Letter No. G1

September 21, 2011

P.O. Box 2692
Globe, Az. 85502
(928)812-0967

Mr. Mitch Glaser
Los Angeles County Dept. of Regional Planning
320 W. Temple St.
Los Angeles, CA 90012

Re: Sept. 28 Hearing, SCV Area Plan, Project #R2007-01226-(5)
Ranch in Oak Canyon owned by Lechler Ranch LLC and
Maureen Davidheiser Trust

We have been given only a short time to review the very long final environmental impact report. My computer isn't working, so I have not been able to read the CD ROM. The FEIR should take into account the effect of the wildfire that burned our entire ranch several years ago; it has drastically changed the environment, and I don't think the ranch is suitable for an SEA district.

One of the reasons given for the SEA proposal is protection of red-footed frogs, if there really are any in Oak Canyon. According to a newspaper article, the Fish & Wildlife Service issued rules setting aside 1.6 million acres for these frogs. I thought that was what national forests were for. Our ranch is close to the Los Padres National Forest, where frogs can hop around in a vast pristine wilderness owned by the public without further limiting the rights of property owners. 1

Our ranch is zoned Agricultural, but it appears that the SEA board can overrule uses permitted by zoning. Permitted uses seem to be left up to arbitrary decisions by the SEA board. We would have no assurance that this board was fair-minded; it might well consist of environmental extremists who oppose almost any agricultural uses. I believe SEA provisions regarding conservation easements are illegal.

Existing regulations ensure adequate open space on our property without adding to the expanding bureaucracy and over-regulation that is causing a political backlash in this country and testing the patience even of Democrats like me.

Maureen Davidheiser
Maureen Davidheiser
Trustee, Maureen Davidheiser Trust
Member, Lechler Ranch LLC

SEP 26 2011

Letter No. G1 Maureen Davidheiser, September 21, 2011

Response 1

The commenter expresses her opposition to the proposed Santa Felicia Significant Ecological Area (SEA) designation and reiterates comments made in **Letter No. D63** and **Letter No. D86**.

Please see responses to **Letter No. D63** and **Letter No. D86**.

Letter No. G2

3435 Wilshire Boulevard
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Los Angeles, CA 90010-1904

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9-22-11

Mitch Glaser, Planner
Los Angeles County Dept of Regional Planning
300 W. Temple St.
Los Angeles, CA 90012

Re: One Valley One Vision General Plan Update and EIR,
Wednesday September 28th[h] Agenda Item

Please Copy to All Commissioners

Dear Mr. Glaser:

As the County is undoubtedly aware, several new developments have come to light in the last few months that will affect water supply and water quality for the proposed One Valley One Vision General Plan update. The Sierra Club therefore submits these additional comments and asks that the issues herein be addressed. 1

This Plan proposes to allow development and a population projection of nearly double the currently residents in the Santa Clarita Valley. It is therefore imperative that the County ensures that both existing and future residents have a clean and safe drinking water supply and that the water quality of the Santa Clara River is protected.

Chlorides

A news article in the Newhall Signal dated June 8th 2011, stated that the Los Angeles Regional Water Quality Control Board has issued Notices of Violation for the Saugus and Valencia Treatment plants for failure to address the Chloride TMDL. The OVOV Plan should disclose these Notices and discuss how the County plans to comply with the Clean Water Act while doubling the current population and increasing effluent flow to the Santa Clara River. 2

Statements by Castaic Lake Water Agency and the Sanitation Districts that water from the Kern area serves to reduce the chloride concentration in State Water Project (SWP) water are not accurate for the following reasons:

1. No study exists to verify this hypothesis.
2. CLWA water wheeled from banking projects in the Kern area through the aqueduct is only a small percentage of the total state water delivered through the east and west branch of the aqueduct. Thus, this water could not possibly reduce chloride levels in SWP water in any appreciable amount.

Spread of Ammonium Perchlorate Pollution to Well V201 3

Health Concerns
Ammonium perchlorate interferes with iodine uptake by the thyroid gland, thus producing hypothyroidism. This condition especially affects sensitive populations including fetuses, infants, small children and those with impaired immune systems. It can cause retardation in infants and children.

Ammonium perchlorate has now also been identified in as many as 285 different foodstuffs[1] from crops and cows that have absorbed it through a contaminated water supply. Thus, according to the Environmental Working Group, "every day, the average two-year-old will be exposed to more than half of the EPA's safe dose of perchlorate from food alone," [2] a dose that is much higher than that allowed in California drinking water. 3

A study providing the basis for setting the ammonium perchlorate MCL at 2ppb in Massachusetts concluded that: "Current data indicate that perchlorate exposures attributable to drinking water in individuals at sensitive life stages should be minimized....Widespread exposure to perchlorate and other thyroid toxicants in drinking water and foods suggest that more comprehensive policies to reduce over all exposures and enhance iodine nutrition are needed."[3]

While State officials recently urged an even lower Maximum Contaminant Level (MCL) for ammonium perchlorate and the Environmental Working Group urges a 0 tolerance level for children, the public in this Valley was not even alerted to the closure of yet another drinking water well due to perchlorate pollution.

New Information
On June 9th, 2011, the Newhall Signal ran a news story regarding the spread of the pollution plume to Valencia Saugus water well 201. (Press release attached).

Interestingly, the press release noted that this well has been closed since August 2010. However, the OVOV Plan did not disclose or discuss this information. Failure to disclose such important information in the DEIR and to the public constitutes a serious deficiency in the CEQA document and in the planning process. Since this well has been closed for almost a year, during which time many hearings on the OVOV plan were held, there seems to have been a deliberate effort to miss-inform the public and the decision-makers. We strongly protest the Water Agencies' lack of transparency on this matter. 4

As the County undoubtedly knows, this is an extremely serious situation since it means that the pollution plume has moved beyond the "pump and treat" capture wells and is moving at a much faster rate of travel than previously estimated would occur. In 2004, the Sierra Club expressed concern over the possibility of such a scenario, but the water agencies and others disregarded those concerns.

---

[1] Murray, C.W., Egan, S.K., Kim, H., Beru, N., and Bolger, P.M. (2008). US Food and Drug Administration's Total Diet Study: Dietary Intake of Perchlorate and Iodine. JESEE 18:571-580.
[2] "Perchlorate in Food and Beverages", Environmental Working Group, 2008 http://www.ewg.org/reports/FDA-Finds-Rocket-Fuel-%28Perchlorate%29-in-Food-and-Beverages
[3] "Basis for Massachusetts Reference dose and Drinking Water Standard for Perchlorate", Zewdie, Smith, Hutchinson, West", Massachusetts Department of Environmental Protection

If pumping from this well continues, such pumping would likely draw the pollution plume further in a westerly direction, thus spreading the contamination into an even greater portion of the Saugus aquifer and possibly making that ground water source unusable.

This now likely possibility has major implications for water supply in the Santa Clarita Valley. As noted in the 2011 Urban Water Management approved in June and on file with the County (hereby incorporated by reference), the Saugus Aquifer is a major source of water supply and the only local bank in the event of a severe drought. The Sierra Club therefore believes it is imperative that the County delay approval of the OVOV Plan in its current form. We believe the Plan must now be re-written to address the areas of concern stated in our previous letter, but also the following:

1. Water supply from well 201 should be permanently removed as available in the Plan until new modeling indicates continued pumping would not spread the plume. Pump and Treat scenarios are not acceptable if they will merely spread the plume and pollute more wells. 4
2. Well Q2 should be re-tested on a monthly basis to make sure that pollution is not occurring there again.
3. All wells in the plume area should be tested for TCE and PCE.
4. All results for contamination by ammonium perchlorate, TCE, and PCE should be disclosed in the EIR so that decision makers can be aware of the full extent of the problem.
5. The Plan should be re-evaluated for the adequacy of the water supply.
6. The Plan should require automatic re-evaluation if/when further well closures occur.

In 2004 the Appellate Court[4] found for the Sierra Club and the Friends of the Santa Clara River and set aside CLWA's 2000 Urban Water Management Plan for failure to provide a timeline indicating when treatment facilities for water polluted by ammonium perchlorate would be available. In light of this precedent setting legal decision involving the Agencies' failure to adequately disclose the ammonium perchlorate pollution problem, we encourage the Agencies to act in good faith, withdraw the current plan and address these serious issues.

Conclusion
The Sierra Club asks that the County delay the approval of the OVOV Plan and the certification of the EIR until this new information is evaluated and addressed.

Sincerely,

Katherine Squires
Conservation Chair, Santa Clarita Group
Sierra Club

Attachments:
1. RWQCB Notices of Violation for SCV treatment plants dated 5-27-11
2. Press release regarding closure of well 201

[4] *Friends of the Santa Clara River v. Castaic Lake Water Agency* (2004) 123 Cal.App.4th

FOR IMMEDIATE RELEASE
June 9, 2011

PERCHLORATE DETECTED DURING ROUTINE TESTING

Well Removed from Service Pending Treatment Covered By Whittaker Bermite Settlement Agreement

Valencia Water Company has notified the Whittaker Bermite property owners that it will seek remediation funds to clean up a closed well near Santa Clarita City Hall following routine water quality testing that detected low levels of perchlorate. The remediation funds are being sought under a 2007 settlement agreement among Castaic Lake Water Agency (CLWA), Newhall County Water District, Santa Clarita Water Division and Valencia Water Company and Whittaker Corporation and others to address clean-up of impacted wells from the former munitions site.

In August 2010, Valencia Water Company detected perchlorate in Well 201 near City Hall. Although the perchlorate levels were within safe drinking water standards, the company immediately took the well out of service and notified the State Department of Public Health. Valencia Water Company continued to monitor the inactive well on a monthly basis. The most recent sample confirmed that perchlorate is still present and that wellhead treatment is needed as outlined by the settlement agreement with Whittaker Bermite.

"Our diligence in conducting extensive testing enabled us to quickly shut down the well and continue to provide safe water to our customers," said Keith Abercrombie, General Manager for Valencia Water Company. "The removal of this well from service will not have any near-term or long-term impacts on the quality or cost of water to our customers. To the extent it is even necessary, we will shift production to other wells elsewhere in the groundwater basin."

CLWA General Manager Dan Masnada said, "The closing of this well will not impact the Santa Clarita Valley Family of Water Suppliers' ability to adequately provide water to our customers and will not have a negative impact on the Valley's water supply. CLWA and the water retailers continue to ensure that all drinking water quality standards are met and long-term solutions are put in place to address the presence of perchlorate in small portions of the Valley's groundwater aquifers.

"In addition, a pending update of the 2010 Santa Clarita Valley Urban Water Management Plan will examine the presence of perchlorate in Well 201," Masnada said.

Valencia Water Company works cooperatively with and as a member of the Santa Clarita Valley Family of Water Suppliers to provide customers a mix of groundwater pumped from area wells and imported state water. In April 2007, the local water suppliers and the Whittaker Bermite

-more-

property owners negotiated a settlement, which establishes funding to address the clean-up of perchlorate from the former munitions site.

Last year, a $13 million treatment facility near Bouquet Canyon Road and the Santa Clara River came on line to treat perchlorate in groundwater emanating from the Whittaker Bermite property. That treatment facility is part of a larger program that includes the restoration of two perchlorate-impacted wells to extract contaminated groundwater and control the migration of perchlorate in the Saugus Formation aquifer. The cost of that "pump and treat" system is also covered under the settlement agreement that protects the public from paying for the remediation costs.

As part of the settlement, several wells were identified as potentially threatened by perchlorate, including Well 201. Thus, while the now-operational pump and treatment program is intended to control migration of perchlorate, the possibility of further contamination in the direction of groundwater flow was recognized before its installation, and provisions were incorporated in the program to treat any additional wells impacted by perchlorate. Initial operation of the pump and treatment remediation is functioning as planned, and is still applicable for both of its objectives – to control contaminant migration near the source and to extract perchlorate from the aquifer system. In short, the detection of perchlorate at Well 201 does not reflect any change in the anticipated long-term effectiveness of the containment and treatment remedy.

Prior impacted wells included Q2, a Valencia Water Company well that underwent successful wellhead treatment in 2005 utilizing the same treatment technology contemplated for Well 201, and today has no perchlorate detection. Since 1997, seven wells in the Santa Clarita Valley, including this most recent one, have been impacted by perchlorate. Three of those wells have been successfully treated and returned to service, two have been replaced, one is planned to be replaced and this most recent well will have treatment installed.

Perchlorate is a regulated drinking water contaminant in California with a maximum contaminant level (mcl) of 6 parts per billion (ppb). The Valencia Water Company test in August 2010 was 5 ppb. During the last several months, readings have varied from 5 to 12 ppb in the most recent test.

Perchlorate is both a naturally occurring and man-made ion used to form a variety of salts. Perchlorate is primarily used today as an oxidizer in solid rocket fuel and other propellants and to a lesser extent, in fireworks, explosives and air-bag inflators. It is highly soluble in water and has been detected in ground and surface water in 26 states. It has also been detected in water supplies in close proximity to sites where solid rocket fuel was manufactured or used, such as the Whittaker Bermite site.

Valencia Water Company is a water provider to 113,000 residential, commercial, industrial and business customers in Valencia, Stevenson Ranch and portions of Saugus and Castaic.

Contact: Keith Abercrombie, General Manager, Valencia Water, (661) 295-6501
Dan Masnada, General Manager, CLWA, (661) 297-1600 Ext. 239

California Regional Water Quality Control Board
Los Angeles Region

320 West Fourth Street, Suite 200, Los Angeles, California 90013
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http://www.waterboards.ca.gov/losangeles

Linda S. Adams
Acting Secretary for Environmental Protection

Edmund G. Brown Jr.
Governor

May 27, 2011

Mr. Stephen R. Maguin
Chief Engineer and General Manager
County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, California 90607-4998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 7010 3090 0002 1022 3817

Dear Mr. Maguin:

***NOTICE OF VIOLATION* - SANTA CLARITA VALLEY SANITATION DISTRICT OF LOS ANGELES COUNTY, VALENCIA WATER RECLAMATION PLANT (ORDER NO. R4-2009-0074 NPDES NO. CA0054216, CI 4993)**

Santa Clarita Valley Sanitation District of Los Angeles County (hereinafter Discharger or SCVSD, formerly referred to as Los Angeles County Sanitation District), discharges wastewater pursuant to Order No. R4-2009-0074 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0054216 (Order), which was adopted by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board).

The Order authorizes the Discharger to discharge up to 21.6 MGD of tertiary-treated wastewater from the Valencia Water Reclamation Plant (hereinafter Facility). The Order sets forth waste discharge requirements, including effluent limits, and a monitoring and reporting program (MRP CI-4993) that apply to the discharges of pollutants from the Facility. This wastewater contains chlorides and other pollutants that can degrade water quality and impact beneficial uses of water, and that are defined as wastes under the Porter-Cologne Water Quality Control Act (Cal.Wat. Code § 13000 et seq.). The treated wastewater is discharged to the Santa Clara River, a navigable water of the United States.

MRP CI-4993 requires that the Discharger submit self-monitoring reports, discharge monitoring reports, and an annual summary report to this Regional Board in compliance with all Standard Provisions related to monitoring, reporting, and recordkeeping.

Provision VI.C.8, on page 41 of the Order reads: "The discharger shall comply with the applicable TMDL-related tasks[1], and future revisions thereto, in Attachment K of this Order."

[1] The Upper Santa Clara River Chloride TMDL was approved by the Regional Board, the State Water Resources Control Board, the State Office of Administrative Law (OAL), and the U.S. EPA, and became effective on April 6, 2010. The USCR Chloride TMDL Implementation Plan, including Task 17(a), was accommodated into Order No. R4-2009-0074 and NPDES Permit No. CA0054216 on June 4, 2009 and became effective on July 24, 2009.

Attachment K lists the TMDL tasks. Page K-3 lists Task 17(a).

You are hereby notified that the Discharger is out of compliance with requirements established in the Order and has violated California Water Code section 13383 for failure to complete Task 17(a) in Attachment K as follows:

- Failure to complete a Programmatic Environmental Impact Report (EIR) for facilities to comply with final permit effluent limits for chloride. The Discharger submitted a copy of a Notice of Exemption from the requirement to prepare an EIR or Negative Declaration to the Regional Board on May 2, 2011. The Notice of Exemption does not meet the requirements of Task 17(a) in Attachment K because it does not constitute a programmatic EIR and it addresses actions to meet the conditional wasteload allocations (WLAs) not actions to meet the final effluent limits for chloride.

- Failure to submit an adequate Wastewater Facilities Plan for facilities to comply with final permit effluent limits for chloride. The Santa Clarita Valley Chloride TMDL Facilities Plan (Facilities Plan) submitted by the SCVSD on May 2, 2011 is inadequate because it is not a plan for actions to meet the final effluent limits for chloride of 100 mg/L. If the Facilities Plan was intended to comply with the conditional WLAs in the TMDL, it is inadequate because it does not provide the facilities necessary to allow application of conditional WLAs.

You are required to comply immediately with the following tasks:

1. Ensure that Task 17(a) in Attachment K is completed and the Wastewater Facilities Plan and Programmatic Environmental Impact Report for facilities to comply with final permit effluent limits for chloride are submitted to the Regional Board.

2. Ensure full implementation of all requirements contained in MRP CI-4993.

3. Submit a written response (1) confirming you have corrected these violations with a brief description of how you have corrected them, or (2) identifying when you will have completed correcting these violations and a brief description of how you will correct them. Submit your written response by June 27, 2011 to:

   Jenny Newman
   Chief, TMDL Unit 3
   California Regional Water Quality Control Board
   Los Angles Region
   320 W. 4th Street, Suite 200
   Los Angeles, CA 90013- 2343

Pursuant to CWC § 13385, you are subject to administrative civil liability of up to $10,000 for each day in which the violation occurs plus $10 multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons. These civil liabilities may be assessed by the Regional Board for failure to comply, beginning with the date that the violations first occurred, and without further warning.

The matter may be referred to the Attorney General for further enforcement. In such case, the Attorney General may seek up to $25,000 per day and $25 per gallon. The Regional Board reserves its right to take any further enforcement action authorized by law.

In SCVSD's semi-annual status reports submitted on November 4, 2010, and May 2, 2011, SCVSD requested to use the reconsideration clause under Task 16 of the Upper Santa Clara River Chloride TMDL implementation plan to revise the TMDL to incorporate the Alternative Compliance Plan (ACP). The intent of the reconsideration clause under Task 16 is to consider extending the implementation schedule to implement control measures necessary to meet final conditional WLAs, not to revise the conditional WLAs to accommodate the ACP, as requested by SCVSD. Therefore, Regional Board staff is hereby declining to recommend to the Board a reconsideration under Task 16.

If you have any questions regarding this matter, please contact Jenny Newman at (213) 576-6691 or at jnewman@waterboards.ca.gov.

Sincerely,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

cc: Julie Macedo, Office of Enforcement, State Water Resources Control Board
Frances McChesney, Office of Chief Counsel, State Water Resources Control Board

California Environmental Protection Agency

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Los Angeles Region

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Linda S. Adams
Acting Secretary for Environmental Protection

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Governor

May 27, 2011

Mr. Stephen R. Maguin
Chief Engineer and General Manager
County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, California 90607-4998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 7010 3090 0002 1022 3824

Dear Mr. Maguin:

***NOTICE OF VIOLATION* - SANTA CLARITA VALLEY SANITATION DISTRICT OF LOS ANGELES COUNTY, SAUGUS WATER RECLAMATION PLANT (ORDER NO. R4-2009-0075 NPDES NO. CA0054313, CI 2960)**

Santa Clarita Valley Sanitation District of Los Angeles County (hereinafter Discharger or SCVSD, formerly referred to as Los Angeles County Sanitation District), discharges wastewater pursuant to Order No. R4-2009-0075 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0054313 (Order), which was adopted by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board).

The Order authorizes the Discharger to discharge up to 6.5 MGD of tertiary-treated wastewater from the Saugus Water Reclamation Plant (hereinafter Facility). The Order sets forth waste discharge requirements, including effluent limits, and a monitoring and reporting program (MRP CI-2960) that apply to the discharges of pollutants from the Facility. This wastewater contains chlorides and other pollutants that can degrade water quality and impact beneficial uses of water, and that are defined as wastes under the Porter-Cologne Water Quality Control Act (Cal.Wat. Code § 13000 et seq.). The treated wastewater is discharged to the Santa Clara River, a navigable water of the United States.

MRP CI-2960 requires that the Discharger submit self-monitoring reports, discharge monitoring reports, and an annual summary report to this Regional Board in compliance with all Standard Provisions related to monitoring, reporting, and recordkeeping.

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2. Ensure full implementation of all requirements contained in MRP CI-2960.

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If you have any questions regarding this matter, please contact Jenny Newman at (213) 576-6691 or at jnewman@waterboards.ca.gov.

Sincerely,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

cc: Julie Macedo, Office of Enforcement, State Water Resources Control Board
Frances McChesney, Office of Chief Counsel, State Water Resources Control Board

California Environmental Protection Agency

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Letter No. G2 Sierra Club, September 22, 2011

Introduction

This response addresses the letter from the Sierra Club, dated September 22, 2011. Please note that this letter included a number of attachments, all of which are presented with this response.

Response 1

General Comment

This comment is introductory in nature and does not require a response. Responses to substantive issues raised in this letter are provided below.

Response 2

Response to Chloride Comments

Comments point out that on May 27, 2011, the Los Angeles RWQCB issued administrative notices of violation to SCVSD regarding the Valencia and Saugus WRPs. On June 27, 2011, the SCVSD responded to the RWQCB and recommended to its Board of Directors that staff prepare a Wastewater Facilities Plan and EIR for facilities to comply with a final effluent chloride limit of 100 mg/L at the point of discharge and begin design of the facilities. On July 26, 2011, the SCVSD Board of Directors *approved* the staff recommendation. The SCVSD estimates that it will complete the Wastewater Facilities Plan and EIR by December 31, 2012.

As part of the Wastewater Facilities Plan and EIR, SCVSD intends to address an alternative compliance approach that responds to changed chloride conditions as of 2011, which would fully protect all designated beneficial uses in the Santa Clara River watershed. The SCVSD believes that changed conditions will show that it is more environmentally and economically sound to implement an alternative compliance approach, rather than an advanced treatment approach, in meeting a 100 mg/L final effluent limit. As part of this effort, the SCVSD also intends to perform the modeling and scientific and technical studies necessary to demonstrate the adequacy of its alternative compliance approach and to request reopening of the chloride TMDL at a later time based on the modeling in those studies.

The comment also disputes the position of the Castaic Lake Water Agency (CLWA) and the Sanitation Districts that water from the Kern area serves to reduce the chloride concentration in State Water Project (SWP) water. Chloride levels in the Upper Santa Clara River have improved significantly since 2009, in part as a result of court-imposed pumping restriction on State Water Project (SWP) operations, coupled with implementation of groundwater banking and pump back operations along the SWP aqueduct. Peak SWP chloride concentrations at Castaic Lake during drought conditions have been reduced from historical values exceeding 100 mg/L to a current range of 80 – 85 mg/L.

SCVSD has achieved a significant reduction of effluent chloride levels through the water softener renewal program. As a result of this program and the improved SWP water quality, effluent chloride levels have dropped approximately 70 mg/L since 2003. Further actions by the SCVSD, including a water softener ban enforcement program that has been initiated and the commitment to upgrade the Valencia and Saugus WRPs to ultraviolet disinfection, will further lower effluent chloride levels by 10 mg/L to 15 mg/L.

Further responses to these topics can be found in **Topical Response 4: Chloride**, which is included in this document.

Response 3

Response to Comments Regarding Health Concerns Related to Perchlorate

In the letter, the Sierra Club provides information regard the health effects from perchlorate. The comment also indicates that the public in the Santa Clarita Valley was not alerted to the closure of a drinking water well due to perchlorate pollution.

The Revised Final EIR contains a thorough update of the detection of perchlorate in the local groundwater basin, including the recent detection of perchlorate in Valencia Water Company's Well 201 (see **Topical Response 1: Perchlorate Update**). The topical response summarizes the current status of the perchlorate cleanup in the groundwater basin.

Response 4

Response to Comments Regarding "New Information" Associated with Perchlorate Discovered in Well 201

This comment claims that the recent discovery of perchlorate in Well 201 is not disclosed or addressed in the Revised EIR. This is incorrect as this topic is specifically described in the Revised Final EIR **Topical Response 1: Perchlorate Update**. In summary, a total of seven municipal drinking water wells, each located relatively near the site of the former Whittaker-Bermite munitions facility, have been taken out of service for varying periods of time since perchlorate was first detected in the groundwater in 1997. The seven closed wells include six originally impacted wells and the recent closure of Valencia Water Company Well 201.

Five of the six originally impacted wells have been either returned to service with perchlorate treatment facilities or replaced by new wells drawing from the non-impacted portion of the groundwater basin. The five wells collectively restore much of the temporarily lost well capacity. An additional two wells will be drilled to restore the operational flexibility that existed prior to the detection of perchlorate.

Specific to Well 201, Valencia Water Company plans to actively seek remediation and restore the impacted well capacity in the near term. With that said, however, Well 201 remains out of service since August 2010. Valencia Water Company's plan is to either replace the closed well with a new replacement well in a non-perchlorate impacted portion of the groundwater basin, or install wellhead treatment at the well site in order to treat the water to non-detect levels, which has been successfully accomplished by Valencia Water Company at another well site (Well Q2). Nonetheless, it is important to emphasize that Well 201 was taken out of service in August 2010, and has not been returned to municipal supply service since that time. Before either remediation option takes place, Valencia Water Company has committed to working with CLWA and the regulatory agencies (*e.g.*, Department of Public Health, or DPH) before implementation of either remediation option. This includes an ongoing effort by the Valencia Water Company and CLWA to update the existing groundwater modeling to assist in addressing questions from the regulatory agencies.[1]

The Well 201 capacity also is not included in the active groundwater sources listed in the 2010 Urban Water Management Plan (UWMP),[2] and its capacity will not be "counted" in water supply calculations until it is remediated. The recently adopted 2010 UWMP also finds that there are sufficient water supplies to meet the Santa Clarita Valley's existing and planned water demand through 2050 — without taking into account the capacity from the inactivated Well 201.

In response to Sierra Club claims surrounding Valencia Water Company's detection of perchlorate in Well 201, the County provided responses based on the OVOV Draft EIR, **Section 3.13, Water Service**, and Final EIR **Topical Response 1: Perchlorate Update**.

In summary, in August 2010, perchlorate was detected at Well 201 at levels *below* the regulatory standard (i.e., level of 5 ppb was detected and the standard is 6 ppb). The Valencia Water Company, owner and operator of Well 201, immediately took the well out of service and notified the state DPH, of the detection. The DPH directed Valencia Water Company to perform *quarterly* testing at the inactive well to track perchlorate levels. The Valencia Water Company has voluntarily elected to perform *monthly* testing.

By April 2011, the Valencia Water Company had gathered sufficient data to conclude that: (1) the perchlorate levels at Well 201 were above the adopted maximum contaminant level (MCL) on a regular basis; and (2) remediation would be required. The Valencia Water Company notified CLWA, the other water purveyors, the County,[3] the City, and others that the well was impacted by perchlorate at levels

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1 Pers. Comm. Keith Abercrombie, General Manager, Valencia Water Company, September 30, 2011.

2 For a copy of the 2010 UWMP, please see **Appendix F3.13**.

3 For a copy of the letter from Valencia Water Company to the County, please see **Appendix F3.13**.

over the regulatory standard. The Valencia Water Company also requested that Well 201's supply be excluded from the 2010 UWMP supply calculations until the well is fully remediated. The Valencia Water Company took this action to ensure that the 2010 UWMP would adequately address the impacted well.

In summary, CLWA's "pump and treat" program has been endorsed by DPH, and has been successful in containing the spread of perchlorate in the basin. The detection of perchlorate in Well 201 is attributable to the length of time it took to get the "pump and treat" program up and running, not to the effectiveness of the program.

Before issuing a permit to a water utility for use of an impaired source as part of the utility's overall water supply permit, DPH requires that studies and engineering work be performed to demonstrate that pumping the well and treating the water will be protective of public health for users of the water. The DPH approved the return to service of the previously closed Saugus 1 and Saugus 2 wells, and specifically approved the Final Interim Remedial Action Plan for the containment and extraction of perchlorate in January 2006. Therefore, DPH determined that the local water agencies devised a treatment approach that adequately contains the perchlorate contamination and is protective of public health; otherwise, DPH would not have authorized and permitted the Saugus 1 and 2 "pump and treat" program.

The DPH endorsement of CLWA's "pump and treat" program is consistent with multiple technical reports referenced in the EIR and 2010 UWMP that have determined that the pumping rates at the restored Saugus wells are sufficient to prevent further migration of perchlorate in the Saugus Formation groundwater.

According to the 2010 UWMP, the primary reason for the recent detection of perchlorate in Well 201 is the length of time it took between the initial detection of perchlorate in the basin in 1997 and actual implementation of the "pump and treat" containment program in 2010. As reported in the 2010 UWMP, Appendix I, the combination of litigation, settlement, permitting, and construction constrained actual implementation of the containment program until 2010, six years after the impact of the containment program on perchlorate migration in groundwater was analyzed. That time, combined with the preceding seven years since perchlorate first impacted water supply wells, resulted in a greater risk of downgradient migration of perchlorate in the Saugus Formation, and is considered the primary reason for the recent detection of perchlorate in Well 201.

Responsive to the Sierra Club's call for additional testing, on August 4, 2011, the DPH sent letters to both Valencia Water Company and Newhall County Water District requesting that the local water agencies increase perchlorate monitoring from annually to quarterly at specified wells. The County has confirmed

that both water agencies will conduct the perchlorate monitoring quarterly as requested by the DPH; therefore, adequate oversight from the appropriate regulatory agency, DPH, is in place.

As to the Sierra Club's modeling comments, it should be noted that Well 201 has been taken out of service, and is not a supply relied upon in the recently adopted 2010 UWMP. As such, Well 201 is not currently in operation or being pumped; and, therefore, it is not causing perchlorate to "spread" as claimed. As to requests by DPH for modeling, the modeling would not be needed, unless and until Valencia Water Company were to place Well 201 back into service as a municipal supply source with wellhead treatment installed. Under such circumstances, Valencia Water Company would coordinate its efforts with CLWA and the regulatory agencies in the event additional modeling were needed in the future.[4]

Based on the information presented in the Revised Final EIR, **Section 3.13, Water Service**, and **Topical Response 1: Perchlorate Update**, an adequate supply of existing and planned water exists to meet the needs of Santa Clarita Valley residents now and in the future, despite the loss in capacity due to the perchlorate-impacted wells.

In summary, two of the originally impacted Saugus wells, Saugus 1 and 2, were placed back in service in January 2011, restoring approximately 3,544 acre-feet (af) of water supply in a normal year. (2010 UWMP, Table 3-9.) The contaminated Stadium Well and VWC Well 157 have been replaced and the pumping capacity lost due to that contamination has been restored with two new replacement wells in non-impacted portions of the basin.

Based on this information, the conclusions reached in the Revised Final EIR that groundwater from existing and replacement wells is available to assist in meeting the current and projected water demands for the Santa Clarita Valley is reasonable and supported by the evidence.

In addition, the Sierra Club's reliance on the 2004 Court of Appeal decision is not applicable. First, the County is not responsible for the ongoing efforts to remediate perchlorate in the groundwater basin. This clean-up effort remains with CLWA, the retail suppliers, and the regulatory agencies providing oversight.

Second, as evidenced in **Topical Response 1: Perchlorate Update**, substantial progress has been made in responding to the detection of perchlorate, and substantial facilities needed for remediation/treatment are in place and actively monitored by CLWA, the local retail suppliers, and several regulatory agencies, which was not necessarily the case in the early 2000 era.

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4 Pers. Comm. Keith Abercrombie, General Manager, Valencia Water Company, September 30, 2011.

Third, there is a timeline for remediation (replacement or wellhead treatment) of Valencia Water Company's Well 201. The Valencia Water Company plans to actively seek remediation (replacement or wellhead treatment) under the Whittaker-Bermite perchlorate litigation settlement agreement and rapidly restore the impacted well capacity. Given Valencia Water Company's experience of: (1) bringing its Well Q2 back into production; (2) actions under the DPH 97-005 Policy Memo; (3) participating in bringing treatment facilities on line for the Saugus 1 and Saugus 2 wells; and (4) replacing capacity for its Well 157, Valencia Water Company has determined that it could either install wellhead treatment to bring the well back into service or replace the capacity with a new well within two years. As explained above, this time estimate is conservative because of Valencia Water Company's prior success in 2005 in restoring Well Q2 to municipal-supply service within an approximate six-month period. As explained, there also are now funds in place to remediate Well 201 upon the permitting and installation of wellhead treatment or replacement of Well 201's capacity with a new replacement well.

Fourth, from a regional perspective, CLWA and the local retail suppliers have evaluated the perchlorate impact upon the groundwater basin, and continue to monitor perchlorate in the basin, with the assistance of the regulatory agencies (e.g., DPH, DTSC). For a detailed discussion of that regional effort, please see the recently adopted 2010 UWMP, Appendix I, which is found in **Appendix F3.13**. Based on the information presented in the OVOV Draft EIR and Final EIR, there is no reason to defer or delay consideration of the OVOV Plan.

Letter No. G3

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY EDMUND G. BROWN, JR., Governor

DEPARTMENT OF TRANSPORTATION
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September 23, 2011

IGR/CEQA No. 110922AL-FEIR
Referenced to IGR/CEQA No. 101150-REIR,
090903-DEIR, and 080733-NOP
One Valley One Vision
Vic. LA-05/126/14
SCH # 2008071119

Mr. Mitch Glaser
Department of Regional Planning
Los Angeles County
320 West Temple Street
Los Angeles, CA 90012

SEP 26 2011

Dear Mr. Glaser:

This is a follow-up to our letter dated January 21, 2011 and after receipt of your Final Environmental Impact Report (FEIR). We would like to provide the following comments after the Response to Comment is reviewed. 1

The California Department of Transportation (Caltrans) as a commenting/responsible agency under CEQA has jurisdiction superceding that of MTA in identifying the freeway analysis necessary for this project. 2 Caltrans is responsible for obtaining measures that will off-set project vehicle trip generation that worsens Caltrans facilities and hence, it does not adhere to the CMP guide of 150/50 or more vehicle trips added before freeway/highway analysis is needed. 3 MTA's Congestion Management Program in acknowledging the Department's role, stipulates that Caltrans must be consulted to identify specific locations to be analyzed on the State Highway System. 4

Please be reminded that although the lead agency is required to comply with Los Angeles County Congestion Management Program (CMP) standards and thresholds of significance, Caltrans does not consider the Los Angeles County's CMP criteria alone to be adequate for the analysis of transportation impacts pursuant to a CEQA review. CMP requirements were developed by Los Angeles County in the context of CMP goals and objectives; it does not supersede the criteria from the commenting/responsible agency under CEQA. Caltrans' Guide directs preparers of traffic impact analysis to consult with the local District as early as possible to determine the appropriate requirements and criteria of significance to be used in the traffic impact analysis. Generally, when traffic is added to already deficient highway conditions (LOS "F"), it is considered a cumulatively significant impact, as it may contribute to the extension of the congestion period. 5

"Caltrans improves mobility across California"

When the Traffic Impact Analysis states that the proposed development would not exceed Los Angeles County's Congestion Management Program (CMP) criteria of significance for freeways and highways, this CMP traffic analysis also fails to provide adequate information as to the potential cumulative effect of the added traffic, please see Section 15065(3) of the CEQA guidelines. When analyzing the State facilities, please have the project applicant or consultant consult with Caltrans as early as possible to avoid noncompliance of CEQA requirements. 6

We would like to encourage the County to incorporate the above discussion to your policies in the proposed Area Plan's Circulation Element. If you have any questions, please feel free to contact me at (213) 897-9140 or Alan Lin the project coordinator at (213) 897-8391 and refer to IGR/CEQA No. 110922AL. 7

Sincerely,

DIANNA WATSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

"Caltrans improves mobility across California"

Letter No. G3. California Department of Transportation, September 23, 2011

Response 1

The comment refers to the January 21, 2011 letter submitted by the California Department of Transportation (Caltrans) commenting on the Draft EIR for the proposed Area Plan, and the related County responses included in the Final EIR. The comment is an introduction to comments that follow and no further response can be provided.

Response 2

The comment states that Caltrans, as a commenting/responsible agency under the California Environmental Quality Act (CEQA), has jurisdiction superceding that of the Metropolitan Transportation Authority (MTA, or Metro) in identifying the freeway analysis necessary for the Area Plan update. County staff acknowledges the comment, which will be made available to the decision makers prior to a final decision on the proposed Area Plan.

Response 3

The comment states that Caltrans is responsible for obtaining measures that will offset project vehicle trip generation that worsens Caltrans facilities and hence, it does not adhere to the Congestion Management Program (CMP) guide of 150/50 or more vehicle trips added before freeway/highway analysis is needed.

The referenced 150/50 or more vehicle trips is the threshold under the CMP for conducting a CMP impact analysis; that is, if a project would add 150 or more peak hour vehicle trips in either direction to a freeway monitoring location, or 50 or more peak hour trips to a designated CMP intersection, the CMP requires that an impact analysis be conducted. (See 2010 *Congestion Management Program for Los Angeles County*, Appendix D – Guidelines for CMP Transportation Impact Analysis, D.4 Study Area.) In this case, the EIR does include an analysis of the proposed Area Plan's potential impacts on Caltrans' facilities in the study area (*i.e.*, Interstate 5 (I-5), State Route 14 (SR-14), and State Route 126 (SR-126), with impacts identified and mitigation proposed, without consideration of whether the proposed Area Plan would add the requisite CMP vehicle trips. Furthermore, as shown below, the analysis evaluated multiple freeway locations, not just the designated CMP monitoring locations required for a CMP analysis, thereby exceeding what is required for a CMP analysis.

EIR **Section 3.2**, **Transportation and Circulation,** pages 3.2-26 through 3.2-62, and the supporting traffic technical report, *One Valley One Vision Valley-Wide Traffic Study*, Austin-Foust Associates, Inc., (June 22, 2010) (AFA Technical Report), present an analysis of the potential impacts to the roadways located in the proposed Area Plan study area, which includes the segment of SR-126 west of I-5 to the County line, the segments of I-5 located between the SR-14 interchange to the south and the Parker Road interchange to

the north, and the segments of SR-14 located between the I-5 interchange to the south and the Agua Dulce Canyon Road interchange to the north.

As to SR-126, the EIR analyzes the potential impacts to roadway segments, including SR-126, at pages 3.2-28 through 3.2-47. EIR **Table 3.2-8**, **ADT V/C and LOS – Existing Conditions vs. OVOV Buildout Conditions (With Highway Plan Roadways)**, and **Table 3.2-9**, **Future Level of Service Summary – Arterial Roadways**, lists the volume, vehicle/capacity (V/C) ratio, and LOS for existing conditions, conditions based on buildout of the currently adopted Area Plan, and conditions based on buildout of the proposed Area Plan. The tables show that all of the SR-126 segments would operate at acceptable LOS C or D under buildout of the proposed Area Plan.

As to freeways, EIR **Table 3.2-13**, **Freeway Level of Service**, lists the levels of service (LOS) for the AM and PM peak hours in the northbound and southbound directions under existing conditions, conditions based on buildout of the currently adopted Area Plan, and conditions based on buildout of the proposed Area Plan. As stated in the EIR, the table shows that all of the study area freeway segments would operate at LOS F under buildout of the currently adopted Area Plan or under buildout of the proposed Area Plan if the additional freeway lanes to be constructed as part of the I-5 SR-14 to Parker Road project (I-5 Improvement Project) and North County Combined Highway Corridors Study are not added to the existing configuration. (EIR pp. 3.2-58 - 59.) As a result, the EIR concludes that "roadway conditions would only improve with the implementation of roadway improvements. Therefore, impacts would remain potentially significant without mitigation." (EIR p. 3.2-62.) As a result, mitigation is proposed that requires the County to work with Caltrans as it adds additional lanes to the I-5 freeway through the I-5 Improvement Project; and to continue to participate in implementing SR-14 improvements. (See EIR p. 3.2-79, mitigation measures 3.2.1, and 3.2.2.)

The analysis of Caltrans facilities presented in the EIR is based on the analysis presented in the AFA Technical Report. Analysis of the I-5 and SR-14 freeways is presented in AFA Technical Report Section 4.4, and Appendix E to the report contains the detailed demand to capacity (D/C) ratio calculations prepared for the I-5 and SR-14 freeways. Analysis of SR-126 is included in Section 4.2.1, Long-Range Levels of Service, Arterial Roadway Segments. The CMP analysis is presented separately in Section 4.5. (A copy of the AFA Technical Report is included in Draft EIR, **Appendix 3.2**.)

Response 4

The comment states that MTA's CMP, in acknowledging Caltrans' role, stipulates that Caltrans must be consulted to identify specific locations to be analyzed on the State Highway System.

As noted in **Response 3**, the EIR analyzed the project's potential impacts to each of the three Caltrans facilities located within the Santa Clarita Valley planning area, namely the I-5, SR-14, and SR-126. The traffic study derived the study area for the State Highway system based on Caltrans' response to the project's Notice of Preparation (NOP). Caltrans' input on the proposed Area Plan and the analysis of transportation related impacts was solicited early in the environmental review process, prior to preparation of the traffic study as part of the NOP process. In response, Caltrans provided a letter, dated September 15, 2008, that addressed various aspects of the traffic analysis for the proposed Area Plan. In the letter, Caltrans noted that the State highway facilities that provide regional access to the Santa Clarita Valley planning area and, therefore, are likely to be impacted by future development activity are I-5, SR-14, and SR-126, each of which was subsequently incorporated into the traffic study for analysis. (See NOP Comment Letter, September 15, 2008, p. 2.)

Response 5

The comment states the County is reminded that although the lead agency is required to comply with the Los Angeles County CMP standards and thresholds of significance, Caltrans does not consider the CMP criteria alone to be adequate for the analysis of transportation impacts pursuant to a CEQA review. County staff acknowledges the comment, which will be made available to the decision makers prior to a final decision on the proposed Area Plan. The County notes further that the performance criteria utilized in the traffic impacts analysis is LOS E, which, while consistent with CMP standards, is also consistent with the recently completed Caltrans Project Report for the I-5 Improvement Project, which showed that long-range future conditions with the improvements in place would result in conditions no worse than LOS E within the Santa Clarita Valley planning area. Therefore, LOS E represents a reasonable criteria by which to evaluate the proposed Area Plan since LOS E is the expected long-range condition LOS identified by Caltrans for I-5. (The Caltrans *Project Report I-5 HOV and Truck Lane Project From SR-14 to Parker Road in Los Angeles County (EA 07-2332E0, EA 07-2332A0)*, August 2009, is incorporated by reference and available for review at the County offices.) Additionally, in response to Caltrans' previous comments, the County has added a new policy to the proposed Area Plan's Circulation Element under which the County will collaborate with Caltrans and Metro to revise the CMP impact thresholds. Please see **Response 7**, below.

The comment states further that the Caltrans Guide directs preparers of traffic impact analyses to consult with the local District as early as possible to determine the appropriate requirements and criteria of significance to be used in the traffic impact analysis. The comment adds that when traffic is added to already deficient highway conditions (LOS "F") it is considered a cumulatively significant impact as it may contribute to the extension of the congestion period.

As noted in **Response 4**, the County sought Caltrans' input regarding the traffic impact analysis through the CEQA NOP process, which marked the beginning of the analyses undertaken pursuant to CEQA. As to the comment that when traffic is added to a highway operating at LOS F it is considered a cumulatively significant impact, the courts interpreting CEQA have rejected the position that any incremental contribution to an existing cumulatively significant environmental condition, no matter how small, must always be treated as a significant cumulative impact; the one additional molecule rule is not the law. *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal. App. 4th 98, 120; Kostka & Zischke, *1 Practice Under the California Environmental Quality Act* (2nd ed. 2008; January 2011 Update), section 13.52.

In any event, as shown in EIR **Section 3.2**, only the segment of I-5 north of SR-14 currently operates at LOS F (in the southbound direction during the AM peak hour); all other study area segments of I-5 and SR-14 within the Santa Clarita Valley planning area are shown to currently operate at levels of service better than LOS F during the peak hour periods. (See EIR **Table 3.2-13**, p. 3.2-60.) With respect to the I-5 segment currently operating at deficient conditions, as shown on EIR **Table 3.2-13**, with implementation of the I-5 Improvement Project that is currently underway, this segment of I-5 would operate at LOS D/E under "with project" conditions. (See EIR **Table 3.2-13**, p. 3.2-61.) As to SR-126, each of the study area segments presently operates at LOS A. (EIR **Table 3.2-8**, p. 3.2-31.)

Additionally, while the currently adopted Area Plan would result in LOS F conditions at multiple segments of I-5 and SR-14, in all instances the ADT generated by the proposed Area Plan would be *less* than the currently adopted Area Plan and, therefore, by this measure, the proposed Area Plan would not add vehicle trips to these facilities. (See AFA Technical Report, **Table 4-6: Freeway Volume Summary** and **Table 4-7: Freeway Level of Service Summary**.) The EIR traffic impact analysis showed that the proposed Area Plan would result in LOS equal to, or better, than conditions without the proposed Area Plan, and that traffic volumes on the State Highway system generally would be reduced at locations where deficiencies occur. (See, e.g., EIR **Table 3.2-13**, and AFA Technical Report, **Table 4-6: Freeway Volume Summary** and **Table 4-7: Freeway Level of Service Summary**.)

Response 6

The comment states that when the Traffic Impact Analysis states that the proposed development would not exceed Los Angeles County's CMP criteria of significance for freeways and highways, the CMP traffic analysis also fails to provide adequate information as to the potential cumulative effect of the added traffic, referring to section 15065(3) of the CEQA Guidelines. The comment states further that when analyzing State facilities, the project applicant or consultant should consult with Caltrans as early as possible to avoid non-compliance of CEQA requirements.

As discussed in the prior responses, the EIR and supporting AFA Technical Report adequately demonstrate the cumulative effect of the proposed Area Plan by providing a comparison of existing conditions to the future cumulative conditions, with and without the proposed Area Plan. In doing so, the EIR complies with CEQA's requirements. With respect to the referenced CMP criteria, please see **Response 5**, above. As to the referenced CEQA Guidelines section, the section addresses when an EIR must be prepared, as compared to when only a negative declaration or other CEQA document may be prepared. Specific to the comment, the section requires that an EIR be prepared when a project has possible environmental effects that are individually limited but "cumulatively considerable." The County prepared an EIR in this instance, so the County has complied with the section. Moreover, the CEQA Guidelines section does not provide specific thresholds to be applied in determining when an impact is cumulatively considerable, nor does it provide support for the position that the application of CMP thresholds in determining cumulative impacts is inadequate under CEQA. (See *State CEQA Guidelines* section 15065.)

As to the comment that when analyzing State facilities, the project applicant or consultant should consult with Caltrans as early as possible to avoid non-compliance of CEQA requirements, the County acknowledges the comment, which will be made available to the decision makers prior to a final decision on the proposed Area Plan.

Response 7

The comment states that Caltrans encourages the County to incorporate the above discussion into the proposed Area Plan's Circulation Element. In response, the County notes the following revisions to policies under Objective C-1.3 in the proposed Area Plan's Circulation Element that have been made in response to Caltrans' prior comments submitted in its letter dated January 21, 2011 (double underline indicates new text; ~~strikeout~~ indicates deleted text):

Policy C-1.3.2: Participate in updates to the CMP and collaborate with Caltrans and Metro to revise CMP impact thresholds, ensuring that they are adequate and appropriate.

Policy C-1.3.5: Continue ~~coordination~~ coordinating with Caltrans on circulation and land use decisions that may affect Interstate 5, State Route 14, and State Route 126, and support programs to increase capacity and improve operations on these highways.

Policy C-1.3.6: Collaborate with Caltrans and Metro to implement the recommendations of the North County Combined Highways Corridor Study and support efforts by Metro to update this Study after SCAG adopts a Sustainable Communities Strategy.

Policy C-1.3.7: Support the Golden State Gateway Coalition in its advocacy efforts to improve the Interstate 5 corridor, recognizing that the corridor facilitates regional and international travel that impacts the Santa Clarita Valley.

In addition, the County notes the proposed Area Plan policies include the following Circulation Element policies to facilitate funding for transportation-related improvements:

Policy C-2.6.1: Require that new development construct or provide its fair share of the cost of transportation improvements, and that required improvements or in-lieu contributions are in place to support the development prior to occupancy. (EIR p. 3.2-56.)

Policy C-2.6.2: Evaluate the feasibility of establishing a joint City/County Intelligent Transportation Management System (ITMS) impact fee for new development that is unable to otherwise mitigate its impacts to the roadway system through implementation of the adopted Highway Plan. (EIR p. 3.2-56.)

Policy C 2.6.3: Support local, regional, state, and federal agencies in identifying and implementing funding alternatives for the Valley's transportation system. (EIR p. 3.2-56.)

As the County noted in its responses to Caltrans' comments on the Revised Draft EIR, the County met with Caltrans on March 24, 2011 and expressed a willingness to work with and support Caltrans and other agencies, such as MTA, South Coast Association of Governments (SCAG), and the Golden State Gateway Coalition, in their efforts to respond to and mitigate regional traffic impacts. In furtherance of that effort, and in response to the comments submitted by Caltrans, the County will add the following mitigation measure to Final EIR, **Section 3.2, Transportation and Circulation**:

3.2.4 In those instances in which a traffic impact analysis prepared for project-specific development within the County's Santa Clarita Valley planning area identifies significant impacts to State highway facilities within the meaning of CEQA, the County shall require that the applicant work cooperatively with Caltrans to identify and implement feasible mitigation, if any, consistent with the requirements of CEQA.

The County appreciates the comments submitted by Caltrans as part of the EIR process for the proposed Area Plan. The comments will be made available to the decision makers prior to a final decision on the proposed Area Plan.

September 21, 2011

Los Angeles Regional Planning Commission
Mitch Glaser, Planner
L.A.County Dept. of Regional Planning
300 W. Temple St.
Los Angeles, CA 90012

Re: One Valley One Vision Santa Clarita Area Plan Update for Wednesday Sept. 28th

Honorable Commissioners and Mr. Glaser:

The Whittaker Bermite Citizen's Advisory Group (CAG) was originally formed over a decade ago, and reformed in 2010. The vision of the CAG is to create a future where all residents and users of the soil, air and water in the SCV will find a clean, safe, accessible and healthy environment for living, work, and recreation both now and in the future. One of our stated goals is to ensure that regulatory agencies responsible for monitoring clean-up activities provide adequate oversight to ensure that all work is conducted in the safest possible manner, and that the health, safety and general welfare of the surrounding communities are protected at all times. 1

The County of Los Angeles, Department of Regional Planning provides oversight for planning issues including the General Plan Update known as One Valley One Vision. That Plan includes the Whittaker Bermite Property. It also relies on water from the Saugus Aquifer that has been polluted by ammonium perchlorate, TCE, PCE and other various organic compounds. Additionally, a soil extraction clean up operation is now underway that emits pollutants into our air. 2

We believe the County has not adequately addressed these issues in its One Valley One Vision General Plan update, nor in the accompanying EIR. We therefore ask that this Plan not be approved on at this Wednesday's Commission meeting and that the EIR not be certified. 3

Spread of Ammonium Perchlorate Pollution to Well V201

We are especially concerned about the spread of ammonium perchlorate pollution to a new Saugus well owned by Valencia Water Company and located just off Valencia Blvd. near City Hall and the Whole Foods market. This information substantially changes water quality information reported in the EIR and to the public.

We only learned of this well closure on June 9th, 2011, when the Newhall Signal ran a news story regarding the spread of the pollution plume to Valencia Saugus water well 201. We have attached the press release.

Interestingly, it noted that this well has been closed since August 2010. However, this information was not provided in the OVOV Plan or the in EIR. Why was it left out of the Plan? This seems to have been a deliberate effort to miss-inform the public and the decision-makers. We strongly protest the Water Agencies' and County's lack of transparency on this matter. 4

As the County knows, this is an extremely serious matter since it means that the pollution plume has moved beyond the "pump and treat" capture wells in a westerly direction and is moving at a much faster rate of travel than previously estimated would occur.

The Saugus Aquifer is a main source of ground water and local water supply as reported by the EIR and the 2011 Urban Water Management Plan, available to County planners and

Commissioners. Shutting down this well will have the effect of reducing water supply for the OVOV build out. This impact must be reviewed and a plan provided to mitigate for any loss to our water supply or reduction in our drinking water quality.

While Valencia Water Co. states that they will return the well to service in six months, we note that it took over ten years to return Saugus Wells 1 and 2 to service, Further, if pumping from this well continues, such pumping would likely also continue to draw the pollution plume in a westerly direction, spreading the plume into an even greater portion of the Saugus aquifer and possibly making that ground water source unusable.

This now likely possibility has major implications for water supply in the Santa Clarita Valley. The CAG therefore believes it is imperative that the County delay approval of the One Valley One Vision Plan and EIR in its current iteration. We believe the Plan must now be re-written to address these areas of concern:

4

1. Water supply from well 201 should be permanently removed as available in the Plan until new modeling that indicates continued pumping would not spread the plume is completed. Pump and Treat scenarios are not acceptable if they will merely spread the plume and pollute more wells.
2. The eleven "threatened wells" listed on page 66 of the attached Bermite Settlement Agreement, along with Well Q2 should be re-tested on a monthly basis to make sure that pollution is not occurring there again.
3. All wells in the plume area should be tested for TCE and PCE.
4. All results should be included in the OVOV EIR so that the Commissioners can fully assess this matter.

Pollution of the Saugus Aquifer is a serious threat to the health and welfare of our community. Ammonium perchlorate pollution is known to affect the thyroid gland and cause retardation in small children and fetuses. This is a family community where we pride ourselves on providing a safe environment for children. The Commission must take this new threat to our water supply seriously by not approving an extensive buildout scenario that depends on a polluted water supply at least until more complete information regarding the extent of the problem is obtained.

Soil Clean up by Vapor Extraction Not Included in Air Quality Analysis

A vapor extraction process is now in use for soil clean up on the Whittiker Bermite Property. This process is supposed to burn off Volatile Organic Compounds in the soil and capture them in a scrubber system, but not all pollutants are captured. Both the extraction system and moving the soil will create additional particulate matter pollution and possibly add to other types of pollution.

5

The Santa Clarita Valley is in a non-attainment area for ozone, PM2.5 and PM10 air pollution. In a rating from marginal to extreme, the SCV was rated severe. Approval of the 2007 Air Quality Management Plan allowed local entities to request a "bump up" to the Extreme classification. This "bump-up" applies to ozone only. The category change allowed an extension of time to comply, but required instituting certain mitigation measures and the attainment of "milestones". We do not see the required mitigation measures in the DEIR. Nor is there a discussion of the milestones that must be reached in order to comply with the 2007 Air Quality Plan. The attainment date for the PM2.5 plan, due in 2008, is still being processed with the US EPA.

6

Adverse health effects for particulate pollution as described by the EPA website are as follows:

PM10 "(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in the elderly".

PM2.5 Same as above.

7

Without compliance, our children will continue to suffer the high rates of asthma now experienced in our valley 7

OVOV Circulation Element depends on "Paper Roads" that must be extended through the Whittiker Bermite Property

It appears that the traffic model has included "paper" roads that will never be built or not built in the timeframe indicated in the Plan and environmental documents. Failing to build these roads makes not only the circulation plan fail, but it also then changes the air quality and global warming analysis, making these analyses incorrect. 8

As a result of a Court approved settlement agreement (attached "Perc" settlement) that required DS 12 as a condition of approval for any development on the Whittiker Bermite property, no development is allowed on the property until the site is cleaned of its extensive contamination.

A lack of insurance funding may also slow or derail the completion of the clean up. 9

Completion of the clean up is not the only impediment to building these roads. Without development of that property, now in bankruptcy, the City would not be financially able on its own to construct the expensive fly over roadways envisioned to serve the higher elevation of this project site.

The City is well aware of the need for these roads as they clearly state in their brochure provided at the Whittiker Bermite Open House (attached as exhibit 3):

> *"The City has identified in its General Plan, several roads (Magic Mountain Parkway, Via Princess Road, and Santa Clarita Parkway) which must be completed in order to ensure that the City General Plan Circulation Element does not fail."* 10

Under the current circumstances, it seems unlikely that these roads will be built any time soon and may never be built at all. We therefore request that an alternative Circulation Element be provided that does not include such "paper" roads.

Sincerely,

Glo Donnelly
Chairman
Whittaker Bermite CAG

Attachments:
1. CLWA- Whittaker Bermite Settlement Agreement
2. Press release regarding closure of well 201, June 9th, 2011
3. Settlement Agreement between PERC and the City of Santa Clarita, May 21st 2002
4. Whittaker Bermite City Open House Brochure, Feb 23rd, 2011

CASTAIC LAKE WATER AGENCY LITIGATION

SETTLEMENT AGREEMENT

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CASTAIC LAKE WATER AGENCY LITIGATION

SETTLEMENT AGREEMENT

This Castaic Lake Water Agency Litigation Settlement Agreement (the "**Agreement**") is dated as of April 6, 2007 ("**Agreement Date**"), by and between the Castaic Lake Water Agency ("**CLWA**"), Santa Clarita Water Company ("**SCWC**"), Newhall County Water District ("**NCWD**") and Valencia Water Company ("**VWC**") (collectively, "**Plaintiffs**"), on the one hand, and Whittaker Corporation ("**Whittaker**"), Santa Clarita L.L.C. ("**SCLLC**"), Remediation Financial, Inc. ("**RFI**"), and American International Specialty Lines Insurance Company ("**AISLIC**"), on the other hand. Hereinafter, Whittaker, SCLLC and RFI are collectively referred to as "**Defendants,**" the Plaintiffs and Defendants and AISLIC are collectively referred to as the "**Parties,**" each Plaintiff, each Defendant, and AISLIC is individually referred to as a "**Party,**" and SCLLC and RFI are collectively referred to as the "**RFI Parties**" or "**Debtors.**"

RECITALS

A. SCLLC is the owner of approximately 964.79 acres of real property located in the City of Santa Clarita, County of Los Angeles, State of California, described more fully in Exhibit A hereto (the "**SCLLC Property**"). Bermite Recovery, LLC ("**BRLLC**") is the owner of approximately 23.6 acres of real property located in the City of Santa Clarita, County of Los Angeles, State of California, described more fully in Exhibit B hereto (the "**BRLLC Property**"). The SCLLC Property and the BRLLC Property are hereinafter referred to collectively as the "**Site.**"

B. SCWC is the operator of water wells commonly designated as Saugus 1, Saugus 2 and the Stadium Well. NCWD is the owner and operator of water wells commonly designated as NC11 and NC13. VWC is the owner and operator of water wells commonly designated as V157 and Q2. Saugus 1, Saugus 2, the Stadium Well, NC11, V157 and Q2 are collectively referred to at all times as the "**Subject Wells**". As set forth in Section 9.1.7 hereof, NC13 shall be deemed a "Subject Well" in the event and only in the event it is treated as a Project Modification pursuant to Section 9.1.7 and only prospectively from that date it is so treated.

C. Plaintiffs and Defendants are parties to a civil action pending in the United States District Court for the Central District of California, Case No. CV 00-12613 AHM (RZx) (the "**Underlying Action**"). In the Underlying Action, Plaintiffs allege, among other things, that (1) groundwater in the vicinity of the Site has been contaminated by perchlorate and other hazardous materials and that such contamination is continuing with releases to the groundwater; (2) perchlorate has been found in the Subject Wells, and Plaintiffs have incurred and will continue to incur costs in responding to the contamination; and (3) Defendants caused and/or permitted (and are continuing to cause and/or permit) the contamination found on, above, under, or released to the environment at and near the Site and in the Subject Wells. Plaintiffs further allege that they have incurred "response costs" in addressing this contamination, including the costs of engaging consultants to undertake environmental assessment, water treatment studies, groundwater analysis and characterization work in connection with the alleged perchlorate contamination. Plaintiffs are seeking recovery of their alleged response costs and other damages, as well as injunctive and declaratory relief. Defendants deny Plaintiffs' allegations and, further, contend in their Counter-Claims that Plaintiffs are liable, in whole or in part, for Plaintiffs' alleged costs and damages **("the Counter-Claims").**

D. Plaintiffs have entered into that certain Environmental Oversight Agreement ("**EOA**") with the California Environmental Protection Agency, Department of Toxic Substances Control ("**DTSC**"). Plaintiffs are designated as "Proponents" under the EOA.

E. Whittaker and DTSC are parties to that certain 1994 Consent Order, Docket HAS 94/95-012 (the "**Consent Order**"), and the DTSC issued to Whittaker that certain Imminent and Substantial Endangerment Determination and Order and Remedial Action Order (the "**Order**") in 2002. SCLLC and DTSC are parties to that certain 2001 Enforceable Agreement (the "**Enforceable Agreement**").

F. Plaintiffs and Defendants entered into that certain Interim Settlement and Funding Agreement dated as of July 28, 2003 (the "**Interim Agreement**") and that certain First Amendment to Interim Settlement and Funding Agreement dated as of October 11, 2004 (the "**First Amendment**") which, among other things, extended the term of the Interim Agreement through January 2005.

G. Plaintiffs and Defendants mutually agree on the "Project and Associated Facilities" (as hereinafter defined) that shall be implemented by the Plaintiffs. The Project and Associated Facilities are intended to provide containment of perchlorate in off-site groundwater in portions of the Saugus Formation and to restore Plaintiffs' groundwater production capacity diminished by perchlorate contamination in the Subject Wells.

H. The Project fulfills some of Defendants' obligations under and resolves some of Defendants' alleged liabilities to DTSC under the Consent Order, the Order, and the Enforceable Agreement with respect to the remediation of groundwater, and Defendants' remaining responsibility for addressing groundwater remediation will be determined in compliance with the lawful requirements of the regulatory agencies.

I. This Agreement provides for certain funds to be available rapidly to address any future perchlorate contamination of Plaintiffs' presently existing **"Threatened Wells"** (as defined herein) during the period defined herein without prejudice to other rights and remedies of the Plaintiffs or the defenses of the Defendants. This Agreement also provides for arbitration to be available to Plaintiffs to resolve certain future disputes, if any, between or among the Parties involving possible future perchlorate contamination of Plaintiffs' **"Presently Existing Saugus Production Wells and Alluvial Production Wells"**, other than the Subject Wells, as hereinafter defined.

J. This Agreement contemplates that the Defendants (or any **"Buyer"** (as defined below) of the Site that assumes certain liabilities of Defendants) will be in compliance with their remediation responsibilities under law with respect to the Site and the associated groundwater, as reflected in the applicable requirements of the Consent Order, Order and the Enforceable Agreement, and that Defendants will conduct their remediation activities in a reasonably expedient, efficient and cost-effective manner as reasonably determined by Defendants and the regulatory authorities. In particular, the Defendants' (and/or any Buyer of the Site that assumes certain liabilities of Defendants) remedial activities within the Site are important to addressing the contamination within the Saugus and **"Alluvial Aquifers"** (as defined below). The Parties acknowledge that payments and expenditures under this Agreement are deemed reasonable and necessary for addressing offsite groundwater contamination emanating from the Site and are consistent with the National Contingency Plan, and are deemed **"Response Costs"** (as defined below) as that term is used and contemplated in CERCLA.

K. VWC reported detecting perchlorate in its alluvial well Q2 in connection with its regular monitoring of active municipal supply wells operating near the site in April 2005

(although a more recent sampling did not detect perchlorate above the current California Department of Health Services ("DHS") limit for reporting perchlorate). VWC temporarily removed the well from active service and installed wellhead treatment to remove perchlorate. The Q2 treatment system started operating in October 2005. The Defendants have funded five hundred thousand dollars ($500,000) for reasonable and necessary and approved capital costs and two hundred twenty three thousand and two hundred ten dollars ($223,210) for reasonable and necessary and approved operations and maintenance costs of the Q2 Treatment System in a Q2 Escrow Account. The Defendants have agreed to pay certain additional reasonable and necessary operating and maintenance costs of that system in accordance with the terms of this Agreement.

L. On July 7, 2004, SCLLC, and RFI filed voluntary Chapter 11 bankruptcy petitions, and the cases thereby commenced are pending in the United States Bankruptcy Court for the District of Arizona ("**Bankruptcy Court**"), denominated Cases Nos. 2-04-BK-11910 CGC, and 2-04-BK-11911 CGC. BRLLC filed a voluntary Chapter 11 bankruptcy petition on September 30, 2004, denominated Case No. 2-04-BK-17294 CGC, also pending in the Bankruptcy Court. Case Nos. 2-04-BK-11910 CGC, 2-04-BK 11911 CGC and 2-04-BK-17294 CGC are hereinafter referred to collectively as the "**Bankruptcy Cases.**" RFI Realty, Inc. filed a voluntary Chapter 11 bankruptcy petition on June 15, 2004 denominated as Case No. 2-04-BK-10486 CGC; the Bankruptcy Cases are jointly administered with RFI Realty, Inc.'s bankruptcy case under Case No. 2-04-BK-10486 CGC. SCLLC and BRLLC have filed a motion seeking Bankruptcy Court Approvals to sell the Site. The term "**Buyer**," as used herein, means the entity to which title to the Site is conveyed after Bankruptcy Court approval; provided, however, that if either the Bankruptcy Court does not approve a sale or a sale approved by the Bankruptcy Court

in the Bankruptcy Cases does not close pursuant to Bankruptcy Court approval, and consequently there is no Buyer, then this Agreement shall not be impacted in any way whatsoever.

M. Plaintiffs have prepared and submitted to DTSC for approval and DTSC has approved a Remedial Investigation ("RI") consisting of a technical memorandum prepared on behalf of the United States Army Corps of Engineers, a Feasibility Study ("FS") and an Interim Remedial Action Plan ("IRAP") for a containment and treatment system for perchlorate contamination in portions of the Saugus Formation. Such containment and treatment system is consistent with the discussions and understandings between the Plaintiffs and Defendants.

N. The Parties are entering into this Agreement in order to effectuate a settlement of the Underlying Action and to resolve certain disputes between Plaintiffs and Defendants that have arisen between them, as well as to provide the Parties with expedited alternative dispute resolution mechanisms for resolving certain disputes which may arise between Plaintiffs and Defendants in the future, to the extent provided and in accordance with the terms and conditions set forth in this Agreement. The Plaintiffs and Defendants have reached a separate settlement concerning the Defendants' Counter-Claims which will be the subject of a separate settlement agreement to be executed by certain of the Parties simultaneously with the execution of this Agreement, (the "Related Settlement") and which is part of the consideration for and a condition precedent to this Agreement.

O. Certain funds from the **"Steadfast PLC Policy"** (defined below), in accordance with and subject to the Coverage and Claims Settlement Agreement and the Bankruptcy Court's December 22, 2005 Order approving same, and the Joint Escrow 1 Agreement and Instructions, are being made available to settle the matters described and released herein. AISLIC shall

request the SF Escrow 1 Account Escrow Agent (Wells Fargo Bank or any successor) to release funds from the SF Escrow 1 Account to satisfy certain of Defendants' payment obligations and obligations to fund escrow accounts hereunder.

P. The Defendants and AISLIC represent that this Agreement is a settlement in the CLWA Case that meets all "Approved CLWA Settlement Parameters" set forth in Exhibit 16 to the Coverage and Claims Settlement Agreement.

Q. The Defendants and AISLIC represent that the payment obligations pursuant to this Agreement will be funded on behalf of Defendants as provided by Section VIII ("Funding Settlement of CLWA Case") of the Coverage and Claims Settlement Agreement and as provided herein.

R. Nothing in this Agreement is intended to alter any rights or obligations existing under the Coverage and Claims Settlement Agreement.

NOW, THEREFORE, in consideration of the execution of this Agreement and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereby agree as follows:

AGREEMENT

ARTICLE 1. DEFINITIONS

In addition to terms defined elsewhere in this Agreement, the following terms shall have the following meanings:

1.1 "**Administrator**" means AISLIC or such successor entity designated as the Administrator of the "SF Escrow 1" in the "Coverage and Claims Settlement Agreement."

1.2 **"Agreement"** means this "Castaic Lake Water Agency Litigation Settlement Agreement."

1.3 **"Agreement Date"** means April 6, 2007.

1.4 "**AISLIC**" means American International Specialty Lines Insurance Company, which issued Pollution Legal Liability Select/Cleanup Cost Cap, policy no. PLS 267-9186 (the "AISLIC Policy") to Defendant Whittaker Corporation and is the entity presently designated as the Administrator of the "SF Escrow 1" in the "Coverage and Claims Settlement Agreement."

1.5 "**AISLIC Future Perchlorate Determination of Coverage**" means a coverage determination by AISLIC satisfactory to Whittaker, at its discretion exercised in good faith, agreeing to provide coverage with respect to a "**Non-Subject Well Future Perchlorate Circumstance**" in response to the demand for coverage delivered by Whittaker as set forth in Section 10.1.1 below.

1.6 "**Allowed Claim**" has the meaning set forth in Section 12.1.5, below.

1.7 "**Alluvial Aquifer**" means the shallow (typically, 50 to 200 feet of saturated thickness), generally unconfined aquifer consisting of unconsolidated fluvial sand and gravel within the valleys and canyons of the Santa Clarita Valley. The Alluvial Aquifer unconformably overlies the Saugus Formation.

1.8 "**Annual Project O&M Deposit**" has the meaning set forth in Section 5.2.1.

1.9 "**Approved Capital Costs**" has the meaning set forth in Section 6.2.1, below.

1.10 "**Approved O&M Costs**" has the meaning set forth in Section 6.4.1, below.

1.11 "**Approved Q2 O&M Costs**" has the meaning set forth in Section 6.3.1, below.

1.12 "**Associated Facilities**" means the "Distribution Pipelines" and the "Replacement Wells & Associated Pipelines" (as defined below).

1.13 "**Bankruptcy Court**" has the meaning described in Recital L.

1.14 "**Bankruptcy Court Determinations**" has the meaning set forth in Section 2.4, below.

1.15 "**Bankruptcy Cases**" has the meaning described in Recital L.

1.16 **"BRLLC"** means Bermite Recovery, LLC the owner of approximately 23.6 acres of real property located in the City of Santa Clarita, County of Los Angeles, State of California and as more fully described in Exhibit B.

1.17 **"BRLLC Property"** has the meaning fully described in Exhibit B.

1.18 **"Buyer"** has the meaning fully described in Recital L.

1.19 **"CGL Policy"** has the meaning set forth in Section 11.1.1.

1.20 **"CLWA"** means Castaic Lake Water Agency.

1.21 **"Commencement of Operations"** means commencement of the operation to purvey water to the public from the Project or **"Q2 Treatment System" (as defined below)**, as the case may be. The Parties agree that Commencement of Operations for the Q2 Treatment System was October 12, 2005 ("Q2 Commencement Date").

1.22 **"Consent Order"** has the meaning fully described in Recital E.

1.23 **"Counter-Claims"** has the meaning fully described in Recital C

1.24 **"Coverage and Claims Settlement Agreement"** means the Settlement Agreement by and between the "RFI Parties", the "Zurich Companies", the "AISLIC Parties", and "Whittaker" (as those terms are defined in the Coverage and Claims Settlement Agreement) that provides for certain funding for this Agreement, and that was filed in the Bankruptcy Cases on November 15, 2005 and approved as modified by the Bankruptcy Court's Order Approving Coverage and Claims Settlement Agreement dated December 22, 2005 (the "Coverage Order").

1.25 **"Day"** or **"day"** means a calendar day unless expressly stated to be a Working Day.

1.26 **"Debtors"** means SCLLC and RFI.

1.27 **"Defendants"** means Whittaker, SCLLC and RFI, collectively.

1.28 **"Distribution Pipelines"** means construction of certain new distribution pipelines as described in Exhibit C.

1.29 **"DTSC"** means the California Environmental Protection Agency, Department of Toxic Substances Control as referred to in Recital D.

1.30 **"Earthquake Policy"** has the meaning set forth in Section 11.1.1.

1.31 **"EIL Policy"** has the meaning set forth in Section 11.1.1.

1.32 **"Effective Date"** has the meaning set forth in Section 2.1

1.33 **"Enforceable Agreement"** refers to that certain 2001 Enforceable Agreement made by SCLLC and DTSC, as described in Recital E, above.

1.34 **"EOA"** means the Environmental Oversight Agreement as referred to in Recital D.

1.35 "**Escrow Accounts**" means the "Project Capital Costs Escrow Account", the "Project O&M Escrow Account", the "Replacement Wells/Distribution Pipelines Escrow Account", and the "Q2 Escrow Account," (all as hereinafter defined.)

1.36 **"Final Approval Order"** has the meaning set forth in Section 2.1.

1.37 **"First Amendment"** has the meaning described in Recital F.

1.38 **"Good Faith Certifications"** has the meaning set forth in Section 2.1.1.

1.39 **"Initial Project Capital Costs Deposit"** has the meaning set forth in Section 4.4.

1.40 **"Interim Agreement"** has the meaning described in Recital F.

1.41 **"JAMS"** means Judicial Arbitration and Mediation Service.

1.42 **"Lump Sum Determination"** has the meaning set forth in Section 5.2.6.

1.43 **"MCL"** means Maximum Contaminant Level as set forth in Section 9.1.1.

1.44 **"NCWD"** means Newhall County Water District.

1.45 **"Order"** refers to that certain Imminent and Substantial Endangerment Determination and Order and Remedial Action Order described in Recital E.

1.46 **"Parties"** means Plaintiffs and Defendants and AISLIC, collectively.

1.47 **"Plaintiffs"** means Castaic Lake Water Agency ("CLWA"), Santa Clarita Water Company ("SCWC"), Newhall County Water District ("NCWD") and Valencia Water Company ("VWC"), collectively.

1.48 **"Plaintiffs' Past Environmental Claims"** means any claim for costs, including response costs, damages, attorneys and consultant fees, replacement water costs, and costs for remedial investigations, monitoring and litigation incurred by Plaintiffs prior to the Effective Date of this Agreement due to contamination of the Subject Wells or contamination of or threatened releases to groundwater at and in the vicinity of the Site; provided, however, that certain costs associated with Saugus 1 & 2 Treatment System, Replacement Wells and Associated Pipelines, and Distribution Pipelines, incurred prior to February 1, 2007, as set forth in Exhibit E to this Agreement (**"Plaintiffs' Past Design Costs"**) or incurred after January 31, 2007 and included within Project Capital Costs pursuant to Section 1.54, are excluded from Plaintiffs' Past Environmental Claims.

1.49 **"Plaintiffs' Past Design Costs"** means certain costs associated with Saugus 1 & 2 Treatment System, Replacement Wells and Associated Pipelines, and Distribution Pipelines, incurred by Plaintiffs prior to February 1, 2007, as set forth in Exhibit E to this Agreement.

1.50 **"Presently Existing Saugus Production and Alluvial Production Wells"** means the wells identified in Exhibit U, including wells replaced in the normal course of system operations in the immediate vicinity of the respective Presently Existing Saugus Production and Alluvial Wells.

1.51 **"Pro Forma Estimate of Project O&M"** has the meaning as set forth in Section 5.1.1 and is attached hereto as Exhibit D. **"Joint Estimate of Project O & M"** has the meaning as set forth in Section 5.2.1.

1.52 **"Project"** means:

1.52.1 The planning, development, design, permitting, construction, operation and maintenance of a system to be installed at the existing Rio Vista Intake Pump Station site for treatment of (i.e., removal of perchlorate from) water pumped from Saugus 1 and 2, so that the water will be available for potable purposes; any necessary operational modifications at the Saugus 1 and 2 Wells; any necessary "Sentry Wells" (as defined below) and/or monitoring wells, to the extent not paid for by other sources and to the extent consistent with applicable regulatory requirements; associated piping at the pump station; and the pipeline from Saugus 1 to Saugus 2 to the treatment plant, described more fully in Exhibit F hereto (the "Saugus 1 & 2 Treatment System"). The Parties through the monthly technical meetings will determine what Sentry Wells and/or monitoring wells may be required, provided that if the technical committee is unable to reach agreement on the number of or need for such wells, and if additional wells are required by DHS or other regulators, the number of and/or need for such wells will be determined by the Cost Consultant in accordance with Article 7.

1.52.2 The **"Q2 Treatment System"** (as defined below), when it has been relocated and incorporated into the Project pursuant to a Q2 Treatment System Relocation as provided in Section 4.2.1 herein.

1.53 **"Project Modification Notice"** has the meaning set forth in Section 9.1.2.

1.54 **"Project Capital Costs"** means the reasonable and necessary costs associated with the planning, development, design, permitting, construction, installation and/or closure of the Project, including such costs incurred after January 31, 2007, but prior to the Effective Date.

1.55 **"Estimate of Project Capital Costs"** means the estimate of the capital costs for the Project as set forth in Exhibit G.

1.56 **"Project Capital Costs Escrow Account"** means the escrow account into which Defendants shall deposit or cause to be deposited the initial amount of five million dollars ($5,000,000), to be used for the purposes described in Section 1.52 of this Agreement. Additional deposits by Defendants into the Project Capital Costs Escrow, up to a maximum additional amount of five million dollars ($5,000,000), may be required as described in Section 4.4 of this Agreement for the purposes set forth in Section 1.52 of this Agreement. Within thirty (30) days after Bankruptcy Court approval of this Agreement, Whittaker, on behalf of all Defendants shall open the "Project Capital Costs Escrow Account" by signing and delivering to City National Bank or other agreed bank escrow instructions substantially in the form of Exhibit H-1 hereto, and depositing the amount of five million dollars ($5,000,000) into said account as described above.

1.57 **"Project Costs"** means Project Capital Costs and Project O&M Costs, including costs arising from a Project Modification, to the extent provided in this Agreement.

1.58 **"Project Modification"** has the meaning set forth in Article 9.

1.59 **"Project O&M Costs"** means the identifiable reasonable and necessary costs actually incurred in operating and maintaining the Project to perform its intended function of providing containment of perchlorate as defined in Section 9.1 of this Agreement and restoring impacted groundwater production capacity, which shall be estimated in an annual estimate to be prepared

by CLWA and agreed to by Whittaker and AISLIC or confirmed by the Cost Consultant, unless and until all Lump Sum determinations are made pursuant to Sections 5.2.6 and 9.1.7 or the applicable regulatory authorities determine that treatment is no longer necessary. Costs of operations and maintenance of the Project incurred by Plaintiffs, limited to such reasonable and necessary additional costs directly related to the perchlorate contamination, shall include (based upon the Project as currently contemplated):

Saugus 1 and 2 Treatment Plant Operations and Maintenance

- Vendor Resin Service Contract(s) – (Replacement Resin, Labor, Transportation, Disposal, Disposal Certification, Insurance)-to be negotiated with Vendor jointly by Plaintiffs, Defendants, and AISLIC

- Power – Treatment Plant Operations, including the costs to pump water from Saugus 1 and 2 and, if applicable, Q2 (after relocation) through the treatment system, but excluding the power costs to pump water to the ground surface and the power costs to pump treated water into the CLWA's or VWC's water system. These power costs shall be based on an allocation calculated by CLWA and approved by Whittaker and AISLIC, and subject to Cost Consultant determination in the event that agreement cannot be reached.

- Materials/Supplies
  - Disinfection (Ammonia) and acid
  - Filters
  - Miscellaneous

- Spare Parts
  - Treatment Equipment
  - Pumping and Piping Systems at Treatment Plant
  - Miscellaneous

- Plaintiffs' Labor, if not performed by outside contractor – salary plus actual benefit load (but not-to-exceed 42%) imposition above his/her normal salary:
  - District Employee, Operations Monitoring/Sampling
  - District Employee, Treatment Equipment Maintenance
- Expenses
  - Water Testing (Directly Related to 97-005 Compliance or process monitoring at Purveyor's Rate Schedule)
  - DHS and POTW Fees
  - Miscellaneous Directly Related to Treatment System Maintenance
- Outside Consultants
  - Permits/Renewals
  - Services in addition to those of the Plaintiffs' employee(s) required to meet obligations under Section 8.3.1.1, 8.3.2.3, 8.3.2.4, and 8.4.1, to the extent such employee(s) are not able to meet such obligations
  - Reports/Compliance
  - Engineering
  - Modeling (Directly Related to 97-005 Compliance)
  - Legal (Directly Related to 97-005 Compliance and Plant Operations), limited to the services provided by law firm(s) employed by Plaintiffs for such DHS compliance and plant operations matters, and at the rates such firm(s) normally charge for such work.
  - Insurance – (Insurance as provided in Article 11)

- Arbitrator (per Section 13.2) and Cost Consultant Costs and Fees (per Article 7)
- Project O&M Escrow Costs and Fees

Project O&M costs shall also include an annual flat payment of twenty thousand dollars ($20,000) (to be adjusted after five years as necessary to account for inflation) in lieu of the following activities and costs: Plaintiffs' Employee(s) to provide services under Sections 8.3.1.1, 8.3.2.3, 8.3.2.4, and 8.4.1; any wages or salaries related to the perchlorate contamination plus all benefit load imposition above his/her normal salary; any additional costs for such employee(s) associated with the monitoring, reporting and record-keeping activities described in Section 8.3.1.1, 8.3.2.3, and 8.3.2.4 of this Agreement that are related to the perchlorate contamination; and any Plaintiffs' Employee(s) costs incurred by Plaintiffs in connection with the Monthly Technical Meetings described in Section 8.4.1 of this Agreement.

Project O&M Costs shall also include the identifiable reasonable and necessary costs of operating and maintaining the Q2 Treatment System when it is relocated from Well Q2 and incorporated into the Project as provided for in Section 4.2.1, monitoring and laboratory services for necessary Sentry Wells and monitoring wells encompassed within the Project to the extent not paid for by other sources and to the extent consistent with applicable regulatory requirements, and Project Modification O&M costs, including any costs of evaluating containment for purposes of determining whether a Project Modification is appropriate. The costs and approach of evaluating containment shall be discussed and agreed upon by representatives of Plaintiffs, Whittaker and AISLIC at the monthly Technical Meetings, or determined by Cost Consultant. Prior to determination of the Lump Sum pursuant to Section 5.2.6, Project O&M Costs will also include the reasonable and necessary outside fees and costs

incurred by Plaintiffs and Whittaker that are directly related to the perchlorate contamination and to obtaining funding from Public Funding Sources, subject to an annual cap of two hundred thousand dollars ($200,000) on Plaintiffs' outside fees and costs and one hundred thousand dollars ($100,000) on Whittaker's outside fees and costs, subject to such other restrictions as are found in Section 14.2, below. Fees and costs incurred by Plaintiffs or to be incurred by Plaintiffs in the future that are associated with obtaining funding from **"Public Funding Sources"** (as defined below) will not be considered in the determination of the Lump Sum pursuant to Section 5.2.6 and 9.1.7.

1.60 **"Project O&M Escrow Account"** means the escrow account established and funded by Defendants for payment of Project O&M Costs as described in Section 6.4 of this Agreement.

1.61 **"Property Policy"** has the meaning set forth in Section 11.1.1.

1.62 **"Proofs of Claim"** has the meaning set forth in Section 12.1.5.

1.63 **"Public Funding Sources"** has the meaning set forth in Article 15.

1.64 **"Q2 Capital Costs"** means the costs set forth in Exhibit I which were incurred by VWC for the design and installation of the Q2 Treatment System, all of which have been approved and reimbursed by Defendants.

1.65 **"Q2 Escrow Account"** has the meaning set forth in Section 4.1.

1.66 **"Q2 Escrow Account Instructions"** means the Escrow Instructions for the Q2 Capital Costs Escrow Account attached as Exhibit J hereto, as amended as reflected in Exhibits K-1 and K-2.

1.67 **"Q2 O&M Costs"** means the reasonable and necessary costs actually incurred in operating and maintaining the Q2 Treatment System prior to relocation and incorporation into the Project as provided in Section 4.2.1, as set forth in the Estimate of Q2 O&M Costs, and not

to exceed nine thousand and three hundred dollars ($9,300) on average per month for the first 2 years following Commencement of Operations, except in the event of a **"Q2 Resin Exchange,"** (as defined below). Costs of operation and maintenance of the Q2 Treatment System shall include, but not be limited to, equipment rental, service fees, chemicals, monitoring, laboratory services, and resin replacement related to the treatment of perchlorate and flow rates currently permitted by DHS for the Q2 Treatment System.

1.68 **"Estimate of Q2 O&M Costs"** means the approved monthly operations and maintenance estimate for Q2 O&M Costs for the first two years after Commencement of Operations prior to relocation and incorporation into the Project, set forth in Exhibit L.

1.69 **"Q2 Resin Exchange"** means the removal of ion exchange resin which VWC determines is no longer capable of performing its intended function from the ion exchange vessels and replacement with new resin, and includes but is not limited to, transportation of the spent and new resin, and proper destruction of the spent resin in accordance with applicable regulations.

1.70 **"Q2 Semi-Annual O&M Statement"** has the meaning set forth in Section 6.3.2.

1.71 **"Q2 Treatment System"** means the construction, operation and maintenance of a system installed in October 2005 for treatment of (i.e., removal of perchlorate from) water pumped from Valencia's well Q2.

1.72 **"Q2 Treatment System Relocation"** means the relocation of the Q2 Treatment System as described in Section 4.2.1.

1.73 **"Rapid Response Funds"** means the funds, limited to ten million dollars ($10,000,000), available to Plaintiffs for the period of time set forth in Section 11.2.1 of this Agreement, which the Defendants shall cause to be paid to Plaintiffs on a demand basis in accordance with Section

11.2 of this Agreement, as a result of specified perchlorate impacts to "Threatened Wells" (as defined herein).

1.74 **"Related Settlement"** has the meaning set forth in Recital N.

1.75 **"Remedial Action Plan"** means a technical report prepared in accordance with Section 25356.1 of the California Health and Safety Code and which, at a minimum, addresses the remedial investigation, risk assessment, and evaluation of remedial alternatives and proposes a remedial alternative.

1.76 **"Remedy Stoppage"** means a cessation of Project operations under circumstances requiring a Project Modification.

1.77 **"Replacement Wells & Associated Pipelines"** means:

1.77.1 Two new wells capable of producing water at the combined rate of 4200 gpm (**"Replacement Wells"**) and associated pipeline to convey the water pumped from the Replacement Wells to a nearby reservoir and associated disinfection facility (**"Associated Pipelines"**). As currently contemplated, the Replacement Wells will be constructed in the vicinity of Magic Mountain Amusement Park and the Associated Pipelines will consist of approximately 1000 feet of a 12 inch pipeline and 2500 feet of 18 inch pipeline, as described more fully in Exhibit M hereto (the **"Magic Mountain Wells"**);

1.77.2 Potential closure and abandonment of the Stadium Well, in SCWC's reasonable discretion, and NC11, in NCWD's reasonable discretion, described more fully in Exhibit N hereto (the "Well Closures");

1.77.3 Construction of a new alluvial well (the **"Stadium Replacement Well"**), to be located northeast of the Site in an alluvial area where perchlorate is not present in groundwater, and associated pipeline(s), described more fully in Exhibit O hereto.

1.78 **"Replacement Wells/Distribution Pipelines Capital Costs Escrow Account"** means the escrow account into which Defendants shall make an initial deposit of four million seven hundred and fifty thousand dollars ($4,750,000), to be used for the purposes described in Section 4.3 of this Agreement. Additional deposits by Defendants into the Replacement Wells/Distribution Pipelines Capital Costs Escrow Account may be required for Replacement Wells/Distribution Pipelines Capital Cost additional costs as described in Section 4.3 of this Agreement and for the purposes set forth therein. These additional deposit(s) shall be paid as described in Section 4.3.3. Within thirty (30) business days after Bankruptcy Court approval of this Agreement, Whittaker, on behalf of all Defendants, shall open the "Replacement Wells/Distribution Pipelines Capital Costs Escrow Account" by signing and delivering to City National Bank or other agreed bank escrow instructions substantially in the form of Exhibit P hereto, and depositing the amount of $4,750,000 into said account as described above.

1.79 **"Response Costs"** means "response costs" as defined under CERCLA.

1.80 **"RFI"** means Remediation Financial, Inc.

1.81 **"RFI Parties"** means Santa Clarita L.L.C. ("SCLLC") and Remediation Financial, Inc. ("RFI"), collectively.

1.82 **"Saugus Formation"** means the generally deeper (up to 8,500 feet thick) formation of aquifers consisting of semi-consolidated sandstone, siltstone and conglomerate of Pleistocene age and occurs under confined, semi-confined and unconfined conditions.

1.83 **"SCLLC"** means Santa Clarita L.L.C.

1.84 **"SCLLC Property"** has the meaning described in Exhibit A.

1.85 **"SCWC"** means Santa Clarita Water Company.

1.86 **"Sentry Wells"** means groundwater monitoring wells located upgradient of the Subject Wells.

1.87 **"Site"** means the SCLLC Property and the BRLLC Property collectively

1.88 **"Steadfast PLC Policy"** means the Property Transfer Liability Policy Number PLC 3598792-00 issued by Steadfast Insurance Company ("Steadfast") to the Defendants.

1.89 **"Subject Wells"** has the meaning referred to in Recital B of this Agreement.

1.90 The "**SF Escrow 1 Account**" and the "SF Escrow 1" means the "SF Escrow 1" or "SF Escrow 1 Account" as defined in, established, and governed by the Coverage and Claims Settlement Agreement and the "Joint Escrow 1 Agreement and Instructions (Steadfast Escrow 1 Account)" filed in the Bankruptcy Cases on March 31, 2006.

1.91 The "**SF Escrow 2 Account**" means the "SF Escrow 2" or "SF Escrow 2 Account" as defined in, established, and governed by the Coverage and Claims Settlement Agreement and the "Joint Escrow 2 Agreement and Instructions (Steadfast Escrow 2 Account)" filed in the Bankruptcy Cases on March 31, 2006.

1.92 **"Steadfast"** means Steadfast Insurance Company.

1.93 **"SSCH"** means Steadfast Santa Clarita Holdings, LLC.

1.94 **"Estimate of Supplemental Project O&M"** has the meaning set forth in Section 5.2.3.

1.95 **"Third Party Claims"** has the meaning set forth in Section 12.1.1.

1.96 **"Threatened Wells"** has the meaning set forth in Section 11.2.1.

1.97 **"Underlying Action"** has the meaning referred to in Recital C of this Agreement.

1.98 **"V-206 Replacement Well"** means construction and installation of VWC's well V206 and associated pipelines, and permanent closure and abandonment of VWC's well V157 as described in Exhibit Q.

1.99 **"VWC"** means Valencia Water Company.

1.100 **"Whittaker"** means Whittaker Corporation.

1.101 **"Working Day"** means a day other than a Saturday, Sunday, or federal or California state holiday.

ARTICLE 2. COURT APPROVALS AND RELATED SETTLEMENTS

2.1 Final Bankruptcy Court Approval Order and Good Faith Certifications Required

Except for this Section which is effective upon execution of this Agreement by all Parties, this Agreement, including the Parties' promises, obligations, releases, representations and warranties under this Agreement, shall take effect on the later of the date of the Final Approval Order (as defined below) or the date of the "Good Faith Certifications" (as defined below) ("the **Effective Date**") and is absolutely contingent upon the entry of an order of the Bankruptcy Court that approves this Agreement in its entirety without any modifications and contains the Bankruptcy Court Determinations referenced below, and that has become effective and as to which no stay pending appeal has been issued ("**Final Approval Order**") and such order not being subject to any stay.

2.1.1 This Agreement, and the settlement of claims reflected herein, is absolutely contingent upon (i) court certification that such settlement is made in good faith, and (ii) a settlement of, or the dismissal with prejudice of, all of the claims asserted in the Counter-Claims (the "**Related Settlement**") and court certification of the Related Settlement as being made in good faith (collectively, the "**Good Faith Certifications**"). The court's order(s) setting forth the Good Faith Certifications shall at a minimum provide that "any and all claims against the settling Defendants and the settling counter-defendants, arising out of the matters addressed in the Underlying Action or addressed in the Related Settlement, regardless of when asserted or by whom, are barred; such claims are barred regardless of whether they are brought pursuant to

CERCLA, or pursuant to common law or other federal or state laws," or language substantially to the same effect.

2.1.2 This Agreement shall be null and void *ab initio*, and the Parties shall be returned to their respective positions in all aspects, if either (a) the Related Settlement, Good Faith Certifications and Final Approval Order have not all been obtained before October 31, 2007 for any reason; or (b) the Bankruptcy Court denies a motion to approve this Agreement as written or (c) a court denies a motion for good faith certification of either this Agreement, the Related Settlement or both, as written. RFI Parties, at their sole cost and expense, shall prepare and file a motion with the Bankruptcy Court in a form satisfactory to all Parties seeking the Final Approval Order promptly after the Agreement's execution by all Parties. RFI Parties' motion for a Final Approval Order shall include a request that the Bankruptcy Court in its Final Approval Order make the Bankruptcy Court Determinations in accordance with the requirements set forth in Section 2.4 of this Agreement.

2.1.3 All other Parties shall support the entry of the Final Approval Order and shall cooperate with RFI Parties in presenting the motion seeking approval. The Parties shall cooperate in preparing and filing motions with the District Court seeking the Good Faith Certifications. To the extent required under CERCLA or applicable federal law, the Parties agree to cooperate in obtaining approval of a United States District Court having appropriate jurisdiction (the "**District Court**") as necessary to ensure enforceability of the terms and intent of this Agreement (including but not limited to asking the Bankruptcy Court to certify its findings and/or conclusions regarding certain issues to such District Court).

2.2 Plaintiffs' Reservation of Rights Against Buyer

Plaintiffs specifically reserve all rights against Buyer with regard to Buyer's compliance with all environmental laws and performance of any applicable remediation obligations, subject only to the terms of Section 12.1 hereof.

2.3 Plan Filed by Debtors

If a Final Approval Order is entered by the Bankruptcy Court in the Bankruptcy Cases, then any plan filed by the Debtors in the Bankruptcy Cases ("**Plan**") shall not be materially inconsistent with the terms of this Agreement and the Final Approval Order.

2.4 Final Approval Order Provisions

Debtors and all other Parties hereto acknowledge and agree, and the Final Approval Order shall provide that (a) funds in SF Escrow 1 Account were, pursuant to the Coverage Order, already earmarked for the purposes of satisfying Defendants' obligations pursuant to this Agreement; (b) the requirement that the funds in SF Escrow 1 Account be used exclusively for the purposes for which they are agreed to be used pursuant to the Coverage and Claims Settlement Agreement as modified by the Coverage Order (which are consistent with the purposes for which those funds are to be used pursuant to this Agreement) is res judicata in the Debtors' Bankruptcy Cases; (c) payment of obligations under this Agreement, upon entry of the Final Approval Order, constitutes the permitted use of SF Escrow 1 funds to "fund settlement or a stipulated judgment pursuant to a settlement in the CLWA Case" that meets all of the "Approved CLWA Settlement Parameters" as provided in paragraph IV.F.5.a.(i) of the Coverage and Claims Settlement Agreement as modified by the Coverage Order and as described in Exhibit 16 thereto and such payments pursuant to this Agreement shall constitute, and shall be deemed to be consistent with the requirements for the administration of the SF Escrow 1 funds

by AISLIC pursuant to Section IV.F.5.d. of the Coverage and Claims Settlement Agreement as modified by the Coverage Order; (d) any payment or transfers of funds to or for the benefit of Plaintiffs from SF Escrow 1 Account that are consistent with this Agreement are free and clear of all other adverse claims, rights, title, interest, liens or encumbrances of any kind whatsoever that could be asserted against any property or interest of the Debtors; and (e) the Agreement is a complex agreement resolving numerous disputes and pending legal proceedings among numerous parties and that following the Effective Date, it will be practically and legally impossible to unwind this Agreement or restore the parties to their status quo based upon any reversal or modification on appeal or rehearing or other review; (f) upon entry of the Final Approval Order, the Defendants' payment obligations under this Agreement including any sum awarded pursuant to arbitration hereunder, may be made from the SF Escrow 1 Account; and (g) either i) the terms of the Agreement and Related Settlement are fully consistent with the terms of the SunCal Purchase and Sale Agreement and Joint Escrow Instructions dated July 6, 2006, or ii) that the Buyer consents to the Agreement and the Related Settlement to the extent there is any inconsistency. (Subparagraphs (a) through (g) above required to be included in the Final Approval Order are referred to herein as the "Bankruptcy Court Determinations.") The Final Approval Order shall also provide that the Order applies to any successor Administrator of the "SF Escrow 1" in the "Coverage and Claims Settlement Agreement."

2.5 Plaintiffs' Recourse Against Debtors

Plaintiffs' recourse to (i) enforce all of Debtors' obligations under this Agreement and (ii) for any and all actions, causes of action, claims, demands, liabilities, damages, penalties, debts, losses, costs, expenses and fees (including, without limitation, litigation costs and attorney and consultant fees) of every kind and nature whatsoever, past or future, in law and in equity against

the Debtors and BRLLC arising from or in any way related to releases or threatened releases, or other environmental conditions, past or future, at or around the Site is expressly and completely limited to Debtors' rights to use, and title and interest in, the SF Escrow 1 Account established pursuant to the Coverage and Claims Settlement Agreement and the "Joint Escrow 1 Agreement and Instructions (Steadfast Escrow 1 Account)". Plaintiffs' rights against Debtors are not waived in the Bankruptcy Cases to the extent of Debtors' rights, title and interest in the SF Escrow 1 Account.

ARTICLE 3. PAYMENTS DIRECTLY TO PLAINTIFFS

3.1 Payment for Plaintiffs' Past Environmental Claims

Within thirty (30) Days after the Effective Date, Defendants shall pay the amount of ten million dollars ($10,000,000) by payment of the amount of two million five hundred thousand dollars ($2,500,000) to each of the four Plaintiffs. The obligation to make such payments shall be joint and several, subject to Section 2.5. This payment is in full and complete satisfaction and resolution of Plaintiffs' Past Environmental Claims.

3.2 Payment for Plaintiffs' Past Design Costs

Within thirty (30) Days after the Effective Date, Defendants shall pay the amount of one million seven hundred fifty three thousand one hundred fourteen dollars and fifty-eight cents ($1,753,114.58) to CLWA. The obligation to make such payment shall be joint and several, subject to Section 2.5. This payment is in full and complete satisfaction and resolution of Plaintiffs' Past Design Costs, as set forth in Exhibit E to this Agreement.

3.3 Payment to VWC

Within thirty (30) Days after the Effective Date, Defendants shall pay to VWC one million dollars ($1,000,000). The obligation to make such payment shall be joint and several, subject to Section 2.5. This payment is in full and complete satisfaction and resolution of

Plaintiffs' claims in the Underlying Action for V-206 Replacement Well, including, but not limited to, construction and installation of VWC's well V206 and associated pipelines, and permanent closure and abandonment of VWC's well V157, as described in Exhibit Q.

ARTICLE 4. FUNDING OF Q2 COSTS, REPLACEMENT WELL/DISTRIBUTION PIPELINE CAPITAL COSTS AND PROJECT CAPITAL COSTS

4.1 Funding of Q2 Capital Costs and Q2 O&M Costs

Plaintiffs acknowledge that Defendants previously have caused to be deposited into the **"Q2 Escrow Account"** five hundred thousand dollars ($500,000) for reasonable and necessary and approved Q2 Capital Costs. This payment is in full and complete satisfaction and resolution of Plaintiffs' claims for the capital costs associated with the Q2 Treatment System. Plaintiffs acknowledge that Defendants previously have caused to be deposited into the "Q2 Escrow Account" two hundred twenty three thousand and two hundred ten dollars ($223,210) for certain reasonable and necessary and approved Q2 O&M Costs. This payment is in partial satisfaction and resolution of Plaintiffs' claims for the operations and maintenance costs associated with the Q2 Treatment System. Construction of the Q2 Treatment System has been completed and all Q2 Capital Costs associated with the Q2 Treatment System have been approved and paid by or on behalf of Defendants as of the Effective Date.

A copy of the Q2 Escrow Account Instructions is attached hereto as Exhibit J and incorporated herein by this reference. Copies of Amendments No. 1 and No. 2 to the Q2 Escrow Account Instructions are attached hereto as Exhibit K-1 and Exhibit K-2, respectively and incorporated herein by this reference. Any amounts, including interest, remaining in the Q2 Escrow Account as of the Effective Date shall be used by Plaintiffs for Q2 O&M Costs, and credited against Defendants' obligations for funding Q2 O&M Costs as set forth in Section 4.1.1 below.

4.1.1 The Q2 Treatment System commenced operations on October 12, 2005 ("Q2 Commencement Date"), and VWC has been incurring Q2 O&M Costs for the Q2 Treatment System since that date.

4.1.1.1 During the period prior to October 12, 2007, VWC's withdrawal of funds for Q2 O&M Costs shall not exceed nine thousand and three hundred dollars ($9300) on average per month except in the event of a Q2 Resin Exchange and except for reimbursement of any Q2 O&M Costs that have been incurred prior to the Effective Date and not previously paid out of the Q2 Escrow Account.

4.1.1.2 In the event Commencement of Operation of the Project has not occurred as of October 12, 2007, and the Q2 Treatment System must still be operated pursuant to applicable regulatory requirements, Defendants shall pay or cause to be paid an additional deposit of one hundred eleven thousand and six hundred dollars ($111,600) on or before October 12, 2007, to be used for Q2 O&M Costs. In the event Commencement of Operation of the Project has not occurred as of October 12, 2007, and the Q2 Treatment System must still be operated pursuant to applicable regulatory requirements, Defendants shall pay or cause to be paid additional reasonable and necessary Q2 O&M Costs until the Q2 Treatment System is relocated as provided in Section 4.2.1. After October 12, 2007, VWC may withdraw funds on a monthly basis as is reasonably necessary.

4.1.1.3 Defendants shall pay or cause to be paid into the existing Q2 Escrow Account an additional amount of one hundred sixty seven thousand and five hundred dollars ($167,500), or such other amount as may be agreed by the Defendants or determined by the Cost Consultant in accordance with Article 7, in the event a determination is made by VWC in accordance with its operating permit and upon agreement by Whittaker and AISLIC, that

replacement of the treatment resins used in the Q2 Treatment System is necessary. Such deposit shall be made within 10 days after VWC's written notice of determination and request for funding has been delivered to Defendants. Any dispute regarding such determination by VWC shall be resolved by the Cost Consultant in accordance with Article 7.

4.1.2 Defendants' obligations hereunder for deposits required to be made into the Q2 Escrow Account shall be on a joint and several basis subject to Section 2.5.

4.1.3 Any amounts, including interest, remaining in the Q2 Escrow Account upon Q2 Treatment System Relocation to the location of the Project shall be refunded into the SF Escrow 1 Account (as defined in the Coverage and Claims Settlement Agreement.).

4.1.4 Payments from the Q2 Escrow Account shall be made on a monthly basis in accordance with the procedures set forth in Article 6 and the applicable Q2 Escrow Account instructions.

4.1.5 Defendants and AISLIC shall not be entitled to withdraw any funds from the Q2 Escrow Account or to direct or control the payment of such funds, and shall have no rights with respect to such funds, except as provided in this Agreement.

4.1.6 Payments for Q2 O&M Costs shall continue until the date that VWC and CLWA are required to relocate and integrate the Q2 Treatment System into the Project pursuant to Section 4.2.1 or until treatment of Well Q2 is no longer required by DHS, whichever occurs first. The Q2 Escrow Account shall terminate following written notification from Plaintiffs that the Q2 Treatment System has been integrated into the Project or written notification from Plaintiffs or Cost Consultant or arbitrator determination that treatment of Well Q2 is no longer required by DHS, provided that payment has been made for all Q2 Capital Costs and Q2 O&M

Costs permitted to paid from the Q2 Escrow Account in accordance with the procedures set forth in this Agreement.

4.2 Termination of the Q2 Treatment System Operations

4.2.1 VWC shall undertake to terminate operation of the Q2 Treatment System as soon as reasonably feasible, in accordance with requirements of the California Department of Health Services (DHS). In connection with the construction of the Project, Plaintiffs shall incorporate the Q2 Well and the Q2 Treatment System into the Project, notwithstanding any prior determination that the treatment at Q2 Well is no longer required, so as to enable the Saugus 1&2 Treatment System to treat Q2 water in case the Q2 Well subsequently becomes recontaminated. In connection with the construction of the Project, VWC and CLWA shall incorporate the Q2 Well and the Q2 Treatment System into the operation of the Project not later than (i) two (2) years after the Q2 Commencement Date or (ii) the Commencement of Operations of the Project, whichever is later. Upon relocating operation of the Q2 Treatment System, VWC and CLWA shall transfer the treatment vessels used as part of the Q2 Treatment System to the location of the Project and incorporate the use of those vessels into that system. Upon terminating or relocating operation of the Q2 Treatment System, VWC and CLWA shall transfer the remaining resin used as part of the Q2 Treatment System to the location of the Project and incorporate the unused resin into that system.

4.2.2 The obligation to pay Q2 O&M Costs for the Q2 Treatment System pursuant to Section 4.1.1 of this Agreement shall cease either (i) upon written notification from Plaintiffs or Cost Consultant or arbitrator determination that treatment of Well Q2 is no longer required by DHS; or (ii) upon written notification from Plaintiffs that the Q2 Treatment System has been integrated with the Project and that the Q2 O&M Costs will be included in the Project

O&M Costs and handled in accordance with Article 5, which notice shall not occur later than (i) two (2) years after the Q2 Commencement Date or (ii) the Commencement of Operations of the Project, whichever occurs later. If, after a determination that treatment at well Q2 is no longer required, well Q2 becomes re-contaminated so as to require treatment, said treatment will be handled by means of the Project, and the costs thereof shall be Project O&M Costs.

4.2.3 Any dispute as to whether treatment of water pumped from Q2 can be discontinued or should be recommenced shall be resolved through binding Cost Consultant arbitration, as provided in Article 7 of this Agreement, provided that the arbitration decision must be consistent with the requirements of all regulatory agencies with jurisdiction regarding perchlorate.

4.3 Replacement Wells/Distribution Pipeline Capital Costs Escrow Account

Defendants shall be jointly and severally obligated subject to Section 2.5 to pay for their proportional share of the capital costs associated with the installation of new Distribution Pipelines and Replacement Wells & Associated Pipelines pursuant to this Section 4.3. CLWA, on behalf of all Plaintiffs, and Whittaker, on behalf of all Defendants, concurrently with execution of this Agreement, shall execute and, thereafter, promptly deliver to City National Bank or other agreed bank instructions for an escrow (the "**Replacement Wells/Distribution Pipeline Capital Costs Escrow Account**") substantially in the form of Exhibit P hereto. Within thirty (30) Days after the Effective Date, Defendants shall make an initial deposit into the Replacement Wells/Distribution Pipeline Capital Costs Escrow Account of four million seven hundred and fifty thousand dollars ($4,750,000) to be used for Distribution Pipelines, and Replacement Wells & Associated Pipelines. The Replacement Wells & Associated Pipelines will provide new Saugus Formation production capacity to replace lost well capacity not

provided by the Project or V-206. The Distribution Pipelines will be connected to various turnouts within the Plaintiffs' system.

4.3.1 The Defendants' initial proportional share of the capital costs associated with the Distribution Pipelines and the Replacement Wells & Associated Pipelines will be based on the Percentage Cost Allocation for Distribution Pipelines and Replacement Wells & Associated Pipelines set forth in Exhibit R and the bid items submitted by the bidder selected through a competitive bidding process in accordance with CLWA bid procedures and applicable law. Whittaker's and AISLIC's technical representatives shall be provided reasonable opportunity to advise and consult on design, engineering, location of well replacement and other technical aspects of the contractor selection and construction process. For bid items that do not have specific cost allocations, the weighted cost allocation of the other bid items shall be applied. During construction, the Plaintiffs and Defendants shall provide the funds necessary to pay the selected contractors in the proportion provided for by the determination of the initial proportional share. Upon completion and Plaintiffs' acceptance of the construction, a true-up of the cost allocation shall be performed. To the extent feasible, the true-up shall apply the cost allocation of Distribution Pipelines and Replacement Wells presented in Exhibit R to the actual costs of the Distribution Pipelines and Replacement Wells, including approved change orders.

4.3.2 The Parties acknowledge that construction of the Replacement Wells and Associated Pipelines, except the drilling of the Replacement Wells, will be deferred until the construction of the extension of Magic Mountain Parkway is initiated.

4.3.3 In the event Defendants' proportional share of capital costs associated with Distribution Pipelines and Replacement Wells & Associated Pipelines exceeds four million and seven hundred fifty thousand dollars ($4,750,000), including all costs of redrilling

Replacement Wells that are not capable of producing water at the required rate, Defendants shall be obligated, on a joint and several basis subject to Section 2.5, to deposit in the Replacement Wells/Distribution Pipeline Capital Costs Escrow Account additional funds sufficient to cover such excess, as reasonably determined by Plaintiffs, subject to approval by Whittaker and AISLIC or determination by the Cost Consultant. Such deposits shall be made by Defendants in a timely manner. The Estimate of Replacement Wells/Distribution Pipeline Capital Costs attached hereto as Exhibit S reflects that Defendants' proportional share of the Replacement Wells/Distribution Pipeline Capital Costs exceeds $4,750,000. However, in the event that cost savings are achieved such that Defendants' proportional share of capital costs associated with Distribution Pipelines and Replacement Wells & Associated Pipelines is less than the amounts deposited by Defendants into the Replacement Wells/Distribution Pipeline Capital Costs Escrow Account, any amounts remaining in the Replacement Wells/Distribution Pipeline Capital Costs Escrow Account shall be refunded into the SF Escrow 1 Account (as defined in the Coverage and Claims Settlement Agreement).

4.3.4 Any dispute regarding the reasonableness, timing or necessity of Replacement Wells/Distribution Pipeline Capital Costs, the selection of the lowest responsive and responsible bid in the competitive bidding process, or the Defendants' appropriate proportional share shall be resolved through Cost Consultant arbitration in accordance with Article 7.

4.4 Project Capital Costs Escrow Account

CLWA, on behalf of all Plaintiffs, and Whittaker, on behalf of all Defendants, concurrently with execution of this Agreement, shall execute and, thereafter, promptly deliver to City National Bank or other agreed bank instructions for an escrow (the **"Project Capital Costs**

Escrow Account") substantially in the form of Exhibit H-1 hereto. Within thirty (30) Days after the Effective Date, Defendants shall, jointly and severally, be obligated to make a deposit into the Project Capital Costs Escrow Account of five million dollars ($5,000,000) (**"Initial Project Capital Costs Deposit"**) to pay Project Capital Costs.

4.4.1 In the event Project Capital Costs exceed the amount of the Initial Project Capital Costs Deposit, Defendants shall deposit in the Project Capital Costs Escrow Account additional funds sufficient to cover such excess, as determined by Plaintiffs, subject to AISLIC and Whittaker approval or determination by the Cost Consultant; but such total additional funds shall not exceed five million dollars ($5,000,000). Defendants shall deposit the additional funds in a timely manner after approval by AISLIC and Whittaker or by the Cost Consultant. The Estimate of Project Capital Costs attached hereto as Exhibit G reflects that Project Capital Costs are projected to exceed five million ($5,000,000). However, in the event that cost savings are achieved such that Project Capital Costs are less than the amounts deposited by Defendants into the Project Capital Costs Escrow Account, any amounts remaining in the Project Capital Costs Escrow Account shall be refunded into the SF Escrow 1 Account (as defined in the Coverage and Claims Settlement Agreement.).

