General Manager to apply for funding under the Bureau of Reclamation WaterSMART Drought Response Program and accept and execute a Grant Agreement for the Newhall Wells (N11, N12, N13) Groundwater Treatment Improvements Project.

Attachment

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RESOLUTION NO. SCV-____

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SANTA CLARITA VALLEY WATER AGENCY AUTHORIZING THE GRANT APPLICATION, ACCEPTANCE, AND EXECUTION OF A FUNDING AGREEMENT FOR THE NEWHALL WELLS (N11, N12, N13) GROUNDWATER TREATMENT IMPROVEMENTS

WHEREAS, Santa Clarita Valley Water Agency (Agency) determined that Per- and polyfluoroalkyl substances (PFAS) are a threat to the Agency's groundwater resources; and

WHEREAS, the Newhall Wells (N11, N12, N13) Groundwater Treatment Improvements Project (Project) is an important component to treat PFAS; and

WHEREAS, Environmental documents are currently being prepared for the Project in accordance with the State California Environmental Quality Act (CEQA) Guidelines; and

WHEREAS, a decision to submit a grant application that does not commit the Agency to a definite course of action regarding a proposed project is not a project approval subject to CEQA review (*City of Irvine v. County of Orange* (2013) 221 Cal.App.4th 846, 865 [decision to apply for funding for potential jail expansion was not project approval under CEQA]; and

WHEREAS, the United States Department of the Interior offers financial assistance in the form of grant funding through its Bureau of Reclamation's FY 2024 WaterSMART (Sustain and Manage America's Resources for Tomorrow) Drought Response Program (DRP): Drought Resiliency Projects Program for this type of project. The program provides up to a maximum of $5,000,000 in grant funding for long term projects, but not to exceed 50% of the total project cost; and

WHEREAS, the Agency desires to fund part of the cost of the Project with grant funding from the WaterSMART DRP Program; and

WHEREAS, the Agency has the legal authority and is authorized to enter into a funding agreement with the Bureau of Reclamation.

NOW, THEREFORE, BE IT RESOLVED, the Santa Clarita Valley Water Agency Board of Directors hereby finds, determines, declares and resolves as follows:

1. The Board of Directors hereby supports a grant application to the WaterSMART DRP Program for the Project.

2. The Board of Directors hereby authorizes and directs the General Manager, or his or her designee, to complete, review, sign and submit for and on behalf of the Agency, a grant application from the Bureau of Reclamation's WaterSMART DRP Program for the Project up to the amount of $5,000.000.

3. The General Manager, or his or her designee, is designated to provide the assurances, certifications, and commitments required for the grant application, including executing a financial assistance or similar agreement with the Bureau of Reclamation within established deadlines and any amendments or changes thereto.

4. The General Manager, or his or her designee, is designated to represent the Agency in carrying out the Agency's responsibilities under the grant agreement, including certifying disbursement requests on behalf of the Agency and compliance with applicable state and federal laws.

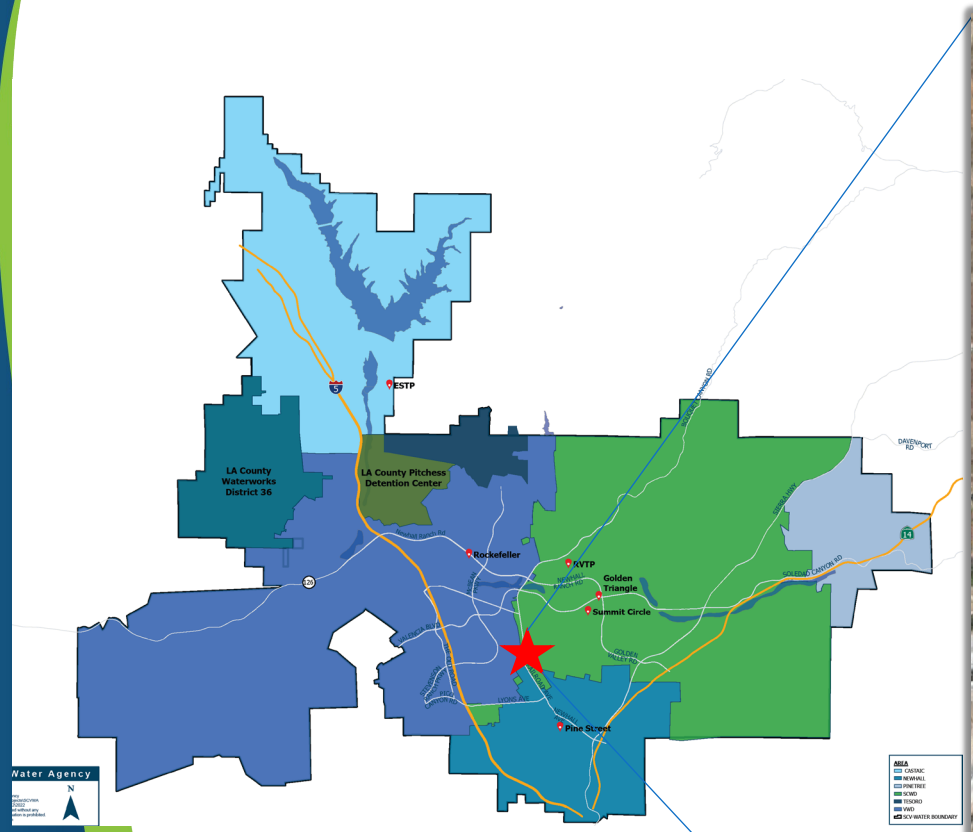
5. If a grant award is made by the Bureau of Reclamation, the Agency commits, pending Board of Director compliance with the CEQA and the National Environmental Policy Act (NEPA) and approval of the Project, to providing a minimum of 100% in matching funds ($5,000,000) for the Project, and up to the balance of funds needed to complete the construction of the Project.