4.4.2 Any dispute regarding the reasonableness, timing or necessity of Project Capital Costs shall be resolved through arbitration in accordance with Article 7.

ARTICLE 5. PAYMENT OF PROJECT O&M COSTS

5.1 Project O&M Escrow Account

5.1.1 Defendants shall be jointly and severally obligated subject to Section 2.5 to pay Project O&M Costs in accordance with the terms of this Agreement. The "*pro forma*" Estimate of Project O&M (**"Pro Forma Estimate of Project O&M"**) as of the date of execution of this Agreement is attached hereto as Exhibit D.

5.1.2 CLWA, on behalf of all Plaintiffs, and Whittaker, on behalf of all Defendants, and AISLIC shall, within thirty (30) days after Whittaker and AISLIC's receipt of Plaintiffs' written notice of anticipated commencement of Project operations execute and thereafter, promptly deliver to City National Bank or other agreed bank instructions for an escrow for funds to be used for payment of Project O&M Costs substantially in the form of Exhibit H-2 hereto.

5.1.3 Payments from the Project O&M Escrow Account shall be made on a monthly basis in accordance with the procedures set forth in this Article 5, Article 6, and the applicable escrow instructions, which instructions are subject to approval by Plaintiffs, Whittaker, and AISLIC and shall be consistent with the terms of this Agreement.

5.1.4 Upon termination of the Project O&M Escrow Account in accordance with this Agreement, any balance in that account shall be refunded into the SF Escrow 1 Account. The Project O&M Escrow Account shall terminate upon termination of this Agreement or earlier payment of all Lump Sum awards, provided that payment has been made for all Project O&M Costs in accordance with the procedures set forth in this Agreement.

5.2 Project O&M Costs

5.2.1 Defendants shall fund Project O&M Costs by depositing annually in the Project O&M Escrow Account the annual O&M amounts reasonably estimated by CLWA and modified as reasonably estimated by Defendants and AISLIC, or modified as determined by the Cost Consultant, and reflected in the Joint Estimate of Project O&M jointly prepared by the Parties (which may include determinations of the Cost Consultant). The first annual deposit (**"Initial Project O&M Deposit"**) shall be due thirty (30) days after Whittaker's, and AISLIC's receipt of Plaintiffs' written notice of anticipated commencement of Project operations and a

Joint Estimate of Project O&M has been agreed between the Parties or determined by the Cost Consultant for the first year of operations. The initial "Joint Estimate of Project O&M" shall be based upon the Pro Forma Estimate of Project O&M attached as Exhibit D hereto, as modified by CLWA and approved by Defendants and AISLIC or determined by the Cost Consultant. (**"Joint Estimate of Project O&M"**) Defendants will reasonably consider and respond to CLWA's proposed modifications to the attached Pro Forma Estimate of Project O&M as provided in this Article 5. The Parties will meet and confer concerning any disputes in preparing the initial Joint Estimate of Project O&M . Subsequent annual O&M deposits (each an **"Annual Project O&M Deposit"**) in the amount of the Joint Estimate of Project O&M for the upcoming year (each a "Joint Estimate of Project O&M") as agreed between the Parties or determined by the Cost Consultant, shall be due on or before the anniversary of the Initial Project O&M Deposit. CLWA will provide Whittaker, AISLIC, and Steadfast with a copy of each of Plaintiffs' proposed Joint Estimate of Annual Project O&M at least seventy-five (75) days prior to the anniversary date of the prior year's Annual Project O&M Deposit.

5.2.2 In the event of Defendants' or AISLIC's objection to any item included or excluded on any of the Plaintiffs' proposed Joint Estimates of Project O&M, Defendants or AISLIC shall notify Plaintiffs of their objection in writing within thirty (30) days after receipt of the proposed estimate, stating the reasons for its objection, and the Parties shall exercise their best efforts to resolve the disputed item(s). In the event that the disputed item is not resolved within fifteen (15) days after Defendants' or AISLIC's notice of objection, the disputed item(s) shall be submitted to the Cost Consultant, for expedited resolution in accordance with Article 7, below. Following meet and confer and any determinations of the Cost Consultant, the Parties

shall jointly prepare the Joint Estimate of Project O&M as agreed among the Parties or determined by the Cost Consultant.

5.2.3 In the event that CLWA determines it will be necessary to supplement the Project O&M Escrow Account in any given year to pay for Project O&M Costs, CLWA shall notify Defendants, AISLIC and Steadfast of its determination and provide an itemized statement, using the same format as the then-current Joint Estimate of Project O&M, of the amount of the supplemental funding (**"Estimate of Supplemental Project O&M"**) required to cover the additional Project O&M Costs. In the event of Defendants' or AISLIC's objection to any item included in the Plaintiffs' proposed Estimate of Supplemental Project O&M, Defendants or AISLIC shall notify Plaintiffs of their objection in writing within fifteen (15) days after receipt of the proposed Estimate of Supplemental Project O&M, stating the reasons for its objection, and the Parties shall exercise their best efforts to resolve the disputed item(s). In the event that the disputed item is not resolved within fifteen (15) days after Defendants' or AISLIC's notice of objection, the disputed item(s) shall be submitted to the Cost Consultant for expedited resolution in accordance with Article 7. Defendants shall deposit into the Project O&M Escrow Account the amount of the Estimate of Supplemental Project O&M within ten (10) days after determination of the amount of the Estimate of Supplemental Project O&M by agreement of the Parties or determination of the Cost Consultant.

5.2.4 Subject to the provisions of Section 9.1.7 below, the obligation to pay Project O&M Costs pursuant to this Article 5 shall cease the earlier of (i) the California Department of Health Services (DHS), and any other agency that has asserted jurisdiction and whose agreement is required, agrees that treatment of water pumped from Saugus 1 & 2 can be discontinued; or (ii) thirty (30) years after Commencement of Operations of the Project.

5.2.5 Any dispute regarding the reasonableness, applicability or necessity of Project O&M Costs, except for the issue of whether treatment of water pumped from Saugus 1 & 2 can be discontinued, shall be resolved through binding arbitration, as provided in Article 7 of this Agreement, provided that the arbitration decision must be consistent with the requirements of all regulatory agencies with jurisdiction, and prior to determination of the Lump Sum as described in Section 5.2.6. Any dispute regarding whether treatment of water pumped from Saugus 1 & 2 can be discontinued, shall be resolved through binding arbitration, as provided in Sections 13.1 and 13.2 of this Agreement (unless all Parties agree that the issue may be resolved as provided in Article 7 of this Agreement), provided that the arbitration decision must be consistent with the requirements of all regulatory agencies with jurisdiction, and prior to determination of the Lump Sum as described in Section 5.2.6.

5.2.6 Subject to the provisions of Section 9.1.7 below, beginning five years after Commencement of Operations of the Project (which time period will be tolled during any period in excess of one week of Remedy Stoppage), CLWA, Whittaker, or AISLIC may demand binding arbitration, as provided in Article 13 of this Agreement, for purposes of obtaining a determination of a lump sum for payment in lieu of the Project O&M Costs that would otherwise be due and payable during the remainder of the up-to thirty-year period (the "Lump Sum") based on the following criteria:

5.2.6.1 The Lump Sum will be calculated on a net present value basis using appropriate assumptions and techniques, including consideration of risk, activities and costs anticipated to occur after payment of the Lump Sum, and any other factors introduced by the Parties at arbitration and determined to be relevant by the arbitrator, but the Lump Sum shall be calculated on the assumption that the Defendants' obligation to pay for the Project O&M shall

cease not later than thirty years after Commencement of Operations of the Project, except as provided in Section 9.1.7. The Lump Sum determination shall also be based, in part, on consideration of the actual Project O&M Costs experienced prior to arbitration, but excluding any such Project O&M Costs as may have been associated with start-up of the system or otherwise not indicative of future Project O&M Costs. The Lump Sum amount will not include any capital costs, including but not limited to, capital costs of Project Modifications implemented pursuant to Article 9 of this Agreement or any projected or potential capital costs for Project Modifications which become or may become necessary after the first three years following Commencement of Operations of the Project (which time period will be tolled during any period in excess of one week of Remedy Stoppage). The Lump Sum amount will not include any lobbying costs or legal fees or costs associated with obtaining funding from Public Funding Sources. With respect to the activities and costs subject to the annual flat fee payment of twenty thousand dollars ($20,000), described in Section 1.59, the Lump Sum will be calculated based on an assumption that the $20,000 annual flat fee will be escalated based on CPI. For purposes of this Agreement, CPI means the Consumer Price Index for All Urban Consumers (CPI-U) in the Los Angeles-Riverside-Orange County Consolidated Metropolitan Statistical Area, All Items, as published by the United States Department of Labor, Bureau of Labor Statistics, for which the base year is 1982-84 = 100, or if such publication ceases to be in existence, a comparable index agreed by the Parties.

5.2.7 In the event a Lump Sum determination is made in accordance with Section 5.2.6, the amount of the Lump Sum shall be paid by Defendants, jointly and severally, and subject to Section 2.5, to Plaintiffs within thirty (30) Working Days after the arbitrator's decision is issued and any petition filed prior to that time to vacate or correct the arbitrator's

decision, pursuant to Cal. Code of Civil Procedure Section 1286.2 (Grounds for Vacation of Award) or Section 1286.6 (Grounds for Correction of Award), is finally adjudicated. Plaintiffs agree to use the Lump Sum amount solely for Project O&M Costs until such Lump Sum amount is exhausted, or until Plaintiffs' obligation to operate the Project, as set forth in Section 8.3.1, ceases.

ARTICLE 6. PAYMENTS FROM THE ESCROW ACCOUNTS

6.1 General

6.1.1 Payments from the Q2 Escrow Account, the Replacement Wells/Distribution Pipeline Capital Costs Escrow Account, the Project Capital Costs Escrow Account, and the Project O&M Escrow Account (the "**Escrow Accounts**") shall be made in accordance with the procedures set forth in this Section and each Escrow Account's instructions, which instructions shall be jointly approved by Plaintiffs, Whittaker, and AISLIC, and shall be consistent with the terms of this Agreement. The Parties acknowledge and agree that funding of the Escrow Accounts is based on the cost estimates contained in the Exhibits to this Agreement, which estimates were prepared by Plaintiffs' consultants and reviewed but not independently verified by Defendants' and AISLIC's consultants, and that the actual costs and expenses incurred will control all corresponding future payments from the Escrow Accounts. The Parties acknowledge and agree that payments from the Escrow Accounts are to be made solely for reasonable and necessary costs and expenses actually incurred and not paid or reimbursed by other sources, even if less than the sums set forth in any estimate. The Parties shall cooperate in minimizing all costs incurred and paid pursuant to this Agreement. The Parties acknowledge and agree that payments from the Escrow Accounts are to be made only for reasonable capital or operations and maintenance costs for the Project, the Replacement Wells and Associated

Pipelines, Q2 Treatment System, and Distribution Pipelines pursuant to this Agreement, and only to the extent such costs are necessary.

6.1.2 Except as provided in this Agreement, Defendants and AISLIC shall not be entitled to withdraw any funds from the Escrow Accounts or to direct or control the payment of such funds, and shall have no rights with respect to such funds, other than approval rights expressly provided in this Agreement. Reporting and payment of taxes owed on income earned with respect to the escrows shall be the responsibility of Plaintiffs.

6.1.3 Upon termination of the Escrow Accounts in accordance with this Agreement, any balance in the Escrow Accounts shall be refunded to the SF Escrow 1 Account. The Q2 Escrow Account shall terminate as set forth in Section 4.1.6. The Project Capital Costs Escrow Account shall terminate upon completion of the construction of the Project, provided that payment has been made for all Project Capital Costs in accordance with the procedures set forth in this Agreement. The Project O&M Costs Escrow Account shall terminate as set forth in Section 5.1.4. The Replacement Wells/Distribution Pipelines Escrow Account shall terminate upon completion of the construction of the Replacement Wells & Associated Pipelines and Distribution Pipelines, provided that payment has been made for all Replacement Wells & Associated Pipelines and Distribution Pipelines in accordance with the procedures set forth in this Agreement. The term "completion" as used in this Section 6.1.3 shall mean satisfactory completion of construction, startup and testing, and formal acceptance by the applicable Plaintiff.

6.2 Payment of Capital Costs

6.2.1 Costs incurred for activities and within the aggregate approved amounts set forth in Exhibit G, with respect to the Project, and Exhibit S, with respect to the Replacement Wells/Distribution Pipelines, following resolution of disputed costs pursuant to Article 7, shall

constitute **"Approved Capital Costs."** Costs incurred for activities or items that are not contained in Exhibits G and S for the applicable Escrow Account, or are in excess of the aggregate amount set forth therein, shall be subject to the approval of Whittaker and AISLIC or confirmation by the Cost Consultant in accordance with Article 7, below, and upon such approval or confirmation, such costs shall also constitute "Approved Capital Costs".

6.2.2 Plaintiffs shall prepare (1) a monthly statement setting forth capital costs incurred by Plaintiffs for the prior period for the Project (the **"Project Monthly Capital Costs Statement"**) and paid by Plaintiffs from the Project Capital Costs Escrow Account, (2) a monthly statement setting forth capital costs incurred by Plaintiffs for the prior period for the Replacement Wells/Distribution Pipeline Capital Costs Escrow Account (the **"Replacement Wells/Distribution Pipeline Capital Costs Statement"**) and paid by Plaintiffs from the Replacement Wells/Distribution Pipeline Capital Costs Escrow Account, in each case accompanied by copies of relevant underlying invoices and other supporting documentation for such costs. Copies of the Project Monthly Capital Costs Statement, the Replacement Wells/Distribution Pipeline Capital Costs Statement (together, the **"Monthly Capital Costs Statements"**) shall be provided to Whittaker, AISLIC and Steadfast for review at least ten (10) days prior to each monthly Technical Meeting described in Section 8.4, below, and the Parties shall exercise their best efforts to resolve any disputes concerning the invoices included in the Monthly Capital Costs Statements at or prior to the Technical Meeting.

6.2.3 In the event of a dispute concerning items on any invoice, if such dispute is not resolved at or prior to the Technical Meeting, Whittaker or AISLIC shall provide Plaintiffs with written notice of the reason it disputes the invoice within ten (10) days after the Technical Meeting, and the disputed item(s) shall be resolved by the Cost Consultant in accordance with

Article 7, below. Notwithstanding any pending dispute regarding Whittaker or AISLIC's disapproval of an invoice for payment, Plaintiffs may withdraw funds on a monthly basis from the Escrow Accounts to pay for Project Capital Costs, and Replacement Wells/Distribution Pipelines Capital Costs, subject to the provisions of Article 7 of this Agreement, and to pay Escrow Agent's fees, and any fees incurred for the Cost Consultant in accordance with Article 7 below or for arbitrator's fees in accordance with Article 13, Section 13.2 below. Any appropriate adjustment resulting from the determination of the Cost Consultant shall be reconciled in the following Monthly Capital Costs Statement.

6.2.4 Plaintiffs shall provide the tax identification number required to open any Escrow and shall be responsible for fulfilling tax payment, reporting and filing requirements. Interest that accrues on the balances in the Escrow Accounts shall be retained in those Accounts and available for use by Plaintiffs pursuant to the respective agreed uses of each Account until Termination, and credited against Defendants' funding obligations as to the applicable Account.

6.3 Payment of Q2 O&M Costs

6.3.1 Costs incurred for activities and within the approved Q2 Monthly O&M Costs amount shall constitute **"Approved Q2 O&M Costs."**

6.3.2 VWC shall, within ten (10) Working Days after the end of each semi-annual period after Commencement of Operations for the Q2 Treatment System, deliver to Whittaker and AISLIC a statement of invoices for Q2 O&M Costs incurred by VWC during the preceding semi-annual period **("Q2 Semi-Annual O&M Statement")**, accompanied by copies of all of the underlying invoices and other supporting documentation. Copies of the Q2 Semi-Annual O&M Statements shall be provided to Whittaker, AISLIC and Steadfast for review at least twenty (20) days prior to the Technical Meeting following the end of each semi-annual

period. Plaintiffs, Whittaker and AISLIC shall exercise their best efforts to resolve any disputes concerning the invoices included in the Q2 Semi-Annual O&M Statement at or prior to the Technical Meeting; provided, however, that Approved O&M Costs shall not be subject to review or approval.

6.3.3 In the event of a dispute concerning items other than Approved O&M Costs on any invoice, if such dispute is not resolved at or prior to the Technical Meeting, Whittaker or AISLIC shall provide Plaintiffs with written notice of the reason it disputes the invoice within ten (10) days after the Technical Meeting, and the disputed item(s) shall be resolved by the Cost Consultant in accordance with Article 7, below.

6.3.4 Notwithstanding any pending dispute regarding Whittaker's or AISLIC's disapproval of an invoice for payment, Plaintiffs may withdraw funds on a monthly basis from the Q2 Escrow Account to pay Q2 O&M Costs for the Q2 Treatment System, subject to the provisions of Article 7 of this Agreement, and to pay Escrow Agent's fees, and any fees incurred by Plaintiffs for the Cost Consultant in accordance with Article 7, below, or for arbitrator's fees in accordance with Article 13, Section 13.2 below. Any appropriate adjustment resulting from the determination of the Cost Consultant shall be reconciled in the following Q2 Semi-Annual O&M Statement.

6.3.5 Upon request, Plaintiffs shall additionally provide to SCLLC and RFI, or Buyer if the sale has closed, the statement of invoices with copies of the underlying invoices and supporting documentation.

6.4 Payment of Project O&M Costs

6.4.1 Costs incurred for Project O&M activities and within the aggregate amount set forth in the applicable Joint Estimate of Annual Project O&M or Estimate of

Supplemental Project O&M following resolution of any disputed items pursuant to Article 7, shall constitute "**Approved O&M Costs.**" Costs incurred for activities or items that are not Approved O&M Costs or are in excess of the aggregate amount set forth in the applicable Joint Estimate of Annual Project O&M or Estimate of Supplemental Project O&M shall be subject to the approval of Whittaker and AISLIC or confirmation by the Cost Consultant in accordance with Article 7, below, and upon such approval or confirmation, such costs shall also constitute "Approved O&M Costs."

6.4.2 Plaintiffs shall, within ten (10) Working Days after the end of each quarterly period following the Commencement of Operations, deliver to Whittaker, AISLIC and Steadfast a statement of invoices for Project O&M Costs incurred and paid by Plaintiffs from the Project O&M Escrow Account during the preceding quarterly period (**"Quarterly Project O&M Statements"**), accompanied by copies of all of the underlying invoices and other supporting documentation. Copies of the Quarterly Project O&M Statements shall be provided to Whittaker and AISLIC for review at least ten (10) days prior to the Technical Meeting following the end of each quarter, and the Parties shall exercise their best efforts to resolve any disputes concerning the invoices included in the Quarterly Project O&M Statement at or prior to the Technical Meeting.

6.4.3 Upon request, Plaintiffs shall additionally provide to SCLLC and RFI, or Buyer if the sale has closed, the Quarterly Project O&M Statements with copies of the underlying invoices and supporting documentation.

6.4.4 In the event of a dispute concerning items on any invoice, if such dispute is not resolved at or prior to the Technical Meeting, Whittaker and/or AISLIC shall provide Plaintiffs with written notice of the reason it disputes the invoice within ten (10) days after the

Technical Meeting, and the disputed item(s) shall be resolved by the Cost Consultant in accordance with Article 7, below.

6.4.5 Notwithstanding any pending dispute regarding Whittaker or AISLIC's disapproval of an invoice for payment, Plaintiffs may withdraw funds on a monthly basis from the Project O&M Escrow Account to pay actual Project O&M Costs, subject to the provisions of Article 7 of this Agreement, and to pay Escrow Agent's fees, and any fees incurred for the Cost Consultant in accordance with Article 7 below or for arbitrator's fees in accordance with Article 13, Section 13.2 below. Any appropriate adjustment resulting from the determination of the Cost Consultant shall be reconciled in the following Quarterly Project O&M Statement.

ARTICLE 7. COST CONSULTANT ARBITRATION

7.1 Cost Consultant

7.1.1 Appointment of Cost Consultant. Michael Kavanaugh shall act as Cost Consultant and perform the functions of Cost Consultant set forth in this Agreement. If Mr. Kavanaugh, any replacement Cost Consultant, or all parties to a disputed issue, determine that the Cost Consultant lacks expertise as to a specific disputed issue, the Cost Consultant (after consultation with the parties to the dispute) shall retain an expert to assist him or her in reaching a determination of that particular dispute.

7.1.2 Functions of Cost Consultant

7.1.2.1 The Cost Consultant, and any replacement Cost Consultant, shall not act as an agent or representative for any Party, and shall exercise independent, neutral judgment in the performance of the Cost Consultant's responsibilities under this Agreement.

7.1.2.2 In the event of a timely demand for arbitration pursuant to Sections 4.1, 4.2, 4.3, 4.4, 5.2 (except as otherwise provided in Sections 5.2.5 and 5.2.6), 6.2,

6.3, 6.4, 8.2, 8.3, 8.4.2, and 9.1 of this Agreement, the Cost Consultant shall resolve the dispute in accordance with this Article 7.

7.1.3 Cost Consultant Fees: The Cost Consultant's fees and costs shall be included in Project O&M Costs.

7.1.4 Replacement of Cost Consultant: The Cost Consultant may only be replaced by mutual agreement of the Plaintiffs, Whittaker and AISLIC or for good cause established to the satisfaction of the arbitrator designated pursuant to Article 13, Section 13.2 of this Agreement. In the event of the resignation, replacement for good cause, or unavailability of the Cost Consultant, Plaintiffs and Whittaker and AISLIC shall jointly retain a replacement Cost Consultant. If the Parties are unable to agree on a replacement, a replacement shall be chosen by the arbitrator designated pursuant to Article 13, Section 13.2 of this Agreement.

7.2 Cost Consultant Dispute Resolution

In the event that the Parties are unable to resolve a dispute arising under the sections listed in Section 7.1.2.2, Plaintiffs, Whittaker and/or AISLIC may, within the time period provided by the applicable section of this Agreement, demand expedited arbitration of the dispute. If no time period is specified in the applicable section, then the demand for expedited arbitration must be made within ten (10) days after the Technical Meeting at which such dispute was addressed and not resolved. Any such demand, accompanied by all materials that Plaintiffs, Whittaker and/or AISLIC consider necessary for resolution of the dispute, shall be served on the other Parties. By the end of the tenth day after their receipt of such a demand for arbitration, the receiving Party may submit to the Cost Consultant and, if so, shall serve upon the other Parties all materials that the receiving Party consider necessary for resolution of the dispute. The Cost Consultant may request further information from the Parties or schedule an arbitration hearing

date (in-person or by telephone conference) and shall render a decision within twenty (20) days after delivery of the demand for arbitration or, if an arbitration hearing is conducted, within ten (10) days of the conclusion of the arbitration hearing, or at such later time as may be agreed by the parties to the dispute and the Cost Consultant. If a Party does not timely demand arbitration, its disapproval shall be deemed waived.

ARTICLE 8. OWNERSHIP, CONSTRUCTION, OPERATION AND MANAGEMENT OF FACILITIES

8.1 Ownership of Facilities

Plaintiffs shall own or lease all Project facilities, all Replacement Wells and Associated Pipelines, all Distribution Pipelines, and the Q2 Treatment System. Plaintiffs represent and warrant that they have reached separate agreement as to their respective ownership of Project facilities, and this Agreement shall remain in full force and effect regardless of any dispute or disagreement that may exist or arise relating to their ownership of Project facilities, all Replacement Wells and Associated Pipelines, all Distribution Pipelines, and the Q2 Treatment System.

8.2 Plaintiffs' Responsibilities

8.2.1 Plaintiffs will be responsible for the planning, development, design, permitting, construction, installation, operation and maintenance of the Project, Q2 Treatment System, and Replacement Wells & Associated Pipelines and Distribution Pipelines consistent with generally accepted industry standards and practices, and subject to review of Project Capital Costs and Project O&M Costs as provided in Articles 4 and 5 of this Agreement, review of Q2 Treatment System as provided in Article 4 of this Agreement, and review of Replacement Wells & Associated Pipelines and Distribution Pipelines as provided in Article 4 of this Agreement, and resolution of disputed items or costs as provided in Articles 6 and 7 of this Agreement.

Subject to dispute resolution by the Cost Consultant in accordance with Article 7, Plaintiffs shall conduct such planning, development, design, permitting, construction and installation of the Project and the Q2 Treatment System through one or more contracts with design professionals and licensed contractors approved by Whittaker and AISLIC, such approval not to be unreasonably withheld.

8.2.2 Whittaker and AISLIC have previously approved of U.S. Filter as the initial Resin Service Contract Vendor for the Project, and the Q2 Treatment System which has already commenced operations. Whittaker and AISLIC shall participate with Plaintiffs in the negotiation of the initial Resin Service Contract with U.S. Filter for the Project, and shall be participants in Plaintiffs' negotiation of any renewal or substitute Resin Service Contract(s) for the Project prior to payment of the Lump Sum. Prior to an arbitration determination of the Lump Sum, all Plaintiff/Whittaker/AISLIC negotiations on Resin Service Contract(s) will include consideration and negotiation of insurance that the Vendor is able to obtain for Plaintiffs and Defendants and obtaining Vendor Labor in connection with operations, monitoring, sampling and maintenance of the Project, and comparison with alternative options of Plaintiffs' costs for substantially same Labor and insurance, liability exposure considerations, and all associated costs. The Parties agree that Plaintiffs will have the option of performing all or certain of the operations, monitoring, sampling and maintenance of the Project and to secure their own insurance policies in accordance with Article 11 "Project Insurance", provided, however, that Defendants' Project O&M payment obligations for such labor and insurance costs will be limited to the cost of reasonably comparable, efficient and effective alternatives available by means of a bid for a resin service contract selected through a competitive bidding process in accordance with CLWA bid procedures and applicable law.

8.2.3 The Project shall be designed, constructed and installed in accordance with Exhibit F (subject to Project Modification pursuant to Article 9 of this Agreement) and all applicable state, federal and local government laws, regulations, ordinances and other applicable legal requirements.

8.3 Operation, Maintenance and Management of Project

8.3.1 Plaintiffs shall, in consultation with each other, operate, maintain and manage the Project (a) in accordance with all applicable state, federal and local government laws, regulations, ordinances, other applicable legal requirements (including the DTSC-approved IRAP), and generally accepted industry standards and practices, and (b) to perform its intended function of providing containment of perchlorate as defined in Section 9.1 of this Agreement, until exhaustion of any Lump Sum determined and paid pursuant to Section 5.2.6 of this Agreement; provided, however, that if there is no Lump Sum determination and payment, Plaintiffs shall operate, maintain, and manage the Project until Defendants cease funding Project O&M Costs pursuant to Section 5.2.4 of this Agreement or any other reason. In fulfilling their obligations hereunder, Plaintiffs shall not be required to fund any Project Modification.

8.3.1.1 Plaintiffs shall provide accounting services necessary for accurately tracking Project Capital and O&M Costs, invoice payments, budget process, deposits to and disbursements from the Escrow Accounts, and credits for funds received from Public Funding Sources.

8.3.2 Monitoring and Reporting

8.3.2.1 As contemplated by the DTSC approved IRAP, Plaintiffs shall arrange for and supervise the required groundwater monitoring and promptly after receipt

provide sampling data to Whittaker, AISLIC, and upon request, to SCLLC, RFI, or if the sale has closed, the Buyer.

8.3.2.2 Plaintiffs shall ensure timely, complete, and satisfactory preparation and submission of any reports and other deliverables that may be required by any state, federal or local government law, regulation, ordinance or other applicable legal requirement, including the DTSC-approved IRAP, and provide copies of such reports to Whittaker and AISLIC. Copies of such reports shall, upon request, be made available to SCLLC, RFI, or if the sale has closed, the Buyer. This obligation can be met by an electronic posting of the requested materials.

8.3.2.3 Plaintiffs shall maintain any and all books, records, accounts and supporting documentation (**"Records"**) either required by or necessary to document (i) compliance with all applicable state, federal and local government laws, regulations, ordinances and other applicable legal requirements; and (ii) responsible financial management of the Project. Financial Records shall be maintained in accordance with generally accepted accounting principles and shall be retained until the later of (a) five (5) years from the "as of" date or period applicable to the financial Record; or (b) the Internal Revenue Service retention period for such Records. All other Records shall be retained for a minimum of ten (10) years after the record was created. All Records shall be subject to audit pursuant to Section 8.5 of this Agreement.

8.3.2.4 Plaintiffs shall provide Whittaker, AISLIC, and Steadfast on a semi-annual basis, copies of the Plaintiffs' cost estimates for the Project, the Replacement Wells/Distribution Pipelines and the Q2 Treatment System, showing expenditures against such budgets, and shall provide copies of any reports, contracts or other materials to be considered at

the Technical Meeting, in accordance with Section 8.4, below. Plaintiffs shall make available such reports to SCLLC, RFI, or if the sale has closed, the Buyer, upon request.

8.4 Monthly Technical Meetings

8.4.1 Plaintiffs shall hold monthly meetings to consider technical, financial and other issues related to the planning, development, design, permitting, construction, installation, operation and management of the Project, the Q2 Treatment System, and the Replacement Wells/Distribution Pipelines ("Technical Meetings").

8.4.2 Participation in Technical Meetings

8.4.2.1 Each Plaintiff and Whittaker and AISLIC shall designate one or more representative(s) to participate in Technical Meetings in furtherance of planning, development, design, permitting, construction, installation, operation and management of the Project and the Q2 Treatment System, and the planning, development, design, permitting, construction, and installation of the Distribution Pipelines and Replacement Wells & Associated Pipelines. Such meetings shall be held monthly, or more or less frequently if agreed to by all Plaintiffs and Whittaker and AISLIC, upon no less than ten (10) days written notice from Plaintiffs. After Defendants' payment of the Lump Sum as described in Section 5.2.6 and installation of the Distribution Pipelines and Replacement Wells & Associated Pipelines, such meetings will no longer be held, unless otherwise requested by Whittaker and/or AISLIC, with reasonable compensation payable to Plaintiffs as agreed by the Parties.

8.4.2.2 Except for those contracts, proposals, and/or solicitation materials listed in Exhibit T attached to this Agreement, no contract, request for proposal, solicitation of bid package or other solicitation for planning, development, design, permitting, construction or installation of the Project, the Q2 Treatment System or the Distribution Pipelines

and Replacement Wells & Associated Pipelines shall be made by any Plaintiff unless approved by Whittaker and AISLIC, or -- if disapproved by Whittaker and/or AISLIC-- approved by the Cost Consultant. Copies of any contract, request for proposal, solicitation of bid package, report or other document to be considered at any Technical Meeting held pursuant to Section 8.4.2.1 of this Agreement shall be provided to each designated representative at least ten (10) days before the meeting, unless such document or report was then not available, in which event the document or report shall be distributed as long in advance of the meeting as possible. Whittaker and AISLIC shall notify Plaintiffs as soon as possible, but in any event within ten (10) Working Days after receipt, whether they respectively approve each contract, request for proposal, solicitation of bid package or other solicitation for planning, development, design, permitting, construction or installation of the Project, the Q2 Treatment System, or the Distribution Pipelines and Replacement Wells & Associated Pipelines. Absent such timely notice, approval shall be presumed. If Whittaker and/or AISLIC gives timely notice of disapproval of any such contract, request for proposal, solicitation of bid package or other solicitation for planning, development, design, permitting, construction or installation, such notice must be accompanied by a written explanation of the reason for disapproval and, if possible, a proposed revision that is approved.

8.4.2.3 Whittaker's and/or AISLIC's disapproval of any contract, request for proposal, solicitation of bid package or other solicitation for planning, development, design, permitting, construction or installation of the Project, the Q2 Treatment System, or the Distribution Pipelines and Replacement Wells & Associated Pipelines will be subject to binding arbitration, pursuant to Article 7 of this Agreement. The arbitration shall be conducted by the Cost Consultant. Within fifteen (15) Days after Whittaker and/or AISLIC's timely notice of disapproval of any contract, request for proposal, solicitation of bid package or other solicitation

for planning, development, design, permitting, construction or installation of the Project, the Q2 Treatment System, or the Distribution Pipelines and Replacement Wells & Associated Pipelines, Whittaker and/or AISLIC may demand such expedited arbitration. Any such demand, accompanied by all materials that Whittaker and/or AISLIC considers necessary for resolution of the dispute, shall be served on Plaintiffs within that fifteen (15) day period. By the end of the tenth day after their receipt of such a demand for arbitration, Plaintiffs may submit to the Cost Consultant and, if so, shall serve upon Whittaker and AISLIC, all materials that Plaintiffs consider necessary for resolution of the dispute. The Cost Consultant may request further information from the Parties and AISLIC or schedule an arbitration hearing date (in-person or by telephone conference) and shall render a decision within twenty (20) days after delivery of the demand for arbitration or, if an arbitration hearing is conducted, within ten (10) days of the conclusion of the arbitration hearing, or at such later time as may be agreed by the parties to the dispute and the Cost Consultant. If Whittaker and/or AISLIC does not timely demand arbitration, its disapproval shall be deemed waived.

8.4.2.4 Plaintiffs shall make available to Whittaker, AISLIC and Steadfast (i) copies of all notices, documents and other written communications (including, without limitation, drafts and revisions) concerning planning, development, design, permitting, construction or installation of the Project or the Q2 Treatment System sent by Plaintiffs or their consultants to DTSC, DHS, Regional Water Quality Control Board ("**RWQCB**"), California Public Utilities Commission ("**CPUC**"), U.S. Environmental Protection Agency ("**EPA**") and/or any other regulatory agency with jurisdiction at the same time and by the same manner of delivery by which such notices, documents or other written communications are sent; and (ii) promptly following receipt, all notices, documents and other written communications concerning

planning, development, design, permitting, construction or installation of the Project or the Q2 Treatment System received by Plaintiffs or their consultants from DTSC, DHS, RWQCB, CPUC, EPA and/or any other regulatory agency with jurisdiction. Plaintiffs shall additionally make all of such information available upon request to SCLLC, RFI, or if the sale has closed, to the Buyer.

8.4.2.5 Whittaker shall make available to Plaintiffs, AISLIC and Steadfast copies of all public or non-public and non-confidential notices, reports, documents and other written communications to or from Whittaker and DTSC, DHS, RWQCB, EPA and the Buyer (with the Buyer's consent) concerning the Site and groundwater remediation activities and obligations, at the same time and by the same manner of delivery by which such notices, documents or other written communications are sent, or promptly upon receipt by Whittaker.

8.5 Audits

Whittaker and/ or AISLIC may, upon reasonable notice and no more frequently than once a year, audit Plaintiffs' Records, including all invoices and supporting documentation for Project expenditures. The costs of any such audit shall be paid by the requesting party. Any dispute arising from an audit shall be resolved by the arbitrator designated pursuant to Section 13.2.2. Whittaker and/or AISLIC may demand arbitration of such a dispute within thirty (30) Days after receipt of the audit report triggering the dispute. Failure to demand arbitration within that time period shall be a waiver of any dispute triggered by the audit report.

ARTICLE 9. PROJECT MODIFICATION

9.1 Project Modification

9.1.1 The Parties acknowledge that the effectiveness of the remedy contemplated by the Project is not guaranteed by the Plaintiffs, although the Parties believe that the implementation of the Project represents a reasonable approach to providing containment of

perchlorate as defined below and restoring water production. In the event that within the first three (3) years after Commencement of Operations of the Project (which time period will be tolled during any period in excess of one week of Remedy Stoppage), a modification of the Project relating to perchlorate remediation is required (1) because of any regulatory requirement or directive or court order; (2) because of a change in water quality standards or regulations; (3) because of an increase in concentration levels of perchlorate in the Subject Wells; (4) to achieve containment of downgradient perchlorate migration; (5) to restore the contemplated capability of the Project to provide water for potable purposes; or (6) to improve Project efficiency or cost effectiveness, Plaintiffs, Whittaker, and/or AISLIC may develop and implement the necessary modification of the Project (**"Project Modification"**) in accordance with this Article 9. Any Project Modification will be funded separately from and is not included in the amounts deposited into the Project Capital Costs Escrow Account as described in Section 1.56. For the purposes of this Agreement, containment is achieved when groundwater monitoring and modeling demonstrates (subject to agreement by representatives of Plaintiffs, Whittaker and AISLIC at the monthly Technical Meetings or there is a determination by the Cost Consultant) that hydraulic control of Saugus Formation groundwater in the vicinity of Saugus 1 and 2 is such that future perchlorate migration from the Site in the Saugus Formation will not result in impacts to existing Saugus Formation production wells identified in Exhibit U above an applicable Notification Level or Maximum Contaminant Level ("MCL"). The groundwater modeling and evaluation of containment will also consider other contaminant mass removal and contaminant containment measures implemented on and in the vicinity of the Site.

9.1.2 Promptly upon the occurrence of any of the circumstances described in Section 9.1.1, above, Plaintiffs may provide Whittaker, AISLIC and Steadfast with written

notification of the need for a Project Modification (**"Project Modification Notice"**), with a proposal for the required modification and/or a procedure for developing, implementing and funding such a modification, and the Plaintiffs, Whittaker and AISLIC shall exercise their best efforts to develop an appropriate and mutually acceptable Project Modification. Any proposed Project Modification shall incorporate the use of best available, cost efficient and effective technology upon consultation with the technical representatives of Whittaker and AISLIC. If, within 60 days after the receipt of the Project Modification Notice, the Plaintiffs, Whittaker and AISLIC are unable to agree upon a Project Modification, Plaintiffs may demand arbitration. In that event, the matter will be resolved by the Cost Consultant in accordance with Article 7.

9.1.3 In addition to the foregoing, within the first three (3) years after Commencement of Operations of the Project (which time period will be tolled during any period in excess of one week of Remedy Stoppage), Whittaker or AISLIC may propose a Project Modification based upon the occurrence of any of the circumstances described in Section 9.1.1 above, and deliver the proposal, including all appropriate documentation, to the other Parties for consideration at the next Technical Meeting. If the Plaintiffs, Whittaker and AISLIC are unable to agree on the proposed Project Modification within 60 days after delivery of the proposal and documentation, the proposing party may demand arbitration. In that event, the matter will be resolved by the Cost Consultant in accordance with Article 7.

9.1.4 Following the first three (3) years after Commencement of Operations of the Project (which time period will be tolled during any period in excess of one week of remedy stoppage requiring Project Modification), and prior to determination of a Lump Sum pursuant to Section 5.2.6, Whittaker or AISLIC may propose a Project Modification and deliver the proposal, including all appropriate documentation, to the other Parties for consideration at the

next Technical Meeting, if Whittaker or AISLIC are willing to pay for the capital costs and O&M costs associated with such Project Modification. If the Parties are unable to agree on the proposed Project Modification within 60 days after delivery of the proposal and documentation, the matter will be resolved by arbitration in accordance with Article 7.

9.1.5 Following the first three (3) years after Commencement of Operations of the Project (which time period will be tolled during any period in excess of one week of Remedy Stoppage, and prior to determination of a Lump Sum pursuant to Section 5.2.6, Plaintiffs may propose a Project Modification and deliver the proposal, including all appropriate documentation, to the other Parties for consideration at the next Technical Meeting, if Plaintiffs are willing to pay for the capital costs associated with such Project Modification. Defendants, subject to Section 2.5, will retain the obligation to pay Project O&M Costs, including any increase in such costs resulting from the Project Modification. If the Parties are unable to agree on the proposed Project Modification within 60 days after delivery of the proposal and documentation, the matter will be resolved by arbitration in accordance with Article 7.

9.1.6 Funding By Defendants

Once a Project Modification has been agreed upon or resolved by arbitration, the Project Modification shall become incorporated in the Project, and shall be handled in all respects as a part of the Project, with Defendants obligated on a joint and several basis subject to Section 2.5 to pay for all reasonable and necessary Project Capital Costs and Project O&M Costs associated with the Project Modification, including costs of replacement water in the event of a Remedy Stoppage within the first three years after Commencement of Operation of the Project (which time period will be tolled during any period in excess of one week of Remedy Stoppage). This Project Modification funding obligation for Project Capital Costs is in addition to the obligation

for funding Project Capital Costs as defined in Section 1.5.4, for which an amount of ten million dollars ($10,000,000) has been allocated. In the event that a modification of the Project is required or desired after the first three (3) years following Commencement of Operations of the Project (which time period will be tolled during any period in excess of one week of Remedy Stoppage), Plaintiffs will bear all Project Capital Costs associated with the Project Modification, except for Project Modifications proposed by Whittaker or AISLIC pursuant to Section 9.1.4. Any increase in O&M costs resulting from such Project Modification will be included in Project O&M Costs required to be paid by Defendants pursuant to the applicable provisions of this Agreement.

9.1.7 Newhall County Well NC13

9.1.7.1 Notwithstanding any other provisions of this Agreement, the provisions of this Section shall govern matters relating to Newhall County Well NC13 in the event of any conflict.

9.1.7.2 The Parties recognize that perchlorate contamination reportedly found in Newhall County Well NC13 may require well-head or equivalent treatment, or well replacement, in the future. If NCWD reasonably believes that well-head or equivalent treatment or replacement of Newhall County Well NC13 is in fact required, then such proposed measures may, in NCWD's sole discretion, be treated as a request for a Project Modification subject to the provisions of Section 9.1.2, even if the proposal is not made until later than three (3) years after Commencement of Operations of the Project; provided, however, that Whittaker and AISLIC retain expressly all rights under the Project Modification provisions of Article 9, including the right to object based on the cost-ineffectiveness of the proposal or on other grounds, and provided that the proposal shall not be treated as a Project Modification unless it is made no later

than July 1, 2017. The funding by Defendants of a Project Modification pursuant to this Section shall include capital costs even if it does not occur until later than three (3) years after Commencement of Operations of the Project.

9.1.7.3 If NCWD seeks and obtains a Project Modification with respect to NC13, then NC13 shall be treated as a Subject Well; however, unless and until NCWD obtains a Project Modification with respect to NC13, it shall not be deemed a Subject Well and there shall be no release of any liability in connection therewith.

9.1.7.4 Any Lump Sum Arbitration conducted at a time when NC13 is not part of a Project Modification shall have no impact on the obligations created in this Section. If NC13 is a Project Modification and is undergoing well head or equivalent treatment at the time a Lump Sum Arbitration for Saugus 1 and 2 Treatment Plant Operations and Maintenance is conducted, the Lump Sum Arbitration shall also determine a separate lump sum for the operation and maintenance of NC13 for the remainder of the up to thirty (30) year period after the commencement of well-head or equivalent treatment at NC13, deducting that portion of the Lump Sum determined for Saugus 1 and 2 Treatment Plant Operations and Maintenance costs allocable to NC13 from such separate lump sum to the extent NC13 is being treated through the Saugus 1 and 2 Treatment Plant.

9.1.7.5 In the event that NC13 becomes a Project Modification after a Lump Sum Arbitration for Saugus 1 and 2 Treatment Plant Operations and Maintenance costs has occurred, the obligation to pay for Project Modification costs shall continue for a period of up to thirty (30) years after the commencement of well-head or equivalent treatment at NC13, unless, beginning three (3) years after such Project Modification, Plaintiffs, Whittaker, or AISLIC, demand binding arbitration as provided in Article 13 of this Agreement and consistent

with this Section, to determine a lump sum payment of NC13 operation and maintenance costs for the remainder of the up to thirty (30) year period.

9.1.7.6 Prior to NC13 becoming a Project Modification, Plaintiffs' rights under the Rapid Response Fund will not be impaired.

ARTICLE 10. DISPUTES REGARDING POSSIBLE FUTURE PERCHLORATE CONTAMINATION

10.1 Process for Addressing Possible Future Perchlorate Contamination

The Parties acknowledge that the remedy contemplated by the Project and Distribution Pipelines, the Q2 Treatment System, and the Replacement Wells and Associated Pipelines does not specifically address possible future impacts of perchlorate on wells other than the Subject Wells.

10.1.1 In the event that there is detection of perchlorate contamination confirmed by subsequent sample above the Notification Level or MCL that affects water production from Presently Existing Saugus Production Wells or Alluvial Wells, other than one of the Subject Wells (hereinafter referred to as a "**Non-Subject Well Future Perchlorate Circumstance**" or "**Circumstance**"), one or more of the affected Plaintiffs shall provide written notice to all other Parties that a Non-Subject Well Future Perchlorate Circumstance exists. Such written notice shall include the facts relevant to such Circumstance, as well as documents relevant to such Circumstance, and shall specify whether any action, payment, or relief is being demanded. The sender of the Notice shall provide such other and further information and documentation, and updates regarding the Circumstance, as may be reasonably appropriate. In the event that an action, payment, or other relief is being demanded of Whittaker, Whittaker shall, within fifteen (15) days of receipt of the Notice, forward such Notice to AISLIC seeking a determination of coverage with respect to such demand, if Whittaker believes that coverage exists for such

demand. In its letter to AISLIC requesting a determination of coverage, and thereafter, Whittaker shall provide to AISLIC all information and documents relating to the Circumstance as have been provided to Whittaker, and Whittaker shall request that AISLIC provide a determination of coverage as soon as possible, and AISLIC shall respond no later than sixty (60) days following AISLIC's receipt of information and documents reasonably necessary to make a coverage determination. In the event that an action, payment, or other relief is being requested, the sender of the Notice shall meet and confer in good faith with such Party that is a subject of the Notice and, as appropriate, its insurers, to attempt to negotiate a resolution of the issues presented by the Circumstance. In the event that after 90 days from the date of receipt of the Notice (the "**Notice Period**"), the issues presented in the Notice are not resolved through such meeting or meetings, then any Plaintiff may elect to initiate the arbitration process for Future Perchlorate Contamination Disputes under Section 13.3.2.1 of this Agreement, provided that the AISLIC Future Perchlorate Determination of Coverage has been received by Whittaker, and Whittaker satisfies itself, at its discretion exercised in good faith, that AISLIC's determination of coverage is acceptable to allow the arbitration to go forward. Whittaker shall notify such Party and AISLIC in writing of Whittaker's decision within 15 days of receiving AISLIC's determination of coverage. If Whittaker provides such notice indicating that AISLIC's determination of coverage is not acceptable to Whittaker, or if AISLIC fails to provide any determination of coverage within the requisite sixty (60) period, then no Plaintiff may elect to initiate the arbitration process.. Where arbitration may be initiated hereunder and a Plaintiff elects to initiate the arbitration process, said Future Perchlorate Contamination Dispute will be resolved through the procedures for Future Perchlorate Contamination Disputes set forth in Section 13.3 of this Agreement.

10.1.2 Unless arbitration may be initiated pursuant to Section 10.1.1 above, and a Plaintiff elects in its sole discretion to initiate the arbitration process pursuant to Section 13.3.2.1 with respect to a Future Perchlorate Contamination Dispute, such dispute will not be subject to the procedures set forth in Section 13.3 and may instead be heard in its entirety by a court of competent jurisdiction.

10.1.3 Except as provided herein, each Party agrees that execution of this Agreement shall constitute their respective consents to jurisdiction of the Federal District Court, Central District of California, or the Superior Court of the County of Los Angeles with regard to Future Perchlorate Contamination Disputes. Notwithstanding the foregoing, the venue for any action against the Debtors, or the reorganized Debtors pursuant to a plan of reorganization approved by the Bankruptcy Court, shall be the Bankruptcy Court to the fullest extent that the Bankruptcy Court has subject matter jurisdiction over such action.

10.1.4 Notwithstanding the foregoing, in the event that Plaintiffs have obtained funds from the Rapid Response Fund pursuant to Section 11.2 to address a Circumstance as defined herein, any disputes over the use of the Rapid Response Fund for the Circumstance for which arbitration is initiated under Section 10.1.1 will be handled in accordance with Section 13.3.

ARTICLE 11. PROJECT INSURANCE; RAPID RESPONSE FUND

11.1 Project Insurance

11.1.1 Plaintiffs shall obtain and maintain in force the following policies of insurance for the Project or obtain additional insured status on policies offered by the Resin Service Contract Vendor throughout the first thirty years of operation of the Project (including any renewals with same or substantially similar coverage):

- a comprehensive general liability policy of insurance, including contractual liability, in substantially the form of Exhibit V to this Agreement (the "**CGL Policy**");
- an Environmental Impairment Liability policy in substantially the form of Exhibit W to this Agreement (the "**EIL Policy**") if obtainable for a commercially reasonable premium as agreed by the Parties and AISLIC or determined by the Cost Consultant;
- an earthquake policy of insurance in substantially the form of Exhibit X to this Agreement (the "**Earthquake Policy**")
- a First-Party Property Insurance policy in substantially the form of Exhibit Y to this Agreement (the "**Property Policy**").

The CGL Policy, the EIL Policy, the Earthquake Policy and the Property Policy must be obtained by Plaintiffs with Plaintiffs and, other than the Earthquake and Property Policies, Defendants and the Buyer, identified as named insureds or additional insureds, and with coverages, policy limits, and deductibles or self-insured retentions as set forth on Exhibits V, W, X, and Y or as provided on substantially similar coverage, or alternatively, as provided on less expensive similar insurance offered through the Resin Service Contract Vendor. In the event that the Resin Service Contract Vendor is retained to provide operations and maintenance Labor for the Project, no cost of EIL coverage shall be paid by Defendants as Project O&M Costs or otherwise, so long as EIL coverage substantially similar to Exhibit W is provided to Plaintiffs by the Resin Service Contract Vendor.

11.1.2 Incremental costs of the Project Insurance coverage, in excess of the Plaintiffs' non-Project costs of such coverage, will constitute Project O&M Costs.

11.1.3 Duties of Named Insureds

11.1.3.1 Each Party that is named as an insured or additional insured under the CGL Policy, the EIL Policy, or substitute insurance obtained through Resin Service Contract Vendor, Earthquake Policy and Property Policy, shall perform its duties as an insured as set forth in each such policy of insurance.

11.1.3.2 No Party that is named as an insured or additional insured under the CGL Policy or EIL Policy shall act on behalf of any other Party also insured under said insurance policies with respect to (a) giving or receiving of notice of cancellation; or (b) receipt or acceptance of any endorsement issued to or for a part of any of said insurance policies. No Party insured under the CGL Policy or EIL Policy shall cancel, or assign the right to cancel, any of said policies without first obtaining the written consent of all other Parties, which shall not be unreasonably withheld.

11.1.4 The Parties agree not to make a claim against Plaintiffs, Whittaker, AISLIC, the Buyer, Debtors, Steadfast, or SF Escrow 1 or SF Escrow 2 for any sums paid by any insurance policy referenced in this Article 11. The insurance obtained pursuant to this Article 11 shall contain a waiver of subrogation against Plaintiffs, Whittaker, AISLIC, the Buyer, Debtors, Steadfast, and SF Escrow 1 and SF Escrow 2.

11.2 Rapid Response Fund

11.2.1 The Parties acknowledge that the remedy contemplated by the Project and Q2 Treatment System may not effectively contain downgradient movement immediately of perchlorate contamination in the Alluvial Aquifer or portions of the Saugus Formation. Accordingly, Plaintiffs may submit to AISLIC and AISLIC shall process and pay, as soon as practicable from the SF Escrow 1 Account in accordance with this Section 11.2 and the

Coverage and Claims Settlement Agreement, costs incurred to respond on an expedited basis to perchlorate contamination that is confirmed to be present by subsequent sampling, with split samples to be provided to Defendants, in concentrations exceeding the applicable Notification Level or MCL, in VWC wells N, N-7, N-8, S6, S7, S8, 201, and 205, and NCWD wells NC-10, NC-12 and/or NC-13 (the **"Threatened Wells"**) up to a total amount of ten million dollars ($10,000,000) (the **"Rapid Response Fund"**). Plaintiffs shall be entitled to seek such payment and/or reimbursement only for the period ending July 1, 2017.

11.2.2 Pending agreement between Plaintiffs, Whittaker and AISLIC, or a final determination of the appropriate remedy and amounts payable, allowable uses of the Rapid Response Fund by Plaintiffs include, (a) the additional costs of providing consumers with water from alternative water sources (**"Replacement Water"**), if and to the extent that Replacement Water is necessary and not otherwise available, from existing sources without negative impact to Plaintiffs or any of them, and (b) any costs for rental equipment and resin, including the costs of operating and maintaining leased treatment equipment, or for associated site acquisition, preparation and installation costs. Capital Costs for purchase of capital equipment or permanent capital improvements, and operations and maintenance costs associated with purchased capital equipment or permanent capital improvements, are not allowable uses of the Rapid Response Funds absent later agreement by both AISLIC and Whittaker on a case by case basis.

11.2.3 The Rapid Response Fund obligation will be paid from the funds maintained in the SF Escrow 1 Account. The Defendants and AISLIC agree, and the Defendants represent and warrant that they have obtained the agreement of the "Zurich Parties" and the "AISLIC Parties" (as defined in the Coverage and Claims Settlement Agreement) that

the funding of the Rapid Response Fund from the SF Escrow 1 Account falls within the Uses of SF Escrow 1 Funds, Section IV.F.5.a.(i) of the Coverage and Claims Settlement Agreement.

11.2.4 To obtain payment and/or reimbursement from the Rapid Response Fund, Plaintiffs must directly tender their written request(s) for payment for a ninety day period of time, along with a sworn statement describing the need for specified funds due to confirmed perchlorate contamination in concentrations exceeding the applicable Notification Level or MCL in one or more of the Threatened Wells, and identifying the last date, if any, that the Well for which funding is sought may have been disinfected and the product or solution that may have been used, to AISLIC, with courtesy copies to Defendants. All written requests for payment shall state the need for said specified funds within a ninety day period. Any request for additional ninety day funding shall require a new written request for payment accompanied by a new supporting statement as described above and supporting cost documentation. Within fifteen (15) days of receipt of such written request and sworn statement, AISLIC will instruct Wells Fargo Bank or other agreed bank to make payment of the required Rapid Response Funds to Plaintiffs from the SF Escrow 1 Account.

11.2.5 In the event that the SF Escrow 1 Account Terminates (as defined in Section 5 of the SF Escrow 1 Instructions) prior to the expiration of the time period described in Section 11.2.1 above and in the further event that the $10,000,000 Rapid Response Funds have not been fully paid, the AISLIC Policy Coverages A-F, to the extent that limits remain thereunder, will be available to Whittaker to provide Plaintiffs with a rapid response for the remainder of the time period described in Section 11.2.1 above for the remaining unpaid amount of the agreed $10,000,000 in Rapid Response Funds. In the aforementioned circumstances, Plaintiffs must directly submit their written request(s) for payment for a ninety day period of

time, along with a sworn statement describing the need for specified funds due to confirmed perchlorate contamination in concentrations exceeding the applicable Notification Level or MCL in one or more of the Threatened Wells as described in Section 11.2.4, to Whittaker, with courtesy copies to AISLIC. Within seven (7) Working Days of receipt of such written request and sworn statement, Whittaker, in turn, shall submit a claim pursuant to this Agreement to AISLIC under Coverages A-F for the aforementioned Rapid Response Funds, and Whittaker's payment shall be due within twenty-eight (28) Working Days of receipt of Plaintiff's written request to the extent that limits remain under AISLIC Policy Coverages A-F. Upon receipt of said claim from Whittaker ("Whittaker Rapid Response Claim") and provided that the CLWA Plaintiffs have provided a written request and sworn statement to Whittaker pursuant to and in accordance with Section 11.2 "Rapid Response Fund" of this Agreement, AISLIC shall: (1) treat any Whittaker Rapid Response Claim as a covered claim under AISLIC Policy Coverages A, B, C, D, E, or F, and respond to said claim pursuant to the terms of the AISLIC Policy Coverages A-F and without reservation of coverage rights to the extent that limits remain under AISLIC Policy Coverages A-F, but with reservation of AISLIC's rights, to the full extent of the rights set forth herein (a) to assert disputes, claims or controversies under this Agreement and (b) to assert all of Whittaker's substantive defenses to payment of Rapid Response Funds as provided in this Agreement and (2) make payment on Whittaker's Rapid Response Claim to CLWA Plaintiffs on behalf of Whittaker within twenty one (21) Working Days of AISLIC's receipt of a Whittaker Rapid Response Claim that is fully compliant with Section 11.2 of the Castaic Lake Water Agency Litigation Settlement to the extent that limits remain under AISLIC Policy Coverages A-F. Nothing in this Section 11.2.5 of this Agreement is intended or shall be construed to be agreement as to which Coverage(s) (i.e., A, B, C, D, E, or F) apply to Whittaker's Rapid

Response Claim(s). This Section 11.2.5 is unique and specific to Whittaker's Rapid Response obligation and nothing in this Section 11.2.5 is intended to be or shall be of precedential value or construed to be agreement as to treatment or handling of any other current or future claims that Whittaker may assert under or Plaintiffs may assert with respect to the AISLIC Policy.

11.2.6 Any dispute, claim or controversy concerning payment of costs or losses under this Section, including any disputes as to the reasonableness and necessity of said costs, will be resolved by expedited binding arbitration in accordance with Section 13.2 or Section 13.3, as appropriate.

11.2.7 This Rapid Response Fund remedy is in addition to any remedy otherwise available to Plaintiffs at law or in equity, or pursuant to this Agreement, provided that Plaintiffs will not seek duplicate recovery from Defendants or their insurers or AISLIC or SF Escrow 1 for any losses, costs, expenses, or damages paid by the Rapid Response Funds. Defendants and their insurers reserve all defenses they may have with respect to payment of Rapid Response Funds, including but not limited to the defense that Plaintiffs' disinfection or other operation and maintenance procedures carried out after the Effective Date hereof have contributed to or caused the perchlorate detection and the defense that Defendants are not otherwise legally or factually responsible or liable for the perchlorate contamination. In the event that Rapid Response Funds are determined by binding arbitration to have been improperly requested by or paid to Plaintiffs in whole or in part based upon defenses the Defendants or their insurers or AISLIC may have with respect to payment of Rapid Response Funds, Plaintiffs shall be required to reimburse those funds in whole or in part to the SF Escrow 1 or the AISLIC Coverages A-F limits, as appropriate, which Escrow and/or Policy shall be replenished to the extent of the reimbursement.

ARTICLE 12. RELEASES AND DISMISSAL OF UNDERLYING ACTION

12.1 Plaintiffs' Releases

12.1.1 In consideration of Defendants' payments, promises; and covenants herein, including funding provided by or on behalf of Defendants pursuant to the Coverage and Claims Settlement Agreement and the Related Settlement, each Plaintiff, on behalf of itself and its predecessors, successors and assigns, hereby forever releases, acquits and forever discharges Whittaker and its insurers (including but not limited to AISLIC, The Insurance Company of the State of Pennsylvania ("ISOP"), and Steadfast), SCLLC, RFI, RFI Realty, BRLLC, the Buyer, and Steadfast Santa Clarita Holdings, LLC (**"SSCH"**), and their respective officers, directors, shareholders, members, employees, agents, representatives, contractors, reinsurers, consultants, subsidiaries, affiliates, predecessors, successors and assigns from any and all actions, causes of action, claims, demands, liabilities, damages, penalties, fines, debts, losses, costs, expenses and fees (including, without limitation, litigation costs and attorney and consultant fees) of every kind and nature whatsoever, in law and in equity, whether known or unknown, suspected or unsuspected, foreseen or unforeseen, arising out of or relating to the past, present or future detection of perchlorate in the Subject Wells, (except for claims addressed in Section 12.1.2 and Section 12.1.3 which are not released in this Section 12.1.1) including (without limitation) all claims for past and future purchase of replacement water as a result of the detection of perchlorate in the Subject Wells (except for the costs of providing consumers with water from alternative water sources during the first three years after Project operations commence if there is a Remedy Stoppage during said time period), all Plaintiffs' Past Environmental Claims, all Plaintiffs' Past Design Costs Claims, all Plaintiffs' claims relating to the V-206 Replacement Well, including, but not limited to, construction and installation of VWC's well V-206 and associated pipelines, and permanent closure and abandonment of VWC's well V-157, all claims

with respect to the Capital Costs for Q2, and all claims for past or future response costs and other costs incurred as a result of perchlorate detection in the Subject Wells, including attorneys' and consultants' fees and costs. However, excluded from the release provided in this section are any claims or causes of action arising out of or relating to any future claims, causes of action, suits, legal or administrative proceedings by third parties (or by Defendants where the proceeding is initiated by a third party) against Plaintiffs for actual bodily injury, property damage or response costs allegedly suffered or incurred by such third-parties, including but not limited to any and all third party claims, causes of action, suits, legal or administrative proceedings against Plaintiffs and any resulting damages, losses, penalties, fines or liabilities , after the Effective Date arising out of or related to alleged exposure to or release of perchlorate or other chemicals caused by Plaintiffs' operation of the Project, (collectively, **"Third Party Claims"**) but not excluding any Third Party Claims resulting from the Plaintiffs' negligence or willful misconduct in operation of the Project. Plaintiffs represent and warrant that, as of the Effective Date of this Agreement, they are not aware of any Third Party Claims brought against any of them. The releases provided in this Section 12.1.1 shall be effective upon payment of all funds required to be paid within thirty (30) days after the Effective Date of this Agreement..

12.1.2 Release For Costs Applied Against Escrows. Upon each payment from the Escrow Accounts for Project Capital and O&M Costs, Q2 O&M Costs, and Replacement Wells/Distribution Pipeline Capital Costs (and following any adjustment for a disputed item), and upon each payment of Rapid Response Funds from the SF Escrow 1 Account or the AISLIC Policy, as applicable, each Plaintiff, on behalf of itself and its predecessors, successors and assigns, hereby forever releases, acquits and forever discharges Whittaker and its insurers (including but not limited to AISLIC, ISOP and Steadfast), SCLLC, RFI, RFI Realty, BRLLC,

the Buyer, and SSCH, and their respective officers, directors, shareholders, members, employees, agents, representatives, contractors, reinsurers, consultants, subsidiaries, affiliates, predecessors, successors and assigns from any and all actions, causes of action, claims, demands, liabilities, damages, penalties, debts, losses, costs, expenses and fees (including, without limitation, litigation costs and attorney and consultant fees) of every kind and nature whatsoever, in law and in equity, in connection with the Project, the Q2 Treatment System, the Replacement Wells and the Distribution Pipelines, and the Rapid Response Funds, but only to the extent of such payment.

12.1.3 As to Project O&M Costs, and subject to Section 9.1.7 hereof, upon the sooner of payment by Defendants of a Lump Sum determined by arbitration pursuant to Section 5.2.6 hereinabove or of payment of all Project O&M pursuant to Article 5, each Plaintiff, on behalf of itself and its predecessors, successors and assigns, hereby forever releases, acquits and forever discharges Whittaker and its insurers (including but not limited to AISLIC, ISOP and Steadfast), SCLLC, RFI, RFI Realty, BRLLC, the Buyer, and SSCH and their respective officers, directors, shareholders, employees, agents, representatives, contractors, reinsurers consultants, subsidiaries, affiliates, predecessors, successors and assigns from any and all actions, causes of action, claims, demands, liabilities, damages, penalties, debts, losses, costs, expenses and fees (including, without limitation, litigation costs and attorney and consultant fees) of every kind and nature whatsoever, in law and in equity, in connection with the Project. The releases provided in this Section 12.1.3 exclude any Third Party Claims arising after the Effective Date related to alleged exposure to or release of perchlorate or other chemicals caused by Plaintiffs' operation of the Project, other than Third Party Claims resulting from the Plaintiffs' negligence or willful misconduct in operation of the Project.

12.1.4 Plaintiffs agree that the Steadfast PLC policy no. PLC 3598792-00 issued by Steadfast to Defendants has been exhausted by Steadfast's deposit into the SF Escrow 1 Account and the SF Escrow 2 Account of the remaining limits of this pollution liability coverage (**"Steadfast PLC Policy"**) insurance policy, with Plaintiffs waiving any and all purported rights and claims they have or may have against such PLC Policy. Plaintiffs waive and release any and all purported rights and claims they have or may have against the Steadfast EOC policy no. 3554336.

12.1.5 Each of the Plaintiffs has filed a proof of claim in each of the Bankruptcy Cases in which RFI and SCLLC are the debtors asserting the liquidated and unliquidated claims alleged by them against RFI and SCLLC in the Underlying Action (**"Proofs of Claim"**). In place of the Proofs of Claim, Plaintiffs shall have a single allowed claim against the Debtors, and each of them, in the Bankruptcy Cases in an amount equal to the obligations of Debtors pursuant to this Agreement (**"Allowed Claim"**) and the Final Approval Order shall so provide. Except to the extent that certain funds in SF Escrow 1 will be paid on behalf of Defendants to Plaintiffs and to fund escrow accounts for the benefit of Plaintiffs pursuant to this Agreement, and the Coverage and Claims Settlement Agreement, Plaintiffs waive any right to any payment or distribution of assets, property or funds of the estates of the Debtors in the Bankruptcy Cases by reason of their Allowed Claim and such Proofs of Claim shall be deemed satisfied by the consideration furnished by Debtors pursuant to this Agreement. Plaintiffs further agree that, notwithstanding any other provision of this Agreement, their sole recourse against the Debtors and any reorganized Debtors pursuant to a plan of reorganization approved by the Bankruptcy Court, for any and all actions, causes of action, claims, demands, liabilities, damages, penalties, debts, losses, costs, expenses and fees (including, without limitation, litigation costs and attorney

and consultant fees) of every kind and nature whatsoever, in law and in equity against the Debtors shall be the SF Escrow 1 Account.

12.1.6 Plaintiffs agree that this Settlement does not compromise, release, diminish or adversely affect the rights of Debtors or their successors in interest to enforce obligations, if any, of SCWC and/or NCWD to provide water to the Property pursuant to the documents attached collectively as Exhibit Z.

12.1.7 Plaintiffs agree that: (i) the Steadfast PLC Policy is released by all such Plaintiffs such that no Plaintiff can assert any claim against the Steadfast PLC Policy; and (ii) the Steadfast EOC Policy is released by all such Plaintiffs such that no Plaintiff can assert any claim against the Steadfast EOC Policy.

12.2 Bankruptcy Releases.

Debtors, acting on behalf of themselves and on behalf of each of their bankruptcy estates, shall release the Plaintiffs from any and all claims, obligations, causes of action and liabilities (i) under any of sections 542, 544, 545, 547, 548, 549, or 553 of the Bankruptcy Code to avoid any alleged transfer to or seek turnover from a Plaintiff, (ii) under section 550 of the Bankruptcy Code to recovery any such alleged transfer, (iii) under section 510(c) of the Bankruptcy Code to subordinate any claim of a Plaintiff, and (iv) under Section 502(d) or 502(j) of the Bankruptcy Code.

12.3 Civil Code Section 1542

12.3.1 The Parties to this Agreement have read and fully understand the statutory language of Section 1542 of the Civil Code of State of California ("Section 1542"), which reads as follows: "A general release does not extend to claims which the creditor does not know or

suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor."

12.3.2 As to the releases given in Section 12.1 and 12.2, each Party hereto acknowledges that it may hereafter discover facts different from, or in addition to, the facts which it now knows or believes to be true with respect to the perchlorate groundwater contamination in the area of the Site or Subject Wells, and that it is each Party's intention to specifically waive and relinquish any and all protections, privileges, rights and benefits under Section 1542 as to the claims to be specifically released under Sections 12.1 and 12.2.

12.4 Dismissal of Underlying Action

Within forty-five (45) Days after the Effective Date, and provided that the Defendants have paid to Plaintiffs the full amount required to be paid within thirty (30) days after the Effective Date of this Agreement, the Plaintiffs shall file a request for dismissal, with prejudice to the extent expressly released herein and otherwise without prejudice, of the claims asserted in the Underlying Action and, thereafter, shall do whatever is required to effectuate such dismissal.

12.4.1 With respect to any claims dismissed without prejudice, the Parties agree not to assert any statute of limitation or equitable defense based on the passage of any period of time prior to, at a minimum, one year after the Effective Date of this Agreement (the "Tolled Period"). The Tolled Period will be extended automatically for an additional three years (the "Extended Period") unless a Party determines to terminate the Tolled Period at that Party's sole discretion, and provides written notice at any time within the Extended Period, of a specific date, set no earlier than ten days from the date of such written notice. Any applicable statutes of limitation or equitable defense based on the passage of time shall begin to run after four years have elapsed from the Effective Date, or after an earlier date that may be set in accordance with

the foregoing termination of the Extended Period. Notwithstanding anything in this Section, and unless the Extended Period is terminated by a Party, the Parties agree to meet and confer before the expiration of the Extended Period to consider renewal of the tolling period for up to an additional four years in accordance with California Code of Civil Procedure Section 360.5.

12.4.2 With respect to any claims Plaintiffs may allege to have with respect to or arising out of the presence of perchlorate or other hazardous substances, wastes or materials in the groundwater, soil or surface water at or in the vicinity of the Site, Plaintiffs agree to forebear from bringing any action in any court based on such claims for the Tolled Period of one year after the Effective Date of this Agreement and for any additional period of time that the Extended Period is in effect in accordance with subsection 12.4.1 (the "Forbearance Period"). The Forbearance Period shall run concurrently with the Tolling Period and any Extended Period, and the Parties may, by mutual agreement, renew the Tolling and/or Extended Periods in accordance with subsection 12.4.1. Subsections 12.4.1 and 12.4.2 expressly do not apply to any claims that may be asserted in accordance with the provisions of Section 11.2 (Rapid Response Fund), above, and any defenses thereto.

12.5 Notification Regarding Use of Well Disinfectant

Prior to performing any disinfection of any of the Subject Wells or Threatened Wells, Plaintiffs agree to provide Whittaker and AISLIC with 10 days written notice. Prior to applying any disinfecting product or solution down-hole, one water sample will be collected from the Well and analyzed for perchlorate. After all down-hole operations are completed, and prior to putting the Well back into service, one water sample will be collected and analyzed for perchlorate. In addition, one sample of the product or solution to be used for down-hole disinfection will be collected and analyzed for perchlorate. Plaintiffs further agree that in all

other respects, they will follow the American Water Works Association's "AWWA Standard For Disinfection Of Wells", dated November 1, 2003, attached hereto as Exhibit CC, and that Plaintiffs will timely provide Whittaker and AISLIC with the analytic results of the above-referenced three samplings, as well as copies of a completed Worksheet containing the information called for in the AWWA's sample Worksheet that is attached hereto as part of Exhibit CC. All three (3) samples will be tested for perchlorate using the approved United States Environmental Protection Agency (EPA) and DHS Method 314.0 and report the results using a detection limit for reporting (DLR) of 4 ppb. Plaintiffs agree to use the most current perchlorate test method and DLR approved by DHS for drinking water in the event Method 314 is revised in the future.

ARTICLE 13. DISPUTE RESOLUTION

13.1 Disputes Governed by Article 13

All disputes between Parties to this Agreement arising out of or related to this Agreement, including the interpretation, enforcement or breach of this Agreement, (excluding disputes to be decided by the Cost Consultant, which are to be resolved pursuant to Article 7), are subject to the dispute resolution procedures contained in this Article 13.

13.1.1 Procedures Applicable To All Disputes Governed by Article 13

13.1.1.1 Additional Procedural Requirements. The procedural rules of the arbitration herein shall be supplemented by any non-conflicting arbitration procedures of the Judicial Arbitration and Mediation Service (**"JAMS"**) Comprehensive Arbitration Rules & Procedures, or such other alternative dispute resolution provider as may be agreed upon by the parties to the dispute in writing, applicable to commercial arbitration and may be modified by agreement of the parties to the dispute (the "Rules"). If any provision of this Agreement conflicts with the Rules, then this Agreement shall govern.

13.1.1.2 Retention of Consultants. The arbitrator may seek the approval of the parties to the dispute to retain a consultant. The arbitrator shall provide to all parties to the dispute an explanation for the need for the consultant, the consultant's identity, hourly rate, and the estimated costs of the service. All parties to the dispute must approve the retention of the consultant and, if retention of the consultant is approved, the parties to the dispute shall share equally the costs of the consultant. The consultant's cost shall not exceed ten thousand ($10,000) without the prior written consent of the parties to the dispute.

13.2 Expedited Arbitration Procedures

13.2.1 Notice of Dispute; Good Faith Meeting; Demand for Arbitration

Any Party who perceives that a dispute has arisen which is subject to the dispute resolution procedures contained in this Article 13, other than Future Perchlorate Contamination Arbitration or Lump Sum Arbitration governed by Section 13.3 below, may give written notice of such dispute to all other Parties. The Parties shall meet to resolve the dispute within seven (7) Working Days after receipt of such written notice by the last Party to receive it. If the Parties are unable to resolve the dispute in good faith within fifteen (15) Days after receipt of such written notice by the last party to receive it, the Party that gave written notice of the dispute may initiate the arbitration procedure described below by delivery of a Demand for Arbitration to all other Parties (excluding any that no longer legally exist) no later than thirty (30) Days after receipt of the written notice of such dispute by the last party to receive it.

13.2.2 Approved Arbitrators

Disputes subject to the expedited arbitration procedure set forth in this section 13.2 shall be decided by one impartial arbitrator qualified to serve as an arbitrator. The list in Exhibit AA consists of five (5) approved arbitrators; however, on or about the third

anniversary of the effective date of this agreement, the parties shall meet and agree to a list of five arbitrators for the next three year period, and the same process shall take place on each third anniversary thereafter. The list of arbitrators may be supplemented by mutual agreement of the Parties in writing. An arbitrator shall be chosen by agreement of the parties involved in the dispute. If the parties involved in the dispute are unable to reach agreement, the one arbitrator shall be selected by each side (Defendants and AISLIC being considered one side for purposes of such strikes) striking one arbitrator from the list in succession (beginning with Plaintiffs) until only one arbitrator remains. Plaintiffs shall strike one arbitrator within two (2) Working Days of notice of the arbitration. Each successive strike shall take place within two (2) Working Days thereafter. Notice shall be given pursuant to the provisions of Section 15.4 hereof. If the list of five (5) approved arbitrators needs to be supplemented in order to assure a complete list of five (5) available arbitrators before such a selection, the parties to the dispute shall supplement the list by mutual agreement, or in the absence of such agreement, the list shall be supplemented by the Judicial Arbitration and Mediation Service ("JAMS") in Los Angeles (or a mutually agreeable substitute). If the method described above does not identify a person available to act as arbitrator for any particular dispute, the parties involved in the dispute shall use their best efforts to select an arbitrator by mutual agreement. If the parties to the dispute are unable to reach agreement, the listing process set forth by JAMS Rule 15 shall govern.

13.2.3 Expedited Arbitration

Plaintiffs and Defendants and AISLIC shall, within fifteen (15) Working Days after receipt of a Demand for Arbitration pursuant to Section 13.2.1, above, provide written statements of position to the arbitrator, with copies to the other Parties, setting forth their respective positions. Within ten (10) Working Days after receipt of such a written statement of

position, any party may provide a rebuttal to the arbitrator, with copies to the other Parties. Evidentiary hearing and oral argument of the disputed matter shall be held no earlier than fifteen (15) Working Days after delivery of the rebuttal summaries, and should be scheduled at the earliest available convenient time for the parties to the dispute and the arbitrator. The arbitrator shall render a binding written opinion, including detailed findings of fact and conclusions of law, within ten (10) Working Days after the conclusion of the evidentiary hearing and oral argument.

In any such arbitration in which the written opinion is rendered by the arbitrator prior to the arbitrator's determination of the Lump Sum pursuant to Section 5.2.6 and 13.3, the arbitrator's fees shall be a Project O&M Cost. The award by the arbitrator may include the award of reasonable attorney's fees to the prevailing party, if the arbitrator finds that there is a "prevailing" party. The arbitrator will inter alia be empowered to award response costs or damages. The arbitrator will not be empowered to award injunctive or declaratory relief or award punitive damages or determine coverage issues under the AISLIC Policy. In awarding damages resulting from a breach of the Agreement, the arbitrator may take into consideration, among other things, any disruption to the Project, lost production capacity in the Subject Wells, and costs of replacement water resulting from Defendants' breach of their funding obligations hereunder. Any arbitration award against the Debtors is subject to Section 2.5 herein. The Parties acknowledge and agree that each of the Plaintiffs, in its sole discretion, reserves the right to seek declaratory and/or injunctive relief in a state or federal court action against Defendants, notwithstanding the initiation or resolution of any arbitration proceeding under this Article 13. The Plaintiffs agree that they will refrain from pursuing any claim or lawsuit for injunctive or declaratory relief against Defendants based on the same factual circumstances, pending receipt of the arbitrator's determination. The Parties understand and agree that the record from any

arbitration will be admissible in any future claim or lawsuit by Plaintiffs against Defendants or AISLIC, or by Defendants or AISLIC against Plaintiffs, for injunctive or declaratory relief based on the same factual circumstances.

13.3 Procedures Applicable To Arbitration of Future Perchlorate Contamination Disputes And Arbitration of Lump Sum

13.3.1 Panel of Arbitrators. Future Perchlorate Contamination Disputes pursuant to Article 10 hereof and Arbitration of Lump Sum pursuant to Section 5.2.6 and 9.1.7 hereof shall be decided by a panel of three impartial arbitrators qualified to serve as arbitrators. The list in Exhibit "BB" consists of eleven (11) approved arbitrators. The list of arbitrators may be supplemented or amended by mutual agreement of the Parties in writing. An arbitration panel of three (3) shall be chosen by agreement of the parties involved in the dispute. If the parties involved in the dispute are unable to reach agreement, the panel of three (3) arbitrators shall be selected by each side striking one arbitrator from the list in succession (beginning with Plaintiffs) until only a panel of three arbitrators remains. Plaintiffs shall strike one arbitrator within five (5) Working Days of notice of the arbitration. (Defendants and AISLIC being considered one side for purposes of such strikes.) Each successive strike shall take place within two (2) Working Days thereafter. Notice shall be given pursuant to the provisions of Section 15.4 hereof. If the list of eleven (11) approved arbitrators needs to be supplemented in order to assure a complete list of eleven (11) available arbitrators before such a selection, the parties to the dispute shall supplement the list by mutual agreement, or in the absence of such agreement, the list shall be supplemented by the Judicial Arbitration and Mediation Service ("JAMS") in Los Angeles (or a mutually agreeable substitute). If the method described above, does not identify a person available to act as arbitrator for any particular dispute, the parties involved in the dispute shall

use their best efforts to select an arbitrator by mutual agreement. If the parties to the dispute are unable to reach agreement, the listing process set forth by JAMS Rule 15 shall govern.

13.3.2 Election to Arbitrate.

13.3.2.1 Future Perchlorate Contamination Disputes

If there is a dispute with respect to Future Perchlorate Contamination pursuant to Article 10 hereof, any Plaintiff may elect, in its sole discretion, to arbitrate said Future Perchlorate Contamination dispute in accordance with the provisions of Article 10 and this Section 13.3.2. A Plaintiff electing to arbitrate shall initiate the arbitration procedure described below by delivery of a Demand for Arbitration to all other Parties (excluding any that no longer legally exist) no later than thirty (30) Days either (i) after receipt of Whittaker's decision regarding an acceptable AISLIC Future Perchlorate Determination of Coverage as required by Section 10.1.1, or (ii) the expiration of the Notice Period under Section 10.1.1, whichever is later. Within fifteen (15) days of the selection or determination of the panel of arbitrators pursuant to Article 13.2.1 hereof, each party to the dispute shall submit to the arbitrators, and serve on all parties to the arbitration, a short statement of the dispute, their respective positions, and a proposed discovery and hearing schedule. The arbitrators shall be empowered to resolve all issues of law and fact relating to the dispute, including without limitation any issues relating to liability, compensatory damages, response costs and/or the nature and scope of the remedy associated with the presence of perchlorate, but shall not be empowered to award injunctive or declaratory relief. However, the arbitrators designated for any Future Perchlorate Contamination Dispute, may retain continuing jurisdiction after they render a final, binding decision to resolve any additional response cost and damage claims thereafter arising from the same, continuous or related pollution conditions that are involved in the dispute

for which they originally were designated. The Parties acknowledge and agree that each of the Plaintiffs, in its sole discretion, reserves the right to seek declaratory and/or injunctive relief in a state or federal court action against Defendants respecting any Future Perchlorate Contamination Dispute, notwithstanding the initiation or resolution of any arbitration proceeding under this Article 13. The Plaintiffs agree that they will refrain from pursuing any claim or lawsuit for injunctive or declaratory relief against Defendants based on the same factual circumstances, pending receipt of the arbitrator's determination.

13.3.2.2 Lump Sum Arbitration

If Plaintiffs, Whittaker, or AISLIC desire to initiate Lump Sum Arbitration pursuant to Section 5.2.6 and/or 9.1.7, the requesting party shall give written notice to all other Parties. The Parties shall meet and confer to resolve the dispute within fifteen (15) days after receipt of such written notice by the last Party to receive it. If the Parties are unable to resolve the dispute in good faith, the party that gave written notice of the dispute may initiate the arbitration procedure described below by delivery of a Demand for Arbitration to all other Parties (excluding any that no longer legally exist) no later than fifty (50) Days after receipt of the written notice of such dispute by the last party to receive it. Within fifteen (15) days after the selection or determination of the panel of arbitrators pursuant to Article 13.3.1 hereof, Plaintiffs, Whittaker and AISLIC shall submit to the arbitrators and serve on all parties to the arbitration a short statement of the dispute, their respective positions, and a proposed discovery and hearing schedule. The arbitrators shall be empowered to resolve all issues of fact and law relating to said Lump Sum Arbitration.

13.3.3 Preliminary Hearing. Within thirty (30) days after selection or determination of the panel of arbitrators, the arbitrators shall schedule a preliminary hearing. At

the preliminary hearing, the arbitrators shall decide any discovery and briefing issues and set dates, including a hearing date. In resolving discovery issues, the arbitrators shall consider expedition, cost effectiveness, fairness, and the needs of the Parties for adequate information with respect to the dispute.

13.3.4 Commencement of Arbitration. The arbitration hearing shall be scheduled no later than ninety (90) days after the initial preliminary hearing, unless the parties to the dispute mutually agree in writing to extend the date or the arbitrators extend the date.

13.3.5 Decision of Panel Of Arbitrators Final. The arbitrators shall make a written decision, specifying the reasons for the decision, including detailed findings of fact and conclusions of law, within sixty (60) days after the hearing. The decision of at least two (2) of the three (3) panel members shall be binding and final, and there shall be no right to appeal the decision; provided, however, any party to the dispute may seek vacation or correction of the Panel's decision pursuant to California Code of Civil Procedure Section 1286.2 (Grounds for vacation of award) or Section 1286.6 (Grounds for correction of award). Plaintiffs and Defendants, each collectively, shall equally share the expense of the three arbitrators and the arbitration proceeding. The arbitrators will be empowered *inter alia* to award response costs and damages. The arbitrators will not be empowered to award injunctive or declaratory relief or award punitive damages or determine coverage issues under the AISLIC Policy. Any arbitration award against the Debtors is subject to Section 2.5 herein. The Parties understand and agree that the record from any arbitration will be admissible in any future claim or lawsuit by Plaintiffs against Defendants for injunctive or declaratory relief based on the same factual circumstances.

13.3.6 Time Period to Complete Arbitration. The arbitration shall be completed within one hundred fifty (150) days of the preliminary hearing, unless the parties to the dispute mutually agree in writing to extend the date or the arbitrators extend the date.

13.4 Entry of Judgment.

Judgment on the award rendered by the arbitrator(s) may be entered in and enforced by any court of competent jurisdiction.

13.5 Location.

Arbitration proceedings, including hearings, good faith meetings and settlement conferences, shall take place in Los Angeles, California, unless otherwise agreed to by the parties in writing. The Parties shall have the right to participate in any of the arbitration proceedings by telephone.

13.6 Governing Law.

The arbitration, including any proceedings to enforce, confirm, modify or vacate an award, and any proceedings to enforce the terms of this Agreement, shall be governed by the laws of the State of California and applicable federal law.

ARTICLE 14. INSURANCE ISSUES RELATED TO THE AISLIC POLICY

14.1 Condition M of AISLIC Policy

The Parties acknowledge and agree that Condition M of the AISLIC Policy provides as follows:

> Action Against Company – No action shall lie against the Company, unless as a condition precedent thereto, there shall have been full compliance with all of the terms of this Policy, nor until the amount of the Insured's obligation to pay shall have been finally determined either by judgment against the Insured after actual trial or by written agreement of the Insured, the claimant and the Company.
>
> Any person or organization or the legal representative thereof who has secured such judgment or written agreement shall thereafter be entitled to recover under this Policy to the extent of the insurance afforded by the Policy. No person or organization

shall have any right under this Policy to join the Company as a party to any action against the Insured to determine the Insured's liability, nor shall the Company be impleaded by the Insured or his legal representative. Bankruptcy or insolvency of the Insured or of the Insured's estate shall not relieve the Company of its obligations hereunder.

14.2 Effect of This Agreement Under Condition M

Solely to resolve the effect of this Agreement under Condition M of the AISLIC Policy, and not to apply to or affect any other provision of the AISLIC Policy, or affect the terms of the Coverage and Claims Settlement Agreement, nor to affect any other claims for coverage by Whittaker, the Parties agree as set forth in this Section 14.2 as follows. Provided that an arbitration award or Cost Consultant determination is issued pursuant to and in accordance with this Agreement, including but not limited to Articles 7 and 13, and that (a) the time for filing a petition to vacate or correct the arbitrator's or Cost Consultant's decision has expired or such filing has been waived by agreement or (b) any petition filed to vacate or correct the arbitrator's or Cost Consultant's decision, pursuant to Cal. Code of Civil Procedure Section 1286.2 (Grounds for vacation of award) or Section 1286.6 (Grounds for correction of award), is finally adjudicated or dismissed (hereinafter referred to as "Final Arbitration Awards"), AISLIC and Whittaker agree as follows:

i) a Final Arbitration Award issued in favor of Plaintiffs and against Whittaker pursuant to and in accordance with this Agreement shall be deemed to be "a judgment against Insured [Whittaker] after actual trial"; and

ii) any written settlement agreement executed by Plaintiffs, Whittaker, and AISLIC or executed by Plaintiffs and Whittaker (with written consent of AISLIC) on issues or disputes presented to or which could properly be presented to an arbitrator(s) or Cost Consultant pursuant to this Agreement shall be deemed to be

"written agreement of the Insured [Whittaker], the claimant [Plaintiffs] and the Company [AISLIC]", as those quoted phrases are used in Condition M "Action Against Company" of the AISLIC Policy.

14.3 Written Agreement

This Agreement shall be deemed to be "written agreement of the Insured [Whittaker], the claimant [Plaintiffs] and the Company [AISLIC]" as that quoted phrase is used in Condition M "Action Against Company" of the AISLIC Policy.

14.4 Full Compliance

AISLIC agrees that, as of the date that AISLIC executes this Agreement, Whittaker's actions have been in "full compliance with all of the terms of [the AISLIC] Policy" with respect to this Agreement, as said quoted phrase is used in Condition M "Action Against Company" of the AISLIC Policy.

14.5 Covered Claims

Except with respect to the negotiation, arbitration, or litigation of a Non-Subject Well Future Perchlorate Circumstance, AISLIC agrees that (1) all costs, expenses, and obligations incurred by Whittaker pursuant to this Agreement shall be treated as a covered claim under AISLIC Policy Coverages A, B, C, D, E, or F, without reservation of coverage rights to the extent that limits remain under AISLIC Policy Coverages A-F and (2) all costs, expenses, and obligations incurred by Whittaker pursuant to this Agreement shall be paid from either SF Escrow 1, from SF Escrow 2 (under Section IV.F.6.a(iii) of the Coverage and Claims Settlement Agreement), or from any remaining applicable limits of the AISLIC Policy under Coverages A, B, C, D, E, or F, as provided in the Coverage and Claims Settlement Agreement.

14.6 Proceedings Under Article 10

With respect to the negotiation, arbitration, or litigation of a Non-Subject Well Future Perchlorate Circumstance pursuant to Article 10 of this Agreement, AISLIC affirms that it agrees to abide by the obligations set forth in that Article 10. In the event that AISLIC makes a determination of coverage and Whittaker notifies of its satisfaction with such determination pursuant to Article 10 of this Agreement, then the agreements, rights and obligations set forth in Section 14.2 of this Article 14 shall apply with respect to the arbitration of such Non-Subject Well Future Perchlorate Circumstance.

14.7 AISLIC Reservation of Rights

AISLIC reserves all rights of subrogation or contribution pursuant to the AISLIC policy and law with respect to any payments made hereunder, except any claims of subrogation or contribution against the Plaintiffs.

14.8 No Amendment or Waiver

Without limiting the obligations of Whittaker and AISLIC as set forth in this Article 14 of this Agreement, nothing herein shall constitute an amendment of any terms or conditions of the Coverage and Claims Settlement Agreement (including but not limited to, those terms related to funding of settlement of the Underlying Action), or a waiver or amendment of any duties, obligations, reservations, or rights, if any, of AISLIC or Whittaker under the Coverage and Claims Settlement Agreement. In particular, but not by way of limitation, AISLIC and Whittaker disagree over whether Section VI.C.3 of the Coverage and Claims Settlement Agreement independently obligates AISLIC to cover future perchlorate claims without reservation of rights and whether and to what extent, if any, AISLIC has reserved its defenses to

coverage. Nothing in this Article 14, is intended to affect, or shall affect, the resolution of that dispute.

14.9 Coverages K and L

Reference in this Article 14 to Coverages A-F shall not under any circumstances be deemed to affect any duties, obligations, reservations, or rights, if any, of AISLIC or Whittaker with respect to Coverages K and L. In particular, but not by way of limitation, the Parties agree that Coverages K and L are under all circumstances limits of liability that are "inapplicable" to Loss sustained for Clean-up Costs incurred after the Termination Date of the AISLIC Policy.

14.10 Additional Clarifications Regarding AISLIC Policy and Other Agreements

14.10.1 Nothing in this Agreement confers the status of an insured or additional insured or the rights of an insured or additional insured with respect to the AISLIC Policy on any person or entity.

14.10.2 Except as expressly set forth in this Article 14, this Agreement does not alter the rights, duties and obligations between Whittaker and AISLIC under (a) the AISLIC Policy or (b) any other agreements, including but not limited to the Coverage and Claims Settlement Agreement.

14.10.3 The parties agree that nothing in this Agreement shall under any circumstances require AISLIC to make any payment or fulfill any duty or obligation after its applicable limit of liability is exhausted.

14.10.4 Nothing herein shall be deemed or interpreted to alter or amend, nor waive or affect, the terms of Condition C of Section VII, Conditions of the AISLIC Policy.

14.10.5 Nothing herein shall be construed to affect any rights of Whittaker against any of its insurers other than AISLIC or under any of its insurance policies other than the AISLIC Policy.

ARTICLE 15. PUBLIC AND OTHER FUNDING SOURCES

15.1 Background of Intent of the Parties

In entering into this Agreement, the Parties are aware that federal and state Public Funding Sources may be or become available to assist in implementing the Project as well as remedial and/or source control activities to be conducted at or in the vicinity of the Site respecting perchlorate contamination. Federal funds may be available by virtue of the United States Department of Defense involvement and activities conducted at or in the vicinity of the Site. State funds may be available to assist in evaluating and implementing an investigatory/remedial program that may be regionally based, including but not limited to the restoration/containment work contemplated under this Agreement and remedial source control activities to be conducted at the Site.

15.2 Obtaining Funds from Public Funding Sources

The Plaintiffs shall use good faith efforts, in a manner consistent with each of the Plaintiffs' and their representatives' individual and unique obligations under applicable law, to obtain funds from Public Funding Sources so as to provide for reasonable and necessary: (1) costs associated with the Project, including costs to implement the Project, Project Modification, and cost overruns, as identified by Plaintiffs; (2) continued off-Site groundwater monitoring with respect to perchlorate contamination; (3) off-Site response activities in the alluvium and Saugus Formation that address perchlorate contamination; and (4) on-Site source removal activities with respect to perchlorate contamination. To the extent permissible under all applicable laws and the requirements of specific funding authorizations, funding from Public Funding Sources shall

be allocated, credited, and utilized to cover any of the aforementioned categories of reasonable and necessary costs in the above order of priority. The Parties shall comply with all applicable laws, rules and regulations regarding lobbying disclosures in their efforts to obtain funding from Public Funding sources. Whittaker shall cooperate in seeking such funds.

Prior to determination of the Lump Sum pursuant to Section 5.2.6, the reasonable and necessary outside consultant lobbying costs incurred by Plaintiffs and Whittaker that are directly related to the perchlorate contamination and seeking of funding under this Article, shall be Project O&M Costs, and will be included in the Estimate of Project O&M, subject to an annual cap of two hundred thousand dollars ($200,000) on Plaintiffs' outside fees and costs and one hundred thousand dollars ($100,000) on Whittaker's outside fees and costs. In no event shall such "outside fees and costs" include campaign donations or similar donations. Upon request of any Party, a full accounting of such costs shall be provided. The obligation to reimburse lobbying costs shall cease in the year 2011, but such costs may be requested thereafter upon a showing of both good cause and positive results, but in no event later than January 1, 2019.

15.3 Administration of Funds from Public Funding Sources

Plaintiffs shall document, account for, and administer all Public Funding Sources funds received by them in conformity with all applicable laws and all requirements of the administrators of Public Funding Sources.

15.4 Conformity with Public Funding Sources Requirements

Plaintiffs shall design, build, operate and maintain their respective restoration/containment work projects contemplated under this Agreement in conformity with all applicable requirements of the Public Funding Sources from which funds have been secured. If Public Funding Sources have requirements which conflict with this Agreement, the Parties shall

meet and negotiate in good faith to amend this Agreement to conform to the requirements of the Public Funding Sources in a manner that preserves the purposes for the use of such funds as much as possible in a manner consistent with the Parties' intent as contemplated in this Agreement. Notwithstanding any of the provisions of this Article 15 or any other provision of this Agreement, nothing in this Agreement is intended to waive or otherwise effectuate a release, nor shall any Party provide a release of the United States Department of Defense or any other agency or instrumentality of the United States in connection with any alleged liability same may have under federal or state law arising out of or relating to any involvement in operations, waste disposal, or other activities at or in the vicinity of the Site.

ARTICLE 16. MISCELLANEOUS

16.1 Governing Law

This Agreement shall be construed and enforced in accordance with the substantive laws of the State of California, without reference to choice of law rules.

16.2 Waiver

No waiver by a Party of any provision of this Agreement shall be valid unless in writing and signed by an authorized representative of such Party. The waiver by any Party of any failure on the part of another Party to perform any of its obligations under this Agreement shall not be construed as a waiver of any future or continuing failure or failures.

16.3 Amendment of the Agreement

No amendment of this Agreement shall be binding upon the Parties unless it is in writing and executed by all of the Parties (excluding any that no longer legally exist or that do not respond to communications directed to the address for that Party specified below or to such other address as has been designated in accordance with Section 16.4). This Agreement and the

exhibits attached hereto set forth all of the covenants, provisions, agreements, conditions and understandings with respect to the matters addressed in this Agreement and constitute a complete integration.

16.4 Notices

All notices and communications required or permitted to be delivered to the Parties, Steadfast and any Buyer pursuant to this Agreement shall be in writing and (a) delivered personally or (b) sent by a recognized overnight mail or courier service, with delivery receipt requested, or (c) sent by facsimile communication with receipt confirmed by telephone, to the following addresses (or to such other address as may from time to time be specified in writing by the addressee):

Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350-2173
Attn: Dan Masnada, General Manager
Telephone: (661) 297-1600
Facsimile: (661) 297-1610
E-mail: dmasnada@clwa.org

Valencia Water Company
24631 Rockefeller Ave.
P. O. Box 5904
Valencia, CA 91385-5904
Attn: Robert J. DiPrimio, President
Telephone: (661) 294-1150
Facsimile: (661) 294-3806
E-mail: rdiprimio@valencia.com

Newhall County Water District
23780 North Pine St.
P. O. Box 220970
Santa Clarita, CA 91321-0970
Attn: Stephen L. Cole, General Manager
Telephone: (661) 259-3610
Facsimile: (661) 259-9673
E-mail: scole@ncwd.org

Santa Clarita Water Company
22722 West Soledad Canyon Road
P. O. Box 903
Santa Clarita, CA 91380-9003
Attn: William J. Manetta, President
Telephone: (661) 259-2737
Facsimile: (661) 286-4333
E-mail: wmanetta@scwater.org

with a copy for all of the above to:

Nossaman, Guthner, Knox & Elliott LLP
445 South Figueroa Street, 31st Floor
Los Angeles, CA 90071-1602
Attn: Frederic A. Fudacz, Esq.
Telephone: (213) 612-7823
Facsimile: (213) 612-7801
E-mail: ffudacz@nossaman.com

Whittaker Corporation
Eric Lardiere, Esq.
Vice-President, Secretary and General Counsel
Whittaker Corporation
1955 N. Surveyor Ave.
Simi Valley, CA 93063-3349
E-mail: elardiere@wkr.com

with copies for Whittaker Corporation to:

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333 S. Hope Street
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Los Angeles, CA 90071-3043
Fax: 213-614-1868
Email: rsiemens@hewm.com

and

Richard A. Dongell, Esq.
Dongell Lawrence Finney Claypool LLP
707 Wilshire Boulevard, 45th Floor
Los Angeles, CA 90017
213-943-6100 telephone
213-943-6101 facsimile

American International Specialty Lines Insurance Company as Administrator of SF Escrow 1:

Stacy Parker, Complex Claim Director
AIG Domestic Claims, Inc.
Pollution Insurance Products High Profile Unit
175 Water Street, 12th Floor
New York, New York 10038
Telephone: (212) 458-2910
Fax: (866) 261-3935

with a copy to:

Richard W. Bryan, Esq.
Erin N. McGonagle, Esq.
Jackson & Campbell, P.C.
1120 20th Street, N.W.
Washington, DC 20036-3437
Telephone: (202) 457-1600
Fax: (202) 457-1678

Santa Clarita, L.L.C.
Remediation Financial, Inc.
Remediation Financial, Inc., Managing Member
Great American Tower
3200 N. Central Avenue, Suite 1570
Phoenix, Arizona 85296
Attn: Myla D. Bobrow, Pres. & CEO
Remediation Financial, Inc.

with a copy for Santa Clarita, L.L.C. and Remediation Financial, Inc. to:

Lawrence J. Hilton, Esq./William E. Halle, Esq.
Hewitt & O'Neil LLP
19900 MacArthur Boulevard, Suite 1050
Irvine, California 92612

Bermite Recovery LLC
Remediation Financial, Inc., Managing Member
Great American Tower
3200 N. Central Avenue, Suite 1570
Phoenix, Arizona 85296
Attn: Myla D. Bobrow, Pres. & CEO
Remediation Financial, Inc.

with a copy for Santa Clarita, L.L.C., Remediation Financial, Inc., and Bermite Recovery LLC to:

Avion Holdings, Inc.
Re: Remediation Financial Inc.
Suite B-204
15290 N. 78th Way
Scottsdale, AZ 85260
Fax: 480-905-0469

and

Alisa C. Lacey, Esq.
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Steadfast Insurance Company

Zurich North America
1400 American Lane
Schaumberg, IL 60196
Attn: General Counsel
E claim # 912-0038512

with a copy for Steadfast to:

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Christensen, Miller, Fink, Jacobs, Glaser, Weil & Shapiro
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Los Angeles, California 90067
Telephone: (310) 556-2920
Fax: (310) 556-2920

and

Neil Selman, Esq.
Selman Breitman, LLP
11766 Wilshire Blvd
6th Floor
Los Angeles, California 90025-6538
Telephone: (310) 689-7070
Fax: (310) 473-2525

Buyer:

SunCal Santa Clarita LLC
c/o SunCal Companies
21900 Burbank Blvd.
Woodland Hills, CA 12367
Attn: Frank Faye
Telephone: (818) 444-1600
Fax: (818) 444-5501

with copies to:

SunCal Companies
2392 Morse Avenue
Irvine, CA 92614
Attn: Mr. Bruce Elieff
Bruce V. Cook, Esq.
Telephone: (949) 777-4000
Facsimile: (949) 7774280

Cherokee Santa Clarita, LLC
c/o Cherokee Investment Partners
4600 Ulster Street
Suite 500
Denver, Colorado 80237
Attn: Mr. Dwight Stenseth
Mr. Guy Arnold
Telephone: (303) 689-1460
Facsimile: 303-689-1461

16.5 Computation of Time

In computing any period of time under this Agreement, where the last day would fall on a Saturday, Sunday, or federal or California state holiday, the period shall run until 5 p.m. Pacific Time on the next Working Day.

16.6 Counterparts

This Agreement will be executed in counterparts, each of which shall be deemed an original, and all of which, taken together, shall constitute one and the same instrument.

16.7 Assignment

No Party shall assign or otherwise transfer its rights or obligations hereunder without the other Parties' prior written consent, which shall not be unreasonably withheld. This Agreement shall be binding upon and inure to the benefit of the respective successors and permitted assigns of the Parties.

16.8 Cooperation

Each Party agrees to execute and deliver such further documents and to perform such further acts as may be reasonable and necessary to carry out the provisions of this Agreement or to effectuate its intent.

16.9 Joint Drafting and Negotiation/Legal Counsel

This Agreement has been jointly negotiated and drafted. The language of this Agreement shall be construed as a whole according to its fair meaning and without regard to or aid of Civil Code Section 1654 and similar judicial rules of construction. Each Party has been advised in connection herewith by counsel of its own choosing.

16.10 Article and Section Headings and Captions

Article and Section headings and captions used in this Agreement are for reference only and shall not be considered in any way in connection with the interpretation or enforcement of this Agreement.

16.11 No Third Party Beneficiaries

No third party shall be entitled to claim or enforce any rights hereunder except (1) Buyer and BRLLC, but only to the extent expressly provided in this Agreement, and (2) persons specifically released in Section 12.1 are entitled to claim the benefit of and enforce such releases.

16.12 Severability

In the event that any provision of this Agreement is determined by a court to be invalid, the court shall reform the provision in a manner that is both consistent with the intent of the Parties and legally valid. The remainder of this Agreement shall not be affected thereby.

16.13 Successors and Assigns

All covenants and agreements contained in this Agreement by or on behalf of any of the Parties hereto shall bind and inure to the benefit of their respective successors and permitted assigns, whether so expressed or not, including any Trustee appointed in the Bankruptcy Cases or a subsequently converted Chapter 7 case or cases.

16.14 Organization/Authorization

Each of the Parties to this Agreement hereby respectively represents and warrants to the others that each of them is a duly organized or constituted entity, with all requisite power to carry out its obligations under this Agreement, and that the execution, delivery and performance of this Agreement have been duly authorized by all necessary action of the board of directors or other governing body of such Party, and will not result in a violation of such Party's organizational documents. RFI and SCLLC represent and warrant that, upon the Effective Date, this Agreement will have received any and all approvals required by the Bankruptcy Court in their respective bankruptcy cases to make this Agreement enforceable as against them.

16.15 No Assignment of Claims

Other than the assignment provided in Section VII of the Coverage and Claims Settlement Agreement and the assignment provided in the Purchase & Sales Agreement between RFI Parties and Whittaker, there has been no assignment of claims.

16.16 No Admission /Not Insurance

This Agreement effectuates settlement of claims that are disputed, contested and denied. Neither this Agreement nor any Party's performance under this Agreement is intended to be or shall be asserted by any other Party to be an admission of any kind or character whatsoever, nor

shall it be deemed to have precedential effect in any other dealings between or among the Parties in any other context. Nothing herein shall be deemed to constitute an insurance policy.

16.17 No Prejudice to Buyer

Nothing in this Agreement shall be construed to prejudice any rights, claims, or defenses, that a Buyer, as defined herein, of the Site may have under applicable federal or state law, or to impose any monetary obligations or liability on the Buyer.

16.18 Entire Agreement

Except as expressly provided herein, this Agreement is the entire agreement between the Parties with respect to the subject matter hereof and supersedes all prior agreements between the Parties with respect thereto. In the event of any conflict between the terms of this Agreement and the Interim Agreement or the First Amendment, the terms of this Agreement shall control.

16.19 Survival

Except as expressly set forth herein, each and all of the releases, representations, warranties, covenants, and agreements in this Agreement and in the Interim Agreement shall survive the execution and delivery of this Agreement.

IN WITNESS WHEREOF, this Agreement has been executed by the undersigned, effective as of the date first written above.

CASTAIC LAKE WATER AGENCY

By: DAN MASNADA
Its: GENERAL MANAGER

NEWHALL COUNTY WATER DISTRICT

By: STEPHEN L. COLE
Its: General Manager

SANTA CLARITA WATER COMPANY

By: R. J. Kelly
Its: President

VALENCIA WATER COMPANY

By: Robert J. DiPrimio
Its: President

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WHITTAKER CORPORATION

By: Eric G. Lardiere
Its: Vice President, Secretary and General Counsel

SANTA CLARITA, L.L.C.
By: Remediation Financial, Inc.,
Its: Managing Member

By: Myla D. Bobrow
Its: President & CEO

REMEDIATION FINANCIAL, INC.

By: Myla D. Bobrow
Its: President & CEO

AIG DOMESTIC CLAIMS, INC., the duly authorized claims handling agent of:

AMERICAN INTERNATIONAL SPECIALTY LINES INSURANCE COMPANY, in its capacity as "Administrator" of "SF Escrow 1 Account" and as insurer of Whittaker

By:
Its:

WHITTAKER CORPORATION

By: _____
Its: _____

SANTA CLARITA, L.L.C.
By: Remediation Financial, Inc.,
Its: Managing Member

Myla D. Bobrow, Pres & CEO
By: Myla D. Bobrow
Its: President & CEO

REMEDIATION FINANCIAL, INC.

Myla D. Bobrow, Pres & CEO
By: Myla D. Bobrow
Its: President & CEO

AIG DOMESTIC CLAIMS, INC., the duly authorized claims handling agent of:

AMERICAN INTERNATIONAL SPECIALTY LINES INSURANCE COMPANY, in its capacity as "Administrator" of "SF Escrow 1 Account" and as insurer of Whittaker

By: _____
Its: _____

WHITTAKER CORPORATION

By: _____
Its: _____

SANTA CLARITA, L.L.C.
By: Remediation Financial, Inc.,
Its: Managing Member

By: Myla D. Bobrow
Its: President & CEO

REMEDIATION FINANCIAL, INC.

By: Myla D. Bobrow
Its: President & CEO

AIG DOMESTIC CLAIMS, INC., the duly authorized claims handling agent of:

AMERICAN INTERNATIONAL SPECIALTY LINES INSURANCE COMPANY, in its capacity as "Administrator" of "SF Escrow 1 Account" and as insurer of Whittaker

By: Glenn M. Simaro
Its: Director

REVIEWED AND APPROVED:

AVION HOLDINGS, LLC, in its limited capacity as designated representative for the Bankruptcy Estates.

By: G. Neil Elsey
Its: Managing Member

LIST OF EXHIBITS

Exhibit A	Description of SCLLC Property
Exhibit B	Description of BRLLC Property
Exhibit C	Description of Distribution Pipelines
Exhibit D	Pro-Forma Joint Estimate of Project O&M Costs
Exhibit E	Past Design Costs
Exhibit F	Project Description
Exhibit G	Estimate of Project Capital Costs
Exhibit H-1	Project Capital Costs Escrow Instructions
Exhibit H-2	Project O&M Costs Escrow Instructions
Exhibit I	Estimate of Q2 Capital Costs
Exhibit J	Q2 Capital Costs Joint Escrow Agreement and Instructions
Exhibit K-1	Amendment No. 1 to Joint Q2 Escrow Agreement and Instructions
Exhibit K-2	Amendment No. 2 to Joint Q2 Escrow Agreement and Instructions
Exhibit L	Estimate of Q2 O&M Costs
Exhibit M	Description of Magic Mountain Wells
Exhibit N	Description of Well Closure
Exhibit O	Description of Stadium Replacement Well
Exhibit P	Replacement Well/Distribution Pipeline Capital Costs Escrow Instructions
Exhibit Q	Description of V-206 Replacement Well and Closure of V157 Well
Exhibit R	Cost Allocation for Distribution Pipelines and Replacement Wells & Associated Pipelines
Exhibit S	Estimate of Distribution Pipelines and Replacement Wells Capital Costs
Exhibit T	List of Approved Contracts
Exhibit U	Identification of Presently Existing Saugus and Alluvial Production Wells
Exhibit V	Form of CGL Policy

Exhibit W	Form of EIL Policy
Exhibit X	Form of Earthquake Policy
Exhibit Y	Form of First Party Property Insurance Policy
Exhibit Z	Section 12.1.6 Documents
Exhibit AA	List of Approved Arbitrators
Exhibit BB	List of Approved Arbitrators for Future Perchlorate Contamination Disputes and Lump Sum Arbitration
Exhibit CC	AWWA Standard for Disinfection of Wells and Sample Worksheet

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Alisa C. Lacey, AZ Bar #010571
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Attorneys for Debtors and Debtors-in-Possession

IN THE UNITED STATES BANKRUPTCY COURT

FOR THE DISTRICT OF ARIZONA

In re RFI REALTY, INC., *et al.*, Debtors.	Chapter 11 Case No. 2-04-bk-10486-CGC JOINTLY ADMINISTERED WITH: 2-04-bk-11910-CGC; 2-04-bk-11911-CGC; and 2-04-bk-17294-CGC
THIS FILING APPLIES TO THE FOLLOWING DEBTORS: ■ ALL DEBTORS □ SPECIFIED DEBTORS	**SUPPLEMENT AND AMENDMENT TO MOTION TO ASSUME DEVELOPMENT AGREEMENT WITH CITY OF SANTA CLARITA PURSUANT TO 11 U.S.C. §365** **and** **NOTICE OF HEARING THEREON** **Hearing Date: 4/26/05** **Time: 1:30 p.m.** **Courtroom: 601**

RFI Realty, Inc. ("Realty"), Remediation Financial, Inc. ("RFI"), Santa Clarita, L.L.C. ("SCLLC"), and Bermite Recovery, L.L.C. ("Bermite"), debtors and debtors-in-possession in the above-referenced jointly administered bankruptcy proceedings ("Debtors"), pursuant to 11 U.S.C. §§ 106(a) and 365, Fed. R. Bank. P. 6006, and Local Rule 6006-1, supplement and amend their pending Motion to Assume Development Agreement with City of Santa Clarita Pursuant to 11 U.S.C. §365 ("Motion") as follows:

Request for Assumption by Bermite: The Motion requests approval for SCLLC to assume the Development Agreement (described at paragraph 9 of the Motion) which covers the SCLLC Parcel, a 996-acre parcel described at paragraph 5 of the Motion. Debtors inadvertently omitted to request in their Motion that the Development Agreement also be assumed by Debtor Bermite with respect to the Bermite Parcel. The Bermite Parcel, incompletely described in paragraph 6 of the Motion, is an approximately 23-acre portion of the original 996-acre SCLLC Parcel covered by the Development Agreement. The Motion correctly stated that the Development Agreement covers the 996 acres, but inasmuch as Bermite now owns 23 of those acres, Debtors request that the Court authorize the Development Agreement to be assumed by Bermite as it is applicable to Bermite in connection with Bermite's ownership interests in and to the Bermite Parcel.

Interested Parties. Any party who claims an interest in the Development Agreement or the Bermite Parcel has already been identified in the Motion.

No Defaults or Cure Obligations. Bermite is not in default under the Development Agreement. Further, Debtors have continued to investigate since filing the Motion, and have determined that no fees are due either by Bermite or by SCLLC to the Via Princessa B&T District or the Bouquet Canyon B&T District, and hereby amend the Motion to so allege.

Amendment to Allegations Concerning PERC Settlement. The Motion alleges, at paragraph 22, that the PERC settlement required SCLLC to take additional actions; it should have alleged that the PERC settlement required the *City* to take additional actions, the effect of which was to place burdens on the Development Agreement which SCLLC and Bermite had not bargained for. Specifically, the City contractually agreed with the PERC Plaintiffs - but not with SCLLC or Bermite - to apply a higher standard of environmental scrutiny and examination to certain portions of the Development Agreement and its Conditions of Approval under the California Environmental Quality Act ("***CEQA***") than might otherwise be permissible. Such a unilateral amendment to the Development Agreement and entitlements package of rights, upon which SCLLC and Bermite had the right to rely absent their express written approval to the contrary, is expressly prohibited by the Development Agreement and constitutes a breach of the City's obligation of good faith and fair dealing imposed upon it, as a contracting party, under California law.

Supplementation of Exhibit E. Page 4 of Exhibit E to the Motion (the PERC settlement) was accidentally omitted. Copies of the missing page have been provided to counsel. An amended Exhibit E, including page 4, is attached hereto.[1]

Hearing. The Motion has been noticed out for accelerated hearing on April 26, 2005, at 1:30 p.m. At that hearing Debtors will request approval of the Motion, as hereby supplemented and amended. This Supplement and Amendment is being served on all parties who received notice of the Motion.

Relief Requested. Except as supplemented and amended above, Debtors here incorporate the Motion by this reference, and request that the Court grant the relief requested therein as to Bermite as well as SCLLC, to the extent applicable to Bermite in connection with Bermite's ownership interests in and to the Bermite Parcel

RESPECTFULLY SUBMITTED this 13th day of April, 2005.

STINSON MORRISON HECKER LLP

By: /s/ CTG (#013235)

C. Taylor Ashworth
Alisa C. Lacey
Christopher Graver
1850 N. Central Avenue, Suite 2100
Phoenix, Arizona 85004-4584
Attorneys for Debtors

[1] To avoid confusion, Debtors have also redacted their counsel's extraneous handwritten note on page 5 of Amended Exhibit E.

Copy of the foregoing sent this 13th day of April 2005, to:

Fax

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/s/ Rebecca J. McGee

PHXDOCS 474109v1A

AMENDED EXHIBIT "E"

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FILED
LOS ANGELES SUPERIOR COURT
MAY 21 2002
JOHN A. CLARKE, CLERK
BY MARISOL LOMELI, DEPUTY

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF LOS ANGELES, CENTRAL DISTRICT

PERC - PEOPLE FOR ENVIRONMENTALLY RESPONSIBLE CLEAN-UP, INC., a California non-profit, public benefit corporation, ADAM FORD, an individual, and GLORIA DONNELLY, an individual, Plaintiffs and Petitioners, Vs. BERMITE RECOVERY, L.L.C., a Delaware limited liability company, PROJECT RISK MANAGEMENT, INC. an Arizona corporation SANTA CLARITA, L.L.C., a Delaware limited liability company, REMEDIATION FINANCIAL, INC., an Arizona corporation, STEADFAST SANTA CLARITA HOLDINGS, L.L.C., a limited liability company, WHITTAKER CORPORATION, a Delaware corporation, PORTA BELLA LENDER, LLC, a Delaware limited liability company, CITY OF SANTA CLARITA, a municipal corporation organized under the laws of the State of California, and Defendant Does 1 to 200, inclusive Defendants and Respondents.	CASE NO. BC 256686 SETTLEMENT AGREEMENT AND NOTICE OF SETTLEMENT Assigned to Dept. 68 CEQA Related Case Potentially Related Cases: BC 254794 BC 251374 BS 72129

TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD:

NOTICE IS HEREBY GIVEN that plaintiffs and petitioners PERC - PEOPLE FOR ENVIRONMENTALLY RESPONSIBLE CLEAN-UP, INC., ADAM FORD and GLORIA DONNELLY ("Plaintiffs'), and their counsel of record, and defendant and respondent City of Santa Clarita ("the City'), and its counsel of record, have reached the following Settlement Agreement in the above-entitled case:

1. The following definitions shall apply for all purposes to each and every term and condition of this Settlement Agreement:

a. "City" means defendant City of Santa Clarita, including without limitation the Santa Clarita City Council and all officers, officials and employees of the City of Santa Clarita whether elected or appointed..

b. "Discretionary Actions" and "Discretionary Approvals" mean any discretionary actions or discretionary approvals of the City, as defined in Section 1(i) of the Porta Bella Development Agreement. **For purposes of this Settlement Agreement, these terms also include any amendment, modification or change to the Porta Bella Project and/or the Porta Bella Development Documents.**

c. "Porta Bella Development Documents" means (1) the Statement of Overriding Considerations, the Final EIR (SC 92-041040), dated January 7, 1994, and the Mitigation and Monitoring Program duly certified and/or adopted on April 25, 1995; (2) the Final Conditions of Approval, including the Porta Bella Specific Plan, Vesting Tentative Tract Map No. 51599, Oak Tree Permit No. 91-003, and Master Case Nos. 91-164 and 93-012, all as duly adopted and passed on May 9, 1995; (3) Ordinance No. 95-6, duly adopted and passed on September 12, 1995; (4) Ordinance No. 96-4, duly adopted and passed on February 27, 1996; and (5) Development Agreement No. 96-535033, dated March 28, 1996 ("Porta Bella Development Agreement"). For purposes of this Settlement Agreement, this terms also includes the Porta Bella Project Memorandum of Understanding between the City and Defendant SCLLC, dated in March 1999, a copy of which is attached to the Petition and Complaint as Exhibit P.

d. "Petition and Complaint" means the First Amended Petition For Writ Of Mandate And Complaint For Declaratory Relief etc. that was filed by Plaintiffs/Petitioners on or about December 6, 2001.

e. "Porta Bella Project" means that certain real estate development project that is described in the Porta Bella Development Documents for the development of 996 acres of land in the City, which land is comprised of the Bermite Recovery Property, as defined in the Petition and Complaint and in Exhibit A thereto, and the Porta Bella Property, as defined in the Petition and Complaint and Exhibit B thereto.

2. Petitioners and the City mutually desire to enter into this Settlement Agreement for the benefit and protection of the public and the public treasury.

3. The City and Plaintiffs agree with respect to the annual compliance review of the Porta Bella Development Agreement that:

a. City will pursue prompt completion of its current annual compliance review, pursuant to Section 6(b) of the Porta Bella Development Agreement and Section 17.03.010 J of the Santa Clarita Unified Development Code.

b. City will thereafter conduct timely annual compliance reviews, commencing no later than March 30th of each calendar year, in accordance with Section 6(b) of the Porta Bella Development Agreement and Section 17.03.010 J of the Santa Clarita Unified Development Code.

c. City will give Plaintiffs and their counsel of record notice of each public hearing required by Section 6(b) of the Porta Bella Development Agreement. The notice will be addressed to Plaintiffs and their counsel at their respective addresses as shown in Paragraph 12 herein and shall be deposited in the U.S. mail at least ten (10) days prior to the hearing. The failure of any person to receive notice pursuant to this subparagraph shall not be deemed a breach of this subparagraph by City or constitute grounds for any court to invalidate any of the actions of City for which the notice was given.

4. The City and Plaintiffs agree with respect to any Discretionary Actions and any Discretionary Approvals that:

a. **No Discretionary Actions or Discretionary Approvals shall be approved or adopted by the City and no Discretionary Actions or Discretionary Approvals contained in a settlement agreement or stipulation for entry of judgment in any case between the City and a third party or third parties shall be effective, unless the City has first complied with the California Planning and Zoning Law, Title 7 of the Government Code,** California Environmental Quality Act, Public Resources Code Section 21000 *et seq.*, and the State CEQA Guidelines, Title 14 California Code of Regulations Section 15000 *et seq.*; provided, however, City will not seek to rely on any negative declaration, mitigated negative declaration **or addendum to an existing EIR** for any Discretionary Actions or Discretionary Approvals that could modify or eliminate Condition DS-12 of the Porta Bella Development Documents. If City prepares a Supplemental EIR for any of the Discretionary Actions or Discretionary Approvals, City shall not be deemed to have breached this subparagraph if a court determines that City should have instead prepared a Subsequent EIR.

b. The City will give Plaintiffs and their counsel of record notice as required by Public Resources Code Section 21092.2. The notice will be addressed to Plaintiffs and their counsel at their respective addresses as shown in Paragraph 12 herein. The failure of any person to receive notice pursuant to this subparagraph shall not (i) be deemed a breach of this subparagraph by the City or (ii) constitute grounds for any court to invalidate any action of the City as long as there has been substantial compliance with the requirements of this subparagraph.

5. Plaintiffs and the City, and their counsel of record, agree that:

a. Plaintiffs will dismiss the Petition and Complaint with prejudice as to the City within two (2) business days after the City Council of the City approves this Settlement Agreement and the Settlement Agreement and four (4) counterpart originals are signed by the Mayor of the City.

b. Plaintiffs will bear their own costs of suit and attorney fees arising from this action, notwithstanding the provisions of Code of Civil Procedure Section 1021.5.

c. The City will bear its own costs of suit and attorney fees arising from this action.

6. The parties agree that this Settlement Agreement is a single, integrated written contract expressing the entire agreement of the undersigned parties. Nothing contained herein is intended, nor shall it be construed or deemed, to confer any rights, powers, privileges or obligations on any other person, party or entity who is not an undersigned party hereto.

7. Neither this Settlement Agreement nor any provision hereof may be amended, modified, changed, waived discharged or terminated except by an instrument in writing fully executed by the undersigned parties hereto or their successors in interest.

8. This Settlement Agreement may be executed in two or more counterparts, each of which, when so executed, shall constitute one and the same instrument; provided, however, that in no case may this Settlement Agreement become effective and binding on any party until it has been fully executed by all of the parties whose signatures are called for hereinbelow.

9. Each of the undersigned parties and their counsel have jointly participated in the negotiation, preparation and drafting of this Settlement Agreement, and there shall be no construction of this Settlement Agreement one or another party based on claims of control over or drafting of the contents hereof.

10. The parties agree that, if any covenant, clause, waiver, release or other provision of this Settlement Agreement is held to be invalid or unenforceable for any reason by a court of competent jurisdiction, the remainder of this Settlement Agreement shall continue to be binding on the undersigned parties hereto.

11. The parties mutually acknowledge and agree that damages are an inadequate remedy for any breach of this Settlement Agreement, whether innocent, negligent or intentional, by the parties hereto or their agents or employees. Consequently, the parties agree that this Settlement Agreement is enforceable by Specific Performance, and that no bond shall be required in connection with the granting or issuance of any temporary restraining order, injunction or other appellate or equitable relief in connection therewith.

12. All notices required to be given under the terms of this Settlement Agreement shall be given as follows:

TO ADAM FORD:	22202 Claibourne Lane Saugus, CA 91350
TO GLORIA DONNELLY:	23648 Latana Court Valencia, CA 91355
TO PERC:	23648 Latana Court Valencia, CA 91355
TO BAYLES & GRANNIS:	John Grannis, Esq. 535 N. Brand Blvd. #255 Glendale, CA 91203
TO HACKER, KANOWSKY:	Carl Kanowsky, Esq. 24510 Town Center Drive #200 Valencia, CA 91355
TO JENNIFER KILPATRICK:	26916 Podd St. Santa Clarita, CA 91351
TO CITY:	c/o City Clerk 23920 Valencia Blvd. #300 Valencia, CA 91355
TO CITY ATTORNEY:	Carl Newton, Esq. Burke Williams & Sorensen LLP 611 W. 6th Street, Suite 2500 Los Angeles, CA 90017

13. The notice requirements of Paragraphs 3 and 4 herein shall expire upon the recordation of the final map for Vesting Tract Map No. 51599. Thereafter, notice shall be given as provided by Government Code Section 65092 and Public Resources Code Section 21092.2.

IN WITNESS THEREOF the undersigned parties have set forth their respective signatures as of April 25, 2002.

Plaintiffs/Petitioners:

ADAM FORD

GLORIA DONNELLY

PERC – People for Environmentally Responsible Cleanup, Inc., a California corporation

By: ADAM FORD, President

Approved by:

Counsel for Plaintiffs/Petitioners:

BAYLES & GRANNIS

By: JOHN F. GRANNIS, Counsel for PERC

HACKER, KANOWSKY & BRALY

CARL KANOWSKY, Counsel for GLORIA DONNELLY

JENNIFER KILPATRICK, Counsel for ADAM FORD

13. The notice requirements of Paragraphs 3 and 4 herein shall expire upon the recordation of the final map for Vesting Tract Map No. 51599. Thereafter, notice shall be given as provided by Government Code Section 65092 and Public Resources Code Section 21092.2.

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Plaintiffs/Petitioners:

ADAM FORD

GLORIA DONNELLY

PERC – People for Environmentally Responsible Cleanup, Inc., a California corporation

By: ADAM FORD, President

Approved by:

Counsel for Plaintiffs/Petitioners:

BAYLES & GRANNIS

By: JOHN F. GRANNIS, Counsel for PERC

HACKER, KANOWSKY & BRALY

CARL KANOWSKY, Counsel for GLORIA DONNELLY

JENNIFER KILPATRICK, Counsel for ADAM FORD

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IN WITNESS THEREOF the undersigned parties have set forth their respective signatures as of April 25, 2002.

Plaintiffs/Petitioners:

ADAM FORD

GLORIA DONNELLY

PERC – People for Environmentally Responsible Cleanup, Inc., a California corporation

By: ADAM FORD, President

Approved by:

Counsel for Plaintiffs/Petitioners:

BAYLES & GRANNIS

By: JOHN F. GRANNIS, Counsel for PERC

HACKER, KANOWSKY & BRALY

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Jennifer Kilpatrick

JENNIFER KILPATRICK, Counsel for ADAM FORD

Respondent/Defendant:

CITY OF SANTA CLARITA

FRANK FERRY, Mayor

Approved:

Counsel for Defendant City of Santa Clarita:

BURKE, WILLIAMS & SORENSEN

By: CARL K. NEWTON, City Attorney

PROOF OF SERVICE

I, the undersigned, declare and certify as follows:

I am over the age of 18 years and employed in the County of Los Angeles, State of California. I am employed in the office of FRANDZEL ROBINS BLOOM & CSATO, L.C., members of the Bar of the above-entitled Court, and I made the service referred to below at their direction. My business address is 6500 Wilshire Boulevard, 17th Floor, Los Angeles, California 90048-4920.

On *May 21, 2002*, I served a true copy(ies) of the ***SETTLEMENT AGREEMENT AND NOTICE OF SETTLEMENT***, the original(s) of which is affixed hereto, to the party(ies) hereinafter mentioned:

[BY MAIL] by depositing the same for collection and mailing at Los Angeles, California, on the date herein above set forth in this Certificate, in a sealed envelope(s) with the postage thereon fully prepaid, addressed as follows:

SEE ATTACHED SERVICE LIST

I have prepared the facsimile copy(ies) and/or the envelope(s) containing the copy(ies) to be served in accordance with the manner described above by placing the document(s) in Frandzel Robins Bloom & Csato, L.C.'s in-house delivery system for service in accordance with Frandzel Robins Bloom & Csato, L.C.'s ordinary business practices. I certify that I am fully familiar with the regular business practices of the law firm of Frandzel Robins Bloom & Csato, L.C. and I know the firm's procedures to be safe and reliable for delivery of said documents as described above.

I certify under penalty of perjury, under the laws of the State of California and the United States of America, that the foregoing is true and correct.

Executed on *May 21, 2002*, at Los Angeles, California.

Marsha McRoyal

Marsha McRoyal

Signature

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FOR IMMEDIATE RELEASE
June 9, 2011

PERCHLORATE DETECTED DURING ROUTINE TESTING
Well Removed from Service Pending Treatment Covered By Whittaker Bermite Settlement Agreement

Valencia Water Company has notified the Whittaker Bermite property owners that it will seek remediation funds to clean up a closed well near Santa Clarita City Hall following routine water quality testing that detected low levels of perchlorate. The remediation funds are being sought under a 2007 settlement agreement among Castaic Lake Water Agency (CLWA), Newhall County Water District, Santa Clarita Water Division and Valencia Water Company and Whittaker Corporation and others to address clean-up of impacted wells from the former munitions site.

In August 2010, Valencia Water Company detected perchlorate in Well 201 near City Hall. Although the perchlorate levels were within safe drinking water standards, the company immediately took the well out of service and notified the State Department of Public Health. Valencia Water Company continued to monitor the inactive well on a monthly basis. The most recent sample confirmed that perchlorate is still present and that wellhead treatment is needed as outlined by the settlement agreement with Whittaker Bermite.

"Our diligence in conducting extensive testing enabled us to quickly shut down the well and continue to provide safe water to our customers," said Keith Abercrombie, General Manager for Valencia Water Company. "The removal of this well from service will not have any near-term or long-term impacts on the quality or cost of water to our customers. To the extent it is even necessary, we will shift production to other wells elsewhere in the groundwater basin."

CLWA General Manager Dan Masnada said, "The closing of this well will not impact the Santa Clarita Valley Family of Water Suppliers' ability to adequately provide water to our customers and will not have a negative impact on the Valley's water supply. CLWA and the water retailers continue to ensure that all drinking water quality standards are met and long-term solutions are put in place to address the presence of perchlorate in small portions of the Valley's groundwater aquifers.

"In addition, a pending update of the 2010 Santa Clarita Valley Urban Water Management Plan will examine the presence of perchlorate in Well 201," Masnada said.

Valencia Water Company works cooperatively with and as a member of the Santa Clarita Valley Family of Water Suppliers to provide customers a mix of groundwater pumped from area wells and imported state water. In April 2007, the local water suppliers and the Whittaker Bermite

-more-

property owners negotiated a settlement, which establishes funding to address the clean-up of perchlorate from the former munitions site.

Last year, a $13 million treatment facility near Bouquet Canyon Road and the Santa Clara River came on line to treat perchlorate in groundwater emanating from the Whittaker Bermite property. That treatment facility is part of a larger program that includes the restoration of two perchlorate-impacted wells to extract contaminated groundwater and control the migration of perchlorate in the Saugus Formation aquifer. The cost of that "pump and treat" system is also covered under the settlement agreement that protects the public from paying for the remediation costs.

As part of the settlement, several wells were identified as potentially threatened by perchlorate, including Well 201. Thus, while the now-operational pump and treatment program is intended to control migration of perchlorate, the possibility of further contamination in the direction of groundwater flow was recognized before its installation, and provisions were incorporated in the program to treat any additional wells impacted by perchlorate. Initial operation of the pump and treatment remediation is functioning as planned, and is still applicable for both of its objectives – to control contaminant migration near the source and to extract perchlorate from the aquifer system. In short, the detection of perchlorate at Well 201 does not reflect any change in the anticipated long-term effectiveness of the containment and treatment remedy.

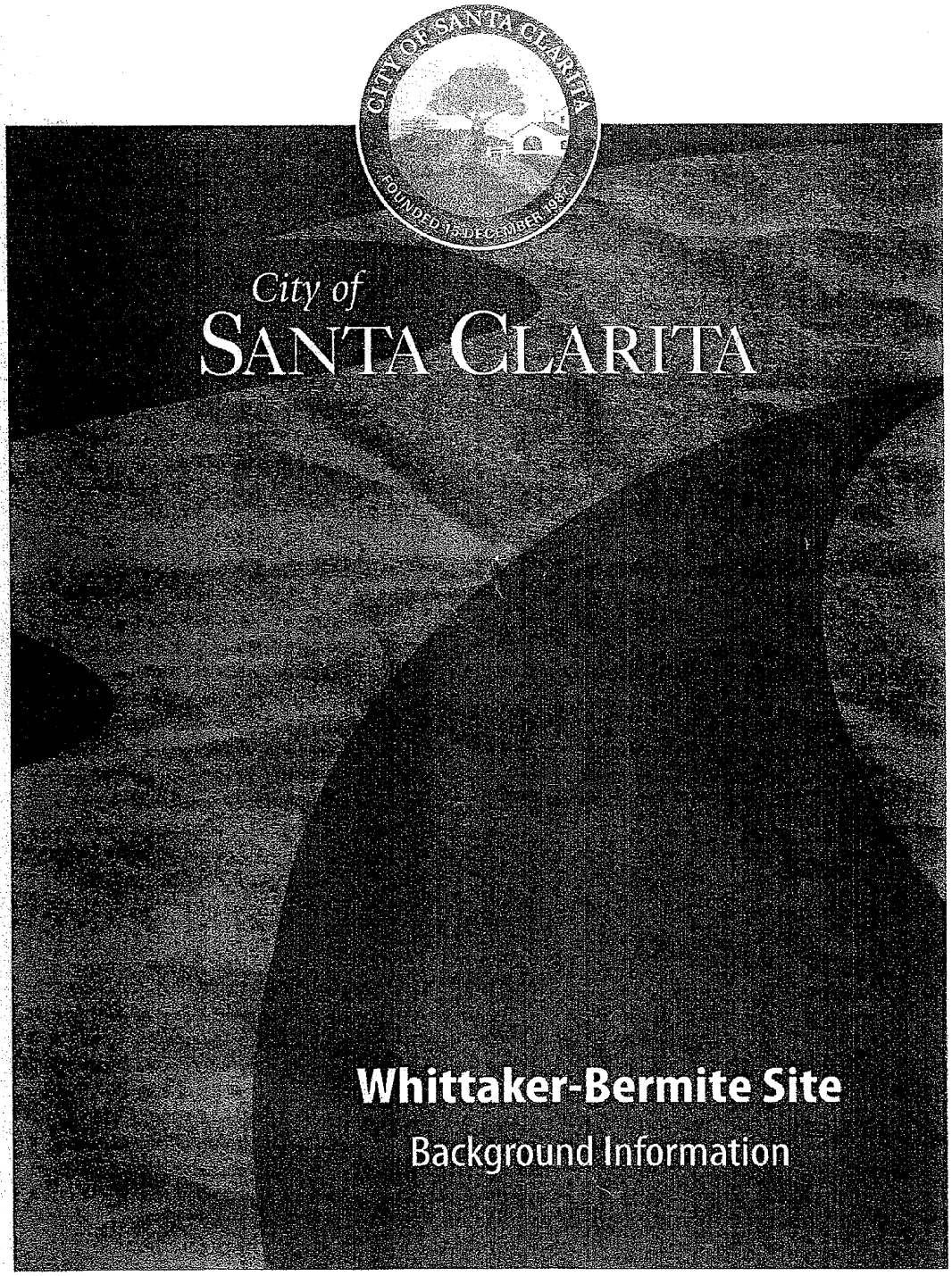
Prior impacted wells included Q2, a Valencia Water Company well that underwent successful wellhead treatment in 2005 utilizing the same treatment technology contemplated for Well 201, and today has no perchlorate detection. Since 1997, seven wells in the Santa Clarita Valley, including this most recent one, have been impacted by perchlorate. Three of those wells have been successfully treated and returned to service, two have been replaced, one is planned to be replaced and this most recent well will have treatment installed.

Perchlorate is a regulated drinking water contaminant in California with a maximum contaminant level (mcl) of 6 parts per billion (ppb). The Valencia Water Company test in August 2010 was 5 ppb. During the last several months, readings have varied from 5 to 12 ppb in the most recent test.

Perchlorate is both a naturally occurring and man-made ion used to form a variety of salts. Perchlorate is primarily used today as an oxidizer in solid rocket fuel and other propellants and to a lesser extent, in fireworks, explosives and air-bag inflators. It is highly soluble in water and has been detected in ground and surface water in 26 states. It has also been detected in water supplies in close proximity to sites where solid rocket fuel was manufactured or used, such as the Whittaker Bermite site.

Valencia Water Company is a water provider to 113,000 residential, commercial, industrial and business customers in Valencia, Stevenson Ranch and portions of Saugus and Castaic.

Contact: Keith Abercrombie, General Manager, Valencia Water, (661) 295-6501
Dan Masnada, General Manager, CLWA, (661) 297-1600 Ext. 239


City of
SANTA CLARITA
Whittaker-Bermite Site
Background Information

The Property:

The Whittaker-Bermite property is an undeveloped 996-acre site located in the center of the City of Santa Clarita, California. This former munitions testing and manufacturing site has contamination issues, which include perchlorate, volatile organic compounds, and both soil and groundwater contamination.

The Clean-Up Efforts:

The site clean-up is under the supervision of the California Department of Toxic Substances Control (DTSC). DTSC issued an order to Whittaker Corporation to perform site clean-up. The Remedial Action Plan (RAP) has been approved by DTSC and the next year will be spent completing the Remedial Design Plan, which is the implementation document for the RAP. The property has been divided into seven "operable units" with differing clean-up strategies for each unit.

Clean-up is funded by insurance proceeds from various parties, pursuant to a Comprehensive Claims Settlement Agreement (CCSA). Current funding is provided by American International Specialty Lines Insurance Company (AISLIC), a subsidiary of Chartis, the successor to American International Group (AIG). Based upon the present schedule, it is estimated that the clean-up of the soil will take at least another four to six years and the groundwater clean-up could take 20+ years.

The AISLIC policy portion of the CCSA contains a $150 million limit. To date, under the CCSA over $100 million has been spent on investigation and clean-up activities, of which approximately $10 million has been spent under the AISLIC policy.

Development Entitlements:

In May 1995, the Santa Clarita City Council approved the Porta Bella Specific Plan, creating vested land use entitlements on the property and designating the property Specific Plan. These entitlements (Specific Plan, Vesting Tentative Tract Map, and Oak Tree Permit) allow for the development of 1,244 single family residential units and 1,667 multi-family residential units, as well as 96 acres of commercial and business/office park uses. The Specific Plan also envisions 407 acres of open space and 42 acres of recreational uses. Development of the site will require the construction of millions of dollars of public infrastructure (roads, parks, schools, etc.) at the developer's expense. The site, together with the approved Porta Bella Specific Plan and the Development Agreement, which expires in 2016, were acquired by Remediation Finance Incorporated (RFI) and is now under the jurisdiction of the Federal Bankruptcy Court.

On November 22, 2010, the United States Bankruptcy Court for the District of Arizona approved a settlement agreement between the City of Santa Clarita and Remediation Finance Incorporated. Under the terms of the agreement, the City of Santa Clarita paid $25.3 million to settle approximately $30 million or more in actual and potential judgments against the City for two legal actions involving Golden Valley Road and the Santa Clarita Metrolink Station. The settlement potentially saves taxpayers approximately $5 million, provides the City an exclusive one year option to acquire one of the major liens against the property, serves as a down payment for potential acquisition of the Whittaker-Bermite site by the City, reduces future City legal costs and terminates two legal actions involving the City.

The court-approved settlement agreement provides the City a one year (beginning in December 2010 and concluding in December 2011) exclusive option to acquire the note from Steadfast Santa Clarita Holdings LLC and then foreclose on the property thus resulting in the City owning the property without assuming liability for clean-up costs. However, to accomplish this, the City needs an additional $20 to 25 million to complete the transaction.

The California Department of Toxic Substances Control's Unilateral Order to Whittaker Corporation contains a provision requiring that the residential clean-up standard applies to all areas of the site ultimately intended for residential use. Prior to the CCSA and the establishment of full funding for clean-up and prior to Whittaker Corporation reassuming the complete responsibility for clean-up the City was concerned about prospective developers building on uncontaminated portions of the site and then walking away from clean-up of contaminated areas. Therefore a condition in the Development Agreement approval by the City Council and subsequently affirmed through litigation, the Whittaker-Bermite site development carries a provision requiring full site remediation to the highest residential use standard and certification by DTSC prior to any horizontal or vertical development.

Under the "integrated remediation" proposal being explored by City of Santa Clarita staff, the City is seeking to acquire ownership of the Whittaker-Bermite property by December, 2011. Under current law, the development entitlements approved with the Porta Bella Specific Plan are transferable from the current property owner to a new buyer of the property and cannot be terminated or modified by the City of Santa Clarita. However, if the City is the owner of the property, the City Council could modify the Development Agreement to reduce clean-up costs by millions of dollars by integrating cleanup with both grading and future land use. In this way the City can insure that sufficient resources would be available to complete the clean up, while risks associated with exposure to contamination are eliminated for future occupants of development on this property.

Impediments to Development:

The current Development Agreement does not permit any development of the Whittaker-Bermite property until the site is entirely cleaned up to the highest remediation standard. Thus, the cost of clean-up, coupled with the delay associated with completing the clean-up, along with the high cost of infrastructure, and changes in the economic market, may mean that the development of the existing Porta Bella plan is no longer feasible. Even without these burdens the property is currently tied up in bankruptcy, and multiple developers have tried, and failed (for various economic reasons), to purchase the site in the bankruptcy proceeding. Unfortunately due to the central location of this property the infrastructure that runs through the site is critical to the long term needs of the City. Furthermore the job producing potential of this location is essential to the City's ultimate jobs/housing balance.

Earlier this year, the City Council brought in a developer to work with the City in 2011 to determine if the property can be purchased out of bankruptcy. In order to acquire the remaining loans for the property it is necessary for the City to bring on a financial – development partner because it will require a significant commitment of many more millions of dollars that the City does not have.

In addition, bringing on a financial partner will significantly reduce the financial risk for the City and it will continue to preserve our controlling interest in the property.

Due to the short time period the U.S. Federal Bankruptcy Court gave us for the option to acquire the loans, the City needed to identify specific characteristics in a potential development partner that included financial and technical expertise in environmentally friendly master planned communities.

This led the City to selecting Lewis Operating Corporations that have been both in business for over 55 years, and have experience with environmental remediation in coordination with redevelopment of property.

The City of Santa Clarita's Interests:

The City of Santa Clarita has multiple interests in the property. First, the City wants to ensure that the clean-up is completed. The potential that there may be insufficient insurance funds to complete the clean-up, if the remediation proceeds under existing strategies and at the current pace, is not an acceptable end result for the City Council and the community. Second, the City has identified in its General Plan, several roads (Magic Mountain Parkway, Via Princessa Road, and Santa Clarita Parkway) which must be completed in order to ensure that the City's General Plan Circulation Element does not fail. Third, given the size of the property and its central location, the City wants to ensure that whatever is ultimately developed on the site is consistent with the surrounding neighborhoods and will provide employment and economic benefit to the community as a whole. The City of Santa Clarita is currently experiencing an imbalance of housing to jobs. Therefore, eventual development of the site provides excellent opportunities to increase jobs in the local community.

Benefits of City Ownership of Property:

The acquisition of the Whittaker-Bermite property by the City of Santa Clarita provides the following benefits:

Clean-up of the former munitions facility is assured; as an integrated clean-up plan can be implemented, thus maximizing available dollars for remediation.

The property will be able to be developed in a manner consistent with community goals and provide jobs, critical infrastructure, and economic opportunities to the community.

The City's direct involvement will provide for continued leadership and stability; two important aspects sorely lacking with regard to this property over the last two decades.

23920 Valencia Boulevard • Suite 300 • Santa Clarita, CA 91355
PHONE: (661) 259-2489 • FAX: (661) 259-8125 • WEB: santa-clarita.com

Additional Attachments to CAG Letter

Submitted September 28, 2011

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
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www.lacsd.org

STEPHEN R. MAGUIN
Chief Engineer and General Manager

May 2, 2011

Mr. Samuel Unger, Executive Director
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Dear Mr. Unger:

Upper Santa Clara River Chloride TMDL (Resolution No. R4-2008-012)
Task 15 Semi-Annual Status Report of Planning Activities, May 2011 and
Task 17 Facilities Plan and CEQA Compliance

The Santa Clarita Valley (SCV) Sanitation District of Los Angeles County submits this report and the enclosed Facilities Plan and associated CEQA document pursuant to the reporting requirements of Tasks 15 and 17 of the Upper Santa Clara River Chloride Total Maximum Daily Load, Board Resolution No. R4-2008-012 (TMDL), adopted by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board), on December 11, 2008. This submittal letter will also address the issues you raised in your April 8, 2011 letter to the District's Chief Engineer and General Manager regarding Upper Santa Clara River Chloride TMDL implementation.

Alternative Compliance Plan (ACP) Overview

As you are aware, the SCV Sanitation District's Board of Directors declined in 2009 and 2010 to approve the large service charge increases necessary to implement the ACP, pending analysis of an alternative, more cost-effective means of compliance.

Since the TMDL was adopted in 2008, new information about future water supply chloride levels has been provided by Santa Clarita Valley water agencies that could enable compliance with the site-specific chloride objectives associated with the ACP without the need for costly and energy-intensive advanced wastewater treatment facilities. The elements of the ACP were based, in part, on historic State Water Project (SWP) chloride levels. Castaic Lake Water Agency (CLWA) has indicated that changes in SWP operation due to recent Biological Opinions for the protection of endangered species and completion of water banking programs have and will continue to result in lower peak chloride levels in the imported water delivered to the Santa Clarita Valley. With funding by the SCV Sanitation District, CLWA has started a study to demonstrate this reduction. Further, Santa Clarita Valley water agencies are evaluating changes in groundwater management practices to limit chlorides in the groundwater portion of the water supply. In combination, these changes are likely to result in maximum chloride levels of 80-85 mg/L in the overall water supply to the community. The projected reduction in peak effluent chloride load from a lower-chloride water supply (85 mg/L peak rather than previously assumed 100 mg/L peak) is approximately 75,000 to 125,000 lbs per month under current and buildout flows, respectively, which is

DOC # 1847933

Recycled Paper

similar to the 96,000 lbs per month chloride load reduction that would have been achieved by the 3 mgd advanced treatment component in the ACP acting on a water supply with a chloride level of 100 mg/L.

Based on the new water supply information, the SCV Sanitation District developed the revised ACP outlined below and described in greater detail in the enclosed Facilities Plan. The revised ACP is the same as discussed in our December 20, 2010 meeting and described in our February 23, 2011 email to the Regional Board.

Revised ACP Elements

1. Removal of Remaining Automatic Water Softeners (AWS). On October 18, 2010, the SCV Sanitation District's Board approved a plan to remove the remaining 400 to 500 AWS, which would lower the chloride level of the wastewater reaching the treatment plants.

2. Conversion to Ultraviolet Light (UV) Disinfection. Replacement of the current chlorine-based disinfection system with UV disinfection facilities would eliminate the last significant input of chloride added at the treatment plants and reduce plant effluent chloride levels.

3. Water Purveyor Management of Water Supply Chloride Level. Santa Clarita Valley water agencies have indicated that changes in groundwater management practices could limit the chlorides in the groundwater portion of the water supply. In combination with improvements in SWP water quality, these changes may result in maximum chloride levels of 80-85 mg/L in the overall water supply to the community. The feasibility of this approach must be addressed as described in work plan item 1 (see Section 6.6 of the enclosed Facilities Plan).

4. Supplemental Water. Similar to the ACP, low chloride local groundwater would be added to the river as needed to meet receiving water chloride objectives (anticipated to be only during drought conditions). The SCV Sanitation District would replace the low chloride groundwater in the potable water supply with banked imported water.

5. Salt Management Facilities. The salt management facilities would provide a similar benefit to those in the ACP—removal of high chloride groundwater from the East Piru Basin and allowing the groundwater basin to naturally recharge with higher quality surface waters and improve the basin's salt balance. The extracted water may be blended with higher quality water to achieve a chloride level suitable for the intended use (e.g., below 100 mg/L for river discharge). Detailed information regarding this element will be developed concurrently with work plan item 3.

Requirements to Finalize the Revised ACP

Section 6.6 of the enclosed Facilities Plan contains a work plan intended to confirm feasibility of the revised ACP and establish revised regulatory requirements through a collaborative process. These steps would allow finalization of the revised ACP, further development of the facilities plan, completion of associated CEQA analysis, and implementation of the final ACP. After approval of the final Facilities Plan and compliance with CEQA (Task 17a of the TMDL), the SCV Sanitation District could pursue rate setting to fund needed facilities (including the facilities design described in Task 17b of the TMDL).

Issues Raised in April 8, 2011 Regional Board Letter

In your April 8, 2011 letter, you note that the SCV Sanitation District has not initiated Upper Santa Clara River Chloride TMDL implementation plan Tasks 15.a)(3) through 15.a)(9) and that the proposed revised ACP, as described above, does not meet the chloride load reduction/chloride export project requirements necessary to allow the application of final conditional site specific objectives and

waste load allocations. The SCV Sanitation District believes it has completed Task 15.a)(3), Preliminary Feasibility Analyses, for both the ACP and revised ACP. Progress on Tasks 15.a)(4) through 15.a)(9) beyond that reported in the November 4, 2010 TMDL status report cannot proceed until the revised ACP is finalized as described above.

The revised ACP would meet the same water quality objectives as the ACP without the need for advanced wastewater treatment facilities. The feasibility of maintaining this water quality needs to be confirmed through the steps outlined in Section 6.6 of the enclosed Facilities Plan. The revised ACP would significantly reduce compliance costs and environmental impacts while providing a level of water quality and water supply benefits similar to the benefits projected in 2008 for the ACP.

Summary and Requested Regional Board Feedback

In summary, the SCV Sanitation District is making a good faith effort to advance the project and meet compliance deadlines while carrying out the direction of the District's Board to work further with the Regional Board to meet the TMDL conditional chloride objectives at a reduced cost and in an environmentally sound way.

Based on this submittal package, the SCV Sanitation District requests that the Regional Board work with the District and other stakeholders to complete the proposed work plan and approve a revised TMDL that incorporates the revised ACP. As requested in our November 4, 2010 correspondence, the SCV Sanitation District again requests that the Regional Board utilize the reopener clause under Task 16 of the TMDL to provide the time needed to accomplish these tasks.

If you have any questions regarding this submittal, please contact me at (562) 908-4288, extension 2501, or via email at pfriess@lacsd.org.

Very truly yours,

Stephen R. Maguin

Philip L. Friess

Philip L. Friess
Department Head
Technical Services

PLF:BL:mh

Enclosures

Glaser, Mitch

From: camandjerryn@netzero.net
Sent: Friday, October 21, 2011 1:03 AM
To: Glaser, Mitch
Subject: Fw: RE: Water contamination from Whittaker Bermite

This is one of the documents submitted to the Commissioners on the day of the hearing - OVOV Santa Clarita Area Plan

Please add it to our record.

Cam for the CAG

---------- Forwarded Message ----------
From: "Orr, Shu-Fang (CDPH-DDWEM)" <Shu-Fang.Orr@cdph.ca.gov>
To: <camandjerryn@netzero.net>
Cc: "O'Keefe, Jeff (CDPH-DDWEM)" <Jeff.OKeefe@cdph.ca.gov>, <glendabona@gmail.com>, <glodonnelly@ca.rr.com>, <rikstax@sbcglobal.net>
Subject: RE: Water contamination from Whittaker Bermite
Date: Tue, 27 Sep 2011 17:01:15 -0700

Good afternoon Cam,

We will scan the last 8 months of monthly reports(January 2011 to August 2011) for the Saugus Perchlorate Treatment Plant submitted by the Castaic Lake Water Agency for you. These reports contains all the detailed operation and water quality data. As far as the data collected prior to the issuance of water supply permit, they are in the attachment to the permit engineering report. I thought you have a copy of the report. If you do not have one, I can ask our PRA coordinator to scan the testing data summary in the attachment for you as well. Let me know. I will be out of office most of the day tomorrow and will ask our PRA coordinator to scan and e-mail you the reports directly.

There were a few detections of low level perchlorate in the treatment plant effluent and distribution system sampling points. However, no sample has ever exceeded the DLR (the detection limit of the purposes of reporting) of 4 ug/L for perchlorate. The highest level detected so far is 1.9 ug/L. Also, low levels of PCE and TCE have been detected in three of the distribution sampling points. The detection was more frequent at some locations than the others, due to system hydraulic. But all detected levels were far below the MCLs. The situation has improved after CLWA completed the expansion project at the Rio Vista Water Filtration Plant and placed the filtration plant back into service. We have conducted a comprehensive review of the treatment plant operation records. We will work with CLWA to optimize the operation of their perchlorate treatment plant and the VOCs blending practices.

I have inserted my answers to your two other questions below. Please feel free to contact me if you have other questions.

1

Best regards,

Shu-Fang Orr, P.E.

District Engineer, Angeles District

Drinking Water Field Operations - Southern California

California Department of Public Health

500 N. Central Avenue, Suite 500

Glendale, CA 91203

818-551-2045 (Phone); 818-551-2054 (fax)

e-mail: Shu-Fang.Orr@cdph.ca.gov

From: camandjerryn@netzero.net [mailto:camandjerryn@netzero.net]
Sent: Monday, September 26, 2011 6:36 PM
To: Orr, Shu-Fang (CDPH-DDWEM)
Cc: O'Keefe, Jeff (CDPH-DDWEM); glendabona@gmail.com; glodonnelly@ca.rr.com; rikstax@sbcglobal.net
Subject: RE: Water contamination from Whittaker Bermite

Hi Shu-Fang

I am sorry I took so long to reply.

Regarding the testing of Saugus Well 1 and Saugsu Well 2 we would like to see the testing of those wells from the date they started treatment in 2010 to the current date. They started putting that water in our drinking water supply in January of 2011.

We would like to see the tests before treatment and after treatment and being but into our drinking water supply. In addition to the perchlorate testing there should be testing for TCE and PCE which are being blended into the drinking water.

2

Perchlorate , TCE and PCE were to be non-detect before being put into the drinking water supply.

Regarding Saugus Well 1 and Saugus Well 2 drawing the plume, the test results on Valencia Water Well 201 provided by Jeff O'Keefe show a study increase from 8/25/2010 at 5ug/L to August, 2011 of 14 ug/L. If the perchlorate had passed the Saugus wells during the period the Saugus wells were off-line shouldn't the contamination levels in Valencia Well 201 be going down? If Hassan's theory is correct, I would expect to see perchlorate levels in Valencia Well 201 to eventually go down. I do not know how long it might take.

Would this indicate that the pumping of Saugus Well 1 and Saugus Well 2 is drawing the plume rather preventing the spread of the perchlorate plume? Would this be an indication that Sugus Well 1 and Saugus Well 2 are not in the position to contain the plume? I do not have enough information to make the judgment. I am still waiting to see the revised modeling results. In my opinion, the most important thing is to have the on-site extraction and treatment system running as soon as possible. They are critical in turns of cutting off the spread of the perchlorate plume and reducing the perchlorate concentrations in the downstream drinking water wells.

The DTSC has informed the CAG that the draft OU7 Remedial Action Plan date has been changed from September 19 to early November. The formal Public Comment Period for the OU7 RAP and CEQA documents will not be scheduled until spring or summer of 2012.

We appreciate you taking the time to reply to questions from the CAG. We will be very interested in seeing the tests from Saugus Well 1 and Saugus Well 2 so we can keep our members informed.

Thank you

Cam Noltemeyer
CAG Board Member

3

Glaser, Mitch

From: camandjerryn@netzero.net
Sent: Friday, October 21, 2011 1:12 AM
To: Glaser, Mitch
Subject: Fw: Re: Whittaker Bermite CAG Questions

This is a document that was given to the Commissioners on the day of the hearing - OVOV Santa Clarita Area Plan.

Please add it to our record.

Cam for the CAG

---------- Forwarded Message ----------
From: Jose Diaz <Jdiaz@dtsc.ca.gov>
To: <Shu-Fang.Orr@cdph.ca.gov>, <jokeefe@dhs.ca.gov>, John Naginis <JNaginis@dtsc.ca.gov>, Yvette LaDuke <YLaDuke@dtsc.ca.gov>, "camandjerryn@netzero.net" <camandjerryn@netzero.net>
Cc: <glodonnelly@ca.rr.com>, <glendabona@gmail.com>, <rikstax@sbcglobal.net>
Subject: Re: Whittaker Bermite CAG Questions
Date: Tue, 20 Sep 2011 12:45:52 -0700

Ms. Noltemeyer,
Please note that the schedule of activities posted on Envirostor is subject to change based on the progress of ongoing activities and other unforeseen activities that arise.

DTSC approved the OU7 Feasibility Study on May 18, 2011 and directed Whittaker to submit a draft OU7 Remedial Action Plan (RAP) by September 19, 2011. While Whittaker's Consultant has made substantial progress in developing the OU7 RAP, they have requested additional time to submit the draft. We anticipate receiving the draft RAP in early November.

Once DTSC receives the draft RAP it is considered a public document and will be available for the public to view; however, the formal Public Comment Period for the OU7 RAP and associated CEQA documents will not be scheduled until spring or summer of 2012. At that time a fact sheet will be distributed to the community announcing the dates for the public comment period and the public hearing.

Whittaker's Consultant is preparing an update presentation on the groundwater modeling which will be presented to DTSC in the next few weeks.

Jose F. Diaz, Project Manager
Cal-EPA -Department of Toxic Substances Control
Brownfields and Environmental Restoration Program
Southern California - Chatsworth Office
9211 Oakdale Avenue, Chatsworth, California, 91311

1

818.717.6614
818.968.1885

>>> "camandjerryn@netzero.net" <camandjerryn@netzero.net> 9/19/2011 4:14 PM >>>
Hi Jose and Yvette
The CAG had a board meeting and several issues came up that generated some questions.
First I would like to thank you for the postings on Envirostor. It did answer a lot of questions regarding the progress on the site at the current time.
While it states that the OU 7 draft RAP will be out today, Sept. 19 ,when will it be posted on Envirostor for the public to review?
Apparently it was presented and reviewed by what is referred to as the "stakeholders". Please provide the list of stakeholders that have already reviewed the draft OU7 RAP.
We of course believe that the public is the main stakeholder in the clean up of this site.
Concerns were expressed at the board meeting regarding statements by John Naginis, from the DTSC and Dan Masnada, general manager of the Castaic Lake Water Agency in an article in the Signal on Sept 4, 2011.
(Following the flow by Natalie Everett)
While it was a very informative article the following quotes are of concern:
"As the plume spreads, the contaminated groundwater mixes with other groundwater and dilutes, Naginis said. The further it spreads, the more diluted it will be."
"And when perchlorate finally reaches a new well, it'll be at a low concentration, Masnada said, since the other edges of the perchlorate plume have the lowest concentrations of the salt.
Water agencies will always catch the plume's spread to new wells early on, and then research how to treat those wells, Masnada said."
These statements appear to be an attempt to minimize the danger to our groundwater and to the public.
The public is already receiving water from Saugus Wells 1 and 2 that have been treated for perchlorate contamination and have blended TCE and PCE contamination in our drinking water supply.
Please provide the current position of the DTSC regarding the modeling that has been requested and requirements to protect our ground water supply?
Thank you
Cam Noltemeyer

Print This Article

Pollutant spread worries state

Official said treatment of SCV groundwater needs to be re-evaluated due to spread of perchlorate

By Natalie Everett
Signal Assistant City Editor
neverett@the-signal.com
661-259-1234 x538
August 12, 2011

A state health official said the treatment of Santa Clarita Valley groundwater to remove a contaminant should be revisited, and possibly expanded, in light of the spread of the substance.

Since perchlorate was detected at a Valencia well, local water agencies have been asked to step up the previously yearly testing at 12 local wells to quarterly testing as agencies re-evaluate the spread of the munitions-manufacturing byproduct in groundwater, said Jeff O'Keefe, an engineer with the state Public Health Department.

"We need to re-evaluate the containment of the (perchlorate) plume," O'Keefe told about 20 members of the Whittaker-Bermite Citizens Advisory Group on Wednesday. "There needs to be careful, thoughtful analysis of (the Valencia well). ... It can't be 'Let's slap another treatment plant on it.'"

The August 2010 discovery of 5.7 parts per billion of perchlorate in water sampled from the well at McBean Parkway and Valencia Boulevard was surprising, O'Keefe said. Six parts per billion is the level that the state considers safe.

Since August 2010, that well has been closed, and is no longer contributing to the valley's water supply.

Officials with Valencia Water Company, the retailer that operates the well, are conducting monthly testing. Those tests show levels have almost tripled in the well to 13 parts per billion in June, O'Keefe said.

"It seemed to move fast in the last six months," O'Keefe said.

2007 agreement

Perchlorate, a salt found to hamper human thyroid function, is believed to be spreading from the Whittaker-Bermite site, located near the junction of Bouquet Canyon Road and Valencia Boulevard/Soledad Canyon Road.

Munitions were manufactured at the site for decades. Perchlorate is a byproduct of rocket fuel and one of several contaminants on the nearly 1,000-acre property.

Its discovery in the well in Valencia raises new questions about efforts to rid the Santa Clarita Valley's groundwater of the salt.

Those questions include whether the pump-and-treat system should be expanded beyond two Saugus wells, dubbed Saugus 1 and 2, that re-opened after more than a decade in 2010 equipped with perchlorate-treatment facilities.

Valencia Water Company and Castaic Lake Water Agency both said in June, when the perchlorate finding was made public, that the spread of perchlorate was expected to happen eventually.

Officials with both agencies pointed to a 2007 settlement agreement between local water agencies, including Valencia Water, and Whittaker Corp., which is the company paying to rid groundwater and the Whittaker-Bermite site of perchlorate and other pollutants.

Location a mystery

Dan Masnada, general manager of the Castaic Lake Water Agency, said the settlement agreement laid out 11 wells to which the perchlorate plume may eventually travel in groundwater, and the Valencia well was one of them. Whittaker Corp. agreed to pay to remove the salt if contamination occurs.

There was no real way of knowing how far past the Saugus wells the perchlorate plume had spread in 1997, when perchlorate was first detected there, he said. Saugus 1 and 2 are located in the Santa Clara River bed much closer to Whittaker-Bermite than the Valencia well.

Masnada said detected perchlorate also shut down a well near Magic Mountain Parkway and Valencia Boulevard near the Valencia well.

Since testing is only done where there's a well, "We don't know if the plume had just passed that well, or whether it was right next to the Valencia well," said Masnada, whose agency sells wholesale water to local water retailers.

Most water used in Santa Clarita Valley homes is a 50-50 mix of well water and State Water Project water.

'Not in the drinking water'

O'Keefe said Wednesday night, during the citizens' group quarterly meeting, that the perchlorate discovery "really was a surprise to everyone."

"Those legal documents served a different purpose," he said of the Whittaker settlement. "From my perspective, the Saugus wells were the impacted wells. That was the project, that's what we believed were impacted. ... We didn't anticipate the plume spreading. We thought Saugus 1 and 2 would provide containment."

Masnada said the Saugus treatment plant might have been the sole groundwater remedy — if it had opened 10 years previously.

"But that's not the case, and we have to deal with the cards we've been dealt," Masnada said.

O'Keefe commended Valencia Water for its swift action in shutting down the well.

"Everybody is safe," O'Keefe said. Water from the well "is not in the drinking water."

Some members of the public, including Citizens Advisory Group members, said Valencia Water should have notified the public as soon as perchlorate was detected. The Valencia well is part of a water supply that serves between 4,000 and 5,000 people.

http://www.the-signal.com/section/36/article/49405/

9/26/2011

To the Los Angeles Count y Department of Regional Planning and Mitch Glaser

My name is Linda Pyburn. Nine of my family's 13 lots – APN 3247035003, 3247036011, 3247028007, 3247028008, 3247028009, 3247028010, 3247035004, 3247036010, 3247036020—fall wholly or partially within the proposed boundaries of the Santa Felicia SEA. The current zoning is currently A-2-2, proposed to be changed to RL20 in the proposed plan.

My family has lived in Oak Canyon since the 1850's. We have maintained it as a ranch and have left the hillsides and natural resources intact. We had to defend our agriculture rating in the 1980's and 90's due to pressure for development. Because of the excesses which encouraged the glut of development of the past few decades, open space is now threatened. Imagine if we had developed our acreage at that time, when the county was only interested in increasing tax revenue. There would be no undeveloped land left to "preserve."

It is widely accepted that downzoning and ecological designations seriously reduce land value. Secondly, restrictions on building and agricultural activities due to SEA cut economic viability of the land significantly. This significant decrease in property value is not compensated under the current plan. Why should we be punished, and have a permanent burden laid on us due to the lack of foresight of the planning department?

There also appears to be a totally inconsistent and arbitary application of SEA and land use. Example: Landmark Village has only the waterway designated as SEA and the remainder has an average 3.3 units per acre. Documented incidences of threatened species are available for this property and the land includes a river with running water. Alternately, the County acknowledges they have "no information as to what biological resources may or may not be present" on our property and are simply presupposing the presence of such species.

The EIR is not data-driven, but based on extrapolation and theory. The response we received states that, "this does not mean that these species are only located at the locations depicted on Figure 3.7-1 in the Revised Draft EIR. They could very well be in adjacent areas that contain habitat that would support them." Essentially, the burden is on the property owner to prove that they don't exist, at our expense, of course! One could certainly argue that virtually any area in Southern California could support native species. Therefore, any open space, regardless of the size, could be an SEA if one were so inclined to do so.

In fact, it is impossible for the layman to determine the impact to their parcels with the information as provided. The interactive website is not functioning properly. Even after meeting with the county's biologist and Mitch Glaser, we don't have a clear understanding of what we will or will not be allowed to do with our land, to include the agricultural use. Unlike the big developers and corporations, the thousands of individual

owners affected do not have the wherewithal to hire attorneys or experts, nor have we had the political savvy to engage in a class action suit.

Further, the response to our letter with regard to the devastating impact of the 2007 fires states, "native plants come back before other plants. Many native species that were previously over-crowded by non-natives often come back because they now have better access to water and light and have room to grow." Theory clearly is not reality. One has only to look at Hasley Canyon after the series of burns over the last 30 years to debunk the stated theory.

In closing, I will state there is substantial evidence that courts have upheld property owner rights, and similar zoning ordinances have been challenged. Below are relevant excerpts from the Journal of Land Use:

1. "a zoning ordinance whose primary purpose is to prevent the entrance of newcomers in order to avoid future burdens, economic and otherwise, upon the administration of public services and facilities cannot be held valid."
2. **An ordinance that "fails to use a less restrictive means to further the legitimate goal of protecting agricultural land" violates substantive due process rights of the affected landowners.**
3. "The determination that government action constitutes a taking is, in essence, a determination that the public at large, rather than a single owner, must bear the burden of an exercise of state power in the public interest."
4. "A strong public desire to improve the public condition is not enough to warrant achieving the desire by a shorter cut than the constitutional way of paying for the change."
5. "The Fifth Amendment does not prevent actions that secure a reciprocity of advantage, it is designed to prevent the public from loading upon one individual more than his just share of the burdens of government…"
6. "The fact that other landowners, similarly situated, are permitted to continue to the use denied to the claimant…" imports a lack of any common-law prohibtion.
7. **Fairness dictates that landowners be compensated when their property is downzoned to provide benefits of open space and/or farmland protection for the public at large.**

Finally, it appears that the Department of Regional Planning believes the constraints on our property are so severe as to preclude nearly all development, and that whatever the most restrictive land use designation in their tool box will likely be applied to our property. When asked why the County didn't just purchase the property to preserve it if this were true, the response was, naturally, that they didn't have the money to do it. Substantial downzoning rather than a market-driven alternative is not acceptable simply because the County lacks the resources to properly fulfill the Fifth Amendment.

Thank you for your consideration.
Linda Pyburn

31040 Hasley Canyon Road
Castaic, CA 91384

Letter No. G4 Glo Donnelly, September 21, 2011

Response 1

The commenter states that the Whittaker Bermite Citizen's Advisory Group (CAG) was originally formed over a decade ago and was reformed in 2010. The commenter elaborates on the vision and goals of the CAG. The commenter then states that the Los Angeles County Department of Regional Planning provides oversight for the proposed Area Plan, which includes the Whittaker Bermite property.

The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The commenter states that the proposed Area Plan relies on water from the Saugus Aquifer that has been polluted by ammonium perchlorate, TCE, PCE and other various organic compounds. The commenter states that, additionally, a soil extraction cleanup operation at the Whittaker Bermite property is now underway that emits pollutants into the air.

Please see **Topical Response 1: Perchlorate Update, Topical Response 4: Chloride,** and **Response 5** below.

Response 3

The commenter states that the proposed Area Plan and the EIR have not adequately addressed ammonium perchlorate, TCE, PCE and other various organic compounds in the Saugus Aquifer. The commenter requests that the Regional Planning Commission not approve the proposed Area Plan or certify the EIR.

Please see **Response 2** above.

Response 4

The commenter states that the CAG is especially concerned about the spread of ammonium perchlorate pollution to a new Saugus well owned by Valencia Water Company and located just off Valencia Boulevard near Santa Clarita City Hall and a Whole Foods Market. The commenter states that the spread of this pollution has major implications for water supply in the Santa Clarita Valley and that the proposed Area Plan should be re-written to address four areas of concern related to the spread of this pollution.

Please see **Topical Response 1: Perchlorate Update** and **Topical Response 4: Chloride**.

Response 5

The commenter states that a vapor extraction process is now in use for the Whittaker Bermite property, that this process does not capture all pollutants, and that this process was not included in the air quality analysis in the EIR. The commenter states that the extraction system and moving the soil will create additional particulate matter pollution and possibly add to other types of pollution and that this **[RESPONSE CUT OFF AND INCOMPLETE]**

The analysis presented in Section 3.3, Air Quality, of the EIR is adequate for a programmatic document that does not address project specific issues. Section 1.0, Introduction, of the Revised Draft EIR discusses the level of detail for a Program EIR as follows:

> "This EIR can be classified as a "program EIR." A program EIR may be prepared on a series of actions that can be characterized as one large project and are related either geographically; as logical parts in the chain of contemplated actions; in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways. The program EIR enables an agency to examine the overall effects of the proposed course of action and to take steps to avoid unnecessary adverse environmental effects. According to Section 15168 of the *State CEQA Guidelines*, the program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.
>
> This program EIR evaluates the broad-scale impacts of the County's proposed Area Plan. The Area Plan will be a component of the County's General Plan. The Area Plan EIR, addressing the potential impacts of the County's goals, objectives, and policies for the unincorporated portions of the Valley can be thought of as a "first tier" document. It evaluates the large-scale impacts on the environment that can be expected to result from the adoption of the Area Plan, but does not necessarily address the site-specific impacts that each of the individual development projects that will follow and be implemented the Area Plan may have. CEQA requires each of those subsequent development projects to be evaluated for their particular site-specific impacts. These site-specific analyses are typically encompassed in second-tier documents, such as project EIRs, focused EIRs, and mitigated negative declarations on individual development projects subject to the Area Plan, which typically evaluate the impacts of a single activity undertaken to implement the overall plan. The program EIR can be incorporated by reference into subsequent documents to focus on new or site-specific impacts."

(Revised Draft EIR page 1.0-7)

Furthermore, environmental analysis for the Whitaker Bermite site cleanup was conducted and approved by responsible agencies several years ago. All environmental impacts associated with cleanup activities would have been addressed in said environmental analysis.

Response 6

The commenter states that the Santa Clarita Valley is in a non-attainment zone for ozone, PM2.5, and PM10 air pollution. The commenter states that the 2007 Air Quality Management Plan allowed local entities to request a "bump up" to the extreme classification for ozone only and that this category change allowed an extension of time to comply but required the institution of certain mitigation measures and the attainment of "milestones." The commenter states that the EIR does not include the aforementioned mitigation measures or a discussion of the aforementioned milestones.

Please see **Letter No. D89, Response 4; Letter No. E1, Responses 49, 50**, and **51**; and **Letter No. E11, Response 4**.

Response 7

The commenter quotes the EPA website, setting forth the adverse health effects for particulate pollution as described by the EPA website.

The comment does not raise an issue with the EIR. Accordingly, no further response is required. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan.

Response 8

The commenter states that it appears that the traffic model has included "paper roads" to serve the Whittaker Bermite property that will never be built or not built in the timeframe indicated in the proposed Area Plan and EIR. The commenter states that failing to build these roads would make the circulation plan fail and would make the air quality and global climate change analyzes in the EIR incorrect.

Please see **Letter No. E5, Response 2**; and **Letter No. E6, Response 3**.

Response 9

The commenter states that no development is allowed on the Whittaker Bermite property until the site is cleaned of its extensive contamination. The commenter states that, without completion of the cleanup and subsequent development of the Whittaker Bermite property, the City of Santa Clarita could not afford to construct roads to serve the Whittaker Bermite property on its own.

The comment does not raise an issue with the EIR. Accordingly, no further response is required. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan.

Response 10

The commenter states that the City of Santa Clarita is aware of the need for roads to serve the Whittaker Bermite property. The commenter states that, under current circumstances, it seems unlikely that these roads will be built any time soon and may never be built at all. The commenter requests an alternative Circulation Element be provided that does not include these roads.

Please see **Response 8**, above.

Letter No. G5

Castaic Area Town Council

September 27, 2011

County of Los Angeles
Department of Regional Planning
Attn: Mitch Glaser
320 West Temple Street
Los Angeles, CA 90012

Re: One Valley One Vision – Sloan Canyon Road

Dear Mr. Glaser:

At the September 21st regular meeting of the Castaic Area Town Council, the Town Council received a presentation from Citizens for Castaic regarding Sloan Canyon Road. At the end of their presentation, they requested the Town Council support the retention of Sloan Canyon Road north of Hillcrest Parkway as a limited secondary highway.

The Town Council voted (5-4) in favor of sending a letter to Regional Planning requesting the section of Sloan Canyon Road between Hillcrest Parkway to Mandolin Canyon remain a limited secondary highway. The primary consideration for this request was to provide a means of secondary access to the proposed high school site. 1

Please contact me directly with any questions at (661) 205-9245.

Sincerely,

Scott A. Wardle
President
Castaic Area Town Council

Cc: Rosalind Wayman

Castaic Area Town Council P.O. Box 325 Castaic, CA 91310-0325 (661) 295-1156

Letter No. G5 Castaic Area Town Council, September 27, 2011

Response 1

The commenter states that the Castaic Area Town Council (Town Council) received a presentation from Citizens for Castaic regarding Sloan Canyon Road on September 21, 2011. The commenter states that following this presentation, the Town Council voted (5-4) in favor of sending a letter to the Los Angeles County Department of Regional Planning requesting that the section of Sloan Canyon Road between Hillcrest Parkway and Mandolin Canyon Road remain as a Limited Secondary Highway. The commenter states that the primary consideration of this request was to provide a means of secondary access to the proposed high school site.

The comment raises political issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Letter No. G6

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September 27, 2011

Via Email and Hand Delivery
Regional Planning Commission
County of Los Angeles
320 W. Temple Street, Room 1350
Los Angeles, CA 90012

Re: Objection to Interagency Engineering Commission's Recommendation to Remove Limited Secondary Highway Designation for Sloan Canyon Road in OVOV Plan

Honorable Commissioners:

On behalf of Citizens for Castaic, a community organization consisting of more than 400 Castaic area community members, we strongly oppose the Interagency Engineering Commission's (IEC's) recommendation to remove the Limited Secondary Highway (LSH) designation of Sloan Canyon Road between Hillcrest Parkway and Mandolin Canyon Road as part of the proposed revisions to Circulation Element set forth in the One Valley One Vision Plan (OVOV). The OVOV does not propose to remove the LSH designation from the remainder of Sloan Canyon Road located northeast of Mandolin Canyon Road and south of Hillcrest Parkway. 1

A. <u>Castaic High School is a Reasonably Foreseeable Project.</u>

In proposing to remove the LSH designation from the middle section of Sloan Canyon Road, the environmental impact report (EIR) prepared by the County has failed to take into consideration that the William S. Hart School District (School District) is moving forward with development of the Castaic High School project in Romero Canyon. The School District has proposed to provide access to the Castaic High School via the section of Sloan Canyon Road the OVOV has proposed to downgrade. (**Attachment 1**, School District's checklist of progress on the Castaic High School project; **Attachment 2**, School District contract with The Planning Center requiring EIR to include analysis of access via middle section of Sloan Canyon Road.) Approximately 30 percent of the Castaic population lives on Hillcrest Parkway, and would likely access the proposed high school by using the portion of Sloan Canyon Road between Hillcrest Parkway and Mandolin Canyon Road. 2

The Castaic High School project would also serve as a catalyst for additional development that would utilize Sloan Canyon Road. The ION site, Larwin site and the portion of tentative tract map 47807 owned by Eugene Lombardi would likely begin construction of their approved residential developments once the High School has been constructed. Additionally, there are several undeveloped parcels of land nearby that may be proposed for additional residential development once the high school is in place. 2

B. Limited Secondary Highway Designation Would Provide Safer and More Convenient Access.

Maintaining the LSH designation would provide safer and more convenient access to the proposed high school, new residential development, and other local traffic. If the LSH designation is removed from this section of Sloan Canyon Road, development of this section of the road would be limited to 28 feet under the Castaic Area Community Standards District. 3

Attached to this letter is a report prepared by traffic expert Tom Brohard responding to statements made in the final EIR regarding the removal of the LSH designation from the middle section of Sloan Canyon Road. (**Attachment 3**, September 26, 2011 Brohard Report.) Mr. Brohard has over 40 years of experience as a traffic engineer, many of which were spent as the city traffic engineer for cities throughout Southern California. Mr. Brohard found the Castaic High School would generate 7,400 vehicles trips per day and at least 2,700, and likely many more, of those additional trips would access the High School via Sloan Canyon Road between Hillcrest Parkway and Mandolin Canyon Road. Moreover, the majority of the trips generated by the High School would be at the beginning and end of the school day, which would coincide with peak hour trips for residents going to and from work. According to the OVOV Traffic Study, and concurred with by Mr. Brohard, the maximum capacity of a local street is 2,000 vehicles per day. Thus, if Sloan Canyon Road is downgraded to a local street, it would be inadequate to provide access to the Castaic High School. It would also be inadequate to provide the access that will be required by the residential developments that will likely be spurred by the High School. 4 5

A 28 foot wide local street would also be unsafe as an access route for the Castaic High School because the width limitations would eliminate the ability to provide bike lanes for students. (See September 26, 2011 Brohard Report.) Under the LSH designation, there would be adequate space for bike lanes, which according to the California Department of Education are imperative for accessing high schools. Maintaining the LSH designation for the middle section of Sloan Canyon Road would also ensure there is adequate space for turn lanes for high school students and residents with horse trailers. Gridlock caused by inadequate width and inability to include a turn 6

lane will increase localized pollution hotspots affecting schoolchildren and contribute to greenhouse gas emissions if Sloan Canyon Road is downgraded to a local street. 6

C. The EIR Must Consider Traffic That Would be Generated by Castaic High School.

In response to Citizens for Castaic's previous requests that the use of Sloan Canyon Road as an access route for the Castaic High School be considered, the final EIR stated that traffic from the Castaic High School was not being considered because a location for the high school had not been proposed when the notice of preparation for the EIR was issued. The final EIR cites to California Environmental Quality Act (CEQA) Guidelines section 15125(a) to support the claim the County need not consider the high school generated traffic when proposing to remove the LSH designation for Sloan Canyon Road. Section 15125(a) deals with the baseline environment that must be considered when analyzing a project's impacts. While the environmental conditions at the time of the notice of preparation "normally constitute the baseline", the County has the discretion to select a differing baseline if it would provide for a more accurate assessment of the impacts associated with removing the LSH designation. (*Fat v. County of Sacramento* (2002) 97 Cal.App.4th 1270, 1277.) 7

Moreover, even if the Castaic High School project is not considered part of the baseline conditions, it should be considered as a reasonably foreseeable and cumulatively considerable project. The removal of LSH designation would have traffic impacts that are cumulatively considerable when combined with the traffic impacts of the Castaic High School. The County should not make a major planning decision, which would change a roadway designation that has been in place for at least 50 years and would affect all future development in this area of Castaic, in a vacuum, ignoring the high likelihood that a high school with 2,600 students would be using Sloan Canyon Road for access.

D. There is Overwhelming Community Support for Maintaining the Limited Secondary Highway Designation.

As demonstrated by our July 11, 2011 letter, the community overwhelmingly supports maintaining the limited secondary highway designation on all of Sloan Canyon Road. More than 622 Castaic residents and 6 Castaic business owners signed letters opposing the proposal to remove the LSH designation from the middle section of Sloan Canyon Road, which Citizens for Castaic submitted to each of you in July. In addition to the support of many Castaic residents, the Castaic Area Town Council voted on September 21, 2011 to support a request to the County that the LSH designation be maintained for the portion of Sloan Canyon Road. The Town Council had previously requested the removal of the designation, but due to the changed circumstances of the 8

Castaic High School now proposing to provide access along this section of Sloan Canyon Road, determined that the designation should be left in place. The William S. Hart School District and the developer for the Castaic High School project have also expressed their support for maintaining the LSH designation on all of Sloan Canyon Road. (**Attachment 4**, letter of support for maintaining LSH designation from Romero Canyon LLC, the developer for the Castaic High School.) 8

Conclusion

In conclusion, Citizens for Castaic urges you to maintain the LSH designation for all of Sloan Canyon Road. Sloan Canyon Road has been designated as a limited secondary highway for more than 50 years. The community has known of this designation and it has been relied upon for the approval future development projects in the area. This will provide the community with the necessary north-south connection and provide adequate and safe access to the proposed Castaic High School. Thank you for your time and consideration in this matter. 9

Sincerely,

Amy Minteer

cc: Citizens for Castaic
Mitch Glasser, Los Angeles County Supervising Regional Planner
County Supervisor Michael Antonovich
Rosalind Wayman, Senior Deputy to Supervisor Antonovich
Edel Vizcarra, Planning Deputy to Supervisor Antonovich

ATTACHMENT 1

Castaic Area High School

- Home
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Consultant Reports

Presented to the Governing Board

· Scoping Meeting, March 8, 2011 presentation
· Notice of Preparation, Feb 24, 2011
· California Geological Survey , Feb 1, 2011
· Conclusions of Preliminary Studies, July 14, 2010

July 10, 2010 Reports
· Biology Resources Study
· Phase I Archaeological Investigation
· Geotechnical Desktop Study
· On-Site Hydrology Report
· Traffic Study

June 8, 2010 Reports
· Agenda for Discussion
· Environmental Update
· Traffic Mitigation Study
· Geotechnical Summary
· Romero Canyon Oil Well Abandonment
· Civil Engineering Summary of Preliminary Findings

May 5, 2010 Reports
· Conceptual Land Grading Map
· Environmental Presentation

· Geotechnical Presentation
· Traffic Study Presentation

Archived Reports

Castaic Area High School

"Providing excellence in education to your children, closer to home"

Board Meeting Updates

Update August 17, 2011
Tom Cole, Chief Operations Officer, presented a report to the Board of Directors stating that the Preliminary Environmental Assessment (PEA) for the Castaic area high school has been prepared in accordance with school district guidelines for implementing California Environmental Quality Act (CEQA) and AB 972 requirements for public review. Mr. Cole also stated that pursuant to the Education Code, the District is required to obtain a "No Further Action" determination from Department of Toxic Substances Control (DTSC) on the PEA prior to proceeding with the acquisition/construction of a new school in Castaic and the results of the PEA have determined that no further assessment is needed at this time on the preferred site of Romero Canyon. After filing a public notice on August 1, 2011, the District conducted a public hearing on August 16, 2011, to receive comments on the PEA, with no one attending the hearing nor had any written comments been received to date. He indicated that the written public comment period would conclude on September 1, 2011 and following September 1, the District will notify DTSC of the results to obtain final approval.

Update July 20, 2011
Presented by Tom Cole, Chief Operations Officer
Mr. Cole reported that 1) the three additional borings approved by the Board were completed and the findings will be submitted in a report to CGS (California Geologic Survey), 2) CGS was on site and conducted their own investigation on each exposed boring; and 3) that the seller is proceeding with eliminating the District's title exceptions.

Update June 22, 2011
Presented by Tom Cole, Chief Operations Officer
Mr. Cole reported that 1) the District advised the seller of all title exceptions, completed on June 13, 2011, 2) the seller agreed to cure all title exceptions, received by the District on June 16, 2011, and 3)the seller requested of the District the release of the $170,000 deposit on the preferred school site of Romero Canyon to the seller relative to an escrow transaction which occurred this date, June 22, 2011.

Updates Archive

Progress Report

September 2011

Hart Governing Board selects Romero Canyon as the preferred site, July 2010.

ENVIRONMENTAL IMPACT REPORT (EIR)

In Progress The Hart District's EIR consultant is currently analyzing this preferred site under the California Environmental Quality Act (CEQA).

In Progress Governing Board approves proposal to conduct supplemental traffic analyses for EIR, Jan. 2011.

☑ Scoping meeting for Notice of Preparation, March 8, 2011. *The public and all responsible agencies had the opportunity to comment on the EIR.*

☑ Governing Board approves proposal to analyze an alternative access plan within the EIR. May, 2011.

GEOTECHNICAL

☑ Consultants completed geotechnical report, Nov. 2010, concluding that Romero Canyon site is suitable for a high school.

In Progress Hart School District submitted geotechnical report to California Geological Survey (CGS), Dec. 2010.

☑ Governing Board approves proposal for additional geotechnical investigations. May, 2011.

ARCHITECTURAL

In Progress Governing Board approved Ruhnau, Ruhnau and Clark, LLC as the project architect, Oct. 2010. Preliminary design phase has begun.

☑ Initial Conceptual Site Plan, Feb. 2011.

PURCHASE AND SALE AGREEMENT

☑ Executed Purchase Agreement, May 2011

☑ Title Company selection, May 2011.

☑ Buyer deposits $170,000 into escrow account, May 2011.

- ☑ Buyer's identification of title exceptions, June 2011.
- ☑ Seller's agreement to cure title exceptions, June 2011.

Projected opening for Castaic Area High School for 9th graders, Aug. 2014.

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ATTACHMENT 2

THE PLANNING CENTER

May 12, 2011

Thomas B. Cole
Chief Operations Officer
Wm. S. Hart Union High School District
21515 Centre Pointe Parkway
Santa Clarita, CA 91350

Subject: Castaic High School (WSH-02.0E)

Dear Tom:

The public review period for the Notice of Preparation closed on March 28, 2011. Written responses have been received from seven public agencies and 25 responses have been received from individuals or law firms. These comments run several hundred pages and raise a number of environmental issues. The most significant of these comments concern the need for a second public access route from the south and the determination of the proper "baseline" (or existing conditions) for the EIR. Based on these comments and in particular, because of recent case law concerning the use of a "hypothetical" baseline based on future improvements by others, we are making several recommended changes to our approach to the EIR.

Please note that as of the date of our proposal, it had not been determined whether the road improvements and extension of utilities had been covered "in previous CEQA clearances or included in technical studies." Because of this we stated that "our scope covers the campus and not offsite improvements. We further assume that the studies prepared by others are adequate to address the proposed project, and work to supplement these studies is outside this scope of work." [Proposal, August 12, 2010, page 2]

First, the off-site roadway improvements must be addressed as part of the high school project. These include the main access road (Sloan-Mandolin-Harp-Romero-Valley Creek) and the proposed Romero Canyon emergency-only road. Note that the Romero Canyon emergency-only road has not been previously reviewed and while the main access road (Sloan) was previously included as a mitigation measure in a previous CEQA document, its actual environmental review was negligible. This requires that we now complete a review of the environmental impacts of these road where we previously understood that we would either not need to evaluated them or that we could rely on previous CEQA and technical studies.

Because of the strong public comments that a secondary public access road is needed, we recommend inclusion of an alternative access plan that includes the main access road and a second access road from the southern boundary of the school following Romero Canyon, Baringer and Sloan to Hillcrest. This alternative would eliminate the need for an emergency-only road along Romero Canyon Road and may eliminate the need to provide four lanes along the main access road. The Romero-Baringer-Sloan to Hillcrest road may be built to fire road, public road or a combination of these standards. If the fire road standard is permitted, environmental impacts may be reduced in certain sensitive areas. We are assuming that the public road scenario will be evaluated as a worst-case scenario and the fire road option (in certain locations) will be treated as a sub-alternative.

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As described below, we will engage the services of Sikand to provide conceptual improvements plans where needed. The conceptual improvement and grading plans, earth movement quantities, areas of disturbance, etc. will be used to evaluate the environmental impacts of these improvements. Sikand will work with the County and determine whether these improvements satisfy County standards and whether changes in their classifications are necessary.

Second, we are recommending completion of the Initial Study with a recirculated NOP. Our previous approach was to circulate the NOP without the Initial Study to speed the process. The change in project to include the off-site roadway improvements is sufficient to require recirculation of the NOP. Because of the concerns raised in the NOP comments that the lack of an Initial Study limited the public's ability to review the project and provide adequate comments on the scope of the EIR, we recommend that the Initial Study be completed with the changes to the project and then recirculate it with the revised NOP.

CONCEPTUAL ROAD IMPROVEMENT PLANS

Sikand will be responsible for preparing conceptual improvement plans for the Romero emergency road and a second public road (and emergency-only road sub-option) following Romero-Baringer-Sloan to Hillcrest. As described below, these plans will assist The Planning Center in evaluating the environmental impact of developing these roads. The tasks below describe Sikand's scope of work.

Task 1: Assistance in providing information on the main access road (Sloan-Mandolin-Harp-Romero-Valley Creek), including grading quantities, scheduling and area of disturbance).

Task 2: Romero Canyon Road emergency access only: conceptual improvement plans for 24-foot pavement to join northerly and of exiting paved road. Meet with LA County DPW and Fire Department to determine any additional requirements on the existing paved road.

A. Conceptual plans for emergency Fire Department connection to existing paved road (approximately 1,500 feet southerly of TT47807.

B. Meet with LA County DPW and Fire Department to determine any additional requirements on the existing paved road.

C. If necessary, provide additional conceptual plan for items determined from County meetings.

Task 3: Prepare conceptual plans for second public access road and emergency road option following Romero, Baringer, and Sloan to Hillcrest.

A. Southern campus boundary to Sloan following Romero and Baringer, and Baringer to Sloan: 100-scale plans for two options: emergency-only road and public road.

B. Sloan from Baringer to Hillcrest: 200-scale conceptual plans for two options: emergency only road and public road.

Task 4: Provide input of alternative sites with grading quantities and area of disturbance.

THE PLANNING CENTER

GEOLOGY

Geolabs will be engaged to perform this task. The conceptual road improvement plans will require input on the geologic conditions along their path. Based on published geologic maps of the area, air photos in Geolabs' library, and knowledge of the area, Geolabs will produce a generalized map showing the geologic elements along each of the alignments. Geolabs will produce a bulleted summary that will enumerate the geologic units that are anticipated, qualitative assessment of their likely impacts, and the common measures that are used for mitigation of their adverse impacts. Neither field mapping, subsurface exploration, soil testing, quantitative analyses, nor review of specific geotechnical reports that may have been prepared for various properties along the alignments will be undertaken. The extent of existing, site-specific geotechnical reports is unknown. The budget provided for this task has been estimated based on the information available and work beyond this level will not be performed.

BIOLOGICAL RESOURCES

ECORP will supplement its previous biological studies to cover the three access routes described elsewhere in this letter and address the comments contained in the NOP response letter from the California Department of Fish and Game (CDFG). This letter makes recommendations of survey work to be completed, particularly for the access routes, as well as different types of analysis that are to be included in an updated biological technical report for the project.

Task A: Survey Area of Geological Testing

The District's geologist will identify the area of possible disturbance for additional geologic testing. Just prior to the geologic work, ECORP will survey the area to determine if sensitive or endangered species are present. Once day of field work is assumed and brief report will be prepared.

The three access routes are described briefly. Route 1 was previously approved as part of Tract 46443, and extends from Sloan Canyon Parkway. Route 2 would occur along existing Romero Canyon Road, which is partially paved. Route 3 would follow existing dirt roads north of Hillcrest Parkway.

This proposal contains a Scope of Work that is intended to address a letter from the California Department of Fish and Game (CDFG) regarding the Environmental Impact Report for Castaic High School. This letter makes recommendations of survey work to be completed, particularly for the access routes, as well as different types of analysis that are to be included in an updated biological technical report for the Project.

The Scope of Work and Cost detailed below reflects ECORP's approach to the biological resources services.

Task 1: Biological Assessment and Updated Biological Report

ECORP will conduct a literature search of existing public databases to determine which biological resources have been recorded nearby to the Project area. This will include a review of the California Natural Diversity Data Base and other applicable public databases. If there are existing documents that contain biological information about the project site, and these are made available to ECORP, they will also be reviewed. These data will be reviewed in order to make a full evaluation of the existing resources and potential resources that could be affected by the project action. They will also be used to direct the site walkover survey.

After the literature review, the entire site would be surveyed in order to record the presence of any biological resources that are present and to evaluate the potential for biological constraints to occur. Plant communities would be identified and mapped, and a full plant and animal species list would be compiled. Any sensitive biological resources that are observed would be recorded and mapped. Photographs would be taken from several angles to fully document the site conditions at the time of the survey.

Should the habitat evaluation identify the potential for species which could cause a constraint to project development, it may be that additional focused survey work would need to be conducted. If such work is identified, the need for additional work will be discussed with District and separately scoped. Species for which additional evaluation could be necessary include, but are not limited to, Coastal California gnatcatcher, arroyo toad, western spadefoot, western pond turtle, coast horned lizard, two-striped garter snake, San Diego black-tailed jackrabbit and San Diego desert woodrat. Of these species, the two most sensitive are the gnatcatcher and the arroyo toad. The report will incorporate a full evaluation of the potential for occurrence of these two species.

ECORP will update the existing biological report for the Romero Canyon development parcel by adding in results of surveys for the access routes. The existing report includes sections such as an introduction, project description, methods, and results. Appendices include full plant and animal species lists, and site photographs. Maps of the project area and its development layout with respect to existing biological resources are also included. These sections would all be updated.

In addition, the report will include a discussion regarding anticipated Project impacts and proposed mitigation for those impacts and an alternatives analysis of the access routes.

Impact Assessment and Mitigation Measures
In accordance with the standards identified in the California Environmental Quality Act (CEQA), the impacts of the Project will be presented and discussed. This will include a discussion of temporary and permanent impacts caused by the development of the Project. A potential example of a temporary impact would be a construction staging area. The report will also discuss direct, indirect and cumulative impacts of the Project on biological resources. Direct impacts include impacts that are caused by Project ground disturbance primarily associated with site grading. Indirect impacts are impacts related to the development of the Project, but that do not necessarily have an immediate effect. This could include, for example, impacts due to construction noise and dust. Cumulative impacts are impacts to the regional populations of wildlife and plants, impacts to wildlife movement corridors, impacts to functionality of open space areas adjacent to Project areas, and so on.

Alternatives Analysis
Within the biological report, a range of alternatives will be identified and analyzed with regard to their potential impacts to biological resources. This will include an analysis of separate alternatives for the high school Project location. Sensitive biological resources to be included in the analysis include coastal sage scrub, riparian habitat resources, alluvial fan sage scrub, and wildlife and plant species. The analysis will include alternatives with minimal biological impacts to sensitive resources.

Draft copies of the biological report will be made available electronically for review by the District. Upon receiving comments, the report will be finalized and submitted as part of the environmental documentation. ECORP anticipates one round of District comments and one round of public comments.

Task 2: Jurisdictional Wetland Delineation
An ECORP biologist and an ECORP wetland delineation specialist will visit the site in order to characterize the jurisdictional resources that are present. The jurisdictional delineation will follow the federal method, as defined by the Army Corps, using methodology outlined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Region Supplement Version 2.0) (U.S. Army Corps of Engineers 2008). The boundaries of potential Waters of the U.S. will be delineated through field determination, made in conjunction with aerial photograph interpretation and sample point analyses.

All wetland data will be recorded on Arid West Region - Wetland Determination Data Forms, to be included in the report. A color aerial photograph will be used to assist with mapping. *Munsell Soil Color Charts* (Kollmorgen Instruments Company 1990) will be used to aid in identifying hydric soils in the field. *The Jepson Manual* (Hickman, *ed.* 1993) will be used for plant nomenclature and identification.

The entire project area will be walked to determine the location and extent of potential waters of the U.S. Sample points will be taken in key locations to characterize ACOE jurisdictional features. The location of the sample point will be chosen based on observed presence of hydrophytic vegetation, wetland hydrology, and potential hydric soils. At the sample point location, vegetation, hydrology, and soils will be described on an Arid West Wetland Determination Data Form. These data will be used to support a determination of wetland or non-wetland status.

The total area of the potential Waters of the U.S. and other jurisdictional features will partly recorded in the field using a post-processing capable global positioning system (GPS) unit with sub-meter accuracy (Trimble GeoXT). Limits of jurisdiction will be estimated based on Ordinary High Water Mark.

Jurisdiction for the California Department of Fish and Game will be determined based on the presence of stream habitats. Generally the CDFG jurisdictional boundaries are broader than ACOE jurisdictional boundaries and include entire floodplains rather than just the areas exhibiting an Ordinary High Water Mark. CDFG jurisdiction includes the definable bed, bank, or channel, areas that support periodic or intermittent flows, perennial flows, subsurface flows, support fish or other aquatic life, and areas that support riparian or hydrophytic vegetation in association with a streambed.

Using the data collected during the field visit, a report will be prepared that describes the methods used, results of the survey work, and anticipated biological constraints located on the Project site. An analysis of the Project site under the MSHCP will be included in the document, to describe the Project level of compliance and identify any additional survey needs if applicable. The report will include figures that will depict locations of jurisdictional areas on site, and described them in detail. Any locations of sensitive plant or animal species observed will also be depicted on Project maps.

A draft copy of the jurisdictional delineation report will be submitted electronically for review and comment. Once comments have been received, they will be addressed and a final report will be prepared and submitted both electronically and by three hard copies.

Task 3: Focused Surveys
Due to the potential for several sensitive resources to occur within areas planned for improvement along the access road alternatives, focused surveys may be needed. As of the time of this proposal, three potential focused surveys are identified. These should be considered as optional tasks, and may not be necessary unless habitat for the species is identified in an impact area. As mentioned in the letter written by the CDFG, other species for which additional evaluation could be necessary include, but are not limited to, Coastal California gnatcatcher, arroyo toad, western pond turtle, coast horned lizard, two-striped garter snake, San Diego black-tailed jackrabbit and San Diego desert woodrat. The need for survey work for these species will be identified during the biological assessment.

Rare Plant Surveys
Due to the potential for several rare plant species to occur, ECORP will provide a rare plant survey for this project area. We assume that the survey will be conducted in two days with two biologists, and will entail walking the undeveloped portions of the road alignments to record any rare plant species present at the time of the survey. The rare plant surveys for the parcel itself are not included as these are thought to be adequate based on recent survey results (2010). Should surveys for the parcel also be required, this would entail an additional day with two biologists.

The rare plant survey timing will coincide with the most suitable time to expect the potentially-occurring plant species to be in bloom, which is May to early June. Plant species to be searched for specifically include primarily the Plummer's Mariposa Lily, San Fernando Spineflower, and Slender Mariposa Lily, but if other species are observed their presence will be recorded and identified in the biological study report. Any sensitive plant species observed will be mapped on project maps, which will also be included in the report.

Western Spadefoot Survey
The western spadefoot is an amphibian species that is listed by the State of California as a Species of Special Concern. ECORP will conduct a habitat assessment for this species at the time of the biological assessment. If habitat is identified, a focused survey will be conducted for the species within suitable habitat. Two surveys would be completed during the spring, within one month of an average or better rainfall event. Results of the survey would be incorporated in the biological report. If the species is identified on site, the report would also propose mitigation measures for mitigating impacts to the species.

Oak Tree Inventory
Due to the presence of several oak trees along the access routes, and potential for impact or removal of individual oaks during access road grading, an oak tree inventory would be needed in order to comply with the Los Angeles County Oak Tree Ordinance. Under the Los Angeles County Ordinance, a person shall not cut, destroy, remove, relocate, inflict damage, or encroach into the protected zone of any tree of the oak tree genus, which is 8" or more in diameter four and one-half feet above mean natural grade or in the case of oaks with multiple trunks combined diameter of twelve inches or more of the two largest trunks, without first obtaining a permit. The survey effort would map and tag oak trees within the project limits that qualify for protection under the Ordinance. The results would be incorporated into the biological report, in addition to proposed mitigation measures for any impacts to oak trees that qualify for protection.

Task 4: Wetland Mitigation Plan
As part of the environmental review process, impacts to wetlands and other jurisdictional areas must be mitigated. ECORP will prepare a mitigation plan that mitigates the impacts and meets with criteria contained within the applicable wetland permits with both state and federal agencies. The mitigation plan will provide a description of the site's physical features, anticipated impacts, and habitat to be impacted and proposed mitigation site within the Project boundaries. Since there is an existing plan, the plan will be updated to the extent practicable.

ECORP will analyze the existing hydrology, soil features, hydrological features of the proposed development and the suitable mitigation locations within the finished development as part of a feasibility analysis. This analysis will ensure that mitigation being proposed will be successful and acceptable to the agencies. It will also determine whether there is a need for soil amendments, extended irrigation, or other special measures to implement at the mitigation site.

A full description of the timeline for both the installation period and maintenance and monitoring period will be described in the report. Roles of the landscape contractor, maintenance contractor and restoration biologist will be described in detail. The plan will contain a description of all responsible stakeholders in the restoration, and their respective roles.

Any mitigation that involves restoration needs to be evaluated by meeting certain success criteria. The plan will detail the success criteria. According to the permit requirements, restoration efforts shall have a minimum of 80% survival, by species, the first year and 90% survival thereafter and/or shall attain 35% cover after 3 years and 60% cover after 5 years for the life of the project. Prior to the restoration site being determined successful, they shall be entirely without supplemental irrigation for a minimum of 2 years. No single species shall constitute more than 50% of the vegetative cover, no woody invasive species shall be present, and herbaceous invasive species shall not exceed 5% cover.

The plan will discuss procedures for replacement plantings, contingency measures, maintenance, and success monitoring. The mitigation plan will also specify reporting requirements for both the installation period and the maintenance and monitoring period. Any needed coordination with agencies will be detailed in the plan, including the final review and approval of the mitigation site.

Draft copies of the plan will be made available electronically for review by the District. Upon receiving comments, the plan will be finalized and submitted to the agencies for their input. ECORP anticipates two rounds of District comments and on round of agency comments. Once the report is finalized by agency approval, it will become part of the Project public record.

Task 5: Permit Coordination
ECORP will coordinate with the regulatory agencies to renew the existing permits for impacts to jurisdictional areas. The permit coordination will entail meetings by phone and in person with agency personnel and District representatives. ECORP assumes no more than five meetings would be necessary, including a field meeting. Further, it is assumed that the existing permit can be renewed and that there would be no substantial change to ground conditions that would require a new permit application to be prepared. All fees associated with permit renewal would be paid for by the Project Proponent. Mitigation would be addressed by preparation of a wetland mitigation plan, detailed above.

This task may need to be amended if extended permit coordination is required, or there are any substantial unforeseen issues regarding the renewal process with the regulatory agencies. This task assumes that renewal would be a two to three month process, once the necessary biological data has been updated by field assessment. A total of 40 hours are assumed for this task, of senior staff time.

Task 6: Project Meetings
ECORP will attend project meetings as requested by District. This will include meetings in person primarily, or teleconferences/web-meetings about different aspects of the project or its continuing approval process. The scope for these meetings may include discussions of mitigation, recommendations for species protection during construction, avoidance of biological resources, and so on. Hours and costs for such meetings will be accounted on a time and material basis, and would involve senior staff. A total of 16 hours in allocated to meeting time.

ECORP Costing Assumptions
Documents that are part of the project record and are available, that may pertain to the work being performed, would be made available. Particularly the existing jurisdictional delineation, oak inventory, permits with state and/or federal agencies and biological reports.

- Cost and schedule estimates are based on our best judgment of the requirements known at the time of the proposal and can be influenced favorably or adversely by Client needs and other circumstances. ECORP Consulting, Inc. will endeavor to perform the services and accomplish the objectives within the presented costs and schedule. However, if the scope of work or schedule changes, ECORP Consulting, Inc., reserves the right to revise costs and the schedule accordingly.

- ECORP Consulting, Inc. assumes that, by receipt of notice to proceed, full access to the property will be provided by the Client, including keys to locked gates and advance notice to existing property tenants of our right of entry.
- ECORP Consulting, Inc. shall not be held responsible for work delays or cancellations caused by strikes, accidents, acts of God, delays imposed by the Client, or other delays beyond the control of ECORP Consulting, Inc.
- It is assumed that ECORP Consulting, Inc. can use and rely on the data and information contained in the project related documents provided by the Client. ECORP Consulting, Inc., will not perform a technical review of these documents, and will not be responsible for the content or accuracy of these studies.
- Change orders will be issued and signed by the Client and ECORP Consulting, Inc. before starting additional work not provided for in the original proposal. If the Client's authorized representative is not available for a signature, the additional out-of-scope work will not commence until the change order is signed.
- This cost is valid for a period of 60 days from the date of this the proposal. Beyond 60 days, ECORP Consulting, Inc., reserves the right to reevaluate the cost.
- Expert Witness Testimony, including Depositions, is billed on a time-and-materials basis at time and a half.
- One round of comments and responses for each document is included.
- No focused biology surveys are included, with the exception of rare plant surveys, spadefoot toad surveys, and oak tree inventory
- No extended agency consultation with biological resources agencies is included other than permit preparation and coordination for the jurisdictional impacts.

CULTURAL RESOURCES

Supplemental Archaeological Records Search
McKenna et al. will complete supplemental research for each alignment (and would appreciate a copy of the Campus Rose report for reference). This research will be completed at the California State University, South Central Coastal Information Center, Fullerton, California. McKenna et al. will review previously completed reports and obtain copies of pertinent cultural resource records. McKenna et al. will also review the historic maps for the area. This level of research will be used to assess the project area known resources and/or buried cultural resource sensitivity.

Historic Background Research
McKenna et al. will provide a cursory history of the general area. This research will be based on historic maps, general historical documents, and data available through the McKenna et al. in-house library.

Native American Consultation
McKenna et al. will contact the Native American Heritage Commission, Sacramento, and inquire into their records on sacred or religious site locations. McKenna et al. will also use the Commission's listing of local Native American representatives to contact individuals wishing knowledge of projects and/or wishing to provide additional data.

Paleontological Overview
McKenna et al. will provide a standard paleontological overview to address any potential for such resources within the project area. If this data was provided by Compass Rose, McKenna et al. will not duplicate their research and the budget will be amended to reflect the savings.

Field Survey
McKenna et al. will complete a field reconnaissance survey of the three alternatives. The alignments will be photo-documented and supplemented with field notes.

Analysis
The project analysis will be completed for CEQA compliance. Identified resource will be formally recorded on the appropriate California Department of Parks and Recreation DPR 523 forms, as required, and the evaluation will be based on the CEQA criteria for significance and/or recognition.

Report Preparation
McKenna et al. will prepare a technical report(s) in a format consistent with state (Office of Historic Preservation) data requirements. In this case the Archaeological Resource Management Report (ARMR) guidelines will be followed and all data required for studies in Los Angeles County will be included.

TRAFFIC

Austin-Foust Associates will prepare a supplemental traffic analysis to address a second access point alternative. This alternative includes construction of Sloan Canyon Road from Hillcrest Parkway north to Baringer Road (also referred to as the Romero/Sloan cutoff), which would connect Sloan Canyon Road to a new segment of Romero Canyon Road directly south of the site. As such, trips to and from the south would be able to utilize Hillcrest Parkway to access this Sloan Canyon Road/Baringer Road/Romero Canyon Road connection to the project site.

The purpose of the proposed analysis is to supplement the project's June 2010 traffic study, which evaluated a single access roadway for the project site. This supplemental analysis will evaluate a two access point alternative for each scenario presented in the June 2010 study. The scenarios evaluated would be as follows:

1) Short-Range with 1,600 Students
2) Short-Range with 2,600 Students
3) Buildout Conditions with 2,600 Students

Each analysis will be based on having an emergency access gate on Romero Canyon Road just south of Baringer Road, and the off-site study area will be identical to that which was used for the June 2010 traffic study. The results of the analysis will be written up in a stand-alone technical memorandum that is suitable for inclusion with the project's environmental documentation.

NOP/INITIAL STUDY

The Planning Center will revise the NOP and Initial Study to include two access alternatives as explained above. The revised NOP will be sent to the District for publication in the local newspaper and NOP/IS will be distributed to the project mailing list (52).

ENVIRONMENTAL IMPACT REPORT

Based on the studies identified above and additional work described below, the EIR will now cover off-site improvements, including two access routes.

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Aesthetics
The planned roadways generally follow existing dirt roads or are located within approved tract maps. The EIR will identify the areas to be disturbed and describe the visual changes associated with the improvements. Visual simulations are not included in this scope.

Air Quality
Based on the construction and grading information coming from the conceptual road improvement plans, we will calculate construction-related emissions for the two access options. Emissions for operations-related impacts will be calculated under the two access scenarios as well. Total VMT will be estimated based on trip lengths estimated for the two access routes.

Biological Resources
The supplemental survey work by ECORP will be used expand the EIR to include all access route improvements. There is some additional work to be completed by ECORP to address the Department of Fish and Game's NOP comments, as well.

Cultural Resources
Based on the additional survey work by McKenna, this section of the EIR will be expanded to address the two access scenarios.

Geology and Soils
We plan to describe the conditions along the road alignments based on information provided by Geolabs (see technical scope above).

Global Climate Change
GHG emissions will be calculated for construction-related emissions under both access scenarios. GHG emissions will also be calculated for operations-related emissions under the two access scenarios based on estimated VMT.

Hazards and Hazardous Materials
This section of the EIR will be expanded to cover the additional off-site road improvements under two scenarios. However, because the roads are not considered part of the campus, it is assumed that preparation of a Phase I ESA or PEA and DTSC oversight will not be necessary.

Hydrology/Water Quality
Stormwater runoff from the access roads will be estimated and the drainage and water quality BMPs will be described in general terms based on the conceptual plans produced by Sikand.

Land Use & Relevant Planning
The classification of the second access route will be identified. It is expected that the conceptual roadway plans will not differ from the County designation. Since the routes follow existing dirt roads, existing or planned communities should not be impacted. (If it determined that the project would involve a changed in road classification of any access road, the County may require additional analysis not included in this scope).

Mineral Resources
It is assumed that available information will be sufficient to dismiss the potential impacts on mineral resources in the Initial Study and no additional work will be necessary for the EIR.

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Noise
Noise generated by traffic along the access routes will be quantified based on volumes contained in the traffic study. Sensitive uses along those routes will be identified and a comparison of projected noise levels against existing noise levels and appropriate significance thresholds will be determined.

Public Services
The addition of a second access option will raise issues of fire protection, emergency response times, etc. A comparison of the two access scenarios will be provided in the EIR.

Recreation
The only recreation-related impacts associated with the roadway improvements would be related to planned County trails. County trail plans will be reviewed for locations along proposed roadways and the potential for impact will be determined.

Traffic/Parking
As described above, Austin-Foust Associates will supplement its traffic analysis to evaluate the second public access alternative. The EIR section will be expanded to address short- and long-term traffic impacts under both scenarios.

Utilities and Service Systems
The proposed project includes the extension of utilities along the main access road. Because the primary access route (and the extended utility lines) would exist under both scenarios, the addition of a second access option would not affect the delivery of utilities.

Alternatives
As explained above, we will now have two access options. The main access option remains Sloan-Mandolin-Harp-Romero-Valley Creek, plus Romero Canyon emergency-only road. The second option would maintain the main access road, but eliminate Romero Canyon emergency-only road and replace it with route following Romero-Baringer-Sloan to Hillcrest. This second option would be built to public road, fire road standards or a combination of the two. This second alternative would provide the public with two access routes to the school.

The second route also has two sub-options. The first sub-option would have the greatest impact with a full public-width standard. The second sub-option would include at least a portion of the alignment limited to county fire standard. The limited width of the fire standard would be used to limit environmental impact in sensitive areas.

The two access options will be reviewed throughout the various sections of the EIR. However, the two alternatives and sub-options must also be addressed in comparing them to the other alternatives in the Alternatives sections.

Growth Inducement
We are assuming that the access road alternatives do not involve a reclassification of road by the County and that the re-striping to four lanes along Sloan-Mandolin-Harp-Romero-Valley Creek would only be required on a temporary basis. An expanded review of growth inducement, including additional traffic analysis, would likely be required if a reclassification is necessary or the four-lane re-striping is made permanent.

Graphics
The addition of a second access route will require the completion of additional graphics for the NOP/Initial Study and EIR.

Responses to Comments
The additional scope identified herein will likely generate comments related to these elements. Our current authorization provides for a maximum of 50 hours in responding to comments, with additional hours to be billed on a time and materials basis. We are not requesting that this maximum be increased at this time, but it should be noted that the hours and cost under this task are likely to rise above 50 hours.

FEE ESTIMATE

Table 1 displays the fees to complete the various tasks described above.

Sincerely,

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Dwayne Mears, AICP
Principal, School Facilities Planning

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TABLE 1.
CASTAIC HIGH SCHOOL EIR - SUPPLEMENTAL COSTS

TASK	COST
ENVIRONMENTAL ANALYSIS	
Site reconnaissance	$2,000
Revise NOP	200
Revise Initial Study	3,500
Recirculate NOP/Initial Study	400
Catalog/Review New NOP Comments	2,100
Executive Summary	600
Project Description	1,200
Aesthetics	2,200
Air Quality	3,100
Biological Resources (technical study below)	800
Cultural Resources (technical study below)	400
Geology and Soils	400
Global Climate Change	1,600
Hazards and Hazardous Materials	1,200
Hydrology/Water Quality	3,400
Land Use & Relevant Planning	800
Mineral Resources (assumes dismissed in IS)	n.a.
Noise	4,200
Public Services	1,200
Recreation	800
Traffic/Parking (technical study below)	2,100
Utility Systems	800
Access Alternatives and Suboption	2,200
Word Processing/Editing	900
Graphics	2,100
Meetings/Conference Calls	4,500
Project Management/Quality Control	7,000
Subtotal - Labor	**$47,700**
SUBCONSULTANTS	
ECORP - Task A: Pre Drilling Survey	$2,300
ECORP - Task 1: Biological Assessment & Updated Biological Report	7,000
ECORP - Task 2: Jurisdictional Delineation	4,500

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TABLE 1.
CASTAIC HIGH SCHOOL EIR - SUPPLEMENTAL COSTS

TASK	COST
ECORP - Task 3: Focused Surveys	
Rare Plant Survey	4,500
Spadefoot Toad Survey	2,300
Oak Tree Inventory	4,000
ECORP - Task 4: Wetland Mitigation Plan	4,300
ECORP - Task 5: Permit Coordination	5,600
ECORP - Task 6: Meetings	3,500
Sikand - Task 1: Assist with Main Access Road	6,000
Sikand - Task 2: Romero Canyon Road Improvement Plans	9,990
Sikand - Task 3: Romero/Baringer/Sloan to Hillcrest Improvement Plans	27,000
Sikand - Task 4: Assist with Alternative Sites	2,400
Sikand - Reproduction/Misc Expenses	1,000
Geolabs – Geologic Mapping along Access Routes	6,250
Austin-Foust Associates - Traffic Analysis	5,700
McKenna et al. - Cultural Resources	3,685
Administrative Fee (12.5%)	12,503
Subtotal - Subconsultants	**$112.528**
REIMBURSABLES	
Misc Photocopies, etc.	$300
NOP/Initial Study (52 copies)	2,340
Postage/Deliveries	400
Mileage/Travel	500
Subtotal- Reimbursables	**$3,540**
GRAND TOTAL	**$163,768**

ATTACHMENT 3

Tom Brohard and Associates

September 27, 2011

Amy Minteer
Chatten-Brown & Carstens
2601 Ocean Park Blvd. Suite 205
Santa Monica, CA 90405

SUBJECT: Review of the Final Environmental Impact Report (Final EIR) for the Proposed Santa Clarita Valley Area Plan Update in the County of Los Angeles – Deletion of Sloan Canyon Road in Castaic – Traffic Issues

Dear Ms. Minteer:

In my January 19, 2011 letter, I provided a number of comments on the Santa Clarita Valley Area Plan Update Draft EIR relating to Sloan Canyon Road in the Castaic area. These comments were enclosed with your January 21, 2011 letter (Letter D79) beginning on Page 2.0-480 of the September 2011 Santa Clarita Valley Area Plan Update Final EIR (Final EIR). In addition to my review of the responses to our comments in the Final EIR that begin on Page 2.0-504, I noted that not a single word in Section 3.2 (Transportation and Circulation) of the Draft EIR or in the OVOV Traffic Study has been changed in response to our comments and those made by others. 10

In several responses in the Final EIR, my comments on the Draft EIR were dismissed as expressing "...the opinion of the commenter..." and "...The County does not concur that..." These statements in the Final EIR are largely incorrect. Nearly all of the information presented in my comments was obtained from the Draft EIR and the other documents that I reviewed. 11

In my review of the Final EIR, I found the responses contradict the OVOV Traffic Study capacity of a local street of 2,000 vehicles per day. If the traffic capacity of a local street was actually 9,000 vehicles per day as claimed in the Final EIR, then there are at least six other limited secondary highways that would also be degraded to local streets with the proposed Highway Plan. Critically important traffic volume forecasts from the former traffic model that were used to support the current Highway Plan were not provided or compared as requested in my comments. 12

In addition, my comments regarding Castaic High School were taken directly from the Draft Traffic Study prepared by Austin-Foust Associates and do not reflect my professional opinions or include speculation. These significant issues and concerns are explained in more detail throughout this letter, and they must be properly addressed in the Final EIR. 13

Final EIR Contradicts OVOV Traffic Study Capacity of Local Streets - The capacity of a local street is critically important to the deletion of the limited secondary highway designation and the reversion of Sloan Canyon Road and other roadways to local streets. For example in Comment 30, I indicated that the 14

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capacity of a local street is 2,500 vehicles per day. While this value is shown in Table 3-1 on Page 3-5, the capacity of the local street classification and its functions are more fully described on Pages 3-2 and 3-3 of the OVOV Traffic Study as follows:

"This classification applies to two-lane roadways in residential areas that serve the adjacent properties. Local streets are intended to provide access to adjacent land uses exclusively, and are not designed or intended to carry through-traffic or allow for high speeds. Traffic carrying capacities of 10,000 vehicles per day or more are physically possible, but a maximum capacity of approximately 2,000 vehicles per day is targeted in order to provide an environment consistent with the adjoining residential uses." 14

In response to Comments 24, 25 and 30, the Final EIR states "The commenter is incorrect. A local street can accommodate up to 9,000 vehicles per day..." In fact, the responses to my comments are incorrect and they directly contradict the OVOV Traffic Study "...maximum capacity of approximately 2,000 vehicles per day..." for a local street. The Final EIR must be revised to properly identify the maximum capacity of a local street as 2,000 vehicles per day, the acceptable amount of traffic as defined in the OVOV Traffic Study. 15 16

The definition of an acceptable amount of traffic on a local residential street depends on many factors such as housing setbacks, street width, the presence of on-street parking, location (downtown, suburbs, rural) and the connectivity of adjacent streets. While two-lane local residential streets are physically capable of carrying more than 2,000 vehicles per day, higher traffic volumes cause excessive delays for vehicles backing out of driveways, do not provide a pleasant pedestrian experience, and certainly would not represent a "livable" street. From my experience, a local residential street limited to 28 feet in width should not be required to carry any more than 2,000 vehicles per day. 17

Other Roadways Are Inconsistent with Final EIR Local Street "Capacity" – Pages 3-10 and 3-12 in the OVOV Traffic Study list a number of roadways that will be reclassified as limited secondary highways with the recommended Highway Plan. From the traffic analysis volumes presented in Figure 3.2-7 of the Draft EIR, the daily traffic volume forecasts with buildout of the OVOV Plan and the Proposed City General Plan include the following: 18

- Lake Hughes Road from Ridge Route to Angeles National Forest Boundary – 7,000 vehicles per day
- Vasquez Canyon Road from Bouquet Canyon Road to Sierra Highway – 6,000 vehicles per day

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- Shadow Pines Boulevard/Tick Canyon Road from Soledad Canyon Road to Davenport Road – 5,000 vehicles per day
- McBean Parkway from Copper Hill Drive to San Fransisquito Canyon Road – 9,000 vehicles per day 18
- San Fransisquito Canyon Road from the planned extension of McBean Parkway to the Angeles National Forest – 9,000 vehicles per day
- Placerita Canyon Road from Sierra Highway to Sand Canyon Road – 4,000 vehicles per day

The lowest daily traffic volume forecast for the streets above is 4,000 vehicles. From the recommendations to reclassify each of the above street segments to a limited secondary highway, it appears that the OVOV Traffic Study daily traffic volumes threshold for a local street was applied. If the Final EIR capacity of "up to 9,000 vehicles per day" threshold had been applied, then the six streets above should be dropped from the proposed Highway Plan as limited secondary highways since they would default to local streets. Since these streets remain as limited secondary highways, then Sloan Canyon Road should also remain as a limited secondary highway in the proposed Highway Plan. 19

The Final EIR also notes that local streets typically include numerous driveways to provide access, whereas a limited secondary highway best suits its goal of providing mobility if there are limited access points. Sloan Canyon Road would fit this requirement of a limited secondary highway as there are only eight driveways in the area between Hillcrest Parkway and Mandolin Canyon Road. This limited number of driveway access points would not conflict with the mobility goal of a limited secondary highway. 20

Daily Traffic Volume Forecasts Have Not Been Provided – In other responses, the Final EIR does not provide information that I requested to validate the conclusions reached in the OVOV Traffic Study and the Draft EIR. For example, Comment 25 indicated that traffic volumes for Sloan Canyon Road from west of Quail Valley Road to Hillcrest Parkway were not provided to compare those used to support the current Highway Plan with those for the proposed Highway Plan. While the response failed to fully address this comment, the response did forecast 2,000 vehicles per day for Sloan Canyon Road but did not specify the location where this will occur. From Figure 3.2-7 in the Draft EIR, it appears that the response may have referred to Sloan Canyon Road just west of Quail Valley Road rather than 3,000 vehicles per day on Sloan Canyon Road just south of Hillcrest Parkway. 21

With the proposed change in designation from a limited secondary highway to a local street for Sloan Canyon Road, it is critically important to compare and 22

cross-check the forecasts between the prior and the updated traffic models. With Sloan Canyon Road having been designated as a limited secondary highway for many years, there certainly should be traffic volume forecasts available from the prior traffic model that support the current Highway Plan. What are they? 22

In attempting to justify the difference in traffic volume projections for Sloan Canyon Road south of Hillcrest Parkway, the response speculates that the difference "...is most likely attributed to changes in land use data that was used in the SCVCTM." I have examined the land use assumptions and resulting trip generation on Pages B-39 and B-40 in Appendix B-2 to the OVOV Traffic Study for Traffic Analysis Zones 1, 2, 13, 14, 15, 16, 17, 18, and 19, those zones surrounding Sloan Canyon Road that would likely result in trips on this roadway. There is no significant difference between the sums of the trips forecast with development at the current City/County land uses (63,412 daily trips) compared to those forecast under the OVOV Plan land uses (60,524 daily trips). The decrease of 2,888 daily trips between these land use scenarios, less than 4.6 percent of the total daily trips generated by these zones, should not decrease the Sloan Canyon Road traffic volume forecasts enough to justify a change in classification from a limited secondary highway to a local street. 23

Castaic High School Traffic Impact Comments Are Not "Speculation" – The Wm. S. Hart Union High School District is preparing a Draft EIR for Castaic High School, with release of the Draft EIR scheduled by the end of 2011. It is my understanding that the Draft EIR and updated traffic study now being prepared for Castaic High School will evaluate two access roadways for the selected Romero Canyon site, one to the east and one to the south of this school. 24

The Romero Canyon site is located on the boundary of Traffic Analysis Zones 1, 14, and 15. The OVOV Traffic Study land use and trip generation tables for buildout conditions forecast a total of 12,084 daily trips for the three traffic analysis zones. The high school land use is not included in any of these three traffic analysis zones and the daily trip total sum does not include any high school trips. 25

In preparing my January 19 2011 comments on the Draft EIR, I reviewed the June 1, 2010 Draft Traffic Study prepared by Austin-Foust Associates for Castaic High School at the Romero Canyon Site. The issues and concerns expressed in Comments 33, 34, and 35 provided information directly from this Draft Traffic Study. The Final EIR responses that these comments "...only express the opinions of the commenter..." and that "...the commenter is speculating as to significant impacts..." are incorrect. 26

From the Draft Traffic Study, the high school with an enrollment of 2,600 students will generate 7,400 daily trips including 2,500 trips in just the AM peak hour alone, higher than the 2,000 vehicle capacity over an entire day for a local 27

residential street. With a single access for the high school to and from the east on Sloan Canyon Road, the Draft Traffic Study forecasts 46 percent of the high school trips on I-5 and 27 percent on The Old Road. With 7,400 daily trips generated by the high school, 5,400 daily trips (73 percent) will be oriented to and from the south on either I-5 or on The Old Road. 27

Page 5-1 of the Draft Traffic Study concluded that significant traffic impacts will occur at five intersections with 2,600 students and that these significant traffic impacts would not be fully mitigated based on Los Angeles County criteria. In addition, either four traffic lanes would be needed on Sloan Canyon Road east of Castaic High School or Traffic Demand Management (TDM) measures such as staggered arrival/dismissal times, ride-sharing, and carpooling would be required. 28

The June 1, 2010 Draft Traffic Study for Castaic High School on the Romero Canyon site did not evaluate direct vehicle access to and from the south. With 5,400 daily high school trips oriented to and from the south, it is my professional opinion that many of these trips would reroute to a direct north-south roadway connection such as Sloan Canyon Road. If only half of these high school trips used this direct north-south connection, then 2,700 additional daily trips would occur on the north-south portion of Sloan Canyon Road. The daily traffic using this roadway segment would then be about 6,000 vehicles, significantly higher than the 2,000 vehicles per day capacity of a local street identified in the OVOV Traffic Study. Additionally, once the Castaic High School is constructed, it will spur residential development in the surrounding area, including several tract maps that have already been approved, as well as new developments. 29

Concerns regarding access to Castaic High School and the traffic impacts associated with a single vehicle access to the east were discussed during several different meetings during the last quarter of 2010. Since the preparation of my comments of January 19, 2011, I have reviewed documents acquired by Citizens for Castaic pursuant to a Public Records Act request, including ROMERO CYN LLC meeting minutes and emails regarding the Romero Canyon High School site. An email dated October 7, 2010 from Randy Wrage provides a summary of a meeting with Los Angeles County staff regarding access to the high school site as follows: 30

- East Access
  - Parker between The Old Road and Sloan – "Since there are houses on the street in this area, it was generally agreed we wouldn't want to encourage that direction for freeway access."
  - Sloan – "...one lane each direction with a painted median... everyone thought it was a good idea... a 'hybrid' between standard and non-standard designs..."