November 21, 2023

Application Approval for the WaterSMART Drought Response Program Grant Funding

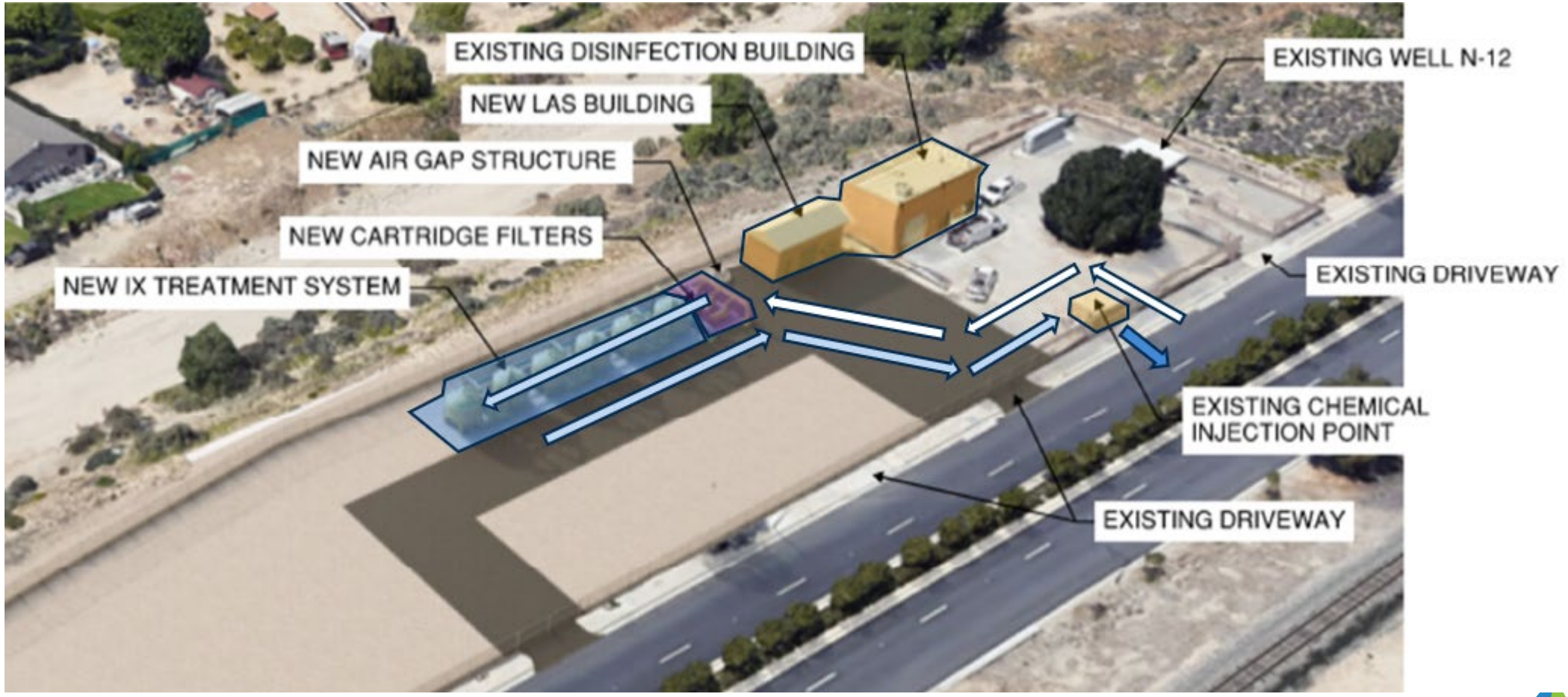
Board Meeting

N11, N12 and N13 Wells Vicinity Map



- Combined groundwater production of up to 5,400 gpm
- N11 inactive since 1997
- PFAS detected above the Reporting Limit for PFHxS in N12 and N13

Newhall Wells (N11, N12, N13)
Groundwater Treatment Improvements
Preliminary Site Improvements



WaterSMART Drought Response Program
Grant Funding Overview

- Funding opportunity provided under the US Department of Interior's Bureau of Reclamation WaterSMART Program.
- Funding available for Drought Response Projects that will increase reliability of water supplies and improve ability to deliver water during a drought.
- Eligible projects include treatment facilities to treat impaired groundwater.
- Competitive Grant Application process. Estimated that 15-21 projects will be awarded funding.
- Official Resolution adopted by the Board of Directors is required no more than 30 days after application deadline on November 7, 2023.