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- South Access to Sloan
  - Barringer – "If this connection (Barringer) were to occur, the Parker direction probably never goes to 4 lanes and will lessen the impacts in Castaic and The Old Road intersections." 30

Additional Considerations for Castaic High School Access – A local street is limited to 28 feet in width in the Castaic area. As indicated in the OVOV Traffic Study, this width accommodates only two vehicle lanes. A limited secondary highway designation typically provides either two or four vehicle travel lanes, but other alternatives are also available such as two traffic lanes separated by a two-way left turn lane as discussed in October 2010 with County staff. 31

By providing a north-south access in addition to the east-west access for Castaic High School, Sloan Canyon Road in both directions could provide one traffic lane in each direction separated by a two-way left turn lane. The area outside each through traffic lane could also be striped as a bicycle lane in accordance with the recommendation in the Draft Traffic Study that "The roadways that provide access to the school site should also be designated to accommodate all modes of travel, such as walking and biking." 32

As discussed throughout this letter, the contradictions and inconsistencies within the EIR for the Santa Clarita Valley Area Plan Update must be corrected. Castaic High School on the Romero Canyon site will significantly increase traffic volumes on Sloan Canyon Road. The Draft EIR and revised traffic study for the proposed high school project are scheduled for release in the next three months. It is premature for the County of Los Angeles to remove the limited secondary highway designation on the north/south portion of Sloan Canyon Road from Mandolin Canyon Road to Hillcrest Parkway at this time. Finally, the removal of the limited secondary highway designation from this middle section of Sloan Canyon Road together with retaining the designation on each end, will sever community connectivity, and defies transportation planning principles. 33

If you have questions regarding these comments, please call me at your convenience. 34

Respectfully submitted,

Tom Brohard and Associates

Tom Brohard

Tom Brohard, PE
Principal

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Tom Brohard, PE

Licenses:	1975 / Professional Engineer / California – Civil, No. 24577 1977 / Professional Engineer / California – Traffic, No. 724 2006 / Professional Engineer / Hawaii – Civil, No. 12321
Education:	1969 / BSE / Civil Engineering / Duke University
Experience:	40 Years
Memberships:	1977 / Institute of Transportation Engineers – Fellow, Life 1978 / Orange County Traffic Engineers Council - Chair 1982-1983 1981 / American Public Works Association - Member

Tom is a recognized expert in the field of traffic engineering and transportation planning. His background also includes responsibility for leading and managing the delivery of various contract services to numerous cities in Southern California.

Tom has extensive experience in providing transportation planning and traffic engineering services to public agencies. Since May 2005, he has served as Consulting City Traffic Engineer three days a week to the City of Indio. He also currently provides "on call" Traffic and Transportation Engineer services to the Cities of Big Bear Lake and San Fernando. In addition to conducting traffic engineering investigations for Los Angeles County from 1972 to 1978, he has previously served as City Traffic Engineer in the following communities:

- Bellflower ..... 1997 - 1998
- Bell Gardens ..... 1982 - 1995
- Huntington Beach ..... 1998 - 2004
- Lawndale ..... 1973 - 1978
- Los Alamitos ..... 1981 - 1982
- Oceanside ..... 1981 - 1982
- Paramount ..... 1982 - 1988
- Rancho Palos Verdes ..... 1973 - 1978
- Rolling Hills ..... 1973 - 1978, 1985 - 1993
- Rolling Hills Estates ..... 1973 - 1978, 1984 - 1991
- San Marcos 1981
- Santa Ana ..... 1978 - 1981
- Westlake Village ..... 1983 - 1994

During these assignments, Tom has supervised City staff and directed other consultants including traffic engineers and transportation planners, traffic signal and street lighting personnel, and signing, striping, and marking crews. He has secured over $5 million in grant funding for various improvements. He has managed and directed many traffic and transportation studies and projects. While serving these communities, he has personally conducted investigations of hundreds of citizen requests for various traffic control devices. Tom has also successfully presented numerous engineering reports at City Council, Planning Commission, and Traffic Commission meetings in these and other municipalities.

Tom Brohard and Associates

In his service to the City of Indio since May 2005, Tom has accomplished the following:

- Oversaw preparation and adoption of the Circulation Element Update of the General Plan including development of Year 2035 buildout traffic volumes, revised and simplified arterial roadway cross sections, and reduction in acceptable Level of Service criteria under certain constraints

- Oversaw preparation of fact sheets/design exceptions to reduce shoulder widths on Jackson Street over I-10 as well as justifications for protected-permissive left turn phasing at I-10 on-ramps, the first such installation in Caltrans District 8 in Riverside County; oversaw preparation of plans and provided assistance during construction of a $1.5 million project to install traffic signals and widen three of four ramps at the I-10/Jackson Street Interchange under a Caltrans encroachment permit issued under the Streamlined Permit Process

- Oversaw preparation of fact sheets/design exceptions to reduce shoulder widths on Monroe Street over I-10 as well as striping plans to install left turn lanes on Monroe Street at the I-10 Interchange under a Caltrans encroachment permit

- Oversaw preparation of traffic impact analyses for Project Study Reports evaluating different alternatives for buildout improvement of the I-10/Monroe Street and the I-10/Golf Center Parkway Interchanges

- Oversaw preparation of plans, specifications, and contract documents and provided assistance during construction of 22 new traffic signal installations

- Oversaw preparation of plans and provided assistance during construction for the conversion of two traffic signals from fully protected left turn phasing to protected-permissive left turn phasing with flashing yellow arrows

- Reviewed and approved over 450 work area traffic control plans as well as signing and striping plans for all City and developer funded roadway improvement projects

- Oversaw preparation of a City wide traffic safety study of conditions at all schools

- Prepared over 350 work orders directing City forces to install, modify, and/or remove traffic signs, pavement and curb markings, and roadway striping

- Oversaw preparation of engineering and traffic surveys to establish enforceable speed limits on over 125 street segments

- Reviewed and approved traffic impact studies prepared for more than 16 major development projects

Since forming Tom Brohard and Associates in 2000, Tom has reviewed many traffic impact reports and environmental documents for various development projects. He has provided expert witness services and also prepared traffic studies for public agencies and private sector clients.

Tom Brohard and Associates

ATTACHMENT 4

Letter No. G6 Chatten-Brown and Carstens, September 27, 2011

Response 1

The commenter provides an introduction to the comments that follow. No further response is required.

Response 2

The commenter states that the EIR, in proposing to remove the Limited Secondary Highway designation from the middle portion of Sloan Canyon Road, failed to take into consideration that the William S. Hart Union High School District is moving forward with the development of the Castaic High School in Romero Canyon.

Please see **Letter No. D79, Response 5**.

The commenter further states that the Castaic High School project would serve as a catalyst for additional development that would utilize Sloan Canyon Road.

The comment speculates as to the growth-inducing impacts of the proposed Castaic High School project and the comment is directed to the proposed Castaic High School project, not the EIR for the proposed Area Plan. An analysis of the growth-inducing impacts of the proposed Area Plan is presented in EIR Section 9.0, Growth Inducing Impacts. The comment does not raise any specific issue regarding the analysis in EIR Section 9.0, Growth Inducing Impacts, so a specific response cannot be provided nor is required. The comment will be included as part of the record and will be made available to the decision makers prior to a final decision on the proposed Area Plan.

Response 3

The commenter states that maintaining the Limited Secondary Highway designation would provide safer and more convenient access to the proposed Castaic High School, new residential development, and other local traffic.

Please see **Letter No. D79, Response 4** and **Response 6**; and **Letter No. E10, Response 2**.

The commenter further states that development of Sloan Canyon Road would be limited to 28 feet under the Castaic Area Community Standards District.

Please see **Letter No. D79, Response 7**.

Response 4

The commenter states that she has attached a report prepared by traffic expert Tom Brohard responding to statements made in the Final EIR regarding the removal of the Limited Secondary Highway designation from the middle section of Sloan Canyon Road.

Please see **Responses 10** to **34**, below.

Response 5

The commenter states that Mr. Brohard found that the proposed Castaic High School project would generate 7,400 vehicle trips per day and that at least 2,700 of those vehicle trips would access the proposed Castaic High School via Sloan Canyon Road between Hillcrest Parkway and Mandolin Canyon Road. The commenter states that the maximum capacity of a local street is 2,000 vehicles per day and if Sloan Canyon Road is downgraded to a local street, it would be inadequate to provide access to the proposed High School or to the residential development that will likely be spurred by the proposed High School.

Please see **Response 2** above. In addition, on October 6, 2011, the William S. Hart Union High School District released a Revised Notice of Preparation (NOP) for the proposed Castaic High School project. The Revised NOP identified two options for public access to the proposed Castaic High School, and only one option provides for public access from the south via Sloan Canyon Road beginning at Hillcrest Parkway. The Revised NOP states that both options will be evaluated in the EIR for the proposed Castaic High School project, and at the time this Final EIR for the proposed Area Plan was prepared, the EIR for the proposed Castaic High School project had not been released. Therefore, the commenter is speculating as to how many vehicle trips, if any, would access the proposed Castaic High School from the south via Sloan Canyon Road.

Response 6

The commenter states that a 28-foot-wide local street would be unsafe as an access route for the proposed Castaic High School because the width limitations would eliminate the ability to provide bike lanes for students. The commenter states that maintaining the Limited Secondary Highway designation would ensure that there is adequate space for turn lanes for high school students and residents with horse trailers. The commenter states that if Sloan Canyon Road were downgraded to a local street, the inadequate width and inability to add a turn lane will increase localized pollution hot spots and will contribute to greenhouse gas emissions.

Please see **Response 5**, above, and **Letter No. D79, Responses 4, 6**, and **7**.

Response 7

The commenter states that the Final EIR cites *State CEQA Guidelines* Section 15125(a) to support the claim that the County need not consider traffic generated by the proposed Castaic High School when proposing to remove the Limited Secondary Highway designation for Sloan Canyon Road. The commenter states that CEQA Guidelines Section 15125(a) deals with the baseline environment that the County has the discretion to select a differing baseline if it would provide a more accurate assessment of the impacts of removing the Limited Secondary Highway designation. The commenter states that the proposed Castaic High School should be considered as a reasonably foreseeable and cumulatively considerable project and that the County should not ignore the high likelihood that the proposed Castaic High School will use Sloan Canyon Road for access.

Please see **Response 2 and Response 5** above. The County believes that an appropriate baseline environment was selected in light of the fact that comments related to the proposed Castaic High School project remain speculative, including comments related to use of Sloan Canyon Road for public access, and in light of the fact that the EIR for the proposed Area Plan is a programmatic document that does not address project specific issues. Revised Draft EIR Section 1.0, Introduction, discusses the level of detail necessary for a Program EIR as follows:

> "This EIR can be classified as a "program EIR." A program EIR may be prepared on a series of actions that can be characterized as one large project and are related either geographically; as logical parts in the chain of contemplated actions; in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways. The program EIR enables an agency to examine the overall effects of the proposed course of action and to take steps to avoid unnecessary adverse environmental effects. According to Section 15168 of the *State CEQA Guidelines*, the program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.
>
> This program EIR evaluates the broad-scale impacts of the County's proposed Area Plan. The Area Plan will be a component of the County's General Plan. The Area Plan EIR, addressing the potential impacts of the County's goals, objectives, and policies for the unincorporated portions of the Valley can be thought of as a "first tier" document. It evaluates the large-scale impacts on the environment that can be expected to result from the adoption of the Area Plan, but does not necessarily address the site-specific impacts that each of the individual development projects that will follow and be implemented the Area Plan may have. CEQA requires each of those subsequent development projects to be evaluated for their particular site-specific impacts. These site-specific analyses are

> typically encompassed in second-tier documents, such as project EIRs, focused EIRs, and mitigated negative declarations on individual development projects subject to the Area Plan, which typically evaluate the impacts of a single activity undertaken to implement the overall plan. The program EIR can be incorporated by reference into subsequent documents to focus on new or site-specific impacts."

(Revised Draft EIR page 1.0-7)

Response 8

The commenter states that the community overwhelmingly supports maintaining the Limited Secondary Highway designation on all of Sloan Canyon Road, as demonstrated by the commenter's July 11, 2011 letter. The commenter states that the Castaic Area Town Council voted on September 21, 2011 to support a request to the County that the Limited Secondary Highway designation be maintained and that the William S. Hart Union High School District and the developer for the proposed Castaic High School project have also expressed their support for maintaining the Limited Secondary Highway designation on all of Sloan Canyon Road.

The comment raises political issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 9

The commenter summarizes the preceding comments. No further response is required.

Attachment 3 – Letter from Tom Brohard, September 27, 2011

Response 10

The commenter states that he provided comments on the Revised Draft EIR for the proposed Area Plan. The commenter states that he has reviewed the responses to his comments in the Final EIR for the proposed Area Plan and that he noted that no changes were made to Revised Draft EIR Section 3.2, Transportation and Circulation, or to the OVOV Traffic Study in response to his comments.

The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 11

The commenter states that several responses in the Final EIR dismissed his comments on the Revised Draft EIR as expressing "the opinion of the commenter" and "The County does not concur that" The commenter states that these statements in the Final EIR are largely incorrect because nearly all of the information presented in his comments was obtained from the Revised Draft EIR and other documents he reviewed.

The comment does not identify any specific statements in the Final EIR that are incorrect. Therefore, a specific response cannot be provided nor is required. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan.

Response 12

The commenter states that responses in the Final EIR contradict the OVOV Traffic Study capacity of a local street of 2,000 vehicles per day.

The comment misinterprets the OVOV Traffic Study. The OVOV Traffic Study states the following: "Traffic carrying capacities of 10,000 vehicles per day are physically possible, but a maximum capacity of approximately 2,000 vehicles per day **is targeted** in order to provide an environment consistent with the adjoining residential uses" (emphasis added). The OVOV Traffic Study does not state that the maximum capacity of a local street is 2,000 vehicles per day, just that such a capacity is targeted. No further response is required.

The commenter further states that if the traffic capacity of a local street was actually 9,000 vehicles per day as claimed in the Final EIR, then there are at least six other Limited Secondary Highways that would also be degraded to local streets as part of the proposed Highway Plan.

The OVOV Traffic Study and the proposed Area Plan's Circulation Element do not state that the number of vehicles per day is the sole determinant of a roadway's classification in the proposed Highway Plan. No further response is required.

The commenter further states that traffic volume forecasts from the former traffic model that were used to support the current Highway Plan were not provided or compared as requested in this comments.

The OVOV Traffic Study and this EIR evaluated the buildout of the land uses in the proposed Area Plan and the City of Santa Clarita's proposed General Plan, which were both developed through the joint OVOV planning effort. Any prior traffic analysis would have evaluated the buildout of the land uses in the currently adopted Area Plan and the City of Santa Clarita's currently adopted General Plan and

would therefore be irrelevant to the proposed Area Plan that is evaluated in this EIR. No further response is required.

Response 13

The commenter states that his comments regarding the proposed Castaic High School were taken directly from the draft traffic study for the proposed Castaic High School and do not reflect his professional opinions or include speculation.

The comment is directed to the proposed Castaic High School project, not the EIR for the proposed Area Plan. At the time this Final EIR for the proposed Area Plan was prepared, the EIR for the proposed Castaic High School project had not been released. Additionally, the revised Notice of Preparation (NOP) issued for the project on October 6, 2011 identified two options for public access to the proposed Castaic High School, and only one option provides for public access from the south via Sloan Canyon Road beginning at Hillcrest Parkway. The revised NOP states that both options will be evaluated in the EIR for the proposed Castaic High School project. Consequently, there will be revisions to the June 2010 traffic study prepared for such project, which renders the traffic study referenced by the commenter as outdated. Therefore, the commenter is speculating as to the potential impacts of the proposed Castaic High School project and as to whether the proposed Castaic High School will be approved and constructed. No further response is required.

Response 14

The commenter states that the capacity of a local street is critically important to the deletion of the Limited Secondary Highway designation and the reversion of Sloan Canyon Road and other roadways to local streets. The commenter states that in a previous comment he indicated that a capacity of a local street in 2,500 vehicles per day. The commenter then cites from the OVOV Traffic Study.

The comment restates information in the OVOV Traffic Study and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 15

The commenter states that a response in the Final EIR stated that a local street can accommodate up to 9,000 vehicles per day. The commenter states that this response is incorrect and directly contradicts the OVOV Traffic Study.

The comment misinterprets the OVOV Traffic Study. The OVOV Traffic Study states the following: "Traffic carrying capacities of 10,000 vehicles per day are physically possible, but a maximum capacity of approximately 2,000 vehicles per day **is targeted** in order to provide an environment consistent with the adjoining residential uses" (emphasis added). The OVOV Traffic Study does not state that the maximum capacity of a local street is 2,000 vehicles per day, just that such a capacity is targeted. No further response is required. See also **Response 12** above.

Response 16

The commenter states that the Final EIR must be revised to properly identify the maximum capacity of a local street as 2,000 vehicles per day, the acceptable amount of traffic as defined in the OVOV Traffic Study.

See **Response 15** above.

Response 17

The commenter states that the definition of an acceptable amount of traffic on a local street depends on many factors. The commenter states that while two-lane local streets are physically capable of carrying more than 2,000 vehicles per day, higher traffic volumes cause excessive delays for vehicles backing out of driveways, do not provide a pleasant pedestrian experience, and would not represent a "livable" street. The commenter states that from his experience, a local residential street limited to 28 feet in width should not be required to carry any more than 2,000 vehicles per day.

The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 18

The commenter states that the OVOV Traffic Study lists a number of roadways that will be reclassified as Limited Secondary Highways with the proposed Highway Plan. The commenter then lists the daily traffic volume forecasts for six roadways, as provided in the OVOV Traffic Study.

The comment restates information in the OVOV Traffic Study and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 19

The commenter states that the lowest traffic volume forecast for the six roadways listed above is 4,000 vehicles and that it appears that the OVOV Traffic Study daily traffic volumes threshold for a local street was applied. The commenter states that if the Final EIR capacity of "up to 9,000 vehicles per day" threshold had been applied, then the six roadways should be dropped from the proposed Highway Plan as Limited Secondary Highways. The commenter states that since these six roadways remain as Limited Secondary Highways, then Sloan Canyon Road should also remain as a Limited Secondary Highway.

The OVOV Traffic Study, the Final EIR, and the proposed Area Plan's Circulation Element do not provide a "daily traffic volume threshold" for local streets, nor do they state that the number of vehicles per day is the sole determinant of a roadway's classification in the proposed Highway Plan. No further response is required.

Response 20

The commenter states that the Final EIR also notes that local streets typically include numerous driveways to provide access, whereas a Limited Secondary Highway best suits its goal of providing mobility if there are limited access points. The commenter states that Sloan Canyon Road would fit this requirement of a Limited Secondary Highway as there are only eight driveways in the area between Hillcrest Parkway and Mandolin Canyon Road. The commenter states that this limited number of driveway access points would not conflict with the mobility goal of a Limited Secondary Highway.

The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 21

The commenter states that previous responses in the Final EIR did not fully address his previous comments. For example, a previous comment requested traffic volumes for Sloan Canyon Road from west of Quail Valley Road to Hillcrest Parkway for the current Highway Plan be compared with those used for the proposed Highway Plan. The commenter states that the response failed to fully address this comment but that the response did forecast 2,000 vehicles per day for Sloan Canyon Road but did not specify the location where this will occur.

The OVOV Traffic Study and this EIR evaluated the buildout of the land uses in the County's proposed Area Plan and the City of Santa Clarita's proposed General Plan, which were both developed through the joint OVOV planning effort. The projected traffic volumes for Sloan Canyon Road from west of Quail Valley Road to Hillcrest Parkway are derived from the buildout of these land uses. Therefore, traffic

volumes for the current Highway Plan and the proposed Highway Plan would be the same, as the Highway Plan does not change the buildout scenario. In his previous comment, the commenter requested traffic volumes for Sloan Canyon Road from west of Quail Valley Road to Hillcrest Parkway, and the response provided this information; the 2,000 vehicles per day would occur on Sloan Canyon Road from west of Quail Valley Road to Hillcrest Parkway. No further response is required.

Response 22

The commenter requests a comparison of traffic volume forecasts available from the prior traffic model that support the current Highway Plan.

The OVOV Traffic Study and this EIR evaluated the buildout of the land uses in the proposed Area Plan and the City of Santa Clarita's proposed General Plan, which were both developed through the joint OVOV planning effort. Any prior traffic analysis would have evaluated the buildout of the land uses in the currently adopted Area Plan and the City of Santa Clarita's previously adopted General Plan and would therefore be irrelevant to the proposed Area Plan that is evaluated in this EIR. No further response is required.

Response 23

The commenter states that there is no significant difference between the sums of the trips forecast with buildout of the current City/County land uses compared to those forecast under the proposed Area Plan and the City's proposed General Plan. The commenter states that a decrease of 2,888 daily trips between these scenarios should not decrease the Sloan Canyon Road traffic volume forecasts enough to justify a change in classification from a Limited Secondary Highway to a local street.

The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 24

The commenter states that the William S. Hart Union High School District is preparing a Draft EIR for the proposed Castaic High School and that it is his understanding that the Draft EIR for the proposed Castaic High School will evaluate two access roadways, one to the east and one to the south of the school.

The comment is oriented towards a specific proposed project, not the proposed Area Plan or the EIR. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 25

The commenter states that the proposed Castaic High School site is located on the boundary of Traffic Analysis Zones 1, 14, and 15, that the high school land use is not located in any of these Traffic Analysis Zones, and that the daily trip total sum does not include any high school trips.

Please see **Response 7** above.

Response 26

The commenter states that, in preparing his previous comments on the Draft EIR, he reviewed the June 1, 2010 Draft Traffic Study for the proposed High School site and that his previous comments provided information from that study. The commenter states that responses indicating that his comments "only express the opinions of the commenter" and that "the commenter is speculating as to significant impacts" are incorrect.

The comment is directed to the proposed Castaic High School project, not the EIR for the proposed Area Plan. At the time this Final EIR for the proposed Area Plan was prepared, the EIR for the proposed Castaic High School project had not been released. Additionally, the revised Notice of Preparation (NOP) issued for the project on October 6, 2011 identified two options for public access to the proposed Castaic High School, and only one option provides for public access from the south via Sloan Canyon Road beginning at Hillcrest Parkway. The revised NOP states that both options will be evaluated in the EIR for the proposed Castaic High School project. Consequently, there will be revisions to the June 2010 traffic study prepared for such project, which renders the traffic study referenced by the commenter as outdated. Therefore, it is correct that the commenter is speculating as to the potential impacts of the proposed Castaic High School project and as to whether the proposed Castaic High School will be approved and constructed. No further response is required.

Response 27

The commenter states that the draft traffic study for the proposed Castaic High School project states that a high school with an enrollment of 2,600 students will generate 7,400 daily trips, including 2,500 trips in just the AM peak hour alone, higher than the 2,000-vehicle capacity over an entire day for a local street. The commenter states that, with a single access to and from the east, the draft study forecasts 46 percent of the trips on I-5 and 27 percent on The Old Road.

The comment is directed to the proposed Castaic High School project, not the EIR for the proposed Area Plan. At the time this Final EIR for the proposed Area Plan was prepared, the EIR for the proposed Castaic High School project had not been released. Additionally, the revised Notice of Preparation (NOP) issued for the project on October 6, 2011 identified two options for public access to the proposed Castaic High School, and only one option provides for public access from the south via Sloan Canyon Road

beginning at Hillcrest Parkway. The revised NOP states that both options will be evaluated in the EIR for the proposed Castaic High School project. Consequently, there will be revisions to the June 2010 traffic study prepared for such project, which renders the traffic study referenced by the commenter as outdated. Therefore, the commenter is speculating as to the potential impacts of the proposed Castaic High School project and as to whether the proposed Castaic High School will be approved and constructed. Please see **Response 15** above regarding the maximum capacity of a local street. No further response is required.

Response 28

The commenter states that the draft traffic study for the proposed Castaic High School project concludes that significant traffic impacts will occur at five intersections and that these impacts would not be fully mitigated based on Los Angeles County criteria. The commenter states that either four lanes would be needed on Sloan Canyon Road east of the proposed Castaic High School or that traffic demand measurements would be required.

The comment is directed to the proposed Castaic High School project, not the EIR for the proposed Area Plan. At the time this Final EIR for the proposed Area Plan was prepared, the EIR for the proposed Castaic High School project had not been released. Additionally, the revised Notice of Preparation (NOP) issued for the project on October 6, 2011 identified two options for public access to the proposed Castaic High School, and only one option provides for public access from the south via Sloan Canyon Road beginning at Hillcrest Parkway. The revised NOP states that both options will be evaluated in the EIR for the proposed Castaic High School project. Consequently, there will be revisions to the June 2010 traffic study prepared for such project, which renders the traffic study referenced by the commenter as outdated. Therefore, the commenter is speculating as to the potential impacts of the proposed Castaic High School project and as to whether the proposed Castaic High School will be approved and constructed. No further response is required.

Response 29

The commenter states that the draft traffic study for the proposed Castaic High School did not evaluate direct vehicle access to and from the south. The commenter states that, in his professional opinion, many of the vehicle trips would reroute to a direct north-south roadway such as Sloan Canyon Road since 5,400 daily high school trips are oriented towards the south. The commenter states that the daily traffic using this segment of Sloan Canyon Road would be about 6,000 vehicles, significantly higher than the 2,000 vehicle per day capacity of a local street. The commenter states that once the proposed Castaic High School is constructed, it will spur residential development in the surrounding area.

The comment is directed to the proposed Castaic High School project, not the EIR for the proposed Area Plan. At the time this Final EIR for the proposed Area Plan was prepared, the EIR for the proposed Castaic High School project had not been released. Additionally, the revised Notice of Preparation (NOP) issued for the project on October 6, 2011 identified two options for public access to the proposed Castaic High School, and only one option provides for public access from the south via Sloan Canyon Road beginning at Hillcrest Parkway. The revised NOP states that both options will be evaluated in the EIR for the proposed Castaic High School project. Consequently, there will be revisions to the June 2010 traffic study prepared for such project, which renders the traffic study referenced by the commenter as outdated. Therefore, the commenter is speculating as to the potential impacts of the proposed Castaic High School project and as to whether the proposed Castaic High School will be approved and constructed. Please see **Response 15** above regarding the maximum capacity of a local street. No further response is required.

Response 30

The commenter states that concerns regarding access to the proposed Castaic High School with a single vehicle access to the east were discussed at several different meetings during the last quarter of 2010. The commenter then quotes from an e-mail dated October 7, 2010.

The comment is directed to the proposed Castaic High School project, not the EIR for the proposed Area Plan. At the time this Final EIR for the proposed Area Plan was prepared, the EIR for the proposed Castaic High School project had not been released. Therefore, the commenter is speculating as to the potential impacts of the proposed Castaic High School project and as to whether the proposed Castaic High School will be approved and constructed. No further response is required.

Response 31

The commenter states that a local street is limited to 28 feet in width in the Castaic area, and as indicated in the OVOV Traffic Study, this width accommodates only two vehicle lanes. The commenter states that a Limited Secondary Highway designation typically provides either two or four vehicle lanes separated by a two-way left turn lane as discussed in October 2010 with County staff.

The comment provides factual background information only and does not raise an environmental issue within the meaning of CEQA. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 32

The commenter states that by providing a north-south access for the proposed Castaic High School, in addition to the east-west access, Sloan Canyon Road in both directions could provide on traffic lane in each direction separated by a two-way left turn lane. The commenter states that the area outside each through traffic lane could also be striped as a bicycle lane in accordance with the recommendation in the draft traffic study for the proposed Castaic High School project.

The comment is directed to the proposed Castaic High School project, not the EIR for the proposed Area Plan. At the time this Final EIR for the proposed Area Plan was prepared, the EIR for the proposed Castaic High School project had not been released. Therefore, the commenter is speculating as to the potential impacts of the proposed Castaic High School project and as to whether the proposed Castaic High School will be approved and constructed. No further response is required.

Response 33

The commenter states that contradictions and inconsistencies within the EIR for the proposed Area Plan must be corrected.

The commenter has not identified any contradictions or inconsistencies that must be corrected.
The commenter further states that the proposed Castaic High School will significantly increase traffic volumes on Sloan Canyon Road and that the Draft EIR and revised traffic study for the proposed Castaic High School project are scheduled for release in the next three months. The commenter states that it is premature for the County to remove the Limited Secondary Highway designation from a portion of Sloan Canyon Road at this time. The commenter states that removal of the Limited Secondary Highway designation from this portion will sever community connectivity and defies transportation planning principles.

At the time this Final EIR for the proposed Area Plan was prepared, the EIR for the proposed Castaic High School project had not been released. Therefore, the commenter is speculating as to the potential impacts of the proposed Castaic High School project and as to whether the proposed Castaic High School will be approved and constructed. The remainder of the comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 34

The comment is noted. No further response is required given that the comment does not address or question the content of the EIR.

Letter No. G7

ROMERO CYN, LLC

VIA FIRST CLASS MAIL

September 21, 2011 20330.443

The Honorable Michael D. Antonovich
L.A. County Board of Supervisors
Kenneth Hahn Hall of Administration
500 West Temple Street, room 869
Los Angeles, CA 90012

Dear Supervisor Antonovich, Mike,

On behalf of Romero Cyn LLC, I convey strong support in preserving the portion of Sloan Canyon Road located between Hillcrest Parkway and Mandolin Canyon Road as a *limited secondary highway designation.* 1

Thank you for your consideration.

Very truly yours,

Larry Rasmussen 9/21/11

Larry Rasmussen

Cc: Amy Minteer, Chatten-Brown & Carstens
Tom Cole, William S. Hart High School District
Castaic Area Town Council

21070 Centre Pointe Parkway • Santa Clarita,CA 91350 • PH: (661) 259-5606 • FAX:(661) 259-4065

Letter No. G7 Romero Canyon, LLC, September 21, 2011

Response 1

The commenter states that, on behalf of Romero Canyon LLC, he supports preserving the portion of Sloan Canyon Road between Hillcrest Parkway and Mandolin Canyon Road as a Limited Secondary Highway designation.

The comment raises issues related to the proposed Area Plan that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and will be made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Letter No. G8

9/28/2011

To the Los Angeles Count y Department of Regional Planning:

My name is Bill Davidheiser. I am a member of the Lechler Ranch LLC and have an interest in the ranch in Oak Canyon. I oppose the SEA designation for our ranch. I have not been sent nor have seen any supporting data for this designation.

The final environmental impact report should recognize the effect of a wildfire that burned our entire ranch several years ago and drastically changed the environment. As such, I don't think the ranch is suitable for an SEA district. Future suitability as an SEA is a matter of speculation and not fact.

What is a fact is that in the last few years we have lost tens of thousands of dollars in property value due to the economy. The SEA designation would greatly add to that loss for no reason other than speculative based zoning.

Beyond being fundamentally unfair and unfounded, I think provisions for dedicating a conversation easement to the County without compensation are illegal. It would deprive us of the right to sell valuable land if we need to raise money. 1

Our property has been zoned agricultural and would be designated RL-20 under the proposed plan amendment and zone change. However, it appears that arbitrary decisions by the SEA board can overrule use allowed under rural or agricultural zoning. This board could potentially consist of environmental extremists who are opposed to virtually any of income producing use.

I would like to read something my mother, Maureen Davidheiser, wrote:

"One of the reasons given for the SEA proposal is protection of red legged frogs. I thought that was what the national forest is for. Our ranch is close to the Los Padres National Forest where frogs can hop around in a vast pristine wilderness owned by the public without further limiting the rights of property owners. Existing regulation ensures adequate open space on our property without adding to the expanding bureaucracy and over regulation that is causing a political backlash in this country."

Thank you for your consideration.

Bill Davidheiser
27 Evening Light Lane
Aliso Viejo, CA 92656

Letter No. G8 Bill Davidheiser, September 21, 2011

Response 1

The commenter expresses his opposition to the proposed Santa Felicia Significant Ecological Area (SEA) designation and reiterates comments made in **Letter No. D63** and **Letter No. D86**.

Please see responses to **Letter No. D63** and **Letter No. D86**.

Letter No. G9

SCOPE
Santa Clarita Organization for Planning and the Environment
TO PROMOTE, PROTECT AND PRESERVE THE ENVIRONMENT, ECOLOGY
AND QUALITY OF LIFE IN THE SANTA CLARITA VALLEY
POST OFFICE BOX 1182, SANTA CLARITA, CA 91386

9-25-11

Regional Planning Commission
Los Angeles County Dept of Regional Planning
300 W. Temple St.
Los Angeles, CA 90012

Re: Recirculated Draft Environmental Impact Report – One Valley One Vision General Plan Update and EIR

Honorable Commissioners:

In the year since this project last came before you, two new issues have risen that should be addressed on the broad planning scale of a general plan update. While we are bringing these issues to your now, your EIR consultant and staff have been aware of them for a substantial period of time and should have addressed them. We urge you to please allow yourselves ample time to review the details of our concerns and providing a means of addressing them before granting final approval on this matter. 1

Spread of Ammonium Perchlorate Pollution to Well V201 and Subsequent Closure of that Well

Ammonium perchlorate is a chemical that interferes with iodine uptake by the thyroid gland, thus producing hypothyroidism. This condition especially affects sensitive populations including fetuses, infants, small children and those with impaired immune systems. It can cause retardation in infants and children. (For the potential result of such health impacts, please see "Perchlorate and Children's Health", attached as Exhibit 1). While State officials recently urged an even lower Maximum Contaminant Level (MCL) for ammonium perchlorate and the Environmental Working Group urges a 0 tolerance level for children, the public in this Valley was not even informed of the closure of yet another drinking water well due to perchlorate pollution. 2

On June 9th, 2011, the Newhall Signal ran a news story regarding the spread of the pollution plume to Valencia Saugus water well 201. (Press release attached, Exh. 2). This is the seventh well in Santa Clarita closed due to ammonium perchlorate pollution.

Valencia Water Co. is a private water company and wholly owned subsidiary of Newhall Land and Farming, now re-organized after their recent bankruptcy as Newhall Land and Development Corp. They are a major out of state developer in the Santa Clarita Valley, headquartered in Florida. Newhall is fully aware of this issue since they are the owners and directly responsible for the management of this water company.

Many large projects and substantial investments depend on an adequate water supply. The residents of the Santa Clarita Valley depend on regulatory agencies such as yourselves to ensure that the supply remains adequate and clean for existing residents. Therefore, we insist that your Commission take a close look at this matter and investigate why you did not receive timely and accurate information about this water supply well pollution.

Interestingly, the press release states that this well, owned and operated by Valencia Water Company, wholly owned subsidiary of Newhall Land, has been closed since August 2010. However, no environmental documents disclosed or discussed this information, including the EIR/EIS for the Newhall Ranch River Alteration Permit, the County OVOV General Plan Update, nor the Urban Water Management Plan, until June 2011 although the information was known almost a year earlier. Information produced for the Consumer Water Confidence Report, required by the US EPA also appears to be inaccurate as the level of ammonium perchlorate pollution was understated. ***Failure to disclose such important information in the DEIR and to the public constitutes a serious deficiency in the DEIR document and in the planning process.*** Disclosure and discussion must be in the body of the document so that it is clear and available to anyone that may have questions about the water supply.

Since this well has been closed for almost a year, during which time the comment period on this General Plan update and EIR was in process, there seems to have been a deliberate effort to withhold this information from the public and the decision-makers. This is revealed in a series of emails produced for public record requests. (Attached as exhibit 3) We strongly protest the applicant's lack of transparency on this matter. 2

We note that a previous Valencia well closure for ammonium perchlorate pollution (Well Q2, also owned by Valencia Water Co., and Newhall Land) brought the approval process to a stop while agencies reviewed the movement of the pollution plume and devised a treatment system for that water supply well.

This lack of transparency is particularly disturbing since the water agencies seem to have a record of keeping information from the public. During the CLERLA litigation CLWA sought and obtained an order sealing the Court record so that information, depositions and expert testimony that is normally publicly available to anyone would be kept secret, even from elected water agency members. (Protective order attached, Exh. 4) Since this Court matter is now settled, the documents should now be unsealed so that the public has full access to this information. We urge the County to request these documents so that they can be fully apprised of all aspects of the Santa Clarita Valley's groundwater contamination.

As the County undoubtedly knows, this is an extremely serious situation since it means that the pollution plume has moved beyond the "pump and treat" capture wells and is moving at a much faster rate of travel than previously estimated would occur. (See attached Maps for location of various water supply and monitoring wells, Exhibit 5.[1]) In 2004, the environmental community, including SCOPE, expressed grave concern over the possibility of such a scenario, but the water agencies and others disregarded those concerns.

[1] Eastern Santa Clara River Subbasin Ground Water Study, Conceptual Hydrology Technical Memorandum prepared for the USACE, 2004

If pumping from this well continues, such pumping may draw the pollution plume further in a westerly direction, thus spreading the contamination into an even greater portion of the Saugus aquifer and possibly making that ground water source unusable. (See news Articles, Exhibit 6 and Exhibit 7.)

In fact, this was already a concern put forward by Whittaker during the CERCLA litigation filed by Castaic Lake Water Agency[2], Exhibit 8. According to this verified legal filing, the Water Agencies were only able to fend off the accusation that they spread the plume as asserted by Whittaker because they took several actions to protect the public including items #3 and #4:

3. "notified local government bodies of their decision to remove wells from service" and
4. "participated in numerous meetings about the Santa Clarita Valley's perchlorate problem with state agencies and citizens groups[3]"

These two precautions were ignored in regards to the notification of contamination and subsequent closure and of Well V201. Although contamination in this well consistently increased over the subsequent months (see exhibit 9A and B, ammonium perchlorate levels in well 201) form its first discovery in August, the Agencies did not report this fact to the public.

The now likely possibility of the spread of the pollution plume has major implications for water supply in the Santa Clarita Valley. The Saugus Aquifer is one of the two major sources of ground water that supplies our community. It is the source that has been relied upon in case of a drought where surface flow and imported State Water Project Water may become severely curtailed or not available at all. (Please see water supply information provided in the EIR.) SCOPE therefore believes it is imperative that the County delay approval of the Landmark Village project, since water supply for that project may be needed to supply other already approved Newhall Land projects if the contamination plume cannot be contained. We believe the approval and the EIR must now be re-written to address the previous areas of concern, and additionally: 2

1. Water supply from well 201 should be permanently removed as an available supply in the EIR and approval delayed until new modeling that indicates continued pumping would not spread the plume is completed. Pump and Treat scenarios are not acceptable if they will merely spread the plume and pollute more wells. (It should be noted that the California Dept. of Health Services recognized this potential problem early on and has advised the agencies that they need to provide new modeling. See news article previously cited, Exh.6 and correspondence to the agency, Attachment 10)
1. Well Q2 should be re-tested on a monthly basis to make sure that pollution is not occurring there again.
2. All wells in the plume area should be tested for TCE and PCE.
3. All results should be included in the EIR.
4. The EIR should re-evaluate the adequacy of the water supply, especially for existing drought scenarios and for future development.

[2] Order Granting in Part and Denying in Part Plaintiffs Motion for Summary Judgement, July 2003, CLWA v Whittiker, page 43 Decision attached
[3] *Ibid.* Page 46

5. The EIR should provide an automatic re-evaluation of water supply if/when further well closures occur as a mitigation measure with regulatory oversight to ensure adherence.

In 2004 the Appellate Court[4] (Exh 11) found for the Friends of the Santa Clara River and the Sierra Club and set aside CLWA's 2000 Urban Water Management Plan for failure to provide a timeline indicating when treatment facilities for water polluted by ammonium perchlorate would be available.

That Decision included the following testimony from Department of Toxic Substances:

> *"The concentration of perchlorate in the production wells probably represents the leading edge of a much larger plume of higher concentrations of perchlorate. The total area of the Saugus Aquifer contaminated by the perchlorate has yet to be fully defined. We do know that the contaminant has migrated a minimum of 2 miles through the subsurface and over land to contaminate the vital pumping areas. (Exhibit 23.) Since the groundwater gradients in the contaminated area in the Saugus are towards the west, the contaminant is likely to continue to migrate further west and northwest. Time of travel from the soil contamination sites to the deep Saugus wells implies that the contaminant has been moving between 1 to 3 feet per day within the Saugus Aquifer. This implies that the perchlorate could impact [VWC's] well No. 201 as early as next year. Further down gradient is [VWC's] well No. 160."* 2
>
> *Also, Richard D. McJunkin, a senior hydrogeologist with the California Department of Toxic Substances Control, testified that "increased pumping of water from wells near the contamination site will accelerate the flow of the perchlorate contamination."*[5]

We note that Valencia Water Co. now has two additional down gradient wells, V205 and V206 that are major drinking water supply producers, in addition to well 160. Continued pumping from these wells may just result in their eventual closure. That is one of the most important reasons that additional modeling and evaluation are needed.

In light of the 2004 precedent setting legal decision involving the Agencies' failure to adequately disclose the ammonium perchlorate pollution problem, we encourage the County to act in good faith, delay approval of the current application and address these serious issues.

Failure to Address Compliance with Chloride Total Maximum Daily Load (TMDL)

Levels of chlorides (salt) released to the Santa Clara River through effluent from the Sanitation Districts have been out of compliance with the Clean Water Act for many years. This has resulted in increasing chloride levels in the instream flows of the river and downstream ground water basins. While it is not yet at levels that affect humans, it is affecting downstream beneficial 3

[4] *Friends of the Santa Clara River v. Castaic Lake Water Agency* (2004) 123 Cal.App.4th
[5] *Ibid.* Opinion at page 10

uses of the river, especially agriculture and may be affecting endangered species through impacts to habitat and interruption of the reproductive cycle.

It is a well known historical fact that when a conquering nation wanted to destroy its conquered foe, they salted the earth so that crops would no longer grow.

Related Newhall Ranch Specific Plan Issues

It has come to our attention through proceedings at the County of Los Angeles Board Of Supervisors[6] and the L.A. CO Regional Planning Department for the Mission Village tract of the Newhall Ranch project (the 2nd phase of Newhall Ranch adjacent to the Santa Clara River, 4200 units, hearing set for later this month) that the Newhall Ranch developer no longer intends to initially build the Newhall Ranch Water Treatment Plant. (Please sees proceedings especially from the May18th hearing available on line at the Los Angeles County Regional Planning Department website.) Rather, effluent from the first 6000 units will now be re-routed through the existing non-compliant Valencia Treatment Plant. This scenario was not contemplated or evaluated in the Newhall Ranch Specific Plan, nor the certified EIR for that project. Neither does the backbone sewer maps nor the recycled water distribution lines in the Specific Plan show such an alternative. None of the California Environmental Quality Act (CEQA) documents certified for the formation of the Newhall Ranch Sanitation District discloses or evaluates such a scenario.

Instead the Specific Plan addressed impacts anticipated for the Newhall Ranch Project and the Water Reclamation Plant (WRP) water quality impacts with the following applicable mitigation measures:

3

Specific Plan Water Quality Impacts [7]

WRP Water Quality Impacts - The WRP's discharges to the Santa Clara River would comply with the Water Quality Control (Basin Plan) for the Los Angeles Region (approved February 23, 1995). This compliance ensures that the WRP also would meet state and federal requirements for water quality.

- SP-5.0-52: Requires creation of a new County sanitation district to administer operation of the WRP.
- SP-5.0-53: Requires satisfaction of Title 22's standards, which regulate the use of reclaimed water.
- SP-5.0-54: Requires the WRP to satisfy the State Regional Water Quality Control Board, Los Angeles Region, discharge limits for reclaimed water and water used.

Less than Significant to irrigate landscaped areas ***ONLY DUE TO OBTAINING AN NDPES PERMIT THAT COMPLIES WITH THE CHLORIDE TMDL*** .

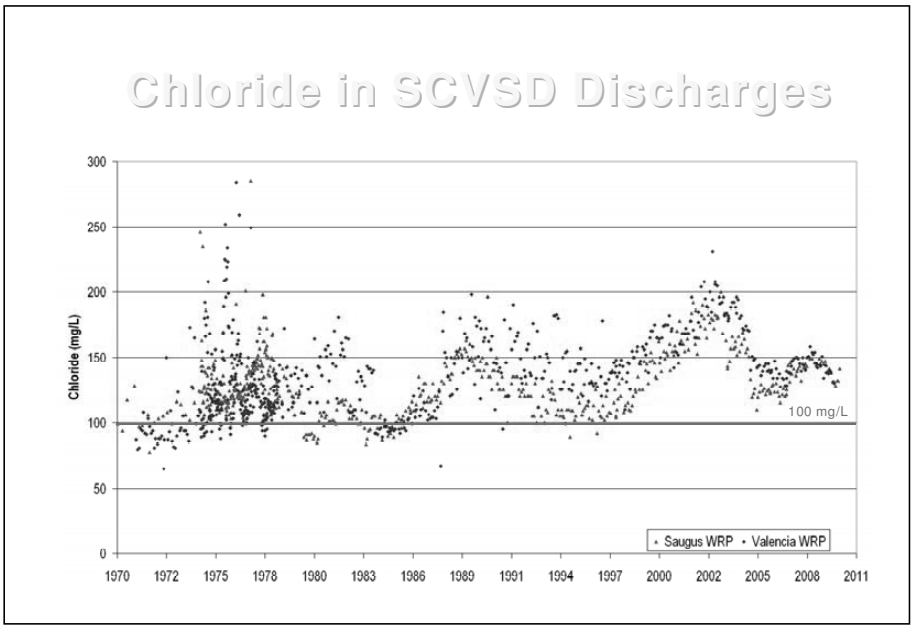
- SP-5.0-55: Requires the WRP to obtain a National Pollutant Discharge Elimination System permit.
- SP-5.0-56: Requires the sanitary sewer system to be designed and constructed for maintenance in accordance with applicable manuals, criteria, and requirements.

[6] Board of Supervisors Hearing held Jan 18th 2011, agenda item 25, staff report attached as exhibit 6, see paragraph entitled "**IMPACT ON CURRENT SERVICES (OR PROJECTS)**"

[7] Newhall Ranch Revised Draft EIR (March 1999); Newhall Ranch Revised Additional Analysis (May 2003)

Further, at the Jan 18th Board of Supervisors meeting, Item 25 (staff report available for reference on the County website, SCOPE comment letter attached Exh.12) the Sanitation Districts first informed the Board and the public that a contract existed for the first 6000 units to use the Valencia Sanitation District. This contract was not evaluated in the Specific Plan or any of the subsequent CEQA documents. Neither is the impact of this change analyzed in the OVOV EIR. Even the contract itself was also made without CEQA analysis.

The reason that this change will have a major on water quality in the Santa Clarita Valley is because the Newhall Ranch Treatment Facility was permitted to comply with the Clean Water Act Santa Clara River chloride Total Maximum Daily Load (TMDL) of 100mgl. The Valencia Treatment Plant does not comply with this TMDL. Neither does the Saugus treatment plant as indicated by the chart below supplied by the Sanitation District at a public hearing held in 2010:



3

Based on the following chronology timelines provided to the community at public hearings, it is obvious that that the Sanitation Districts cannot meet the required timelines of the compromise Plan

1989 **Permit limits set at 100 mg/L**

1997 – 2000 Sanitation District efforts to relax limit to 143 mg/L with drought relief failed.

2002 **RB adopts TMDL with permit limits at 100 mg/L ($500M project) City and San. Districts oppose and San. District files appeal to State Board**

2004 **RB readopts TMDL with 100 mg/L but extends the compliance schedule to 2018 and allows special studies**

2006 **Ag studies identify 100-117 mg/L protects crops**
Regional Board shortens compliance schedule to May 2016.
City and Sanitation District oppose to State Board

2007 **State Board affirms 2006 decision.**
City and District oppose and District pursues alternatives
2008 **Regional Board approves higher limits**
contingent upon Alternative Compliance Plan ($250M Project) by May 2015
July 27, 2010 Sanitation Board members refuse to approve funding for the Alternative Compliance Plan even after Sanitation staff explain that they cannot meet the schedule without approved funding.

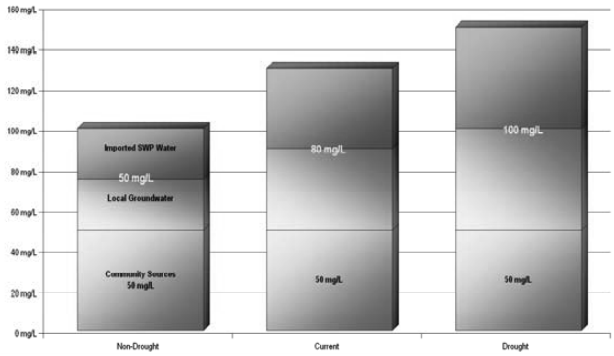
A news article in the Newhall Signal dated June 8th 2011 stated that the Los Angeles Regional Water Quality Control Board has issued Notices of Violation for the Saugus and Valencia Treatment plants for failure to address the Chloride TMDL. (Notices of Violation attached, Exhibit 13 A and B).

The OVOV EIR should disclose these Notices and discuss how the applicant plans to achieve compliance with the Clean Water Act for their sewage releases for the first 6000 units of the Newhall Ranch project.

In 2008, a large group of stakeholders developed a compromise "Alternative Water Resources Management Plan (AWRMP) and the water agencies and Sanitation Districts signed a Memorandum of Understanding[8] in order to implement the Plan. Failure to comply with the compromise Plan worked out with basin stakeholders will result in the imposition of the stricter 100 ugl TMDL standard.

The Santa Clarita Sanitation Districts' failure to meet the Clean Water Act Total Maximum Daily Load (TMDL) standard for chloride of 100mg/l in the Santa Clara River is a result mainly of the sharp and continuing increase in the use of imported State Water Project (SWP) water. The following slides presented to the public by the Sanitation Districts at the 2010 hearing clearly indicated this fact. 3

Chloride Sources During
Drought & Non-Drought Conditions



[8] Memorandum of Understanding for Implementation of an Alternative Water Resources Management Plan, Oct. 2008, attached to our August 24th, 2009 DEIR/EIS comment letter

According to the Recirculated Landmark DEIR now before the County of Los Angeles, Newhall reserves the option to use the Valencia treatment plant rather than building their own Sanitation Plant as required by the Specific Plan. Without the immediate construction of the Newhall Ranch Water Reclamation Plant, approved as an RO (reverse osmosis salt removal system) facility, the high chlorides in the wells proposed to be used by this project in the chart below and the additional imported Nickels water will add to this load. Apparently now there are no plans to build this plant for the first phases of Newhall Ranch.

Water Quality Constituents of Concern

Secondary Standards:

(from EIR Appendix)

Parameter	MCL	DLR	Units	E-14	E-15	E-16	E-17
Chloride	250-500-600	NA	mg/L	75	88	89	74
	pH 6.5 - 8.5	NA	units	7.5	7.7	7.3	7.4
Specific Conductance (E.C.)	900-1600-2,200	NA	umho/cm	1240	1290	1390	1360
Sulfate	250-500-600	0.5	mg/L	340	330	340	340
Total Dissolved Solids (TDS)	500-1000-1500	NA	mg/L	900	890	950	960

3

The OVOV EIR failed to discuss this likely potential inability to comply with the Clean Water Act under the buildout scenario.

Statements by Newhall Land, Castaic Lake Water Agency and the Sanitation Districts that water from the Kern area serves to reduce the chloride concentration in imported State Water Project (SWP) water are not accurate for the following reasons:

1. no study exists to verify this hypothesis
2. CLWA water wheeled from banking projects in the Kern area through the aqueduct is only a small percentage of the total state water delivered through the east and west branch of the aqueduct. Thus, this water could not possibly reduce chloride levels in SWP water in any appreciable amount.

Newhall Ranch, and now apparently the Sanitation Districts plan to utilize abandoned oil wells to inject briney water, since no brine line is available. This is an expensive and risky proposition, since salty brine may seep into the ground water through fractured bedrock, affecting the drinking water supply. Where will the money come from for these solutions? Is this yet another

4

infrastructure need that will be foisted onto the backs of local taxpayers to support a huge up zoning?

This issue should be disclosed and discussed in the EIR. Particularly, no analysis of the capacity of sewage treatment facilities in the Santa Clarita Valley to accommodate Newhall Ranch, the existing approved but unbuilt units and the new up zoning that will enable increased population is provided in the EIR. Such an analysis should include compliance with the Clean Water Act. 4

Conclusion

SCOPE joins with other organizations and members of the community in asking that the County of Los Angeles to delay the approval of the OVOV update and the certification of the EIR until this new information is thoroughly evaluated and to devise protections for the community that can be included as mitigation.

Since the EIR consultant has been fully aware of these matters for over a year, they should have already disclosed and addressed these issues in their environmental documents. Any delay caused by the necessity to ensure clean drinking water for the residents of the Santa Clarita Valley should be placed squarely at the feet of the County, its consultant, Valencia Water Company and Newhall Land and Development Corporation due to the failure to disclose these issues. 5

Sincerely,

Lynne Plambeck
President

Attachments for the Administrative Record:

1. "Perchlorate and Children's Health – The Case for a Strong Standard for Rocket Fuel in Drinking Water", March 2005, Environment California, Research and Policy Center
2. Press release regarding closure of well 201
3. Emails obtained through a public information request
4. Protective Confidentially Order sealing Federal Contamination case record
5. Maps of well locations and monitoring well contaminants, 2004
6. Order Granting in Part and Denying in Part Plaintiffs Motion for Summary Judgement, July 2003, CLWA v Whittiker
7. Signal Article "Toxins in Well Prompt Concern"
8. Signal Article "Perchlorate Spread Worries State"
9. Increasing Ammonium Perchlorate levels in Well 201
10. Correspondence from the CA Dept of Health Services to Valencia Water Co. indicating new modeling was required.
11. Appellate Court Decision in Friends v. Castaic Lake Water Agency

12. SCOPE comment letter to the LA County Board of Supervisors Re Agenda Item 25, Jan 18th, 2011, Sanitation District disclosure of contract for use of Valencia Treatment Plant
13. Two RWQCB Notices of Violation for SCV treatment plants dated 5-27-11
14. LA County Board of Supervisors Staff Report Agenda Item 25, Jan 18th, 2011 (included by reference and available on the County's website

Exhibit 1:
Perchlorate and Children's Health

Perchlorate and Children's Health

The Case for a Strong Cleanup Standard for Rocket Fuel in Drinking Water

Travis Madsen
Sujatha Jahagirdar

ENVIRONMENT CALIFORNIA
RESEARCH & POLICY CENTER

March 2005 Edition

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For more information about Environment California and Environment California Research & Policy Center, please call (213) 251-3688 or visit our Web site at www.environmentcalifornia.org.

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Update:

Perchlorate Developments from Early 2005

In the following pages, Environment California Research & Policy Center offers a detailed case for a comprehensive cleanup of perchlorate from California's drinking water, based on the best available science. However, since the first release of this report in January 2005, several new developments have shed additional light on the extent of the perchlorate problem and the need for action.

In January, the National Academy of Sciences released a long-awaited review of the state of scientific knowledge on perchlorate. The U.S. EPA, following the recommendation of the National Academy, then issued a revised "safe level" of perchlorate intake. Finally, researchers at Texas Tech University published a first-of-its-kind study of perchlorate levels in breast milk, demonstrating widespread infant exposure to unsafe amounts of perchlorate, amounts that exceed the National Academy and EPA recommendation. In fact, the study shows that some infants are exposed to perchlorate in levels shown to harm brain development in infant rats.

Taken together, these developments highlight the need to aggressively implement a cleanup plan that will protect the health of California's children, and of children nationwide. Infants are smaller and more vulnerable than adults. Infants are also exposed to contaminants through breast milk and a variety of other sources. As a result, they need special consideration when setting drinking water standards for developmental toxins. The new information brought to light strengthens the case for protecting California's children and infants by reducing perchlorate contamination in drinking water to one part per billion (ppb) or less.

National Academy of Sciences Releases Perchlorate Review

On January 10, 2005, the National Research Council of the National Academy of Sciences (the Academy) released a report entitled *Health Implications of Perchlorate Ingestion.* The report summarizes an

The Difference Between A Drinking Water Standard and a "Safe Dose"

The Academy calculated a "safe dose," or an amount an individual could consume in a day and theoretically suffer no harm. Translating the dose into a drinking water standard requires adjustments to ensure that no one is exposed to more perchlorate than considered safe. Adjustments are made for exposure to perchlorate from additional sources including food, and for body weight and drinking water intake.

18-month review of the health risks of perchlorate exposure. The review was requested by the Department of Defense and NASA to resolve concerns voiced by perchlorate users over the scientific certainty of an earlier U.S. EPA recommended "safe level" of perchlorate intake.

Press coverage focused on the Academy's conclusion that perchlorate was not quite as hazardous as the EPA estimated earlier. However, some articles mistakenly implied that the report would lead to a weaker drinking water standard or would prevent cleanup of some contaminated areas. Actually, the Academy report supports the conclusion that California's drinking water standard for perchlorate should be set no higher than one part per billion in order to protect infants, as argued in the following pages.

The Academy calculated a "safe dose," but refrained from recommending a level for an enforceable drinking water standard (see "The Difference Between a Drinking Water Standard and a "Safe Dose"). Members of the National Academy panel made a point of emphasizing that any eventual drinking water standard should take into account the contribution of food and other sources to overall exposure.[1] The Academy panel also made it clear that a drinking water standard should take into account the body weight of the class of individuals it is meant to protect, to ensure that the most vulnerable are kept safe.[2]

In other words, the Academy recognized that agencies setting enforceable standards for perchlorate in drinking water have additional decisions to make. First, agencies must decide which population of people the standard is meant to protect. Second, agencies must take into account additional exposure sources beyond drinking water to ensure overall safety. In the case of perchlorate exposure:

> Infants are most vulnerable to harm. Infants are less able to compensate for the toxic effects of perchlorate, are at a critical stage in growth and development, and also consume more water per kilogram of body weight than an adult.
>
> Infant exposure to perchlorate from food and breast milk (via a mother's exposure to perchlorate-laced food and water) must be considered in addition to water.

In mid-February 2005 the U.S. EPA issued an updated recommendation for the maximum "safe dose" of perchlorate. Essentially, the EPA revised its earlier calculation based on the advice of the

National Academy of Sciences. Press coverage of this action almost uniformly confused the "safe dose" with a drinking water standard. The EPA has not yet issued an enforceable drinking water standard.

Perchlorate Found in Breast Milk at High Levels

On February 23, Andrea Kirk and her colleagues in the Dasgupta lab at Texas Tech University published a study showing that unsafe levels of perchlorate are commonplace in the breast milk of women across the country.[3] According to the study, breast-fed babies ingest more than twice as much perchlorate on average than the National Academy of Sciences' recommended "safe dose."[4]

The Texas Tech researchers found perchlorate in the breast milk of every one of 36 women tested across the country, at an average level of 10.5 ppb, ranging up to 92 ppb. The high levels suggest that women may concentrate perchlorate in their breast tissue to some extent. Infants exposed to the highest levels of contamination would receive a dose large enough to interfere with normal brain development in infant rats, as determined from laboratory tests.

Sources of the contamination likely include food tainted by perchlorate-laced irrigation water. In November 2004, the U.S. Food and Drug Administration released the results of a survey of perchlorate levels in common food items across the country. Perchlorate was detected in most or all samples of lettuce and milk from supermarket shelves, including 38 of 38 milk samples and 67 of 78 lettuce samples from California.[5] The levels were higher than many experts anticipated, reaching a maximum level of 9.9 ppb in milk and 52 ppb in lettuce, with average levels at 5.7 ppb and 9.4 ppb, respectively.

Implications for California's Perchlorate Health Goal

In light of the new developments of the first two months of 2005, California officials should take immediate action to reduce the heath threat posed to infants by perchlorate contamination. Appropriate steps include:

- Maintaining a focus on infants as the most vulnerable population;
- Revising the public health goal downward to one part per billion or less;
- Issuing an emergency enforceable drinking water standard to begin the cleanup process;
- Taking aggressive steps to clean the Colorado River.

California officials should maintain a focus on infants as the most vulnerable population. Assembly Bill 2342, signed by Governor Schwarzenegger in 2004, requires California EPA to specifically consider the health of infants and children when setting a public health goal.

Given the new developments of early 2005, California EPA will need to adjust its public health goal for perchlorate in drinking water. In particular, in deriving the public health goal, California EPA inappropriately reduced the margin of safety when calculating the "safe" drinking water level for infants and underestimated infant exposure to perchlorate from sources other than drinking water.

As described in the following pages, California EPA applied a margin of safety of ten-fold to protect the most vulnerable adults. However, it *reduced* the margin of safety to three-fold when calculating a safe level of perchlorate in drinking water for infants. The National Research Council made it clear that this approach was unwarranted.[6]

In light of new data on perchlorate levels in breast milk and food, California EPA underestimated the amount of perchlorate that could be ingested outside of drinking water, especially for infants. California EPA assumed that 100 percent of infant perchlorate exposure would come from drinking water. However, many infants are breastfed during their first year of life, and from this source alone are exposed to already dangerous levels of perchlorate. California EPA should fully account for all additional sources of perchlorate ingestion in infants, using newly available data.

With a full uncertainty factor of 10 or more to protect infant children from rocket fuel in drinking water, and a more accurate accounting of infant perchlorate exposure from all sources, California EPA should revise its public health goal to a more protective level of one part per billion or less.

While the process of revising the public health goal moves forward, state officials should issue an emergency drinking water standard for perchlorate to kick-start the cleanup effort. In particular, removing perchlorate from the Colorado River, a source of irrigation water and drinking water for much of Southern California, should be prioritized.

For further information, please contact Sujatha Jahagirdar, Clean Water Advocate, at (213) 251-3688.

(Copies of *Health Implications of Perchlorate Ingestion* are available online at www.nap.edu; the results of FDA monitoring of food for perchlorate are available at www.fda.gov; and the Texas Tech breast milk study is available at pubs.acs.org/journals/esthag.)

Update Notes:

1. During a public briefing given on 11 January 2005, the National Academy Panel clarified that the result presented in their report was a reference dose, or an amount of perchlorate safe to ingest, corrected for body weight, and not a drinking water standard. In order to obtain a drinking water standard, the reference dose must be corrected for drinking water intake, perchlorate ingestion from other sources than drinking water, and infant body weight. A committee member said, "The committee recognizes that its recommendations would lead to a reference dose of 0.0007 milligrams per kilogram per day. Now that's a dose. That's not a content in water. That's a total amount, whatever the source is – food, milk, water – that we felt would be a safe limit, a safe and health protective limit." Statement by NAS committee member at "Health Implications of Perchlorate Ingestion," public briefing held on 11 January 2005 at 2 PM EST, available online at www.visualwebcaster.com/event.asp?id=26586, at time 25:28.

2. (Referring to the safe dosage) "This 0.0007 milligram per kilogram – adjusted for body weight – so if it's a three kilogram baby, you adjust it down. If its an 80 kilogram adult, you adjust it up. It's based on a per kilogram." Ibid, at time 26:30.

3. Andrea Kirk et al, "Perchlorate and Iodide in Dairy and Breast Milk," *Environmental Science and Technology*, ASAP Article 10.1021/es048118t S0013-936X(04)08118-0, 22 February 2005.

4. For calculation, see Peter Waldman, "Perchlorate in Human Milk Exceeds Regulator's 'Safe Dose'" *Wall Street Journal*, 23 February 2005.

5. U.S. Food and Drug Administration, *Exploratory Data on Perchlorate in Food*, downloaded from www.cfsan.fda.gov, 26 November 2004.

6. A committee member said, "I'll just conclude, before we open for questions, by pointing out where the committee stopped. We stopped at a dosage – what we felt would be a safe limit to the amount, whatever the source, of perchlorate that an individual might take in. This is 0.0007 mg/kg-day – adjusted for body weight – so if it's a 3 kilogram baby, you adjust it down." In this statement, the panel makes it clear that the reference dose must be adjusted for body weight without changing the margin of safety applied to protect vulnerable groups, such as pregnant women, infants, and people with hypothyroidism. See note 1, at time 38.25.

Executive Summary

In order to protect expecting mothers, their developing fetuses and their infant children, the California Department of Health Services (DHS) should set a final health standard for perchlorate in drinking water at one part per billion or less.

Perchlorate, the primary ingredient in solid rocket fuel, is emerging as a major contaminant of California's food and water supplies. The U.S. Food and Drug administration recently documented widespread contamination in milk and lettuce from grocery stores in California and across the country. Many water suppliers in California have detected perchlorate in their wells at levels suggested by the U.S. Environmental Protection Agency (EPA) as unsafe.

State agencies have discovered perchlorate pollution in more than 350 water sources, including the Colorado River and hundreds of municipal wells.

The bulk of the contamination was caused by the military, aerospace contractors and other users and manufacturers of explosive chemicals.

Communities with contaminated water supplies include Riverside, Loma Linda, San Bernardino, Pasadena, Rancho Cordova, West Orange County, and Otay.

Perchlorate exposure threatens expecting mothers, developing fetuses and infant children.

Perchlorate affects the thyroid hormone system at very low levels of exposure. It acts by preventing uptake of iodine into the thyroid gland, reducing the gland's ability to produce enough hormone.

Thyroid hormone and iodine are critical for normal brain development in fetuses and young infants. Children born to mothers with thyroid problems or iodine deficiency can have lower IQ, impaired learning, hyperactive behavior, delayed growth, or can suffer a range of serious neurodevelopmental problems, including mental retardation.

Exposure to perchlorate during specific and important windows of

time during the growth and development of a child increases the risk of neurodevelopmental disability.

Neurodevelopmental disabilities, like attention deficit and hyperactivity disorder (ADHD), are a serious and growing problem in California.

Learning-disabled students increased 65 percent faster than the general school population from 1985 to 1999.

Perchlorate exposure could be contributing to this trend in combination with exposure to a variety of other chemicals polluting the environment such as toxic flame retardants, lead, mercury, and polychlorinated biphenyls (PCBs).

The evidence of perchlorate's toxicity warrants a strong drinking water standard of one part per billion or less.

Exposure to low levels of perchlorate *in utero* leads to changes in brain structure and behavior in infant rats.

Humans are as sensitive as rats to iodine uptake inhibition by perchlorate.

After evaluating the full spectrum of available science on perchlorate, the U.S. Environmental Protection Agency and the states of Massachusetts, Maryland and New Mexico have recommended preliminary drinking water health guidelines of one part per billion or less to provide a margin of safety for developing fetuses and infants. Accounting for widespread exposure to perchlorate in the food supply and for the combined effects of other thyroid toxicants in addition to perchlorate would justify an even lower standard.

However, the state of California is unofficially moving forward with a final drinking water standard equivalent to the public health goal of six parts per billion issued in March 2004. The process used to arrive at the public health goal did not live up to the criteria established by California law, and a standard set at this level would be inadequate for several reasons:

California EPA chose a single scientific study as the main basis for calculating a safe level. The study examined the effect of perchlorate on healthy adults exposed for a short period of time, as opposed to including other research involving fetal and newborn rats with long-term perchlorate exposure.

California EPA applied an atypically small margin of safety to ensure protection of especially vulnerable people. Almost all established public health goals in California use a larger margin of safety.

California EPA failed to consider how perchlorate may be interacting with other thyroid toxicants (like toxic flame retardants, nitrates, PCBs and other common environmental contaminants) to contribute to neurodevelopmental problems in children.

A final standard of six parts per billion could leave the contamination of the Colorado River and nearly one-third of the polluted wells in California unaddressed.

In setting a final perchlorate standard, the state should use the weight of scientific evidence, including experiments showing neurobehavioral damage to infant rats exposed to small amounts of perchlorate in the womb, as well as considering the possible interaction of perchlorate with other toxicants. In addition, the state should set larger margins of safety to account for uncertainties in the vulnerability of fetuses and infants to

long-term exposure to low levels of perchlorate. After taking these steps, the state should arrive at a drinking water standard for perchlorate of 1 part per billion or less, ensuring a comprehensive cleanup and providing a margin of safety for pregnant women, their developing babies and their infant children.

POLICY RECOMMENDATIONS

- **The California Department of Health Services should set the drinking water standard for perchlorate at one part per billion or less.**

  In addition, the State of California, local governments, and water suppliers should hold responsible parties fully liable for cleanup and for supplying replacement drinking water to affected communities. Congress should not exempt the Department of Defense.

  Congress should reinstate Superfund fees for polluting industries to ensure that contamination caused by now-bankrupt companies will be cleaned up.

  Federal and state agencies should require American Pacific, Kerr-McGee Chemical and other responsible parties to accelerate clean up of perchlorate contamination currently leaking into the Colorado River and local aquifers.

Introduction

Governments have a responsibility to protect their citizens from threats to their health and well-being, especially those threats beyond individual control. Take, for example, toxic contamination in public food or water supplies. To protect the public, governments often set health standards to limit public exposure, minimize risk, set a threshold for cleanup, and allow cost recovery from those responsible for spilling dangerous waste.

California law requires a comprehensive approach to setting health standards for toxic chemicals. In setting a standard, officials must:

> Protect the most vulnerable people from known or anticipated threats to their health and well-being;
>
> Ensure an adequate margin of safety to ensure that uncertainties in the science today do not cause public health problems in the future;
>
> Explicitly consider the many sources of exposure to a toxicant, including food and milk, and how the toxicant might interact with other harmful substances in the environment to have a more dangerous effect; and
>
> Place emphasis on public health when considering cost and feasibility.[1]

In practice, however, the implementation of these requirements is often hindered. Companies with a potential liability for toxic spills can—and often do—attempt to protect their financial interests by pushing for public health standards that are weaker than sound science would dictate.

The debate around perchlorate in drinking water is a case in point. Perchlorate manufacturers and users, including the Department of Defense and its contractors, have attempted to focus the health debate around the needs of healthy adults in an effort to set a weak standard and thus limit their financial liability for contaminating much of California's drinking water supply.

But the real threat of perchlorate is to the health and development of young children. Exposure to small aounts of perchlorate, whether in the womb or during the sensitive first few years of life,

has the potential to set children back in their mental development.

The choice in setting a health standard for perchlorate is a choice between protecting the financial interests of a handful of companies and government agencies, or protecting California's children.

California's children are the future of our society. They need protection from threats to their health and well-being in order to have the greatest possible opportunity to grow into their full potential. Establishing a reasonable perchlorate standard based on the weight of the scientific evidence would be in their best interest.

Perchlorate Contamination Plagues California's Drinking Water Supplies

Perchlorate, the major ingredient in solid rocket fuel, contaminates the drinking water supply of 16 million Californians.

The vast majority of perchlorate in the United States is synthetic.[2] It is manufactured by chemical companies and then sold to producers and users of rockets, flares and other related technologies. The U.S. Environmental Protection Agency estimates that the Department of Defense and NASA use about 90% of the perchlorate produced in the United States.[3]

Perchlorate travels easily in water, allowing spills to easily enter water supplies, and persists for many decades underground.[4] Through careless handling, use, storage and disposal of perchlorate over the last six decades, the military and its contractors have extensively polluted California's drinking water sources. State agencies have discovered perchlorate pollution in more than 350 California water sources, including the Colorado River and hundreds of municipal wells.

The Colorado River

Beginning in the 1950s, large amounts of perchlorate were made at factories owned by American Pacific and Kerr-McGee corporations outside Las Vegas, in an area draining into Lake Mead and the Colorado River.[5] Dumping, spills and explosions left the area around these factories heavily contaminated. Professor Jacimaria Batista at the University of Nevada estimates that sediments downstream from the perchlorate factories hold more than 20 million pounds of the chemical.[6] Wastewater from the city of Las Vegas carries the perchlorate downstream to Lake Mead. In 2004, 200 to 300 pounds of perchlorate leached into Lake Mead every day.[7]

The contaminated water then travels down the Colorado River, which is used as a municipal water supply for millions of people in Arizona and Southern California and as a source of irrigation water for much of the nation's winter produce.

Figure 1: Perchlorate Contamination in the Lower Colorado River[12]

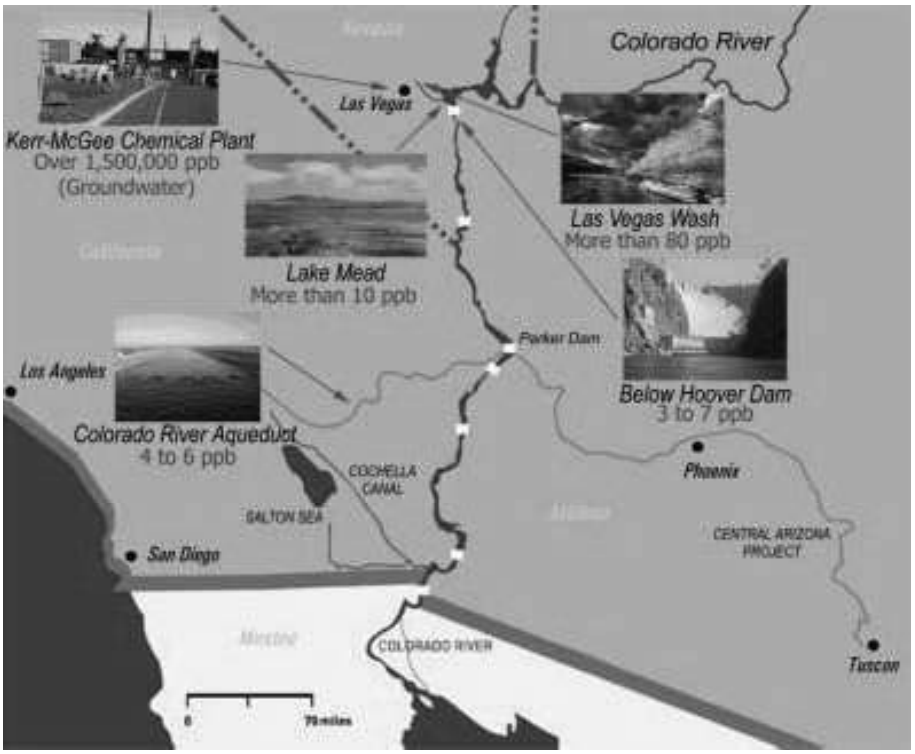


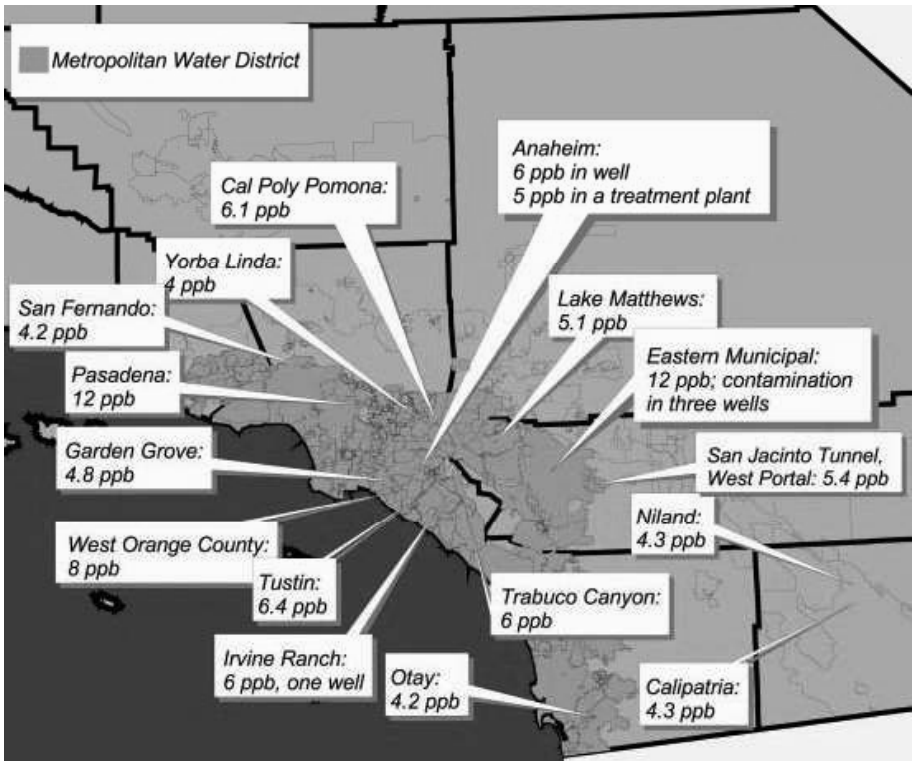
Table 1: Number of Perchlorate Contaminated Wells by County[14]

County	Number of Contaminated Wells
Los Angeles	138
San Bernardino	82
Riverside	68
Orange	34
Sacramento	15
Santa Clara	9
Tulare	8
Ventura	4
San Diego	1
Sonoma	1
Stanislaus	1

Since 1998, over 1.4 million pounds of perchlorate have leaked into the Colorado River.[8] Near Lake Mead, perchlorate levels have been measured as high as 24 parts per billion.[9] Water taken from the river by the Metropolitan Water District of Southern California contains up to six parts per billion perchlorate (Figure 1).[10]

At the current pace of cleanup and with natural flushing of the river, Dr. Batista and her colleagues estimate that the lower Colorado River will remain contaminated with perchlorate for the next 50 years.[11]

Figure 2: Peak Perchlorate Levels Measured in Selected Southern California Water Systems, 2003[18]



Perchlorate can be found in the drinking water supplies of many communities in Southern California. Metropolitan Water District distributes Colorado River water, contaminated with perchlorate from a chemical plant in Nevada, to communities across the south coast. Other communities face perchlorate contamination in their aquifers, from spills as well as using Colorado River water for recharge.

Aquifers and Wells

Perchlorate users have also contaminated many underground water systems across the state. The contamination extends into more than 10 counties, including San Bernardino, Sacramento, Los Angeles, Riverside, Ventura, Tulare, Orange, Santa Clara, Sonoma and San Diego (Table 1).[13] Southern California communities in Los Angeles and the Inland Valley have been hard-hit (Figure 2), as well as Northern California communities such as Rancho Cordova outside of Sacramento.

Underground water contamination has come from both direct spills of perchlorate, as well as the use of polluted Colorado River water to recharge aquifers in Orange County and across southern California. In all, perchlorate has been found in at least 350 major California water sources.

Contamination in Food

The impact of perchlorate is not limited to drinking water. Perchlorate also concentrates in leafy vegetables like lettuce, which creates a concern for consumers of Imperial Valley crops irrigated with Colorado River water. Tests by scientists and advocacy organizations like the Environmental Working Group have confirmed that plants, especially broad-leaf varieties, concentrate perchlorate from the environment.[15] Scientists have found perchlorate in plant tissues at levels up to 100 times higher than in nearby water sources.[16]

In November 2004, the Food and Drug Administration released the results of an initial nationwide food screening. They found perchlorate in 90 percent of 128 lettuce samples and in all but three of 104 milk samples, with average levels ranging from six parts per billion in milk to 12 parts per billion in Romaine lettuce.[17] These results raise the possibility that perchlorate contamination is much more widespread than regulators currently know, and that exposure is widespread across the country.

Perchlorate Threatens Developing Fetuses and Infant Children

Perchlorate poses the greatest threat to developing fetuses and infant children. Exposure to perchlorate during key windows of time in the growth and development of a baby could lead to impaired brain development, causing lowered IQ, reduced learning ability, attention deficits and hyperactivity.

Perchlorate poses a threat because it affects the thyroid hormone system. It acts by preventing uptake of iodine into the thyroid gland, reducing the gland's ability to produce enough hormone. Expecting mothers need healthy thyroids to properly direct brain development in their developing fetuses. Children born to mothers with thyroid problems often have lower IQ, impaired learning, hyperactive behavior and delayed growth, and can suffer a range of serious problems, including mental retardation. Thyroid problems in infants after birth can also cause similar harm.

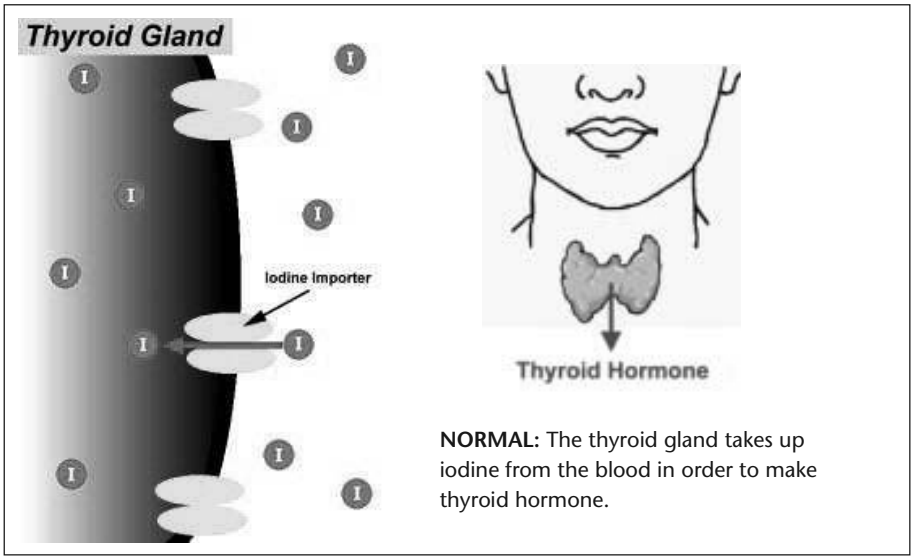
Despite claims by perchlorate users and manufacturers that perchlorate does not cause health problems, experiments with humans and animals clearly show that perchlorate interferes with iodine uptake into the thyroid gland. In rats exposed in the womb, perchlorate causes changes in the shape of the brain and leads to impaired behavior. Human infants, who have no extra stores of thyroid hormone, are especially vulnerable thyroid toxicants like perchlorate.

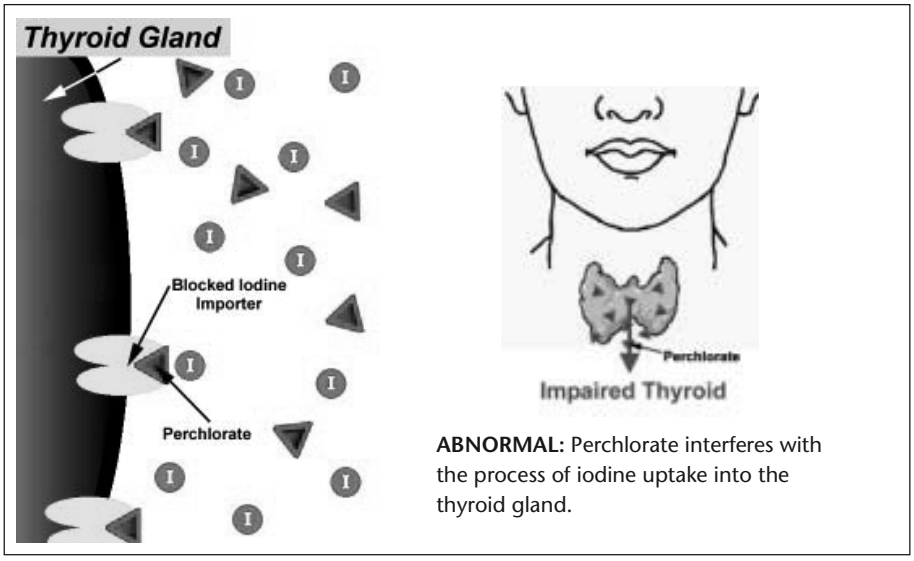
These facts are all the more alarming when the increasing trends in neuro-developmental and mental health disabilities in California are considered. The number of students in public schools suffering from a variety of learning disabilities, including Attention Deficit Hyperactivity Disorder (ADHD), increased 65 percent faster than the general school population from 1985 to 1999. While no one factor has been implicated, perchlorate could be contributing to this trend in combination with toxic flame retardants, pesticides and the well-established culprits of lead, mercury, dioxin and polychlorinated biphenyls (PCBs).

Perchlorate Impairs the Thyroid Hormone System

Perchlorate primarily affects the thyroid hormone system. In the body, perchlorate

Figure 3: Perchlorate Impairs the Production of Thyroid Hormone by Preventing Iodine Uptake Into the Thyroid Gland





Under normal circumstances, the thyroid gland is able to take up iodine and use it to make thyroid hormone, important for regulating metabolism in adults, and critical for normal brain development in fetuses and infant children. However, perchlorate inhibits iodine uptake into the thyroid gland, impairing the ability of the gland to produce the appropriate amount of hormone. In expectant mothers, this can have serious consequences for the child, including reduced IQ, and impaired attention and behavior as the child grows up.

acts to reduce the levels of circulating thyroid hormones. It inhibits the uptake of iodine into the thyroid gland, required for the production of thyroid hormone (Figure 3).[19] Scientists discovered this property over 50 years ago, and physicians have used perchlorate to treat diseases involving an over-active thyroid gland, such as Grave's disease.[20]

Impaired Thyroid Function Leads to Problems in Brain Development, Learning, and Behavior

When the thyroid hormone system malfunctions, children can end up with serious behavioral and learning problems. The thyroid hormone system plays a critical role in the complex process of brain development. It provides important signals that help direct the growth of brain tissue into the structures that give children the capabilities to perceive and organize information, learn, remember, and grow into fully functional adults.[21]

Most of the cognitive capability of the brain develops between the eighth week of pregnancy and the second year of life.[22] During this period, the developing brain is most vulnerable to damage.

Scientists know that disruptions in maternal thyroid levels as early as week eight in the womb can impair a child's intelligence and coordination. Too little thyroid hormone delivered from mother to fetus during brain development can decrease the number of cells in the mature brain, impairing neurological development, with consequences including learning disabilities, speech and memory problems, poor coordination and balance, or—in severe cases—mental retardation.[23]

Mothers with thyroid problems caused by iodine deficiency also have children more likely to suffer from neurodevelopmental birth defects. In areas with chronically low iodine levels in the food supply, mothers have symptoms of hypothyroidism and give birth to children with impaired physical and mental development.[24] On average, children of iodine-deficient mothers have 5 to 13 fewer IQ points compared to children of mothers with iodine-sufficient diets.[25] Children of mothers with severe iodine deficiency are more likely to have congenital defects, mental retardation, impaired physical growth and a variety of severe disabilities and neurological disorders including deafness.[26]

Reduced thyroid levels in the first few weeks of life for pre-term and low birth-weight babies are associated with increased risk of neurological disorders, including the need for special education by age nine.

Newborns in particular are likely to be much more vulnerable to perchlorate than adults. They have no thyroid hormone stored in their glands, they have a very small body weight, and thyroid hormone in their blood recycles more quickly than in adults.[27] Reduced thyroid levels in the first few weeks of life for pre-term and low birth-weight babies are associated with increased risk of neurological disorders, including the need for special education by age nine.[28]

Because perchlorate interferes with the thyroid hormone system, perchlorate exposure is likely to cause the same problems as iodine deficiency and hypothyroidism, with potentially severe and lifelong consequences for the developing child.

Thyroid Disruption and ADHD

Evidence exists that changes in thyroid hormone levels may be part of the cause of Attention Deficit Hyperactivity Disorder (ADHD). Dr. Peter Hauser at the National Institutes of Health found that families with a genetic problem that reduces the function of the thyroid hormone system were more likely to have symptoms of ADHD. In the study, 70 percent of children from families with genetic thyroid problems had ADHD, while the disorder affected 20 percent of children in normal families.[29] In another experiment, Dr. Michael McDonald at the National Institute of Mental Health showed that mice with the same genetic defect in their thyroid hormone systems developed symptoms of ADHD, including hyperactivity and impaired learning ability.[30]

Direct Evidence of Perchlorate's Effects

The strongest evidence that perchlorate exposure is likely to cause effects similar to iodine deficiency or thyroid imbalance in expectant mothers and newborns comes from experiments in which mammals were intentionally and directly exposed. Most of the recent research has been funded by the Department of Defense, an agency with a financial interest in avoiding cleanup of perchlorate contamination. Despite this potential bias, the Department of Defense-funded studies provide more than enough evidence of perchlorate's toxicity to warrant a comprehensive cleanup effort.

On average, children of iodine-deficient mothers have 5 to 13 fewer IQ points compared to children of mothers with iodine-sufficient diets.

These studies support the picture of the potential health effects of perchlorate presented in the previous section. They demonstrate that perchlorate exposure changes thyroid hormone levels and can affect the brain structure and behavior of rat pups exposed while in the womb and after birth, and that perchlorate alters the function of the thyroid gland in humans.

Specifically, the direct perchlorate exposure studies demonstrated:

- inhibition of iodide uptake into the thyroid gland in humans and animals,[31]
- perchlorate-induced changes in thyroid hormone production,[32]
- physical changes (including tumors) in the thyroid gland of rats exposed to perchlorate *in utero* and through mother's milk,[33]
- perchlorate-induced changes in brain structure and behavior in rat pups exposed *in utero* and after birth.[34]

Additionally, researchers at the University of Wisconsin found that exposure to perchlorate interfered with the maturation of the reproductive system in female rats. After exposure to perchlorate in the womb, rats developed fewer follicles in their ovaries.[35]

In the context of the debate around how much perchlorate is dangerous, one direct exposure-response study has received particularly extensive attention. In this study, Dr. Monte Greer and his colleagues gave differing amounts of perchlorate to healthy adult human volunteers over the course of two weeks, and measured the inhibition of iodine uptake into the thyroid gland.[36] This study found a clear and direct relationship between the amount of perchlorate exposure and the degree of iodine uptake inhibition in the human thyroid. When compared with similar experiments carried out in rats, it shows that humans are as sensitive as rats to iodine uptake inhibition by perchlorate.

The Greer study has been used by many regulatory agencies in the process of deriving health recommendations, because of the high quality of the data. However, the study also has limitations that are important to consider in the process of setting a health standard. For example, the study did not directly address the effects of perchlorate on vulnerable individuals (such a study would be ethically intolerable), the study involved short-term perchlorate exposure as opposed to long-term exposure of the type likely caused by contaminated drinking water, and the study had a small number of subjects, limiting its ability to detect iodine uptake inhibition at low exposure levels. These issues are explored more fully in the section on California's Public Health Goal (See page 25). Despite these limitations, the Greer study does offer solid support for the idea that perchlorate exposure increases the risk of brain development problems in human infants by interfering with the thyroid gland.

Studies Used by Industry to Argue that Perchlorate Isn't Dangerous

Scientists have also looked for evidence of perchlorate-caused harm in communities with water contamination. Many of these studies have been funded by perchlorate manufacturers or users (see "Major Polluters and Their Public Relations Consultants" on page 19), and have been used in public relations campaigns as evidence that perchlorate is not harmful in small doses. However, by their nature, these types of studies—known as ecological studies—are prone to ambiguity. There are many possible influences that could cloud the results, including diet, nutritional status, exposure to other chemicals, natural changes in thyroid status with age and air temperature, and more. It is much more difficult to draw conclusions when past perchlorate exposure cannot be directly measured. Most ecological studies involve no more than two exposure categories: exposed and not exposed, with great potential for misclassification. Health outcomes are also more difficult to measure—especially subtle neuro-developmental deficits that are likely not detectable by commonly-used hormone status tests. Because of these issues, ecological studies are less likely to discover a connection between chemical exposure and health effects, even when one actually exists.

The studies regularly cited by the perchlorate industry include:

Five studies of neonatal thyroid hormone status in areas with contaminated drinking water.[37] (Funded by members of the Perchlorate Study Group and carried out by Consultants

in Epidemiology and Occupational Health, Inc., and Exponent, Inc.)

A study of the general population, looking for differences in thyroid disease prevalence in areas with perchlorate in the water and without.[38] (Funded by American Pacific Corporation and carried out by Consultants in Epidemiology and Occupational Health, Inc.)

A study of ADHD and autism in Nevada, looking for evidence that areas with perchlorate in the water had higher prevalence of these diseases.[39] (Funded by American Pacific Corporation and carried out by Consultants in Epidemiology and Occupational Health, Inc.)

A study of school-age children from three different cities in Chile, looking for connections between perchlorate exposure and thyroid hormone status,[40] (Funded by the Kerr-McGee Chemical Corporation and carried out by ICF Consulting). (This study yielded complicated results, including some positive findings and strange anomalies in the data. However, industry characterizes its findings as negative.)

The EPA thoroughly reviewed all but the most recent of these studies, and discusses their weaknesses in detail in a 2002 report on perchlorate and in a document responding to the comments of peer reviewers.[41] In summary, the EPA concluded that these studies "offer little help beyond indicating that clinical thyroid disease is not greatly increased in populations with sustained drinking water contamination as high as 15 micrograms per liter [15 parts per billion] in the past," failing to answer any questions about perchlorate and neurobehavioral disease.[42] In fact, one of the peer reviewers noted that studies with this type of design are prone to flaws; for example, one of the largest ecological studies of radioactive radon gas found a negative association between exposure and incidence of lung cancer—a result that directly contradicts many laboratory studies, as well as common sense.[43] Ecological studies of perchlorate could be giving similarly confusing results.

Two additional studies of infant thyroid health in areas with contaminated drinking water demonstrated a positive link between perchlorate exposure and impaired thyroid status. First, the Arizona Department of Health Services found differences in thyroid hormone levels among infants whose mothers were exposed to perchlorate-contaminated drinking water from the Colorado River and those who had not been exposed to perchlorate while pregnant.[44] Second, Jackie Schwartz, then a public health graduate student at U.C. Berkeley, found that infant thyroid hormone levels were significantly lowered when mothers were exposed to drinking water contaminated with perchlorate at levels as low as one to two parts per billion, with stronger effects at higher doses.[45] These studies also suffer from the same sources of uncertainty as the industry-funded studies discussed above. However, the EPA considers the Schwartz study the most convincing of the whole set because of its relatively detailed exposure classifications, variety of controls, and strong statistical analysis. The two studies that found a positive perchlorate effect are the only two studies not funded by members of the Perchlorate Study Group.

Because of limitations associated with the ecological studies involving perchlorate, the U.S. EPA and state environmental agencies uniformly decided against using them in the development of any quantitative health standards.

Major Polluters and Their Public Relations Consultants

The Department of Defense

The Department of Defense is the largest user of perchlorate in the country. Along with NASA, it is responsible for roughly 90 percent of all perchlorate used in the U.S. The Department of Defense works with a group of aerospace contractors and chemical companies that supply perchlorate and perchlorate-containing products. As a federal agency, the Department of Defense, is in a position of influence over the standard-setting process for perchlorate cleanup at the U.S. EPA.

Major Aerospace Contractors and Perchlorate Manufacturers

The Department of Defense and NASA contract out a large amount of aerospace work to companies like Lockheed-Martin. All of these entities have purchased and continue to purchase perchlorate from chemical manufacturers including American Pacific and Kerr-McGee. These contractors and chemical companies have spilled perchlorate at thousands of sites across the nation and are aggressively working to limit their liability. For example, in 2002 Kerr-McGee teamed up with Lockheed-Martin to sue California health authorities over the state's new provisional drinking water standard for perchlorate.[46] The move forced the state to reconsider the standard and significantly delayed the cleanup process.

The Perchlorate Study Group

The Perchlorate Study Group is a collaboration between eight perchlorate manufacturers or users, including Lockheed-Martin, AeroJet, Kerr-McGee Chemical, and American Pacific—all of whom face financial liability for perchlorate cleanup. They supply the Department of Defense, NASA and other entities with perchlorate and perchlorate-containing products. The Perchlorate Study Group funds research into the health effects of perchlorate. However, the results of such research generally are used as public relations material to argue for weak perchlorate standards. Research funded by companies with a financial interest in vindicating their products tends to be less reliable than research without such conflicts of interest.[47]

The Council on Water Quality

A public-relations effort funded by a subset of the member companies of the Perchlorate Study Group. The council is focused on making any potential cleanup standards for perchlorate as weak as possible. The council advocates for cleanup standards more than 200 times higher than recommended by the U.S. EPA—standards that would effectively negate the need for any cleanup to happen at all.

Consultants in Epidemiology and Occupational Health, Inc.

Consultants in Epidemiology and Occupational Health, Inc. is a company that contracts with chemical manufacturers to provide technical support on health issues. Their services include helping clients avoid costs associated with regulation and liability. The organization has worked with the perchlorate manufacturer American Pacific for about 10 years.[48] The group has also worked with other industrial clients, including the American Wood Preservers Institute, an organization that promotes dangerous arsenic-treated wood products used in playgrounds. Dr. Steven H. Lamm is the director of this organization. He is the primary investigator for four of the six studies used by the perchlorate industry when arguing for a weak health standard. His studies regularly conclude that there is no link between low levels of perchlorate and human health impacts, or between thyroid hormone disruptions and neurobehavioral disease.[49]

Exponent, Inc.

Exponent is a scientific consulting firm that, among other services, helps companies navigate the technical aspects of regulation. In some cases, they help clients to dilute cleanup standards or weaken regulations. According to a case study listed under the company's description of risk analysis services, "based on consideration of realistic scenarios of human exposure and chemical migration, Exponent can often demonstrate that substantially higher cleanup goals are more appropriate than the originally proposed cleanup targets."[50] In other words, Exponent can earn its keep by promoting less costly outcomes for companies facing expensive cleanup liability.

TERA—Toxicology and Excellence in Risk Assessment

TERA is another consulting firm that uses the tools of risk assessment to promote less costly outcomes for its corporate clients. Their most recent publication in the perchlorate field argues for a weak perchlorate health standard using an ecological study rejected by the EPA as scientifically flawed and ignoring critical issues to yield a misleading result.[51]

Gradient Corporation

Gradient Corporation is a consulting firm that, like Exponent and TERA, performs risk analyses for corporate clients facing cleanup liabilities or challenges to the unhindered use of chemical products. Gradient has produced analyses of dozens of chemicals, from lead to arsenic, including a risk analysis of ethylene oxide paid for by the Ethylene Oxide Industry Council.[52] Gradient recently published a paper claiming that the rat is "more sensitive than humans" to perchlorate, overlooking major issues that undermine their conclusion.[53] This research was a part of Gradient's testimony in court on behalf of Lockheed-Martin.

Learning Disabilities Are a Serious and Growing Problem in California

The potential for perchlorate to interfere with normal brain development is cause for concern, especially considering that mental health birth defects are a serious and growing problem in California—in particular, learning disabilities like attention deficit hyperactivity disorder (ADHD).

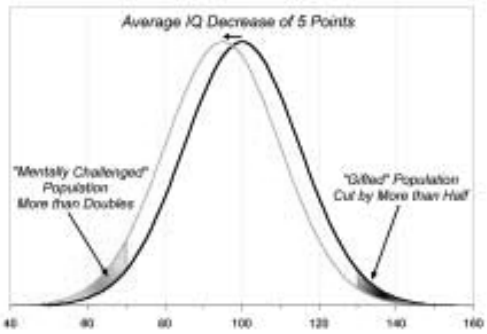
Although perchlorate exposure alone likely cannot explain this trend, it could be making children more vulnerable to other environmental insults, including

Consequences of a Small Shift in Average IQ in California

What would be the significance of a five-point drop in average IQ across California society? It doesn't sound like much, and for the average individual, the loss of five IQ points might not be noticeable. However, a drop in the average IQ across millions of people would lead to a significant loss of intellectual capacity, reduced productivity, and greatly increased needs for special education and related services (Figure 5).

If 35 million people in California have an average IQ of 100, about 800,000 people would be gifted (IQ more than 130), and 800,000 would be mentally challenged (IQ less than 70). However, if the average IQ dropped just five points, the number of gifted people would drop by more than half to 340,000 people, and the number of mentally challenged people would more than double to 1.7 million. Clearly, widespread exposure to a chemical that could impair mental development has profound implications for the overall health and productivity of society.

Figure 5: Consequences of a Society-Wide Reduction in Average Intelligence



toxic flame retardants, pesticides and the well-established culprits of lead, mercury, dioxin, and PCBs.

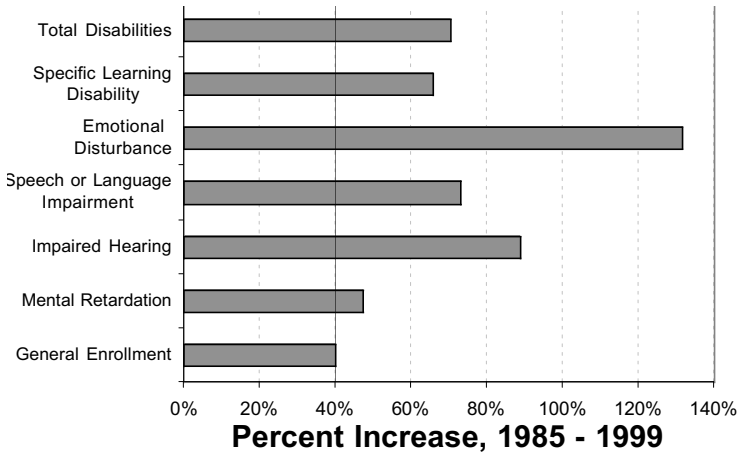
Learning Disabilities Are Growing More Frequent

Learning disabilities have been increasing in California schools. The enrollment of children with specific learning disabilities has increased faster than the general student population during the last two decades (Figure 4). From 1985 to 1999, the number of learning disabled students increased 65 percent faster than the general student population in public schools. Students with learning disabilities now make up roughly six percent of all students in the state.[54] In addition to learning disabilities, enrollment of children with emotional disturbance, speech or language disorders, and hearing impairment increased faster than general enrollment.

No one really knows what is causing these trends. However, there is evidence that exposure to toxic chemicals in the environment could be playing a key role.[56] Chemicals including toxic flame retardants (polybrominated diphenyl ethers or PBDEs), pesticides and the well-established culprits of lead, mercury, dioxin and PCBs all could be causing neurodevelopmental problems in children. In particular, toxic flame retardants, dioxin, and PCBs are all known to affect the thyroid hormone system.[57] These chemicals are bioaccumulative and present in significant amounts in California citizens.[58] The presence of perchlorate in drinking water could be aggravating injury caused by these chemicals, making children more vulnerable to toxicants that disrupt the thyroid system.

Given this context, caution is warranted. The social cost of erring on the wrong side would be considerable. The economic cost of widespread injury to neurological development, even if it represents a societal drop in average IQ of only a few points, would have wide-ranging impacts on the productivity of society (See "Consequences of a Small Shift" on page 21).

Figure 4: Change in Enrollment in California Schools by Type of Disability, 1985-1999[55]



Regulatory Action: Setting a Cleanup Standard That Will Protect Children

The California Department of Health Services (DHS) now faces the task of setting a final standard for perchlorate in drinking water—a standard that will protect expecting mothers, developing fetuses, infants and other vulnerable individuals from harm.

Regulatory action by the state of California to date has been inadequate. In March 2004, The California Environmental Protection Agency (California EPA), the agency charged with identifying a safe level for perchlorate in water, established a public health goal for perchlorate. California EPA set the goal at six parts per billion, six times weaker than recommendations from scientists at the U.S. EPA and the states of Massachusetts, Maryland, and New Mexico. Unofficially, DHS is moving forward with a final drinking water standard equivalent to the public health goal.

A final standard of six parts per billion would be inadequate for several reasons. California EPA chose a single scientific study as the main basis for calculating the public health goal. The study they chose for their calculations, known as the Greer study, looked only at the effect of perchlorate on iodine uptake into the thyroids of healthy adults exposed for a short period of time—while the health goal is meant to protect vulnerable fetuses and infant children exposed to perchlorate over long periods of time. The public health goal applied an atypically small margin of safety and failed to consider how other thyroid toxicants might be adding to the effect of perchlorate, lessening the probability that the standard would actually protect the most vulnerable children. In addition, a final standard of six parts per billion could leave the contamination of the Colorado River and nearly one-third of the polluted wells in California unaddressed.

Recommendations of One Part Per Billion

Scientists at the U.S. EPA and the environmental agencies of Massachusetts, Maryland, and New Mexico have issued recommendations that expectant mothers, infants and children should not be exposed to perchlorate at levels greater than one part per billion in drinking water.

California EPA set the (public health) goal at six parts per billion, six times weaker than recommendations from scientists at the U.S. EPA and the states of Massachusetts, Maryland, and New Mexico.

Health scientists in these agencies looked at the full weight of scientific evidence to determine how much perchlorate is dangerous or causes an unacceptable risk. First, agency scientists looked at experimental data to determine what dose would have no effect on a vulnerable individual. Second, they reduced this dose by a factor designed to ensure that uncertainties in the science today do not cause public health problems in the future. (For example, when establishing a public health goal for diethylhexyl phthalate (DEHP) in drinking water, California EPA applied a safety factor of 1,000 to account for the possibility that humans are more sensitive than experimental animals, the variety in chemical sensitivities among people, and the serious and irreversible problems DEHP could cause for human development and reproduction.)

The U.S. EPA

Based on evidence available in the late 1990s, the EPA developed an initial recommended maximum for perchlorate of 18 parts per billion.[59] However, as more evidence became available, especially studies of the effects of perchlorate on pregnant rats and their pups, the EPA revised its recommendation downward to one part per billion in 2002.[60]

The EPA based its determination on:

> Laboratory data showing that rats exposed *in utero* to perchlorate at levels as low as 10 micrograms per kilogram body weight per day show changes in thyroid hormone levels and thyroid gland structure associated with measurable changes in brain structure and behavior patterns.[61]
>
> Experiments with healthy people showing that humans were as sensitive as rats to iodine uptake inhibition by perchlorate, with uptake measurably impaired at doses as small as seven micrograms per kilogram body weight per day.

With the application of a margin of safety to ensure that exposure levels would not pose a threat to vulnerable individuals and to account for remaining scientific uncertainty, the EPA developed a one part per billion perchlorate recommendation. With the application of factors to account for the possibility of ingesting perchlorate through the diet, the agency noted it could support a maximum contaminant level as low as 0.2 to 0.8 ppb in water.

The State of Massachusetts

As soon as perchlorate was discovered in drinking water sources in Massachusetts, the state Department of Environmental Protection began work on its own public health guideline for the maximum allowable level of perchlorate in drinking water. State scientists evaluated the entire body of available data on perchlorate toxicity, including results from studies on biological responses to perchlorate in animals and the effects of perchlorate on the developing fetus and nursing newborn. Based on this evidence, and accounting for uncertainties in the science, the scientists recommended that drinking water contain no more than one part per billion perchlorate to protect all members of the population from harm.[62] Their work was extensively peer-reviewed by qualified experts and released in May 2004.

Although Massachusetts scientists used slightly different assumptions and methods from the EPA scientists, they reached a similar conclusion.

California's Public Health Goal: Six Times Weaker

Using the same basic set of data, but a narrower approach, the state of California issued a recommendation of six parts per billion, six times weaker than the recommendations of the U.S. EPA and Massachusetts.[63] This recommendation, known as a public health goal, is a preliminary step toward setting an official and legally-binding health standard.

The process used to arrive at the public health goal did not fulfill the intent of the statutes guiding the process. Under California law,

> A public health goal should be set at a level "at which no known or anticipated adverse effects on health occur, with an adequate margin of safety."[64]
>
> The goal should include consideration of:
>
> - Potential additive or interactive effects with other contaminants present in the environment.
> - The increased vulnerability of "infants, children, pregnant women, the elderly, individuals with a history of serious illness" and other sensitive groups.
> - The additive effect of additional exposure to the contaminant in food, air, or other sources beyond drinking water.[65]

In deriving the public health goal, California EPA did not rely on the full weight of scientific evidence, set an atypically small margin of safety to protect the most vulnerable people, and failed to consider how other thyroid toxicants in the environment could be increasing vulnerability to perchlorate. As a result, the final public health goal was set at a level that would leave much of the contamination in California unaddressed.

Narrow Consideration of Available Research

California EPA scientists focused primarily on one single study of healthy adult volunteers given perchlorate for a brief period of 14 days, the Greer study. This study involved a relatively small number of people, did not directly address the risk to the most vulnerable populations (expecting mothers, fetuses, and infants), and did not address the possible effects of long-term exposure associated with low-level contamination of drinking water. While studies involving pregnant human volunteers would be ethically intolerable, research involving rats was available as an informative substitute.

Inadequate Margin of Safety to Protect Vulnerable Individuals

California EPA scientists set a smaller margin of safety for perchlorate than warranted by uncertainties in the science, smaller than those typically used in public health goals for other chemicals (Table 2). Only four chemicals of more than 70 with a public health goal have a margin of safety set at 10 or lower—lead, nitrates, fluoride, and perchlorate.[66] Perchlorate is the least studied of the four. A search of the National Library of Medicine shows that 75 times more studies address lead than perchlorate.[67] There are over 32,000 studies on fluoride, and over 19,000 studies on nitrates, while there are just over 2,200 studies that address perchlorate in some way. In addition, perchlorate is the only one of the four which does not have

direct scientific evidence of effects on the most vulnerable human populations.