WaterSMART Drought Response Program
Grant Funding Overview

Available Grant Funding Options:

Group 1 – Up to $500,000 (2-year project completion)

Group 2 – Up to $2 million (3-year project completion)

Group 3 – Up to $5 million (3-year project completion)

- Grant Requires 50% SCVWA matching contribution
  - Engineering costs are including in the FY23/24 and 24/25 CIP Budgets
  - Construction costs will be included in the FY25/26 and 26/27 CIP Budgets

Estimated Newhall Wells (N11, N12, N13) Groundwater Treatment Improvements:

Engineering and Design Costs:	~$1.5 million
Construction Costs:	~16.5 million

Newhall Wells (N11, N12, N13) Groundwater Treatment Improvements Project Schedule

Grant and Project Schedule

Grant Application submitted:	November 7, 2023
Board Resolution Deadline:	December 7, 2023
Project CEQA/NEPA Completion:	January 2024
Anticipated Grant Award Date:	October 2024
Final Design Completion:	March 2025
Construction Completion:	September 2026
Project Completion Deadline:	November 7, 2027

Newhall Wells (N11, N12, N13) Groundwater Treatment Improvements Project Recommendation

The Engineering and Operations Committee recommends that the Board of Directors:

Approve adopting a resolution authorizing the General Manager to apply for funding under the Bureau of Reclamation WaterSMART Drought Response Program (DRP) and accept and execute a Grant Agreement for the Newhall Wells (N11, N12 and N13) Groundwater Treatment Improvements Project

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ITEM NO. 5.3

BOARD MEMORANDUM

DATE: November 5, 2023

TO: Board of Directors

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

SUBJECT Approve, Pursuant to a Previously Adopted Addendum to the Adopted 2005 Groundwater Containment, Treatment, and Restoration Project MND and MMRP, of a Purchase Order to Lee & Ro, Inc for Planning and Final Design Services for Wells 206 and 207 Groundwater Treatment Improvements Project

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SUMMARY

The Santa Clarita Valley Water Agency (Agency) is planning to construct a new groundwater treatment facility for Wells 206 and 207 Groundwater Treatment Improvements Project (Project). Staff issued a Request for Proposal (RFP) for planning services for the Project. The Project will identify and layout the necessary treatment improvements. In addition, final design services were included for an expanded chemical building and pipeline. Staff received two (2) planning services proposals and is recommending adopting a resolution authorizing a purchase order to Lee & Ro, Inc for an amount not-to-exceed $600,000 for planning and final design services for the Project.

DISCUSSION

The Agency is planning to construct a new groundwater treatment facility for the Project. The proposed Project will provide treatment to the well water.

On May 30, 2023, staff issued a RFP to four (4) of the Agency's on-call consultants for the planning services to identify and layout the necessary treatment improvements. On July 5, 2023, staff received proposals from two (2) consultants, Lee & Ro, Inc and Woodard & Curran. The proposals were reviewed and evaluated by staff from the Engineering Services Section and the Treatment Operations and Maintenance Department. The evaluation team reviewed the proposals based on the qualifications-based selection procedure applying the following criteria: responsiveness (conformance and compliance) to the RFP requirements, project understanding, project approach, responsibilities (resources/ capability/ qualifications/ availability) to perform the work, scope of work, and schedule. The evaluation team selected Lee & Ro, Inc as the firm to provide the planning and final design services for the Project.

The planning services scope of work will include but not limited to identifying and layout of necessary treatment improvements, identifying the location of the treatment facility, preparing estimated construction costs, and providing preliminary design of the recommended improvements. In addition, final design services will be provided for an expanded chemical building and pipeline that will treat the combined well water from Saugus Wells 3, 4, 206, and 207.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) CONSIDERATIONS

On April 5, 2022, the Agency, as the Lead Agency under California Environmental Quality Act (CEQA), adopted the Addendum to the 2005 Groundwater Containment, Treatment, and Restoration Project Mitigated Negative Declaration (MND), which included evaluation of the planning and design services, and affirmed, with findings, the adoption of the Mitigation Monitoring and Reporting Program (MMRP), with the adoption of the attached Resolution No. SCV-268 (Attachment 1).

STRATEGIC PLAN NEXUS

The award of this planning and final design services contract will help meet Agency's Strategic Plan Objective D.1: "Achieve 100% compliance with all environmental regulations and standards" and D.2 "Proactively install, operate, and maintain groundwater treatment infrastructure to avoid impacts on water supply reliability (e.g. VOCs, perchlorate, PFAS, etc.)."

On November 2, 2023, the Engineering and Operations Committee met to consider staff's recommendation to approve, pursuant to a previously adopted addendum to the adopted 2005 Groundwater Containment, Treatment, and Restoration Project MND and MMRP, of a purchase order to Lee & Ro, Inc for planning and final design services for Wells 206 and 207 Groundwater Treatment Improvements Project.