California EPA used a single safety factor of 10 to account for differences in the sensitivity of individuals to perchlorate. In the case of infants, California EPA used a safety factor of only 3, arguing that only minor perchlorate absorption differences exist between adults and infants. However, limitations in the Greer study, and in general knowledge of how perchlorate affects infants, warranted larger safety factors to ensure protection of vulnerable individuals. Scientists at both the Massachusetts DEP and the U.S. EPA set larger margins of safety to account for limitations in perchlorate science (Table 3). They each chose a safety factor of 300.

California EPA should have accounted for the fact that the Greer study had a very small sample size, and thus was less likely to detect small differences in iodine uptake at the lowest dose levels. Scientists at the U.S. EPA determined that the group given the smallest dose had only one-tenth of the statistical power to detect changes in iodine uptake as the group given the largest dose, making it difficult to conclude that the smallest dose tested had no effect, and also difficult to estimate the variability in sensitivity to perchlorate across the population.[72] To account for this limitation, the U.S. EPA and Massachusetts DEP began with an estimate of a dose expected to have no effect on a healthy individual two-fold lower than the California EPA, and used a safety factor of an additional 10-fold.

California EPA should have used a larger safety factor for infants. California EPA extrapolated data from the Greer study, involving healthy adults, to a level designed to protect infants using an atypically small safety factor. Newborns in particular are likely to be much more vulnerable to perchlorate than adults. They have no thyroid hormone stored in their glands, and thyroid hormone in their blood recycles more quickly than in adults.[73] Infants may also be more sensitive to the effects of perchlorate. And, infants may each have a different sensitivity to perchlorate because of differences in dietary iodine intake or in their genetic makeup. An infant safety factor of three most likely does not account for the full scope of individual variability.

California EPA should have assigned

Table 2: Comparison of Safety Factors Used in Selected California Public Health Goals[68]

Chemical	Safety Factor (Non-Cancer Effects)
Perchlorate (infants)	3
Perchlorate (adults)	10
Lead[69]	3
Fluoride[70]	1
Nitrates[71]	1
1,1-Dichloroethane	1,000
Alachlor	1,000
Atrazine	100
Carbofuran	300
Carbon Tetrachloride	1,000
Chlordane	10,000
Dalapon	300
Dichloromethane	100
Diethylhexylphthalate (DEHP)	1,000
Endrin	100
Ethylene dibromide	1,000
Heptachlor	100 to 1,000
Hexachlorobenzene	1,000
Lindane	1,000
Methoxychlor	1,000
Methyl tertiary butyl ether (MTBE)	10,000
Pentachlorophenol	1,000
Tetrachloroethylene	30 to 100
Toxaphene	1,000
Trichloroethylene	100
Vinyl Chloride	100

a safety factor to account for the possibility of effects at lower exposure levels lasting for a longer period of time. The Greer study examined the effects of short-term perchlorate exposure and did not evaluate longer-term effects, which could be greater or happen at smaller doses. In fact, U.S. EPA scientists evaluated the raw data from the Greer study and noticed that perchlorate effects became greater over time, suggesting that chronic exposure to perchlorate could cause problems at lower levels than heretofore detected.[74]

Finally, California EPA should have assigned a safety factor to account for uncertainty caused by remaining unanswered questions in perchlorate toxicity. Experiments to date have not examined neurodevelopmental outcomes, subtle and time-sensitive changes in thyroid function during development, and other, more direct ways to detect potentially subtle effects of perchlorate exposure. As these questions are answered, the effects of perchlorate may become apparent at lower exposure levels.

In summary, the Massachusetts DEP concluded that "the Greer study results themselves support a lower interim exposure guidance value for sensitive individuals than that adopted by California EPA."[75] If California EPA scientists had applied the margin of safety used in Massachusetts or by the U.S. EPA, they would have arrived at a public health goal of one part per billion or less.[76]

No Consideration of Potentially Additive Effects with Other Contaminants in the Environment

California EPA scientists also failed to consider how perchlorate may add to the ill-effects of other dangerous chemicals that harm the thyroid gland and put infant children at risk of neuro-developmental defects. In particular, California women have measurable amounts of thyroid toxicants like toxic flame retardants (PBDEs), PCBs and dioxin in their bodies. Just as a pregnant woman with iodine

Table 3: Comparison of Safety Factors Used by the U.S. EPA, Massachusetts DEP, and California EPA

Source of Uncertainty	SAFETY FACTOR		
	U.S EPA[77] (Weight of Evidence)	MADEP[78] (Weight of Evidence)	Cal/EPA[79] (Greer Study)
Variability Among People	3	10	10
Short-Term Exposure Study, Not Chronic	3	—	—
Low Statistical Resolution to Detect Effects at Smallest Exposure Level	10	10	—
Extrapolation of Animal Data to Human	—	3	—
Remaining Unanswered Questions in Perchlorate Science	3	—	—
Total Safety Factor	**300**	**300**	**10**

deficiency or hypothyroidism would be more vulnerable to perchlorate, a pregnant woman with potentially dangerous levels of other thyroid toxicants in her body would be more vulnerable to perchlorate. Other contaminants in water, such as nitrates from fertilizer or factory farms, can also block iodine uptake into the thyroid. Other chemicals, including a toxicant found in cigarette smoke, can have a similar effect. Yet the California EPA scientists failed to consider the cumulative effects of these other pollutants. The effects of multiple chemicals that disrupt the function of the thyroid hormone system could simply be additive, or they could be worse in combination with each other than any one alone. Accounting for the possibility of these interactions would require a lower public health goal.

Leaving Contamination Unaddressed

If California implemented a final standard based on the public health goal of six parts per billion, it could allow polluters to leave much contamination unaddressed. Much of the water drawn from the Colorado River would technically require no treatment. If this water continues to serve as irrigation for crops in Southern California, it could expose massive numbers of people to unacceptable levels of perchlorate through their diets. A final standard of six parts per billion would also effectively exclude nearly one-third of the polluted wells in California from the cleanup effort. More than 110 wells have a maximum detected contaminant level of six parts per billion or less and would be left without mandatory cleanup.[80]

Policy Recommendations

The state has an obligation to protect the health of its most vulnerable citi zens. The bottom line is that expectant mothers, fetuses and infants should not have to face the threat of perchlorate in their drinking water. Rocket fuel is not a natural part of California's water supply.

The weight of scientific evidence supports a stronger health standard for perchlorate in drinking water than advocated by the perchlorate industry, and stronger than the current public health goal. DHS should help create the healthiest possible conditions for parents to help their children grow into their full potential by setting a standard that is both scientifically supportable and reflective of legal requirements and community values in providing protection for those who need it most.

DHS should immediately establish a health-protective drinking water standard for perchlorate of one part per billion or less, providing an adequate margin of safety for pregnant women, their developing babies and infants. These young and future citizens need our protection and nurturing in order to reach their full potential.

Addressing the problem of perchlorate contimination will require action on the state, local and national level.

California Department of Health Services

The California Department of Health Services should set the drinking water standard for perchlorate at one part per billion or less.

In addition:

Congress

Congress should re-establish fees for polluting industries under the Superfund program to ensure cleanup funding for sites like the Inland Empire, where some responsible parties have gone bankrupt.

Congress should hold the Department of Defense liable for cleanup.

Congress should require the Department of Defense to fund regular testing for perchlorate contamination on its lands, and to respond promptly to requests for information from state and federal environmental agencies—requests the Department of Defense has a history of resisting.

U.S. EPA, California EPA, and Nevada DEP

State and federal agencies should require American Pacific, Kerr-McGee Chemical and other responsible parties to accelerate clean up of perchlorate contamination currently leaking into the Colorado River.

California EPA should label perchlorate as hazardous under proposition 65, which would require warnings for perchlorate-contaminated food.

The State of California Attorney General's Office

The Attorney General's Office should pursue responsible parties to ensure full recovery of cleanup costs.

The Attorney General's Office should assist local governments and water suppliers in cases against polluters.

Regional Water Quality Control Boards

Regional Water Quality Control Boards, including the Santa Ana Regional Water Quality Control Board, should require all responsible parties to provide impacted communities with immediate replacement drinking water.

Local Water Utilities

Local utilities should endorse a one part per billion perchlorate standard to protect customers.

Local utilities should provide a summary of the health risks of perchlorate exposure in a variety of languages to customers along with water bills.

Notes

1 California Code of Regulations, Health and Safety Code section 116365, part C.

2 The major perchlorate hot-spots are all associated with defense, aerospace, or other major producers and users of the chemical. Some small levels of perchlorate in Texas have appeared in wells not clearly associated with any perchlorate use. The ultimate source of this contamination is still up for debate. Perchlorate does occur naturally in a mineral deposit in Chile. The perchlorate industry often claims that fertilizer made from this mineral deposit could be a significant source of perchlorate contamination. However, analysis by the EPA indicates that the amounts of fertilizer imported and the minimal perchlorate content of the fertilizer make it impossible to conclude that it is a major source of contamination: U.S. Environmental Protection Agency, Office of Research and Development, *Perchlorate Environmental Contamination: Toxicological Review and Risk Characterization (External Review Draft)* Washington, D.C., NCEA-1-0503, 2002.

3 U.S. Government Accountability Office, *DOD Operational Ranges: More Reliable Cleanup Cost Estimates and a Proactive Approach to Identifying Contamination Are Needed*, GAO-04-601, 29 June 2004; U.S. Environmental Protection Agency, Office of Research and Development, *Perchlorate Environmental Contamination: Toxicological Review and Risk Characterization (External Review Draft)* Washington, D.C., NCEA-1-0503, 2002.

4 U.S. Environmental Protection Agency, Office of Research and Development, *Perchlorate Environmental Contamination: Toxicological Review and Risk Characterization (External Review Draft)* Washington, D.C., NCEA-1-0503, 2002.

5 Environmental Working Group, *Rocket Science: Perchlorate and the Toxic Legacy of the Cold War*, 16 July 2001.

6 Cheryl Hogue, "Rocket-Fueled River: Lower Colorado Carries Perchlorate to Millions Who Drink its Water, to Those Who Eat Lettuce Irrigated With its Water, and Into a Tribal Well," *Chemical and Engineering News* 81, 37-46, 18 August 2003.

7 Nevada Division of Environmental Protection, Monitoring Data from USGS Gage # 09419790 (LV Wash BLW Lake Las Vegas BLW Henderson, NV), January 1998 through October 2004.

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11 See Note 6.

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13 Bryan Ehlers and Kip Wiley, California Senate Office of Research, *Addressing Perchlorate Contamination of Drinking-Water Sources in California*, January 2004.

14 California Department of Health Services, Perchlorate in California Drinking Water: Monitoring Update, downloaded from www.dhs.ca.gov on 26 November 2004.

15 Environmental Working Group, "High Levels of Toxic Rocket Fuel Found in Lettuce," Downloaded from www.ewg.org on 15 April 2004; P Smith et al, Texas Tech University, "Perchlorate in Water, Soil, Vegetation, and Rodents Collected from the Las Vegas Wash,

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16 K Tan et al, Texas Tech University, "Accumulation of Perchlorate in Aquatic and Terrestrial Plants at a Field Scale," *Journal of Environmental Quality* 33: 1638-1646, 2004.

17 Mike Lee, "Tests on Milk, Lettuce Find Perchlorate is Widespread," *Sacramento Bee*, 30 November 2004.

18 Peak perchlorate concentrations in wells, surface water, and in some cases, treatment plant effluent, measured in 2003 and reported to water system consumers in 2004. Source: Compiled from 2003 Water Quality Reports, or Consumer Confidence Reports, issued by selected southern California Water Suppliers.

19 U.S. Environmental Protection Agency, *Perchlorate Environmental Contamination: Toxicological Review and Risk Characterization Based on Emerging Information*, Washington D.C., 1998; U.S. Environmental Protection Agency, Office of Research and Development, *Perchlorate Environmental Contamination: Toxicological Review and Risk Characterization (External Review Draft)* Washington, D.C., NCEA-1-0503, 2002; M Anba, S Guttmann, Z Lewitus, "The Mode of Action of Perchlorate Ions on the Iodine Uptake of the Thyroid Gland," *International Journal of Appl. Radiat. Isotopes* 7:87-96, 1959.

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70 OEHHA justifies the low uncertainty factor because, "The studies are of human populations and are of good quality. The most sensitive individuals to the effects of dental fluorosis (i.e., children) were included in the study population." This situation does not apply to perchlorate.

71 OEHHA justifies the low uncertainty factor because the scientific evidence "is based on human data for nitrate exposure from drinking water in the most sensitive population (infants)." This is not the case with perchlorate.

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79 See Note 63.

80 See Note 14.

Harriet Eckstein Graphic Design

Exhibit 2:
Well 201 Shutdown Press Release

FOR IMMEDIATE RELEASE
June 9, 2011

PERCHLORATE DETECTED DURING ROUTINE TESTING

Well Removed from Service Pending Treatment Covered By Whittaker Bermite Settlement Agreement

Valencia Water Company has notified the Whittaker Bermite property owners that it will seek remediation funds to clean up a closed well near Santa Clarita City Hall following routine water quality testing that detected low levels of perchlorate. The remediation funds are being sought under a 2007 settlement agreement among Castaic Lake Water Agency (CLWA), Newhall County Water District, Santa Clarita Water Division and Valencia Water Company and Whittaker Corporation and others to address clean-up of impacted wells from the former munitions site.

In August 2010, Valencia Water Company detected perchlorate in Well 201 near City Hall. Although the perchlorate levels were within safe drinking water standards, the company immediately took the well out of service and notified the State Department of Public Health. Valencia Water Company continued to monitor the inactive well on a monthly basis. The most recent sample confirmed that perchlorate is still present and that wellhead treatment is needed as outlined by the settlement agreement with Whittaker Bermite.

"Our diligence in conducting extensive testing enabled us to quickly shut down the well and continue to provide safe water to our customers," said Keith Abercrombie, General Manager for Valencia Water Company. "The removal of this well from service will not have any near-term or long-term impacts on the quality or cost of water to our customers. To the extent it is even necessary, we will shift production to other wells elsewhere in the groundwater basin."

CLWA General Manager Dan Masnada said, "The closing of this well will not impact the Santa Clarita Valley Family of Water Suppliers' ability to adequately provide water to our customers and will not have a negative impact on the Valley's water supply. CLWA and the water retailers continue to ensure that all drinking water quality standards are met and long-term solutions are put in place to address the presence of perchlorate in small portions of the Valley's groundwater aquifers.

"In addition, a pending update of the 2010 Santa Clarita Valley Urban Water Management Plan will examine the presence of perchlorate in Well 201," Masnada said.

Valencia Water Company works cooperatively with and as a member of the Santa Clarita Valley Family of Water Suppliers to provide customers a mix of groundwater pumped from area wells and imported state water. In April 2007, the local water suppliers and the Whittaker Bermite

-more-

property owners negotiated a settlement, which establishes funding to address the clean-up of perchlorate from the former munitions site.

Last year, a $13 million treatment facility near Bouquet Canyon Road and the Santa Clara River came on line to treat perchlorate in groundwater emanating from the Whittaker Bermite property. That treatment facility is part of a larger program that includes the restoration of two perchlorate-impacted wells to extract contaminated groundwater and control the migration of perchlorate in the Saugus Formation aquifer. The cost of that "pump and treat" system is also covered under the settlement agreement that protects the public from paying for the remediation costs.

As part of the settlement, several wells were identified as potentially threatened by perchlorate, including Well 201. Thus, while the now-operational pump and treatment program is intended to control migration of perchlorate, the possibility of further contamination in the direction of groundwater flow was recognized before its installation, and provisions were incorporated in the program to treat any additional wells impacted by perchlorate. Initial operation of the pump and treatment remediation is functioning as planned, and is still applicable for both of its objectives – to control contaminant migration near the source and to extract perchlorate from the aquifer system. In short, the detection of perchlorate at Well 201 does not reflect any change in the anticipated long-term effectiveness of the containment and treatment remedy.

Prior impacted wells included Q2, a Valencia Water Company well that underwent successful wellhead treatment in 2005 utilizing the same treatment technology contemplated for Well 201, and today has no perchlorate detection. Since 1997, seven wells in the Santa Clarita Valley, including this most recent one, have been impacted by perchlorate. Three of those wells have been successfully treated and returned to service, two have been replaced, one is planned to be replaced and this most recent well will have treatment installed.

Perchlorate is a regulated drinking water contaminant in California with a maximum contaminant level (mcl) of 6 parts per billion (ppb). The Valencia Water Company test in August 2010 was 5 ppb. During the last several months, readings have varied from 5 to 12 ppb in the most recent test.

Perchlorate is both a naturally occurring and man-made ion used to form a variety of salts. Perchlorate is primarily used today as an oxidizer in solid rocket fuel and other propellants and to a lesser extent, in fireworks, explosives and air-bag inflators. It is highly soluble in water and has been detected in ground and surface water in 26 states. It has also been detected in water supplies in close proximity to sites where solid rocket fuel was manufactured or used, such as the Whittaker Bermite site.

Valencia Water Company is a water provider to 113,000 residential, commercial, industrial and business customers in Valencia, Stevenson Ranch and portions of Saugus and Castaic.

Contact: Keith Abercrombie, General Manager, Valencia Water, (661) 295-6501
Dan Masnada, General Manager, CLWA, (661) 297-1600 Ext. 239

Exhibit 3:
Castaic Lake Water Agency Response to Lutness Public Records Act Request July 2011

CASTAIC LAKE WATER AGENCY

July 12, 2011

Ms. Carole Lutness
25439 Via Macarena
Valencia, CA 91355

Re: Public Records Act Request

Dear Ms. Lutness:

In response to your Public Records Act request dated June 15, 2011, as received by the Agency on June 14, 2011, enclosed are copies of responsive and disclosable records in the Agency's files relating to Valencia Water Company's V-201 well. Our review covered the time period through June 15, 2011, the date of your request.

Please note that the Agency first became aware of the initial detection of 5 ppb at V-201 after receiving an August 31, 2010 email from the California Department of Public Health (DPH), which regulates and oversees drinking water quality in the state (page CLWA 7 in the enclosures). There are no responsive records in our files relating to subsequent test results for V-201. The Agency was not made aware of subsequent sampling and test results for V-201 until early June 2011.

We have enclosed a self-addressed stamped envelope. Please return any pages you do not wish to keep and payment of $0.25 per page for any pages you do wish to keep to my attention. Please call me if you have any questions.

Sincerely,

April Jacobs

April Jacobs
Board Secretary

Enclosures

BOARD OF DIRECTORS
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website address: www.clwa.org

From: Howard An [han@clwa.org]
Sent: Tuesday, August 31, 2010 1:52 PM
To: David Kimbrough (CLWA)
Subject: Perchlorate Plant & VWC Wells
Attachments: 08272010.xlsx

1

CLWA 1

7/7/2011 11:36 AM

Analyst	HA
Date Analyzed	8/27/2010
Date Sampled	8/24-8/26/10

Sample Name	Perchlorate (ppb)	%REC	Limits
LRB			
LRB			
Calib STD 1	5.00		
Calib STD 2	10.00		
Calib STD 3	20.00		
Calib STD 4	40.00		
Calib STD 5	80.00		
LRB			
LFB@25ppb	25.81	103%	± 15%
IPC@25ppb	20.58	82%	± 20%
LRB			
DLR check	4.07	102%	± 50%
STD 1 CCS	5.50	110%	± 25%
QC mid level 8/27/10	19.41	97%	± 10%
LRB			
Influent 8/26	27.72		
Influent dup	27.57		
Influent MS	36.80	91%	± 20%
Influent MSD	36.87	93%	± 20%
Saugus 1	22.55		
Saugus 2	33.23		
Lead	8.43		
Lag			
Effluent			
LRB			
STD 2 CCS	10.65	106%	± 15%
Well N 8/25 VWC			
Well N dup			
Well N MS	9.49	95%	± 20%
Well N MSD	9.35	94%	± 20%
Well N-8			
Well 160			
Well 201	5.02		
Well 205			
LRB			
STD 3 CCS	21.51	108%	± 15%
Effluent 8/24			
Effluent dup			
Effluent MS	9.68		
Effluent MSD	9.71		
Lag			
Lead	8.11		
Saugus 1	23.65		
Saugus 2	33.92		
Influent	28.69		
LRB			

CLWA 2

Chromeleon (c) Dionex 1996-2001

08272010/Summary

Version 6.40+SP1, Build 711

STD 2 CCS	10.57	106%	**± 15%**
LRB			
Conductivity µS	4690	103.8%	**< 10%**
Original MCT µS	4520		
$PD_{A/H}$ = 9.69%			**< 25%**

CLWA 3

Chromeleon (c) Dionex 1996-2001

08272010/Summary

Version 6.40+SP1, Build 711

From: David Kimbrough (CLWA) [IMCEAEX-_O=CLWANET_OU=FIRST+20ADMINISTRATIVE+20GROUP_CN=RECIPIENTS_CN=DAVIDK@clwa.org]
Sent: Tuesday, August 31, 2010 2:13 PM
To: Jim Leserman
Subject: Perchlorate Plant & VWC Wells
Attachments: 08272010.xlsx

From: Howard An
Sent: Tuesday, August 31, 2010 1:52 PM
To: David Kimbrough (CLWA)
Subject: Perchlorate Plant & VWC Wells

CLWA 4

1

7/7/2011 11:36 AM

Analyst	HA
Date Analyzed	8/27/2010
Date Sampled	8/24-8/26/10

Sample Name	Perchlorate (ppb)	%REC	Limits
LRB			
LRB			
Calib STD 1	5.00		
Calib STD 2	10.00		
Calib STD 3	20.00		
Calib STD 4	40.00		
Calib STD 5	80.00		
LRB			
LFB@25ppb	25.81	103%	± 15%
IPC@25ppb	20.58	82%	± 20%
LRB			
DLR check	4.07	102%	± 50%
STD 1 CCS	5.50	110%	± 25%
QC mid level 8/27/10	19.41	97%	± 10%
LRB			
Influent 8/26	27.72		
Influent dup	27.57		
Influent MS	36.80	91%	± 20%
Influent MSD	36.87	93%	± 20%
Saugus 1	22.55		
Saugus 2	33.23		
Lead	8.43		
Lag			
Effluent			
LRB			
STD 2 CCS	10.65	106%	± 15%
Well N 8/25 VWC			
Well N dup			
Well N MS	9.49	95%	± 20%
Well N MSD	9.35	94%	± 20%
Well N-8			
Well 160			
Well 201	5.02		
Well 205			
LRB			
STD 3 CCS	21.51	108%	± 15%
Effluent 8/24			
Effluent dup			
Effluent MS	9.68		
Effluent MSD	9.71		
Lag			
Lead	8.11		
Saugus 1	23.65		
Saugus 2	33.92		
Influent	28.69		
LRB			

CLWA 5

Chromeleon (c) Dionex 1996-2001

08272010 (2)/Summary

Version 6.40+SP1, Build 711

STD 2 CCS	10.57	106%	± 15%
LRB			
Conductivity µS	4690	103.8%	< 10%
Original MCT µS	4520		
$PD_{A/H}$ = 9.69%			< 25%

CLWA 6

Chromeleon (c) Dionex 1996-2001

08272010 (2)/Summary

Version 6.40+SP1, Build 711

From: O'Keefe, Jeff (CDPH-DDWEM) [Jeff.OKeefe@cdph.ca.gov]
Sent: Tuesday, August 31, 2010 3:16 PM
To: Jim Leserman
Cc: David Kimbrough (CLWA); Brownstein, Susan (CDPH-DDWEM)
Subject: Valencia Well 201m Perchlorate Detect

We just heard from Valencia Water Company that their well 201 had a perchlorate detect of 5 ppb. This concerns me because this well is due west of the Saugus wells (and in close proximity too) and may be an indication that the Saugus wells are not containing the plume. Do you have any opinion about this? Have you noticed any upward trend in the perchlorate levels at the Saugus wells?

1

CLWA 7

From: David Kimbrough (CLWA) [IMCEAEX-_O=CLWANET_OU=FIRST+20ADMINISTRATIVE+20GROUP_CN=RECIPIENTS_CN=DAVIDK@clwa.org]
Sent: Tuesday, August 31, 2010 7:40 PM
To: Lynn Takaichi; Jim Leserman; Jeff.OKeefe@cdph.ca.gov
Cc: Susan.Brownstein@cdph.ca.gov; Brian Folsom; Dan Masnada (CLWA); Meredith Durant
Subject: RE: Valencia Well 201m Perchlorate Detect
Attachments: image002.png

VWC is scheduled to resample the well shortly.

-----Original Message-----
From: Lynn Takaichi [mailto:LynnTakaichi@KennedyJenks.com]
Sent: Tue 8/31/2010 4:52 PM
To: Jim Leserman; Jeff.OKeefe@cdph.ca.gov
Cc: David Kimbrough (CLWA); Susan.Brownstein@cdph.ca.gov; Brian Folsom; Dan Masnada (CLWA); Meredith Durant
Subject: Re: Valencia Well 201m Perchlorate Detect

We need to look at the rapid response provisions of the Settlement Agreement.

From: Jim Leserman
To: O'Keefe, Jeff (CDPH-DDWEM)
Cc: David Kimbrough (CLWA) ; Brownstein, Susan (CDPH-DDWEM) ; Lynn Takaichi; Brian Folsom ; Dan Masnada (CLWA) ; Meredith Durant
Sent: Tue Aug 31 16:20:46 2010
Subject: RE: Valencia Well 201m Perchlorate Detect

Jeff,

We will look into the Valencia hits. As you can see below, wellhead data that we have thus far would indicate that the perchlorate concentration in the Saugus Well 1 is going down slightly, or at worst remaining stable. Saugus 2 results show a healthy decrease.

Jim

1

CLWA 8

James R. Leserman, P.E.

Senior Engineer

Castaic Lake Water Agency

Direct Dial (661) 513-1245

General Number (661) 297-1600

Fax: (661) 263-2813

27234 Bouquet Canyon Road

Santa Clarita, CA 91350-2173

jleserman@clwa.org <mailto:jleserman@clwa.org>

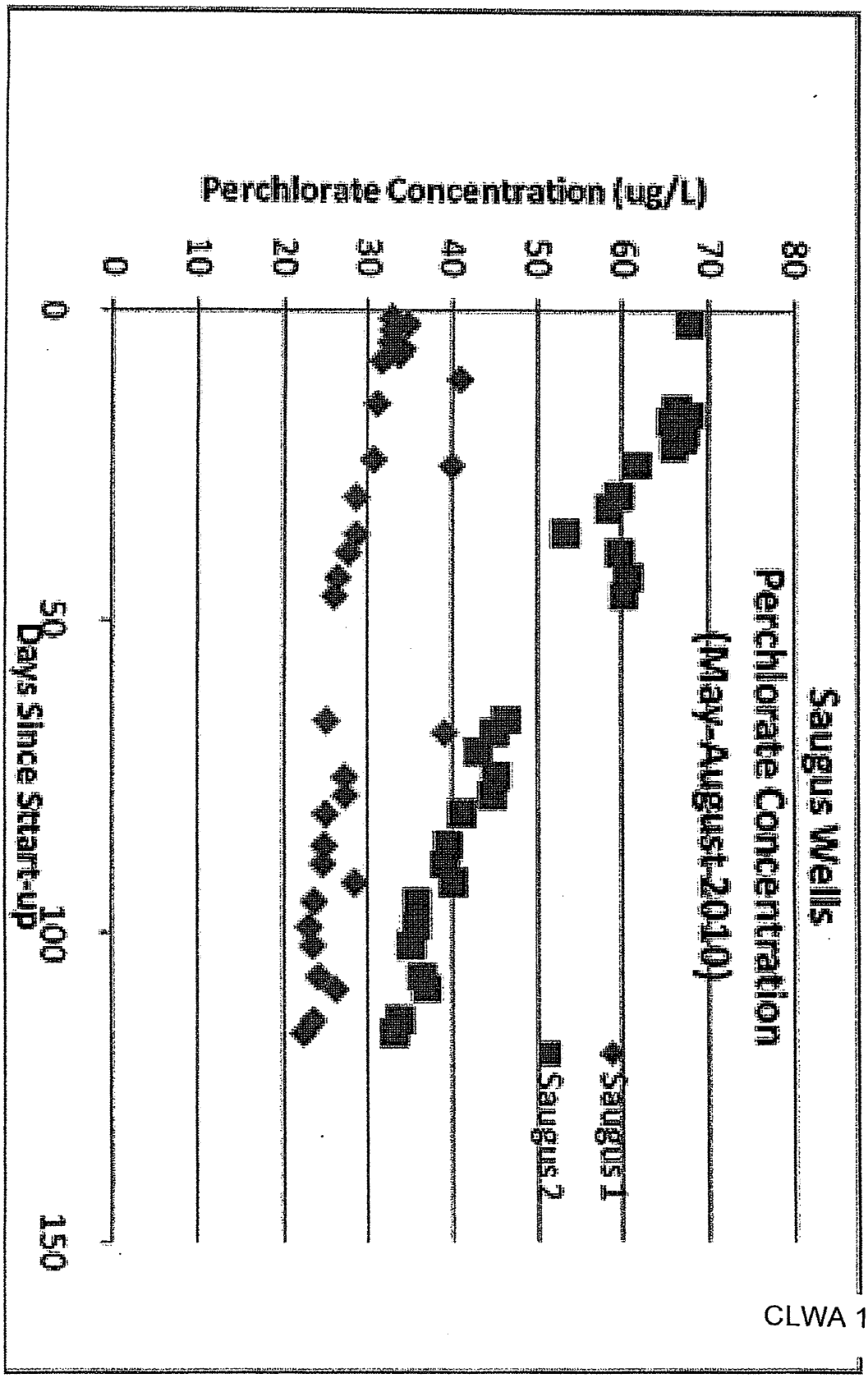
www.clwa.org

From: O'Keefe, Jeff (CDPH-DDWEM) [mailto:Jeff.OKeefe@cdph.ca.gov]
Sent: Tuesday, August 31, 2010 3:16 PM
To: Jim Leserman
Cc: David Kimbrough (CLWA); Brownstein, Susan (CDPH-DDWEM)
Subject: Valencia Well 201m Perchlorate Detect

We just heard from Valencia Water Company that their well 201 had a perchlorate detect of 5 ppb. This concerns me because this well is due west of the Saugus wells (and in close proximity too) and may be an indication that the Saugus wells are not containing the plume. Do you have any opinion about this? Have you noticed any upward trend in the perchlorate levels at the Saugus wells?

2

CLWA 9


Sauaus Wells
Perchlorate Concentration
(May-August 2010)
Sauaus 1
Sauaus 2
Perchlorate Concentration (ug/L)
80
70
60
50
40
30
20
10
0
0
50
100
150
Days since start-up

CLWA 10

From: Brian Folsom [bfolsom@clwa.org]
Sent: Wednesday, September 01, 2010 8:26 AM
To: Jim Leserman; David Kimbrough (CLWA)
Subject: RE: Valencia Well 201m Perchlorate Detect

Do you know when they plan to resample? Is the well still in service?
Where exactly is the well located?

Brian J. Folsom, P.E.
Engineering and Operations Manager
Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350
Phone: 661.297.1600 (main)
661.513.1270 (direct)
E-mail: bfolsom@clwa.org

-----Original Message-----
From: Jim Leserman
Sent: Wednesday, September 01, 2010 8:19 AM
To: Bob DiPrimio (bob.diprimio@gmail.com)
Cc: Brian Folsom; Dan Masnada (CLWA)
Subject: FW: Valencia Well 201m Perchlorate Detect

Bob,

Do you have any thoughts?

Jim

James R. Leserman, P.E.
Senior Engineer
Castaic Lake Water Agency
Direct Dial (661) 513-1245
General Number (661) 297-1600
Fax: (661) 263-2813
27234 Bouquet Canyon Road
Santa Clarita, CA 91350-2173
jleserman@clwa.org
www.clwa.org

-----Original Message-----
From: David Kimbrough (CLWA)
Sent: Tuesday, August 31, 2010 7:40 PM
To: Lynn Takaichi; Jim Leserman; Jeff.OKeefe@cdph.ca.gov
Cc: Susan.Brownstein@cdph.ca.gov; Brian Folsom; Dan Masnada (CLWA); Meredith Durant
Subject: RE: Valencia Well 201m Perchlorate Detect

VWC is scheduled to resample the well shortly.

-----Original Message-----
From: Lynn Takaichi [mailto:LynnTakaichi@KennedyJenks.com]
Sent: Tue 8/31/2010 4:52 PM
To: Jim Leserman; Jeff.OKeefe@cdph.ca.gov
Cc: David Kimbrough (CLWA); Susan.Brownstein@cdph.ca.gov; Brian Folsom; Dan Masnada (CLWA); Meredith Durant
Subject: Re: Valencia Well 201m Perchlorate Detect

CLWA 11

We need to look at the rapid response provisions of the Settlement Agreement.

From: Jim Leserman
To: O'Keefe, Jeff (CDPH-DDWEM)
Cc: David Kimbrough (CLWA) ; Brownstein, Susan (CDPH-DDWEM) ; Lynn Takaichi; Brian Folsom ; Dan Masnada (CLWA) ; Meredith Durant
Sent: Tue Aug 31 16:20:46 2010
Subject: RE: Valencia Well 201m Perchlorate Detect

Jeff,

We will look into the Valencia hits. As you can see below, wellhead data that we have thus far would indicate that the perchlorate concentration in the Saugus Well 1 is going down slightly, or at worst remaining stable. Saugus 2 results show a healthy decrease.

Jim

James R. Leserman, P.E.

Senior Engineer

Castaic Lake Water Agency

Direct Dial (661) 513-1245

General Number (661) 297-1600

Fax: (661) 263-2813

27234 Bouquet Canyon Road

2

CLWA 12

Santa Clarita, CA 91350-2173

jleserman@clwa.org <mailto:jleserman@clwa.org>

www.clwa.org

From: O'Keefe, Jeff (CDPH-DDWEM) [mailto:Jeff.OKeefe@cdph.ca.gov]
Sent: Tuesday, August 31, 2010 3:16 PM
To: Jim Leserman
Cc: David Kimbrough (CLWA); Brownstein, Susan (CDPH-DDWEM)
Subject: Valencia Well 201m Perchlorate Detect

We just heard from Valencia Water Company that their well 201 had a perchlorate detect of 5 ppb. This concerns me because this well is due west of the Saugus wells (and in close proximity too) and may be an indication that the Saugus wells are not containing the plume. Do you have any opinion about this? Have you noticed any upward trend in the perchlorate levels at the Saugus wells?

3

CLWA 13

From: David Kimbrough (CLWA) [IMCEAEX-_O=CLWANET_OU=FIRST+20ADMINISTRATIVE+20GROUP_CN=RECIPIENTS_CN=DAVIDK@clwa.org]
Sent: Wednesday, September 01, 2010 8:45 AM
To: Brian Folsom; Jim Leserman
Subject: RE: Valencia Well 201m Perchlorate Detect

Well 201 is located behind Kohl's on McBean & Del Monte just a block south of Valencia Blvd.

They did not set a date but it will be very soon.

-----Original Message-----
From: Brian Folsom
Sent: Wednesday, September 01, 2010 8:26 AM
To: Jim Leserman; David Kimbrough (CLWA)
Subject: RE: Valencia Well 201m Perchlorate Detect

Do you know when they plan to resample? Is the well still in service?
Where exactly is the well located?

Brian J. Folsom, P.E.
Engineering and Operations Manager
Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350
Phone: 661.297.1600 (main)
661.513.1270 (direct)
E-mail: bfolsom@clwa.org
-----Original Message-----
From: Jim Leserman
Sent: Wednesday, September 01, 2010 8:19 AM
To: Bob DiPrimio (bob.diprimio@gmail.com)
Cc: Brian Folsom; Dan Masnada (CLWA)
Subject: FW: Valencia Well 201m Perchlorate Detect

Bob,

Do you have any thoughts?

Jim

James R. Leserman, P.E.
Senior Engineer
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27234 Bouquet Canyon Road
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jleserman@clwa.org
www.clwa.org

-----Original Message-----
From: David Kimbrough (CLWA)
Sent: Tuesday, August 31, 2010 7:40 PM
To: Lynn Takaichi; Jim Leserman; Jeff.OKeefe@cdph.ca.gov
Cc: Susan.Brownstein@cdph.ca.gov; Brian Folsom; Dan Masnada (CLWA); Meredith Durant

CLWA 14

Subject: RE: Valencia Well 201m Perchlorate Detect

VWC is scheduled to resample the well shortly.

-----Original Message-----
From: Lynn Takaichi [mailto:LynnTakaichi@KennedyJenks.com]
Sent: Tue 8/31/2010 4:52 PM
To: Jim Leserman; Jeff.OKeefe@cdph.ca.gov
Cc: David Kimbrough (CLWA); Susan.Brownstein@cdph.ca.gov; Brian Folsom; Dan Masnada (CLWA); Meredith Durant
Subject: Re: Valencia Well 201m Perchlorate Detect

We need to look at the rapid response provisions of the Settlement Agreement.

From: Jim Leserman
To: O'Keefe, Jeff (CDPH-DDWEM)
Cc: David Kimbrough (CLWA) ; Brownstein, Susan (CDPH-DDWEM) ; Lynn Takaichi; Brian Folsom ; Dan Masnada (CLWA) ; Meredith Durant
Sent: Tue Aug 31 16:20:46 2010
Subject: RE: Valencia Well 201m Perchlorate Detect

Jeff,

We will look into the Valencia hits. As you can see below, wellhead data that we have thus far would indicate that the perchlorate concentration in the Saugus Well 1 is going down slightly, or at worst remaining stable. Saugus 2 results show a healthy decrease.

Jim

James R. Leserman, P.E.

Senior Engineer

2

CLWA 15

Castaic Lake Water Agency

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From: O'Keefe, Jeff (CDPH-DDWEM) [mailto:Jeff.OKeefe@cdph.ca.gov]
Sent: Tuesday, August 31, 2010 3:16 PM
To: Jim Leserman
Cc: David Kimbrough (CLWA); Brownstein, Susan (CDPH-DDWEM)
Subject: Valencia Well 201m Perchlorate Detect

We just heard from Valencia Water Company that their well 201 had a perchlorate detect of 5 ppb. This concerns me because this well is due west of the Saugus wells (and in close proximity too) and may be an indication that the Saugus wells are not containing the plume. Do you have any opinion about this? Have you noticed any upward trend in the perchlorate levels at the Saugus wells?

From: EDT (CDPH-DDWEM) [EDT.EDT@cdph.ca.gov]
Sent: Wednesday, September 01, 2010 2:09 PM
To: David Kimbrough (CLWA)
Cc: James Saenz
Subject: RE: VWC Wells N, N-8, 160, 201, & 205 August 25, 2010
Attachments: CTLTOTAL.TXT; GOODONE1.TXT; REPEATS1.TXT

Thank you, for sending the drinking water analyses; listed is a summary of the results received:

Number of .res files received = 5

INCOMMING RECORDS	VALID TO WQM/WQI3	ERRORS TO ERR FILE	DUPS TO DUP FILE	REPEAT RECORDS	FINDINGS GT MCL
487	482	0	0	5	0

ALL ATTACHED FILES ARE TEXT TYPE FILES, AND CAN BE OPENED USING EITHER NOTEPAD, WORDPAD, OR MICROSOFT WORD. Attached is a Word file titled "File Extension Definitions" that will explain the meaning of the attached files. If there are any errors (see the above summary to determine if there are any errors that requires further investigation) make the necessary corrections and resubmit the analyses. The attached Word document will assist you with an explanation of the error (if any).

If you need assistance please contact me.

Anthony Meeks
California Department of Public Health
Drinking Water Program
PO Box 997377, MS-7416
Sacramento, CA 95899-7377

1616 Capitol Avenue, Suite 74.421
Sacramento, CA 95899-5052

Telephone: (916) 449-5568
Fax: (916) 440-5602
EDT Email Address: edt@cdph.ca.gov
Personal Email Address: ameeks@cdph.ca.gov

Drinking Water Quality Monitoring Schedule Notification documents provide a list of upcoming and OVER DUE required contaminant testing of drinking water for water systems in California and can be viewed at our website:

http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Monitoring.aspx

From: David Kimbrough (CLWA) [mailto:dkimbrough@clwa.org]
Sent: Wednesday, September 01, 2010 10:06 AM
To: EDT (CDPH-DDWEM)
Cc: James Saenz
Subject: VWC Wells N, N-8, 160, 201, & 205 August 25, 2010

<<VWC-CLO4-082510.hed>> <<VWC-CLO4-082510.res>> <<VWC-CLO4-082510.sts>>

2

CLWA 18

CTLTOTAL

09/01/10 PSMOD RECORD COUNT OF ALL FILES PROCESSED REPORT: PSMOD1-1
PAGE: 1

FILE COUNT	DOS FILENAME	DOS FILE SIZE	RECORD COUNT
1	1.RES	12084	159
2	11.RES	12084	159
3	12.RES	12084	159
4	13.RES	380	5
5	14.RES	380	5

TOTAL RECORDS 487

09/01/10 PSMOD REPORT OF FILE(S) RECEIVED WITH VALID RECORDS REPORT: PSMOD8-1
PAGE: 1

FILE COUNT	DOS FILENAME	RECORD COUNT
1	1.RES	159
2	11.RES	159
3	12.RES	159
4	13.RES	5
5	14.RES	5
TOTAL		487

09/01/10 PSMOD CONTROL TOTALS REPORT PAGE: 1
14:07.09 REPORT: PSMOD8-2

A: INCOMMING RECORDS	B: VALID TO WQM/WQI3	C: ERRORS TO ERR FILE	D: DUPS TO DUP FILE	E: REPEAT RECORDS	G: FINDINGS GT MCL
487	482	0	0	5	0

A (INCOMMING RES RECORDS) MUST BE EQUAL TO

B (RES RECORDS PASSED TO WQM) PLUS

C (ERROR RECORDS TO ERROR FILE) PLUS

D (DUPLICATE RECS TO DUPLICATE FILE) PLUS

E (REPEAT RECORDS TO REPEATS FILE)

==========

F (RECS WITH FINDINGS EXCEEDING MCL)
(RECORDS ARE ALSO IN FILE B OR C ABOVE)

THE COUNTS ARE IN BALANCE.

Page 1

CLWA 19

CTLTOTAL

Page 2

CLWA 20

GOODONE1

DATE: 09/01/10 SYSTEM NUMBER: 1910048 PAGE: 1
Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910048-004	100504	0000	2104	AGGRSSIVE	82383		13.1
				ALKALINITY	00410		186
				ALUMINUM	01105	<	50.0
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		227
				BROMIDE	82298		0.12
				CADMIUM	01027	<	1.0
				CALCIUM	00916		110
				CARBONATE	00445	<	1
				CHLORIDE	00940		26
				CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0
				FLUORIDE (	00951		0.20
				HARDNESS (	00900		373
				HYDROXIDE	71830	<	1
				IRON	01045		118
				LANGELIER	71814		1.4
				MAGNESIUM	00927		24
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		14.6
				NITRATE +	A-029		3297
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.73
				PHOSPHATE	00650	<	1
				POTASSIUM	00937		2.7
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		50
				SPECIFIC C	00095		850
				SULFATE	00945		199
				THALLIUM	01059	<	1.0
				TURBIDITY,	82079		1.1
				ZINC	01092	<	50.0
	100608	0000	2104	AGGRSSIVE	82383		13.2
				ALKALINITY	00410		185
				ALUMINUM	01105		150
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		226
				BROMIDE	82298		0.14
				CADMIUM	01027	<	1.0
				CALCIUM	00916		92

DATE: 09/01/10 SYSTEM NUMBER: 1910048 PAGE: 2
Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING

Page 1

CLWA 21

GOODONE1

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910048-004	100608	0000	2104	CARBONATE	00445	<	1
				CHLORIDE	00940		28
				CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0
				FLUORIDE (	00951		0.21
				HARDNESS (	00900		310
				HYDROXIDE	71830	<	1
				IRON	01045	<	100.0
				LANGELIER	71814		1.5
				MAGNESIUM	00927		20
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		13.9
				NITRATE +	A-029		3139
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.62
				PHOSPHATE	00650	<	1
				POTASSIUM	00937		2.5
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		44
				SPECIFIC C	00095		841
				SULFATE	00945		167
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		575
				TURBIDITY,	82079		2.7
				ZINC	01092	<	50.0
	100706	0000	2104	AGGRSSIVE	82383		13.2
				ALKALINITY	00410		186
				ALUMINUM	01105	<	50.0
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		227
				BROMIDE	82298		0.14
				CADMIUM	01027	<	1.0
				CALCIUM	00916		91
				CARBONATE	00445	<	1
				CHLORIDE	00940		28
				CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0
				FLUORIDE (	00951		0.24
				HARDNESS (	00900		310
				HYDROXIDE	71830	<	1
				IRON	01045	<	100.0
				LANGELIER	71814		1.5

DATE: 09/01/10 SYSTEM NUMBER: 1910048 PAGE: 3

Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910048-004	100706	0000	2104	MAGNESIUM	00927		20
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		14.1
				NITRATE +	A-029		3184

Page 2

CLWA 22

				GOODONE1			
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.61
				PHOSPHATE	00650	<	1
				POTASSIUM	00937		2.6
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		50
				SPECIFIC C	00095		925
				SULFATE	00945		161
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		578
				TURBIDITY,	82079		0.1
				ZINC	01092		803
	100803	0000	2104	AGGRSSIVE	82383		13.4
				ALKALINITY	00410		183
				ALUMINUM	01105	<	50.0
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		223
				BROMIDE	82298		0.14
				CADMIUM	01027	<	1.0
				CALCIUM	00916		91
				CARBONATE	00445	<	1
				CHLORIDE	00940		29
				CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0
				FLUORIDE (	00951		0.23
				HARDNESS (	00900		310
				HYDROXIDE	71830	<	1
				IRON	01045	<	100.0
				LANGELIER	71814		1.7
				MAGNESIUM	00927		20
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		15.6
				NITRATE +	A-029		3184
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.85
				PHOSPHATE	00650	<	1
				POTASSIUM	00937		2.7

DATE: 09/01/10 SYSTEM NUMBER: 1910048 PAGE: 4

Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910048-004	100803	0000	2104	SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		50
				SPECIFIC C	00095		789
				SULFATE	00945		177
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		493
				TURBIDITY,	82079		0.2
				ZINC	01092		64
1910048-005	100504	0000	2104	AGGRSSIVE	82383		13.2
				ALKALINITY	00410		205

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CLWA 23

				GOODONE1			
				ALUMINUM	01105	<	50.0
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		250
				BROMIDE	82298		0.09
				CADMIUM	01027	<	1.0
				CALCIUM	00916		86
				CARBONATE	00445	<	1
				CHLORIDE	00940		18
				CHROMIUM (	01034	<	10.0
				COLOR	00081		30
				COPPER	01042		896
				FLUORIDE (	00951		0.21
				HARDNESS (	00900		296
				HYDROXIDE	71830	<	1
				IRON	01045	<	100.0
				LANGELIER	71814		1.5
				MAGNESIUM	00927		20
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		12.9
				NITRATE +	A-029		2913
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.59
				PHOSPHATE	00650	<	1
				POTASSIUM	00937		2.6
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		38
				SPECIFIC C	00095		720
				SULFATE	00945		132
				THALLIUM	01059	<	1.0
				TURBIDITY,	82079		28.6
				ZINC	01092	<	50.0
	100605	0000	2104	AGGRSSIVE	82383		13.2
				ALKALINITY	00410		193

DATE: 09/01/10 SYSTEM NUMBER: 1910048 PAGE: 5

Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910048-005	100605	0000	2104	ALUMINUM	01105		95
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		235
				BROMIDE	82298		0.10
				CADMIUM	01027	<	1.0
				CALCIUM	00916		79
				CARBONATE	00445	<	1
				CHLORIDE	00940		18
				CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042		326
				FLUORIDE (	00951		0.21
				HARDNESS (	00900		272
				HYDROXIDE	71830	<	1

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CLWA 24

				GOODONE1			
				IRON	01045	<	100.0
				LANGELIER	71814		1.5
				MAGNESIUM	00927		18
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		11.9
				NITRATE +	A-029		2687
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.64
				PHOSPHATE	00650	<	1
				POTASSIUM	00937		2.0
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		39
				SPECIFIC C	00095		711
				SULFATE	00945		119
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		573
				TURBIDITY,	82079		2.7
				ZINC	01092		56
	100706	0000	2104	AGGRSSIVE	82383		13.1
				ALKALINITY	00410		194
				ALUMINUM	01105	<	50.0
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		237
				BROMIDE	82298		0.11
				CADMIUM	01027	<	1.0
				CALCIUM	00916		83
				CARBONATE	00445	<	1

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Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910048-005	100706	0000	2104	CHLORIDE	00940		20
				CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0
				FLUORIDE (	00951		0.24
				HARDNESS (	00900		284
				HYDROXIDE	71830	<	1
				IRON	01045	<	100.0
				LANGELIER	71814		1.3
				MAGNESIUM	00927		19
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		9.9
				NITRATE +	A-029		2235
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.47
				PHOSPHATE	00650	<	1
				POTASSIUM	00937		2.8
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		39
				SPECIFIC C	00095		892

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				GOODONE1			
				SULFATE	00945		111
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		588
				TURBIDITY,	82079		0.1
				ZINC	01092	<	50.0
	100803	0000	2104	AGGRSSIVE	82383		13.3
				ALKALINITY	00410		191
				ALUMINUM	01105	<	50.0
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		233
				BROMIDE	82298		0.11
				CADMIUM	01027	<	1.0
				CALCIUM	00916		85
				CARBONATE	00445	<	1
				CHLORIDE	00940		20
				CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0
				FLUORIDE (	00951		0.24
				HARDNESS (	00900		290
				HYDROXIDE	71830	<	1
				IRON	01045	<	100.0
				LANGELIER	71814		1.6
				MAGNESIUM	00927		19

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Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910048-005	100803	0000	2104	MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		10.6
				NITRATE +	A-029		2394
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.68
				PHOSPHATE	00650	<	1
				POTASSIUM	00937		2.9
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		41
				SPECIFIC C	00095		685
				SULFATE	00945		111
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		428
				TURBIDITY,	82079		0.1
				ZINC	01092	<	50.0
1910048-006	100504	0000	2104	AGGRSSIVE	82383		13.4
				ALKALINITY	00410		210
				ALUMINUM	01105	<	50.0
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		256
				BROMIDE	82298	<	0.1
				CADMIUM	01027	<	1.0
				CALCIUM	00916		104

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GOODONE1			
CARBONATE	00445	<	1
CHLORIDE	00940		166
CHROMIUM (	01034	<	10.0
COLOR	00081	<	5
COPPER	01042	<	50.0
FLUORIDE (	00951		0.2
HARDNESS (	00900		353
HYDROXIDE	71830	<	1
IRON	01045	<	100.0
LANGELIER	71813		1.7
MAGNESIUM	00927		23
MANGANESE	01055	<	20.0
NICKEL	01067	<	10.0
NITRATE (A	71850	<	2.0
NITRATE +	A-029	<	400
NITRITE (A	00620	<	400
ODOR THRES	00086		1
PH, LABORA	00403		7.65
PHOSPHATE	00650	<	1
POTASSIUM	00937		2.1
SELENIUM	01147	<	5.0

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Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910048-006	100504	0000	2104	SILVER	01077	<	10.0
				SODIUM	00929		48
				SPECIFIC C	00095		946
				SULFATE	00945		3
				THALLIUM	01059	<	1.0
				TURBIDITY,	82079		1.1
				ZINC	01092	<	50.0
	100607	0000	2104	AGGRSSIVE	82383		13.1
				ALKALINITY	00410		190
				ALUMINUM	01105	<	50.0
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		232
				BROMIDE	82298	<	0.1
				CADMIUM	01027	<	1.0
				CALCIUM	00916		116
				CARBONATE	00445	<	1
				CHLORIDE	00940		28
				CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0
				FLUORIDE (	00951		0.2
				HARDNESS (	00900		390
				HYDROXIDE	71830	<	1
				IRON	01045		159
				LANGELIER	71813		1.4
				MAGNESIUM	00927		25
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		14.1
				NITRATE +	A-029		3184
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1

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				GOODONE1			
				PH, LABORA	00403		7.41
				PHOSPHATE	00650	<	1
				POTASSIUM	00937		2.5
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		49
				SPECIFIC C	00095		892
				SULFATE	00945		175
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		556
				TURBIDITY,	82079		0.6
				ZINC	01092	<	50.0
	100708	0000	2104	AGGRSSIVE	82383		12.8
				ALKALINITY	00410		185
				ALUMINUM	01105	<	50.0

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Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910048-006	100708	0000	2104	ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		226
				BROMIDE	82298	<	0.1
				CADMIUM	01027	<	1.0
				CALCIUM	00916		70
				CARBONATE	00445	<	1
				CHLORIDE	00940		23
				CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0
				FLUORIDE (	00951		0.2
				HARDNESS (	00900		241
				HYDROXIDE	71830	<	1
				IRON	01045	<	100.0
				LANGELIER	71813		1.1
				MAGNESIUM	00927		16
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		11.9
				NITRATE +	A-029		2687
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.32
				PHOSPHATE	00650	<	1
				POTASSIUM	00937		1.3
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		33
				SPECIFIC C	00095		892
				SULFATE	00945		137
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		558
				TURBIDITY,	82079		0.1
				ZINC	01092	<	50.0
	100802	0000	2104	AGGRSSIVE	82383		13.2
				ALKALINITY	00410		179
				ALUMINUM	01105	<	50.0
				ANTIMONY	01097	<	6.0

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GOODONE1				
	ARSENIC	01002	<	2.0
	BARIUM	01007	<	100.0
	BERYLLIUM	01012	<	1.0
	BICARBONAT	00440		218
	BROMIDE	82298	<	0.1
	CADMIUM	01027	<	1.0
	CALCIUM	00916		87
	CARBONATE	00445	<	1
	CHLORIDE	00940		25

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Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910048-006	100802	0000	2104	CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0
				FLUORIDE (	00951		0.2
				HARDNESS (	00900		300
				HYDROXIDE	71830	<	1
				IRON	01045	<	100.0
				LANGELIER	71813		1.5
				MAGNESIUM	00927		20
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		12.2
				NITRATE +	A-029		2755
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.65
				PHOSPHATE	00650	<	1
				POTASSIUM	00937		3.3
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		44
				SPECIFIC C	00095		735
				SULFATE	00945		138
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		459
				TURBIDITY,	82079		0.1
				ZINC	01092	<	50.0

****
End of ACCEPTABLE and LOADABLE data for System Number: 1910048
****

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Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910240-003	100825	0000	2104	PERCHLORAT	A-031	<	4.0
1910240-004	100825	0000	2104	PERCHLORAT	A-031	<	4.0
1910240-020	100825	0000	2104	PERCHLORAT	A-031		5.0
1910240-047	100825	0000	2104	PERCHLORAT	A-031	<	4.0
1910240-048	100825	0000	2104	PERCHLORAT	A-031	<	4.0

****
End of ACCEPTABLE and LOADABLE data for System Number: 1910240
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GOODONE1

0

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                                        REPEATS1
00003AS1910240-003    10082500004TH2104100827A-031<       4.0100901      2
00001AS1910240-004    10082500004TH2104100827A-031<       4.0100901      2
00005AS1910240-020    10082500004TH2104100827A-031        5.0100901      2
00002AS1910240-047    10082500004TH2104100827A-031<       4.0100901      2
00006AS1910240-048    10082500004TH2104100827A-031<       4.0100901      2
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CLWA 31

From: David Kimbrough (CLWA) [IMCEAEX-_O=CLWANET_OU=FIRST+20ADMINISTRATIVE+20GROUP_CN=RECIPIENTS_CN=DAVIDK@clwa.org]
Sent: Tuesday, September 07, 2010 9:41 AM
To: Lynn Takaichi; Jim Leserman; Brian Folsom; Dan Masnada (CLWA); Meredith Durant
Subject: Valencia Well 201 Perchlorate Detect - Sampling

Good Morning,

Might I suggest that it could be informative to have the sentinel wells monitored for perchlorate.

David Eugene Kimbrough, Ph.D.

Laboratory Supervisor

Castaic Lake Water Agency

27234 Bouquet Canyon Road

Santa Clarita, CA 91350-2173

661.297.1600

dkimbrough@clwa.org

-----Original Message-----
From: David Kimbrough (CLWA)
Sent: Tuesday, August 31, 2010 7:40 PM
To: Lynn Takaichi; Jim Leserman; Jeff.OKeefe@cdph.ca.gov
Cc: Susan.Brownstein@cdph.ca.gov; Brian Folsom; Dan Masnada (CLWA); Meredith Durant
Subject: RE: Valencia Well 201m Perchlorate Detect

VWC is scheduled to resample the well shortly.

-----Original Message-----

From: Lynn Takaichi [mailto:LynnTakaichi@KennedyJenks.com]

Sent: Tue 8/31/2010 4:52 PM

To: Jim Leserman; Jeff.OKeefe@cdph.ca.gov

Cc: David Kimbrough (CLWA); Susan.Brownstein@cdph.ca.gov; Brian Folsom; Dan Masnada (CLWA); Meredith Durant

Subject: Re: Valencia Well 201m Perchlorate Detect

CLWA 32

We need to look at the rapid response provisions of the Settlement Agreement.

From: Jim Leserman

To: O'Keefe, Jeff (CDPH-DDWEM)

Cc: David Kimbrough (CLWA) ; Brownstein, Susan (CDPH-DDWEM) ; Lynn Takaichi; Brian Folsom ; Dan Masnada (CLWA) ; Meredith Durant

Sent: Tue Aug 31 16:20:46 2010

Subject: RE: Valencia Well 201m Perchlorate Detect

Jeff,

We will look into the Valencia hits. As you can see below, wellhead data that we have thus far would indicate that the perchlorate concentration in the Saugus Well 1 is going down slightly, or at worst remaining stable. Saugus 2 results show a healthy decrease.

Jim

CLWA 33

2

James R. Leserman, P.E.

Senior Engineer

Castaic Lake Water Agency

Direct Dial (661) 513-1245

General Number (661) 297-1600

Fax: (661) 263-2813

27234 Bouquet Canyon Road

Santa Clarita, CA 91350-2173

jleserman@clwa.org <mailto:jleserman@clwa.org>

www.clwa.org

From: O'Keefe, Jeff (CDPH-DDWEM) [mailto:Jeff.OKeefe@cdph.ca.gov]

Sent: Tuesday, August 31, 2010 3:16 PM

To: Jim Leserman

Cc: David Kimbrough (CLWA); Brownstein, Susan (CDPH-DDWEM)

Subject: Valencia Well 201m Perchlorate Detect

We just heard from Valencia Water Company that their well 201 had a perchlorate detect of 5 ppb. This concerns me because this well is due west of the Saugus wells (and in close proximity too) and may be an indication that the Saugus wells are not containing the plume. Do you have any opinion about this? Have you noticed any upward trend in the perchlorate levels at the Saugus wells?

CLWA 34

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From: David Kimbrough (CLWA) [IMCEAEX-_O=CLWANET_OU=FIRST+20ADMINISTRATIVE+20GROUP_CN=RECIPIENTS_CN=DAVIDK@clwa.org]
Sent: Tuesday, September 07, 2010 12:05 PM
To: David Kimbrough (CLWA); Lynn Takaichi; Jim Leserman; Brian Folsom; Dan Masnada (CLWA); Meredith Durant
Subject: RE: Valencia Well 201 Perchlorate Detect - Re-Sampling

Good Afternoon,

I am informed that VWC has shut well 201 down and will not re-sample for compliance purposes for three months. There may be some "unofficial"
sampling sooner.

David Eugene Kimbrough, Ph.D.
Laboratory Supervisor
Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350-2173
661.297.1600
dkimbrough@clwa.org

From: David Kimbrough (CLWA)
Sent: Tuesday, September 07, 2010 9:41 AM
To: 'Lynn Takaichi'; Jim Leserman; Brian Folsom; Dan Masnada (CLWA); 'Meredith Durant'
Subject: Valencia Well 201 Perchlorate Detect - Sampling

Good Morning,

Might I suggest that it could be informative to have the sentinel wells
monitored for perchlorate.

David Eugene Kimbrough, Ph.D.
Laboratory Supervisor
Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350-2173
661.297.1600
dkimbrough@clwa.org

-----Original Message-----
From: David Kimbrough (CLWA)
Sent: Tuesday, August 31, 2010 7:40 PM
To: Lynn Takaichi; Jim Leserman; Jeff.OKeefe@cdph.ca.gov
Cc: Susan.Brownstein@cdph.ca.gov; Brian Folsom; Dan Masnada (CLWA);
Meredith Durant
Subject: RE: Valencia Well 201m Perchlorate Detect

CLWA 35

1

VWC is scheduled to resample the well shortly.

-----Original Message-----
From: Lynn Takaichi [mailto:LynnTakaichi@KennedyJenks.com]
Sent: Tue 8/31/2010 4:52 PM
To: Jim Leserman; Jeff.OKeefe@cdph.ca.gov
Cc: David Kimbrough (CLWA); Susan.Brownstein@cdph.ca.gov; Brian Folsom; Dan Masnada (CLWA); Meredith Durant
Subject: Re: Valencia Well 201m Perchlorate Detect

We need to look at the rapid response provisions of the Settlement Agreement.

From: Jim Leserman
To: O'Keefe, Jeff (CDPH-DDWEM)
Cc: David Kimbrough (CLWA) ; Brownstein, Susan (CDPH-DDWEM) ; Lynn Takaichi; Brian Folsom ; Dan Masnada (CLWA) ; Meredith Durant
Sent: Tue Aug 31 16:20:46 2010
Subject: RE: Valencia Well 201m Perchlorate Detect

Jeff,

We will look into the Valencia hits. As you can see below, wellhead data that we have thus far would indicate that the perchlorate concentration in the Saugus Well 1 is going down slightly, or at worst remaining stable. Saugus 2 results show a healthy decrease.

Jim

James R. Leserman, P.E.

CLWA 36

2

Senior Engineer

Castaic Lake Water Agency

Direct Dial (661) 513-1245

General Number (661) 297-1600

Fax: (661) 263-2813

27234 Bouquet Canyon Road

Santa Clarita, CA 91350-2173

jleserman@clwa.org <mailto:jleserman@clwa.org>

www.clwa.org

From: O'Keefe, Jeff (CDPH-DDWEM) [mailto:Jeff.OKeefe@cdph.ca.gov]
Sent: Tuesday, August 31, 2010 3:16 PM
To: Jim Leserman
Cc: David Kimbrough (CLWA); Brownstein, Susan (CDPH-DDWEM)
Subject: Valencia Well 201m Perchlorate Detect

We just heard from Valencia Water Company that their well 201 had a perchlorate detect of 5 ppb. This concerns me because this well is due west of the Saugus wells (and in close proximity too) and may be an indication that the Saugus wells are not containing the plume. Do you have any opinion about this? Have you noticed any upward trend in the perchlorate levels at the Saugus wells?

CLWA 37

From: David Kimbrough (CLWA) [IMCEAEX-_O=CLWANET_OU=FIRST+20ADMINISTRATIVE+20GROUP_CN=RECIPIENTS_CN=DAVIDK@clwa.org]
Sent: Wednesday, October 06, 2010 10:22 AM
To: James Saenz
Subject: RE: VWC N, N-8, 160, 201, 205 GM GP IO 072810
Attachments: vwc-u-6-gm-gp-io-072110.pdf; vwc-u-4-gm-gp-io-072110.pdf

From: James Saenz [mailto:jsaenz@valenciawater.com]
Sent: Wednesday, October 06, 2010 10:24 AM
To: David Kimbrough (CLWA)
Subject: RE: VWC N, N-8, 160, 201, 205 GM GP IO 072810

Thanks, I also need the results for wells U-4 and S-7.

James Saenz

Water Quality Specialist

Valencia Water Company

Office (661) 295-6579

Cell (661) 810-1749

From: David Kimbrough (CLWA) [mailto:dkimbrough@clwa.org]
Sent: Wednesday, October 06, 2010 9:20 AM
To: James Saenz
Cc: engr temp1
Subject: VWC N, N-8, 160, 201, 205 GM GP IO 072810

Sorry for the delay.

David Eugene Kimbrough, Ph.D.

Laboratory Supervisor

Castaic Lake Water Agency

27234 Bouquet Canyon Road

Santa Clarita, CA 91350-2173

661.297.1600

<mailto:dkimbrough@clwa.org> dkimbrough@clwa.org

CLWA 38

1

<<vwc-n-gm-gp-io-072810.pdf>> <<vwc-201-gm-gp-io-072810.pdf>> <<vwc-205-gm-gp-io-072810.pdf>> <<vwc-n-8-gm-gp-io-072810.pdf>> <<vwc-160-gm-gp-io-072810.pdf>>

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2

CLWA 39

From: James Saenz [jsaenz@valenciawater.com]
Sent: Wednesday, October 06, 2010 10:24 AM
To: David Kimbrough (CLWA)
Subject: RE: VWC N, N-8, 160, 201, 205 GM GP IO 072810

Thanks, I also need the results for wells U-4 and S-7.

James Saenz

Water Quality Specialist

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Sent: Wednesday, October 06, 2010 9:20 AM
To: James Saenz
Cc: engr temp1
Subject: VWC N, N-8, 160, 201, 205 GM GP IO 072810

Sorry for the delay.

David Eugene Kimbrough, Ph.D.

Laboratory Supervisor

Castaic Lake Water Agency

27234 Bouquet Canyon Road

Santa Clarita, CA 91350-2173

661.297.1600

<mailto:dkimbrough@clwa.org> dkimbrough@clwa.org

<<vwc-n-gm-gp-io-072810.pdf>> <<vwc-201-gm-gp-io-072810.pdf>> <<vwc-205-gm-gp-io-072810.pdf>> <<vwc-n-8-gm-gp-io-072810.pdf>> <<vwc-160-gm-gp-io-072810.pdf>>

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1

CLWA 40

From: David Kimbrough (CLWA) [IMCEAEX-_O=CLWANET_OU=FIRST+20ADMINISTRATIVE+20GROUP_CN=RECIPIENTS_CN=DAVIDK@clwa.org]
Sent: Wednesday, October 06, 2010 10:33 AM
To: James Saenz
Subject: RE: VWC N, N-8, 160, 201, 205 GM GP IO 072810
Attachments: vwc-s-7-gm-gp-io-071410.pdf

From: James Saenz [mailto:jsaenz@valenciawater.com]
Sent: Wednesday, October 06, 2010 10:35 AM
To: David Kimbrough (CLWA)
Subject: RE: VWC N, N-8, 160, 201, 205 GM GP IO 072810

Thanks again, I need Well S-7 results.

James Saenz

Water Quality Specialist

Valencia Water Company

Office (661) 295-6579

Cell (661) 810-1749

From: David Kimbrough (CLWA) [mailto:dkimbrough@clwa.org]
Sent: Wednesday, October 06, 2010 10:22 AM
To: James Saenz
Subject: RE: VWC N, N-8, 160, 201, 205 GM GP IO 072810

From: James Saenz [mailto:jsaenz@valenciawater.com]
Sent: Wednesday, October 06, 2010 10:24 AM
To: David Kimbrough (CLWA)
Subject: RE: VWC N, N-8, 160, 201, 205 GM GP IO 072810

Thanks, I also need the results for wells U-4 and S-7.

James Saenz

Water Quality Specialist

Valencia Water Company

Office (661) 295-6579

CLWA 41

1

Cell (661) 810-1749

From: David Kimbrough (CLWA) [mailto:dkimbrough@clwa.org]
Sent: Wednesday, October 06, 2010 9:20 AM
To: James Saenz
Cc: engr temp1
Subject: VWC N, N-8, 160, 201, 205 GM GP IO 072810

Sorry for the delay.

David Eugene Kimbrough, Ph.D.

Laboratory Supervisor

Castaic Lake Water Agency

27234 Bouquet Canyon Road

Santa Clarita, CA 91350-2173

661.297.1600

dkimbrough@clwa.org

<<vwc-n-gm-gp-io-072810.pdf>> <<vwc-201-gm-gp-io-072810.pdf>> <<vwc-205-gm-gp-io-072810.pdf>> <<vwc-n-8-gm-gp-io-072810.pdf>> <<vwc-160-gm-gp-io-072810.pdf>>

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CLWA - Water Quality Laboratory EDT
27234 Bouquet Canyon Road
Santa Clarita, CA 91350-2173
GENERAL MINERAL & PHYSICAL & INORGANIC ANALYSIS (9/99)

Date of Report: 10/08/16 Sample ID No.S-7 071410
Laboratory Name: CASTAIC LAKE WATER AGENCY Signature Lab Director: APPROVED
Name of Sampler:J. Saenz Employed By: Valencia Water Co.
Date/Time Sample Collected:10/07/14/0000 Date/Time Sample Received @ Lab:10/07/14/0000 Date Analyses Completed:10/07/21

System Name:VALENCIA WATER CO. System Number: 1910240
Name or Number of Sample Source:WELL S-7

User ID: 4TH Station Number: 1910240-026
Date/Time of Sample: |10|07|14|0000| (YY MM DD TTTT) Laboratory Code: 2104
Date Analysis completed: |10|07|21| (YY MM DD)
Submitted by:_____ Phone #:_____

MCL	REPORTING UNITS	CHEMICAL	ENTRY #	ANALYSES RESULTS	DLR
	mg/L	Total Hardness (as CaCO3) (mg/L)	00900	385	
	mg/L	Calcium (Ca) (mg/L)	00916	99	
	mg/L	Magnesium (Mg) (mg/L)	00927	34	
	mg/L	Sodium (NA) (mg/L)	00929	113	
	mg/L	Potassium (K) (mg/L)	00937	2.6	
Total Cations		Meq/L Value: 12.72			
	mg/L	Total Alkalinity (AS CaCO3) (mg/L)	00410	248	
	mg/L	Hydroxide (OH) (mg/L)	71830	< 1	
	mg/L	Carbonate (CO3) (mg/L)	00445	< 1	
	mg/L	Bicarbonate (HCO3) (mg/L)	00440	303	
*	mg/L+	Sulfate (SO4) (mg/L)	00945	170	.5
*	mg/L+	Chloride (Cl) (mg/L)	00940	128	
45	mg/L	Nitrate (as NO3) (mg/L)	71850	18.4	2.0
2 .	mg/L	Fluoride (F) (Natural-Source)	00951	0.3	.1
Total Anions		Meq/L Value: 12.43			
	Std.Units+	PH (Laboratory) (Std.Units)	00403	7.42	
***	umho/cm+	Specific Conductance (E.C.) (umhos/cm)	00095	1311	
****	mg/L+	Total Filterable Residue@180C(TDS)(mg/L)	70300	819	
15	Units	Apparent Color (Unfiltered) (Units)	00081	< 5	
3	TON	Odor Threshold at 60 C (TON)	00086	1	1.
5	NTU	Lab Turbidity (NTU)	82079	0.09	
0.5	mg/L+	MBAS (mg/L)	38260		

* 250-500-600 ** 0.6-1.7 *** 900-1600-2200 **** 500-1000-1500

CLWA 43

INORGANIC CHEMICALS S-7 071410

MCL	REPORTING UNITS	CHEMICAL	ENTRY #	ANALYSES RESULTS	DLR
1000	ug/L	Aluminum (Al) (ug/L)	01105	< 50.0	50.0
6	ug/L	Antimony (ug/L)	01097	< 6.0	6.0
10	ug/L	Arsenic (As) (ug/L)	01002	< 2.0	2.0
1000	ug/L	Barium (Ba) (ug/L)	01007	< 100.0	100.0
4	ug/L	Beryllium (ug/L)	01012	< 1.0	1.0
5	ug/L	Cadmium (Cd) (ug/L)	01027	< 1.0	1.0
50	ug/L	Chromium (Total Cr) (ug/L)	01034	< 10.0	10.0
1000	ug/L+	Copper (Cu) (ug/L)	01042	< 50.0	50.0
300	ug/L+	Iron (Fe) (ug/L)	01045	< 100.0	100.0
50	ug/L+	Manganese (Mn) (ug/L)	01055	< 20.0	20.0
100	ug/L	Nickel (ug/L)	01067	< 10.0	10.0
50	ug/L	Selenium (Se) (ug/L)	01147	< 5.0	5.0
100	ug/L+	Silver (Ag) (ug/L)	01077	< 10.0	10.0
2	ug/L	Thallium (ug/L)	01059	< 1.0	1.0
	ug/L	Uranium (ug/L)	28011	< 1.0	1.0
5000	ug/L	Zinc (Zn) (ug/L)	01092	< 50.0	50.0
		ADDITIONAL ANALYSES			
		Langelier Index at 60 C	71813	1.5	
		Agressiveness Index	82383	13.2	
10000	ug/L	Nitrate + Nitrite as Nitrogen(N) (ug/L)	A-029	4155	400
1000	ug/L	Nitrite as Nitrogen(N) (ug/L)	00620	< 400	400

+ Indicates Secondary Drinking Water Standards

CLWA 44

From: James Saenz [jsaenz@valenciawater.com]
Sent: Wednesday, October 06, 2010 10:35 AM
To: David Kimbrough (CLWA)
Subject: RE: VWC N, N-8, 160, 201, 205 GM GP IO 072810

Thanks again, I need Well S-7 results.

James Saenz

Water Quality Specialist

Valencia Water Company

Office (661) 295-6579

Cell (661) 810-1749

From: David Kimbrough (CLWA) [mailto:dkimbrough@clwa.org]
Sent: Wednesday, October 06, 2010 10:22 AM
To: James Saenz
Subject: RE: VWC N, N-8, 160, 201, 205 GM GP IO 072810

From: James Saenz [mailto:jsaenz@valenciawater.com]
Sent: Wednesday, October 06, 2010 10:24 AM
To: David Kimbrough (CLWA)
Subject: RE: VWC N, N-8, 160, 201, 205 GM GP IO 072810

Thanks, I also need the results for wells U-4 and S-7.

James Saenz

Water Quality Specialist

Valencia Water Company

Office (661) 295-6579

Cell (661) 810-1749

From: David Kimbrough (CLWA) [mailto:dkimbrough@clwa.org]
Sent: Wednesday, October 06, 2010 9:20 AM

CLWA 45

1

To: James Saenz
Cc: engr temp1
Subject: VWC N, N-8, 160, 201, 205 GM GP IO 072810

Sorry for the delay.

David Eugene Kimbrough, Ph.D.

Laboratory Supervisor

Castaic Lake Water Agency

27234 Bouquet Canyon Road

Santa Clarita, CA 91350-2173

661.297.1600

<mailto:dkimbrough@clwa.org> dkimbrough@clwa.org

<<vwc-n-gm-gp-io-072810.pdf>> <<vwc-201-gm-gp-io-072810.pdf>> <<vwc-205-gm-gp-io-072810.pdf>> <<vwc-n-8-gm-gp-io-072810.pdf>> <<vwc-160-gm-gp-io-072810.pdf>>

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CLWA 46

2

From: EDT (CDPH-DDWEM) [EDT.EDT@cdph.ca.gov]
Sent: Wednesday, October 13, 2010 11:07 AM
To: David Kimbrough (CLWA)
Cc: James Saenz
Subject: RE: VWC N, N-8, 160, 201, 205 GM GP IO 072810 & Softening 0910
Attachments: CTLTOTAL.TXT; GOODONE1.TXT

Thank you, for sending the drinking water analyses; listed is a summary of the results received:

Number of .res files received = 2

INCOMMING RECORDS	VALID TO WQM/WQI3	ERRORS TO ERR FILE	DUPS TO DUP FILE	REPEAT RECORDS	FINDINGS GT MCL
208	208	0	0	0	0

ALL ATTACHED FILES ARE TEXT TYPE FILES, AND CAN BE OPENED USING EITHER NOTEPAD, WORDPAD, OR MICROSOFT WORD. Attached is a Word file titled "File Extension Definitions" that will explain the meaning of the attached files. If there are any errors (see the above summary to determine if there are any errors that requires further investigation) make the necessary corrections and resubmit the analyses. The attached Word document will assist you with an explanation of the error (if any).

If you need assistance please contact me.

Anthony Meeks
California Department of Public Health
Drinking Water Program
PO Box 997377, MS-7416
Sacramento, CA 95899-7377

1616 Capitol Avenue, Suite 74.421
Sacramento, CA 95899-5052

Telephone: (916) 449-5568
Fax: (916) 440-5602
EDT Email Address: edt@cdph.ca.gov
Personal Email Address: ameeks@cdph.ca.gov

Drinking Water Quality Monitoring Schedule Notification documents provide a list of upcoming and OVER DUE required contaminant testing of drinking water for water systems in California and can be viewed at our website:

http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Monitoring.aspx

From: David Kimbrough (CLWA) [mailto:dkimbrough@clwa.org]
Sent: Tuesday, October 12, 2010 3:02 PM
To: EDT (CDPH-DDWEM)
Cc: James Saenz
Subject: VWC N, N-8, 160, 201, 205 GM GP IO 072810 & Softening 0910

CLWA 47

1

David Eugene Kimbrough, Ph.D.

Laboratory Supervisor

Castaic Lake Water Agency

27234 Bouquet Canyon Road

Santa Clarita, CA 91350-2173

661.297.1600

dkimbrough@clwa.org

<<VWC-GM-GP-IO-072810.hed>> <<VWC-GM-GP-IO-072810.rbu>> <<VWC-GM-GP-IO-072810.hbu>> <<VWC-GM-GP-IO-072810.sts>> <<VWC-GM-GP-IO-072810.res>> <<VWC-SOFT-0910.hed>> <<VWC-SOFT-0910.sts>> <<VWC-SOFT-0910.res>>

2

CLWA 48

CTLTOTAL

10/13/10 PSMOD RECORD COUNT OF ALL FILES PROCESSED REPORT: PSMOD1-1
PAGE: 1

FILE COUNT	DOS FILENAME	DOS FILE SIZE	RECORD COUNT
1	1.RES	14440	190
2	2.RES	1368	18

TOTAL RECORDS 208

10/13/10 PSMOD REPORT OF FILE(S) RECEIVED WITH VALID RECORDS REPORT: PSMOD8-1
PAGE: 1

FILE COUNT	DOS FILENAME	RECORD COUNT
1	1.RES	190
2	2.RES	18
TOTAL		208

10/13/10 PSMOD CONTROL TOTALS REPORT PAGE: 1
11:05.49 REPORT: PSMOD8-2

A: INCOMMING RECORDS	B: VALID TO WQM/WQI3	C: ERRORS TO ERR FILE	D: DUPS TO DUP FILE	E: REPEAT RECORDS	G: FINDINGS GT MCL
208	208	0	0	0	0

A (INCOMMING RES RECORDS) MUST BE EQUAL TO
B (RES RECORDS PASSED TO WQM) PLUS
C (ERROR RECORDS TO ERROR FILE) PLUS
D (DUPLICATE RECS TO DUPLICATE FILE) PLUS
E (REPEAT RECORDS TO REPEATS FILE)

==========

F (RECS WITH FINDINGS EXCEEDING MCL)
(RECORDS ARE ALSO IN FILE B OR C ABOVE)

THE COUNTS ARE IN BALANCE.

Page 1

CLWA 49

GOODONE1

DATE: 10/13/10 SYSTEM NUMBER: 1910240 PAGE: 1

Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910240-003	100728	0000	2104	AGGRSSIVE	82383		13.2
				ALKALINITY	00410		206
				ALUMINUM	01105		178
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		251
				CADMIUM	01027	<	1.0
				CALCIUM	00916		125
				CARBONATE	00445	<	1
				CHLORIDE	00940		25.8
				CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0
				FLUORIDE (	00951		0.4
				HARDNESS (	00900		469
				HYDROXIDE	71830	<	1
				IRON	01045	<	100.0
				LANGELIER	71813		1.55
				MAGNESIUM	00927		38
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		10.7
				NITRATE +	A-029		2416
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.45
				POTASSIUM	00937		2.7
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		62
				SPECIFIC C	00095		1091
				SULFATE	00945		322
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		618
				TURBIDITY,	82079		0.08
				ZINC	01092	<	50.0
1910240-004	100728	0000	2104	AGGRSSIVE	82383		13.1
				ALKALINITY	00410		237
				ALUMINUM	01105	<	50.0
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		289
				CADMIUM	01027	<	1.0
				CALCIUM	00916		100
				CARBONATE	00445	<	1
				CHLORIDE	00940		92.7

DATE: 10/13/10 SYSTEM NUMBER: 1910240 PAGE: 2

Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING

Page 1

CLWA 50

1910240-004	100728	0000	2104	CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0
				FLUORIDE (	00951		0.3
				HARDNESS (	00900		356
				HYDROXIDE	71830	<	1
				IRON	01045	<	100.0
				LANGELIER	71813		1.37
				MAGNESIUM	00927		26
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		16.0
				NITRATE +	A-029		3613
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.33
				POTASSIUM	00937		4.2
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		88
				SPECIFIC C	00095		1046
				SULFATE	00945		144
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		652
				TURBIDITY,	82079		0.09
				ZINC	01092	<	50.0
1910240-017	100915	0000	2104	CALCIUM	00916		84.8
				CHLORIDE	00940		36.9
				COLOR	00081	<	5
				HARDNESS (	00900		369
				MAGNESIUM	00927		38.2
				ODOR THRES	00086		1
				PH, LABORA	00403		7.43
				SODIUM	00929		54.7
				TOTAL DISS	70300		580
1910240-020	100728	0000	2104	AGGRSSIVE	82383		13.2
				ALKALINITY	00410		219
				ALUMINUM	01105	<	50.0
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		267
				CADMIUM	01027	<	1.0
				CALCIUM	00916		172
				CARBONATE	00445	<	1
				CHLORIDE	00940		38.1
				CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0

DATE: 10/13/10 SYSTEM NUMBER: 1910240 PAGE: 3

Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910240-020	100728	0000	2104	FLUORIDE (	00951		0.3
				HARDNESS (	00900		636
				HYDROXIDE	71830	<	1
				IRON	01045	<	100.0
				LANGELIER	71813		1.56

CLWA 51

				GOODONE1			
				MAGNESIUM	00927		50
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		17.3
				NITRATE +	A-029		3906
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.33
				POTASSIUM	00937		3.4
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		68
				SPECIFIC C	00095		1425
				SULFATE	00945		495
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		891
				TURBIDITY,	82079		0.12
				ZINC	01092	<	50.0
1910240-047	100728	0000	2104	AGGRSSIVE	82383		13.2
				ALKALINITY	00410		276
				ALUMINUM	01105	<	50.0
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		337
				CADMIUM	01027	<	1.0
				CALCIUM	00916		111
				CARBONATE	00445	<	1
				CHLORIDE	00940		90.6
				CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0
				FLUORIDE (	00951		0.3
				HARDNESS (	00900		405
				HYDROXIDE	71830	<	1
				IRON	01045	<	100.0
				LANGELIER	71813		1.54
				MAGNESIUM	00927		31
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		21.4
				NITRATE +	A-029		4832
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1

DATE: 10/13/10 SYSTEM NUMBER: 1910240 PAGE: 4

Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910240-047	100728	0000	2104	PH, LABORA	00403		7.38
				POTASSIUM	00937		4.6
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		89
				SPECIFIC C	00095		1134
				SULFATE	00945		151
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		707
				TURBIDITY,	82079		0.08
				ZINC	01092	<	50.0

Page 3

CLWA 52

				GOODONE1			
1910240-048	100728	0000	2104	AGGRSSIVE	82383		13.2
				ALKALINITY	00410		184
				ALUMINUM	01105	<	50.0
				ANTIMONY	01097	<	6.0
				ARSENIC	01002	<	2.0
				BARIUM	01007	<	100.0
				BERYLLIUM	01012	<	1.0
				BICARBONAT	00440		224
				CADMIUM	01027	<	1.0
				CALCIUM	00916		104
				CARBONATE	00445	<	1
				CHLORIDE	00940		27.0
				CHROMIUM (	01034	<	10.0
				COLOR	00081	<	5
				COPPER	01042	<	50.0
				FLUORIDE (	00951		0.2
				HARDNESS (	00900		381
				HYDROXIDE	71830	<	1
				IRON	01045	<	100.0
				LANGELIER	71813		1.49
				MAGNESIUM	00927		29
				MANGANESE	01055	<	20.0
				NICKEL	01067	<	10.0
				NITRATE (A	71850		9.0
				NITRATE +	A-029		2032
				NITRITE (A	00620	<	400
				ODOR THRES	00086		1
				PH, LABORA	00403		7.52
				POTASSIUM	00937		3.0
				SELENIUM	01147	<	5.0
				SILVER	01077	<	10.0
				SODIUM	00929		62
				SPECIFIC C	00095		970
				SULFATE	00945		267
				THALLIUM	01059	<	1.0
				TOTAL DISS	70300		606
				TURBIDITY,	82079		0.11
				ZINC	01092	<	50.0
1910240-071	100915	0000	2104	CALCIUM	00916		81.9

DATE: 10/13/10 SYSTEM NUMBER: 1910240 PAGE: 5

Data that is ACCEPTABLE and LOADABLE into DHS Drinking Water database

PRIM STA CODE	SAMPLE DATE	SAMPLE TIME	LAB NUM	CONSTITUANT	STORE NUM	XMOD	FINDING
1910240-071	100915	0000	2104	CHLORIDE	00940		37.0
				COLOR	00081	<	5
				HARDNESS (	00900		354
				MAGNESIUM	00927		36.4
				ODOR THRES	00086		1
				PH, LABORA	00403		7.47
				SODIUM	00929		52.3
				TOTAL DISS	70300		585

****
End of ACCEPTABLE and LOADABLE data for System Number: 1910240
****

Page 4

CLWA 53

From: Brian Folsom [bfolsom@clwa.org]
Sent: Monday, June 06, 2011 2:53 PM
To: Dan Masnada (CLWA)
Subject: RE: press release - DRAFT - CONFIDENTIAL

Information regarding impacted wells is accurate.

FYI –
Three wells successfully treated and returned to service: Q2, S1, S2
Two wells replaced: Stadium well and V-157
One planned for replacement: NC-11
One well to have treatment installed: V-201

Brian J. Folsom, P.E.
Engineering and Operations Manager
Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350
Phone: 661.297.1600 (main)
661.513.1270 (direct)
*E-mail: **bfolsom@clwa.org***

From: Dan Masnada (CLWA)
Sent: Monday, June 06, 2011 2:39 PM
To: Brian Folsom
Subject: FW: press release - DRAFT - CONFIDENTIAL

See my note on the second page and pls confirm the info presented re: impacted wells. Call me if you want an explanation of our logic before checking out the facts. Thx, Dan

---

From: Keith Abercrombie [mailto:kabercrombie@valenciawater.com]
Sent: Monday, June 06, 2011 2:13 PM
To: Joe Scalmanini
Cc: Dan Masnada (CLWA)
Subject: press release - DRAFT - CONFIDENTIAL

Joe,

Attached is the latest version of the DRAFT press release. Below is the comment from Dan from an earlier version that speaks to the desire to add language relating to the 'pump and treat' remedy. Please provide us a sentence or two. Thanks.

We should include a clear statement here that detection of perchlorate in VWC 201 does not mean the pump and treat remedy is not performing as planned. There has always been a possibility of perchlorate impacting one or more wells immediately downstream of the originally impacted wells and the modeling work in support of the remedy did not discount the possibility. I may not have stated it quite right here and it would be best to have Joe craft the appropriate language for the press release, which should probably reiterate that the pump and treat remedy is a long-term solution that can't be evaluated based on five months of operations (probably going into to much detail at this point...)

Keith Abercrombie
General Manager

CLWA 54

1

Valencia Water Company
(661) 295-6504
kabercrombie@valenciawater.com
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2

CLWA 55

From: Dan Masnada (CLWA) [dmasnada@clwa.org]
Sent: Monday, June 06, 2011 2:54 PM
To: Brian Folsom
Subject: RE: press release - DRAFT - CONFIDENTIAL

Thx.

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Sent: Monday, June 06, 2011 2:53 PM
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Brian J. Folsom, P.E.
Engineering and Operations Manager
Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350
Phone: 661.297.1600 (main)
661.513.1270 (direct)
E-mail: bfolsom@clwa.org

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To: Brian Folsom
Subject: FW: press release - DRAFT - CONFIDENTIAL

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Cc: Dan Masnada (CLWA)
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CLWA 56

immediately downstream of the originally impacted wells and the modeling work in support of the remedy did not discount the possibility. I may not have stated it quite right here and it would be best to have Joe craft the appropriate language for the press release, which should probably reiterate that the pump and treat remedy is a long-term solution that can't be evaluated based on five months of operations (probably going into to much detail at this point ☺)

Keith Abercrombie
General Manager
Valencia Water Company
(661) 295-6504
kabercrombie@valenciawater.com
Please consider the environment before printing this email.

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient(s) is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system. Thank you!

CLWA 57

From: April Jacobs (CLWA) [ajacobs@clwa.org]
Sent: Thursday, June 09, 2011 11:00 AM
To: Valerie Pryor; Brian Folsom; Dirk Marks; Mauricio Guardado; B. J. Atkins; Bill Pecsi; Dean Efstathiou; Ed Colley; Jacque McMillan; Jerry Gladbach; Keith Abercrombie ; Peter Kavounas; R. J. Kelly; Tom Campbell; William Cooper
Cc: Russ Behrens; Dan Masnada (CLWA)
Subject: VWC Press Release
Attachments: Valencia Well Press Release.pdf

Importance: High

Attached is the joint press release sent out today in regards to perchlorate being detected in Well 201.

Thank you.

April Jacobs
Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91354
(661) 513-1238 (Direct Line)
(661) 297-1600 ext. 238
(661) 297-1610 (Fax)
ajacobs@clwa.org

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CLWA 58

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FOR IMMEDIATE RELEASE
June 9, 2011

PERCHLORATE DETECTED DURING ROUTINE TESTING

Well Removed from Service Pending Treatment Covered By Whittaker Bermite Settlement Agreement

Valencia Water Company has notified the Whittaker Bermite property owners that it will seek remediation funds to clean up a closed well near Santa Clarita City Hall following routine water quality testing that detected low levels of perchlorate. The remediation funds are being sought under a 2007 settlement agreement among Castaic Lake Water Agency (CLWA), Newhall County Water District, Santa Clarita Water Division and Valencia Water Company and Whittaker Corporation and others to address clean-up of impacted wells from the former munitions site.

In August 2010, Valencia Water Company detected perchlorate in Well 201 near City Hall. Although the perchlorate levels were within safe drinking water standards, the company immediately took the well out of service and notified the State Department of Public Health. Valencia Water Company continued to monitor the inactive well on a monthly basis. The most recent sample confirmed that perchlorate is still present and that wellhead treatment is needed as outlined by the settlement agreement with Whittaker Bermite.

"Our diligence in conducting extensive testing enabled us to quickly shut down the well and continue to provide safe water to our customers," said Keith Abercrombie, General Manager for Valencia Water Company. "The removal of this well from service will not have any near-term or long-term impacts on the quality or cost of water to our customers. To the extent it is even necessary, we will shift production to other wells elsewhere in the groundwater basin."

CLWA General Manager Dan Masnada said, "The closing of this well will not impact the Santa Clarita Valley Family of Water Suppliers' ability to adequately provide water to our customers and will not have a negative impact on the Valley's water supply. CLWA and the water retailers continue to ensure that all drinking water quality standards are met and long-term solutions are put in place to address the presence of perchlorate in small portions of the Valley's groundwater aquifers.

"In addition, a pending update of the 2010 Santa Clarita Valley Urban Water Management Plan will examine the presence of perchlorate in Well 201," Masnada said.

Valencia Water Company works cooperatively with and as a member of the Santa Clarita Valley Family of Water Suppliers to provide customers a mix of groundwater pumped from area wells and imported state water. In April 2007, the local water suppliers and the Whittaker Bermite

-more-

CLWA 59

property owners negotiated a settlement, which establishes funding to address the clean-up of perchlorate from the former munitions site.

Last year, a $13 million treatment facility near Bouquet Canyon Road and the Santa Clara River came on line to treat perchlorate in groundwater emanating from the Whittaker Bermite property. That treatment facility is part of a larger program that includes the restoration of two perchlorate-impacted wells to extract contaminated groundwater and control the migration of perchlorate in the Saugus Formation aquifer. The cost of that "pump and treat" system is also covered under the settlement agreement that protects the public from paying for the remediation costs.

As part of the settlement, several wells were identified as potentially threatened by perchlorate, including Well 201. Thus, while the now-operational pump and treatment program is intended to control migration of perchlorate, the possibility of further contamination in the direction of groundwater flow was recognized before its installation, and provisions were incorporated in the program to treat any additional wells impacted by perchlorate. Initial operation of the pump and treatment remediation is functioning as planned, and is still applicable for both of its objectives – to control contaminant migration near the source and to extract perchlorate from the aquifer system. In short, the detection of perchlorate at Well 201 does not reflect any change in the anticipated long-term effectiveness of the containment and treatment remedy.

Prior impacted wells included Q2, a Valencia Water Company well that underwent successful wellhead treatment in 2005 utilizing the same treatment technology contemplated for Well 201, and today has no perchlorate detection. Since 1997, seven wells in the Santa Clarita Valley, including this most recent one, have been impacted by perchlorate. Three of those wells have been successfully treated and returned to service, two have been replaced, one is planned to be replaced and this most recent well will have treatment installed.

Perchlorate is a regulated drinking water contaminant in California with a maximum contaminant level (mcl) of 6 parts per billion (ppb). The Valencia Water Company test in August 2010 was 5 ppb. During the last several months, readings have varied from 5 to 12 ppb in the most recent test.

Perchlorate is both a naturally occurring and man-made ion used to form a variety of salts. Perchlorate is primarily used today as an oxidizer in solid rocket fuel and other propellants and to a lesser extent, in fireworks, explosives and air-bag inflators. It is highly soluble in water and has been detected in ground and surface water in 26 states. It has also been detected in water supplies in close proximity to sites where solid rocket fuel was manufactured or used, such as the Whittaker Bermite site.

Valencia Water Company is a water provider to 113,000 residential, commercial, industrial and business customers in Valencia, Stevenson Ranch and portions of Saugus and Castaic.

Contact: Keith Abercrombie, General Manager, Valencia Water, (661) 295-6501
Dan Masnada, General Manager, CLWA, (661) 297-1600 Ext. 239

CLWA 60

From: April Jacobs (CLWA) [ajacobs@clwa.org]
Sent: Friday, June 10, 2011 1:44 PM
To: R. J. Diprimio; Abbi Hertz; Adam Pontious; April Jacobs (CLWA); Aristea Lambropoulos; Bill Manetta ; Brian Folsom; Carlos Corrales; Casey Gordon; Cathy Hollomon; Chris Alexander; Dan Masnada (CLWA); Dirk Marks; Elizabeth Ooms-Graziano; Elizabeth Sobczak; Gary Choppe; Gary Haggin; Gerrie Goodreau ; Harry Henderson; Howard An; Hunt Braly; Jason Yim; Jeff Ford; Jim Leserman; Jo Ann Burkman; Joanne Chan; Jon Salmon; Karen Denkinger; Kathy Fendel; Larry Patellis; Linda Pointer; Linda Stephens; Lindsey Kontra; Luis Margheritis; Lynn Takaichi ; Majid Langroodi; Mary Lou Cotton ; Mauricio Guardado; Mona Restivo (SCWC); Nancy Warfel; Nikki Duplessis; Omar Khalifa; Patricia Jackson; Paul Halushka; Pete Woeger; Porter Hamilton; Rafael Pulido; Ralph Simoni; Rich K.; Russ Behrens; Sally Zailo; Scott Wilk; Stephanie Anagnoson; Susana Rave; Tami Royer; Tim Whyte; Todd Gruber; Valerie Pryor; Wayne Rowley; Yao Kouame; Yvonne Johnson; B. J. Atkins; Bill Pecsi; Dean Efstathiou; Ed Colley; Jacque McMillan; Jerry Gladbach; Keith Abercrombie ; Peter Kavounas; R. J. Kelly; Tom.Campbell; William Cooper
Subject: FW: [Water_news] DWR California Water News June 10, 2011 - Perchlorate Detected in Closed Well During Routine Testing - KHTS

Perchlorate Detected In Closed Well During Routine Testing

KHTS Radio

Valencia Water Company today notified the Whittaker Bermite property owners that it will seek remediation funds to clean up a closed well near Santa Clarita City Hall following routine water quality testing that detected low levels of perchlorate. The remediation funds are being sought under a 2007 settlement agreement among Castaic Lake Water Agency (CLWA), Newhall County Water District, Santa Clarita Water Division and Valencia Water Company and Whittaker Corporation and others to address clean-up of impacted wells from the former munitions site.

CLWA 61

1

From: Dan Masnada (CLWA) [dmasnada@clwa.org]
Sent: Tuesday, June 14, 2011 8:20 PM
To: kabercrombie@valenciawater.com; Brian Folsom; Jim Leserman
Subject: How often are unimpacted wells tested for perchlorate?

Sent from my BlackBerry Wireless Handheld

CLWA 62

1

Exhibit 4:
Castaic Lake Water Agency
Stipulated Confidentiality Protective Order

FREDERIC A. FUDACZ (SBN 050546)
ANDREW J. YAMAMOTO (SBN 138884)
BYRON P. GEE (SBN 190919)
Nossaman, Guthner, Knox & Elliott, LLP
445 S. Figueroa Street, 31st Floor
Los Angeles, California 90071-1602
Telephone: (213) 612-7800
Facsimile: (213) 612-7801
Attorneys for Plaintiffs and Counter-Defendants Castaic Lake Water Agency; Newhall County Water District; Santa Clarita Water Company; and Valencia Water Company

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CLERK, U.S. DISTRICT COURT
MAR - 6 2002
CENTRAL DISTRICT OF CALIFORNIA
BY DEPUTY

LODGED

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

CASTAIC LAKE WATER AGENCY; NEWHALL COUNTY WATER DISTRICT; SANTA CLARITA WATER COMPANY; and VALENCIA WATER COMPANY, Plaintiffs, vs. WHITTAKER CORPORATION; SANTA CLARITA LLC; REMEDIATION FINANCIAL, INC.; and DOES 1-10, Inclusive, Defendants.	Case No.: 00-12613AHM(RZx) **~~[PROPOSED]~~ STIPULATED CONFIDENTIALITY PROTECTIVE ORDER AND ORDER THEREON**
SANTA CLARITA, L.L.C., Counter-Claimant, vs. CASTAIC LAKE WATER AGENCY; NEWHALL COUNTY WATER DISTRICT; SANTA CLARITA WATER COMPANY; and VALENCIA WATER COMPANY Counter-Defendants.	
WHITTAKER CORPORATION, Counter-Claimant, vs. CASTAIC LAKE WATER AGENCY; NEWHALL COUNTY WATER DISTRICT; SANTA CLARITA WATER COMPANY; and VALENCIA WATER COMPANY, Counter-Defendants.	

MAR - 6 2002

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IT IS HEREBY STIPULATED by and between Plaintiffs Castaic Lake Water Agency, Newhall County Water District, Santa Clarita Water Company, and Valencia Water Company ("Plaintiffs"), and Defendants Whittaker Corporation, Santa Clarita LLC, and Remediation Financial, Inc. ("Defendants") (referred to collectively as the "Parties"), by and through their respective counsel of record, that the following protective order shall be entered by the Court:

WHEREAS, Defendants wish to obtain certain documents regarding Plaintiffs' wells in connection with the litigation of this action, and Plaintiffs desire to protect the confidentiality of documents and information to be produced and/or disclosed in this action which it considers confidential, proprietary, and trade secret material, the Parties hereby enter into this Stipulation for Protective Order and Order Thereon (the "Order") such that, until the Order is amended or superseded, the Parties to the Order and all non-party witnesses shall follow the procedures set forth below with respect to certain confidential documents, information, or testimony produced or disclosed by Plaintiffs in this action.

1. "Confidential Information" for purposes of this Order means any documents or information regarding the digging, construction, design, or maintenance of Plaintiffs' wells, well driller logs, information or documents regarding the depth of the wells and/or perforated/screened intervals for the wells, information or documents regarding testing and analysis of Plaintiffs' wells and the aquifers from which they draw water, and aquifer tests associated with the wells, which Plaintiffs believe in good faith contains confidential proprietary information, trade secret materials as defined in California Civil Code Sections 3426.1, and/or information or documents which is confidential under California Water Code Section 13752.

2. Plaintiffs may designate any documents or information concerning its wells which they produce or disclose as "Confidential" if they believe in good faith that the documents or information constitutes "Confidential Information" as defined above. Documents designated by Plaintiffs as confidential shall be marked or stamped as

"Confidential." All documents or information designated by Plaintiffs as "Confidential" shall be governed by this Order.

3. Plaintiffs agree to authorize any non-party public agencies upon whom a subpoena has been served to voluntarily produce or disclose documents or information containing Confidential Information which that non-party otherwise refuses to produce or disclose in the absence of Plaintiffs' consent.

4. Within 7 days of the production or disclosure of documents or information by a non-party government agency pursuant to a subpoena, Plaintiffs have the right to designate any such documents or information as "Confidential and Highly Sensitive." For these first 7 days after the production or disclosure of documents or information by a non-party government agency pursuant to a subpoena, all documents or information produced or disclosed by such non-parties pursuant to subpoena shall be treated as containing "Confidential and Highly Sensitive" Information that is "Confidential" pursuant to the terms of this Order. Counsel further agree that no documents or information will be provided to their clients within the first 7 days of production or if that document or information is designated as "Confidential and Highly Sensitive". Counsel for any party has the right to challenge the designation of any information or documents as "Confidential and Highly Sensitive". If the "Confidential and Highly Sensitive" designation of any documents or information is challenged in writing, the party making the designation will have 3 court days from receipt of said writing to serve on all parties by fax or personal delivery its portion of the joint stipulation re: motion for a protective order, including its statement of position and any supporting declaration or exhibits, for the subject documents or information, or else the subject documents or information will no longer be treated as "Confidential and Highly Sensitive". Any responding party shall serve by personal delivery or fax its statement of opposition to the motion and any supporting declarations and exhibits within three days of receipt of the moving party's proposed statement. The moving party shall then serve and file the motion and supporting joint statement within one court day of receipt of the

opposing party's statement and supporting documents. No supplemental memorandums may be filed by the Parties, which hereby waive the right to file same under Local Rule 37. All Parties hereby also waive the required 21-day notice period, and any right to a hearing or oral argument for any motion brought pursuant to this provision. All Parties request that the Court decide any such motion solely on the basis of the Parties' joint stipulation.

All such motions filed to designate documents or information as being "Confidential" or "Confidential and Highly Sensitive" shall be set on the Court's regular motion calendar, but shall state clearly that the motion is being brought pursuant to this Stipulation and Order, and that the Parties respectfully request that the Court to consider the motion on an expedited basis. Within 21 days of the production or disclosure of documents or information by a non-party pursuant to subpoena, Plaintiffs may designate as "Confidential" any documents or information produced or disclosed which contain Confidential Information. Until the 21-day or 7-day periods have expired, all documents or information produced or disclosed by non-parties pursuant to subpoena shall be treated as containing Confidential and/or Confidential and Highly Sensitive Information, respectively, subject to the terms of this Order.

5. For deposition testimony, Plaintiffs may designate testimony disclosing or referring to Confidential Information as "Confidential" by stating on the record during the deposition that testimony given at the deposition is being designated as "Confidential" by Plaintiffs, or by designating the deposition transcript, or portions thereof, as "Confidential" within 14 days after Plaintiffs' counsel receives the deposition transcript. In addition, any exhibits to a deposition which were previously marked as "Confidential," or which Plaintiffs designate as Confidential Information on the record at the deposition or within 14 days after receiving the deposition transcript, shall be considered Confidential Information subject to the terms of this Order. Until the 14 day period has expired, the entire deposition transcript and any exhibits shall be treated as containing Confidential Information subject to the provisions of this Order.

6. No person shall attend portions of the depositions in which Confidential Information is disclosed or referred to unless such person is an authorized recipient of Confidential Information under the terms of this Order. Any court reporter who transcribes testimony in this action at a deposition shall agree, before transcribing any such testimony, that all "Confidential" testimony and documents are and shall remain confidential and shall not be disclosed except as provided in this Order; that copies of any transcript, reporter's notes or any other transcription records of any such testimony, as well as any "Confidential" exhibits, will be retained in absolute confidentiality and safekeeping by such shorthand reporter until delivered to the Parties' attorneys of record or filed under seal with the Court.

7. All Confidential Information (including deposition transcripts and exhibits) shall be used by the parties exclusively for purposes of participating in this litigation, and may not be used, disclosed, or made public for any other purpose or in connection with any other litigation, absent authorization from Plaintiffs or pursuant to Court Order. Under no circumstances shall Confidential Information be used for any business, competitive, governmental, or non-litigation purpose or function.

8. The only persons authorized to receive Confidential Information pursuant to this Order, subject to the limitations contained in Paragraphs 9 and 10 of this Order, are:

(a) The Parties, the Parties' parent companies, and employees of the Parties or the Parties' parent companies whose access to the Confidential Information is reasonably necessary in connection with this litigation;

(b) The Parties' counsel and the employees of such counsel whose access to the Confidential Information is reasonably necessary in connection with this litigation;

(c) Persons or entities, including their associates, staff, and employees retained by a party or by a party's counsel as expert witnesses or expert consultants who have a reasonable need for access to the Confidential Information for

purposes of assisting the party in connection with this litigation;

(d) Witnesses in the course of depositions of this matter, as well as court reporters transcribing any such testimony;

(e) The Court and Court employees;

(f) The authors or recipients of any documents designated as "Confidential";

(g) Insurance carriers for the parties who issued one or more policies that may provide coverage in this action or to whom a party has tendered a claim; and

(h) Any other individual permitted by order of the Court or upon Stipulation of all parties to this Order.

Persons authorized to receive Confidential Information under this Order shall not disclose or divulge Confidential Information to any other person unless such person is also so authorized under this Order and has signed a statement in the form of Exhibit "A" hereto.

9. Each person given access to Confidential Information shall be provided a copy of this Order, be advised that the information is being disclosed pursuant and subject to this Order, and may not be disclosed to any other person, made public, or used for any purpose outside of this litigation, except as provided in this Order.

10. Prior to the disclosure of any Confidential Information to any persons referred to in Paragraph 8(a), 8(c), 8(d), 8(f), 8(g), and 8(h), such persons must be shown this Order and shall sign an agreement in the form attached hereto as Exhibit A stating that he or she has read and understands its terms and shall abide by them. A file shall be maintained by the attorneys of record of all written agreements signed by persons to whom Confidential Information has been given or disclosed, which file shall, upon order of the Court , be available for inspection and copying by all other attorneys of record herein.

11. If any of the Parties desire to give, show, make available or communicate any information or documents which have been designated by Plaintiffs as "Confidential" to any person who is not specifically authorized to have access to such Confidential Information pursuant to this Order, said Party's' attorney will disclose to Plaintiffs' attorney the name of the person to whom disclosure of the document is sought. The attorneys will then have ten days to negotiate the terms of disclosure to that person and, if no agreement can be reached, the party who is seeking the disclosure to the unauthorized person shall have 14 days to file a Motion with the Court allowing the disclosure.

12. For applications and motions to the Court in which a party submits or refers to Confidential Information, all documents containing or referring to Confidential Information which are submitted to the Court shall be filed with the Court in sealed envelopes or other appropriate sealed containers on which shall be endorsed the title of this action, an indication of the nature of the contents of the sealed envelope or other container, the identity of the Party filing the material, the word "CONFIDENTIAL" and a statement substantially in the following form:

> This envelope is sealed pursuant to order of the Court, contains Confidential Information, and is not to be opened or the contents revealed except by order of the Court.

The document shall indicate clearly which portions are designated to be "Confidential".

13. The Parties hereby request, and waive any objection to, an in camera court hearing in the case of any proceeding where Confidential Information shall be offered in evidence or otherwise referred to by any party.

14. Defendants shall not be required to challenge the propriety of Plaintiffs' designation of documents or information as "Confidential" at the time that designation is made, and a failure to do so shall not preclude a subsequent challenge to such designation. If Defendants disagree with Plaintiffs' designation of documents or information as "Confidential," all Parties shall meet and confer in an attempt to resolve that issue within 10 Court days of a written request to do so by the challenging party. If

the Parties cannot reach an agreement, Plaintiffs must move the Court within 21 days of the conclusion of the meet and confer for an Order regarding the continued application of this Order to such documents or information. In connection with any such application, Plaintiffs shall have the burden of establishing that the document or information is entitled to protection pursuant to this Order. In connection with any ex parte or other application made to the Magistrate or to the Court by any party pursuant to the terms of this paragraph or any other portion of this stipulation and order, Defendants agree that the challenged document or information will continue to be treated as "Confidential" and/or "Confidential and Highly Sensitive" pursuant to this Order until such time as the Court has ruled otherwise. The Parties may agree, in writing, to different times to perform the items in this paragraph and/or to such times as modified upon application to the Court upon a showing of good cause.

15. If at any time Confidential Information is subpoenaed or otherwise requested by any person or entity purporting to have the legal authority to require the production of such information, the person to whom the subpoena or request is directed shall promptly, and in any event within two calendar days, provide Plaintiffs with written notice thereof, via facsimile and overnight mail, which shall include a copy of the subpoena or request (unless disclosing the subpoena or request is prohibited by law or court order). After receipt of this notice, Plaintiffs shall have the responsibility to obtain whatever order they deem necessary to prevent the disclosure of Confidential Information covered by this Order. Upon the filing of a Motion to prevent or limit the disclosure of Confidential Information sought (notice of which shall be provided to all parties to this Order), the person to whom the subpoena or request is directed may otherwise respond to the subpoena or request, but will not allow access to or disclose Confidential Information until such time as the Court has ruled on the Motion, unless otherwise required by law to make an earlier production or disclosure notwithstanding that Motion. If Plaintiffs do not file a Motion to prevent the production or disclosure of the Confidential Information sought within the time allowed for the production or disclosure pursuant to the subpoena

or request (or within such time as any court may direct or that is agreed upon between Plaintiffs and the subpoenaing or requesting party), then this Order shall not prevent the party to whom the subpoena or request is directed from responding to that request.

16. The terms of this Order shall apply to all manner and means of discovery, including, but not limited to, inspection of books, records, documents, land, and tangible things.

17. This Order shall be effective from the date executed by all counsel.

18. Within sixty (60) days of termination of this litigation, including any appeal, the originals and all copies of all documents or information designated by Plaintiffs as confidential shall be returned to the producing party or non-party, or shall be certified as having been destroyed, provided, however, that each party may retain a complete file of all litigation documents filed with the Court in this action.

19. The termination of proceedings in this action shall not thereafter relieve parties from the duty of maintaining the confidentiality of all Confidential Information which is received pursuant to this Order.

20. This Order is without prejudice to the right of any party to seek modification by the Court of any of the terms of this Order, or to present to the Court any matter which is the subject of this Order.

21. This Order does not preclude any party from opposing the production of information or documents on grounds other than confidentiality, and neither this Order nor the production of documents pursuant to this Order shall be deemed a waiver of any applicable privileges, including attorney-client or attorney work-product privileges, nor of any objection that may be raised as to the admissibility of information or documents at trial.

22. Nothing in this Order shall prohibit the transmission or communication of Confidential Information by hand delivery; face-to-face conference; in sealed envelopes or container via the mails or an established freight, delivery or messenger service; or by telephone, telegram, facsimile, e-mail or other electronic

transmission systems if under the circumstances, there is no reasonable likelihood that the transmission will be intercepted and misused.