FINANCIAL CONSIDERATIONS

The Project was included in the Agency's FY 2023/2024 Budget. The planning and final design services would be performed on a time and expense basis with a not-to-exceed budget of $600,000.

RECOMMENDATION

The Engineering and Operations Committee recommends that the Board of Directors approve, pursuant to the previously adopted addendum to the adopted 2005 Groundwater Containment, Treatment, and Restoration Project MND and MMRP, the attached resolution (Attachment 2) authorizing a purchase order to Lee & Ro, Inc for an amount not-to-exceed $600,000 for planning and final design services for Wells 206 and 207 Groundwater Treatment Improvements Project.

Attachments

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.

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

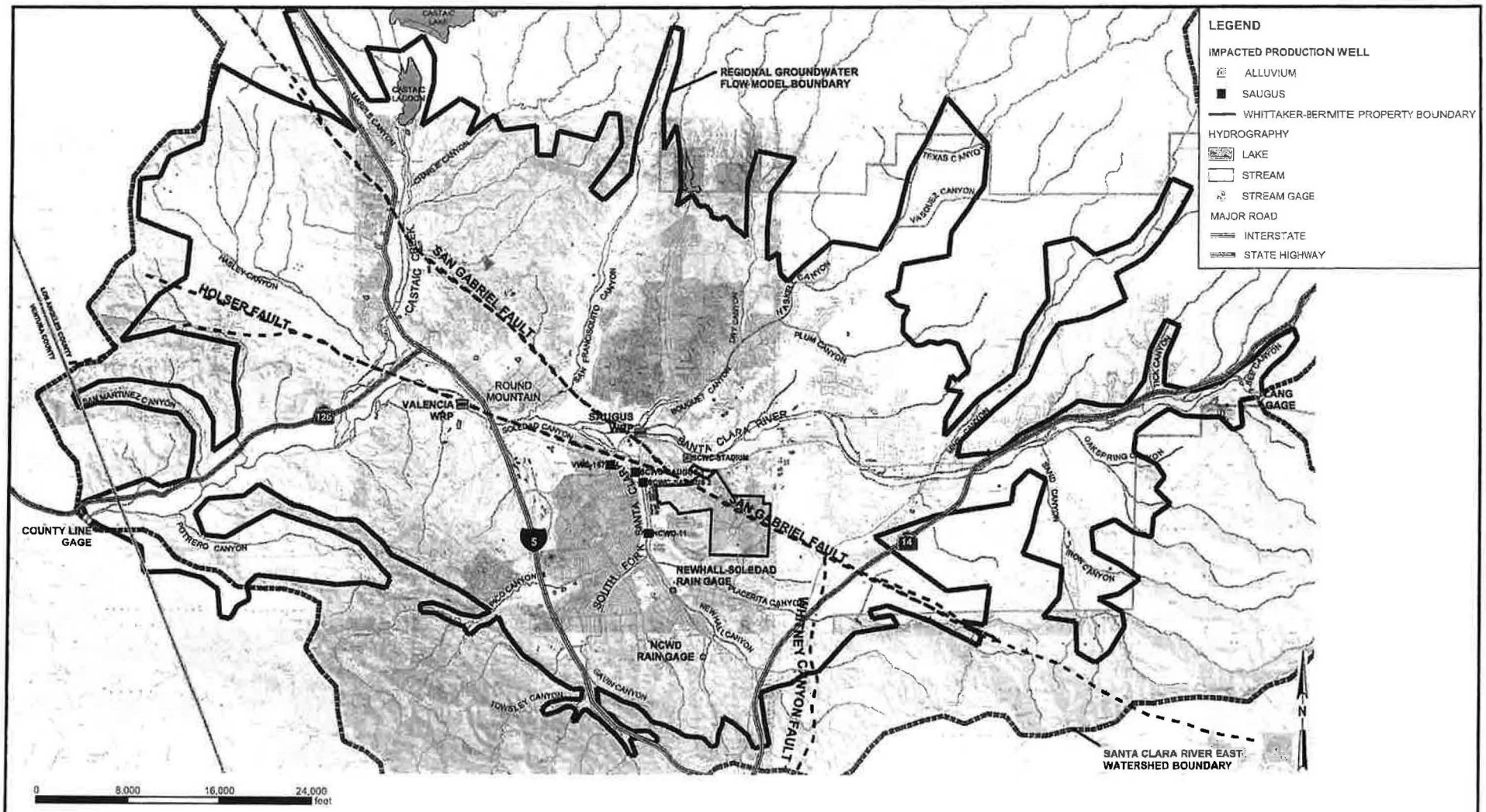

Figure 1
MAP OF STUDY AREA
ANALYSIS OF PERCHLORATE CONTAINMENT IN GROUNDWATER NEAR THE WHITTAKER-BERMITE PROPERTY
SANTA CLARITA, CALIFORNIA

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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).