23. The terms of the Order shall survive the final determination of this action and shall remain in full force and effect after the conclusion of all proceedings herein, and the Court shall have continuing jurisdiction to enforce its terms.

24. This agreement may be signed in counterparts.

25. The terms of this agreement and order shall pertain to all discovery matters in this action. Procedures governing the trial of the action shall remain within the discretion of the trial court.

APPROVED AND SO ORDERED.

DATED: March 5, 2002

The Honorable Ralph Zarefsky
United States District Court Magistrate Judge

APPROVED AS TO FORM AND CONTENT, AND JOINTLY PRESENTED BY:

DATED: _____, 2002.

MUSICK, PEELER & GARRETT LLP
WILLIAM A. BOSSEN
SCOTT J. IVY

By: _____ by BPG
Scott J. Ivy
Attorneys for Cross-Defendant VALENCIA WATER COMPANY

DATED: February 28, 2002

NOSSAMAN, GUTHNER, KNOX & ELLIOTT
ANDREW J. YAMAMOTO
BYRON P. GEE

By: _____
Byron P. Gee
Attorneys for Plaintiffs and Counter-Defendants NEWHALL COUNTY WATER DISTRICT, CASTAIC LAKE WATER AGENCY SANTA CLARITA WATER COMPANY and VALENCIA WATER COMPANY

DATED: _____, 2002

LAW OFFICE OF SCOTT D. PINSKY
SCOTT D. PINSKY

By: Scott Pinsky by [illegible]
Scott D. Pinsky
Attorneys for Plaintiff and Counter-Defendant
NEWHALL COUNTY WATER DISTRICT

DATED: _____, 2002

HELLER EHRMAN WHITE & McAULIFFE LLP
REYNOLD L. SIEMENS
PATRICK CURLEY

By: _____
Patrick Curley
Attorneys for Defendant and Counter-Claimant
WHITTAKER CORPORATION

DATED: _____, 2002

RADCLIFF FRANDSEN & DONGELL, LLP
RICHARD DONGELL
PETER MUTHIG

By: _____
Peter Muthig
Attorneys for Defendant and Counter-Claimant WHITTAKER CORPORATION

DATED: _____, 2002

MAYER, BROWN & PLATT
GREGORY R. MCCLINTOCK
PETER K. ROSEN
RONALD KURTZ

By: _____
Ronald Kurtz
Attorneys for Defendants and Counter-Claimants
SANTA CLARITA, LLC and REMEDIATION FINANCIAL, INC.

DATED: _____, 2002

SMILAND & KHACHIGIAN
ALBERT M. COHEN

By: _____
Albert M. Cohen
Attorneys for Defendants and Counter-Claimants
SANTA CLARITA, LLC and REMEDIATION FINANCIAL, INC.

EXHIBIT A

I hereby certify my understanding that Confidential Information is being provided to me pursuant to the terms and restrictions of the Stipulated Confidentiality and Protective Order dated _____, 2002, in Castaic Lake Water Agency, et al. v. Whittaker Corporation, et al., Case No. CV 00-12613 AHM (RZx), U.S. District Court of California, Central District. I have been given a copy of that Order and have read it. I understand the obligations and responsibilities the Order imposes upon persons to whom Confidential Information is provided or disclosed, and that to enable me to gain access to the Confidential Information, I agree to be bound by all of the terms and provisions of the Order. I will not disclose Confidential Information to anyone, except as set forth in the Order or as allowed by the Court. I will maintain all such Confidential Information in a secure manner to prevent unauthorized access to it. I further state that neither I or any entity with which I am affiliated with will use, disclose, or make public any Confidential Information to which I obtain access pursuant to this Order for any purpose other than participating in this litigation. No later than 30 days after the termination of this action, I will return all Confidential Information to the counsel who provided it to me. I hereby consent to be subject to the personal jurisdiction of the U.S. District Court of California, Central District with respect to any proceedings relative to the enforcement of that Order, including without limitation any proceeding related to contempt of court.

DATED: _____ By:

_____

AFFILIATION: _____

PROOF OF SERVICE

STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

I am employed in the County of Los Angeles, State of California. I am over the age of 18 and am not a party to the within action; my business address is Nossaman, Guthner, Knox & Elliott, LLP, 445 S. Figueroa Street, 31st Floor Los Angeles, California 90071-1602.

On March 1, 2002, I served the foregoing document(s) described as **[PROPOSED] STIPULATED CONFIDENTIALITY PROTECTIVE ORDER AND ORDER THEREON** on interested parties in this action by placing ( ) the original (X) a true copy thereof enclosed in a sealed envelope as follows:

SEE ATTACHED SERVICE LIST

(X) **(By U.S. Mail)** I am readily familiar with my employer's business practice for collection and processing of correspondence for mailing with the United States Postal Service. I am aware that on motion of the party served, service is presumed invalid if postal cancellation date or postage meter is more than one day after date of deposit for mailing in affidavit. I deposited such envelope(s) with postage thereon fully prepaid to be placed in the United States Mail at Los Angeles, California.

( ) **(By Personal Service)** I delivered by hand on the interested parties in this action by placing true and correct copies thereof in envelope addressed to the office of the addressee(s) as above indicated.

( ) **(By Facsimile)** I served a true and correct copy by facsimile pursuant to C.C.P 1013(e), to the number(s) listed above or on attached sheet. Said transmission was reported complete and without error.

( ) **(By Federal Express)** I served a true and correct copy by Federal Express or other overnight delivery service, for delivery on the next business day. A true and correct copy of the Federal Express or other overnight delivery service airbill is attached hereto.

( ) **(STATE)** I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

(X) **(FEDERAL)** I declare that I am employed in the office of a member of the bar of this court at whose direction the service was made.

Executed on March 1, 2002, at Los Angeles, California.

MINA MUNOZ

SERVICE LIST

CASTAIC LAKE WATER AGENCY, et al. v. WHITTAKER CORPORATION, et al.

USDC Case No. CV 00-12613 AHM (RZx)

Gregory R. McClintock, Esq. Peter K. Rosen, Esq. David C. Bolstad, Esq. Thomas Theisen, Esq. Ronald Kurtz, Esq. **MAYER BROWN & PLATT** 350 South Grand Avenue, 25th Floor Los Angeles, CA 90071-1503	Telephone: (213) 229-9500 Facsimile: (213) 625-0248 **Attorneys for Santa Clarita, L.L.C. and Remediation Financial, Inc.**
Albert M. Cohen, Esq. **SMILAND & KHACHIGIAN** 601 West Fifth Street, Seventh Floor Los Angeles, CA 90071-2004	Telephone: (213) 891-1010 Facsimile: (213) 891-1414 **Attorneys for Defendants Santa Clarita, L.L.C. and Remediation Financial, Inc.**
John S. Hahn, Esq. Julie Anna Potts, Esq. **MAYER, BROWN & PLATT** 1909 K. Street, N.W. Washington, DC 20006-1101	Telephone: (202) 263-3000 Facsimile: (202) 263-3300 **Attorneys for Santa Clarita, L.L.C. and Remediation Financial, Inc.**
Nancy Sher Cohen, Esq. Reynold L. Siemens, Esq. Patrick Curley, Esq. **HELLER EHRMAN WHITE & McAULIFFE, LLP** 601 South Figueroa Street, 40th Floor Los Angeles, CA 90017-5758	Telephone (213) 689-7583 (Direct) Facsimile: (213) 614-1868 **Attorneys for Defendant Whittaker Corporation**
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Joseph J. Armao, Esq. **HELLER EHRMAN WHITE & McAULIFFE, LLP** 333 Bush Street San Francisco, CA 94104-2878	Telephone: (415) 772-6000 Facsimile: (415) 772-6268 **Attorneys for Defendant Whittaker Corporation**
William A. Bossen, Esq. Scott J. Ivy, Esq. **MUSICK, PEELER & GARRETT LLP** One Wilshire Boulevard, 20th Floor Los Angeles, CA 90017	Telephone: (213) 629-7600 Facsimile: (213) 624-1376 **Attorneys for Plaintiff Valencia Water Company**
Scott D. Pinsky, Esq. **LAW OFFICES OF SCOTT D. PINSKY** 100 Oceangate, Suite 1200 Long Beach, CA 90802	Telephone: (562) 628-5588 Facsimile: (562) 628-5589 **Attorneys for Plaintiff and Counter-Defendant Newhall County Water District**

Exhibit 5:
Well Maps

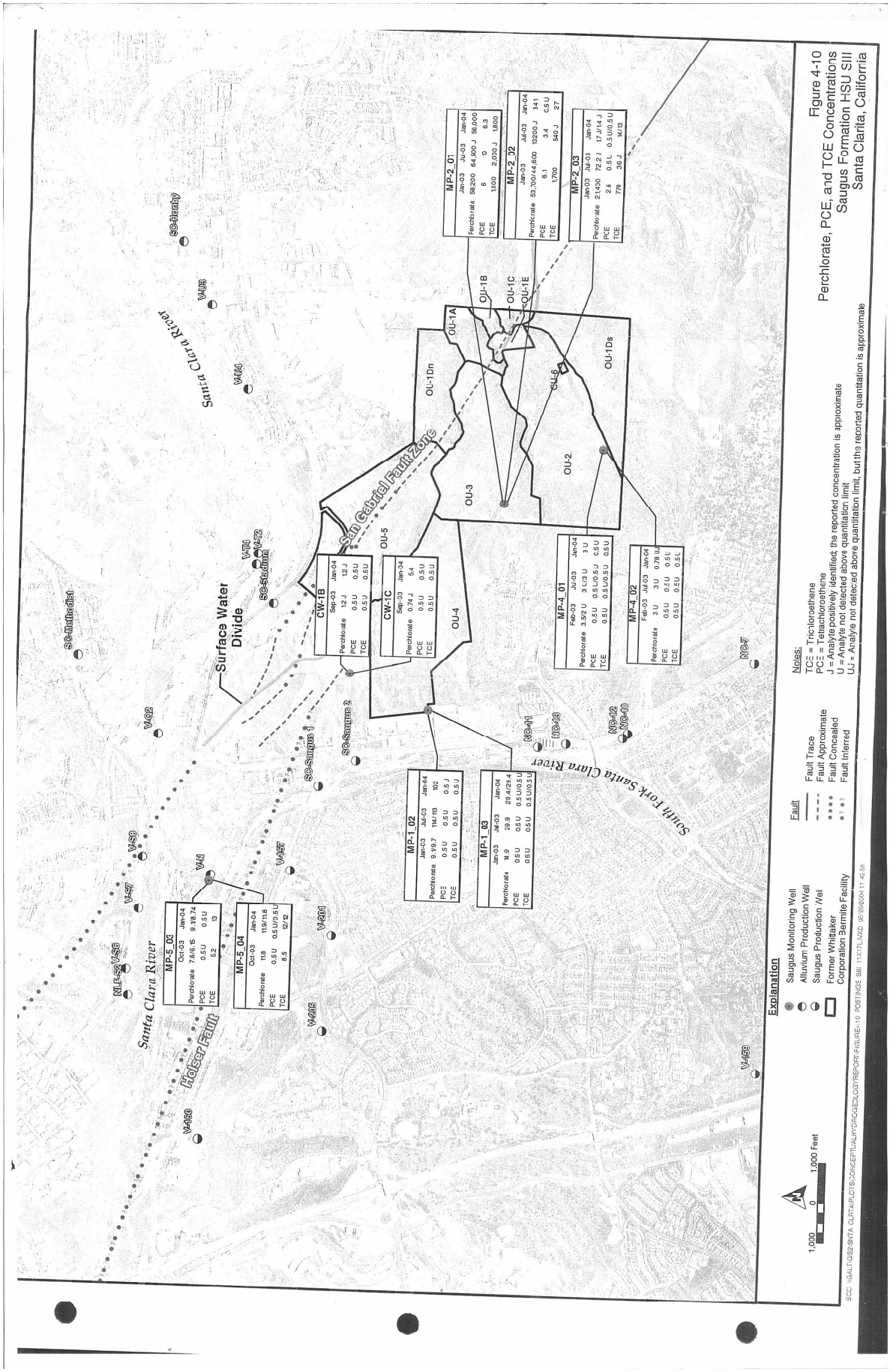

Figure 4-10
Perchlorate, PCE, and TCE Concentrations
Saugus Formation HSU SIII
Santa Clarita, California

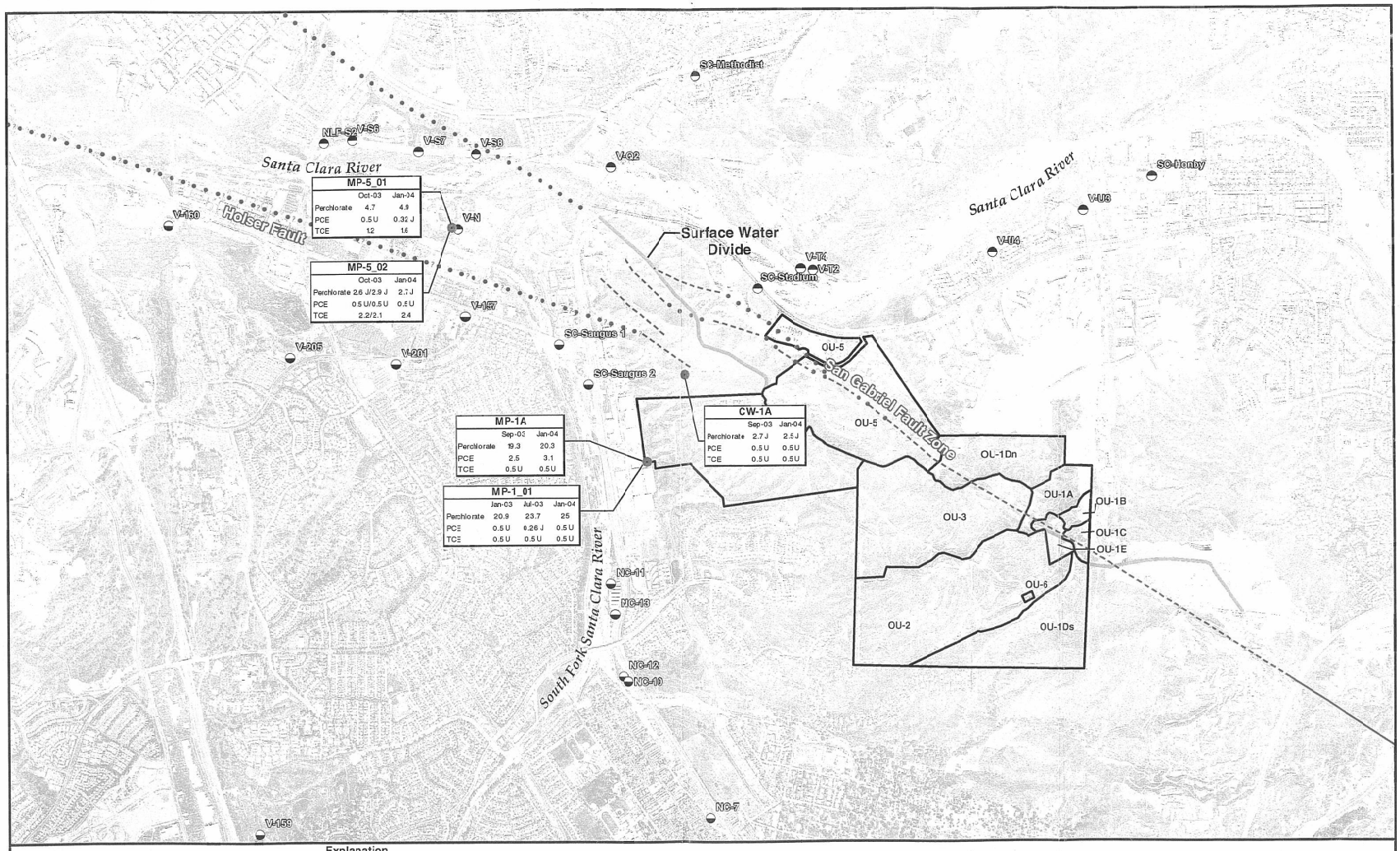

Figure 4-9
Perchlorate, TCE, and PCE Concentrations
Saugus Formation HSU SI
Santa Clarita, California

SCO \\GAL\GIS2\SNTA CLRTA\PLOTS\CONCEPTUALHYDROGEOLOGYREPORT\FIGURE4-9 POSTINGS S 11X17L.MXD 05/19/2004 15:39:43

Exhibit 6:
Castaic Lake Water Agency Order Grant Deny Cross Motion for Summary Judgment

FILED
CLERK, U.S. DISTRICT COURT
JUL 15 2003
CENTRAL DISTRICT OF CALIFORNIA
BY DEPUTY

ENTERED
CLERK, U S DISTRICT COURT
JUL 15 2003
CENTRAL DISTRICT OF CALIFORNIA
BY DEPUTY

Priority ✓
Send ✓
Enter
Closed
JS-5/JS-6
JS-2/JS-3
Scan Only

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

CASTAIC LAKE WATER AGENCY, *et al.*, Plaintiffs, v. WHITTAKER CORP., *et al.*, Defendants.	CASE NO. CV 00-12613 AHM (RZx) ORDER GRANTING IN PART AND DENYING IN PART PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT; ORDER DENYING COUNTER-CLAIMANT WHITTAKER CORP.'S MOTION FOR SUMMARY JUDGMENT
WHITTAKER CORP., Counter-Claimant, v. CASTAIC LAKE WATER AGENCY, *et al.*, Counter-Defendants.	THIS CONSTITUTES NOTICE OF ENTRY AS REQUIRED BY FRCP, RULE 77(d).

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This matter is before the Court on two motions for summary judgment. Plaintiffs move for summary judgment on their nuisance claims and their claims for recovery and declaratory relief under the Comprehensive Environmental

Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9601 *et seq*. Defendant and Counterclaimant Whittaker Corporation ("Whittaker") moves for summary judgment on its counterclaims for declaratory relief under CERCLA and for contribution under both CERCLA and the California Hazardous Substance Account Act ("HSAA"), Cal. Health & Safety Code § 25300 *et seq*.

MOTION STANDARD

Federal Rule of Civil Procedure 56(c) provides for summary judgment when "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." A fact is material if it could affect the outcome of the suit under the governing substantive law. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986).

"When the party moving for summary judgment would bear the burden of proof at trial, it must come forward with evidence which would entitle it to a directed verdict if the evidence went uncontroverted at trial. In such a case, the moving party has the initial burden of establishing the absence of a genuine issue of fact on each issue material to its case." *C.A.R. Transportation Brokerage Co., Inc. v. Darden Restaurants, Inc.*, 213 F.3d 474, 480 (9th Cir. 2000) (citations omitted).

When the non-moving party bears the burden of proving the claim or defense, the moving party can meet its burden by pointing out the absence of evidence from the non-moving party. The moving party need not disprove the other party's case. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 325 (1986). Thus, "[s]ummary judgment for a defendant is appropriate when the plaintiff 'fails to make a showing sufficient to establish the existence of an element essential to [its] case, and on which [it] will bear the burden of proof at trial.'" *Cleveland v. Policy Management Sys. Corp.*, 526 U.S. 795, 805-06 (1999) (*citing Celotex*, 477

U.S. at 322).

When the moving party meets its burden, the "adverse party may not rest upon the mere allegations or denials of the adverse party's pleadings, but the adverse party's response, by affidavits or as otherwise provided in this rule, must set forth specific facts showing that there is a genuine issue for trial." Fed. R. Civ.P. 56(e). Summary judgment will be entered against the non-moving party if that party does not present such specific facts. *Id.* Only admissible evidence may be considered in deciding a motion for summary judgment. *Id.*; *Beyene v. Coleman Sec. Serv., Inc.*, 854 F.2d 1179, 1181 (9th Cir.1988).

"[I]n ruling on a motion for summary judgment, the nonmoving party's evidence 'is to be believed, and all justifiable inferences are to be drawn in [that party's] favor.'" *Hunt v. Cromartie*, 526 U.S. 541, 552 (1999) (quoting *Anderson*, 477 U.S. at 255). But the non-moving party must come forward with more than "the mere existence of a scintilla of evidence." *Anderson*, 477 U.S. at 252. Thus, "[w]here the record taken as a whole could not lead a rational trier of fact to find for the nonmoving party, there is no genuine issue for trial." *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986) (citation omitted).

PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT

I. Introduction

This is a groundwater pollution case. Plaintiffs Newhall County Water District ("Newhall"), Santa Clarita Water Co. ("Santa Clarita") and Valencia Water Co. ("Valencia") contend that four of their water wells have been contaminated by perchlorate. The Newhall, Santa Clarita and Valencia water service areas and allegedly contaminated wells are found within the boundaries of Plaintiff Castaic Lake Water Agency ("Castaic" or "the Agency").

Plaintiffs believe the perchlorate at issue in this case originated at a nearby property, the Whittaker-Bermite site, and traveled in a spreading plume to contaminate the Newhall, Santa Clarita and Valencia wells. Defendants

Whittaker and Santa Clarita L.L.C. ("SCLLC") are the past and present owners of the the Whittaker-Bermite site, and Plaintiffs contend that Defendant Remediation Financial, Inc. ("RFI") currently operates the site.

The complaint alleges eleven causes of action for: recovery and declaratory relief under CERCLA, contribution under CERCLA, negligence and negligence per se, nuisance and public nuisance, trespass, recovery under the California Hazardous Substance Account Act ("HSAA"), Cal. Health & Safety Code § 25300 *et seq.*, and declaratory relief pursuant to the Declaratory Judgment Act, 28 U.S.C. §§ 2201 & 2202. Plaintiffs also allege that Whittaker is strictly liable for damages incurred as a result of its ultrahazardous manufacturing activities.

Plaintiffs now move for summary judgment on their CERCLA and nuisance claims.

II. The Parties

Newhall is a public agency organized and existing under the laws of California. August 26, 2002 Statement of Genuine Issues ("August 26 SGI") ¶ 55. *See* Cal. Water Code § 30000 *et seq.* (County Water District Law). Newhall provides water to customers living in the Santa Clarita Valley. Decl. of Kenneth J. Petersen ¶ 2. One of Newhall's wells, NC-11, allegedly has been contaminated by perchlorate. *Id.* ¶ 3.

Santa Clarita is a not-for-profit corporation that provides water to thousands of residential customers. August 26 SGI ¶ 60; Decl. of William J. Manetta ¶ 2.[1] Two of Santa Clarita's wells, Saugus-1 and Saugus-2, allegedly

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[1]Plaintiffs have also submitted a Manetta Declaration in opposition to the summary judgment motion filed by Defendant and Counter-Claimant Whittaker. All references to declarations in this part of the Court's order are to declarations filed in support of or in opposition to Plaintiffs' summary judgment motion.

When the Court refers to a declaration or document by date, the date used is the date on which the document was filed or lodged with the Court.

have been contaminated by perchlorate. Manetta Decl. ¶ 3.

Valencia is a California corporation that also provides water to thousands of residential customers. August 26 SGI ¶ 64; Decl. of Robert J. DiPrimio ¶ 2. One of Valencia's wells, VWC-157, allegedly has been contaminated by perchlorate. DiPrimio Decl. ¶ 3.[2]

Castaic is a public agency created and governed by the Castaic Lake Water Agency Law, Cal. Water Code App. § 103-1 *et seq*. *See* August 26 SGI ¶ 52. *See also Klajic v. Castaic Lake Water Agency*, 90 Cal.App.4th 987, 991 (2001). The Castaic Lake Water Agency Law provides that the Agency "may acquire water and water rights . . . and provide, sell, and deliver that water at wholesale only, for municipal, industrial, domestic, and other purposes . . . ." Cal. Water Code App. § 103-15.

Defendant Whittaker is a Delaware corporation doing business within this judicial district. August 26 SGI ¶ 45. Whittaker owned the allegedly contaminated Whittaker-Bermite site from 1967 to January 1999. *Id.* ¶ 46.

SCLLC is a Delaware limited liability company. *Id.* ¶ 43. SCLLC purchased the Whittaker-Bermite site in 1999 and is its current owner. *Id.* ¶ 44.

RFI is an Arizona corporation and the sole managing member of SCLLC. *Id.* ¶¶ 48-49.

III. Analysis

A. Plaintiffs' CERCLA Claims

Plaintiffs' complaint alleges CERCLA claims for cost recovery, 42 U.S.C. § 9607(a), contribution, 42 U.S.C. § 9607(a) and § 9613(f), and declaratory relief,

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[2]After Plaintiffs filed this case, they discovered that an additional well, the Stadium Well, also is contaminated with perchlorate. The parties have not fully briefed the issue of Defendants' liability for Stadium Well contamination, nor have they completed expert discovery. The Court will not rule on any issues presented by the alleged Stadium Well contamination in this order.

42 U.S.C. § 9613(g). Plaintiffs seek to recover their already incurred costs of response and to allocate responsibility for future response costs.

The *prima facie* elements of all three CERCLA claims are the same. *City of Portland v. Boeing Co.*, 179 F.Supp.2d 1190, 1199 (D. Or. 2001) (elements of CERCLA cost recovery and contribution claims the same). *See also In re Dant & Russell, Inc.*, 951 F.2d 246, 249-50 (9th Cir. 1991) (declaratory relief for future costs available once plaintiff has incurred at least some recoverable response costs).

In order to recover their response costs, Plaintiffs must establish that:

(1) perchlorate is a hazardous substance;

(2) there has been a release of perchlorate at Defendants' facility;

(3) the release or threatened release caused the Plaintiffs to incur necessary response costs consistent with the National Contingency Plan ("NCP");[3] and

(4) Defendants are within one of four classes of persons subject to CERCLA's liability provisions.

See Carson Harbor Village Ltd. v. Unocal Corp., 270 F.3d 863, 870-71 (9th Cir. 2001) (listing same requirements but classifying them as only four different elements); *Dedham Water Co. v. Cumberland Farms Dairy, Inc.*, 889 F.2d 1146, 1150 (1st Cir. 1989) (*en banc*).

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[3]The Court earlier bifurcated this action into liability and damage phases. Perhaps for this reason, the parties have not proffered evidence regarding the precise amount and types of costs incurred, and they have not yet fully briefed the issues of cost necessity and NCP consistency.

Although necessity and consistency with the NCP are elements of a CERCLA plaintiff's *prima facie* case, the Court believes it appropriate to leave these issues for resolution at a later date based on a complete record.

Thus, the order issued today is limited to a determination of liability for those response costs, if any, that will later be held necessary and NCP consistent.

1. *Is Perchlorate a Hazardous Substance?*

"CERCLA defines 'hazardous substance' by reference to substances listed under various other federal statutes." *Cose v. Getty Oil Co.*, 4 F.3d 700, 704 (9th Cir. 1993); 42 U.S.C. § 9601(14). Plaintiffs contend that perchlorate (ClO_4^-) qualifies as a CERCLA hazardous substances because it is "hazardous waste[s]" under the Solid Waste Disposal Act, 42 U.S.C. § 6901 *et seq.*, as amended by the Resource Conservation and Recovery Act ("RCRA"). *See* 42 U.S.C. § 9601(14)(C) (including Solid Waste Disposal Act hazardous wastes within CERCLA's definition of "hazardous substance").[4]

A "hazardous waste" is:

> a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may--
> (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or
> (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

42 U.S.C. § 6903(5).

The Solid Waste Disposal Act's implementing regulations categorize hazardous wastes as either "listed" hazardous wastes or "characteristic" hazardous wastes. 40 C.F.R. § 261.3(a). *See also United States v. Hansen*, 262 F.3d 1217, 1241 (11th Cir. 2001). "Characteristic" hazardous wastes are those wastes that are ignitable, corrosive, reactive or toxic, as those terms are defined in 40 C.F.R. §§ 261.21-261.24. *See* 40 C.F.R. §§ 261.3(a)(2)(i) and 261.20(a).

Plaintiffs claim, and Defendants do not dispute, that perchlorate meets the Solid Waste Disposal Act's definition of "solid waste." 42 U.S.C. § 6903(27) (solid waste is "discarded material, including solid, liquid, semisolid, or

---

[4]The inclusion of RCRA hazardous wastes within the CERCLA definition of "hazardous substance" is subject to a limited exception not applicable here. See 42 U.S.C. § 9601(14)(C); *Louisiana-Pacific Inc. v. Asarco Inc.*, 24 F.3d 1565, 1572 (9th Cir. 1994) (discussing exception).

contained gaseous material resulting from industrial, commercial, mining, and agricultural operations"); 40 C.F.R. § 261.2 (solid waste is any "discarded material" – for example material that has been "disposed of" or "burned or incinerated"). The declaration of Bradley Peach, who formerly worked at the Whittaker-Bermite site, supports Plaintiffs' claim. Peach states that perchlorate was disposed of as waste at the Whittaker-Bermite site, including in burn pits. Decl. of Bradley D. Peach (attached as Exh. R to the July 9, 2002 Decl. of Byron P. Gee) ¶ 5.

Plaintiffs also proffer evidence sufficient to establish that perchlorate is a hazardous solid waste because it is ignitable. A solid waste exhibits the ignitability characteristic if it is an "oxidizer" as defined in 49 C.F.R. 173.127.[5] Section 173.127 defines "ozidizer" quite generally as any "material that may, generally by yielding oxygen, cause or enhance the combustion of other materials."

Plaintiffs' expert E. John List explains that "perchlorate is a strong oxidizing agent" that stores "significant potential chemical energy." Expert Rep. of E. John List (attached to Plaintiffs' July 25, 2002 Notice of Errata) at 2 [hereinafter "List Rep."]. For this reason, ammonium perchlorate and potassium perchlorate are used in the manufacture of fireworks, explosives and rocket

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[5]The C.F.R. provision governing ignitability actually refers to the definition of "oxidizer" contained in 49 C.F.R. § 173.151 (as opposed to § 173.127), but no definition of "oxidizer" is contained within that section of the Code. Apparently the definition of "oxidizer" originally found in § 173.151 was moved to section § 173.127 as part of a comprehensive amendment to the Department of Transportation's Hazardous Materials Regulations, 49 C.F.R. parts 171-180. *See* 55 Fed. Reg. 52402-01 (Dec. 21, 1990). *See also* 49 Fed. Reg. 23290-01 (June 5, 1984) (referring to the definition of "oxidizer" then contained in § 173.151: "An oxidizer for the purpose of this subchapter is a substance such as a chlorate, permanganate, inorganic peroxide, or a nitrate, that yields oxygen readily to stimulate the combustion of organic matter.").

propellants. *Id. See also* Expert Rep. of Franklin J. Agardy (lodged by Whittaker on July 29, 2002) at 3 (perchlorate used to manufacture explosives and solid propellants such as rocket fuels).

In addition, the Court takes judicial notice of two Environmental Protection Agency ("EPA") draft reports regarding perchlorate that were circulated in January 2002 and December 1998; both reports describe perchlorate as an "oxidizing anion."[6] EPA, Perchlorate Environmental Contamination: Toxicological Review and Risk Characterization (January 16, 2002) (attached as Exh. A to Plaintiffs' July 9, 2002 Request for Judicial Notice) at 8; EPA, Perchlorate Environmental Contamination: Toxicological Review and Risk Characterization Based on Emerging Information (December 31, 1998) (attached as Exh. B to Plaintiffs' July 9, 2002 Request for Judicial Notice) at 1-1. *See also Oregon Ass'n of Homes for the Aging, Inc. v. Oregon,* 5 F.3d 1239, 1243 n.2 (9th Cir. 1993) (court may take judicial notice of records and reports of administrative agencies); *Reynolds v. Bucks*, 833 F.Supp. 518, 520 n.5 (E.D. Penn. 1993) (taking judicial notice of EPA draft report finding that environmental tobacco smoke is a cause of lung cancer). Although these are draft reports circulated for peer review, the section relevant here – describing the chemical properties of perchlorate – was included in the 1998 draft, which has already been subject to public comment, and was not changed in the 2002 version of the report.

2. *Did a Release of Perchlorate Occur at Defendants' Facility?*

In order to establish that the Whittaker-Bermite site is a facility within the meaning of CERCLA, Plaintiffs must provide evidence that it is a "site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located." 42 U.S.C. § 9601(9). In order to establish that

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[6]The Court overrules Defendants' authentication objection. *See* Fed. R. Evid. 902(5) (publications purporting to be issued by a public authority are self-authenticating).

a release of perchlorate occurred at the site, Plaintiffs must provide evidence that perchlorate was spilled, leaked, pumped, poured, emitted, emptied, discharged, injected or disposed into the environment, or that it escaped or leached into the environment. 42 U.S.C. § 9601(22) (defining "release").

The Whittaker-Bermite site is a 996-acre property located at 22116 West Soledad Canyon Road in the City of Santa Clarita. August 26 SGI ¶ 1. Munitions and explosives were manufactured at the site from at least 1934 to 1987. *Id.* ¶ 2. Plaintiffs offer evidence sufficient to establish both that the site is a "facility" as that term is defined in CERCLA and that perchlorate was released at the site. First, Bradley Peach declares that during his employment at the Whittaker-Bermite facility perchlorate was regularly delivered to the site, waste containing perchlorate was disposed of in burn pits, and perchlorate chemicals and perchlorate containing waste periodically spilled onto the ground at the site.[7] Peach Decl. ¶¶ 3-7. Second, tests conducted at the site reveal the existence of perchlorate. *See, e.g.*, Expert Rep. of David Keith Todd (attached as Exh. 2 to

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[7]Peach was employed at the Whittaker-Bermite facility from 1978 to 1984. He worked primarily in inventory-related activities and his job responsibilities "included receiving, storing and transporting raw materials and transporting and storing waste materials, including waste containing perchlorate." Peach also sometimes worked as the "fire-watch" at the site's waste burn pits. Peach Decl. ¶ 1.

The Court denied Defendants' earlier motion to exclude the Peach declaration but allowed Defendants to depose Peach, which they did on November 21, 2002. Defendants now object that certain statements in the Peach declaration are speculative and lack foundation, and Defendants cite portions of the November 21 Peach deposition as support for their objection.

The cited deposition testimony is not relevant to, and therefore does not undermine, Peach's statements regarding disposal at burn pits or perchlorate spilling. Peach's deposition testimony does call into question the specific numerical estimates regarding perchlorate deliveries that Peach included in his original declaration, but the cited deposition testimony actually supports the more general proposition that Peach has personal knowledge of at least *some* perchlorate deliveries to the Whittaker-Bermite site. *See* Peach Dep. (attached as Exh. 8 to the May 12, 2003 Decl. of Matthew Clark Bures) at 132:6-133:23.

Plaintiffs' July 25, 2002 Notice of Errata) at 26 (summarizing on-site soil tests for perchlorate) [hereinafter "Todd Rep."]; List Rep. at App. 1; Acton Mickelson Environmental, Inc., Draft Remedial Investigation Report (January 1997) (attached as Exh. A to the July 9, 2002 Gee Decl.) at 6-138 (reporting perchlorate found in site soil sample).[8] *See also* U.S. Army Corps of Engineers Remedial

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[8]Defendants object that this evidence is inadmissible. Defendants first object that the Acton Mickelson environmental report attached as Exh. A to the Gee Declaration has not been properly authenticated. Fed. R. Evid. 901. While it is true that Mr. Gee (an attorney for Plaintiffs) cannot authenticate the report, Defendant SCLLC produced the document itself in response to Plaintiffs' discovery requests. Gee Decl. ¶¶ 2-3. *See Maljack Productions, Inc. v. GoodTimes Home Video Corp.* (9th Cir. 1996), 81 F.3d 881, 889 n.12 (document authenticated when produced by defendant in discovery); *Snyder v. Whittaker Corp.*, 839 F.2d 1085, 1089 (9th Cir. 1988) (same). *Cf. also Orr v. Bank of America, NT & SA*, 285 F.3d 764, 776 & n.20 (9th Cir. 2002) (citing *Maljack* and *Snyder*). And although originally the report was prepared for Whittaker, not SCLLC, Whittaker is a party to this proceeding, Whittaker does not contend that the document is other than what it purports to be, and all Defendants (including Whittaker) actually cite the report in their SGI. *See* July 29 SGI ¶ 21 (reiterating authenticity objection but also citing the report as evidence). *Cf. Maljack*, 81 F.3d at 889 n.12 (relying on, *inter alia*, fact that objecting party did not actually dispute authenticity of the admitted document); *Snyder*, 839 F.2d at 1089 (same). The Court finds this "sufficient to support a finding that the matter in question is what its proponent claims." Fed. R. Evid. 901(a).

Defendants also object that the Acton Mickelson report is inadmissible as hearsay and that the cited portions of the Todd and List reports contain inadmissible hearsay. But SCLLC, which produced the report, admitted that it qualifies as a business record within the meaning of Fed. R. Evid. 803(6) by failing timely to respond to Plaintiffs' Request for Admissions. *See* Gee Decl. (attached as Tab M to Plaintiffs' Response to Defendants' Compendium of [Evidentiary] Objections) ¶¶ 1-4 & Exh. B. *See also* Fed. R. Civ. P. 36(a) Advisory Committee Notes (1970 Amend.) (requests for admission may address mixed questions of law and fact); *Marchand v. Mercy Medical Ctr., et. al.*, 22 F.3d 933, 937 n. 4 (9th Cir. 1994) (treating as proper a request for admission asking Defendant to admit that the treatment provided to Plaintiff "failed to comply with the applicable standard of care"). As to the Todd and List reports: Experts are permitted to rely on hearsay in forming their opinions, and the test data Todd and List relied on is therefore admissible because it was part of the basis for their expert opinions that perchlorate released at the Whittaker-Bermite site migrated to Plaintiffs' wells. *See Carson Harbor Village, Ltd. v. Unocal Corp.*, 270

Investigation Technical Mem. No. 1 Attachment B (monitoring well test results showing detection of perchlorate on the Whittaker-Bermite site) (proffered by both Plaintiffs, June 5, 2003 Gee Decl. Exh. A, and by Defendants, May 27, 2003 Decl. of Brian T. Kelleher, and relied on by both Plaintiffs' experts, *see, e.g.*, June 5, 2003 List Decl. ¶ 5, and by Defendants' expert N. Thomas Sheahan, May 27, 2003 Sheahan Decl. ¶ 3).

3. *Did the Release of Perchlorate at the Whittaker-Bermite Site Cause Plaintiffs to Incur Response Costs?*

To prove this element of their prima facie case, Plaintiffs must proffer evidence sufficient to establish that a release or threatened release from the Whittaker-Bermite site caused them to incur response costs.

(a) Have Plaintiffs incurred response costs?

CERCLA does not define the term "response cost." However, "response" is defined to mean "remove, removal, remedy, and remedial action" and all "enforcement activities related thereto." 42 U.S.C. § 9601(25). The terms "remove" and "removal" are in turn defined to include "cleanup or removal" and "actions as may be necessary to monitor, assess, and evaluate the release or threat of release," as well as "disposal of removed material" and "such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment." 42 U.S.C. § 9601(23). The terms "remedy" or "remedial action" mean "those actions consistent with permanent remedy taken instead of or in addition to removal actions." 42 U.S.C. § 9601(24). Preventive monitoring and provision of alternative water supplies are listed in the statute as examples of removal and remedial actions. 42 U.S.C. § 9601(23), § 9601(24).

In order to establish that they have incurred some response costs, Plaintiffs offer the declarations of David Kimbrough (Castaic's Water Quality and

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F.3d 863, 873-74 (9th Cir. 2001) (en banc).

For these reasons, Defendants objections are overruled.

Laboratory Supervisor), Kenneth J. Petersen (Newhall's General Manager), William J. Manetta (Santa Clarita's President), and Robert J. DiPrimio (Valencia's President).[9]

Kimbrough declares that Castaic supplements local Santa Clarita groundwater resources with water imported through the State Water Project. Kimbrough Decl. ¶ 2. Castaic provides such water at wholesale prices to water retailers – including Newhall, Santa Clarita and Valencia – within the agency's boundaries. *Id.* ¶ 2. *See also* Cal. Water Code App. § 103-15 (listing powers of agency); *id.* § 103-29.5 (providing for allocation of the agency's water supplies among area purveyors); *id.* § 103-4.8 (defining "purveyor" to mean those retail water distributors with facilities connected to the agency's water transmission system as of April 15, 1986). Kimbrough declares that Castaic has already spent "$300,000 in engineering and consulting fees to study the perchlorate release and devise a clean-up plan for the perchlorate problem." Kimbrough Decl. ¶ 4. Castaic is also the local agency sponsor of an Army Corps of Engineers study of contamination at the Whittaker-Bermite site, although it is unclear what expenditures (if any) this sponsorship entails. Decl. of Lynn M. Takaichi

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[9]Defendants object to these declarations as lacking foundation. In fact, Defendants raise lack of foundation objections to nearly every declaration Plaintiffs have filed.

The Court has only considered those objections relevant to evidence cited in this order, but it appears to the Court that many of Defendants' foundation objections – including those made to the Kimbrough, Petersen, Manetta, and DiPrimio declarations – lack merit. Although the Court applauds zealous advocacy, it deplores the numbing repetition of plainly non-meritorious (indeed, frivolous) evidentiary objections.

As to these specific declarations, each of the witnesses identifies his relevant position of authority with the Plaintiff entities, and each states that he has personal knowledge of the facts set forth in his declaration. These statements are sufficient, and neither Fed. R. Evid. 602 nor *United States v. Shumway*, 199 F.3d 1093, 1104 (9th Cir. 1999) suggests otherwise.

(Castaic's Agency Engineer) (attached to Plaintiffs' Aug. 12, 2002 Reply) ¶¶ 2-5.

Petersen, Manetta and DiPrimio each declare that their respective companies – retail purveyors within Castaic's boundaries – tested their wells for perchlorate contamination in 1997 at the request of California's Department of Health Services. Petersen Decl. ¶ 3; Manetta Decl. ¶ 3; DiPrimio Decl. ¶ 3. After detecting perchlorate, Newhall, Santa Clarita and Valencia took their contaminated wells out of service. Petersen Decl. ¶ 5; Manetta Decl. ¶ 5; DiPrimio Decl. ¶ 5. Peterson, Manetta and DiPrimio each declare that their respective companies have since spent substantial sums on additional sampling, as well as consulting fees and alternative water supplies. Petersen Decl. ¶ 6 (Newhall has spent $200,000);[10] Manetta Decl. ¶ 6 (Santa Clarita has spent

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[10]Defendants contend that Newhall does not need to purchase alternative water supplies because its remaining non-contaminated wells meet Newhall's demand. *See* August 26 SGI ¶ 59. Defendants also contend that it is actually cheaper for Newhall to purchase substitute water from Castaic than to produce water itself. *Id.* Defendants cite to portions of the deposition of Dustan Campbell, Newhall's Superintendent, as support for these arguments. *Id.*

The Court has reviewed the Campbell deposition, taken on March 5, 2002. Campbell testified that as of the date of his deposition, Newhall did have an adequate water supply. Campbell Dep. (attached as Exh. E to the July 29 Decl. Thomas F. Vandenburg) at 105:1-5 (Question: "Does [Newhall] have the capacity from the wells that are currently active to meet its demand today?" Answer: "Today, yes, it does."). Campbell also testified that beginning in August, 2001, Newhall could purchase water at the same cost, or even more cheaply, than producing water itself. *Id.* at 105:10-106:25.

But neither of these deposition excerpts undermines Newhall's cost estimate to the extent it is based on the provision of alternative water supplies. Campbell's testimony does not address Newhall's need for alternative water supplies before or after March, 2002, and it does not suggest that purchasing water from Castaic was cheaper for Newhall at all relevant times prior to August, 2001. In this regard, it is noteworthy that perchlorate was first detected in a Newhall well in 1997. Petersen Decl. ¶ 3.

$1,500,000);[11] DiPrimio Decl. ¶ 6 (Valencia has spent $50,000).[12] Petersen, Manetta and DiPrimio each declare that these costs have been incurred as a "direct result of [the] perchlorate contamination." Petersen Decl. ¶ 6; Manetta Decl. ¶ 8; DiPrimio ¶ 6.

The costs Plaintiffs have incurred qualify as removal or remedial costs because CERCLA's definitions of those terms include actions "necessary to monitor, assess, and evaluate a release or threat of release" and "provision of alternative water supplies." 42 U.S.C. § 9601(23), (24). Plaintiffs have thus presented sufficient evidence to establish that they have incurred CERCLA response costs as a result of the perchlorate contamination detected in the

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[11]Although Santa Clarita claims that some of this $1,500,000 has been spent on alternative water supplies, Robert McDougal, Santa Clarita's Operations Manager, testified during deposition that since shutting down its contaminated wells, Saugus-1 and Saugus-2, Santa Clarita has still had water supplies adequate to meet its needs. McDougal Dep. (attached as Exh. G to the July 29, 2002 Vandenburg Decl.) at 135:7-137:24. (Plaintiffs' counsel objected to this line of questioning during the McDougal deposition as argumentative and vague. The Court hereby overrules those objections.)

This testimony does create a genuine issue as to whether Santa Clarita has actually spent any money on alternative water supplies. McDougal's testimony does not, however, create a genuine issue sufficient to defeat Santa Clarita's summary judgment motion. At this stage in the case, and consistent with the Court's bifurcation order, Plaintiffs have not submitted itemized cost statements, and Santa Clarita identifies two other bases for the $1,500,000 figure – consulting and sampling fees. Defendants present no evidence that Santa Clarita has not incurred consulting and sampling costs.

[12]DiPrimio testified that as of the date of his deposition, March 29, 2002, Valencia could meet demand with water pumped from Valencia's own wells. DiPrimio Dep. (attached as Exh. F to the July 29, 2002 Vandenburg Decl.) at 85:10-15. In other words, as of March 29, 2002, Valencia did not need to purchase alternative water supplies to meet demand.

DiPrimio's testimony does not, however, create a genuine issue sufficient to deny summary judgment. DiPrimio did not discuss pre-March 2002 water supplies during his deposition, nor did he undermine Valencia's claim to have incurred costs for sampling and consulting fees.

Newhall, Santa Clarita and Valencia wells.

(b) Were Plaintiffs' response costs "caused" by Defendants' releases?

Much of Defendants' opposition is directed to an argument that Plaintiffs have failed to satisfy CERCLA's causation requirement. Analysis of this argument requires consideration of (i) causation principles applied in two-site water migration cases, (ii) the geography of the Whittaker-Bermite site and surrounding area, and (iii) the specific causation-related evidence submitted on this motion.

i. Causation principles

This is a "two-site" CERCLA case. Plaintiffs claim that contaminant at one location – the Whittaker-Bermite site – has migrated to reach a different location – Plaintiffs' wells.[13] The issue of causation in two-site cases is a difficult one, and the Court has reviewed numerous cases in an attempt to determine the appropriate causation standard to be applied here. The Court has found *Westfarm Associates Limited Partnership v. Washington Suburban Sanitary Comm'n*, 66 F.3d 669 (4th Cir. 1995), *United States v. Alcan Aluminum Corp.*, 964 F.2d 252 (3d Cir. 1992), *Artesian Water Co. v. New Castle County*, 659 F.Supp. 1269 (D. Del. 1987), *aff'd on other grounds* 851 F2d 643 (3d Cir. 1988), and *United States v. Bliss*, 667 F.Supp. 1298 (E.D. Mo. 1987), to be the most instructive.

In *Westfarm*, a case cited by Defendants themselves, Westfarm Associates Limited Partnership ("Westfarm"), a Maryland real estate developer, discovered that groundwater beneath its property was contaminated with perchloroethylene ("PCE"). 66 F.3d at 673. After conducting an investigation, Westfarm concluded that the PCE originated with the International Fabricare Institute ("IFI"), a neighboring landowner and dry cleaner trade association, and had leaked onto

[13]Actually, Plaintiffs' wells are in several different locations, making this more of a "several-site" case. But the principles applicable to two-site cases are applicable here.

Westfarm's property through cracks in the sewer system leading from IFI. *Id.* Westfarm inspected the sewer system itself and detected several flaws. *Id.* at 674. Westfarm also found PCE in the sewer leading from IFI. *Id.*

Westfarm sued IFI under CERCLA and also sued the Washington Suburban Sanitary Commission ("WSSC"), the local sewer system operator. The district court granted summary judgment in Westfarm's favor on its CERCLA claim, and WSSC appealed. WSSC argued that summary judgment should not have been granted because WSSC's expert testimony created a genuine issue of material fact as to causation. *Id.* at 681-82 The Fourth Circuit emphatically rejected this argument and explained that WSSC fundamentally misunderstood the CERCLA plaintiff's causation burden:

> Contrary to the rule followed in most areas of the law, the burden of proof as to causation in a CERCLA case lies with the defendant. The plaintiff must prove only that contaminants which were once in the custody of the defendant could have travelled onto the plaintiff's land, and that subsequent contaminants (chemically similar to the contaminants once existing in defendant's custody) on the plaintiff's land caused the plaintiff to incur cleanup costs. The plaintiff need not produce any evidence that the contaminants did flow onto its land from the defendant's land. Rather, once plaintiff has proven a *prima facie* case, the burden of proof falls on the defendant to *disprove causation.*

Id. at 681 (emphasis added) (citations omitted).

WSSC's expert opined that "current evidence [did] not substantiate the WSSC as a source of PCE contamination to the underlying aquifer." *Id.* at 681. Nevertheless, applying the burden-shifting scheme explained above, the Fourth Circuit held that WSSC failed to create a genuine issue. Because the WSSC's expert testimony indicated only that Westfarm might not be able to *prove* causation – not that WSSC could *disprove* causation – it was insufficient to deny summary judgment. In other words, "[b]ecause the burden lay on WSSC to *disprove* that it was a source of PCE, the fact that the evidence on summary judgment produced a genuine dispute as to whether the evidence *proved* WSSC to be a source was not material, and could not serve as a basis to deny summary judgment to Westfarm." *Id.* at 682. *See also Alcan*, 964 F.2d at 264-66

(plaintiffs in a "multi-generator" CERCLA case cannot be required to trace the cause of the response costs to each responsible party); *Artesian Water*, 659 F.Supp. at 1281-82 (defense expert's opinion that "it [could not] be stated to any reasonable degree of probability" that toxic wastes came from defendant's site, and defendant's identification of another potential source, were insufficient to create a genuine issue because plaintiff did not bear the burden of "fingerprint[ing]" any particular PRP's waste); *Bliss*, 667 F.Supp. at 1311 ("[D]efendants, not the plaintiff, [bore] the burden of showing that the hazardous substances at the site came solely from a third party.")

Although *Westfarm, Alcan, Artesian* and *Bliss* involve a variety of factual scenarios, they all stand for a common causation principle: in a two-site CERCLA case, the plaintiff meets its burden on summary judgment if it (a) identifies contaminant at its site, (b) identifies the same (or perhaps a chemically similar) contaminant at the defendant's site, and (c) provides evidence of a plausible migration pathway by which the contaminant could have traveled from the defendant's facility to the plaintiff's site.[14] If the plaintiff meets this burden, the defendant must then proffer evidence sufficient to create a genuine issue of fact as to its ability to disprove causation.

The Court finds this analysis persuasive and applicable to the facts of this case. The *Westfarm* burden-shifting approach is in keeping with CERCLA's broad remedial purpose, *see generally Hanford Downwinders Coalition, Inc. v. Dowdle*, 71 F.3d 1469, 1481 (9th Cir. 1995), and is consistent with the "minimum

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[14]In *Alcan*, the plausible migration pathway was an undisputed release of thousands of gallons of water from the contaminated site into the Susquehanna River. 964 F.2d at 256. The plausible pathway in *Artesian Water* was underground migration. 659 F.Supp. at 1281. In *Bliss*, the United States offered evidence that waste from a large storage site had been transported to, and sprayed at, another site; although the defendants argued that *their* waste may not have been so transported, the Court held that the government's evidence of a plausible route was sufficient. 667 F.Supp. at 1309-11.

causal nexus" most courts require under CERCLA. *See, e.g.*, *United States v. Monsanto*, 858 F.2d 160, 170 n.17 (4th Cir. 1988). *See also Artesian Water,* 659 F.Supp. at 1282 (requiring plaintiffs to "fingerprint" individual defendant's waste would allow PRPs "to avoid financial responsibility for the cleanup.").[15]

ii. The setting

The Whittaker-Bermite site is a 996-acre property located in the Santa Clarita Valley. August 26 SGI ¶ 1. The Santa Clara River runs west of the site, and water in the river flows north. *See* May 13, 2002 Expert Rep. of Grant L. Ohland [hereinafter "Ohland Rep."] Fig. 1. Plaintiffs' four wells lie directly west and northwest of the Whittaker-Bermite site, roughly along the Santa Clara River. *Id.*

Of Plaintiffs' four wells, NC-11 is the furthest south. It is located between the Santa Clara River and the southwest corner of the Whittaker-Bermite site; the well is closer to the river than it is to the site. Saugus-2 and then Saugus-1 are further north. *Id.* Saugus-2 is directly west of the northwest corner of the Whittaker-Bermite site, and the well is (like NC-11) in between the site and the Santa Clara River. *Id.* Saugus-1 is north and west of the site's northwest corner, and it is just on the west side of the river. *Id.* VWC-157 is north and west of the Saugus wells and of the Whittaker-Bermite site. VWC-157 is also west of the river – further west, in fact, than is Saugus-1. *Id.*

iii. Plaintiffs have met their causation burden

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[15]For these same reasons, the Court finds unpersuasive, and declines to adopt, the stricter causation requirement suggested by the Sixth Circuit's holding in *Kalamazoo River Study Group v. Rockwell Int'l Corp.*, 171 F.3d 1065, 1072 (6th Cir. 1999) (plaintiff's expert's affidavit, which created a genuine issue only as to the "possibility" that contaminant migrated from the defendant's site, insufficient on summary judgment because plaintiff bore "the burden of proof to show that [defendant] did contribute to [contaminant] . . ., not that it is possible that it might have contributed . . . ."). *See also United States v. Dico*, 136 F.3d 572, 578 (8th Cir. 1998).

Applying the principles set out above, the Court finds that Plaintiffs have proffered evidence sufficient to meet their burden as to causation. Perchlorate has been detected in the Newhall, Santa Clarita and Valencia wells. *See* Ohland Rep. Table 1; Todd Rep. at 12.[16] Perchlorate also has been detected at the Whittaker-Bermite site. *See* n.8 *supra* and accompanying text.

As to migration pathways, Plaintiffs' and Defendants' experts generally agree that perchlorate might travel to Plaintiffs' wells via surface water, the Alluvial Aquifer or the Saugus Formation.[17] *Compare* Ohland Rep. at 24-28 *with* Todd Rep. at 33-34. For purposes of this motion, the Court need only focus on surface water as a plausible migration pathway.

Plaintiffs' hydrogeology experts, Drs. List and Todd, opine that the perchlorate detected in surface water runoff from areas in the southwest corner of Whittaker-Bermite site travels through canyons located in the southwestern section of the site and enters the South Fork of the Santa Clara River upstream of the Plaintiffs' four wells. List Rep. at 7; Todd Rep. at 33-34. Although Plaintiffs' wells draw from the underlying Saugus formation, Dr. Todd opines (based on perchlorate detection in groundwater on the Whittaker-Bermite site) that perchlorate traveling in surface water infiltrates both the Alluvial Aquifer and underlying Saugus formation – making surface water a "viable migration pathway[]" to Plaintiffs' wells. Todd Rep. at 33. *See also* List Rep. at 7. Dr. List also opines, based on tests conducted near the site's northern border, that such infiltration down from surface water "is likely to be significant wherever surface runoff has occurred." List Rep. at 7. Finally, Dr. Todd explains that perchlorate, which is denser than water, will sink by gravity downward through the water

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[16]Defendants evidentiary objections to the admissibility of this data contained in both Plaintiffs' and Defendants' expert reports are overruled. *See supra* note 8.

[17]The Alluvial Aquifer and underlying Saugus Formation are the two principal aquifers in the Upper Santa Clara River Valley. Ohland Rep. at 11.

column. Todd Rep. at 32.

This expert evidence is sufficient to establish that transport through surface water entering the Santa Clara River upstream of Plaintiffs' wells, combined with subsequent infiltration through the Alluvial Aquifer and Saugus Formation near Plaintiffs' wells, is a plausible migration pathway for perchlorate to travel from the Whittaker-Bermite site to the wells.

In opposition, Defendants rely primarily on the expert testimony of Grant L. Ohland. Ohland, however, agrees with many of Plaintiffs' experts' conclusions regarding surface water (and subsequent downward migration into underlying aquifers) as a potential migration pathway to Plaintiffs' wells. For example, Ohland agrees that surface water is a potential pathway; he, too, cites data showing perchlorate in surface water run-off from the southwest portion of the Whittaker-Bermite site; he agrees that this surface water run-off travels to the South Fork of the Santa Clara River upstream of Plaintiffs' wells; he agrees that surface water run-off has "the potential to transport perchlorate considerable distances in short periods of time"; and he agrees that surface water recharges the underground aquifers from which Plaintiffs' wells draw. Ohland Rep. at 24, 41-42.

To the extent Ohland disputes Plaintiffs' contentions about this migration pathway, his conclusions are insufficient to create a genuine issue:

1. Ohland opines that perchlorate in the amounts recently detected in surface water run-off from the Whittaker-Bermite site would not result in the "concentrations reported in the Plaintiffs' wells." Ohland Rep. at 41-42. *See also* May 27, 2003 Expert Rep. of N. Thomas Sheahan at 7 (opining that perchlorate migrating in groundwater from the northwest corner of the Whittaker-Bermite site could not have caused the

concentration levels reported in Saugus-1 and Saugus-2).[18] But Plaintiffs need not prove that all the perchlorate in their wells comes from the Whittaker-Bermite site in order for Defendants to be liable either jointly and severally or in contribution for their own equitable share. *See Fireman's Fund Ins. Co. v. City of Lodi*, 302 F.3d 928, 945 (9th Cir. 2002) (defendant in cost recovery action under CERCLA § 107 may be held jointly and severally liable for entire cost of clean-up even though it only contributed a fraction of the contamination; defendant in CERCLA contribution action will be liable for its own equitable share).

2. Ohland also opines that several other nearby facilities "likely released perchlorate to the environment." Ohland Rep. at 45. *See also* February 10, 2003 Supplemental Ohland Rep. at 8 (discharges from nearby wastewater treatment plant are a "potential source" of perchlorate in Plaintiffs' wells). However, the relevance of this opinion to Defendants' ability to disprove causation is fatally undermined by Ohland's ultimate conclusion – namely, that it is not possible, based on currently available data to "determine the source of perchlorate reported in Plaintiffs' wells" or to determine which of the potential migration pathways from alternative sources conveyed perchlorate to Plaintiffs' wells. Ohland Rep. at 39, 45. *See Westfarm*, 66 F.3d at 682 (expert testimony that "[c]urrent evidence [did] not substantiate [defendant] as a source of PCE contamination" insufficient to create a genuine issue of material fact).

In sum, Ohland's expert opinion comes down to this: (1) perchlorate might have migrated from the Whittaker-Bermite site to Plaintiffs' wells via surface water and subsequent infiltration, but surface water migration alone likely could not cause *all* of the contamination in Plaintiffs' wells and (2) other nearby facilities

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[18]Defendants' *Ex Parte* Application for leave to file the supplemental Sheahan declaration and report is GRANTED, and the Court has considered Sheahan's supplemental opinions in ruling on these motions.

might have released perchlorate in the direction of Plaintiffs' wells, but it is impossible to determine sources based on available data. Because neither of these opinions indicates that Defendants can *disprove* that the Whittaker-Bermite site was *a cause* of perchlorate contamination in Plaintiffs' wells, Defendants have failed to create a genuine issue of material fact that would preclude summary judgment for the Plaintiffs.

4. *Are Defendants within the Classes of Persons Liable under CERCLA?*

This question is easily answered as to two of the Defendants – SCLLC and Whittaker:

SCLLC is the current owner of the Whittaker-Bermite site. August 26 SGI ¶ 44. This is sufficient under CERCLA, which imposes liability on the current owner of a facility. 42 U.S.C. § 9607(1).

Whittaker owned and operated the site from 1967 to January, 1999. August SGI ¶ 46. As a former owner, Whittaker is liable if it owned the site "at the time of disposal of any hazardous substance." 42 U.S.C. § 9607(2). "CERCLA defines 'disposal' for purposes of § 9607(a) with reference to the definition of 'disposal' in RCRA, see 42 U.S.C. § 9601(29), which in turn defines 'disposal' as follows:

> The term 'disposal' means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters."

Carson Harbor Village, Ltd. v. Unocal Corp., 270 F.3d 863, 875 (9th Cir. 2001) (quoting RCRA, 42 U.S.C. § 6903(3)).

The Peach declaration establishes that Whittaker owned the site when a disposal of perchlorate occurred. As recounted above, Peach declares that during his employment at the Whittaker-Bermite facility perchlorate was regularly delivered to the site, waste containing perchlorate was disposed of in burn pits,

and perchlorate chemicals and perchlorate containing waste periodically spilled onto the ground at the site. Peach Decl. ¶¶ 3-7.

The liability of Defendant RFI presents more difficult questions. Plaintiffs contend that Defendant RFI is liable as the current operator of the Whittaker-Bermite site. RFI is the sole managing member of SCLLC, the present owner of the site, and Plaintiffs rely on the operator theory of liability elaborated in *United States v. Bestfoods*, 524 U.S. 51, 67-73 (1998), to argue that RFI is liable. In opposition, RFI directs the Court's attention to a motion for summary judgment it filed on this very issue and to the evidence filed in support of that motion. However, RFI later withdrew its summary judgment motion after the Court directed the parties to consider carefully each side's respective Fed. R. Civ. P. 56(f) requests; Plaintiffs had opposed RFI's motion at least in part based on Rule 56(f). For that reason, the Court believes it would be inappropriate to rule on the issue of RFI's liability at this time. It would not be fair to grant judgment against RFI when the withdrawal of RFI's motion (at the Court's own suggestion) has deprived it of any defense.

Thus, Plaintiffs' motion is denied as to RFI without prejudice to Plaintiffs' or RFI's moving again for summary judgment on this issue at a later date.

5. *Summary of Ruling and Request for Additional Discovery*

For the foregoing reasons, Plaintiffs are entitled to summary adjudication in their favor on the following issue: Are Defendants Whittaker and SCLLC liable to Plaintiffs for those response costs Plaintiffs have incurred that are later determined to have been necessary and consistent with the NCP?[19] The answer is: yes.

Defendants' request for additional time to conduct discovery, Fed. R. Civ. P. 56(f), is DENIED. In his declaration, Matthew Clark Bures states that

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[19]As discussed in the Conclusion below, this order does not decide whether Plaintiffs' CERCLA claims are actually for cost recovery under 42 U.S.C. § 9607(a) or for contribution under 42 U.S.C. § 9607(a) and § 9613(f).

Defendants seek additional information regarding two monitoring wells, MW-1 and MW-2, and the Stadium Well. May 12, 2003 Decl. of Matthew Clark Bures Decl. ¶ 8. But the Court has not considered any of Plaintiffs' claims as to perchlorate contamination in the Stadium Well in ruling on these motions, and defense expert Ohland already has offered his opinion that the detection of perchlorate at MW-2 supports Defendants' case. *See* February 10, 2003 Supplemental Expert Rep. of Grant L. Ohland at 7-8. Defendants have not explained how the additional data they seek is "essential" to resisting Plaintiffs' motion. *State of California v. Campbell*, 138 F.3d 772, 780 (9th Cir. 1998).

Bures also declares that Defendants seek additional data regarding the Army Corps of Engineers study of contamination in the Santa Clara Valley. Bures Decl. ¶ 9. But Defendants obtained the Army Corps' Technical Memorandum No. 1 after filing the Bures declaration, and the Court has considered Sheahan's recently filed opinion regarding that Memorandum in ruling on this motion.

B. Plaintiffs' Public Nuisance Claim

A nuisance affecting "an entire community or neighborhood, or any considerable number of persons" is a public nuisance. Cal. Civ.Code § 3480. Polluted groundwater is a public nuisance under California law, *State of California v. Campbell,* 138 F.3d 772, 780 (9th Cir. 1998), and in this case, numerous tests have demonstrated that perchlorate is present in the groundwater underneath the Whittaker-Bermite site. *See, e.g.*, Figure 1 attached to May 27, 2003 Sheahan Rep. Thus, the only questions remaining as to Plaintiffs' public nuisance claims are (1) whether Plaintiffs are parties authorized to sue for abatement of a public nuisance and (2) whether Plaintiffs' claims are barred by the applicable statute of limitations.

1. *Who May Bring a Public Nuisance Claim?*

Actions to abate a public nuisance may be maintained either by a public body authorized by law or by a private party who has been specially injured by

the nuisance. Cal. Civ. Code § 3493, § 3494. When an authorized public agency sues to abate a public nuisance, no statute of limitations applies. Cal. Civ. Code § 3490. However, a private party's suit for public nuisance is subject to the three-year statute of limitations in Cal. Code Civ. Proc 338(b). *Mangini v. Aerojet-General Corp.*, 230 Cal.App.3d 1125, 1142-43 (1991) [hereinafter "*Mangini I*"].

(a) Authorized public bodies

Plaintiffs contend that Newhall and Castaic are public bodies authorized by law to maintain claims for public nuisance. Newhall is a water district established under California's County Water District Law, Cal. Water Code § 30000, and Castaic is a water agency created pursuant to its own enabling act, the Castaic Lake Water Agency Act, Cal. Water Code App. § 103-1 *et seq*. Newhall and Castaic both have the power to sue and be sued, and Newhall in particular has the power to institute "actions and proceedings to prevent interference with or diminution of the . . . natural subterranean supply of waters which may [b]e used or be useful for any purpose of the district." Cal. Water Code § 31082.

In a very recent case, however, the California Court of Appeal held that only public bodies *explicitly* authorized to abate a public nuisance may do so. *Lamont Storm Water District v. Pavich*, 78 Cal.App.4th 1081 (2000). The plaintiff in *Lamont*, a storm water district created pursuant to the Storm Water District Act of 1909, Cal. Water Code App. § 13-1 *et seq*., had the power to sue and be sued and to "do any and all other acts and things necessary or required for the protection of the lands in said district from damage from storm waters and from waters of any innavigable stream, watercourse, canyon or wash . . . ." 78 Cal.App.4th at 1084.

But the appellate court found this seemingly expansive language not to be dispositive, explaining that "when the Legislature has intended to grant the power to abate a nuisance, it has done so specifically and in clear terms." *Id*. For example, § 731 of the California Civil Procedure Code specifically gives county district attorneys and city attorneys the authority to abate a public nuisance. And

§ 2060 of the California Health and Safety Code gives Mosquito Abatement and Vector Control Districts the authority to abate public nuisances. Noting the absence of any similar provision in the Storm Water District Act, the *Lamont* court held that the plaintiff district could not maintain a public nuisance action. 78 Cal.App.4th at 1086.

Under California's statutory scheme and precedent, *Lamont* is supportable. No court has reached an opposite conclusion or rejected it. This Court is bound by decisions of California's intermediate appellate courts absent "convincing evidence" that the California Supreme Court would decide the issue differently. *In re Watts*, 298 F.3d 1077, 1082 (9th Cir. 2002). Thus, guided by *Lamont*, the Court concludes that Newhall and Castaic are not public bodies specifically authorized to abate a public nuisance.

(b) Specially injured parties

Private plaintiffs like Santa Clarita and Valencia may have standing to bring a public nuisance action if they have been specially injured by the nuisance. Cal. Civ. Code § 3494. In this case, both Santa Clarita and Valencia have proffered evidence that they sampled their wells near the Whittaker-Bermite site for perchlorate at the request of the California Department of Health Services. DiPrimio Decl. ¶ 2; Manetta Decl. ¶ 3. This type of monitoring qualifies as a special injury sufficient to establish these Plaintiffs' standing to sue. *See Mangini I*, 230 Cal.App.3d at 1137-38.

2. *Statute of Limitations*

A three-year statute of limitations applies to Santa Clarita's and Valencia's public nuisance claims. *Mangini I*, 230 Cal.App.3d at 1142. The effect of the statute on Plaintiffs' claims depends on whether the nuisance they allege is "permanent" or "continuing":

> In general, a permanent nuisance is considered to be a permanent injury to property for which damages are assessed once and for all, while a continuing nuisance is considered to be a series of successive injuries for which the plaintiff must bring successive actions. . . . With respect to a permanent nuisance, the statute of

> limitations begins to run on the creation of the nuisance and bars all claims after its passage, while each repetition of a continuing nuisance is considered a separate wrong which commences a new period in which to bring an action for recovery based upon the new injury.

Beck Development Co. v Southern Pacific Transportation Co., 44 Cal.App.4th 1160, 1216-17 (1996).

The nuisance Plaintiffs complain of in this case is the perchlorate contamination on the Whittaker-Bermite site. Plaintiffs contend that perchlorate was released at the site as a result of the explosives manufacturing process. Plaintiffs themselves offer evidence that active operations at the site ceased in 1987. *See* Exh. A to July 9, 2002 Gee Decl. at 26 ("The Whittaker-Bermite facility is a former munitions and explosives manufacturing site that was in operation from 1934 until 1987."). *See also* August 26 SGI ¶ 2, ¶ 3. Plaintiffs thereafter learned of contamination in their wells, in the Spring of 1997 – admittedly more than three years before they filed this complaint. *See* July 29, 2002 SGI (filed in opposition to Defendants' Motion for Summary Judgment on Plaintiffs' Fourth, Sixth, Seventh and Eighth Claims for Relief) ¶ 7.[20] Given these facts, Plaintiffs' nuisance claims are barred if contamination at the Whittaker-Bermite site is viewed as a permanent nuisance. *See Mangini I*, 230 Cal.App.3d 1145 n.13 (plaintiffs' claims barred if for permanent nuisance where defendant used toxic substances – including ammonium perchlorate – on property from 1960 to 1970, plaintiffs had notice of contamination in 1984, and plaintiffs filed suit in 1988).

Plaintiffs may still be entitled to summary judgment, however, if the Whittaker-Bermite contamination is viewed as a continuing nuisance. In *Mangini v. Aerojet-General Corp.*, 12 Cal.4th 1087, 1097 (1996) [hereinafter *Mangini II*], the California Supreme Court, adopting the lower appellate court's opinion,

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[20]This SGI was filed in opposition to a defense motion that has since been withdrawn, but the Court takes judicial notice of this undisputed fact.

explained that the "crucial test of the permanency of a trespass or nuisance is whether the trespass or nuisance can be discontinued or abated."

Plaintiffs have proffered no evidence of abatability in support of their summary judgment motion.[21] Because Plaintiffs briefed this issue in opposition to Defendants' now-withdrawn statute of limitations motion, however, the Court also has reviewed the evidence Plaintiffs submitted on that motion. For example, Plaintiffs point to the deposition of Robert J. DiPrimio as support for their continuing nuisance claim. DiPrimio did testify during deposition about a potential $36 million treatment program for water drawn from Plaintiffs' wells, DiPrimio Dep. (attached as Exh. B to the Yamamoto Decl. filed in opposition to Defendants' statute of limitations motion) at 150:12-151:9, but there is no evidence that this treatment facility would abate the actual nuisance – namely, the underground contamination emanating from the Whittaker-Bermite site. Mr. Manetta also testified that there is "technology to abate the problem in the groundwater off the site," Manetta Dep. (attached as Exh. C to the Yamamoto Decl.) at 235:12-23, but the California Supreme Court has rejected the contention that "mere technological feasibility proves abatability." *Mangini II*, 12 Cal.4th at 1099 (adopting opinion of California Court of Appeal).

3. *Summary of Ruling*

Plaintiffs are not entitled to summary judgment on their public nuisance

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[21]Although abatability might be viewed as an element of Defendants' statute of limitations affirmative defense, those California courts that have addressed the issue have viewed the continuing (*i.e.* abatable) nature of a nuisance as an element of the plaintiff's case. *Beck Development Co.*, 44 Cal.App.4th at 1217 ("A plaintiff cannot simply allege that a nuisance is continuing in order to avoid the bar of the statute of limitations, but must present evidence that under the circumstances the nuisance may properly be considered continuing rather than permanent."); *Mangini II*, 12 Cal.4th at 1096-97 (noting that the lower court had treated abatability as an element of the plaintiff's case but declining to decide proper burden of proof). Plaintiffs themselves have pled abatability as an element of their nuisance claims. Compl. ¶ 59, ¶ 66.

claims, and because the same statute of limitations analysis also applies to Plaintiffs' private nuisance claims, *see Beck, supra* (private nuisance claim), Plaintiffs' motion is denied as to those claims as well.

WHITTAKER'S MOTION FOR SUMMARY JUDGMENT ON ITS COUNTERCLAIMS

Each of the Defendants has counterclaimed against each of the Plaintiffs for a declaratory judgment under § 107(a) and for contribution under CERCLA §§ 107(a) and 113(f). Whittaker now moves for summary judgment on its counterclaim against the Plaintiffs/Counter-Defendants [hereinafter "Counter-Defendants"] for contribution.

I. Elements of Whittaker's *Prima Facie* Case

In order to succeed on its contribution claims, Whittaker must establish that (1) perchlorate is a hazardous substance;[22] (2) there has been a release of perchlorate at Counter-Defendants' facilities; (3) the release caused Whittaker to incur necessary response costs consistent with the NCP; and (4) Counter-Defendants are proper CERCLA defendants.[23] *See California v. Campbell*, 319 F.3d 1161, 1165 (9th Cir. 2003); *Bedford Affiliates v. Sills*, 156 F.3d 416, 427 (2d Cir. 1998). Whittaker must support its motion with evidence that would entitle it to a directed verdict on these elements. *C.A.R. Transportation Brokerage Co., Inc. v. Darden Restaurants, Inc.*, 213 F.3d 474, 480 (9th Cir. 2000) (citations omitted).

In the briefs filed on Whittaker's motion, Counter-Defendants only dispute the second element listed above; they contend that their sites are not "facilities."

A. Are NC-11, Saugus-1, Saugus-2 and VWC-157 CERCLA Facilities?

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[22]This element of Whittaker's *prima facie* case need not be considered in detail here because the analysis found above at pages 7 through 9 is applicable to Whittaker's motion.

[23]The Court will not address necessity and consistency with the NCP in this order for the reasons discussed at note 3, *supra*.

Whittaker contends that the wells owned by Counter-Defendants Newhall, Santa Clarita and Valencia are CERCLA facilities. The statute's definition of the term "facility" explicitly includes wells, 42 U.S.C. § 9601(9), and this plain language analysis would appear to resolve the issue. Nonetheless, Counter-Defendants contend that their wells are covered by the limited exception to the definition of facility for "any consumer product in consumer use or any vessel." *Id.* As support for this position, Counter-Defendants rely almost entirely on *Vernon Village, Inc. v. Gottier*, 755 F.Supp. 1142 (D. Conn. 1990) (Cabranes, J.).

The plaintiff in *Vernon Village* was a resident of a trailer park that bordered a polluted industrial site. 755 F.Supp. at 1145. The trailer park, the High Manor Mobile Home Park ("High Manor Park"), owned and operated a system of wells and pipes used to supply drinking water to High Manor Park residents. *Id.* Chromium from the neighboring industrial site, the Hillside Industrial Park ("Hillside"), traveled downgradient and contaminated High Manor's wells. *Id.* The plaintiff brought suit against, and eventually reached a settlement with, Precision Plating Corp. ("Precision") – the company located at Hillside that had actually been the source of the groundwater contamination. *Id.* at 1145-46. The plaintiff then brought suit against the company that owned High Manor Park (and the company's president) for failing to monitor the Park's water supply. *Id.* at 1146.

The district court granted summary judgment in the defendants' favor on plaintiff's CERCLA claim. Although the court noted that the defendants' wells appeared at first to fall squarely within CERCLA's definition of facility, the court ultimately concluded that the drinking water provided to plaintiff from the wells was a "consumer product in consumer use," and that the defendants could not be liable for contaminants contained in such a product. *Id.* at 1151.

This Court is not bound by district court opinions in another circuit, and the Court finds the analysis in *Vernon Village* unpersuasive. First, the *Vernon Village* court focused exclusively on the water within the defendants' wells, not

on the wells themselves. *See* 42 U.S.C. § 9601(9) ("facility" defined to include wells). This distinction made some sense in the context of the *Vernon Village* plaintiff's case because her suit was based on contamination in water that was actually delivered to her home as a consumer product through the defendants' well and pipe system. *Id.* at 1149. But the same distinction does not make sense here. This case is not brought by parties who actually receive Counter-Defendants' water as a consumer product; unlike the contaminated water that sparked the *Vernon Village* suit, here the water is not a product currently made available to consumers for their use.

The *Vernon Village* holding also presents a conceptual difficulty. As a practical matter, CERCLA cases involving wells claimed to be facilities will likely always, or almost always, actually be about the water drawn from those wells. The inclusion of "well" within CERCLA's definition of "facility" would have little meaning if well *water* were always considered entirely separately. Indeed, several of the terms included in the definition of facility – for example, "pipe," "pit," "pond," "lagoon," "ditch" and "landfill" - would be stripped of significance if a similar hypertechnical analysis were applied to them.

In addition, *Vernon Village* rests on a weak precedential foundation. The court's analysis drew quite heavily on a Fifth Circuit case, *Dayton Indep. Sch. Dist. v. U.S. Mineral Prods. Co.*, 906 F.2d 1059 (5th Cir. 1990). *Dayton* held that asbestos manufacturers and suppliers could not be liable for costs incurred in removing asbestos from school buildings on the theory that they had "arranged for [asbestos] disposal or treatment." 906 F.2d at 1064 (quoting 42 U.S.C. § 9607(a)). The Fifth Circuit reasoned that the defendants' acts – which amounted to the installation of asbestos in school buildings – could not be considered "disposal" of asbestos. *Id.* The court also went on to express doubt whether any CERCLA "facility" was involved in the case, explaining that CERCLA was not intended to target "legitimate manufacturers or sellers of useful products." *Id.* at

1065.[24]

In the years since *Vernon Village*, the Fifth Circuit has reviewed its broad language in *Dayton* and has limited the holding of that case to its specific facts. *See Uniroyal Chemical Co., Inc. v. Deltech Corp.*, 160 F.3d 238 (5th Cir. 1999). In *Uniroyal*, the Fifth Circuit first rejected an argument, based on language in *Dayton*, that CERCLA applies only to inactive or abandoned hazardous waste sites.[25] *Id.* at 248-49 (rejecting contrary holdings in several district court cases, including *Vernon Village*). As to CERCLA's consumer product exception, *Uniroyal* next explained that *Dayton* depended almost entirely on the "dispos[al]" requirement in § 9607(a)(3) – a requirement not found in the section of the statute, § 9607(a)(1), on which Whittaker's claims are based. *Id.* at 251-52. And because Dayton's commentary on the consumer product exception was *dicta* not supported by any specific citation to case law or legislative history, the Fifth Circuit has now limited *Dayton*'s holding to the very specific issue addressed in that case – the claimed right of recovery in asbestos removal cases. *Id.* at 252 n.16. Given this limitation, *Dayton* cannot provide sound support for the holding

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[24]In full, the *Dayton* court's analysis was as follows:

> It is clear that Congress did not intend CERCLA to target legitimate manufacturers or sellers of useful products. Rather, taken in context, the provision reflects Congress' desire to hold liable those who would attempt to dispose of hazardous wastes or substances under various deceptive guises in order to escape liability for their disposal.
>
> The legislative history reinforces [the] argument that Congress intended to provide recovery only for releases or threatened releases from inactive and abandoned waste sites, not releases from useful consumer products in the structure of buildings.

Id. at 1065-66 (footnote omitted).

[25]The Court finds it disturbing that Counter-Defendants quote extensively from *Dayton* in their Memorandum (albeit by way of an indirect quotation through *Vernon Village*) without mentioning the Fifth Circuit's later consideration of that case in *Uniroyal*.

in *Vernon Village* (or for Counter-Defendants' position here).[26]

Finally, *Vernon Village* is unpersuasive because the *Vernon Village* court appears to have been influenced in its analysis of the definition of "facility" by the relative blamelessness of the defendants in that case. Indeed, the court explained its reasoning as follows:

> Despite the apparent plausibility of plaintiff's argument that defendants own and operate a "facility"--after all, they do own wells, pipes and equipment for supplying water to the residents of the park--CERCLA is simply not the appropriate legal instrument with which to challenge the conduct of the defendants in this case. Defendants were as much "victims" of the contamination of the soil and groundwater at the Hillside Industrial Park as was the plaintiff. They have in no way caused or contributed to the release of the hazardous substances into the drinking water supply.

755 F.Supp. at 1151 (footnote omitted).

In this case, too, Counter-Defendants argue that they are essentially blameless. But that argument applies to Counter-Defendants' "innocent landowner" defense. It is within the context of that statutorily-provided defense – not with respect to the otherwise clear definition of "facility" – that Counter-Defendants' innocence argument finds its proper home.[27]

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[26]The same is true for the Ninth Circuit's leading asbestos removal case, *3550 Stevens Creek Assoc. v. Barclays Bank of California*, 915 F.2d 1355 (9th Cir. 1990), which reached a result similar to that reached by the Fifth Circuit in *Dayton*. In *3550 Stevens Creek*, the Ninth Circuit held that use of asbestos in building construction could not be considered "disposal" within the meaning of 42 U.S.C. § 9607(a)(2), which establishes PRP liability for past owners or operates who owned the facility in question at the time of waste disposal. 915 F.2d at 1362. *3550 Stevens Creek* is of even less help to Counter-Defendants than *Dayton* might have been (at least pre-*Uniroyal*) because it nowhere addressed the consumer product exception.

[27]Moreover, once liability is determined, the Court will apply principles of equity to allocate costs among PRPs. Counter-Defendants' claimed blamelessness would be relevant at that stage if Counter-Defendants ultimately are held to be PRPs. *See Cadillac Fairview/California Inc. v. Dow Chemical Co.*, 299 F.3d 1019, 1025 (9th Cir. 2002) (district courts will consider equitable factors in allocating costs among PRPs).

Counter-Defendants also cite *City of Portland v. Boeing,* 179 F.Supp.2d 1190, 1201 (D. Or. 2001) as support for their position.[28] The defendant-polluters in that case argued that the plaintiffs were themselves PRPs because they owned contaminated wells. The court rejected that argument because the defendants provided no evidence that the plaintiffs' well contamination caused defendants to *incur response costs* – an element essential to CERCLA liability. *Id.* Thus, *City of Portland* turned on the response cost element of CERCLA's *prima facie* case – an element this Court will consider below – not simply on the fact that the plaintiffs were passive well owners.

Counter-Defendants argue more generally that they cannot be liable under CERCLA because their wells are not "abandoned and inactive hazardous waste disposal sites." Mem. at 3. Counter-Defendants contend that achieving the cleanup of such sites was CERCLA's only aim. But Counter-Defendants' reliance on an isolated quotation from the legislative history is unpersuasive in light of the enacted statute's broad definition of facility. Moreover, those appellate courts to have considered Counter-Defendants' argument have rejected it. *See Uniroyal,*160 F.3d at 248-49, *Axel Johnson, Inc. v. Carroll Carolina Oil Co., Inc.*, 191 F.3d 409, 419 (4th Cir. 1999).

In sum, the Court concludes that NC-11, VWC-157, Saugus-1 and Saugus-2 fall within CERCLA's definition of "facility."

B. Is the "Valley's Groundwater" a Facility?

CERCLA's definition of "facility" includes any "site or area where a hazardous substance has . . . come to be located." 42 U.S.C. § 9601(9). In its

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[28]At oral argument, counsel for Counter-Defendants relied on one additional case, *Reading Co. v. City of Philadelphia*, 823 F.Supp. 1218 (E.D. Penn. 1993). *Reading* is of no aid to Counter-Defendants. The *Reading* court held the consumer product exception *inapplicable* in that case and, in fact, explained that the exception was intended to protect "*individual consumers*." 823 F.Supp. at 1233 (emphasis added).

motion papers, Whittaker argues vaguely – and without analysis or case citation – that the "Valley's groundwater" is a "facility." Although Counter-Defendants do not specifically take issue with this argument, the Court rejects it. Groundwater is neither a "site" nor an "area," at least as those terms are commonly understood. *See* Webster's Third New International Dictionary (defining "site" as "the original or fixed position of a thing," "the local position of a building, town, monument or similar work . . .," *etc.*; defining "area" as "a level or relatively level piece of unoccupied or unused ground" or "a definitely bounded piece of ground set aside for a specific use or purpose"). Nor has Whittaker identified with *any* specificity the boundaries of this suggested "facility." Although the definition of "facility" is broad, Whittaker's unsupported assertion that the "Valley's groundwater" can be understood as a facility stretches the definition beyond reason and defies common sense.

C. Was there a Release or Threatened Release of a Hazardous Substance?

CERCLA defines release as "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." 42 U.S.C. § 9601(22). In this case, Counter-Defendants themselves contend that perchlorate has spread from other locations to contaminate the water in their wells. Indeed, as discussed above, perchlorate has been detected at the Newhall, Santa Clarita and Valencia wells.

Given these facts, the question before this Court is whether the passive migration of contaminant from another source into Counter-Defendants' wells constitutes a release at the wells.[29] The Court concludes that it does.

As noted above, CERCLA's definition of "release" includes the term

[29]Elsewhere in its papers Whittaker also contends that perchlorate might have leaked through Plaintiffs' wells from one groundwater level to another, but Whittaker does not advance this theory as an example of a "release."

"leaching."[30] Both the Second and Third Circuits have recognized that because the term "leaching" is "commonly used to describe passive migration," *ABB Industrial Systems, Inc. v. Prime Technology, Inc.*, 120 F.3d 351, 358 (2d Cir. 1997), the inclusion of "leaching" within CERCLA's definition of "release" indicates that passive migration constitutes a "release." *Id.*; *United States v. CDMG Realty Co.*, 96 F.3d 706 (3d Cir. 1996). In *CDMG Realty*, the Third Circuit emphasized the term "leaching" in explaining the differences between CERCLA's definitions of "release" and "disposal":

> Most importantly, the definition of "release" includes the term "leaching," which is not mentioned in the definition of "disposal." "Leaching" is "the process or an instance of separating the soluble components from some material by percolation." [citation omitted]. Leaching of contaminants from rain and groundwater movement is a principal cause of contaminant movement in landfills, [citation omitted], and is the predominant cause of groundwater contamination from landfills, [citation omitted]. The word "leaching" is commonly used in the environmental context to describe this migration of contaminants. *See, e.g.*, Steven Ferrey, *The Toxic Time Bomb: Municipal Liability for the Cleanup of Hazardous Waste*, 57 Geo. Wash. L.Rev. 197, 207 n. 34 (1988) ("Leachate is liquid or water soluble contaminated substances that migrate away from the point source of contamination in groundwater or surface water, often influenced by rain and normal water table activities. Such a phenomenon is described as 'leaching' of contaminants."). Congress's use of the term "leaching" in the definition of "release" demonstrates that it was aware of the concept of passive migration . . . and that it knew how to explicitly refer to that concept.

CDMG Realty, 96 F.3d at 715 (footnote containing additional citations omitted).

The Ninth Circuit has never decided whether CERCLA's definition of "release" – including the term "leaching" – covers contaminant migration. In *Carson Harbor Village, Ltd. v. Unocal Corp.*, 270 F.3d 863, 878-79 (9th Cir. 2001), the Ninth Circuit held that passive migration does not constitute a "disposal" under CERCLA, but in reaching that conclusion the court specifically noted that the definition of "disposal," unlike "release," does not include the term

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[30]Webster's Third New International Dictionary defines "leaching" as "the process or an instance of separate the soluble components from some material by percolation." "Leachate" is defined as "the liquid that has percolated through soil or other medium."

"leaching." *Id.* at 878 ("[W]e can conclude that 'release' is broader than 'disposal,' because the definition of 'release' includes 'disposing' (also, it includes 'passive' terms such as 'leaching' and 'escaping,' which are not included in the definition of 'disposal')."). The appellate court also suggested that the inclusion of "leaching" in the definition of "release" may encompass passive migration, although that issue was not before the court: "If we try to characterize . . . passive soil migration in plain English, a number of words come to mind, including gradual 'spreading,' 'migration,' 'seeping,' 'oozing,' and possibly 'leaching.'" *Id.* at 879.

In light of the persuasive analyses of the term "leaching" in *ABB Industrial Systems* and *CDMG Realty*, the Court concludes that "leaching" includes the passive migration of contaminant and that, as a result, a "release" within the meaning of 42 U.S.C. § 9601(22) has occurred at Counter-Defendants' wells.

D. Did Whittaker Incur Response Costs?

Whittaker contends that it has incurred recoverable costs in response to Counter-Defendants' well contamination because it has "undertaken an extensive and exhaustive search for other PRPs who may be responsible for some of the contamination detected in [the] wells." July 29 SGI ¶ 18.[31] As evidentiary support for this contention, Whittaker points to the expert report of G. Richard Rees. Rees is a hydrogeologist hired by Whittaker as a consultant. As part of his work for Whittaker, Rees conducted a search for "businesses that may have used perchlorate in the vicinity of [Plaintiffs'] wells." May 13, 2002 Expert Rep. of G. Richard Rees at 3.

In *Key Tronic Corp. v. United States*, 511 U.S. 809 (1994), the Supreme

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[31] Counter-Defendants do not dispute that Whittaker has undertaken such a search. Instead, they argue that the search was unnecessary because Defendant Santa Clarita already had done much of the work. This argument goes to the necessity of Whittaker's response costs and will be considered later, when the Court addresses necessity and NCP consistency.

Court considered whether attorneys' fees may appropriately be recovered as a CERCLA response cost. Although *Key Tronic* is not directly on point here because Whittaker has (at least so far) not identified attorneys' fees as response costs, the Supreme Court's analysis in *Key Tronic* is relevant because it also involved consideration of PRP search costs. *Key Tronic* held that CERCLA plaintiffs cannot recover attorneys' fees incurred in exclusively litigation-related matters but that costs (including attorneys' fees) incurred in connection with a search for other PRPs may be recovered. 511 U.S. at 819-21. The Supreme Court explained its result by noting that a search for PRPs serves CERCLA's statutory purpose because it leads to the identification of responsible parties and thereby speeds and encourages complete clean-ups.[32] *Id.*

Recent cases considering the recoverability of retained consultants' PRP search costs have cited *Keytronic* as support for the proposition that such costs are recoverable even if they serve not only a statutory purpose, but a litigation-related purpose as well. *See Sealy Connecticut, Inc. v. Litton Industries, Inc.*, 93 F.Supp.2d 177, 190-91 (D. Conn. 2000); *In re Combustion,* Inc., 968 F.Supp. 1112, 1114 (W.D. La. 1996); *Atlas Minerals and Chemicals, Inc. v. Mabry*, 1995 WL 510304, *105-*107 (E.D. Penn. 1995). In other words, the fact that Whittaker likely hired consultants to search for PRPs in the hope that it might one day sue those PRPs for contribution does not preclude Whittaker's recovery of its search costs. Although the Court will determine the precise amount of Whittaker's recoverable response costs at a later stage, the Court finds that under *Key Tronic* Whittaker has presented evidence sufficient to establish that it has

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[32]These same principles are inapplicable to litigation-related expert fees that are not directed toward identifying *new* PRPs. In *Calabrese v. McHugh*, 170 F.Supp.2d 243, 267-68 (D. Conn. 2001), for example, the district court held that expert fees were not recoverable when they were directed toward providing *additional* support for claims against already-identified PRPs.

incurred some response costs "closely tied to the actual cleanup." *Key Tronic*, 511 U.S. at 820.

E. Are Counter-Defendants Proper CERCLA Defendants?

This question is easily answered with respect to Newhall, Santa Clarita and Valencia. They are all current owners of the contaminated wells discussed above and thus fall within 42 U.S.C. § 9601(a)(1). July 29, 2002 Statement of Genuine Issues [hereinafter "July 29 SGI"] ¶ 10.

Castaic's status is much less clear. Whittaker does not contend that Castaic owns any of the contaminated well-facilities. Instead, Whittaker cites the Supreme Court's decision in *United States v. Bestfoods*, 524 U.S. 51 (1998), which addressed the direct and derivative liability of parent companies as "operator[s]." Castaic is the sole owner of Plaintiff Santa Clarita, July 29 SGI ¶ 12, and Whittaker contends that Castaic is liable as an operator.

In *Bestfoods*, the Supreme Court first explained that a corporate parent can be derivatively liable if the corporate veil may be pierced under traditional corporate law principles. 524 U.S. at 63-64. Whittaker makes no veil-piercing argument, however, so this portion of the *Bestfoods* opinion is of little relevance here.

Bestfoods also explained that a corporate parent may be liable if it *operates* its subsidiary's facility - that is, if it directs the workings of, manages or conducts the affairs of the facility. *Id.* at 66-67. The mere fact that Castaic is Santa Clarita's sole owner is insufficient to satisfy this test. *See id.* According to Whittaker, however, Castaic may be held liable because it

> has been intimately involved in the management of drinking water supplies in the Valley, including acting on environmental and regulatory matters that were undertaken on its own behalf. [Castaic]'s laboratory has served as the water quality laboratory for most of the water purveyors in the Santa Clarita Valley. [Castaic] has had extensive meetings with DHS related to what DHS would approve in the form of treatment mechanics for perchlorate. Castaic works very closely with the local water purveyors, and is engaged in an urban water management plan.

Although this account of Castaic's activities is undisputed, July 29 SGI ¶ 13, it

does not constitute evidence that Castaic manages, directs or conducts the operations of Santa Clarita's facilities – its wells. *See Bestfoods*, 524 U.S. at 68 (key question is whether the parent company "operates the facility"). Perhaps Whittaker's argument here is a counterpart to its contention that the "Valley's groundwater" is a CERCLA facility, but the Court has already rejected that theory.[33]

Because Whittaker fails to provide any basis for holding Castaic liable, its motion as to Castaic must be denied. However, the Court will go on to consider the remaining elements of Whittaker's claims against Newhall, Santa Clarita and Valencia.

F. The Innocent Landowner Defense

Counter-Defendants contend that they are eligible for CERCLA's innocent landowner defense. In order to qualify as innocent landowners, Counter-Defendants must prove (1) that the release or threat of release of hazardous substances was caused solely by the acts of a third party, (2) that the third party was not an employee or agent of the Counter-Defendants, and (3) that the Counter-Defendants exercised due care with respect to perchlorate and took precautions against foreseeable third-party acts or omissions. 42 U.S.C. § 9607. *See also Servco Pacific Inc. v. Dods*, 193 F.Supp.2d 1183, 1197 (D. Hawaii 2002). This defense is construed narrowly to further CERCLA's remedial purpose. *Lincoln Properties, Ltd. v. Higgins*, 823 F.Supp. 1528, 1539 (E.D. Cal. 1992).

Counter-Defendants would bear the burden of proving this affirmative

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[33]Even if the Court did consider Valley groundwater a "facility," the Court could not agree with Whittaker that Castaic's actions relevant to Valley water quality mean that Castaic "operate[s]" the groundwater. Merely to state such a contention is to reveal its absurdity. Whittaker's argument would make anyone who works to assure water quality – *e.g.*, a federal agency that acts to force responsible parties to clean up a site – liable as an "operator."

defense at trial, and they must come forward with evidence sufficient to create a genuine issue of material fact as to the innocent landowner defense. *See Digital Control Inc. v. McLaughlin Manufacturing Co., Inc.*, 248 F.Supp.2d 1015, 1017 (W.D. Wash. 2003) (where non-moving party would bear the burden of proof at trial on an affirmative defense, that party must present evidence establishing a genuine issue of material fact).

1. *Caused Solely By Third Parties Who Are Not Employees or Agents*

The Court concludes that Counter-Defendants have presented evidence sufficient to create a genuine issue as to whether the perchlorate releases at or from their wells were caused solely by third-party acts. Dustan Campbell, Newhall's Superintendent, William J. Manetta, Santa Clarita's President, and Robert J. DiPrimio, Valencia's President, declare that Newhall, Santa Clarita and Valencia have not used, disposed of, or arranged for the disposal of perchlorate. Campbell Decl. ¶¶ 7-8; Manetta Decl. ¶¶ 7-8; DiPrimio Decl. ¶¶ 7-8.[34] They also declare that no employees or agents of the Plaintiffs caused the release of perchlorate and that the Plaintiffs do not have any contractual relationship with Whittaker. Campbell Decl. ¶ 9; Manetta Decl. ¶ 9; DiPrimio Decl. ¶ 9.[35]

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[34]These three declarations are attached to Counter-Defendants' July 29, 2002 opposition.

[35]Whittaker objects to these declarations on hearsay grounds because Campbell, Manetta and DiPrimio make these statements based on "personal knowledge and . . . inquiry of other management personnel" working at Newhall, Santa Clarita and Valencia. Campbell Decl. ¶¶ 7-9, Manetta Decl. ¶¶ 7-9, DiPrimio Decl. ¶¶ 7-9. The Court agrees that these declarants cannot introduce others' hearsay statements through their own declarations. Fed. R. Evid. 801. But the Court finds that under Fed. R. Evid. 807, the declarants' additional reliance on their own personal knowledge, and the familiarity with the Counter-Defendants' records and practices that their upper-level management positions necessarily entail, provide admissible evidentiary support for the declarants' statements that is sufficient to create a genuine issue of material fact.

Whittaker does offer some evidence that pumping at Counter-Defendants' wells may have helped draw perchlorate toward the wells, and that the structure of the Valencia and Newhall wells may have allowed perchlorate entering the wells close to surface level to travel down through the wells to the lower-level Saugus formation. Specifically, Whittaker's expert N. Thomas Sheahan opines:

(1) that pumping from Plaintiffs' wells likely caused an "increased vertical flow" of groundwater down from the Alluvial Aquifer into the Saugus Formation, Sheahan Rep. (attached as Exh. C. to the July 10, 2002 Vandenburg Decl.) at 35;

(2) that pumping from Plaintiffs' wells likely "induc[ed] lateral flow" in the Saugus Formation toward the wells, *id.* at 35-36; and

(3) that in the Valencia and Newhall wells, the "Saugus formation is hydraulically connected, by the perforated zones and/or gravel packs in [the] wells, to the overlying alluvial aquifer." *Id.* at 19.

As to point (3), Sheahan opines that the Newhall well in particular could act as a conduit for contamination traveling down within the well itself from the alluvial aquifer to the Saugus formation. *Id.* at 22.

Plaintiffs respond by pointing to evidence that:

(1) the Alluvial Aquifer *naturally* recharges the Saugus, even without any well pumping, *see* July 29 SGI ¶ 2, Ohland Rep. at 25 ("Groundwater in the Alluvial aquifer is . . . a source or recharge to the underlying Saugus Formation.");

(2) the *natural* flow of groundwater carries contaminant from the Whittaker-Bermite site to Plaintiffs' wells, *see* List Rep. at 8, Figures 11, 12 ("[D]ata show unequivocally that the general direction of flow of groundwater is to the northwest . . . ."), Todd Rep. at 8 ("[G]roundwater flow in the Saugus Formation in the vicinity of the Site is to the northwest."); and

(3) any transfer through the wells themselves would be quite minor or

insignificant compared to the natural recharge. Dep. of Dennis Williams (attached as Exh. H to the July 29, 2002 Gee Decl.) at ¶¶ 18:6-27:15.

Judge Levi considered facts quite similar to these in *Lincoln Properties*, *supra*, a case cited by Whittaker itself. In *Lincoln Properties* case, the owner of shopping center from which pollutants had been released sued to recover response costs from San Joaquin County. 823 F.Supp. at 1532. The shopping center owner, Lincoln Properties, Ltd. ("Lincoln"), claimed that the County was partly responsible because the contaminants discharged from the shopping center had leaked from the County's wells and sewer lines. *Id.* Although Judge Levi agreed with Lincoln that there had been releases from the County's facilities, *id.* at 1535-39, he held that the County successfully established its status as an innocent landowner. *Id.* at 1539-44. *See also Fireman's Fund Ins. Co. v. City of Lodi*, 302 F.3d 928, 946 (9th Cir. 2002) (citing *Lincoln Properties* and noting, in dicta, that "it is doubtful whether [a defendant] may be considered a PRP merely as a result of operating [a] municipal sewer system").

In considering the requirement in 42 U.S.C. § 9607 that to qualify as an innocent landowner the releases had to be caused solely by the acts of third parties, Judge Levi rejected a rule that would have made the defense unavailable to the County simply because the County wells and sewers might have been the site of quite minimal releases. The Court finds Judge Levi's reasoning in support of this conclusion persuasive and provides a rather lengthy quotation here:

> The phrase "caused solely by" is ambiguous, particularly when read in context of the entire section. . . . [T]he concept of causation is a subtle one in the law and has different meanings in different contexts. One could read the provision strictly such that virtually any evidence of a release from a defendant's facility would preclude assertion of the third party defense, since the release in such case would not be caused "entirely" by third parties. However, this construction, which is similar to "but for" causation in tort law, would eliminate the [innocent landowner] defense. The defense is provided to one who is already liable for a release. If the fact of a release amounts to causation then the defense is a nullity. Moreover, the provision contemplates that the defendant claiming the defense "exercised due care with respect to the hazardous substance concerned" and "took precautions." These aspects of the defense make little sense if causation is interpreted so literally as to forbid any contact with the hazardous substance which may have permitted or facilitated a release.

Id. at 1540. After considering several different interpretations of the Clean Water Act's third-party defense, the defense on which CERCLA's innocent landowner provision was based, Judge Levi adopted the following standard:

> [T]he court holds that "caused solely by," as used in CERCLA, incorporates the concept of proximate or legal cause. If the defendant's release was not foreseeable, and if its conduct--including acts as well as omissions--was "so indirect and insubstantial" in the chain of events leading to the release, then the defendant's conduct was not the proximate cause of the release and the third party defense may be available.

Id. at 1540-42.

Several district courts have adopted the causation standard announced in *Lincoln Properties*. *See Advanced Technology Corp. v. Eliskim, Inc.*, 96 F.Supp.2d 715, 718 (N.D. Ohio 2000); *United States v. Meyer*, 120 F.Supp.2d 635, 640 (W.D. Mich. 1999); *United States v. Iron Mountain Mines, Inc.*, 987 F.Supp. 1263, 1274 (E.D. Cal. 1997). At least one court has instead adopted a "but for" causation standard. *United States v. Poly-Carb, Inc.*, 951 F.SUpp. 1518, 1530-31 (D. Nev. 1996). And one court appears to have adopted a combination of both. *G.J. Leasing Co., Inc. v. Union Electric Co.*, 854 F.Supp. 539, 567 (S.D. Ill. 1994).

No matter which of these standards is applied here, the Court finds that Counter-Defendants have at least created a genuine issue of material fact as to sole causation. Specifically, Counter-Defendants' evidence that neither they nor their agents nor employees used perchlorate supports an inference that any release of perchlorate at the wells was not foreseeable to Plaintiffs. And Counter-Defendants' expert evidence that the effect of pumping from the wells was insignificant compared to the natural flow of contaminant supports an inference either that Counter-Defendants were not a "but for" cause of the releases or that their acts were "so indirect and insubstantial in the chain of events leading to the release" that the innocent landowner defense still should be available to them. *Lincoln Properties*, 823 F.Supp. at 1542 (internal quotation marks omitted).

2. *Due Care and Precautions against Foreseeable Acts*

The due care and precautions requirements lend themselves to a combined analysis. For example, the Second Circuit has explained that the precautions requirement "demands that the defendant shall have taken adequate precautions against actions by the third party that would lead to a release of hazardous waste." *State of New York v. Lashins Arcade Co.*, 91 F.3d 353, 360 (2d Cir. 1996). Similarly, Counter-Defendants can prove that they exercised due care if they "took all precautions with respect to the particular waste that a similarly situated reasonable and prudent person would have taken in light of all relevant facts and circumstances." *Id.* at 361 (2d Cir. 1996) (quoting H.R. Rep. No. 1016, 96th Cong., 2d Sess., pt. 1, at 34 (1984)). *See also Iron Mountain Mines*, 987 F.Supp. at 1276 (adopting *Lashins Arcade* standard). Such precautions would include "those steps necessary to protect the public from a health or environmental threat." *Lashins Arcade*, 91 F.3d at 361 (quotation marks and citation omitted). Whether Counter-Defendants exercised due care is a determination that must be made "in light of all relevant facts and circumstances," 42 U.S.C. § 9607(b)(3), and participation in the development of remedial plans is evidence of due care. *City of Emeryville v. Elementis Pigments, Inc.*, 2001 WL 964230, *9 (N.D. Cal. 2001).

In this case, Counter-Defendants offer evidence that they: (1) tested their wells for perchlorate contamination, (2) ceased operation of the perchlorate contaminated wells in the drinking system, (3) notified local government bodies of their decision to removal the wells from service, (4) participated in numerous meetings about the Santa Clarita Valley's perchlorate problem with state agencies and citizen groups, (5) participated in meetings with the Army Corps of Engineers regarding the Corps' plans to study and characterize the area's perchlorate pollution problem, and (6) filed this lawsuit to obtain capital necessary for removing the perchlorate pollution. Campbell Decl. ¶¶ 2-6 (for Newhall);

Manetta Decl. ¶¶ 2-6 (for Santa Clarita); DiPrimio Decl. ¶¶ 2-6 (for Valencia).[36] Counter-Defendants also offer evidence that their wells were designed and installed in accordance with applicable construction standards at the time, including pollution prevention standards. Decl. of Dennis E. Williams ¶ 3, ¶ 6, ¶ 10, ¶ 13.[37] Finally, Counter-Defendants offer evidence that even experts were not aware of perchlorate as a potential contaminant hazard until after the last of Counter-Defendants' wells was sited in 1988. *See* Goodrich Dep. (attached as Exh. 0 to July 29, 2002 Gee Decl.) at 46:7-9 (Question: "When you did the studies for these other contaminants [prior to 1997], primarily [volatile organic compounds], why didn't you undertake a study of potential sources of perchlorate contamination?" Answer: "We did not know whether perchlorate was – it wasn't on our radar screen."); Ohland Dep. (attached as Exh. P to July 29, 2002 Gee Decl.) at 154:10-14 (Question: "Was perchlorate contamination even considered a problem in 1986 or '88 for groundwater supplies, to your knowledge? . . ." Answer: "Not to my knowledge.").[38]

Whittaker contends that Counter-Defendants should have done more. For example, Whittaker faults Counter-Defendants for not exercising due care with respect to perchlorate before anyone (even Whittaker's experts) knew perchlorate to be a problem. Reply at 9 ("Plaintiffs cite to their conduct in 1997 and later, but completely fail to present any evidence as to their conduct prior to discovery of perchlorate in their wells."). But Whittaker cites to no authority for such a

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[36]Whittaker's evidentiary objections to the cited portions of these declarations are OVERRULED. The declarants' upper-level management positions and their statements that they have personal knowledge of these facts provide sufficient foundation.

[37]Whittaker's evidentiary objections to the cited portions of the Williams declaration are OVERRULED.

[38]The objection to this question in the Ohland Deposition as vague and speculative is OVERRULED.

requirement, and even recognizes in its own reply papers that "an innocent landowner is incapable of exercising due care with respect to a particular hazardous substances if the likely presence of that substance is unknown." Reply at 10. Whittaker's expert, James A. Goodrich,[39] opines that Counter-Defendants failed to exercise due care during the 1980s and 1990s because they did not develop "programs to manage their groundwater resources." Goodrich Rep. at 3. Goodrich does not explain, however, what such programs would entail or how they would even be related to the problem or potential problem of perchlorate contamination. *See id.*

Goodrich also opines that Counter-Defendants should have done more than simply take their wells out of service after discovering contamination. Goodrich states that other water agencies have taken "an active role in understanding and mitigating their groundwater resources problems." *Id.* at 14. Although Counter-Defendants do not provide evidence that they have begun to destroy their wells, *cf. Lincoln Properties*, 823 F.Supp. at 1544 (defendant took steps to destroy its wells "in a manner intended to prevent the possible flow of contamination through those wells"), they do proffer evidence that they have taken an "active role" in understanding and remediating the perchlorate problem. *See* Campbell Decl. ¶¶ 2-6; Manetta Decl. ¶¶ 2-6; and DiPrimio Decl. ¶¶ 2-6. For example, Counter-Defendants notified local authorities of the perchlorate problem, participated in meetings related to the Army Corps of Engineers study, and filed

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[39]Goodrich holds a Bachelor of Science degree in Geology and an interdisciplinary Master of Science degree in Engineering Geology and Water Resources Engineering. He is currently an independent water resources and environmental consultant specializing in water resources management and strategic planning, groundwater recharge systems, conjunctive use planning, aquifer storage and recovery (ASR) systems, and seawater intrusion management. From 1987 to 1992, Goodrich was the Director of Basin Management for the Orange County Water District, and in 1992, he became executive director of the San Gabriel Basin Water Quality Authority. Expert Rep. of James A. Goodrich (attached as Exh. F to the July 10, 2002 Vandenburg Decl.) at 1.

this lawsuit. This evidence is at least sufficient to survive Whittaker's motion for summary judgment.

Whittaker cites *Westfarm Associates Limited Partnership v. Washington Suburban Sanitary Comm'n*, 66 F.3d 669 (4th Cir. 1995), as support for its position, but *Westfarm* actually does little to help Whittaker's case. The Fourth Circuit did hold in *Westfarm* that "CERCLA does not sanction willful and negligent blindness," but this statement has little relevance here. 66 F.3d at 683 (internal quotation marks and citation omitted). The defendant sanitary commission attempting to assert an innocent landowner defense in *Westfarm* knew that the contaminant PCE was being discharged into its sewer system, knew that its regulations actually allowed for such discharge, and knew that its sewers were cracked. *Id.* at 682-83. Yet the commission took none of the steps it could have taken to improve the situation – it did not mend its sewer pipes or even change its regulations to ban PCE dumping. *Id.* at 683.

The commission in *Westfarm* may well have been, as the Fourth Circuit held, willfully and negligently blind. But the evidence submitted by these Counter-Defendants supports a permissible inference that they were not. There is no evidence that Counter-Defendants expressly permitted contaminant releases as the *Westfarm* commission did. Instead, Counter-Defendants have proffered evidence that they took steps to protect the public – their drinking water customers – from contamination, and in light of all the facts and circumstances, they have at least created a genuine issue as to their innocent landowner defense.[40]

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[40]This conclusion also defeats Whittaker's motion for summary judgment on its HSAA claim. As both parties agree, HSAA "create[s] a scheme that is identical to CERCLA with respect to who is liable." *City of Emeryville v. Elementis Pigments, Inc.*, 2001 WL 964230, *11 (N.D. Cal. 2001). *See also Goe Engineering Co., Inc. v. Physicians Formula Cosmetics, Inc.*, 1997 WL 889278, *23 (C.D. Cal. 1997).

CONCLUSION

For the foregoing reasons, Plaintiffs' Motion for Summary Judgment is GRANTED in part and DENIED in part. It is DENIED as to Plaintiffs' nuisance claims and Plaintiff's CERCLA claims against RFI. It is GRANTED as to Plaintiffs' CERCLA claims against Whittaker and SCLLC in the following respect: Whittaker and SCLLC are liable for Plaintiffs' necessary and NCP consistent response costs.

Defendant Whittaker's Motion for Summary Judgment is DENIED. Whittaker has failed to establish that Castaic is within the classes of CERCLA liable parties, and Newhall, Valencia and Santa Clarita have proffered evidence sufficient to create a genuine issue on their innocent landowner defense.