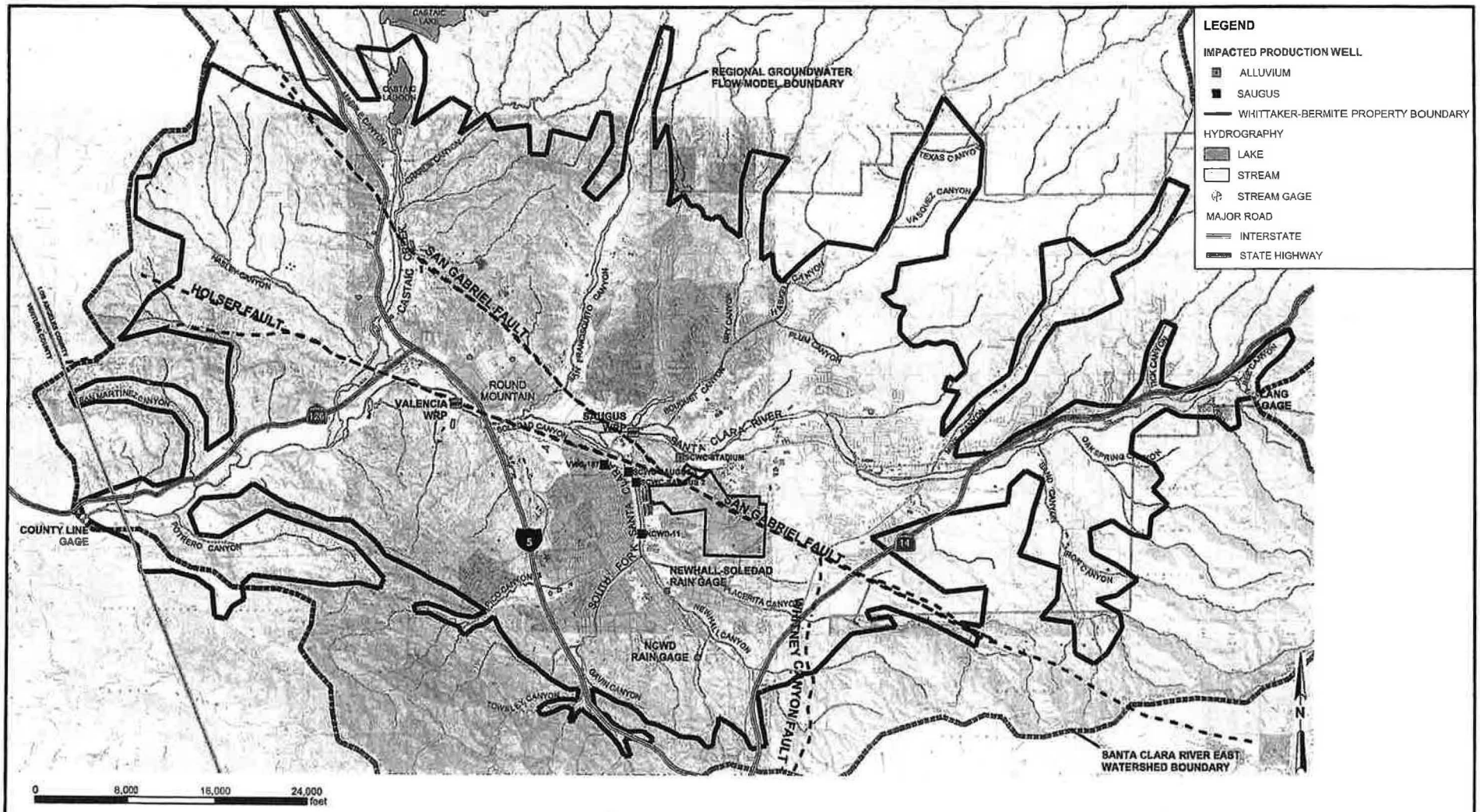

Figure 1
MAP OF STUDY AREA
ANALYSIS OF PERCHLORATE CONTAINMENT IN GROUNDWATER NEAR THE WHITTAKER-BERMITE PROPERTY
SANTA CLARITA, CALIFORNIA

CH2MHILL

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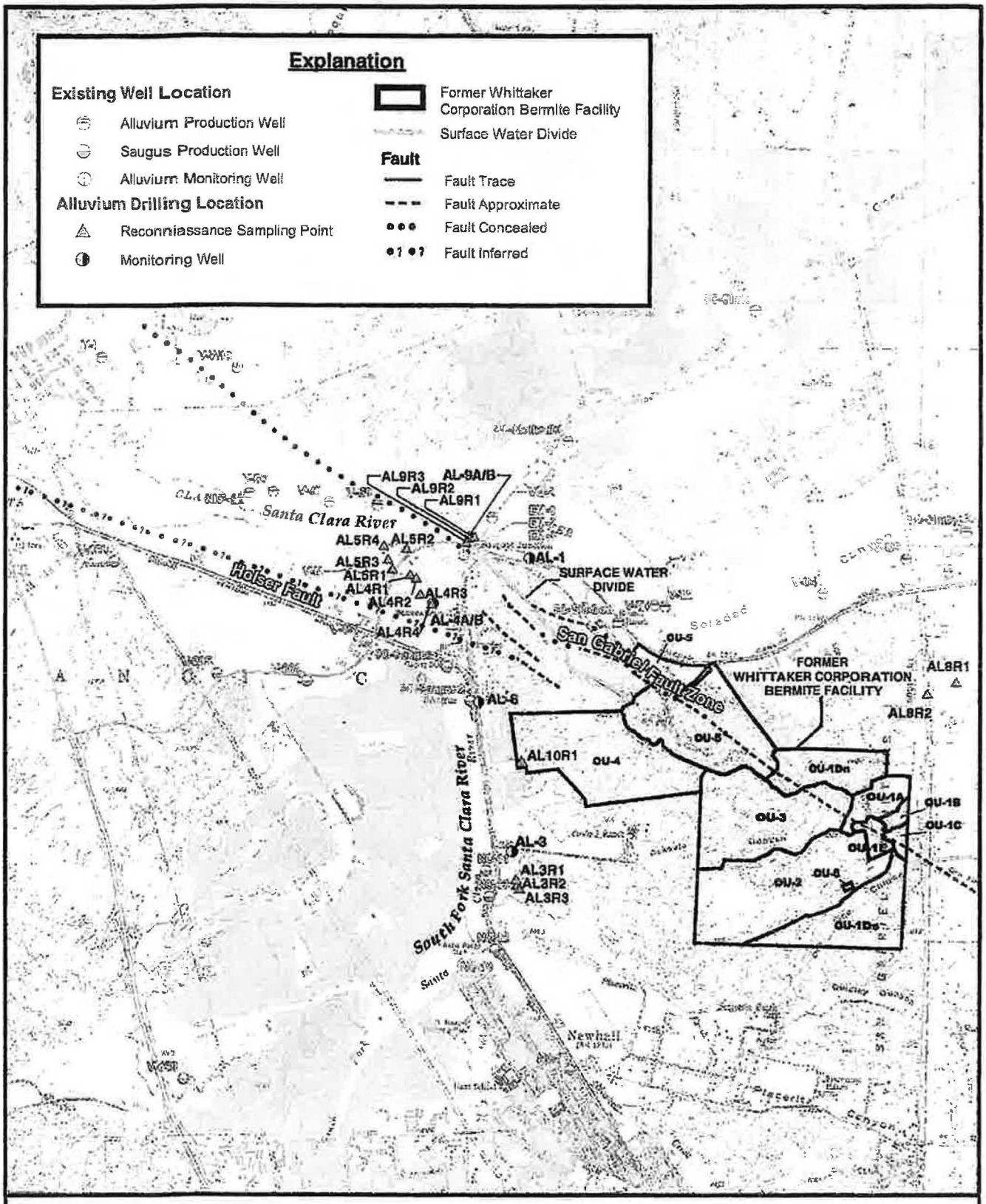
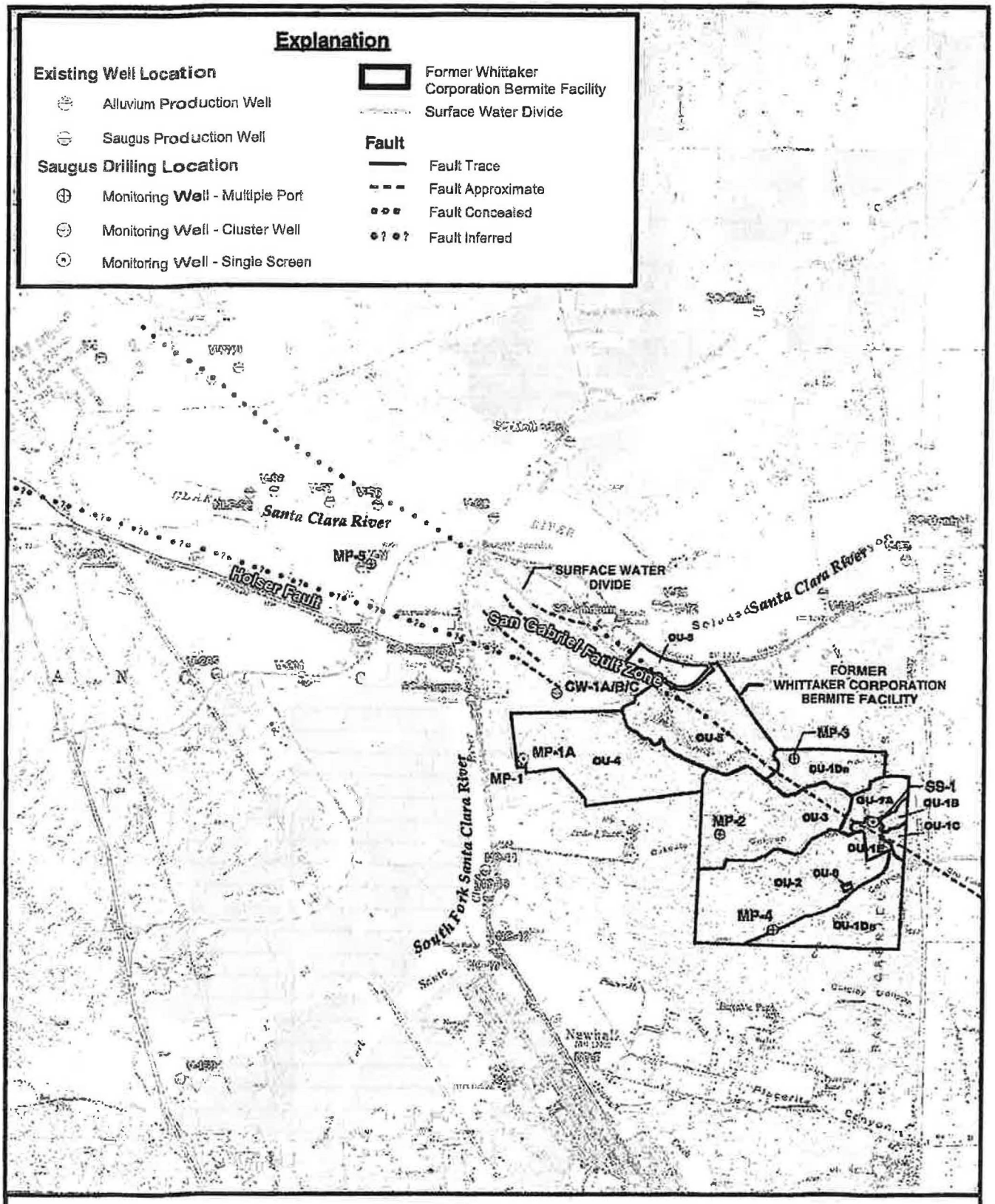