The result reached on Whittaker's motion means that the exact nature of Plaintiffs' status as PRPs, and of Plaintiffs' claims against Defendants, remains unresolved. If Plaintiffs are themselves PRPs, then they will have CERCLA claims against Defendants only for contribution, and this Court will consider various equitable factors in allocating response costs. *See Pinal Creek Group v. Newmont Mining Corp.*, 118 F.3d 1298, 1301 (9th Cir. 1997) (claim by one PRP against another is for contribution); 42 U.S.C. § 9613(f)(1) (court should consider appropriate equitable factors in allocating costs). If, on the other hand, Plaintiffs establish at trial that they cannot be liable, then Whittaker and SCLLC will be jointly and severally liable unless they can prove that the harm they caused is divisible. *Carson Harbor*, 270 F.3d at 871.

IT IS SO ORDERED.

DATE: July 14, 2003

A. Howard Matz
United States District Judge

Exhibit 7:
Signal Article: Toxins in Well Prompt Concern

Print This Article

Toxin in well prompts concerns

Environment: Local groups suggest the general plan update needs to be rethought

By Natalie Everett
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June 14, 2011

Local environmental leaders said Monday that news of a Valencia well closing over contamination concerns raises new and troubling questions about the Santa Clarita Valley's supply of safe drinking water.

The Valencia Water Company announced Friday that one of its wells has been closed since August 2010, when routine tests found perchlorate, a toxic salt that can cause thyroid problems.

Perchlorate is used to manufacture rocket fuel, and munitions company Whittaker Corp. operated a plant on a 998-acre property at the center of the city known as Whittaker-Bermite. Whittaker Corp. is on the hook to pay for cleaning perchlorate out of the soil there and the groundwater below.

Perchlorate has been found in wells near, and in the soil on, the Whittaker-Bermite property.

Leaders of the Santa Clarita Organization for Planning and the Environment, Friends of the Santa Clara River and the local chapter of the Sierra Club said in a joint statement Monday that the perchlorate discovery should cause city and water officials to rethink their plans for future growth.

Tonight, the Santa Clarita City Council will consider adopting its first general plan update, dubbed One Valley, One Vision, which will guide everything from roads to housing development for decades.

The plan, along with the county's version for the SCV's unincorporated areas, calls for growth that could mean as many as 483,000 residents across the Santa Clarita Valley, almost double its current population of about 280,000. That growth has already prompted water availability concerns from locals.

Now, Friends of the Santa Clara River say the underground plume of perchlorate is spreading, causing a greater public health problem than originally thought.

"Continued pumping of the Saugus Aquifer could draw the pollution plume even further, resulting in greater pollution of this water source," Friends member Ron Bottorff said in the statement.

"The city must slow down and make sure the health of the community is protected."

The Saugus Aquifer is the deeper of two underground water reservoirs tapped for about 50 percent of the valley's water supply.

City and water officials say the closing of the Valencia well is not a supply problem; it's a curable treatment problem.

"Fortunately, the technology exists, the technology is proven and it is in use in this valley (to purge groundwater of perchlorate)," Valencia Water Co. General Manager Keith Abercrombie said.

Castaic Lake Water Agency General Manager Dan Masnada agreed.

"Every last drop of water we drink in this valley is treated in some form or fashion," said Masnada, who heads the water wholesaler that imports water from Northern California. "If someone is looking for water that doesn't have to be treated for one contaminant or another, they've got to go to the Sierra Nevadas for that."

SCOPE President Lynne Plambeck said the bigger issue is that perchlorate has spread further in the groundwater than expected.

"We're potentially contaminating the whole aquifer," she said.

Abercrombie said the contamination of the Valencia well was anticipated in a lawsuit settlement between Whittaker Corp. and local water retailers and Castaic Lake Water Agency, which buys and sells State Water Project water.

As for the city, officials there have no plans to rethink One Valley, One Vision.

"From everything that we can tell, (the well closure) doesn't really have a significant impact," said Paul Brotzman, the city's community development director. "We don't see any reason to change direction at this point and time."

http://www.the-signal.com/section/36/article/46477/

Exhibit 8:

Signal Article: Perchlorate Spread Worries State

Print This Article

Pollutant spread worries state

Official said treatment of SCV groundwater needs to be re-evaluated due to spread of perchlorate

By Natalie Everett
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661-259-1234 x538
August 12, 2011

A state health official said the treatment of Santa Clarita Valley groundwater to remove a contaminant should be revisited, and possibly expanded, in light of the spread of the substance.

Since perchlorate was detected at a Valencia well, local water agencies have been asked to step up the previously yearly testing at 12 local wells to quarterly testing as agencies re-evaluate the spread of the munitions-manufacturing byproduct in groundwater, said Jeff O'Keefe, an engineer with the state Public Health Department.

"We need to re-evaluate the containment of the (perchlorate) plume," O'Keefe told about 20 members of the Whittaker-Bermite Citizens Advisory Group on Wednesday. "There needs to be careful, thoughtful analysis of (the Valencia well). ... It can't be 'Let's slap another treatment plant on it.'"

The August 2010 discovery of 5.7 parts per billion of perchlorate in water sampled from the well at McBean Parkway and Valencia Boulevard was surprising, O'Keefe said. Six parts per billion is the level that the state considers safe.

Since August 2010, that well has been closed, and is no longer contributing to the valley's water supply.

Officials with Valencia Water Company, the retailer that operates the well, are conducting monthly testing. Those tests show levels have almost tripled in the well to 13 parts per billion in June, O'Keefe said.

"It seemed to move fast in the last six months," O'Keefe said.

2007 agreement

Perchlorate, a salt found to hamper human thyroid function, is believed to be spreading from the Whittaker-Bermite site, located near the junction of Bouquet Canyon Road and Valencia Boulevard/Soledad Canyon Road.

Munitions were manufactured at the site for decades. Perchlorate is a byproduct of rocket fuel and one of several contaminants on the nearly 1,000-acre property.

Its discovery in the well in Valencia raises new questions about efforts to rid the Santa Clarita Valley's groundwater of the salt.

Those questions include whether the pump-and-treat system should be expanded beyond two Saugus wells, dubbed Saugus 1 and 2, that re-opened after more than a decade in 2010 equipped with perchlorate-treatment facilities.

Valencia Water Company and Castaic Lake Water Agency both said in June, when the perchlorate finding was made public, that the spread of perchlorate was expected to happen eventually.

Officials with both agencies pointed to a 2007 settlement agreement between local water agencies, including Valencia Water, and Whittaker Corp., which is the company paying to rid groundwater and the Whittaker-Bermite site of perchlorate and other pollutants.

Location a mystery

Dan Masnada, general manager of the Castaic Lake Water Agency, said the settlement agreement laid out 11 wells to which the perchlorate plume may eventually travel in groundwater, and the Valencia well was one of them. Whittaker Corp. agreed to pay to remove the salt if contamination occurs.

There was no real way of knowing how far past the Saugus wells the perchlorate plume had spread in 1997, when perchlorate was first detected there, he said. Saugus 1 and 2 are located in the Santa Clara River bed much closer to Whittaker-Bermite than the Valencia well.

Masnada said detected perchlorate also shut down a well near Magic Mountain Parkway and Valencia Boulevard near the Valencia well.

Since testing is only done where there's a well, "We don't know if the plume had just passed that well, or whether it was right next to the Valencia well," said Masnada, whose agency sells wholesale water to local water retailers.

Most water used in Santa Clarita Valley homes is a 50-50 mix of well water and State Water Project water.

'Not in the drinking water'

O'Keefe said Wednesday night, during the citizens' group quarterly meeting, that the perchlorate discovery "really was a surprise to everyone."

"Those legal documents served a different purpose," he said of the Whittaker settlement. "From my perspective, the Saugus wells were the impacted wells. That was the project, that's what we believed were impacted. ... We didn't anticipate the plume spreading. We thought Saugus 1 and 2 would provide containment."

Masnada said the Saugus treatment plant might have been the sole groundwater remedy — if it had opened 10 years previously.

"But that's not the case, and we have to deal with the cards we've been dealt," Masnada said.

O'Keefe commended Valencia Water for its swift action in shutting down the well.

"Everybody is safe," O'Keefe said. Water from the well "is not in the drinking water."

Some members of the public, including Citizens Advisory Group members, said Valencia Water should have notified the public as soon as perchlorate was detected. The Valencia well is part of a water supply that serves between 4,000 and 5,000 people.

http://www.the-signal.com/section/36/article/49405/

Exhibit 9A:
Well 201 Perchlorate

Well 201 Perchlorate

Date Sampled	Result (ppb)	MCL (ppb)	
8/25/2010	5.0	6	
9/1/2011	Well 201 removed from service.		
11/22/2010	6.6		Monthly monitoring begins
12/20/2010	7.9		
1/24/2011	10		
2/17/2011	8.6		
3/24/2011	5.7		
4/28/2011	12		
5/26/2011			
6/20/2011			
7/18/2011			
8/22/2011			
9/19/2011			
10/24/2011			
11/14/2011			
12/19/2011			

Exhibit 9B:
Increased Perchlorate Monitoring for Threatened Wells

Perchlorate Results Since May 2011

Valencia's Well	Sample Date	Perchlorate Results (ug/L)	DLR (ug/L)	Frequency
N	Aug-11	ND	4	Quarterly
N7	Aug-11	ND	4	Quarterly
N8	Aug-11	ND	4	Quarterly
S6	Aug-11	ND	4	Quarterly
S7	Aug-11	ND	4	Quarterly
S8	Aug-11	ND	4	Quarterly
160	Aug-11	ND	4	Quarterly
205	Aug-11	ND	4	Quarterly
Q2	May-11	ND	4	Quarterly
Q2	Aug-11	ND	4	Quarterly
201	May-11	12	4	Monthly
201	Jun-11	13	4	Monthly
201	Jul-11	14	4	Monthly
201	Aug-11	14	4	Monthly

Exhibit 10:
New Modeling Required

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From: "O'Keefe, Jeff (CDPH-DDWEM)" <Jeff.OKeefe@c... [Edit Address Book]
To: Lynne Plambeck <lynneplambeck@access4less.net>
Subject: FW: Valencia Well 201
Date: Aug 15, 2011 12:41 PM

FYI

From: Keith Abercrombie [mailto:kabercrombie@valenciawater.com]
Sent: Thursday, June 23, 2011 8:24 AM
To: O'Keefe, Jeff (CDPH-DDWEM)
Subject: RE: Valencia Well 201

Jeff,

Thank you for the update on the process going forward. We've been thinking along these lines and have already started discussions with the modeling folks. I will provide this information to them and then work to set up a meeting as you have requested.

Keith Abercrombie
General Manager
Valencia Water Company
(661) 295-6504
kabercrombie@valenciawater.com
Please consider the environment before printing this email.

From: O'Keefe, Jeff (CDPH-DDWEM) [mailto:Jeff.OKeefe@cdph.ca.gov]
Sent: Wednesday, June 22, 2011 6:16 PM
To: Keith Abercrombie; James Saenz
Cc: Wong, Karen (CDPH-DDWEM)
Subject: Valencia Well 201

Sorry to be late replying on this issue. I know you are anxious to install treatment at 201 to bring it back online and you wanted to know what would be the CDPH permitting requirements. After much thought and discussions with DTSC, they are a few things I would want to proceed with this project. Specifically, I would want an engineering report that addresses elements 1 through 4 in the extremely impaired source policy memo. http://cdph.ca.gov/certlic/drinkingwater/Documents/DWdocuments/memo97-005.pdf

Although your perchlorate levels are still currently below the 3 x MCL level (which is one of the criteria), we have concerns about the future concentration at your well, and what would be the impact of operating Well 201 on other neighboring wells. As part of this evaluation, I will need some updated groundwater modeling to determine whether operation of 201 with treatment is consistent with overall regional goals to contain the perchlorate plume. I have concerns that Saugus is not containing the plume as originally predicted in the groundwater model done years ago, and would like a better understanding of how the plume bypassed

Saugus and migrated to Well 201. DTSC is in agreement with me on this. The model should be able to predict if treatment at 201 (along with the treatment of Saugus wells) would improve containment, or could its operation make matters worse for sources nearby. If the model cannot support containment by 201 and Saugus, then it would be best to leave it offline and pursue replacement water costs. There may even be a need to model operational scenarios to determine what would happen if 201 is operated while Saugus is down for maintenance or if it has a prolonged shut down to install VOC treatment at some point in the future. I suggest we have a meeting on this to discuss in greater detail.

Jeff O'Keefe
District Engineer
Metropolitan District
California Department of Public Health
Southern California Branch - Drinking Water Field Operations
500 N. Central Avenue, Suite 500
Glendale, CA 91203

Direct:: 818-551-2044
General: 818 551 2004
Fax:: 818 551-2054
email: jeff.okeefe@cdph.ca.gov

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Exhibit 11:
Urban Water Management Plan Decision F043273

Filed 9/22/04; pub. order 10/15/04 (see end of opn.)

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

FIFTH APPELLATE DISTRICT

FRIENDS OF THE SANTA CLARA RIVER et al., Plaintiffs and Appellants, v. CASTAIC LAKE WATER AGENCY et al., Defendants and Respondents.	F043273 (Super. Ct. No. 245365) **OPINION**

APPEAL from a judgment of the Superior Court of Kern County. Richard J. Oberholzer, Judge.

Law Offices of Stephan C. Volker, Stephan C. Volker and Gretchen E. Dent for Plaintiffs and Appellants.

Horvitz & Levy, William N. Hancock, Jon B. Eisenberg; McCormick, Kidman & Behrens, Russell G. Behrens and David D. Boyer for Defendants and Respondents Castaic Lake Water Agency and Santa Clarita Water Company.

Gatzke Dillon & Ballance, Mark J. Dillon, Michael S. Haberkorn and Heather S. Riley for Defendant and Respondent Valencia Water Company.

-ooOoo-

Friends of the Santa Clara River and the Sierra Club appeal from the denial of their petition for writ of mandate alleging an urban water management plan for parts of the Santa Clarita Valley was adopted in violation of the Urban Water Management Planning

Act (UWMP Act), Water Code section 10610 et seq.[1] Among the many grounds for reversal asserted is the failure of the urban water management plan to assess the reliability of the water supply obtained from two layers of an aquifer contaminated with perchlorate.

Certain aspects of the urban water management plan concerning the effects of perchlorate contamination on the groundwater supply can be summarized as follows. If there is a dry stretch, the districts plan to take more water from the Saugus Formation. If the perchlorate contamination impairs the supply of water taken from the Saugus Formation in dry years, the districts plan to restore full production capacity by treating the contaminated water. While the treatment facilities are being built, the districts have no plan to cover the reduction in water available from the Saugus Formation.

Thus, the plan's description of the perchlorate contamination and the method for addressing that contamination is flawed because it fails to (1) address the time needed to implement the available method for treating the contaminated water and (2) describe the reliability of the groundwater supply during that implementation period. As this gap in the reliability analysis is sufficient for reversal, we do not address the other challenges to the adoption of the plan.[2]

FACTUAL AND PROCEDURAL SUMMARY

I. Parties

Friends of the Santa Clara River is a nonprofit corporation organized under the laws of the State of California in 1993. Some of its members reside within the subject service area and are ratepayers. Sierra Club is a nonprofit corporation formed under the

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[1]All further statutory references are to the version of the Water Code in effect during 2000 unless otherwise indicated.

[2]The failure to address the other challenges should not give rise to any inference as to their merit.

laws of the State of California in 1892. These parties are referred to collectively as plaintiffs.

Castaic Lake Water Agency (CLWA) is a public agency created and governed by the Castaic Lake Water Agency Law. (Stats. 1962, 1st Ex. Sess., ch. 28, § 1, p. 208, West's Ann. Wat.—Appen. (1999 ed.) § 103-1 et seq., p. 487.) CLWA was formed to provide a supplemental supply of imported water to the water purveyors of the Santa Clarita Valley. Its area of wholesale water service covers approximately 195 square miles. CLWA contracts with California's Department of Water Resources for water from the State Water Project (SWP) and other sources, treats those supplies at its treatment plants, and delivers the treated water to water retailers within its area.

Newhall County Water District (Newhall) is a district formed by election under California's County Water District Law (§ 30000 et seq.). Newhall is a retail water purveyor serving an area of approximately 34 square miles and supplies groundwater pumped from wells supplemented by imported water purchased from CLWA. At the end of 1999, Newhall served approximately 6,758 connections, i.e., accounts.[3]

Santa Clarita Water Company (SCWC) is a California corporation and retailer of water. SCWC's service area includes portions of the City of Santa Clarita and unincorporated areas of Los Angeles County in the communities of Saugus, Canyon Country and Newhall. SCWC supplies water from groundwater wells and imported water purchased from CLWA.[4] At the end of 1999, SCWC served approximately 21,100 connections.

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[3]On May 20, 2004, Newhall filed a request for withdrawal of its brief that did not explain the reason for the request but acknowledged that if withdrawal was granted, this court, in accordance with California Rules of Court, rule 17(a)(2), would decide the appeal based on the record, the opening brief, the briefs of the other defendants, and oral argument.

[4]The relationship between CLWA and SCWC was, at one time, more than that of wholesaler and retailer. (See *Klajic v. Castaic Lake Water Agency* (2001) 90 Cal.App.4th

Valencia Water Company (VWC) is a California corporation and retailer of water. VWC's service area is approximately 25 square miles and includes portions of the City of Santa Clarita, the community of Valencia, and the unincorporated areas of Castaic and Stevenson Ranch. VWC supplies water from groundwater wells and imported water purchased from CLWA. At the end of 1999, VWC served approximately 20,865 connections.

CLWA, Newhall, SCWC and VWC are referred to collectively as defendants.

Defendants jointly caused the preparation of the 2000 Urban Water Management Plan (UWMP) under the UWMP Act to cover the service area of CLWA.

II. Sources of Water for the Santa Clarita Valley

Historically, the Santa Clarita Valley obtained its water supply from an underground water basin, or aquifer, that is about 84 square miles and is divided into an upper and lower level. The shallow level, called the Alluvial Aquifer, underlies the Santa Clara River and its tributaries. Water from this layer is obtained from wells up to 200 feet deep. Beneath the Alluvial Aquifer is a deeper layer of groundwater called the Saugus Formation. Water from the Saugus Formation is pumped from wells extending to approximately 2,000 feet in depth.

Based on historical production, the UWMP estimates (1) the Alluvial Aquifer will supply 30,000 to 40,000 acre-feet per year in normal weather years and 30,000 to 35,000 acre-feet per year in dry years, and (2) the Saugus Formation will supply 7,500 to 15,000 acre-feet per year in normal weather years and 11,000 to 15,000 acre-feet per year in dry years. At the time the UWMP was adopted, groundwater from the aquifer accounted for approximately 54 percent of the water supplied in the CLWA service area.

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987 [writ of mandate sought to compel CLWA to divest itself of its ownership of all stock of SCWC].)

Since 1980, imported water from the SWP has supplemented local supplies to meet community water requirements. CLWA owns three entitlements to water from the SWP that total 95,200 acre-feet per year.[5] In 1966, CLWA entered into a contract with the SWP for 41,500 acre-feet of water per year. In the 1980's, CLWA purchased an entitlement to 12,700 acre-feet per year of SWP water from a Kern County water district. In 1999, CLWA acquired an entitlement to 41,000 acre-feet per year of SWP water from the Kern County Water Agency and its member district, Wheeler Ridge-Maricopa Water Storage District.[6]

III. Proposal and Adoption of the UWMP

On Wednesday, November 22, 2000, defendants released a draft of the UWMP to the public for review and comment. CLWA indicated that public comments would be accepted only if received by it by 6:00 p.m., December 7, 2000.

The general manager of the United Water Conservation District sent a comment letter that expressed concerns about (1) the way the UWMP's draft presented existing and future water supplies, (2) reliance on groundwater banking projects that were unavailable to CLWA or years away from operation, and (3) the uncertainty of how the Saugus Formation will react to the higher levels of pumping proposed. In particular, the letter states:

> "In the legislation concerning Urban Water Management Plans, agencies are asked to consider existing and future sources of water. This is particularly useful to those using the Plan, since supply shortfalls can be

---

[5]This annual contractual entitlement represented about 2.3 percent of the 4.2 million acre-feet per year the SWP was contracted to deliver to 29 contracting agencies. The California Department of Water Resources contractual obligations to deliver water through the SWP, and the reliability of the delivery, is discussed in greater detail in *Planning & Conservation League v. Department of Water Resources* (2000) 83 Cal.App.4th 892, 908, footnote 5.

[6]The agreement for the acquisition is described in *Friends of the Santa Clara River v. Castaic Lake Water Agency* (2002) 95 Cal.App.4th 1373, 1375.

> recognized and future projects can be identified to supplement the existing sources of water. Our largest concern is that the draft of the Plan tends to combine existing sources with future potential sources so that it is difficult to establish where you are now and where you need to go. Thus, it is difficult to determine the present state of the supply and the timing of need for specific future projects. An example, which we will explain in more detail below, is the listing of various out-of-area storage projects as part of the year 2000 water supply (e.g., Figure 1-12). This approach implies that these projects are needed now (they are not) and that they could supply water to [CLWA] now (they cannot)."

On December 6, 2000, defendants conducted a joint public hearing concerning the UWMP. On December 20, 2000, the boards of the defendant water agencies held a joint meeting and approved the UWMP. CLWA submitted the UWMP to the California Department of Water Resources, and the submission was completed on February 5, 2001.

IV. Lawsuit

On April 23, 2001, plaintiffs filed a verified petition for writ of mandate challenging defendants' approval of the UWMP based on alleged violations of the UWMP Act and the public trust doctrine. The County of Ventura also filed a petition for writ of mandate challenging defendants' approval of the UWMP. The two petitions were consolidated into a single case and transferred to the Kern Superior Court.

Plaintiffs' cause of action based on the public trust doctrine was dismissed without leave to amend as a result of demurrers filed by defendants. Plaintiffs' cause of action based on violations of the UWMP Act was heard on the merits by the superior court on January 21, 2003, and February 4, 2003.

On April 8, 2003, the superior court filed an "Order and Findings: Statement of Decision" in which it denied the petitions for writ of mandate.[7] Defendants filed memoranda of costs. Defendants CLWA and SCWC jointly requested costs in the amount of $59,179.04. Defendant VWC claimed $8,416.78 in costs. Plaintiffs filed a

[7]The County of Ventura did not appeal from the denial of its petition.

motion to tax costs that challenged the recovery of certain costs related to the preparation of the administrative record,[8] such as "the cost of copies, including Bates stamping ($49,203.77), offsite duplication ($132.84 and $430.45), binders ($1,175.84, $421.53 and $177.49), and [VWC's] administrative record charges ($4,191.31)."[9] The superior court heard the motion to tax costs on July 1, 2003, and awarded CLWA and SCWC costs in the amount of $55,469.72 and awarded VWC costs in the amount of $6,575.06.

Subsequently, judgment was entered in favor of defendants and plaintiffs appealed.

DISCUSSION

In 1983, the Legislature adopted the UWMP Act to promote the active management of urban water demands and efficient water usage in order to protect the people of the state and their water resources. (Stats. 1983, ch. 1009, § 1, p. 3556.) To achieve the goal of water conservation and efficient use, urban water suppliers are required to develop water management plans that include long-range planning to ensure adequate water supplies to serve existing customers and future demands for water. (§ 10610.2, subds. (d) & (e).) The plans must consider a 20-year time horizon (§ 10631, subd. (a)) and must be updated "at least once every five years on or before December 31, in years ending in five and zero" (§ 10621, subd. (a)). The UWMP Act requires plans to address specific issues. (§§ 10631, 10632 & 10633.) It also sets forth the procedural steps that urban water suppliers must follow when preparing, reviewing, and amending

---

[8]The administrative record of proceedings submitted to the superior court was organized into 37 three-ring binders and contained 17,766 pages.

[9]The invoice from Whitmont Legal Copying, Inc. to counsel for CLWA and SCWC in the amount of $49,203.77 for copies and Bates labeling appears to cover the production of 16 copies of the administrative record. After subtracting the $1,065.96 charged to generate and apply the Bates labels, the average cost per page for the copies of the administrative record came to approximately 16.93 cents (($49,203.77 − $1,065.96)/(17,766 pages × 16 copies) = $0.16934 per page).

their plans. (§§ 10640-10645; see generally Waterman, *Addressing California's Uncertain Water Future By Coordinating Long-Term Land Use and Water Planning: Is A Water Element in the General Plan the Next Step?* (2004) 31 Ecology L.Q. 117, 162-166 [overview of the UWMP Act].)

I. Standard of Review

In a mandate proceeding to review the decision of a public agency to adopt an urban water management plan, the standard of our review is set forth in section 10651, which provides:

> "In any action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence."

Although no published decision has applied section 10651, the statutory language is similar to Public Resources Code section 21168.5, which applies to some of the mandamus proceedings brought under the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq.

The role of an appellate court in reviewing an administrative record for a "prejudicial abuse of discretion" under section 10651 is precisely the same as the role of the superior court and, therefore, the lower court's findings of fact and conclusions of law are not binding on the appellate court. (See *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 722 [review conducted under Pub. Resources Code, § 21168.5].)

Plaintiffs contend that the defendants "ha[ve] not proceeded in a manner required by law" as that phrase is used in section 10651 and thus prejudicially have abused their discretion in adopting the UWMP. In particular, plaintiffs claim the UWMP does not comply with section 10631 because it (1) erroneously conflates existing sources with

planned sources, (2) improperly characterizes supplies that are merely potential as "planned sources of water available to the supplier" (§ 10631, subd. (b)), and (3) fails to evaluate adequately the reliability of existing sources of water, such as groundwater from the aquifers and imported water from the SWP. Plaintiffs also contend that many of the findings of fact made in the UWMP are not supported by substantial evidence.

Defendants argue that all of the deficiencies alleged by plaintiffs are merely claims that the weight of the evidence does not support the conclusions of the agencies. As it is not our function to reweigh the evidence, but to determine if there is substantial evidence to support the findings of the UWMP, the plaintiffs must fail if there is such substantial evidence. Defendants claim that such substantial evidence exists in the record. Defendants also seem to imply that since the UWMP is subject to modification at any time and must be reviewed every five years (§ 10621, subd. (a)), any deficiency is not prejudicial.

II. Reliability of Groundwater Sources and Perchlorate Contamination

Plaintiffs have raised a number of issues concerning the discussion in the UWMP regarding the quantity and quality of available groundwater. Some of the issues relate to the perchlorate contamination of the groundwater.

A. Testimony Regarding Perchlorate Contamination

To support their claims concerning the inadequacy of the UWMP's discussion of perchlorate contamination, plaintiffs cite the following testimony given before the Public Utilities Commission by Steven B. Bachman, a geologist employed by the primary water wholesaler in the County of Ventura who also does consulting work for the County of Ventura.

> "There is a significant area of perchlorate contamination to the east of the wells that pump from the Saugus Aquifer. The perchlorate has seeped into the Saugus Aquifer and has flowed westward towards the wells, shutting down 25 percent of the total Saugus Aquifer wells. [¶] … [¶]

> "The extent of the perchlorate contamination in the Saugus Aquifer is not yet known, largely because there is a lack of wells to monitor west of well VWC No. 157.… Perchlorate that is still in the soils at the contamination site will be 'a long-term source of contamination' that will continue to reach the aquifers as rains and runoff push the contaminants in the soil into the groundwater system.… [¶] … [¶]
>
> "The concentration of perchlorate in the production wells probably represents the leading edge of a much larger plume of higher concentrations of perchlorate. The total area of the Saugus Aquifer contaminated by the perchlorate has yet to be fully defined. We do know that the contaminant has migrated a minimum of 2 miles through the subsurface and over land to contaminate the vital pumping areas. (Exhibit 23.) Since the groundwater gradients in the contaminated area in the Saugus are towards the west, the contaminant is likely to continue to migrate further west and northwest. Time of travel from the soil contamination sites to the deep Saugus wells implies that the contaminant has been moving between 1 to 3 feet per day within the Saugus Aquifer. This implies that the perchlorate could impact [VWC's] well No. 201 as early as next year. Further down gradient is [VWC's] well No. 160."

Also, Richard D. McJunkin, a senior hydrogeologist with the California Department of Toxic Substances Control, testified that increased pumping of water from wells near the contamination site will accelerate the flow of the perchlorate contamination.

B. Contents of UWMP

Perchlorate contamination is discussed in chapters 1, 2 and 6 of the UWMP. Chapter 1 of the UWMP is titled "Introduction and Summary." Section 1.6 of the UWMP describes the water supply, including groundwater taken from both layers of the underground water basin. Section 1.6A. of the UWMP contains the following summary of the quality of the groundwater:

> "Groundwater quality can be compromised by the presence of contaminants. Perchlorate was recently discovered in Saugus Formation groundwater at a site formerly occupied by an industry located in the area. Wells found exceeding the legal limit of this contaminant were shut down,

and a groundwater cleanup plan is being developed using proven treatment methods which can restore full production capability."

Chapter 2 of the UWMP is titled "Water Supply Resources." The introductory paragraphs in that chapter contain the following statements about groundwater and perchlorate contamination:

> "There is a range of opinion about issues such as the annual yield capability from groundwater basins. Accordingly, the [UWMP] recognizes that active management of resources may be necessary to achieve the projected supply. A number of management activities are thus described in this chapter, such as a water treatment program to remove perchlorates from the Saugus Formation. Many similar programs have been successfully implemented, including the water recharge and water quality management programs of groundwater in Orange County, which in recent years have enhanced the annual yield from this important source of local supply. Although there are water supply and water quality issues to be addressed in relation to groundwater supplies, the availability of active management options to address these issues creates a high probability that the annual yields discussed in this chapter can be sustained."

The "water treatment program to remove perchlorates from the Saugus Formation" is described subsequently in section 2.1A. of the UWMP as follows:

> "In addition to [total dissolved solids] concerns, water quality problems have been observed in Southern California recently that could affect groundwater supply availability, in particular, the local discovery of perchlorate. Perchlorate is used in the manufacture of solid rocket propellants, munitions, and fireworks, and can be treated and removed from groundwater. Aerojet has implemented biological treatment in Rancho Cordova, California and is re-injecting the treated water into the ground. The California Department of Health Services has not yet approved biological treatment for a drinking water end use.
>
> "An ion exchange process has also been developed that successfully treats and removes perchlorate. This process is called the continuous ion exchange system. The system has been successfully piloted at Jet Propulsion Laboratory and at a location in Main San Gabriel Basin. The treatment cost for this process is about $300 per acre-foot excluding the cost of brine disposal. Discussions are currently underway with the owners of the property identified as the source of the local contamination on groundwater cleanup. No perchlorate has been detected in Alluvial Aquifer

11.

wells to date, although some has been detected in monitoring wells located on the contaminating site."

These two paragraphs and the above quoted statement from the introductory materials are the only mention of perchlorate contamination in chapter 2 of the UWMP and its effect on the reliability or availability of water supplied from the aquifers.

Chapter 4 of the UWMP is titled "Reliability Planning" and does not mention perchlorate contamination or describe its effect on the reliability of the aquifers as a source of groundwater.

The description in chapters 1 and 2 of the UWMP of perchlorate contamination and its impact on the supply of water from the underground water basin can be summarized as follows: (1) An unspecified number of wells in the Saugus Formation have been shut down because of perchlorate contamination; (2) perchlorate has not been found in supply wells in the Alluvial Aquifer but has been found in monitoring wells on the contaminating site; (3) perchlorate contamination in water can be treated with an ion exchange process at a cost of over $300 per acre-foot; (4) defendants and the owners of the site contaminated with perchlorate are discussing groundwater cleanup; and (5) available options to address the perchlorate issues create a high probability that the annual yields discussed in the UWMP can be sustained.[10]

C. Matters Not Discussed in the UWMP

The UWMP mentions "a groundwater cleanup plan … being developed" (UWMP § 1.6A.) to address the perchlorate contamination, but it does not mention what stage of development has been reached or how much longer it will take to complete and

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[10]Section 6.4 of the UWMP summarizes the earlier discussion of the perchlorate contamination as follows: "The recent detection of perchlorate in the Saugus Formation is an example of prior contamination due to industrial chemical processes. The few wells affected have been shut down, effective treatment technologies have been developed, and a plan is being worked out to remove the contamination from the groundwater."

implement that plan.[11] Assuming the length of time needed to implement the plan is uncertain, the UWMP does not describe the factors that have caused that uncertainty.[12]

Timing considerations of other aspects of the perchlorate contamination also affect the reliability of the supply of groundwater. For instance, the UWMP does not state how fast the perchlorate contamination is spreading in either the Saugus Formation or the Alluvial Aquifer, how far it might reach within the 20-year period covered by the UWMP, or how the rate of migration is affected by factors, such as the increased use of Saugus Formation in dry years. To the extent that the answers to these timing issues are uncertain, the UWMP does not discuss how this uncertainty affects the reliability of the supply of groundwater. More specifically, the UWMP does not state how it reached the implicit determination that the quantities of groundwater set forth in the UWMP met the reliability criterion of 90 percent, i.e., there was a 90 percent level of certainty that those amounts would be available.[13]

The lack of information in the UWMP regarding how long it would take to implement the ion exchange process to treat perchlorate contaminated water pumped from the Saugus Formation or the Alluvial Aquifer stands in contrast to figure 1-14 in the UWMP, which sets forth a program implementation schedule for other programs related to water supply, such as (1) drilling new wells in the Saugus Formation (feasibility–6 months, design–3 months, construction & permitting–9 months), (2) negotiating water

---

[11]As a result of the failure to describe the timing, the UWMP also does not describe plans to replace contaminated sources with alternative sources of water until the treatment option is implemented. (See § 10631, subd. (c).)

[12]For example, implementation of the ion exchange process may be subject to review under CEQA because the disposal of the brine created by that process may have a significant environmental impact and the CEQA review process would increase the amount of time needed to implement the treatment process.

[13]Section 1.7A. of the UWMP states that "The [reliability] criterion set for this [UWMP] is that there must be a water supply sufficient to meet projected demands 90 percent of the time, or in 18 out of the next 20 years."

transfer agreements (15 months), (3) water recycling, (4) water banking programs, and (5) desalination.

D. The UWMP Did Not Comply with Section 10631

Section 10631 specifies some of the mandatory contents of an urban water management plan. Under subdivision (b) of section 10631, a plan shall "[i]dentify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over … five-year increments" to 20 years or as far as data is available. Subdivision (c) of section 10631 provides:

> "Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following: [¶] (1) An average water year. [¶] (2) A single dry water year. [¶] (3) Multiple dry water years.
>
> "For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to replace that source with alternative sources or water demand management measures, to the extent practicable."

Plaintiffs contend the UWMP fails to comply with section 10631 in that it does not evaluate adequately the reliability of the Saugus Formation and the Alluvial Aquifer as sources of water because the UWMP understates the perchlorate contamination and ignores the migration of that contamination.

When any water source may not be available at a consistent level of use, the UWMP must describe plans to replace that source with alternative sources. (§ 10631, subd. (c).) In this case, the Saugus Formation and Alluvial Aquifer may be sources that are not available at a consistent level because of the environmental and water quality concerns raised by the perchlorate contamination. Furthermore, the implementation of a process to treat water pumped from those sources cannot be implemented instantaneously. If the decision to implement a water treatment process is not made until a dry year has begun or until after the start of multiple dry years, the reliability of the water supply available during those dry periods could be affected significantly.

Accordingly, we conclude that the UWMP's description of the reliability of the groundwater supplied from the Saugus Formation and Alluvial Aquifer is inadequate under subdivision (c) of section 10631 because of the failure to address timing issues related to the perchlorate contamination.[14] Simply stating that a treatment technology is available and that a groundwater treatment plan is being developed without discussing when the plan may need to be implemented and the amount of time needed for its implementation leaves a temporal gap in the description of the reliability of the water source. This gap renders the UWMP legally inadequate.

Without a reliable analysis of the availability of water, the UWMP is fatally flawed. The public and the various governmental entities that rely on the UWMP may be seriously misled by it and, if the wrong set of circumstances occur,[15] the consequences to those who relied on the UWMP, as well as those who share a water supply with them, could be severe. The ability to modify and review the plan does not overcome the initial failure.

The judgment must be reversed as defendants did not proceed in a manner required by law in their preparation of the UWMP, thus prejudicially abusing their discretion. (§ 10651.)

III. Recoverable Costs

As the judgment against plaintiffs will be reversed, we need not address the issues raised in connection with their attack on the costs awarded to defendants, such as whether

---

[14]This holding can be restated in the language of section 10610.2, subdivision (d) as follows. Because of the failure to address the timing issues, the UWMP does not show that the defendants have made "every effort to ensure the appropriate level of reliability in [their] water service sufficient to meet the needs of [their] various categories of customers during normal, dry, and multiple dry years." (*Ibid.*)

[15]Those circumstances could include a prolonged drought, increased reliance on groundwater from the Saugus Formation, accelerated spread of the perchlorate contamination within the formation, and problems or delays in implementing the ion exchange.

defendants were entitled to recover the expense incurred for *additional* copies of the administrative record (see Cal. Administrative Mandamus (Cont.Ed.Bar 3d ed. 2003) Recoverable Costs, § 10.15, pp. 360-361 (5/04)).

DISPOSITION

The judgment is reversed and the matter is remanded to the superior court with directions to grant the petition for a writ of mandate vacating defendants' approval of the 2000 Urban Water Management Plan. Friends of the Santa Clara River and Sierra Club shall recover their costs on appeal from Castaic Lake Water Agency, Santa Clarita Water Company and Valencia Water Company. Newhall County Water District's request to withdraw its respondent's brief is granted.

_____
CORNELL, J.

WE CONCUR:

_____
VARTABEDIAN, Acting P.J.

_____
BUCKLEY, J.

CERTIFIED FOR PUBLICATION

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

FIFTH APPELLATE DISTRICT

FRIENDS OF THE SANTA CLARA RIVER et al., Plaintiffs and Appellants, v. CASTAIC LAKE WATER AGENCY et al., Defendants and Respondents.	F043273 (Super. Ct. No. 245365) ORDER GRANTING REQUEST FOR PUBLICATION OF OPINION

THE COURT

It appearing that the nonpublished opinion filed in the above entitled matter on September 22, 2004, meets the standards for publication specified in California Rules of Court, rule 976(b), it is ordered that the opinion be certified for publication in the official reports.

_____
Cornell, J.

WE CONCUR:

_____
Vartabedian, Acting P.J.

_____
Buckley, J.

17.

Exhibit 12:
SCOPE Letter Regarding
Newhall Ranch Sanitation District

SCOPE
Santa Clarita Organization for Planning and the Environment
TO PROMOTE, PROTECT AND PRESERVE THE ENVIRONMENT, ECOLOGY
AND QUALITY OF LIFE IN THE SANTA CLARITA VALLEY
POST OFFICE BOX 1182, SANTA CLARITA, CA 91386

1-13-11

Attn: Executive Office
LA County Board of Supervisors
500 W. Temple St.
Los Angeles, CA 90012

Re: Agenda Item # 25 – Inconsistency with Newhall Ranch Specific Plan
Please copy to all Supervisors

Dear Sirs:

It has come to our attention that, while the staff report for this agenda item correctly states the timeline of the formation of the Newhall Ranch Sanitation District, it also includes erroneous information and brings to light an agreement made between the Sanitation Districts and Newhall Land and Farming that is inconsistent with the Newhall Ranch Specific Plan. Further, it misinforms the Board as to the financial impacts of such an agreement.

We ask that the Supervisors, and particularly Mr. Antonovich, as our representative on the Board of Sanitation District 26 and 32, immediately investigate and set aside this agreement. We request that Board of Supervisors, as ultimate oversight authority for the approval and conformity of the Newhall Ranch Specific Plan, object to this agreement between the Newhall Land Co. and the Sanitation Districts. We request that the Board delay approval of this agenda item until this investigation is completed and the staff report is corrected.

We particularly object to these two sections of the staff report:

1. **"FISCAL IMPACT/FINANCING**

   It is anticipated that the operation and maintenance of the District and its facilities would be funded through the imposition of service charges, which would be collected on the tax roll, and construction of the facilities would be financed by the developer for the Newhall Ranch project."

Without the construction of the Sanitation plant as required by the Newhall Ranch Specific Plan, the public will bear the burden of the expensive clean up of chlorides required to comply with the Clean Water Act. This will entail a sharp increase in sewer fees to the general public.

2. **"IMPACT ON CURRENT SERVICES (OR PROJECTS)**

   This project will not have an adverse impact on current sewage services because the District will build facilities to serve all new developments within the Newhall Ranch Specific Plan area. In addition, the agreement between the Santa Clarita Valley Sanitation District of Los Angeles County (SCV) and Newhall Land and

Farming allows up to 6,000 capacity units to be treated at existing SCV wastewater treatment facilities as needed during construction of the Newhall Ranch Water Reclamation Plant. SCV has sufficient capacity to accommodate the use of its facilities."

This statement cannot be made because the County is currently in the middle of analyzing the impacts for the first tract maps of Newhall Ranch. No certified EIR exists on either the Landmark tract or the Mission Village tract, which comprise approximately 6000 units. Further, there is not even a Development Monitoring System analysis for sewer capacity included in the Mission Village EIR as required by the Court Decision in 2003.

Background

The Mitigation Monitoring Plan of the Newhall Ranch Specific Plan states that:
SP 4.11-1 The proposed Specific Plan **SHALL**[1] implement a water reclamation plant in order to reduce to specific plan's demand for imported potable water, The Specific Plan **SHALL** install a distribution system to deliver non-potable reclaimed water to irrigate land uses suitable to accept reclaimed water, pursuant to the Los Angeles County Department of Health Standards.
Mitigation 4.11-8 requires Newhall to pay for the cost of water expansion by paying for connection fees and **Mitigation 4.12-7** ensured the public would not have to pay for the development of Newhall Ranch by requiring that future tracts would have to be annexed into a sewer district.
SP 4.12-2 A 5.8 to 6.9 mgd water reclamation plant **SHALL** be constructed on the Specific Plan site, pursuant to County, State, and Federal design standards, to serve the Newhall Ranch Specific Plan.
SP 4-12-3 A Conceptual Backbone Sewer Plan **SHALL** be implemented pursuant to County, state and federal design standards.

Please note: The mitigation monitoring system does NOT say "may", it says, "**SHALL**".

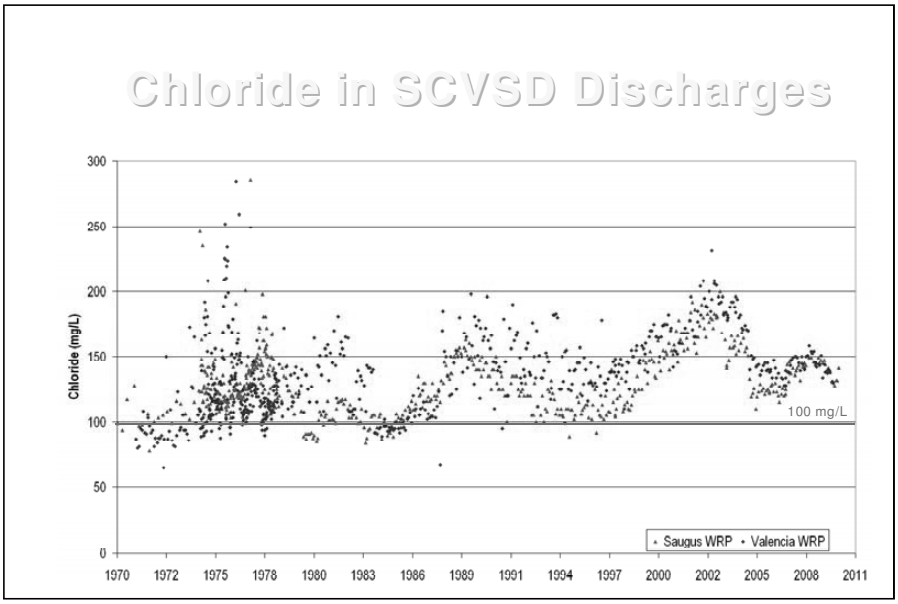
If the Sanitation Plant is not built in accordance with the mitigation requirements of the Newhall Ranch Specific Plan, the Plan cannot meet its requirements to provide non-potable water or to finance its own infrastructure expansion costs.

Further, the Sanitation discharge permit granted by the Regional Water Quality Board required reverse osmosis treatment for the effluent from this plant. By attempting to evade this requirement, Newhall will put the added burden of removing salts from the Newhall Ranch effluent on the backs of the public.

The CHLORIDE issue

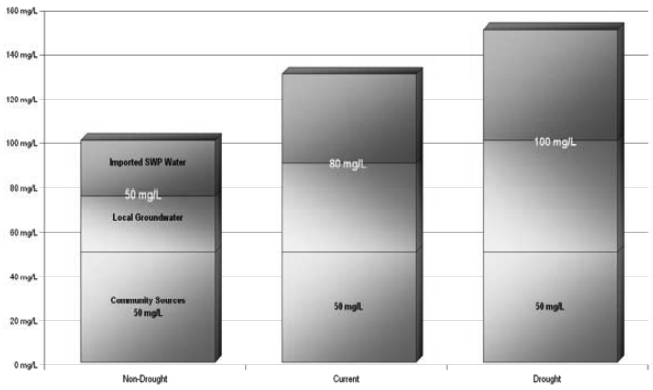
Currently the Sanitation Districts 26 and 32 in the Santa Clarita Valley do not comply with the Clean Water Act Act Total Maximum Daily Load (TMDL) effluent standard of 100 ugl for Cholride as indicated by the chart below supplied at a recent Sanitation District public hearing:

[1] Emphasis added to all "shalls" in this section



The Santa Clarita Sanitation Districts' failure to meet the Clean Water TMDL standard for chloride of 100mg/l in the Santa Clara River is a result in part due to the sharp and continuing increase in the use of imported State Water Project (SWP) water as seen by the chart below, (also supplied by the Sanitation Districts).

Chloride Sources During
Drought & Non-Drought Conditions



This problem is aggravated by high levels of chlorides in the well proposed to be used for these tracts, according to information found in both the Landmark and Mission Village DEIRs as indicated in the chart below. Therefore, if Newhall uses the Valencia treatment plant rather than building their own Sanitation Plant as required by the Specific Plan, the chloride levels in the effluent of that treatment plant will be substantially increased. Without the immediate construction of the Newhall Ranch Water Reclamation Plant, approved as an RO (reverse

osmosis salt removal system) facility, the high chlorides in the wells proposed to be used by this project in the chart below and the additional imported Nickels water will add to this load.

Water Quality Constituents of Concern

Secondary Standards:

(from Mission Village DEIR Appendix F4.8)

Parameter	MCL	DLR	Units	E-14	E-15	E-16	E-17
Chloride	250-500-600	NA	mg/L	75	88	89	74
	pH 6.5 - 8.5	NA	units	7.5	7.7	7.3	7.4
Specific Conductance (E.C.)	900-1600-2,200	NA	umho/cm	1240	1290	1390	1360
Sulfate	250-500-600	0.5	mg/L	340	330	340	340
Total Dissolved Solids (TDS)	500-1000-1500	NA	mg/L	900	890	950	960

Conclusion and Questions

How does a side agreement between the developer and the Sanitation Districts fit into the planning oversight purview of the Board of Supervisors? How can the Planning Department substantiate that sewer service complies with the County Development Monitoring System or is consistent with the general plan or specific plans if developers make side agreements with the Sanitation Districts?

The agreement between the developer of the Newhall Ranch Project and the Sanitation District violates the conditions of the Newhall Ranch Specific Plan and puts the Santa Clarita Valley in jeopardy of continued non-compliance with the Clean Water Act Chloride TMDL. We therefore strongly object to this agreement and ask that the Board of Supervisors take action to rectify this issue.

The public should not have to pay the costs of bringing the chloride level into compliance with an increase to their sewer fees. Thank you in advance for addressing these issues.

Sincerely,

Lynne Plambeck
President

Exhibit 13A:
Notice of Violation –
Valencia Water Reclamation Plant

California Regional Water Quality Control Board
Los Angeles Region

320 West Fourth Street, Suite 200, Los Angeles, California 90013
(213) 576-6600 • Fax (213) 576-6640
http://www.waterboards.ca.gov/losangeles

Linda S. Adams
Acting Secretary for Environmental Protection

Edmund G. Brown Jr.
Governor

May 27, 2011

Mr. Stephen R. Maguin
Chief Engineer and General Manager
County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, California 90607-4998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 7010 3090 0002 1022 3817

Dear Mr. Maguin:

***NOTICE OF VIOLATION* - SANTA CLARITA VALLEY SANITATION DISTRICT OF LOS ANGELES COUNTY, VALENCIA WATER RECLAMATION PLANT (ORDER NO. R4-2009-0074 NPDES NO. CA0054216, CI 4993)**

Santa Clarita Valley Sanitation District of Los Angeles County (hereinafter Discharger or SCVSD, formerly referred to as Los Angeles County Sanitation District), discharges wastewater pursuant to Order No. R4-2009-0074 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0054216 (Order), which was adopted by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board).

The Order authorizes the Discharger to discharge up to 21.6 MGD of tertiary-treated wastewater from the Valencia Water Reclamation Plant (hereinafter Facility). The Order sets forth waste discharge requirements, including effluent limits, and a monitoring and reporting program (MRP CI-4993) that apply to the discharges of pollutants from the Facility. This wastewater contains chlorides and other pollutants that can degrade water quality and impact beneficial uses of water, and that are defined as wastes under the Porter-Cologne Water Quality Control Act (Cal.Wat. Code § 13000 et seq.). The treated wastewater is discharged to the Santa Clara River, a navigable water of the United States.

MRP CI-4993 requires that the Discharger submit self-monitoring reports, discharge monitoring reports, and an annual summary report to this Regional Board in compliance with all Standard Provisions related to monitoring, reporting, and recordkeeping.

Provision VI.C.8, on page 41 of the Order reads: "The discharger shall comply with the applicable TMDL-related tasks[1], and future revisions thereto, in Attachment K of this Order."

[1] The Upper Santa Clara River Chloride TMDL was approved by the Regional Board, the State Water Resources Control Board, the State Office of Administrative Law (OAL), and the U.S. EPA, and became effective on April 6, 2010. The USCR Chloride TMDL Implementation Plan, including Task 17(a), was accommodated into Order No. R4-2009-0074 and NPDES Permit No. CA0054216 on June 4, 2009 and became effective on July 24, 2009.

Attachment K lists the TMDL tasks. Page K-3 lists Task 17(a).

You are hereby notified that the Discharger is out of compliance with requirements established in the Order and has violated California Water Code section 13383 for failure to complete Task 17(a) in Attachment K as follows:

- Failure to complete a Programmatic Environmental Impact Report (EIR) for facilities to comply with final permit effluent limits for chloride. The Discharger submitted a copy of a Notice of Exemption from the requirement to prepare an EIR or Negative Declaration to the Regional Board on May 2, 2011. The Notice of Exemption does not meet the requirements of Task 17(a) in Attachment K because it does not constitute a programmatic EIR and it addresses actions to meet the conditional wasteload allocations (WLAs) not actions to meet the final effluent limits for chloride.

- Failure to submit an adequate Wastewater Facilities Plan for facilities to comply with final permit effluent limits for chloride. The Santa Clarita Valley Chloride TMDL Facilities Plan (Facilities Plan) submitted by the SCVSD on May 2, 2011 is inadequate because it is not a plan for actions to meet the final effluent limits for chloride of 100 mg/L. If the Facilities Plan was intended to comply with the conditional WLAs in the TMDL, it is inadequate because it does not provide the facilities necessary to allow application of conditional WLAs.

You are required to comply immediately with the following tasks:

1. Ensure that Task 17(a) in Attachment K is completed and the Wastewater Facilities Plan and Programmatic Environmental Impact Report for facilities to comply with final permit effluent limits for chloride are submitted to the Regional Board.

2. Ensure full implementation of all requirements contained in MRP CI-4993.

3. Submit a written response (1) confirming you have corrected these violations with a brief description of how you have corrected them, or (2) identifying when you will have completed correcting these violations and a brief description of how you will correct them. Submit your written response by June 27, 2011 to:

   Jenny Newman
   Chief, TMDL Unit 3
   California Regional Water Quality Control Board
   Los Angles Region
   320 W. 4th Street, Suite 200
   Los Angeles, CA 90013- 2343

California Environmental Protection Agency

Recycled Paper

Pursuant to CWC § 13385, you are subject to administrative civil liability of up to $10,000 for each day in which the violation occurs plus $10 multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons. These civil liabilities may be assessed by the Regional Board for failure to comply, beginning with the date that the violations first occurred, and without further warning.

The matter may be referred to the Attorney General for further enforcement. In such case, the Attorney General may seek up to $25,000 per day and $25 per gallon. The Regional Board reserves its right to take any further enforcement action authorized by law.

In SCVSD's semi-annual status reports submitted on November 4, 2010, and May 2, 2011, SCVSD requested to use the reconsideration clause under Task 16 of the Upper Santa Clara River Chloride TMDL implementation plan to revise the TMDL to incorporate the Alternative Compliance Plan (ACP). The intent of the reconsideration clause under Task 16 is to consider extending the implementation schedule to implement control measures necessary to meet final conditional WLAs, not to revise the conditional WLAs to accommodate the ACP, as requested by SCVSD. Therefore, Regional Board staff is hereby declining to recommend to the Board a reconsideration under Task 16.

If you have any questions regarding this matter, please contact Jenny Newman at (213) 576-6691 or at jnewman@waterboards.ca.gov.

Sincerely,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

cc: Julie Macedo, Office of Enforcement, State Water Resources Control Board
Frances McChesney, Office of Chief Counsel, State Water Resources Control Board

California Environmental Protection Agency

Recycled Paper

Exhibit 13B:
Notice of Violation – Saugus Water Reclamation Plant

California Regional Water Quality Control Board
Los Angeles Region

320 West Fourth Street, Suite 200, Los Angeles, California 90013
(213) 576-6600 • Fax (213) 576-6640
http://www.waterboards.ca.gov/losangeles

Linda S. Adams
Acting Secretary for Environmental Protection

Edmund G. Brown Jr.
Governor

May 27, 2011

Mr. Stephen R. Maguin
Chief Engineer and General Manager
County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, California 90607-4998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 7010 3090 0002 1022 3824

Dear Mr. Maguin:

***NOTICE OF VIOLATION* - SANTA CLARITA VALLEY SANITATION DISTRICT OF LOS ANGELES COUNTY, SAUGUS WATER RECLAMATION PLANT (ORDER NO. R4-2009-0075 NPDES NO. CA0054313, CI 2960)**

Santa Clarita Valley Sanitation District of Los Angeles County (hereinafter Discharger or SCVSD, formerly referred to as Los Angeles County Sanitation District), discharges wastewater pursuant to Order No. R4-2009-0075 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0054313 (Order), which was adopted by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board).

The Order authorizes the Discharger to discharge up to 6.5 MGD of tertiary-treated wastewater from the Saugus Water Reclamation Plant (hereinafter Facility). The Order sets forth waste discharge requirements, including effluent limits, and a monitoring and reporting program (MRP CI-2960) that apply to the discharges of pollutants from the Facility. This wastewater contains chlorides and other pollutants that can degrade water quality and impact beneficial uses of water, and that are defined as wastes under the Porter-Cologne Water Quality Control Act (Cal.Wat. Code § 13000 et seq.). The treated wastewater is discharged to the Santa Clara River, a navigable water of the United States.

MRP CI-2960 requires that the Discharger submit self-monitoring reports, discharge monitoring reports, and an annual summary report to this Regional Board in compliance with all Standard Provisions related to monitoring, reporting, and recordkeeping.

Provision VI.C.8, on page 40 of the Order reads: "The discharger shall comply with the applicable TMDL-related tasks[1], and future revisions thereto, in Attachment K of this Order."

[1] The Upper Santa Clara River Chloride TMDL was approved by the Regional Board, the State Water Resources Control Board, the State Office of Administrative Law (OAL), and the U.S. EPA, and became effective on April 6, 2010. The USCR Chloride TMDL Implementation Plan, including Task 17(a), was accommodated into Order No. R4-2009-0075 and NPDES Permit No. CA0054313 on June 4, 2009 and became effective on July 24, 2009.

Attachment K lists the TMDL tasks. Page K-3 lists Task 17(a).

You are hereby notified that the Discharger is out of compliance with requirements established in the Order and has violated California Water Code section 13383 for failure to complete Task 17(a) in Attachment K as follows:

- Failure to complete a Programmatic Environmental Impact Report (EIR) for facilities to comply with final permit effluent limits for chloride. The Discharger submitted a copy of a Notice of Exemption from the requirement to prepare an EIR or Negative Declaration to the Regional Board on May 2, 2011. The Notice of Exemption does not meet the requirements of Task 17(a) in Attachment K because it does not constitute a programmatic EIR and it addresses actions to meet the conditional wasteload allocations (WLAs) not actions to meet the final effluent limits for chloride.

- Failure to submit an adequate Wastewater Facilities Plan for facilities to comply with final permit effluent limits for chloride. The Santa Clarita Valley Chloride TMDL Facilities Plan (Facilities Plan) submitted by the SCVSD on May 2, 2011 is inadequate because it is not a plan for actions to meet the final effluent limits for chloride of 100 mg/L. If the Facilities Plan was intended to comply with the conditional WLAs in the TMDL, it is inadequate because it does not provide the facilities necessary to allow application of conditional WLAs.

You are required to comply immediately with the following tasks:

1. Ensure that Task 17(a) in Attachment K is completed and the Wastewater Facilities Plan and Programmatic Environmental Impact Report for facilities to comply with final permit effluent limits for chloride are submitted to the Regional Board.

2. Ensure full implementation of all requirements contained in MRP CI-2960.

3. Submit a written response (1) confirming you have corrected these violations with a brief description of how you have corrected them, or (2) identifying when you will have completed correcting these violations and a brief description of how you will correct them. Submit your written response by June 27, 2011 to:

   Jenny Newman
   Chief, TMDL Unit 3
   California Regional Water Quality Control Board
   Los Angles Region
   320 W. 4th Street, Suite 200
   Los Angeles, CA 90013- 2343

Pursuant to CWC § 13385, you are subject to administrative civil liability of up to $10,000 for each day in which the violation occurs plus $10 multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons. These civil liabilities may be assessed by the Regional Board for failure to comply, beginning with the date that the violations first occurred, and without further warning.

The matter may be referred to the Attorney General for further enforcement. In such case, the Attorney General may seek up to $25,000 per day and $25 per gallon. The Regional Board reserves its right to take any further enforcement action authorized by law.

In SCVSD's semi-annual status reports submitted on November 4, 2010, and May 2, 2011, SCVSD requested to use the reconsideration clause under Task 16 of the Upper Santa Clara River Chloride TMDL implementation plan to revise the TMDL to incorporate the Alternative Compliance Plan (ACP). The intent of the reconsideration clause under Task 16 is to consider extending the implementation schedule to implement control measures necessary to meet final conditional WLAs, not to revise the conditional WLAs to accommodate the ACP, as requested by SCVSD. Therefore, Regional Board staff is hereby declining to recommend to the Board a reconsideration under Task 16.

If you have any questions regarding this matter, please contact Jenny Newman at (213) 576-6691 or at jnewman@waterboards.ca.gov.

Sincerely,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

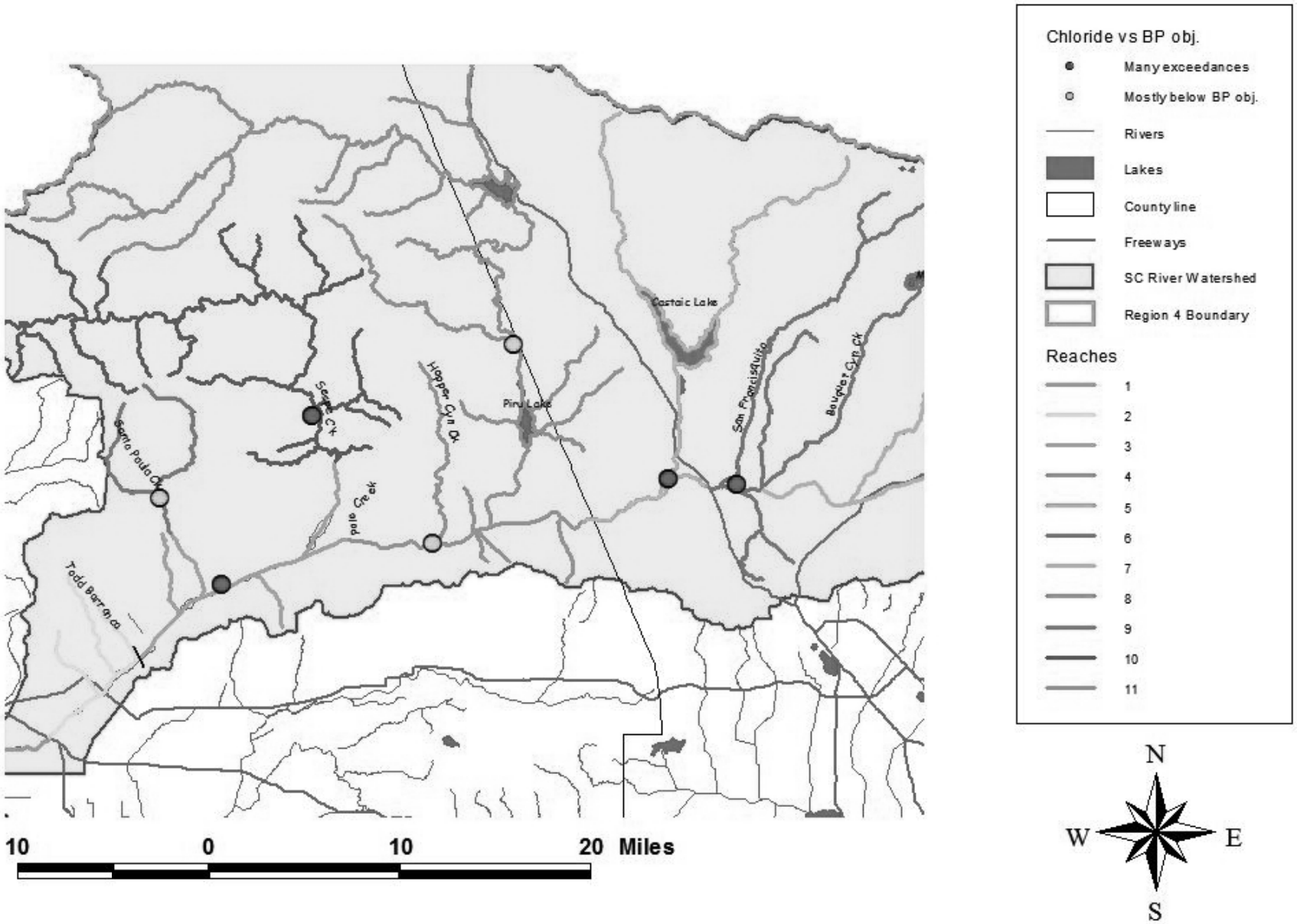
cc: Julie Macedo, Office of Enforcement, State Water Resources Control Board
Frances McChesney, Office of Chief Counsel, State Water Resources Control Board

California Environmental Protection Agency

Recycled Paper

Exhibit 14:
Materials Submitted on CD

Figure 11. Santa Clara River Averaged Chloride by Reach Since 1990



Attachment B to Resolution No. R4-2008-012

Revision of the TMDL for Chloride in the Upper Santa Clara River

Adopted by the California Regional Water Quality Control Board, Los Angeles Region on December 11, 2008.

Amendments

Table of Contents

Chapter 7. Total Maximum Daily Loads (TMDLs)
7-6 Upper Santa Clara River Chloride TMDL

List of Figures, Tables, and Inserts

Chapter 7. Total Maximum Daily Loads (TMDLs) Tables
7-6.1. Upper Santa Clara River Chloride TMDL: Elements (Revised)
7-6.2. Upper Santa Clara River Chloride TMDL; Implementation Schedule (Revised)

Chapter 7. Total Maximum Daily Loads (TMDLs) Upper Santa Clara River TMDL

This TMDL was adopted by: The Regional Water Quality Control Board on October 24, 2002.
This TMDL was remanded by: The State Water Resources Control Board on February 19, 2003
This TMDL was adopted by: The Regional Water Quality Control Board on July 10, 2003.
This TMDL was revised and adopted by: The Regional Water Quality Control Board on May 6, 2004.
This TMDL was approved by: The State Water Resource Control Board on July 22, 2004
The Office of Administrative Law on November 15, 2004
The U.S. Environmental Protection Agency on April 28, 2005
This TMDL was revised and adopted by: The Regional Water Quality Control Board on August 3, 2006.
This TMDL was approved by: The State Water Resource Control Board on May 22, 2007.
The Office of Administrative Law on July 3, 2007.
This TMDL was revised and adopted by: The Regional Water Quality Control Board on December 11, 2008.
This TMDL was approved by: The State Water Resource Control Board on xxx xx, 200x.
The Office of Administrative Law on xxx xx, 200x.

Element	Table 7-6.1. Upper Santa Clara River Chloride TMDL: Elements Santa Clara River Chloride
Problem Statement	Elevated chloride concentrations are causing impairments of the water quality objective in Reach 5 (EPA 303(d) list Reach 7) and Reach 6 (EPA 303(d) list Reach 8) of the Santa Clara River (SCR). These reaches are on the 1998 and 2002 Clean Water Act (CWA) 303(d) lists of impaired water bodies as impaired due to chloride. The objectives for these reaches were set to protect all beneficial uses; agricultural beneficial uses have been determined to be most sensitive, and not currently attained at the downstream end of Reach 5 (EPA 303(d) list Reach 7) and Reach 6 (EPA 303(d) list Reach 8) in the Upper Santa Clara River (USCR). Irrigation of salt sensitive crops such as avocados, strawberries, and nursery crops with water containing elevated levels of chloride results in reduced crop yields. Chloride levels in groundwater in Piru Basin underlying the reach downstream of Reach 5 are also rising.
Numeric Target (Interpretation of the numeric water quality objective, used to calculate the load allocations)	Numeric targets are equivalent to conditional site specific objectives (SSOs) that are based on technical studies regarding chloride levels which protect salt sensitive crops and endangered and threatened species, chloride source identification, and the magnitude of assimilative capacity in the upper reaches of the Santa Clara River and underlying groundwater basin. The TMDL special study, Literature Review Evaluation, shows that the most sensitive beneficial uses can be supported with rolling averaging periods as shown in the tables below. 1. Conditional Surface Water SSOs The conditional SSOs for chloride in the surface water of Reaches 4B, 5, and 6 shall apply and supersede the existing water quality objectives of 100 mg/L only when chloride load reductions and/or chloride export projects are in operation by the SCVSD according to the implementation section in Table 7-6.1. Conditional surface water SSOs for Reaches 4B, 5, and 6 of the Santa Clara River are listed as follows:

Reach	Conditional SSO for Chloride (mg/L)	Rolling Averaging Period
6	150	12-month
5	150	12-month
4B	117	3-month
4B Critical Conditions	130[a]	3-month[b]

Element	Table 7-6.1. Upper Santa Clara River Chloride TMDL: Elements Santa Clara River Chloride
	a. The conditional SSO for chloride in Reach 4B under critical condition shall apply only if the following conditions and implementation requirements are met: 1. Water supply chloride concentrations measured in Castaic Lake are ≥ 80 mg/L. 2. The Santa Clarita Valley Sanitation District (SCVSD) shall provide supplemental water to salt-sensitive agricultural uses that are irrigated with surface water during periods when Reach 4B surface water exceeds 117 mg/L. 3. By May 4, 2020, the 10-year cumulative net chloride loading above 117 mg/L ($CNCl_{117}$)[i] to Reach 4B of the SCR, calculated annually, from the SCVSD Water Reclamation Plants (WRPs) shall be zero or less. [i] $CNCl_{117} = Cl_{(Above\ 117)} - Cl_{(Below\ 117)} - Cl_{(Export\ Ews)}$ Where: $Cl_{(Above\ 117)}$ = [WRP Cl Load[1]/Reach 4B Cl Load[2]] * [Reach 4B Cl $Load_{>117}$[3]] $Cl_{(Below\ 117)}$ = [WRP Cl Load[1]/Reach 4B Cl Load[2]] * [Reach 4B Cl $Load_{<=117}$[4]] $Cl_{(Export\ EWs)}$ = Cl Load Removed by Extraction Wells [1] WRP Cl Load is determined as the monthly average Cl concentration multiplied by the monthly average flow measured at the Valencia WRP. [2] Reach 4B Cl Load is determined as the monthly average Cl concentration at SCVSD Receiving Water Station RF multiplied by the monthly average flow measured at USGS Gauging Station 11109000 (Las Brisas Bridge). [3] Reach 4B Cl $Load_{>117}$ means the calculated Cl load to Reach 4B when monthly average Cl concentration in Reach 4B is above 117 mg/L. [4] Reach 4B Cl $Load_{<=117}$ means the calculated Cl load to Reach 4B when monthly average Cl concentration in Reach 4B is below or equal to 117 mg/L. 4. The chief engineer of the SCVSD signs under penalty of perjury and submits to the Los Angeles Regional Water Quality Control Board (Regional Board) a letter documenting the fulfillment of conditions 1, 2, and 3.

<table>
<tr><th>Element</th><th>Table 7-6.1. Upper Santa Clara River Chloride TMDL: Elements
Santa Clara River Chloride</th></tr>
<tr><td></td><td>b. The averaging period for the critical condition SSO may be reconsidered based on results of chloride trend monitoring after the conditional WLAs of this TMDL are implemented.

2. Conditional SSOs for Groundwater

Conditional groundwater SSOs are listed as follows:
<table>
<tr><th>Groundwater Basin</th><th>Conditional Groundwater SSO for Chloride (mg/L)</th><th>Rolling Averaging Period</th></tr>
<tr><td>Santa Clara--Bouquet & San Francisquito Canyons</td><td>150</td><td>12-month</td></tr>
<tr><td>Castaic Valley</td><td>150</td><td>12-month</td></tr>
<tr><td>Lower area east of Piru Creek [a]</td><td>150</td><td>12-month</td></tr>
</table>
[a] This objective only applies to the San Pedro formation. Existing objective of 200 mg/L applies to shallow alluvium layer above San Pedro formation.

The conditional SSOs for chloride in the groundwater in Santa Clara--Bouquet & San Francisquito Canyons, Castaic Valley and the lower area east of Piru Creek (San Pedro Formation) shall apply and supersede the existing groundwater quality objectives only when chloride load reductions and/or chloride export projects are in operation by the SCVSD according to the implementation section in Table 7-6.1.</td></tr>
<tr><td>Source Analysis</td><td>The principal source of chloride into Reaches 5 and 6 of the Santa Clara River is discharges from the Saugus WRP and Valencia WRP, which are estimated to contribute 70% of the chloride load in Reaches 5 and 6. These sources of chloride accumulate and degrade groundwater in the lower area east of Piru Creek in the basin.</td></tr>
<tr><td>Linkage Analysis</td><td>A groundwater-surface water interaction (GSWI) model was developed to</td></tr>
</table>

Element	Table 7-6.1. Upper Santa Clara River Chloride TMDL: Elements Santa Clara River Chloride
	assess the linkage between chloride sources and in-stream water quality and to quantify the assimilative capacity of Reaches 4A, 4B, 5, and 6 and the groundwater basins underlying those reaches. GSWI was then used to predict the effects of WRP discharges on chloride loading to surface water and groundwater under a variety of future hydrology, land use, and water use assumptions including future discharges from the Newhall Ranch WRP in order to determine appropriate wasteload allocations (WLAs) and load allocations (LAs). The linkage analysis demonstrates that beneficial uses can be protected through a combination of SSOs for surface water and groundwater and reduction of chloride levels from the Valencia WRP effluent through advanced treatment.
Waste Load Allocations (for point sources)	The conditional WLAs for chloride for all point sources shall apply only when chloride load reductions and/or chloride export projects are in operation by the SCVSD according to the implementation section in Table 7-6.1. If these conditions are not met, WLAs shall be based on existing water quality objectives for chloride of 100 mg/L. Conditional WLAs for chloride for discharges to Reach 4B by the Saugus and Valencia WRPs are as follows: **Reach** — **Concentration-based Conditional WLA for Chloride (mg/L)** 4B — 117 (3-month Average), 230 (Daily Maximum) 4B Critical Conditions — 130[a] (3-month Average[b]), 230 (Daily Maximum) a. The Conditional WLA under critical conditions shall apply only if the following conditions and implementation requirements are met: 1. Water supply chloride concentrations measured in Castaic Lake are ≥ 80 mg/L.

Element	Table 7-6.1. Upper Santa Clara River Chloride TMDL: Elements Santa Clara River Chloride
	2. SCVSD shall provide supplemental water to salt-sensitive agricultural uses that are irrigated with surface water during periods when Reach 4B surface water exceeds 117 mg/L. 3. By May 4, 2020, the 10-year cumulative net chloride loading above 117 mg/L ($CNCl_{117}$) [i] to Reach 4B of the SCR, calculated annually, from the Saugus and Valencia WRPs shall be zero or less. [i] $CNCl_{117} = Cl_{(Above\ 117)} - Cl_{(Below\ 117)} - Cl_{(Export\ Ews)}$ Where: $Cl_{(Above\ 117)}$ = [WRP Cl Load[1]/Reach 4B Cl Load[2]] * [Reach 4B Cl $Load_{>117}$[3]] $Cl_{(Below\ 117)}$ = [WRP Cl Load[1]/Reach 4B Cl Load[2]] * [Reach 4B Cl $Load_{<=117}$[4]] $Cl_{(Export\ EWs)}$ = Cl Load Removed by Extraction Wells [1] WRP Cl Load is determined as the monthly average Cl concentration multiplied by the monthly average flow measured at the Valencia WRP. [2] Reach 4B Cl Load is determined as the monthly average Cl concentration at SCVSD Receiving Water Station RF multiplied by the monthly average flow measured at USGS Gauging Station 11109000 (Las Brisas Bridge). [3] Reach 4B Cl $Load_{>117}$ means the calculated Cl load to Reach 4B when monthly average Cl concentration in Reach 4B is above 117 mg/L. [4] Reach 4B Cl $Load_{<=117}$ means the calculated Cl load to Reach 4B when monthly average Cl concentration in Reach 4B is below or equal to 117 mg/L. 4. The chief engineer of the SCVSD signs under penalty of perjury and submits to the Regional Board a letter documenting the fulfillment of conditions 1, 2, and 3. b. The averaging period for the critical condition WLA may be reconsidered based on results of chloride trend monitoring after the conditional WLAs of this TMDL are implemented.

Element	Table 7-6.1. Upper Santa Clara River Chloride TMDL: Elements Santa Clara River Chloride
	Discharges to Reaches 5 and 6 by the Saugus and Valencia WRPs will have final concentration-based and mass-based conditional WLAs for chloride based on conditional SSOs as follows:

WRP	Concentration-based Conditional WLA for Chloride (mg/L)	Mass-based Conditional WLA for Chloride (pounds/day)
Saugus	150 (12-month Average), 230 (Daily Maximum)	Q_{Design}*150 mg/L*8.34 (12-month Average)
Valencia	150 (12-month Average), 230 (Daily Maximum)	Q_{Design}*150 mg/L*8.34 – AF_{RO} (12-month Average)

Where Q_{design} is the design capacity of WRPs in units of million gallons per day (MGD), AF_{RO} is the chloride mass loading adjustment factor for operation of reverse osmosis (RO) facilities, where:

If RO facilities are operated at ≥ 50% Capacity Factor[a] in preceding 12 months

$$AF_{RO} = 0$$

If RO facilities are operated at < 50% Capacity Factor[b] in preceding 12 months

$$AF_{RO} = (50\% \text{ Capacity Factor} - \%\text{RO Capacity}) * ChlorideLoadRO^{c}$$

[a] Capacity Factor is based on 3 MGD of recycled water treated with RO, 90% of the time.
[b] If operation of RO facilities at <50% rated capacity is the result of conditions that are outside the control of SCVSD, then under the discretion of the Executive Officer of the Regional Board, the AF_{RO} may be set to 0.
[c] Chloride load reduction is based on operation of a RO treatment plant treating 3 MGD of recycled water with chloride concentration of 50 mg/L + Water Supply Chloride. Assumes operational capacity factor of 90% and RO membrane chloride

Element	Table 7-6.1. Upper Santa Clara River Chloride TMDL: Elements Santa Clara River Chloride
	rejection rate of 95%. Determination of chloride load based on the following: $ChlorideLoadRO = 90\% \times [(Q_{RO} \times C_{WRP} \times 8.34) \times r] \times \left(30 Days / Month \right)$ Where: Q_{RO} = 3 MGD of recycled water treated with RO C_{WRP} = Chloride concentration in water supply + 50 mg/L r = % Reverse Osmosis chloride rejection (95% or 0.95) 8.34 = Conversion factor (ppd/(mg/L*MGD)) The final WLAs for TDS and sulfate are equal to existing surface water and groundwater quality objectives for TDS and sulfate in Tables 3-8 and 3-10 of the Basin Plan. The Regional Board may revise the final WLAs based on review of trend monitoring data as detailed in the monitoring section of this Basin Plan amendment. Other minor NPDES discharges (as defined in Table 4-1 of the Basin Plan) receive conditional WLAs. The conditional WLA for these point sources is as follows: **Reach** — **Concentration-based Conditional WLA for Chloride (mg/L)** 6 — 150 (12-month Average), 230 (Daily Maximum) 5 — 150 (12-month Average), 230 (Daily Maximum) 4B — 117 (3-month Average), 230 (Daily Maximum) Other major NPDES discharges (as defined in Table 4-1 of the Basin Plan) receive WLAs equal to 100 mg/L. The Regional Board may consider assigning conditional WLAs to other major dischargers based on an analysis of the downstream increase in net chloride loading to surface water and groundwater as a result of implementation of conditional WLAs.
Load Allocation	The source analysis indicates nonpoint sources are not a major source of

Element	Table 7-6.1. Upper Santa Clara River Chloride TMDL: Elements Santa Clara River Chloride
(for non point sources)	chloride. The conditional LAs for these nonpoint sources are as below: **Reach** — **Concentration-based Conditional LA for Chloride (mg/L)** 6 — 150 (12-month Average), 230 (Daily Maximum) 5 — 150 (12-month Average), 230 (Daily Maximum) 4B — 117 (3-month Average), 230 (Daily Maximum) The conditional LAs shall apply only when chloride load reductions and/or chloride export projects are in operation by the SCVSD according to the implementation section in Table 7-6.1. If these conditions are not met, LAs are based on existing water quality objectives of 100 mg/L.

Implementation	Refer to Table 7-6.2. *Implementation of Upper Santa Clara River Conditional Site Specific Objectives for Chloride* In accordance with Regional Board resolution 97-002, the Regional Board and stakeholders have developed an integrated watershed plan to address chloride impairments and protect beneficial uses of surface waters and groundwater basins underlying Reaches 4B, 5, and 6 of the Santa Clara River. The plan involves: 1) Reducing chloride loads and/or increasing chloride exports from the USCR watershed through implementation of advanced treatment (RO) of a portion of the effluent from the Valencia WRP. The advanced treated effluent will be discharged into Reach 4B or blended with extracted groundwater from the Piru Basin underlying Reach 4B and discharged into Reach 4A. The resultant brine from the advanced treatment process will be disposed in a legal and environmentally sound manner. 2) Implementing the conditional SSOs for chloride in surface waters and underlying groundwater basins of the USCR watershed provided in Chapter 3. The watershed chloride reduction plan will be implemented through NPDES permits for the Valencia WRP and a new NPDES permit for discharge into Reach 4A. The conditional SSOs for chloride in the USCR watershed shall apply and supersede the regional water quality objectives only when chloride load reductions and/or chloride export projects are in operation and reduce chloride loading in accordance with the following table:

Water Supply Chloride[1]	**Chloride Load Reductions[2]**
40 mg/L	58,000 lbs per month
50 mg/L	64,000 lbs per month
60 mg/L	71,000 lbs per month
70 mg/L	77,000 lbs per month
80 mg/L	83,000 lbs per month
90 mg/L	90,000 lbs per month
100 mg/L	96,000 lbs per month

[1] Based on measured chloride of the State Water Project (SWP) water stored in Castaic Lake.
[2] Chloride load reduction is based on operation of a RO treatment plant treating 3 MGD of recycled water with chloride concentration of 50 mg/L + Water Supply Chloride. Assumes operational capacity factor of 90% and RO membrane chloride rejection rate of 95%. Determination of

chloride load based on the following:

$$ChlorideLoad = 90\% \times \left[\left(Q_{RO} \times C_{WRP} \times 8.34\right) \times r\right] \times \left(30 Days / Month\right)$$

where r = % chloride rejection (95%)
Q_{RO} = 3 MGD of recycled water treated with RO
C_{WRP} = SWP Cl + 50 mg/L

Conditional WLAs

Conditional WLAs for the Saugus and Valencia WRPs will be implemented through effluent limits, receiving water limits and monitoring requirements in NPDES permits. Conditional WLAs for Reach 4B will be implemented as receiving water limits. Conditional WLAs for Reaches 5 and 6 will be implemented as effluent limits.

The implementation plan proposes that during the period of TMDL implementation, compliance for the WRPs' effluent limits will be evaluated in accordance with interim WLAs.

Saugus WRP:

The interim WLA for chloride is equal to the interim limit for chloride specified in order No. R4-04-004. The interim WLA for TDS is 1000 mg/L as an annual average. The interim WLA for sulfate is 450 mg/L as an annual average. These interim WLAs shall apply as interim end-of-pipe effluent limits, interim groundwater limits, and interim limits in the Non-NPDES WDR for recycled water uses from the Saugus WRP instead of existing water quality objectives.

Valencia WRP:

The interim WLA for chloride is equal to the interim limit for chloride specified in order No. R4-04-004. The interim WLA for TDS is 1000 mg/L as an annual average. The interim WLA for sulfate is 450 mg/L as an annual average. These interim WLAs shall apply as interim end-of-pipe effluent limits, interim groundwater limits, and interim limits in the Non-NPDES WDR for recycled water uses from the Valencia WRP instead of existing water quality objectives.

Other Major NPDES Permits (including Newhall Ranch WRP):

The Regional Board may consider assigning conditional WLAs for other major NPDES permits, including the Newhall Ranch WRP, pending implementation of a chloride mass removal quantity that is proportional to

	mass based chloride removal required for the Valencia WRP. <u>Supplemental Water released to Reach 6 of Santa Clara River:</u> In order to accommodate the discharge of supplemental water to Reach 6, interim WLAs are provided for sulfate of 450 mg/L and TDS of 1000 mg/L as annual averages. The final WLAs are equal to the existing water quality objectives for sulfate and TDS in Table 3-8 of the Basin Plan. The Regional Board may revise the final WLA based on review of trend monitoring data as detailed in the monitoring section of this Basin Plan amendment.
Monitoring	NPDES monitoring: NPDES Permittees will conduct chloride, TDS, and sulfate monitoring to ensure that water quality objectives are being met. Trend monitoring: The SCVSD will submit a monitoring plan to conduct chloride, TDS, and sulfate trend monitoring to ensure that the goal of chloride export in the watershed is being achieved, water quality objectives are being met, and downstream groundwater and surface water quality is not degraded due to implementation of compliance measures. The SCVSD monitoring plan shall include plans to monitor chloride, TDS, and sulfate in groundwater and identify representative wells to be approved by the Regional Board Executive Officer in the following locations: (a) Shallow alluvium layer in east Piru Basin, (b) San Pedro Formation in east Piru Basin, and (c) groundwater basins under Reaches 5 and 6, which shall be equivalent or greater than existing groundwater monitoring required by NPDES permits for Saugus and Valencia WRPs. The monitoring plan shall also include a plan for chloride, TDS, and sulfate trend monitoring for surface water for Reaches 4B, 5 and 6. The monitoring plan shall include plans to monitor chloride, TDS, and sulfate at a minimum of once per quarter for groundwater and at a minimum of once per month for surface water. The plan should propose a monitoring schedule that extends beyond the completion date of this TMDL to evaluate impacts of compliance measures to downstream groundwater and surface water quality. This TMDL shall be reconsidered if chloride, TDS, and sulfate trend monitoring indicates degradation of groundwater or surface water due to implementation of compliance measures. Trend monitoring: The Reach 4A Permittee will submit a monitoring plan to conduct chloride, TDS, and sulfate trend monitoring to ensure that the goal of chloride export in the watershed is being achieved, water quality objectives are being met, and downstream groundwater and surface water quality is not degraded due to implementation of compliance measures. The Reach 4A permittee monitoring plan shall include plans to monitor chloride, TDS, and sulfate in groundwater and identify representative wells to be approved by the Regional Board Executive Officer in the

	following locations (a) Fillmore Basin, and (b) Santa Paula Basin. The monitoring plan shall also include a plan for chloride, TDS, and sulfate trend monitoring for surface water for Reaches 3 and 4A. The monitoring plan should include plans to monitor chloride, TDS, and sulfate at a minimum of once per quarter for groundwater and at a minimum of once per month for surface water. The plan should propose a monitoring schedule that shall extend beyond the completion date of this TMDL to evaluate impacts of compliance measures to downstream groundwater and surface water quality. This TMDL shall be reconsidered if chloride, TDS, and sulfate trend monitoring indicates degradation of groundwater or surface water due to implementation of compliance measures.
Margin of Safety	An implicit margin of safety is incorporated through conservative model assumptions and chloride mass balance analysis. The model is an integrated groundwater surface water model which shows that chloride discharged from the WRPs accumulates in the east Piru Basin. Further mass balance analysis shows that the chloride mass removed from the Piru Basin exceeds the chloride loaded into the Piru Basin from implementation of the conditional SSOs.
Seasonal Variations and Critical Conditions	During dry weather conditions, less surface flow is available to dilute effluent discharge, groundwater pumping rates for agricultural purposes are higher, groundwater discharge is lower, poorer quality groundwater may be drawn into the aquifer, and evapotranspiration effects are greater than in wet weather conditions. During drought, reduced surface flow and increased groundwater extraction continues through several seasons with greater impacts on groundwater resources and discharges. Dry and critically dry periods affecting the Sacramento and San Joaquin River Valleys reduce fresh-water flow into the Sacramento-San Joaquin Delta and result in higher than normal chloride concentrations in the State Water Project supply within the California aqueduct system. These increased chloride levels are transferred to the upper Santa Clara River. This critical condition is defined as when water supply concentrations measured in Castaic Lake are $\geq$ 80 mg/L. These critical conditions were included in the GSWI model to determine appropriate allocations and implementation scenarios for the TMDL.

Table 7-6.2. Upper Santa Clara River Chloride TMDL Implementation **Implementation Tasks**	**Completion Date**
1. Alternate Water Supply a) Should (1) the in-river concentration at Blue Cut, the Reach 4B boundary, exceed the conditional SSO of 117 mg/L, measured for the purposes of this TMDL as a rolling three-month average, (2) each agricultural diverter provide records of the diversion dates and amounts to the Regional Board and Santa Clarita Valley County Sanitation Districts of Los Angeles County (SCVSD) for at least 2 years after the effective date of the TMDL and (3) each agricultural diverter provides photographic evidence that diverted water is applied to avocado, strawberry or other chloride sensitive crop and evidence of a water right to divert, then the SCVSD will be responsible for providing an alternative water supply, negotiating the delivery of alternative water by a third party, or providing fiscal remediation to be quantified in negotiations between the SCVSD and the agricultural diverter at the direction of the Regional Water Quality Control Board until such time as the in-river chloride concentrations do not exceed the conditional SSO. b) Should the instream concentration exceed 230 mg/L more than two times in the three year period, the discharger identified by the Regional Board Executive Officer shall be required to submit, within ninety days of a request by the Regional Board Executive Officer, a workplan for an accelerated schedule to reduce chloride discharges.	Effective Date of TMDL (05/04/2005)
2. Progress reports will be submitted by the SCVSD to Regional Board staff on a semiannual basis from the effective date of the TMDL for tasks 4, 6, and 7, and on an annual basis for Tasks 5 and 11. Progress reports will be submitted by the Reach 4A Permittee to Regional Board staff on an annual basis for Task 12.	Semiannually and annually
3. Chloride Source Identification/Reduction, Pollution Prevention and Public Outreach Plan: Six months after the effective date of the TMDL, the SCVSD will submit a plan to the Regional Board that addresses measures taken and planned to be taken to quantify and control sources of chloride, including, but not limited to: execute community-wide outreach programs, which were developed based on the pilot outreach efforts conducted by the SCVSD, assess potential incentive/disincentive programs for residential self-regenerating water softeners, and other measures that may be effective in	6 months after Effective Date of TMDL (11/04/2005)

Table 7-6.2. Upper Santa Clara River Chloride TMDL Implementation Implementation Tasks	Completion Date
controlling chloride. The SCVSD shall develop and implement the source reduction/pollution prevention and public outreach program, and report results annually thereafter to the Regional Board. Chloride sources from imported water supplies will be assessed. The assessment will include conditions of drought and low rainfall, and will analyze the alternatives for reducing this source.	
4. The SCVSD will convene a technical advisory committee or committees (TAC(s)) in cooperation with the Regional Board to review literature develop a methodology for assessment, and provide recommendations with detailed timelines and task descriptions to support any needed changes to the time schedule for evaluation of appropriate chloride threshold for Task 6. The Regional Board, at a public hearing will re-evaluate the schedule for Task 6 and subsequent linked tasks based on input from the TAC(s), along with Regional Board staff analysis and assessment consistent with state and federal law, as to the types of studies needed and the time needed to conduct the necessary scientific studies to determine the appropriate chloride threshold for the protection of salt sensitive agricultural uses, and will take action to amend the schedule if there is sufficient technical justification.	12 months after Effective Date (05/04/2006)
5. Groundwater/Surface Water Interaction Model: The SCVSD will solicit proposals, collect data, develop a model in cooperation with the Regional Board, obtain peer review, and report results. The impact of source waters and reclaimed water plans on achieving the water quality objective and protecting beneficial uses, including impacts on underlying groundwater quality, will also be assessed and specific recommendations for management developed for Regional Board consideration. The purpose of the modeling and sampling effort is to determine the interaction between surface water and groundwater as it may affect the loading of chloride from groundwater and its linkage to surface water quality.	2.5 years after Effective Date of TMDL (11/20/2007)
6. Evaluation of Appropriate Chloride Threshold for the Protection of Sensitive Agricultural Supply Use and Endangered Species Protection: The SCVSD will prepare and submit a report on endangered species protection thresholds. The SCVSD will also prepare and submit a report presenting the results of the evaluation of chloride thresholds for salt sensitive agricultural uses, which shall consider the impact of drought and low rainfall conditions and the associated increase in imported water concentrations on downstream crops utilizing the result of Task 5.	2.5 years after Effective Date of TMDL (11/20/2007)

Table 7-6.2. Upper Santa Clara River Chloride TMDL Implementation Implementation Tasks	Completion Date
7. Develop SSO for Chloride for Sensitive Agriculture: The SCVSD will solicit proposals and develop technical analyses upon which the Regional Board may base a Basin Plan amendment. 8. Develop Anti-Degradation Analysis for Revision of Chloride Objective by SSO: The SCVSD will solicit proposals and develop draft anti-degradation analysis for Regional Board consideration. 9. Develop a pre-planning report on conceptual compliance measures to meet different hypothetical final conditional wasteload allocations. The SCVSD shall solicit proposals and develop and submit a report to the Regional Board that identifies potential chloride control measures and costs based on different hypothetical scenarios for chloride SSOs and final conditional wasteload allocations.	2.8 years after Effective Date of TMDL (02/20/2008)
10. a) Preparation and Consideration of a Basin Plan Amendment (BPA) to revise the chloride objective by the Regional Board. b) Evaluation of Alternative Water Supplies for Agricultural Beneficial Uses: The SCVSD will quantify water needs, identify alternative water supplies, evaluate necessary facilities, and report results, including the long-term application of this remedy. c) Analysis of Feasible Compliance Measures to Meet Final Conditional Wasteload Allocations for Proposed Chloride Objective. The SCVSD will assess and report on feasible implementation actions to meet the chloride objective established pursuant to Task 10a). d) Reconsideration of and action taken on the Chloride TMDL and Final Conditional Wasteload Allocations for the Upper Santa Clara River by the Regional Board.	3.5 years after Effective Date of TMDL (12/11/2008)
11. Trend monitoring: The SCVSD will submit a monitoring plan to conduct chloride, TDS, and sulfate trend monitoring to ensure that the goal of chloride export in the watershed is being achieved, water quality objectives are being met, and downstream groundwater and surface water quality is not degraded due to implementation of compliance measures. The SCVSD monitoring plan shall include plans to monitor chloride, TDS, and sulfate in groundwater and identify representative wells to be approved by the Regional Board Executive Officer, in the following locations: (a) Shallow alluvium layer in east Piru Basin, (b) San Pedro Formation in east Piru Basin,	4 years after Effective Date of TMDL (05/04/2009)

Table 7-6.2. Upper Santa Clara River Chloride TMDL Implementation Implementation Tasks	Completion Date
and (c) groundwater basins under Reaches 5 and 6, which shall be equivalent or greater than existing groundwater monitoring required by NPDES permits for Saugus and Valencia WRPs. The monitoring plan shall also include a plan for chloride, TDS, and sulfate trend monitoring for surface water for Reaches 4B, 5 and 6. The monitoring plan shall include plans to monitor chloride, TDS, and sulfate at a minimum of once per quarter for groundwater and at a minimum of once per month for surface water. The plan should propose a monitoring schedule that extends beyond the completion date of this TMDL to evaluate impacts of compliance measures to downstream groundwater and surface water quality. This TMDL shall be reconsidered if chloride, TDS, and sulfate trend monitoring indicates degradation of groundwater or surface water due to implementation of compliance measures.	
12. Trend monitoring: The Reach 4A Permittee will submit a monitoring plan to conduct chloride, TDS, and sulfate trend monitoring to ensure that the goal of chloride export in the watershed is being achieved, water quality objectives are being met, and downstream groundwater and surface water quality is not degraded due to implementation of compliance measures. The Reach 4A permittee monitoring plan shall include plans to monitor chloride, TDS, and sulfate in groundwater and identify representative wells to be approved by the Regional Board Executive Officer in the following locations (a) Fillmore Basin, and (b) Santa Paula Basin. The monitoring plan shall also include a plan for chloride, TDS, and sulfate trend monitoring for surface water for Reaches 3 and 4A. The monitoring plan should include plans to monitor chloride, TDS, and sulfate at a minimum of once per quarter for groundwater and at a minimum of once per month for surface water. The plan should propose a monitoring schedule that shall extend beyond the completion date of this TMDL to evaluate impacts of compliance measures to downstream groundwater and surface water quality. This TMDL shall be reconsidered if chloride, TDS, and sulfate trend monitoring indicates degradation of groundwater or surface water due to implementation of compliance measures.	Submitted with permit application
13. Begin monitoring per approved SVCSD monitoring plan completed in Task 11.	One year after Executive Officer approval of Task 11 monitoring plan for SCVSD

Table 7-6.2. Upper Santa Clara River Chloride TMDL Implementation Implementation Tasks	Completion Date
14. Begin monitoring per approved Reach 4A Permittee monitoring plan.	One year after Executive Officer approval of Task 12 monitoring plan for Reach 4A Permittee
15. a) Implementation of Compliance Measures, Planning: The SCVSD shall submit a report of planning activities which include but are not limited to: (1) identifying lead state/federal agencies; (2) administering a competitive bid process for the selection of EIR/EIS and Engineering Consultants; (3) Development of Preliminary Planning and Feasibility Analyses; (4) Submittal of Project Notice of Preparation/Notice of Intent; (5) Preparation of Draft Wastewater Facilities Plan and Programmatic EIR; (6) Administration of Public Review and Comment Periods; (7) Development of Final Wastewater Facilities Plan and Programmatic EIR and incorporation and response to comments; (8) Administration of final public review and certification process; and (9) Filing a Notice of Determination and Record of Decision.	5 years after Effective Date of TMDL (05/04/2010)
b) Implementation of Compliance Measures, Planning: The SCVSD shall provide a schedule of related tasks and subtasks related to Task 15a), and provide semi-annual progress reports on progress of planning activities, thereafter, until completion of Final Wastewater Facilities Plan and Programmatic EIR.	5 years after Effective Date of TMDL (05/04/2010)
16. The Regional Board staff will re-evaluate the schedule to implement control measures needed to meet final conditional WLAs adopted pursuant to Task 10 d) and the schedule for Task 17. The Regional Board, at a public meeting will consider extending the completion date of Task 17 and reconsider the schedule to implement control measures to meet final conditional WLAs adopted pursuant to Task 10 d). The SCVSD will provide the justification for the need for an extension to the Regional Board Executive Officer at least 6 months in advance of the deadline for this task.	6 years after Effective Date of TMDL (05/04/2011)
17. a) Implementation of Compliance Measures, Complete Environmental Impact Report: The SCVSD shall complete a Wastewater Facilities Plan and Programmatic Environmental Impact Report for facilities to comply with final effluent permit limits for chloride.	6 years after Effective Date of TMDL (05/04/2011)
b) Implementation of Compliance Measures, Engineering Design:	6 years after

Table 7-6.2. Upper Santa Clara River Chloride TMDL Implementation Implementation Tasks	Completion Date
The SCVSD will begin the engineering design of the recommended project wastewater facilities.	Effective Date of TMDL (05/04/2011)
c) Implementation of Compliance Measures, Engineering Design: The SCVSD will provide a design schedule of related tasks and sub-tasks, and provide semi-annual progress reports on progress of design activities, thereafter, until completion of Final Design. In addition the SCVSD will provide a construction schedule of related tasks and sub-tasks, and provide semi-annual progress reports on progress of construction activities, thereafter, until completion of recommended project wastewater facilities.	7 years after Effective Date of TMDL (05/04/2012)
d) Implementation of Compliance Measures, Construction: The SCVSD shall have applied and received all appropriate permits and have completed construction of the recommended project wastewater facilities.	9.5 years after Effective Date of TMDL (11/04/2014)
e) Implementation of Compliance Measures, Start-Up: The SCVSD shall have completed start-up, testing and certification of the recommended project wastewater facilities.	10 years after Effective Date of TMDL (05/04/2015)
18. The Regional Board Executive Officer may consider conditional SSOs for TDS and sulfate for Reaches 4B, 5, and 6 based on results of groundwater-surface water interaction studies on accumulation of TDS and sulfate in groundwater, potential impacts to beneficial uses, and an anti-degradation analysis.	7 years after Effective Date of TMDL (05/04/2012)
19. The Regional Board staff will re-evaluate the schedule to implement control measures needed to meet final conditional WLAs adopted pursuant to Task 10 d) and the schedule for Task 17. The Regional Board, at a public meeting will consider extending the completion of Task 17 and reconsider the schedule to implement control measures to meet final conditional WLAs adopted for chloride pursuant to Task 10 d). The SCVSD will provide the justification for the need for an extension to the Regional Board Executive Officer at least 6 months in advance of the deadline for this task. The Regional Board will also consider conditional SSOs and final conditional WLAs for TDS and sulfate based on results of Task 18.	9.5 years after Effective Date of TMDL (11/04/2014)
20. The interim WLAs for chloride shall remain in effect for no more	10 years after

Table 7-6.2. Upper Santa Clara River Chloride TMDL Implementation Implementation Tasks	Completion Date
than 10 years after the effective date of the TMDL. Conditional SSO for chloride in the USCR shall be achieved. Final conditional WLAs for chloride in Reaches 4B, 5, and 6 shall apply by May 5, 2015. The Regional Board may consider extending the completion date of this task as necessary to account for events beyond the control of the SCVSD.	Effective Date of TMDL (05/04/2015)
21. The interim WLAs for TDS and sulfate contained in this BPA (Resolution No. R4-2008-012) shall be implemented no sooner than the effective date of this BPA, and shall remain in effect until May 4, 2015. Final WLAs shall apply by May 5, 2015 unless conditional SSOs and final conditional WLAs for TDS and sulfate are adopted as described in Task 19.	10 years after Effective Date of TMDL (05/04/2015)

State of California—Health and Human Services Agency

California Department of Public Health

RON CHAPMAN, MD, MPH
Director

EDMUND G. BROWN JR.
Governor

August 4, 2011

Mr. Keith Abercrombie
General Manager
Valencia Water Company
24631 Avenue Rockefeller
P.O. Box 5904
Valencia, CA 91385

Dear Mr. Abercrombie:

SYSTEM NO. 1910240 – REQUEST TO INCREASE PERCHLORATE MONITORING AT WELLS N, N7, N8, S6, S7, S8, 160, AND 205 FROM ANNUALLY TO QUARTERLY

Due to the initial perchlorate detection of 5 ug/L in August 2010, Well 201 has since been taken out of service and monitored on a monthly basis. The recent testing continues to show the presence of perchlorate with levels ranging from 5.7 ug/L to 12 ug/L in the well water. Because of this finding, the Department requests that perchlorate monitoring frequency be increased to quarterly at additional sources in proximity that may be vulnerable to perchlorate contamination. These wells include Wells N, N7, N8, S6, S7, S8, 160, and 205. Please begin quarterly monitoring at these wells immediately in the third quarter of 2011 and continue monitoring Well 201 for perchlorate on a monthly basis, and Well Q2 on a quarterly basis.

Please be reminded of the regulatory requirements related to the monitoring and compliance of perchlorate. Per Title 22, Section 64432.3 (d), you are required to do the following whenever you have an MCL exceedance in a single sample of perchlorate:

- Require your laboratory to notify you within 48 hours of the result whenever the level of perchlorate in single sample exceeds the MCL.
- Collect and analyze a confirmation sample within 48 hours of the notification of the original sample.
- Calculate the average of the original and confirmation samples.
- If the average exceeds the MCL, report the results to the Department within 48 hours and issue a Tier 1 notice to your customers within 24 hours after you learn of the violation.

Southern California Drinking Water Field Operations Branch, Southern California Section
500 North Central Ave., Suite 500, Glendale, CA 91203
Telephone: (818)551-2004 Fax: (818)551-2054
Internet Address: www.cdph.ca.gov

In addition to perchlorate detections, VOCs have also been recently detected at the nearby CLWA Saugus Wells 1 and 2 below the MCLs. It is important that you continue to monitor all of your wells annually for VOCs in order to identify any impact of VOCs on your wells. When any VOCs are detected, you are required to increase the monitoring frequency to quarterly per Title 22, Section 64445.1(c). Please also notify the Department of any VOC detections at your wells immediately.

If you have any questions, please call Karen Wong at (818) 551-2037.

Sincerely,

Jeff O'Keefe, P.E.
District Engineer
Metropolitan District

cc: Mr. Dan Masnada
General Manager
Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350

Mr. Jose Diaz
Project Manager
Cal-EPA – DTSC Brownfields and Environmental Restoration
9211 Oakdale Avenue
Chatsworth, CA 91311

State of California—Health and Human Services Agency

California Department of Public Health

RON CHAPMAN, MD, MPH
Director

EDMUND G. BROWN JR.
Governor

August 4, 2011

Mr. Stephen L. Cole
General Manager
Newhall County Water District
23780 North Pine Street
P.O. Box 220970
Santa Clarita, CA 91322-0970

Dear Mr. Cole:

SYSTEM NO. 1910096 – REQUEST TO INCREASE PERCHLORATE MONITORING AT WELLS 12 AND 13 FROM ANNUALLY TO QUARTERLY

Due to confirmed perchlorate detections at Valencia Well 201, the Department requests that perchlorate monitoring frequency be increased to quarterly at additional sources in proximity that may be vulnerable to perchlorate contamination. These wells include Newhall County Water District – Newhall System Wells 12 and 13. Please begin quarterly monitoring at these wells immediately in the third quarter of 2011.

Please be reminded of the regulatory requirements related to the monitoring and compliance of perchlorate. Per Title 22, Section 64432.3 (d), you are required to do the following whenever you have an MCL exceedance in a single sample of perchlorate:

- Require your laboratory to notify you within 48 hours of the result whenever the level of perchlorate in single sample exceeds the MCL.
- Collect and analyze a confirmation sample within 48 hours of the notification of the original sample.
- Calculate the average of the original and confirmation samples.
- If the average exceeds the MCL, report the results to the Department within 48 hours and issue a Tier 1 notice to your customers within 24 hours after you learn of the violation.

In addition to perchlorate detections, VOCs have also been recently detected at the nearby CLWA Saugus Wells 1 and 2 below the MCLs. It is important that you continue to monitor all of your wells annually for VOCs in order to identify any impact of VOCs on your wells. When any VOCs are detected, you are required to increase the monitoring

Southern California Drinking Water Field Operations Branch, Southern California Section
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frequency to quarterly per Title 22, Section 64445.1(c). Please also notify the Department of any VOC detections at your wells immediately.
If you have any questions, please call Karen Wong at (818) 551-2037.

Sincerely,

Jeff O'Keefe, P.E.
District Engineer
Metropolitan District

cc: Mr. Dan Masnada
General Manager
Castaic Lake Water Agency
27234 Bouquet Canyon Road
Santa Clarita, CA 91350

Mr. Jose Diaz
Project Manager
Cal-EPA – DTSC Brownfields and Environmental Restoration
9211 Oakdale Avenue
Chatsworth, CA 91311

Appendix A

Summary of 2003-2010 Groundwater Results for 2,4- and 2,6-Dinitrotoluene

Appendix A

Summary of 2003-2010 Groundwater Results for 2,4- and 2,6-Dinitrotoluene

This Appendix presents the 2003-2010 groundwater sampling results for the compounds 2,4- and 2,6-dinitrotoluene. As discussed in Section 2.3.1 of the main FS text, only limited sampling results were available for these compounds when the human health screening evaluation was conducted in 2007. Since that time, additional sampling and analysis for these compounds has been completed, and the results for wells with positive detections of these compounds are presented in Table A-1.