CH2MHILL

0 3,500 7,000 Feet

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



CH2MHILL

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

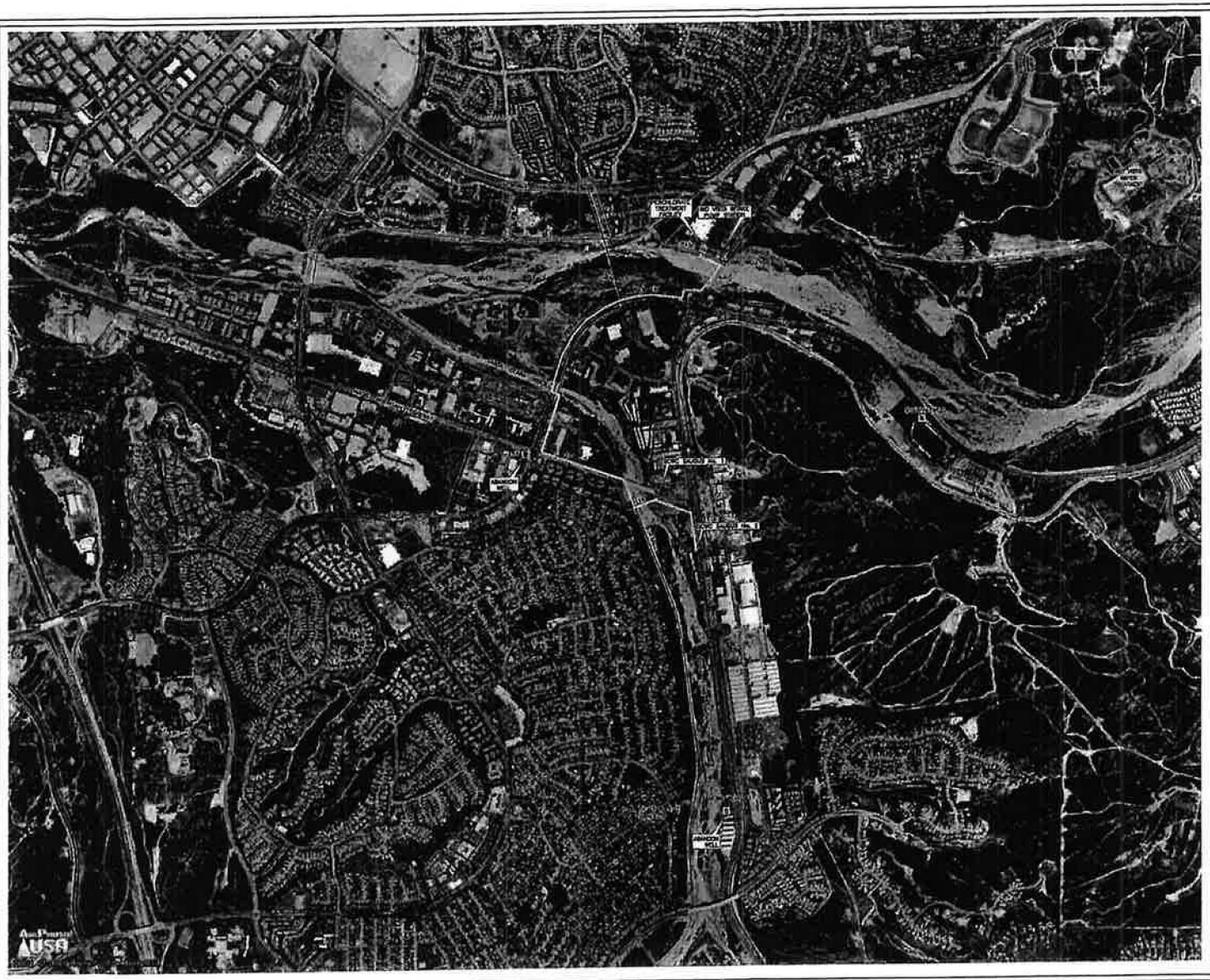
The Proposed Project for containment/treatment is based on analysis of temporal and spatial variations in groundwater flow patterns using the Regional Groundwater Flow Model for Santa Clarita Valley (Kennedy/Jenks 2005a). Model development and calibration are described in CH2M HILL (2004). Based on the 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.

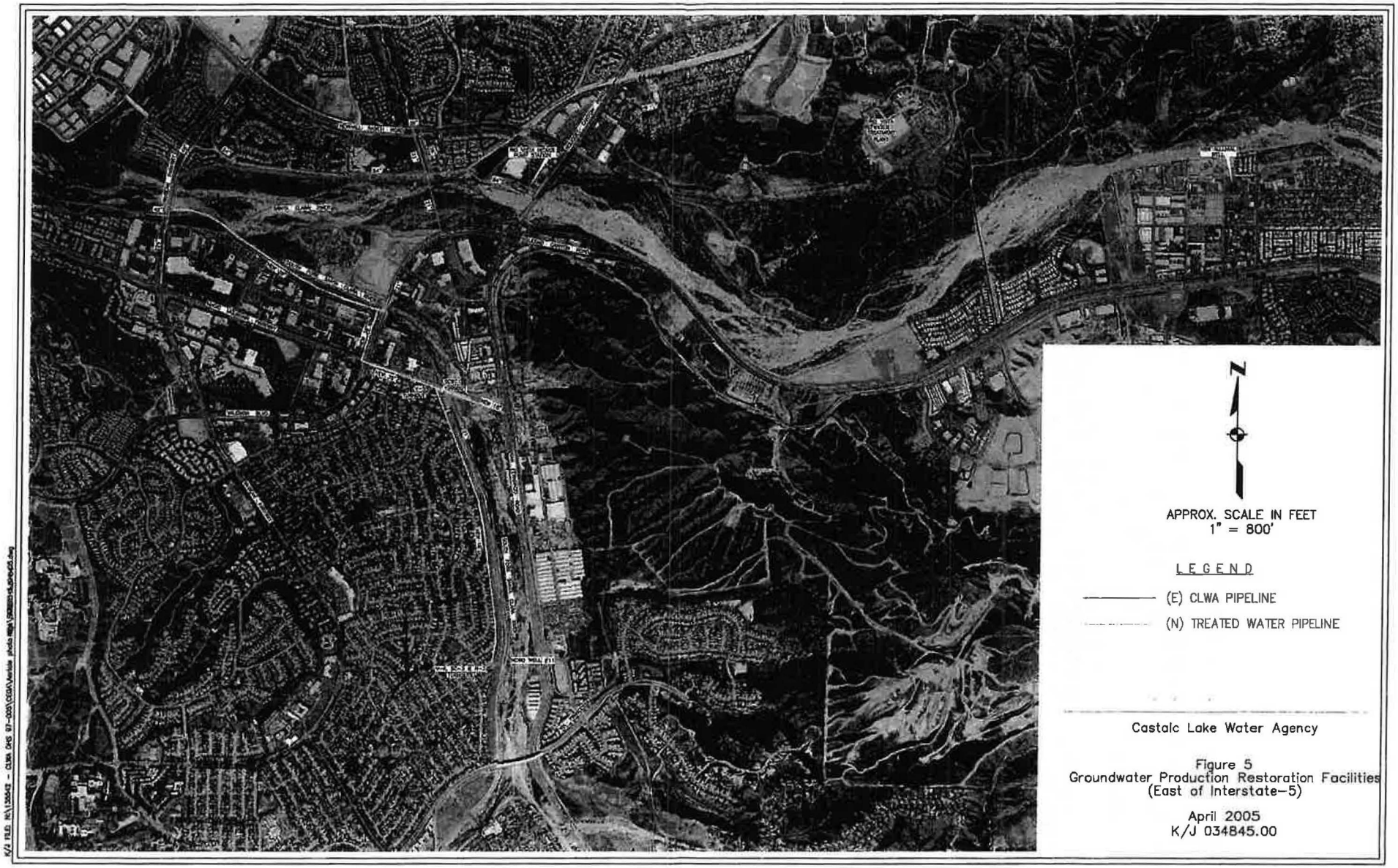
The wells, 12" connecting pipeline, chloramination facility, and 12" to 18" pipeline would be constructed within the road alignments of future planned roads. CLWA facilities would be constructed following the initial grading for these roads and the adjacent development. In combination with yield from 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	Fumivall 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.


N
APPROX. SCALE IN FEET
1" = 800'
LEGEND
(E) CLWA PIPELINE
(N) TREATED WATER PIPELINE
Castaic Lake Water Agency
Figure 5
Groundwater Production Restoration Facilities
(East of Interstate-5)
April 2005
K/J 034845.00

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;