The following table completes this Appendix:

Table A-1 Summary of Results for Wells with Positive Detections of 2,4- and 2,6-Dinitrotoluene

TABLE A-1. SUMMARY OF RESULTS FOR WELLS WITH POSITIVE DETECTIONS OF 2,4- AND 2,6-DINITROTOLUENE
OU-7 Groundwater Feasibility Study; Former Bermite Facility; Santa Clarita, CA

WELL	AQUIFER/ HSU	DATE	2,4-DNT (µg/L)	2,6-DNT (µg/L)	COMMENTS
75-MW-22	Saugus	10/21/05	<0.10	<0.10	
		4/17/06	<0.10	<0.10	
		5/10/07	<0.10	<0.10	
		5/19/08	<0.097	<0.097	
		5/11/09	<0.097	<0.097	
		5/7/10	**0.32J**	<0.19	
75-MW-33	Alluvium	8/16/06	<0.10	**0.55**	
		5/18/07	<0.099	<0.099	
		5/29/08	<0.097	<0.097	
		5/28/09	<0.096	<0.096	
		5/17/10	<0.050	<0.055	
CW-18A	S-IIIa	6/2/06	**0.23J**	0.010 UJ	
		8/22/06	**0.43**	<0.10	
		5/24/07	<0.10	<0.10	
		5/22/08	<0.096	<0.096	
		5/28/09	<0.097	<0.097	
		6/8/10	<0.050	<0.055	
CW-19C	S-IIIa	11/15/06	<0.10	<0.10	
		5/7/07	**1.2J**	<0.10R	Primary sample; QC issues identified
		5/7/07	**1.3**	<0.097	Duplicate sample
		5/16/08	<0.097	<0.097	
		5/15/09	<0.097	<0.097	
		6/4/10	<0.050	<0.055	
CW-21B	S-IIIa	5/14/07	<0.098	<0.098	
		5/22/08	<0.10	<0.10	
		5/18/09	<0.099	<0.099	
		5/25/10	<0.048	<0.055	
33-MW-1C	S-III	1/12/05	<0.10	<0.10	
		4/8/05	<0.10	<0.10	
		4/11/06	<0.10	<0.10	
		5/9/07	<0.098	<0.098	
		5/28/08	**0.12**	<0.099	
		5/8/09	0.097UJ	0.097UJ	
		5/25/10	<0.050	<0.055	
CW-11B	S-III	12/12/03	<0.10	<0.50	
		1/22/04	<0.10	<0.10	
		4/5/05	<0.10	<0.10	Primary sample
		4/5/05	<0.10	<0.10	Duplicate sample
		4/20/06	<0.10	<0.10	
		5/8/07	<0.098	<0.098	
		5/14/08	**0.21**	<0.10	
		5/26/09	<0.099	<0.099	
		6/1/10	<0.050	<0.050	

TABLE A-1. SUMMARY OF RESULTS FOR WELLS WITH POSITIVE DETECTIONS OF 2,4- AND 2,6-DINITROTOLUENE
OU-7 Groundwater Feasibility Study; Former Bermite Facility; Santa Clarita, CA

WELL	AQUIFER/ HSU	DATE	2,4-DNT (µg/L)	2,6-DNT (µg/L)	COMMENTS
CW-13C	S-III	9/16/04	<0.10	<0.10	
		4/7/05	<0.10	<0.10	Primary sample
		4/7/05	<0.10	<0.10	Duplicate sample
		4/20/06	<0.10	<0.10	
		5/21/07	<0.098	**0.47**	
		5/19/08	<0.099	<0.099	
		5/11/09	<0.097	<0.097	
		6/3/10	<0.050	<0.055	
CW-16B	S-III	4/22/05	0.10 UJ	0.10 UJ	
		7/28/05	<0.10	<0.10	
		7/28/05	**0.82**	<0.10	
		4/17/06	<0.10	**0.38**	
		5/23/07	<0.097	<0.097	
		5/20/08	<0.098	<0.098	
		5/20/09	<0.097	<0.097	
		May 2010	Not Sampled		Access restricted in Burn Valley
CW-19D	S-III	6/21/06	<0.10	<0.10	
		11/16/06	<0.10	<0.10	
		5/4/07	**2.0**	<0.10	
		5/9/08	<0.10	<0.010	
		5/14/09	<0.096	<0.096	
		6/7/10	<0.050	<0.055	
CW-19E	S-III	8/16/06	<0.10	<0.10	
		5/3/07	<0.097	<0.097	
		5/12/08	**0.36**	<0.10	
		5/13/09	<0.099	<0.099	
		6/3/10	<0.050	<0.055	
CW-21C	S-III	2/20/07	<0.097	**1.5**	
		5/12/07	<0.10	**0.96**	
		5/23/08	**0.31**	<0.096	
		5/18/09	<0.099	<0.099	
		6/4/10	<0.050	<0.055	
CW-21D	S-III	2/26/07	<0.098	<0.098	
		5/12/07	<0.10	<0.10	
		5/23/08	**0.25**	<0.095	
		5/15/09	<0.096	<0.096	
		6/1/10	<0.050	<0.055	
CW-22C	S-III	11/20/06	<0.10	<0.10	
		5/19/07	<0.097	<0.097	
		5/27/08	**0.019**	<0.097	Primary sample
		5/27/08	<0.097	<0.097	Duplicate sample
		5/20/09	<0.10	<0.10	
		6/2/10	<0.050	<0.055	

TABLE A-1. SUMMARY OF RESULTS FOR WELLS WITH POSITIVE DETECTIONS OF 2,4- AND 2,6-DINITROTOLUENE
OU-7 Groundwater Feasibility Study; Former Bermite Facility; Santa Clarita, CA

WELL	AQUIFER/ HSU	DATE	2,4-DNT (µg/L)	2,6-DNT (µg/L)	COMMENTS
OW-MW-5C	S-III	11/3/06	<0.10	<0.10	Primary sample
		11/3/06	**1.1**	<0.10	Duplicate sample
		5/17/07	<0.10	<0.10	
		5/8/08	**0.28**	<0.10	
		5/6/09	<0.098	<0.098	
		5/24/10	<0.050	<0.055	
OS-MW-5D	S-V	11/2/06	**2.6J**	<0.10	
		5/17/07	<0.10	<0.10	
		5/8/08	<0.10	<0.10	
		5/6/09	<0.10	<0.10	
		5/24/10	<0.050	<0.055	

Notes:
2,4-DNT = 2,4-Dinitrotoluene
2,6-DNT = 2,6-Dinitrotoluene
µg/L = micrograms per liter

Appendix B

Estimated Cost Details and Assumptions

Appendix B

Estimated Cost Details and Assumptions

This Appendix presents the details and assumptions used in estimating costs for the Northern Alluvium Remedial Alternatives (RAs). The following tables complete this Appendix:

Table B-1 Estimated Annual Northern Alluvium Treatment System Operation Costs

Table B-2 Estimated Costs: Area 75 PCE Hot Spot 4 (West) – Multi-Phase Extraction

Table B-3 Estimated Costs: Area 75 TCE Hot Spot 3 (East) – Zero Valent Iron (ZVI)

Table B-4 Estimated Costs: Area 67 Hot Spot 2 (West) – Enhanced Anaerobic Degradation; Direct Substrate Addition (HRC)

Table B-5 Estimated Costs: Area 67 Hot Spot 1 (East) – Enhanced Anaerobic Degradation; Direct Substrate Addition (EHC)

Table B-6 Estimated Costs: Area 11 Hot Spot – Enhanced Anaerobic Degradation – Groundwater Recirculation with Substrate Addition

Table B-7 Estimated Costs: Biological Reactive Barrier

Table B-8 Estimated Costs: Permeable Reactive Barrier

T A B L E S

TABLE B-1. ESTIMATED ANNUAL NORTHERN ALLUVIUM TREATMENT SYSTEM OPERATION COSTS
OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA

DESCRIPTION	ESTIMATED COST	
Routine Operation and Maintenance		
Labor	$	140,000
ODCs (Bag filters, misc routine supplies)	$	20,000
Media Costs (Resin, GAC, etc)	$	120,000
Subtotal	$	280,000
Treatment Plant Monitoring and Reporting		
Labor	$	30,000
Other Direct Costs	$	3,000
Permit Sample Analyses	$	55,000
Subtotal	$	88,000
Project Coordination and Management	$	40,000
SUBTOTAL - Routine O&M	**$**	**410,000**
Subtotal - Non Routine O&M (20% of Routine)	$	90,000
TOTAL - Annual O&M	**$**	**500,000**

Source: Camp Dresser and McKee (CDM)

TABLE B-2. ESTIMATED COSTS: AREA 75 PCE HOT SPOT 4 (West) - Multi-Phase Extraction
OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA
Size of treatment zone = 150ft x 150ft x 10-70ft bgs; Total extraction pair = 10 wells; Pumping rate = 0.5 gpm;

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	**Total**	Source	Assumptions
Well Installation										
Utility Locating	1	LS				500.00	500		Engineer's Estimate	
Mobilization of Equipment to Site	1	LS	671.2	2051.00		2912.75	2,913		ECHOS 33 01 0101	
Drill Well, Normal Soil 6"	1400	linear feet	8.44	25.78		36.62	51,262		ECHOS 33 23 1102	Total Depth = 70 ft
2" PVC Schedule 80 Well Casing	200	linear feet	2.24	6.84	1.48	11.30	2,260		ECHOS 33 23 0111	
2" PVC Schedule 80 Screen	1200	linear feet	2.44	6.84	2.54	12.65	15,177		ECHOS 33 23 0211	Screened from 10 to 70 '
Drums for Cuttings	140	each			65.19	69.75	9,765		ECHOS 33 19 9921	10 lf/drum
Disposal	140	drums				500.00	70,000		Engineer's Estimate	
Geologic Logging	100	hrs	100			100.00	10,000		Engineer's Estimate	5 hrs per well
Well Permits	1	LS				1500.00	1,500		Engineer's Estimate	
Pilot Sudy and air permitting	1	LS				290,000	290,000		Engineer's Estimate	
								$453,376		
Blower Unit Installation	1	LS				150,000	150,000	**$150,000**	Engineers Estimate based on Vendor quotes	
Monitoring Well Construction										
Utility Locating	0	well				500.00	0		Engineer's Estimate	10 wells
Mobilization of Equipment to Site	0	LS	671.2	2051.00		2912.75	0		ECHOS 33 01 0101	
Drill Well, Normal Soil 6"	900	linear feet	16.11	49.22		69.90	62,913		ECHOS 33 23 1131	Total Depth = 90 ft
6" PVC Schedule 80 Well Casing	500	linear feet	5.37	16.41	9.15	33.10	16,548		ECHOS 33 23 0113	
6" PVC Schedule 80 Screen	400	linear feet	5.37	16.41	11.68	35.80	14,321		ECHOS 33 23 0213	Screened from 50 to 90 '
Drums for Cuttings	90	each			65.19	69.75	6,278		ECHOS 33 19 9921	10 lf/drum
Disposal	90	drums				500.00	45,000		Engineer's Estimate	
Geologic Logging	50	hrs	100			100.00	5,000		Engineer's Estimate	5 hrs per well
Well Permits	0	LS				1500.00	0		Engineer's Estimate	Together with the EHC injection wells
Startup Monitoring										10 mon. wells
EPA 8260 Water Samples (VOCs)	20	sample				150.00	3,000		Analytical laboratory	quarterly sampling for 6 months
EPA 314.0 Water Samples (perchlorate)	20	sample				60.00	1,200			quarterly sampling for 6 months
EPA 40 CFR, part 136, method 300 (chloride)	20	sample				40.00	800			quarterly sampling for 6 months
EPA 6010/7000 Water Samples (Metals)	20	sample				165.00	3,300		Analytical laboratory	quarterly sampling for 6 months
EPA 410.1 Water Samples (COD)	20	sample				35.00	700		Analytical laboratory	quarterly sampling for 6 months
EPA 160.2 Water Samples (SS)	20	sample				25.00	500		Analytical laboratory	quarterly sampling for 6 months
EPA 9040 Water Samples (pH)	20	sample				10.00	200		Analytical laboratory	quarterly sampling for 6 months
RSK 175 ethene methane	20	sample				60.00	1,200			quarterly sampling for 6 months
Technician	160	hr	75			75.00	12,000		Engineer's Estimate	2 days per sampling event, two workers
Initial Monitoring Well Construction and Work								**$172,959**		
Capital Costs Total								**$776,336**		

TABLE B-2. ESTIMATED COSTS: AREA 75 PCE HOT SPOT 4 (West) - Multi-Phase Extraction

OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA

Size of treatment zone = 150ft x 150ft x 10-70ft bgs; Total extraction pair = 10 wells; Pumping rate = 0.5 gpm;

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	**Total**	Source	Assumptions
Annual Operations and Maintenance										
Groundwater Monitoring										Twice a year
EPA 8260 Water Samples (VOCs)	20	sample				150.00	3,000		Analytical laboratory	semi-annual
EPA 314.0 Water Samples (perchlorate)	20	sample				60.00	1,200		Analytical laboratory	semi-annual
EPA 40 CFR, part 136, method 300 (chloride)	20	sample				40.00	800		Analytical laboratory	semi-annual
EPA 6010/7000 Water Samples (Metals)	20	sample				165.00	3,300		Analytical laboratory	semi-annual
EPA 410.1 Water Samples (COD)	20	sample				35.00	700		Analytical laboratory	semi-annual
EPA 160.2 Water Samples (SS)	20	sample				25.00	500		Analytical laboratory	semi-annual
EPA 9040 Water Samples (pH)	20	sample				10.00	200		Analytical laboratory	semi-annual
RSK 175 ethene methane	20	sample				60.00	1,200		Analytical laboratory	semi-annual
Purging and Sampling Subcontractor	2	LS				2800.00	5,600		Sampling subcontractor	Based on semi-annual monitoring
Geologist Supervision of Sampling	21	hr				100.00	2,100		Engineer's Estimate	0.5 hour per well
Truck	2	trip				75.00	150		Engineer's Estimate	Per event
Technician	64	hr	75			75.00	4,800		Engineer's Estimate	2 days per sampling event two workers
Monitoring Reports										
Associate	60	hr				100.00	6,000		Engineer's Estimate	30 hours per event
Manager	6	hr				170.00	1,020		Engineer's Estimate	3 hours per event
Principal	4	hr				200.00	800		Engineer's Estimate	2 hours per event
Support	6	hr				60.00	360		Engineer's Estimate	3 hours per event
Annual Monitoring Subtotal								**$31,730**		
Multi-Phase Extraction System										
Blower unit rental (includes two 1,000 lb. vapor phase GAC vessels)	12	Month				$4,500	$54,000			
Carbon (one change-out and disposal)	12	Month				$6,000	$72,000			use 4000 lbs/month at 1.50 per lb
Electricity use	12	Month				$300	$3,600			
Treatment O&M Subtotal								**$129,600**		
Treatment O&M Annual Total								**$161,330**		

Notes:

1. For costs obtained from ECHOS, Total Unit Cost is sum of labor, equipment, materials unit costs multiplied by 1.07 location factor for 913xx zip code.
   Materials costs from vendor, labor and equipment costs are multiplied by 1.07 location factor and added to quoted materials costs for Total Unit Cost.

References

Environmental Cost Handling Options and Solutions (ECHOS), *Environmental Remediation Cost Data-Unit Price*, 9th Ed., published by R.S. Means Company, Inc and Delta Technologies Group, Inc., 2003.

TABLE B-3. ESTIMATED COSTS: AREA 75 TCE HOT SPOT 3 (East) - Zero Valent Iron (ZVI)

OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA

Size of treatment zone = 150ft x 150ft x 45-90ft bgs; Total injection wells: 25; One injection event; Pneumatic fracturing: 3 ft interval vertically.

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	**Total**	Source	Assumptions
Reactive Wall Construction										
Well Installation (for ZVI Injections)										
Utility Locating	1	LS				500.00	500		Engineer's Estimate	25 wells required
Mobilization of Equipment to Site	1	LS	671.2	2051.00		2912.75	2,913		ECHOS 33 01 0101	
Drill Well, Normal Soil 6"	2250	linear feet	8.44	25.78		36.62	82,385		ECHOS 33 23 1102	Total Depth = 90 ft
2" PVC Schedule 80 Well Casing	1250	linear feet	2.24	6.84	1.48	11.30	14,124		ECHOS 33 23 0111	
2" PVC Schedule 80 Screen	1000	linear feet	2.44	6.84	2.54	12.65	12,647		ECHOS 33 23 0211	Screened from 50 to 90 '
Drums for Cuttings	225	each			65.19	69.75	15,694		ECHOS 33 19 9921	10 lf/drum
Disposal	225	drums				500.00	112,500		Engineer's Estimate	
Geologic Logging	125	hrs	100			100.00	12,500		Engineer's Estimate	5 hrs per well
Well Permits	1	LS				1500.00	1,500		Engineer's Estimate	
Hydro- and Pneumatic Fracturing	1	LS					400,000		Engineers Estimate	Includes geotechnical and pilot studies
								$654,763		
Electron donors and treatment material (iron)	1	LS				220,000	220,000	**$220,000**	Engineers Estimate based on Vendor quotes	
Monitoring Well Construction										
Utility Locating	0	well				500.00	0		Engineer's Estimate	10 wells
Mobilization of Equipment to Site	0	LS	675	2050.00		2915.75	0		ECHOS 33 01 0101	
Drill Well, Normal Soil 6"	900	linear feet	16.11	49.22		69.90	62,913		ECHOS 33 23 1131	Total Depth = 90 ft
6" PVC Schedule 80 Well Casing	500	linear feet	5.37	16.41	9.15	33.10	16,548		ECHOS 33 23 0113	
6" PVC Schedule 80 Screen	400	linear feet	5.37	16.41	11.68	35.80	14,321		ECHOS 33 23 0213	Screened from 50 to 90 '
Drums for Cuttings	90	each			65.19	69.75	6,278		ECHOS 33 19 9921	10 lf/drum
Disposal	90	drums				500.00	45,000		Engineer's Estimate	
Geologic Logging	50	hrs	100			100.00	5,000		Engineer's Estimate	5 hrs per well
Well Permits	0	LS				1500.00	0		Engineer's Estimate	Together with the EHC injection wells
Startup Monitoring										10 mon. wells
EPA 8260 Water Samples (VOCs)	20	sample				150.00	3,000		Analytical laboratory	quarterly sampling for 6 months
EPA 314.0 Water Samples (perchlorate)	20	sample				60.00	1,200		Analytical laboratory	quarterly sampling for 6 months
EPA 40 CFR, part 136, method 300 (chloride)	20	sample				40.00	800		Analytical laboratory	quarterly sampling for 6 months
EPA 6010/7000 Water Samples (Metals)	20	sample				165.00	3,300		Analytical laboratory	quarterly sampling for 6 months
EPA 410.1 Water Samples (COD)	20	sample				35.00	700		Analytical laboratory	quarterly sampling for 6 months
EPA 160.2 Water Samples (SS)	20	sample				25.00	500		Analytical laboratory	quarterly sampling for 6 months
EPA 9040 Water Samples (pH)	20	sample				10.00	200		Analytical laboratory	quarterly sampling for 6 months
RSK 175 ethene methane	20	sample				60.00	1,200		Analytical laboratory	quarterly sampling for 6 months
Technician	160	hr	75			75.00	12,000		Engineer's Estimate	2 days per sampling event, two workers
Initial Monitoring Well Construction and Work								**$172,959**		
Capital Costs Total								**$1,047,722**		

TABLE B-3. ESTIMATED COSTS: AREA 75 TCE HOT SPOT 3 (East) - Zero Valent Iron (ZVI)
OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA
Size of treatment zone = 150ft x 150ft x 45-90ft bgs; Total injection wells: 25; One injection event; Pneumatic fracturing: 3 ft interval vertically.

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	**Total**	Source	Assumptions
Annual Operations and Maintenance										
Groundwater Monitoring										Twice a year
EPA 8260 Water Samples (VOCs)	20	sample				150.00	3,000		Analytical laboratory	semiannual
EPA 314.0 Water Samples (perchlorate)	20	sample				60.00	1,200		Analytical laboratory	semiannual
EPA 40 CFR, part 136, method 300 (chloride)	20	sample				40.00	800		Analytical laboratory	semiannual
EPA 6010/7000 Water Samples (Metals)	20	sample				165.00	3,300		Analytical laboratory	semiannual
EPA 410.1 Water Samples (COD)	20	sample				35.00	700		Analytical laboratory	semiannual
EPA 160.2 Water Samples (SS)	20	sample				25.00	500		Analytical laboratory	semiannual
EPA 9040 Water Samples (pH)	20	sample				10.00	200		Analytical laboratory	semiannual
RSK 175 ethene methane	20	sample				60.00	1,200		Analytical laboratory	semiannual
Purging and Sampling Subcontractor	2	LS				2800.00	5,600		Sampling subcontractor	Based on semiannual monitoring
Geologist Supervision of Sampling	21	hr				100.00	2,100		Engineer's Estimate	0.5 hour per well
Truck	2	trip				75.00	150		Engineer's Estimate	Per event
Technician	64	hr	75			75.00	4,800		Engineer's Estimate	2 days per sampling event, two workers
Monitoring Reports										
Staff	60	hr				100.00	6,000		Engineer's Estimate	30 hours per event
Manager	6	hr				170.00	1,020		Engineer's Estimate	3 hours per event
Principal	4	hr				200.00	800		Engineer's Estimate	2 hours per event
Support	6	hr				60.00	360		Engineer's Estimate	3 hours per event
Annual Monitoring Subtotal								**$31,730**		
Treatment O&M Annual Total								**$31,730**		

Notes:

1. For costs obtained from ECHOS, Total Unit Cost is sum of labor, equipment, materials unit costs multiplied by 1.07 location factor for 913xx zip code.
   Materials costs from vendor, labor and equipment costs are multiplied by 1.07 location factor and add

References

Environmental Cost Handling Options and Solutions (ECHOS), *Environmental Remediation Cost Data-Unit Price*, 9th Ed., published by R.S. Means Company, Inc and Delta Technologies Group, Inc., 2003.

TABLE B-4. ESTIMATED COSTS: AREA 67 HOT SPOT 2 (West) - Enhanced Anaerobic Degradation; Direct Substrate Addition (HRC)
OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA
Size of treatment zone = 150ft x 150ft x 30-70ft bgs; Total injection wells: HRCx=90

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	**Total**	Source	Assumptions
Reactive Wall Construction										
Utility Locating	1	LS				500.00	500		Engineer's Estimate	total 90 wells
Mobilization of Equipment to Site	1	LS	671.2	2051.00		2912.75	2,913		ECHOS 33 01 0101	
Drill Well, Normal Soil 6"	8100	linear feet	8.44	25.78		36.62	296,585		ECHOS 33 23 1102	Total Depth = 90 ft
2" PVC Schedule 80 Well Casing	4500	linear feet	2.24	6.84	1.48	11.30	50,846		ECHOS 33 23 0111	
2" PVC Schedule 80 Screen	3600	linear feet	2.44	6.84	2.54	12.65	45,531		ECHOS 33 23 0211	Screened from 30 to 70 '
Drums for Cuttings	450	each			65.19	69.75	31,389		ECHOS 33 19 9921	10 lf/drum
Disposal	450	drums				500.00	225,000		Engineer's Estimate	
Geologic Logging	450	hrs	100			100.00	45,000		Engineer's Estimate	5 hrs per well
Well Permits	1					1500.00	1,500		Engineer's Estimate	
								$699,264		
HRC Material Cost	27690	lb			7.50	7.50	**207,675**	**$207,675**		
Monitoring Well Construction										downstream only in addition to Geo-Sierra
Utility Locating	0	well				500.00	0		Engineer's Estimate	10 wells
Mobilization of Equipment to Site	0	LS	671.2	2051.00		2912.75	0		ECHOS 33 01 0101	
Drill Well, Normal Soil 6"	900	linear feet	16.11	49.22		69.90	62,913		ECHOS 33 23 1131	Total Depth = 90 ft
6" PVC Schedule 80 Well Casing	500	linear feet	5.37	16.41	9.15	33.10	16,548		ECHOS 33 23 0113	
6" PVC Schedule 80 Screen	600	linear feet	5.37	16.41	11.68	35.80	21,481		ECHOS 33 23 0213	Screened from 30 to 90 '
Drums for Cuttings	90	each			65.19	69.75	6,278		ECHOS 33 19 9921	10 lf/drum
Disposal	90	drums				500.00	45,000		Engineer's Estimate	
Geologic Logging by Associate	50	hrs	100			100.00	5,000		Engineer's Estimate	5hrs per well
Well Permits	0	LS				1500.00	0		Engineer's Estimate	
Electrician	0	hrs	50			50.00	0		Engineer's estimate	
Startup Monitoring										
EPA 8260 Water Samples (VOCs)	20	sample				150.00	3,000		Analytical laboratory	quarterly sampling for 6 months
EPA 314.0 Water Samples (perchlorate)	20	sample				60.00	1,200		Analytical laboratory	quarterly sampling for 6 months
EPA 40 CFR, part 136, method 300 (chloride)	20	sample				40.00	800		Analytical laboratory	quarterly sampling for 6 months
EPA 6010/7000 Water Samples (Metals)	20	sample				165.00	3,300		Analytical laboratory	quarterly sampling for 6 months
EPA 410.1 Water Samples (COD)	20	sample				35.00	700		Analytical laboratory	quarterly sampling for 6 months
EPA 160.2 Water Samples (SS)	20	sample				25.00	500		Analytical laboratory	quarterly sampling for 6 months
EPA 9040 Water Samples (pH)	20	sample				10.00	200		Analytical laboratory	quarterly sampling for 6 months
RSK 175 ethene methane	20	sample				60.00	1,200		Analytical laboratory	quarterly sampling for 6 months
Technician	160	hr	75			75.00	12,000		Engineer's Estimate	2 days per sampling event two workers
Initial monitoring well construction and work								**$180,119**		
Capital Costs Total								**$1,087,058**		

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TABLE B-4. ESTIMATED COSTS: AREA 67 HOT SPOT 2 (West) - Enhanced Anaerobic Degradation; Direct Substrate Addition (HRC)
OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA
Size of treatment zone = 150ft x 150ft x 30-70ft bgs; Total injection wells: HRCx=90

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	**Total**	Source	Assumptions
Annual Operations and Maintenance										
Groundwater Monitoring										
EPA 8260 Water Samples (VOCs)	20	sample				150.00	3,000		Analytical laboratory	semiannual
EPA 314.0 Water Samples (perchlorate)	20	sample				60.00	1,200		Analytical laboratory	semiannual
EPA 40 CFR, part 136, method 300 (chloride)	20	sample				40.00	800		Analytical laboratory	semiannual
EPA 6010/7000 Water Samples (Metals)	20	sample				165.00	3,300		Analytical laboratory	semiannual
EPA 410.1 Water Samples (COD)	20	sample				35.00	700		Analytical laboratory	semiannual
EPA 160.2 Water Samples (SS)	20	sample				25.00	500		Analytical laboratory	semiannual
EPA 9040 Water Samples (pH)	20	sample				10.00	200		Analytical laboratory	semiannual
RSK 175 ethene methane	20	sample				60.00	1,200		Analytical laboratory	semiannual
Purging and Sampling Subcontractor	2	LS				2800.00	5,600		Sampling subcontractor	Based on semiannual monitoring
Geologist Supervision of Sampling	21	hr				100.00	2,100		Engineer's Estimate	0.5 hour per well
Truck	2	trip				75.00	150		Engineer's Estimate	Per event
Technician	64	hr	75			75.00	4,800		Engineer's Estimate	2 days per sampling event two workers
Monitoring Reports										
Staff	60	hr				100.00	6,000		Engineer's Estimate	30 hours per event
Manager	6	hr				170.00	1,020		Engineer's Estimate	3 hours per event
Principal	4	hr				200.00	800		Engineer's Estimate	2 hours per event
Support	6	hr				60.00	360		Engineer's Estimate	3 hours per event
Annual Monitoring Subtotal								**$31,730**		
HRC- Renewal								**$69,225**	One additional injection	cost spread over 3 years
Treatment O&M Annual Total								**$100,955**		

Notes:
1. For costs obtained from ECHOS, Total Unit Cost is sum of labor, equipment, materials unit costs multiplied by 1.07 location factor for 913xx zip code.
   Materials costs from vendor, labor and equipment costs are multiplied by 1.07 location factor and added to quoted materials costs for Total Unit Cost.

References

Environmental Cost Handling Options and Solutions (ECHOS), *Environmental Remediation Cost Data-Unit Price*, 9th Ed., published by R.S. Means Company, Inc and Delta Technologies Group, Inc., 2003.

TABLE B-5. ESTIMATED COSTS: AREA 67 HOT SPOT 1 (East) - Enhanced Anaerobic Degradation; Direct Substrate Addition (EHC)
OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA
Size of treatment zone = 150ft x 150ft x 70-105ft bgs; Total injection wells: EHC=48

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	**Total**	Source	Assumptions
Reactive Wall Construction										
Well Installation(for EHC Injections)										
Utility Locating	1	LS				500.00	500		Engineer's Estimate	48 wells
Mobilization of Equipment to Site	1	LS	671.2	2051.00		2912.75	2,913		ECHOS 33 01 0101	
Drill Well, Normal Soil 6"	5040	linear feet	8.44	25.78		36.62	184,542		ECHOS 33 23 1102	Total Depth = 105 ft
2" PVC Schedule 80 Well Casing	3120	linear feet	2.24	6.84	1.48	11.30	35,254		ECHOS 33 23 0111	
2" PVC Schedule 80 Screen	1920	linear feet	2.44	6.84	2.54	12.65	24,283		ECHOS 33 23 0211	Screened from 70 to 105 '
Drums for Cuttings	504	each			65.19	69.75	35,156		ECHOS 33 19 9921	10 lf/drum
Disposal	504	drums				500.00	252,000		Engineer's Estimate	
Geologic Logging	384	hrs	100			100.00	38,400		Engineer's Estimate	8 hrs per well
Well Permits	1	LS				1500.00	1,500		Engineer's Estimate	
								$574,547		
Electron Donor and Treatment Material										
EHC quantity	265267	lb	0.00		2.00	2.00	530,534	**$530,534**	Vendor (Adventus)	
Monitoring Well Construction										
Utility Locating	0	well				500.00	0		Engineer's Estimate	10 wells
Mobilization of Equipment to Site	0	LS	671.2	2051.00		2912.75	0		ECHOS 33 01 0101	
Drill Well, Normal Soil 6"	1050	linear feet	16.11	49.22		69.90	73,398		ECHOS 33 23 1131	Total Depth = 105 ft
6" PVC Schedule 80 Well Casing	650	linear feet	5.37	16.41	9.15	33.10	21,512		ECHOS 33 23 0113	
6" PVC Schedule 80 Screen	400	linear feet	5.37	16.41	11.68	35.80	14,321		ECHOS 33 23 0213	Screened from 70 to 105 '
Drums for Cuttings	105	each			65.19	69.75	7,324		ECHOS 33 19 9921	10 lf/drum
Disposal	105	drums				500.00	52,500		Engineer's Estimate	
Geologic Logging	80	hrs	100			100.00	8,000		Engineer's Estimate	8 hrs per well
Well Permits	0	LS				1500.00	0		Engineer's Estimate	Together with the EHC injection wells
Startup Monitoring										10 mon. wells
EPA 8260 Water Samples (VOCs)	20	sample				150.00	3,000		Analytical laboratory	quarterly sampling for 6 months
EPA 314.0 Water Samples (perchlorate)	20	sample				60.00	1,200		Analytical laboratory	quarterly sampling for 6 months
EPA 40 CFR, part 136, method 300 (chloride)	20	sample				40.00	800		Analytical laboratory	quarterly sampling for 6 months
EPA 6010/7000 Water Samples (Metals)	20	sample				165.00	3,300		Analytical laboratory	quarterly sampling for 6 months
EPA 410.1 Water Samples (COD)	20	sample				35.00	700		Analytical laboratory	quarterly sampling for 6 months
EPA 160.2 Water Samples (SS)	20	sample				25.00	500		Analytical laboratory	quarterly sampling for 6 months
EPA 9040 Water Samples (pH)	20	sample				10.00	200		Analytical laboratory	quarterly sampling for 6 months
RSK 175 ethene methane	20	sample				60.00	1,200		Analytical laboratory	quarterly sampling for 6 months
Technician	96	hr	75			75.00	7,200		Engineer's Estimate	3 days per sampling event ,two workers
Initial Monitoring Well Construction and Work								**$195,155**		
Capital Costs Total								**$1,300,236**		

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TABLE B-5. ESTIMATED COSTS: AREA 67 HOT SPOT 1 (East) - Enhanced Anaerobic Degradation; Direct Substrate Addition (EHC)
OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA
Size of treatment zone = 150ft x 150ft x 70-105ft bgs; Total injection wells: EHC=48

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	**Total**	Source	Assumptions
Annual Operations and Maintenance										
Groundwater Monitoring										Twice a year
EPA 8260 Water Samples (VOCs)	20	sample				150.00	3,000		Analytical laboratory	semiannual
EPA 314.0 Water Samples (perchlorate)	20	sample				60.00	1,200		Analytical laboratory	semiannual
EPA 40 CFR, part 136, method 300 (chloride)	20	sample				40.00	800		Analytical laboratory	semiannual
EPA 6010/7000 Water Samples (Metals)	20	sample				165.00	3,300		Analytical laboratory	semiannual
EPA 410.1 Water Samples (COD)	20	sample				35.00	700		Analytical laboratory	semiannual
EPA 160.2 Water Samples (SS)	20	sample				25.00	500		Analytical laboratory	semiannual
EPA 9040 Water Samples (pH)	20	sample				10.00	200		Analytical laboratory	semiannual
RSK 175 ethene methane	20	sample				60.00	1,200		Analytical laboratory	semiannual
Purging and Sampling Subcontractor	2	LS				2800.00	5,600		Sampling subcontractor	Based on semiannual monitoring
Geologist Supervision of Sampling	21	hr				100.00	2,100		Engineer's Estimate	0.5 hour per well
Truck	2	trip				75.00	150		Engineer's Estimate	Per event
Technician	64	hr	75			75.00	4,800		Engineer's Estimate	2 days per sampling event, two workers
Monitoring Reports										
Staff	60	hr				100.00	6,000		Engineer's Estimate	30 hours per event
Manager	6	hr				170.00	1,020		Engineer's Estimate	3 hours per event
Principal	4	hr				200.00	800		Engineer's Estimate	2 hours per event
Support	6	hr				60.00	360		Engineer's Estimate	3 hours per event
Annual Monitoring Subtotal								**$31,730**		
EHC Reinjection								**$176,845**	One additional injection	cost spread over 3 years
Treatment O&M Annual Total								**$208,575**		

Notes:
1. For costs obtained from ECHOS, Total Unit Cost is sum of labor, equipment, materials unit costs multiplied by 1.07 location factor for 913xx zip code.
   Materials costs from vendor, labor and equipment costs are multiplied by 1.07 location factor and adde

References

Environmental Cost Handling Options and Solutions (ECHOS), *Environmental Remediation Cost Data-Unit Price*, 9th Ed., published by R.S. Means Company, Inc and Delta Technologies Group, Inc., 2003.

TABLE B-6. ESTIMATED COSTS: AREA 11 HOT SPOT - Enhanced Anaerobic Degradation - Groundwater Recirculation with Substrate Addition
OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA
Size of treatment zone = 150ft x 150 ft x 25-105ft bgs; Total injection-extraction pairs = 20 (40 wells); Pumping rate = 0.25 gpm per well; Substrate: lactate.

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	**Total**	Source	Assumptions
Well Installation										
Utility Locating	1	LS				500.00	500		Engineer's Estimate	Circulation 6.5 times in 5 years
Mobilization of Equipment to Site	1	LS	671.2	2051.00		2912.75	2,913		ECHOS 33 01 0101	Assume 0.25gpm per well 20 ex, 20 inj
Drill Well, Normal Soil 6"	4200	linear feet	16.11	49.22		69.90	293,593		ECHOS 33 23 1131	TD = 105 ft
6" PVC Schedule 80 Well Casing	1000	linear feet	5.37	16.41	9.15	33.10	33,095		ECHOS 33 23 0113	
6" PVC Schedule 80 Screen	3200	linear feet	5.37	16.41	11.68	35.80	114,567		ECHOS 33 23 0213	Screened from 25 to 105 '
Drums for Cuttings	420	each			65.19	69.75	29,296		ECHOS 33 19 9921	10 lf/drum
Disposal	420	drums				500.00	210,000		Engineer's Estimate	
Geologic Logging	200	hrs	100			100.00	20,000		Engineer's Estimate	
Well Permits	1	LS				1500.00	1,500		Engineer's Estimate	
								$705,464		
Monitoring Well Construction										
Utility Locating	0	well				500.00	0		Engineer's Estimate	
Mobilization of Equipment to Site	0	LS	671.2	2051.00		2912.75	0		ECHOS 33 01 0101	
Drill Well, Normal Soil 6"	1050	linear feet	16.11	49.22		69.90	73,398		ECHOS 33 23 1131	Total Depth = 105 ft
6" PVC Schedule 80 Well Casing	250	linear feet	5.37	16.41	9.15	33.10	8,274		ECHOS 33 23 0113	
6" PVC Schedule 80 Screen	800	linear feet	5.37	16.41	11.68	35.80	28,642		ECHOS 33 23 0213	Screened from 25 to 105 '
Drums for Cuttings	105	each			65.19	69.75	7,324		ECHOS 33 19 9921	10 lf/drum
Disposal	105	drums				500.00	52,500		Engineer's Estimate	
Geologic Logging	30	hrs	100			100.00	3,000		Engineer's Estimate	
Well Permits	0	LS				1500.00	0		Engineer's Estimate	Together with the pumping wells
								$173,138		
Hydraulic Equipment										
Pump Components and Installation	40	each	346.52	0.00	2275.00	2645.78	105,831		ECHOS 33 23 0523	Vendor for materials
Electrician	40	hrs	50			50.00	2,000		Engineer's estimate	
								$107,831		
Electron Donors										
Lactate	4740	LS	0.00		1.00	1.00	4,740			
Acetate										
Butyrate										
Subtotal								**$4,740**		
Startup Monitoring										
EPA 8260 Water Samples (VOCs)	20	sample				150.00	3,000		Analytical laboratory	quarterly sampling for 6 months
EPA 314.0 Water Samples (perchlorate)	20	sample				60.00	1,200			quarterly sampling for 6 months
EPA 40 CFR, part 136, method 300 (chloride)	20	sample				40.00	800			quarterly sampling for 6 months
EPA 6010/7000 Water Samples (Metals)	20	sample				165.00	3,300		Analytical laboratory	quarterly sampling for 6 months
EPA 410.1 Water Samples (COD)	20	sample				35.00	700		Analytical laboratory	quarterly sampling for 6 months
EPA 160.2 Water Samples (SS)	20	sample				25.00	500		Analytical laboratory	quarterly sampling for 6 months
EPA 9040 Water Samples (pH)	20	sample				10.00	200		Analytical laboratory	quarterly sampling for 6 months
RSK 175 ethene methane	20	sample				60.00	1,200			quarterly sampling for 6 months
Technician	160	hr	75			75.00	12,000		Engineer's Estimate	2 days per sampling event two workers
								$22,900		
Capital Costs Total								**$1,014,073**		

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TABLE B-6. ESTIMATED COSTS: AREA 11 HOT SPOT - Enhanced Anaerobic Degradation - Groundwater Recirculation with Substrate Addition
OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA
Size of treatment zone = 150ft x 150 ft x 25-105ft bgs; Total injection-extraction pairs = 20 (40 wells); Pumping rate = 0.25 gpm per well; Substrate: lactate.

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	**Total**	Source	Assumptions
Annual Operations and Maintenance										
Electricity	195,786	kWh				0.10	19,579		ECHOS 33420101	Each pump 3/4 hP
Onsite staff	416	hr	35			35.00	14,560		Engineer's Estimate	
								$34,139		
Groundwater Monitoring										
Water level	20	sample				10.00	200			10 wells
EPA 8260 Water Samples (VOCs)	20	sample				150.00	3,000		Analytical laboratory	semiannual
EPA 314.0 Water Samples (perchlorate)	20	sample				60.00	1,200		Analytical laboratory	semiannual
EPA 40 CFR, part 136, method 300 (chloride)	20	sample				40.00	800		Analytical laboratory	semiannual
EPA 6010/7000 Water Samples (Metals)	20	sample				165.00	3,300		Analytical laboratory	semiannual
EPA 410.1 Water Samples (COD)	20	sample				35.00	700		Analytical laboratory	semiannual
EPA 160.2 Water Samples (SS)	20	sample				25.00	500		Analytical laboratory	semiannual
EPA 9040 Water Samples (pH)	20	sample				10.00	200		Analytical laboratory	semiannual
RSK 175 ethene methane	20	sample				60.00	1,200		Analytical laboratory	semiannual
Purging and Sampling Subcontractor	2	LS				2800.00	5,600		Sampling subcontractor	Based on semiannual monitoring
Geologist Supervision of Sampling	20	hr				100.00	2,000		Engineer's Estimate	10 hours/day per event
Truck	2	trip				75.00	150		Engineer's Estimate	Per event
Technician	50	hr	75			75.00	3,750		Engineer's Estimate	
Monitoring Reports										
Associate	60	hr				100.00	6,000		Engineer's Estimate	30 hours per event
Manager	6	hr				170.00	1,020		Engineer's Estimate	3 hours per event
Principal	4	hr				200.00	800		Engineer's Estimate	2 hours per event
Support	6	hr				60.00	360		Engineer's Estimate	3 hours per event
Annual Monitoring Subtotal								**$30,780**		
Annual Substrate Renewal								**$4,740**		
Treatment O&M Annual Total								**$97,378**		

Notes:
1. For costs obtained from ECHOS, Total Unit Cost is sum of labor, equipment, materials unit costs multiplied by 1.07 location factor for 913xx zip code.
   Materials costs from vendor, labor and equipment costs are multiplied by 1.07 location factor and added to quoted materials costs for Total Unit Cost.

References

Environmental Cost Handling Options and Solutions (ECHOS), *Environmental Remediation Cost Data-Unit Price*, 9th Ed., published by R.S. Means Company, Inc and Delta Technologies Group, Inc., 2003.

TABLE B-7. ESTIMATED COSTS: BIOLOGICAL REACTIVE BARRIER
OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA
Size of treatment zone = 200ft x 40ft in depth;

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	Total	Source	Assumptions
Reactive Wall Construction										
Utility Locating	1	LS				500.00	500		Engineer's Estimate	well overlapping (5ft) over 200ft R.I.=5ft
Mobilization of Equipment to Site	1	LS	671.2	2051.00		2912.75	2,913		ECHOS 33 01 0101	
Drill Well, Normal Soil 6"	2050	linear feet	8.44	25.78		36.62	75,062		ECHOS 33 23 1102	Total Depth = 50 ft
2" PVC Schedule 80 Well Casing	410	linear feet	2.24	6.84	1.48	11.30	4,633		ECHOS 33 23 0111	
2" PVC Schedule 80 Screen	1640	linear feet	2.44	6.84	2.54	12.65	20,742		ECHOS 33 23 0211	Screened from 10 to 50 '
Drums for Cuttings	205	each			65.19	69.75	14,299		ECHOS 33 19 9921	10 lf/drum
Disposal	205	drums				500.00	102,500		Engineer's Estimate	
Geologic Logging	205	hrs	100			100.00	20,500		Engineer's Estimate	5 hrs per well
Well Permits	1	LS				1500.00	1,500		Engineer's Estimate	
								$242,648		
HRC Material cost	1	EA			319275	319275	319,275	**$319,275**		Estimates from Regenesis
Monitoring Well Construction										downstream only in addition to Geo-Sierra
Utility Locating	0	LS				500.00	0		Engineer's Estimate	10 wells
Mobilization of Equipment to Site	0	LS	671.2	2051.00		2912.75	0		ECHOS 33 01 0101	
Drill Well, Normal Soil 6"	900	linear feet	16.11	49.22		69.90	62,913		ECHOS 33 23 1131	Total Depth = 90 ft
6" PVC Schedule 80 Well Casing	500	linear feet	5.37	16.41	9.15	33.10	16,548		ECHOS 33 23 0113	
6" PVC Schedule 80 Screen	400	linear feet	5.37	16.41	11.68	35.80	14,321		ECHOS 33 23 0213	Screened from 50 to 90 '
Drums for Cuttings	90	each			65.19	69.75	6,278		ECHOS 33 19 9921	10 lf/drum
Disposal	90	drums				500.00	45,000		Engineer's Estimate	
Geologic Logging	50	hrs	100			100.00	5,000		Engineer's Estimate	5hrs per well
Well Permits	0	LS				1500.00	0		Engineer's Estimate	Together with the injection wells
Startup Monitoring										
EPA 8260 Water Samples (VOCs)	50	sample				150.00	7,500		Analytical laboratory	monthly sampling for 5 months
EPA 314.0 Water Samples (perchlorate)	50	sample				60.00	3,000		Analytical laboratory	monthly sampling for 5 months
EPA 40 CFR, part 136, method 300 (chloride)	50	sample				40.00	2,000		Analytical laboratory	monthly sampling for 5 months
EPA 6010/7000 Water Samples (Metals)	50	sample				165.00	8,250		Analytical laboratory	monthly sampling for 5 months
EPA 410.1 Water Samples (COD)	50	sample				35.00	1,750		Analytical laboratory	monthly sampling for 5 months
EPA 160.2 Water Samples (SS)	50	sample				25.00	1,250		Analytical laboratory	monthly sampling for 5 months
EPA 9040 Water Samples (pH)	50	sample				10.00	500		Analytical laboratory	monthly sampling for 5 months
RSK 175 ethene methane	50	sample				60.00	3,000		Analytical laboratory	monthly sampling for 5 months
Technician	160	hr	75			75.00	12,000		Engineer's Estimate	2 days per sampling event two workers
Initial Monitoring Well Construction and Work								**$189,309**		
Capital Costs Total								**$751,232**		

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TABLE B-7. ESTIMATED COSTS: BIOLOGICAL REACTIVE BARRIER
OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA
Size of treatment zone = 200ft x 40ft in depth;

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	**Total**	Source	Assumptions
Annual Operations and Maintenance										
Groundwater Monitoring										
EPA 8260 Water Samples (VOCs)	20	sample				150.00	3,000		Analytical laboratory	semiannual
EPA 314.0 Water Samples (perchlorate)	20	sample				60.00	1,200		Analytical laboratory	semiannual
EPA 40 CFR, part 136, method 300 (chloride)	20	sample				40.00	800		Analytical laboratory	semiannual
EPA 6010/7000 Water Samples (Metals)	20	sample				165.00	3,300		Analytical laboratory	semiannual
EPA 410.1 Water Samples (COD)	20	sample				35.00	700		Analytical laboratory	semiannual
EPA 160.2 Water Samples (SS)	20	sample				25.00	500		Analytical laboratory	semiannual
EPA 9040 Water Samples (pH)	20	sample				10.00	200		Analytical laboratory	semiannual
RSK 175 ethene methane	20	sample				60.00	1,200		Analytical laboratory	semiannual
Purging and Sampling Subcontractor	1	LS				2800.00	2,800		Sampling subcontractor	Based on semiannual monitoring
Geologist Supervision of Sampling	5	hr				100.00	500		Engineer's Estimate	0.5 hr per well
Truck	2	trip				75.00	150		Engineer's Estimate	Per event
Technician	64	hr	75			75.00	4,800		Engineer's Estimate	2 days per sampling event two workers
Monitoring Reports										
Associate	60	hr				100.00	6,000		Engineer's Estimate	30 hours per event
Manager	6	hr				170.00	1,020		Engineer's Estimate	3 hours per event
Principal	4	hr				200.00	800		Engineer's Estimate	2 hours per event
Support	6	hr				60.00	360		Engineer's Estimate	3 hours per event
Annual Monitoring Subtotal								**$27,330**		
HRC-X Renewal								**$106,425**	Every three years	cost spread over 3 years
Treatment O&M Annual Total								**$133,755**		

Notes:
1. For costs obtained from ECHOS, Total Unit Cost is sum of labor, equipment, materials unit costs multiplied by 1.07 location factor for 913xx zip code.
   Materials costs from vendor, labor and equipment costs are multiplied by 1.07 location factor and added to quoted materials costs for Total Unit Cost.

References

Environmental Cost Handling Options and Solutions (ECHOS), *Environmental Remediation Cost Data-Unit Price*, 9th Ed., published by R.S. Means Company, Inc and Delta Technologies Group, Inc., 2003.

TABLE B-8. ESTIMATED COSTS: PERMEABLE REACTIVE BARRIER
OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA
Size of treatment zone = 200ft x 40ft in depth;

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	**Total**	Source	Assumptions
Reactive Wall Construction										
GeoSierra estimated cost for construction:	1	200ft				1784991		**$1,784,991**		200ftx 40ft (50-90bgs) x 4.5 in
Monitoring Well Construction										downstream only in addition to Geo-Sierra wells
Utility Locating	5	well				500.00	2,500		Engineer's Estimate	5 additional wells
Mobilization of Equipment to Site	5	LS	671.2	2051.00		2912.75	14,564		ECHOS 33 01 0101	
Drill Well, Normal Soil 6"	450	linear feet	16.11	49.22		69.90	31,456		ECHOS 33 23 1131	Total Depth = 90 ft
6" PVC Schedule 80 Well Casing	250	linear feet	5.37	16.41	9.15	33.10	8,274		ECHOS 33 23 0113	
6" PVC Schedule 80 Screen	200	linear feet	5.37	16.41	11.68	35.80	7,160		ECHOS 33 23 0213	Screened from 50 to 90 '
Drums for Cuttings	45	each			65.19	69.75	3,139		ECHOS 33 19 9921	10 lf/drum
Disposal	45	drums				500.00	22,500		Engineer's Estimate	
Geologic Logging by Associate	25	hrs	100			100.00	2,500		Engineer's Estimate	5hrs per well
Well Permits	1	LS				1500.00	1,500		Engineer's Estimate	
Electrician	1	hrs	50			50.00	50		Engineer's estimate	
Startup Monitoring										
EPA 8260 Water Samples (VOCs)	25	sample				150.00	3,750		Analytical laboratory	monthly sampling for 5 months
EPA 314.0 Water Samples (perchlorate)	25	sample				60.00	1,500		Analytical laboratory	monthly sampling for 5 months
EPA 40 CFR, part 136, method 300 (chloride)	25	sample				40.00	1,000		Analytical laboratory	monthly sampling for 5 months
EPA 6010/7000 Water Samples (Metals)	25	sample				165.00	4,125		Analytical laboratory	monthly sampling for 5 months
EPA 410.1 Water Samples (COD)	25	sample				35.00	875		Analytical laboratory	monthly sampling for 5 months
EPA 160.2 Water Samples (SS)	25	sample				25.00	625		Analytical laboratory	monthly sampling for 5 months
EPA 9040 Water Samples (pH)	25	sample				10.00	250		Analytical laboratory	monthly sampling for 5 months
RSK 175 ethene methane	25	sample				60.00	1,500		Analytical laboratory	monthly sampling for 5 months
Technician	120	hr	75			75.00	9,000		Engineer's Estimate	1.5 days per sampling event two workers
Initial Monitoring Well Construction and Work								**$22,625**		
Capital Costs Total								**$1,807,616**		

TABLE B-8. ESTIMATED COSTS: PERMEABLE REACTIVE BARRIER
OU-7 Groundwater FS; Former Bermite Facility, Santa Clarita, CA
Size of treatment zone = 200ft x 40ft in depth;

	Quantity		Unit Price				Total Costs		References	
Item Description	Quantity	Unit	Labor	Equipment	Materials	Unit Price[1]	Subtotal	**Total**	Source	Assumptions
Annual Operations and Maintenance										
Groundwater Monitoring										
EPA 8260 Water Samples (VOCs)	10	sample				150.00	1,500		Analytical laboratory	semiannual
EPA 314.0 Water Samples (perchlorate)	10	sample				60.00	600		Analytical laboratory	semiannual
EPA 40 CFR, part 136, Method 300 (chloride)	10	sample				40.00	400		Analytical laboratory	semiannual
EPA 6010/7000 Water Samples (Metals)	10	sample				165.00	1,650		Analytical laboratory	semiannual
EPA 410.1 Water Samples (COD)	10	sample				35.00	350		Analytical laboratory	semiannual
EPA 160.2 Water Samples (SS)	10	sample				25.00	250		Analytical laboratory	semiannual
EPA 9040 Water Samples (pH)	10	sample				10.00	100		Analytical laboratory	semiannual
RSK 175 ethene methane	10	sample				60.00	600		Analytical laboratory	semiannual
Purging and Sampling Subcontractor	2	LS				2800.00	5,600		Sampling subcontractor	Based on semiannual monitoring
Geologist Supervision of Sampling	5	hr				100.00	500		Engineer's Estimate	0.5 hr per well
Truck	2	trip				75.00	150		Engineer's Estimate	Per event
Technician	48	hr	75			75.00	3,600		Engineer's Estimate	1.5 days per sampling event two workers
Monitoring Reports										
Staff	60	hr				100.00	6,000		Engineer's Estimate	30 hours per event
Manager	6	hr				170.00	1,020		Engineer's Estimate	3 hours per event
Principal	4	hr				200.00	800		Engineer's Estimate	2 hours per event
Support	6	hr				60.00	360		Engineer's Estimate	3 hours per event
Annual Monitoring Subtotal								**$23,480**		
Treatment O&M Annual Total								**$23,480**		

Notes:

1. For costs obtained from ECHOS, Total Unit Cost is sum of labor, equipment, materials unit costs multiplied by 1.07 location factor for 913xx zip code.
   Materials costs from vendor, labor and equipment costs are multiplied by 1.07 location factor and added to quoted materials costs for Total Unit Cost.

Reference

Environmental Cost Handling Options and Solutions (ECHOS), *Environmental Remediation Cost Data-Unit Price*, 9th Ed., published by R.S. Means Company, Inc and Delta Technologies Group, Inc., 2003.

Appendix C

Procedures for Estimating Contaminant Distribution

Appendix C

Procedures for Estimating Contaminant Distribution

This appendix describes the methods used to estimate the distribution of dissolved contaminants at the former Bermite facility. These distribution estimates were used as a basis for contaminant transport modeling, as discussed in Appendices D and E. Perchlorate, TVOCs[1] and trichloroethene (TCE) distribution estimates presented in this appendix are subject to uncertainty due to factors such as interpolation between widely spaced data points and heterogeneous subsurface conditions. These estimates should be considered preliminary and subject to change as additional data become available.

C.1 General Procedure

The distribution estimates were developed for the following areas, hydrostratigraphic units (HSUs), and analytes:

- Saugus Aquifer (HSUs S-I, S-IIIa, and S-III): Perchlorate, TVOCs
- Northern Alluvium (Alluvium, undifferentiated Saugus): Perchlorate, TVOCs
- OU-2/6 Perched Zone: Perchlorate, TCE

Raster datasets of chemical concentrations for each impacted subarea and HSU were created by interpolating hand-drawn isoconcentration contours[2] and point concentration data over the plume extent using a GIS procedure[3], as presented on Figures C-1a,b through C-5a,b. The source data for each of these datasets is specified in Table C-1. The interpolations for the Saugus and OU-2/6 Perched Zone subareas were performed using 100-foot square grid cells, and the interpolations for the Northern Alluvium were performed using 10-foot square grid cells.

C.2 References

California Environmental Protection Agency (CalEPA) Department of Toxic Substances Control (DTSC). 2005. Vapor Intrusion Guidance Interim Final. February 7.

ENVIRON International Corporation. 2007. Remedial Investigation Report, Operable Unit 7 Groundwater Investigations, Former Whittaker-Bermite Facility, Santa Clarita, California. February 14.

ENVIRON International Corporation. 2008. Quarterly Groundwater Monitoring Report, Operable Unit 7, Second Quarter 2008 (Calendar Quarter April 1-June 30, 2008), Former Whittaker-Bermite Facility, Santa Clarita, California. September 30.

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[1] Total volatile organic compounds

[2] Contours were drawn based on recent groundwater concentration data and ENVIRON's conceptual understanding of Site hydrogeology.

[3] Point data were not used for the Saugus S-IIIa and S-IIIc perchlorate mass estimates. GIS interpolations assumed lognormal distribution of concentration.

The following tables and figures are attached and complete this appendix:

Tables

Table C-1 Summary of Source Data

Figures

Figure C-1a Distribution of Perchlorate in Groundwater - Alluvium
Figure C-1b Distribution of Perchlorate in Groundwater - Undifferentiated Saugus

Figure C-2a Distribution of TVOCs in Groundwater - Alluvium
Figure C-2b Distribution of TVOCs in Groundwater - Undifferentiated Saugus

Figure C-3a Distribution of Perchlorate in Groundwater - Saugus S-I
Figure C-3b Distribution of Perchlorate in Groundwater - Saugus S-IIIa
Figure C-3c Distribution of Perchlorate in Groundwater - Saugus S-IIIc

Figure C-4a Distribution of TVOCs in Groundwater - Saugus S-I
Figure C-4b Distribution of TVOCs in Groundwater - Saugus S-IIIa
Figure C-4c Distribution of TVOCs in Groundwater - Saugus S-IIIc

Figure C-5a Distribution of Perchlorate in Groundwater - OU-2/OU-6 Perched Zone
Figure C-5b Distribution of TCE in Groundwater - OU-2/OU-6 Perched Zone

T A B L E S

TABLE C-1. SUMMARY OF SOURCE DATA
OU-7 Groundwater Feasibility Study
Former Bermite Facility; Santa Clarita, CA

Region	HSU	Chemical	SOURCE DATA Concentrations [a]
Saugus	S-I	Perchlorate	Hand-drawn contours, 2nd Quarter 2008 point data
		TVOCs	Hand-drawn contours, 2nd Quarter 2008 Point data
	S-IIIa	Perchlorate	Hand-drawn contours
		TVOCs	Hand-drawn contours, 2nd Quarter 2008 point data
	S-IIIc	Perchlorate	Hand-drawn contours
		TVOCs	Hand-drawn contours, 2nd Quarter 2008 point data
Northern Alluvium	Alluvium	Perchlorate	Hand-drawn contours, 2nd Quarter 2008 point data, June 2007 piezometer cluster data [b] [c] [d]
		TVOCs	Hand-drawn contours and 2nd Quarter 2008 point data [b] [c] [d]
	Saugus	Perchlorate	Hand-drawn contours, 2nd Quarter 2008 point data, June 2007 piezometer cluster data [b] [c] [d]
		TVOCs	Hand-drawn contours and 2nd Quarter 2008 point data [b] [c] [d]
OU-2/6 Perched Zone	Perched Zone	Perchlorate	Hand-drawn contours and 2nd Quarter 2008 point data [d]
		TCE	Hand-drawn contours and 2nd Quarter 2008 point data [d]

Notes:

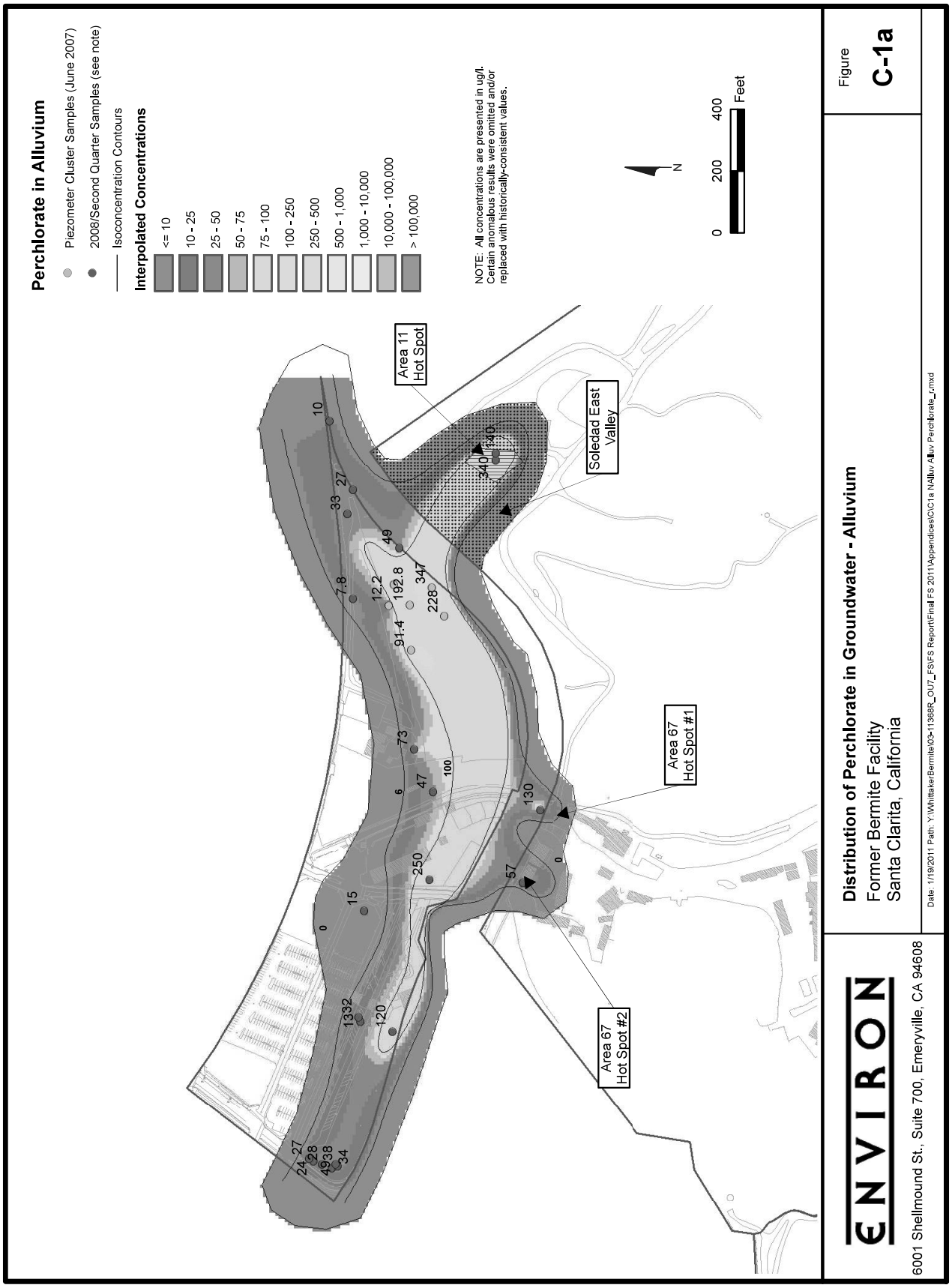
[a] All concentration interpolations were performed with the ArcGIS Spatial Analyst Topo to Raster tool using log-transformed concentrations.

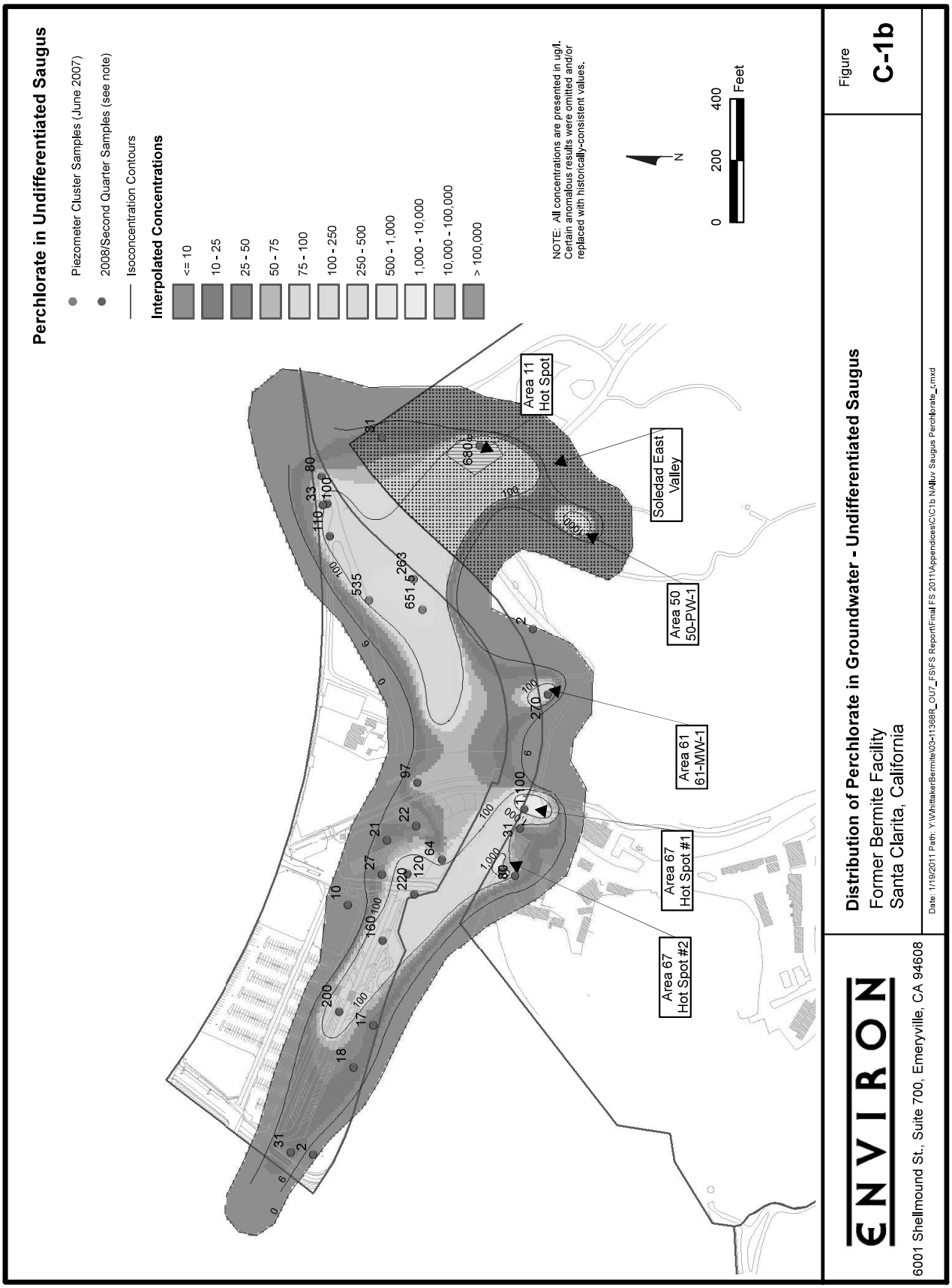
[b] An artificial zero concentration line was hand-drawn to define the boundary of the Northern Alluvium plumes.

[c] Results from clustered wells screened in the same HSU were averaged.

[d] Certain anomalous results were omitted and/or replaced with historically-consistent values.

F I G U R E S


Perchlorate in Alluvium
Piezometer Cluster Samples (June 2007)
2008/Second Quarter Samples (see note)
Isoconcentration Contours
Interpolated Concentrations
<= 10
10 - 25
25 - 50
50 - 75
75 - 100
100 - 250
250 - 500
500 - 1,000
1,000 - 10,000
10,000 - 100,000
> 100,000
NOTE: All concentrations are presented in ug/l.
Certain anomalous results were omitted and/or
replaced with historically-consistent values.
N
0
200
400
Feet
Area 11
Hot Spot
Soledad East
Valley
Area 67
Hot Spot #1
Area 67
Hot Spot #2
10
27
33
49
7.8
12.2
192.8
347
228
91.4
73
47
100
6
250
130
57
0
15
0
1332
120
24
27
28
49
38
34
340
340
ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
Distribution of Perchlorate in Groundwater - Alluvium
Former Bermite Facility
Santa Clarita, California
Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\C\C1a NAlluv Alluv Perchlorate_r.mxd
Figure
C-1a


Perchlorate in Undifferentiated Saugus
Piezometer Cluster Samples (June 2007)
2008/Second Quarter Samples (see note)
Isoconcentration Contours
Interpolated Concentrations
<= 10
10 - 25
25 - 50
50 - 75
75 - 100
100 - 250
250 - 500
500 - 1,000
1,000 - 10,000
10,000 - 100,000
> 100,000
NOTE: All concentrations are presented in ug/l. Certain anomalous results were omitted and/or replaced with historically-consistent values.
N
0
200
400
Feet
Area 11 Hot Spot
Soledad East Valley
Area 50 50-PW-1
Area 61 61-MW-1
Area 67 Hot Spot #1
Area 67 Hot Spot #2
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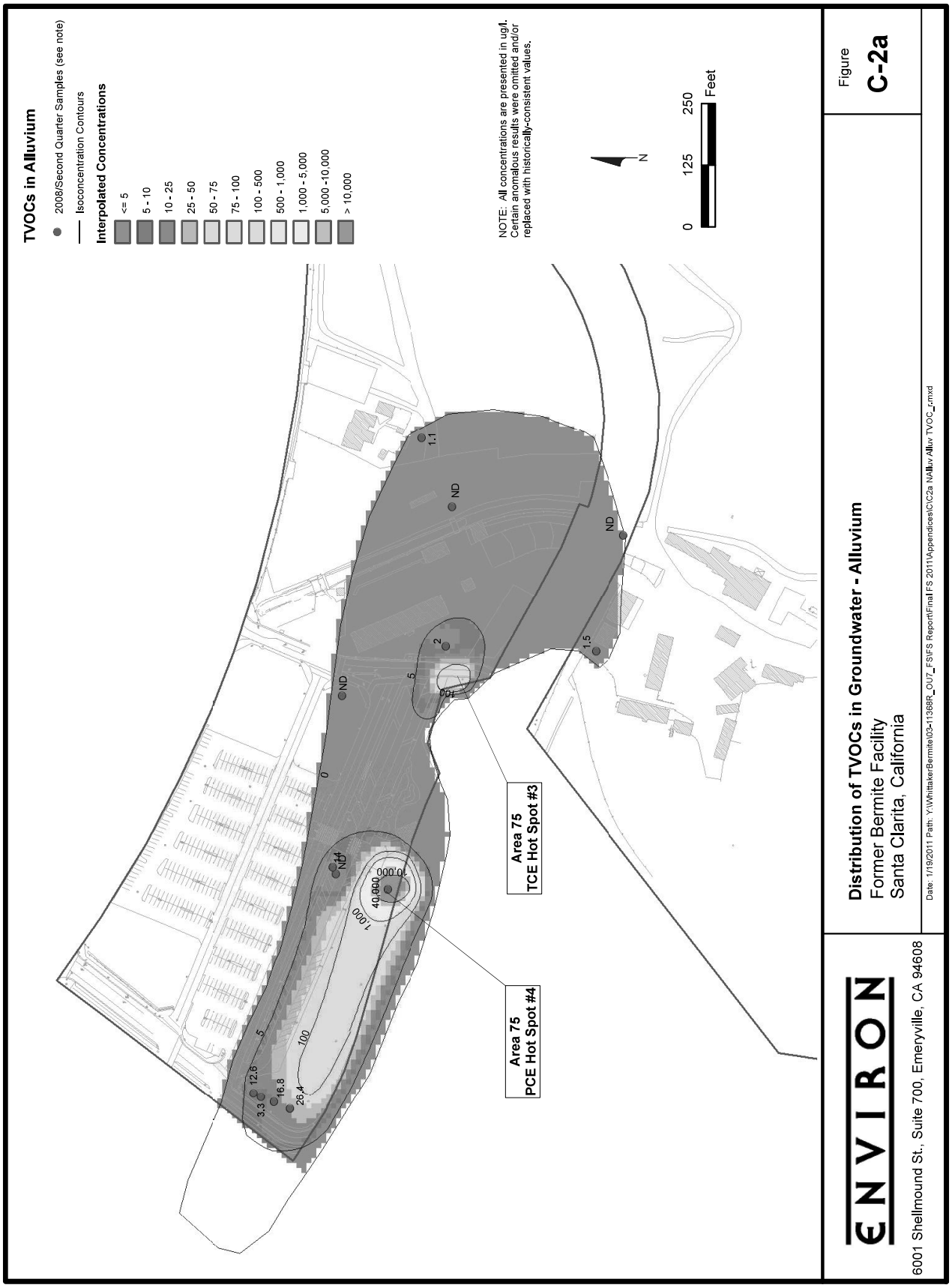
Distribution of Perchlorate in Groundwater - Undifferentiated Saugus
Former Bermite Facility
Santa Clarita, California
Figure
C-1b


TVOCs in Alluvium
2008/Second Quarter Samples (see note)
Isoconcentration Contours
Interpolated Concentrations
<= 5
5 - 10
10 - 25
25 - 50
50 - 75
75 - 100
100 - 500
500 - 1,000
1,000 - 5,000
5,000 -10,000
> 10,000
NOTE: All concentrations are presented in ug/l.
Certain anomalous results were omitted and/or
replaced with historically-consistent values.
N
0
125
250
Feet
Area 75
TCE Hot Spot #3
Area 75
PCE Hot Spot #4
ND
1.1
2
1.5
5
0
100
1,000
10,000
40,000
12.6
16.8
26.4
3.3
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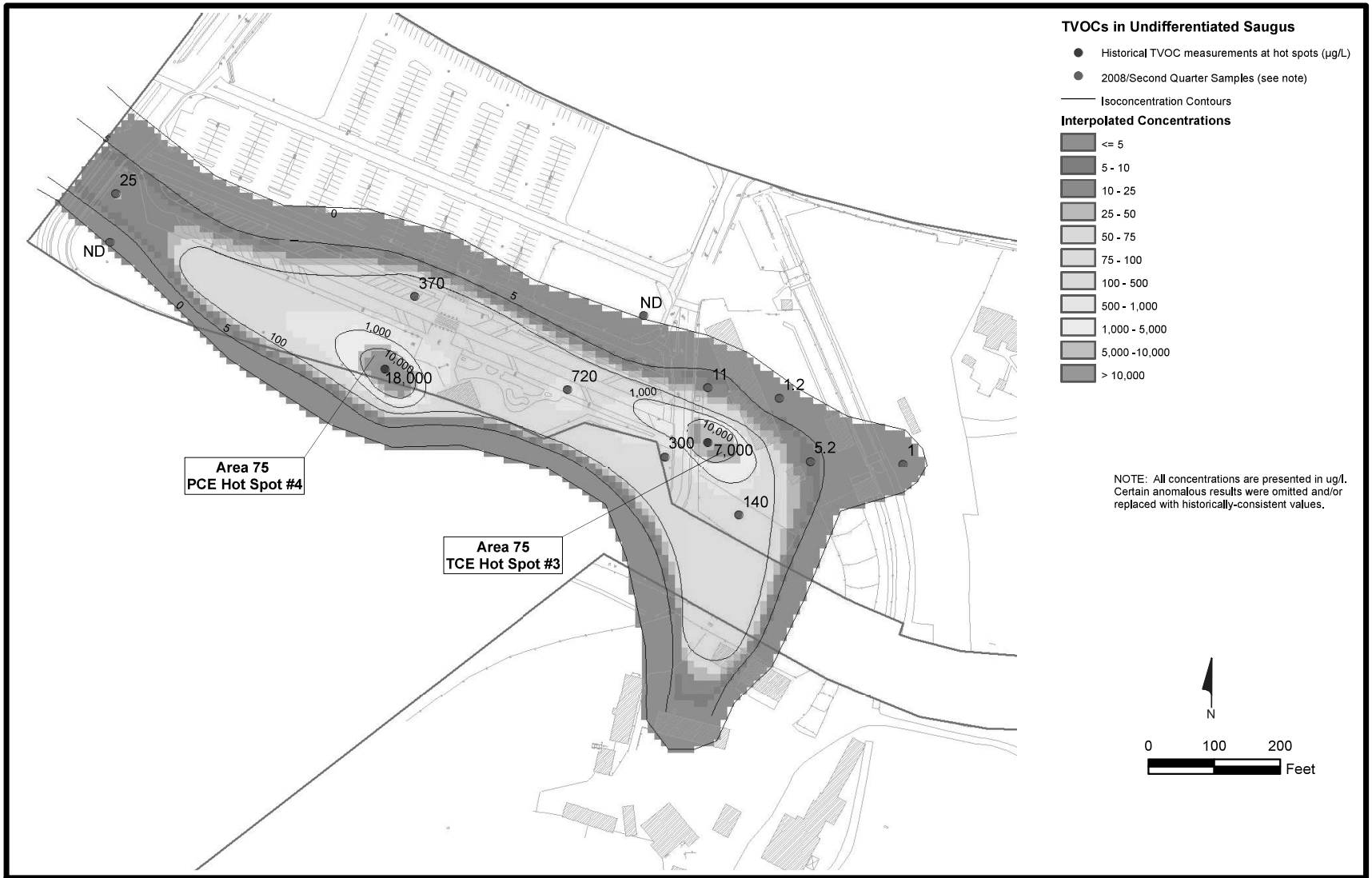
Distribution of TVOCs in Groundwater - Alluvium
Former Bermite Facility
Santa Clarita, California
Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\C\C2a NAlluv Alluv TVOC_r.mxd
Figure
C-2a



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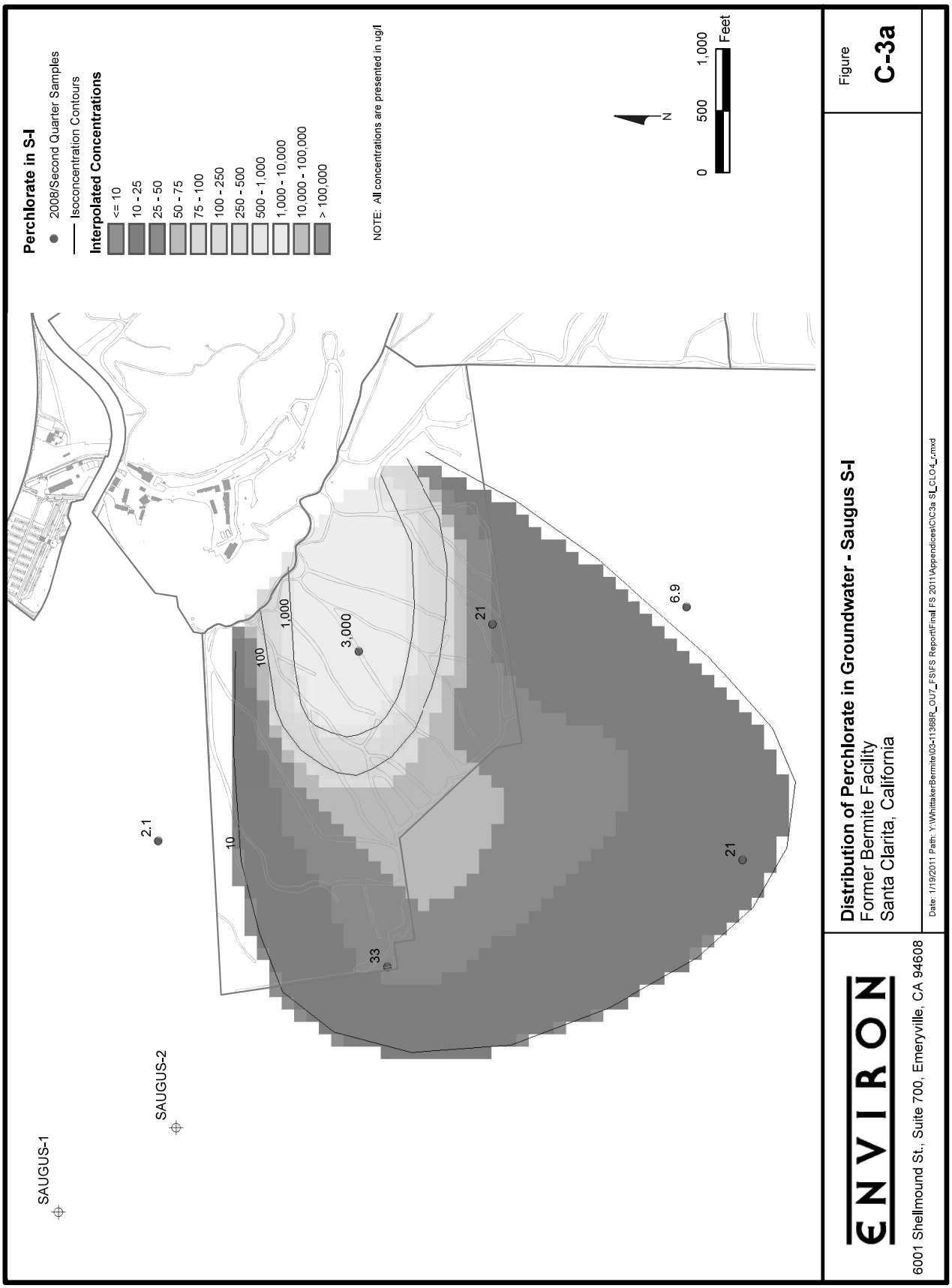
Distribution of TVOCs in Groundwater - Undifferentiated Saugus

Former Bermite Facility
Santa Clarita, California

Figure
C-2b

Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\C\C2b NAlluv Saugus TVOC_r.mxd



Distribution of Perchlorate in Groundwater - Saugus S-I
Former Bermite Facility
Santa Clarita, California

Figure
C-3a

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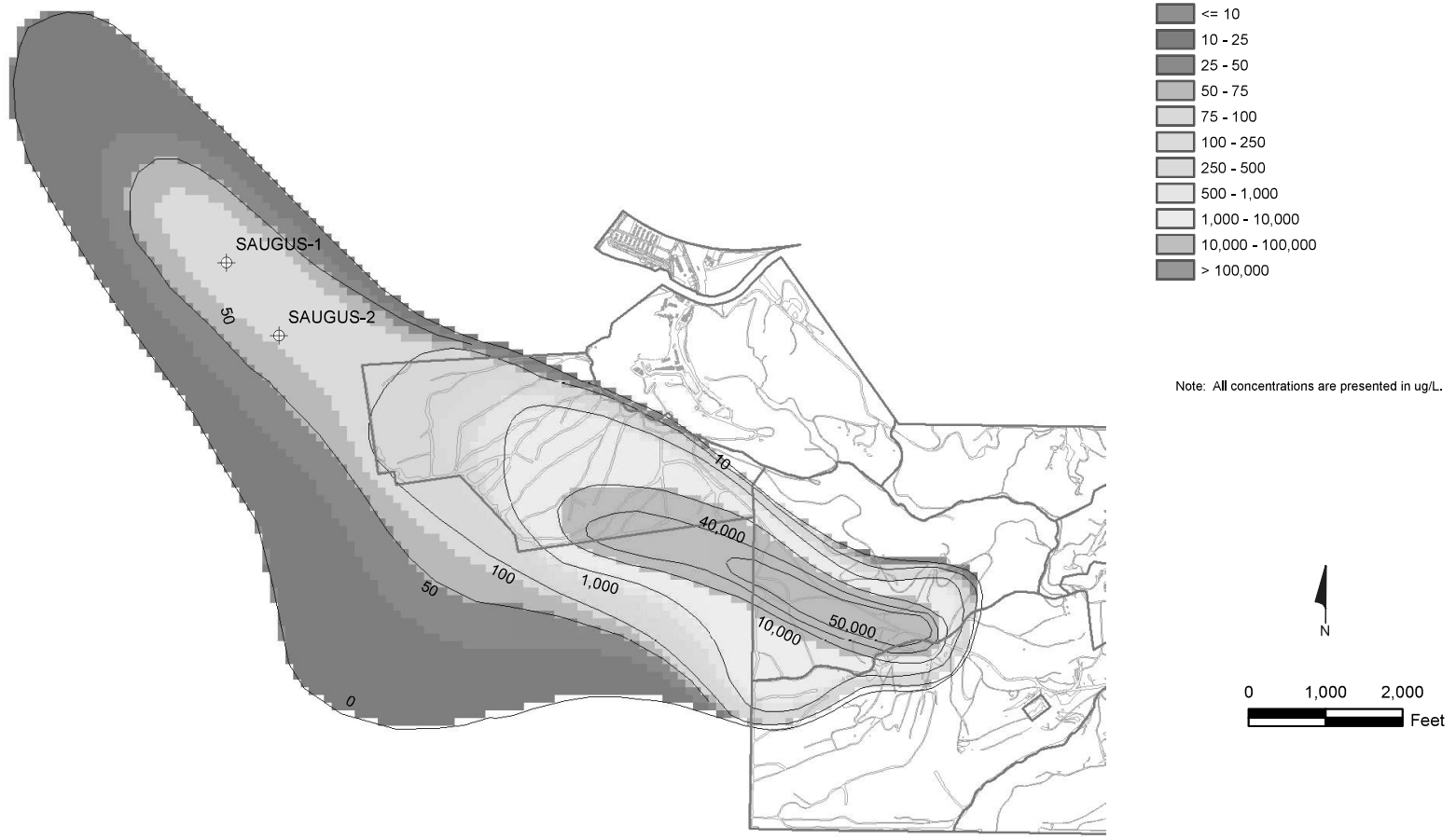

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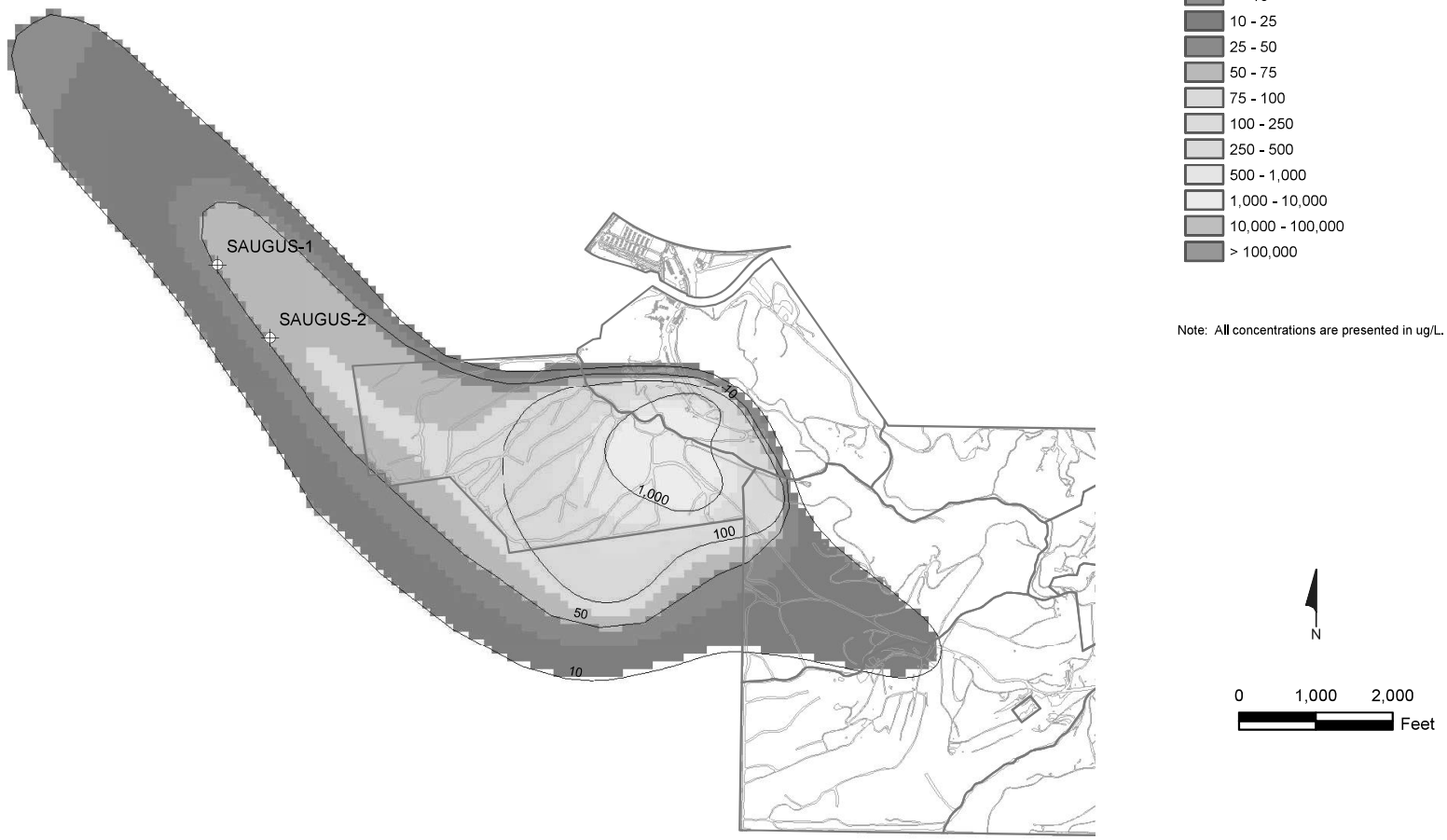
Distribution of Perchlorate in Groundwater - Saugus S-IIIa
Former Bermite Facility
Santa Clarita, California

Figure
C-3b

Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\C\C3b SIIIa_CLO4_r.mxd



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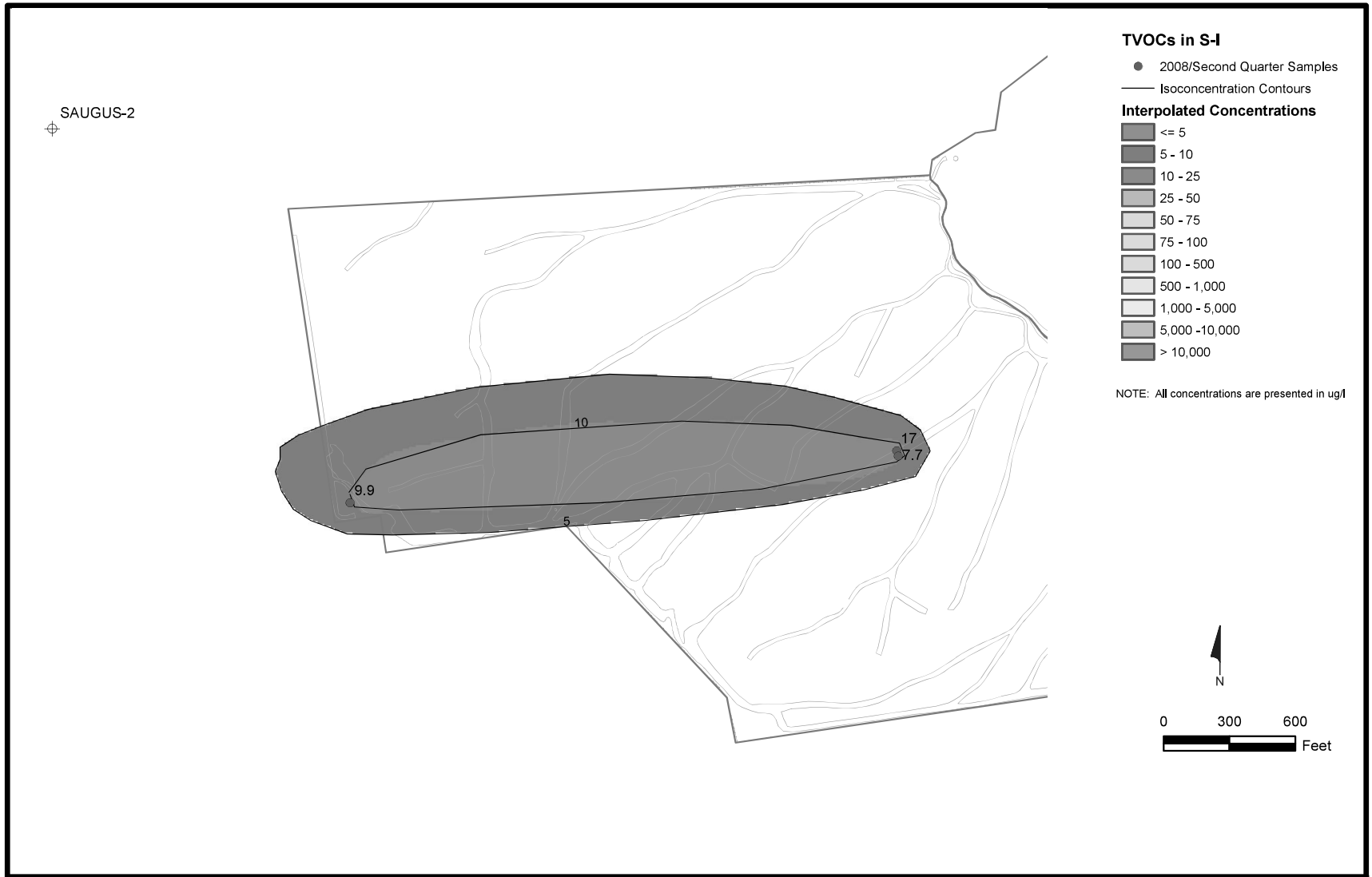
Distribution of Perchlorate in Groundwater - Saugus S-IIIc
Former Bermite Facility
Santa Clarita, California

Figure
C-3c

Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\C\C3c SIIIc_CLO4_r.mxd



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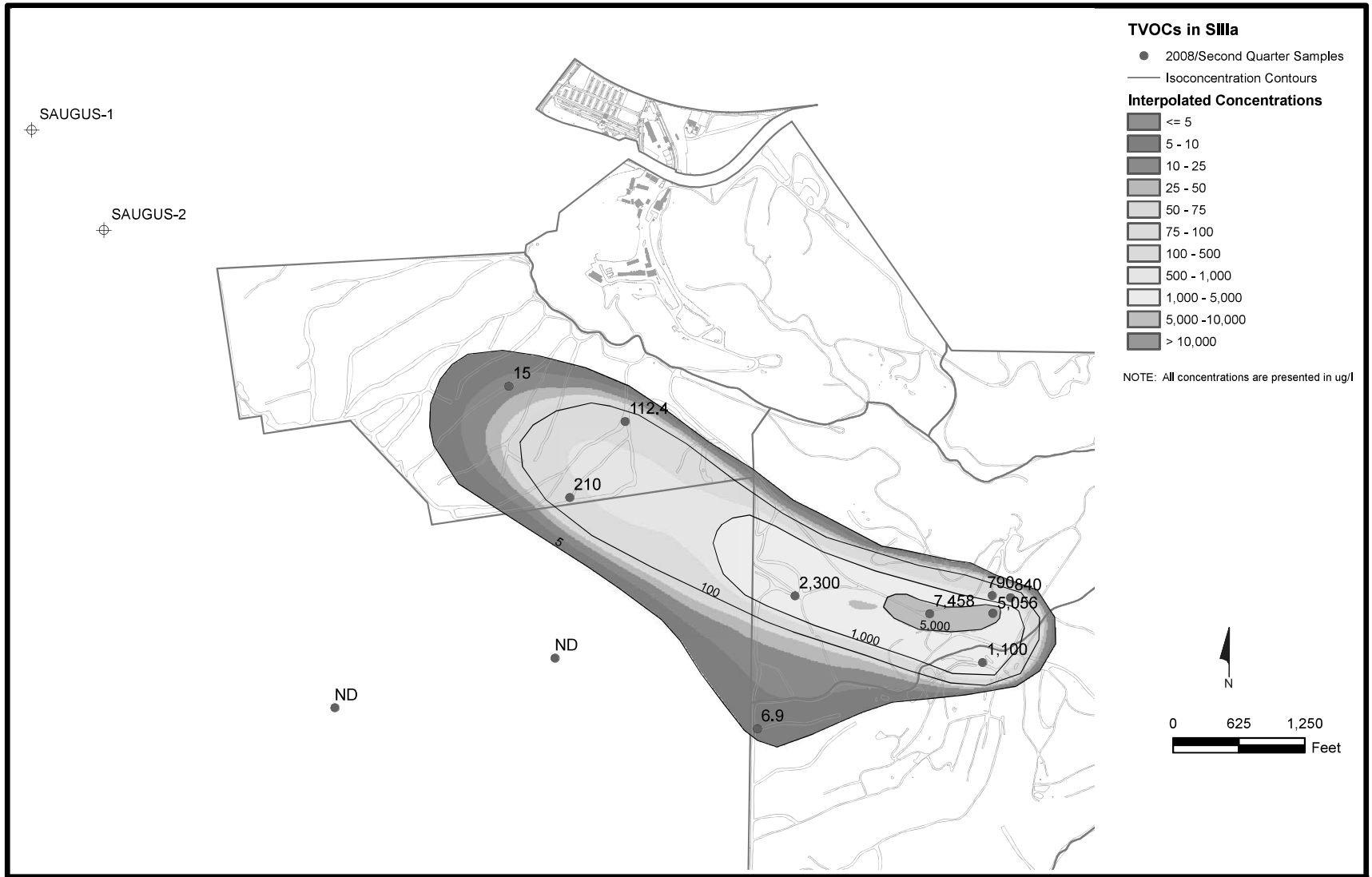
Distribution of TVOCs in Groundwater - Saugus S-I
Former Bermite Facility
Santa Clarita, California

Figure
C-4a

Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\C\C4a SI_TVOC_r.mxd



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Distribution of TVOCs in Groundwater - Saugus S-IIIa
Former Bermite Facility
Santa Clarita, California

Figure
C-4b

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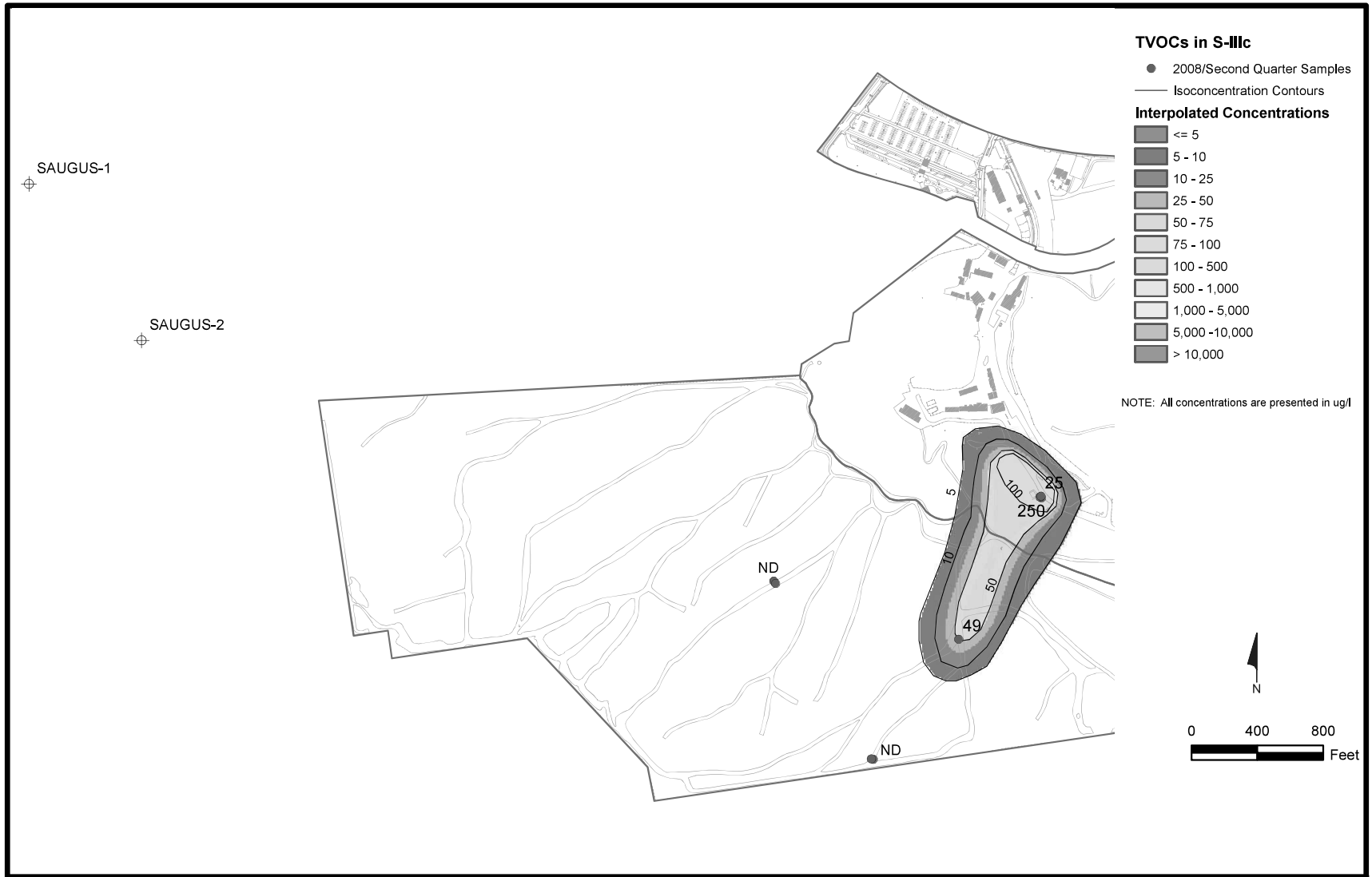

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Distribution of TVOCs in Groundwater - Saugus S-IIIc
Former Bermite Facility
Santa Clarita, California

Figure
C-4c

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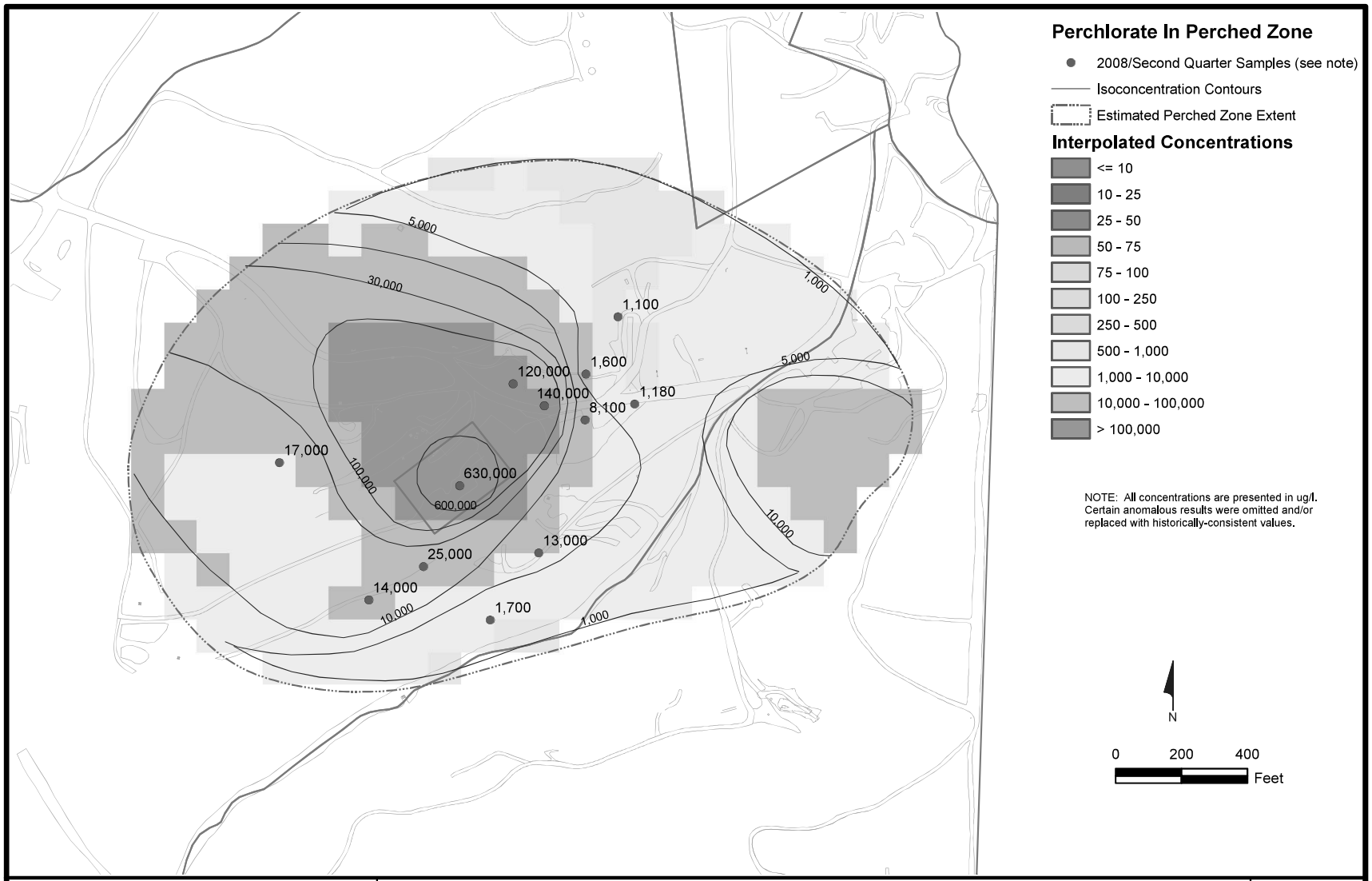

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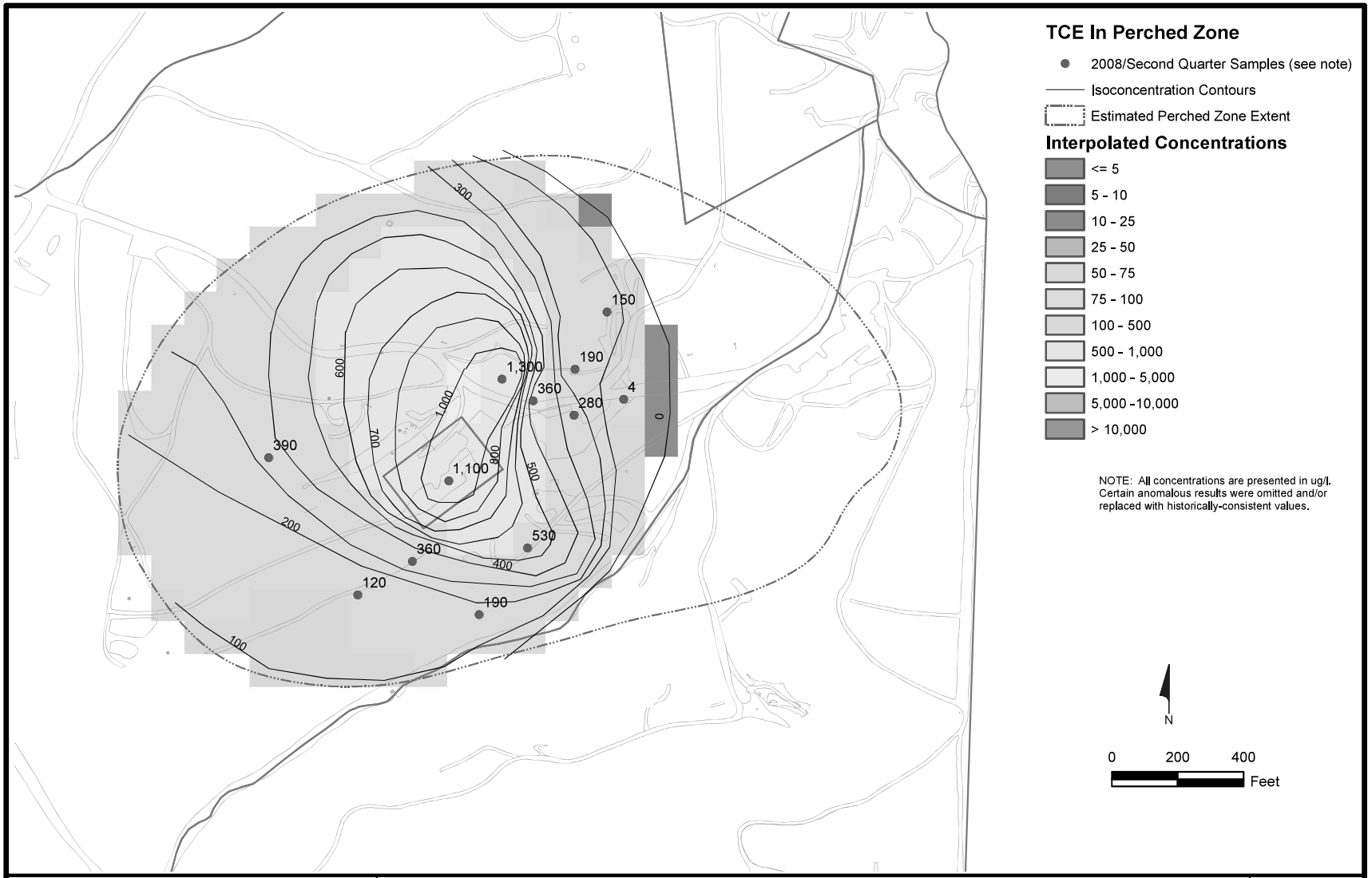
Distribution of Perchlorate in Groundwater - OU-2/OU-6 Perched Zone
Former Bermite Facility
Santa Clarita, California

Figure
C-5a

Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\C\C5a PZ_CLO4_r.mxd



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Distribution of TCE in Groundwater - OU-2/OU-6 Perched Zone
Former Bermite Facility
Santa Clarita, California

Figure
C-5b

Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\C\C5b PZ_TCE_r.mxd

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(Continued)

Appendix D

Northern Alluvium Groundwater Flow and Transport Model Simulation Results

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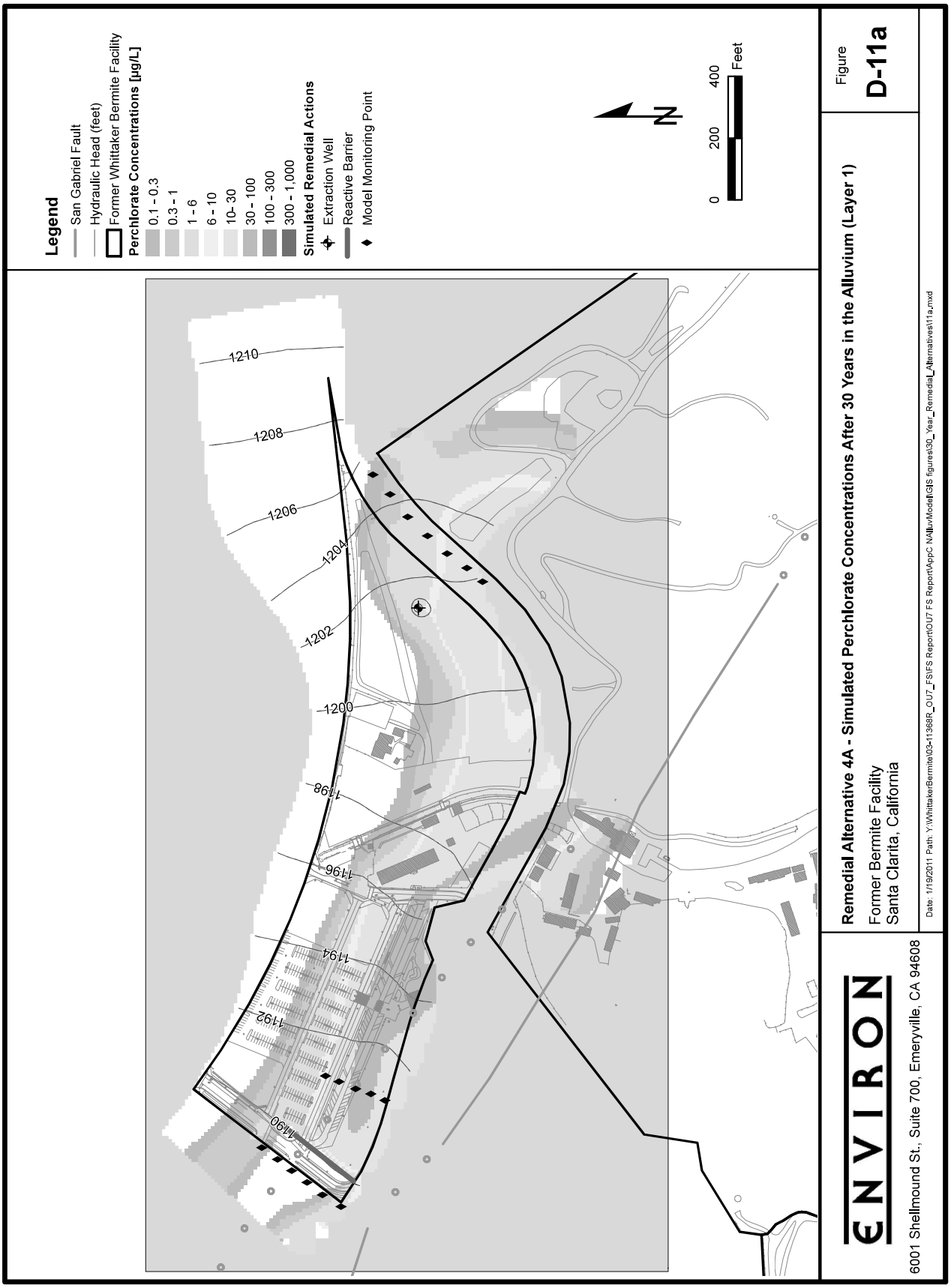
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San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
Perchlorate Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 6
6 - 10
10- 30
30 - 100
100 - 300
300 - 1,000
Simulated Remedial Actions
Extraction Well
Reactive Barrier
Model Monitoring Point
N
0
200
400
Feet
1210
1208
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1204
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1198
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ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
Remedial Alternative 4A - Simulated Perchlorate Concentrations After 30 Years in the Alluvium (Layer 1)
Former Bermite Facility
Santa Clarita, California
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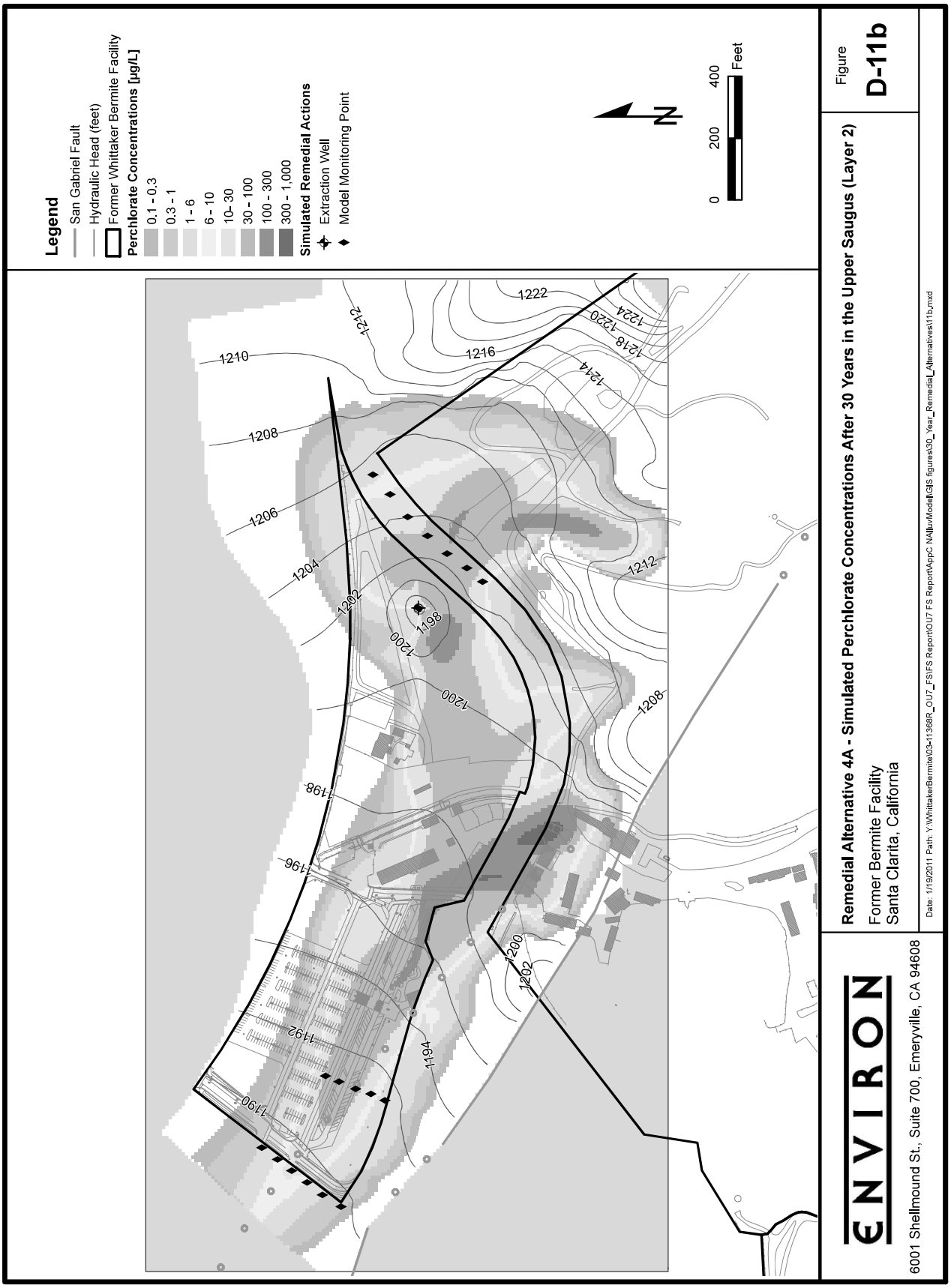
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San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
Perchlorate Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 6
6 - 10
10- 30
30 - 100
100 - 300
300 - 1,000
Simulated Remedial Actions
Extraction Well
Model Monitoring Point
N
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Feet
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1204
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ENVIRON
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Former Bermite Facility
Santa Clarita, California
Figure
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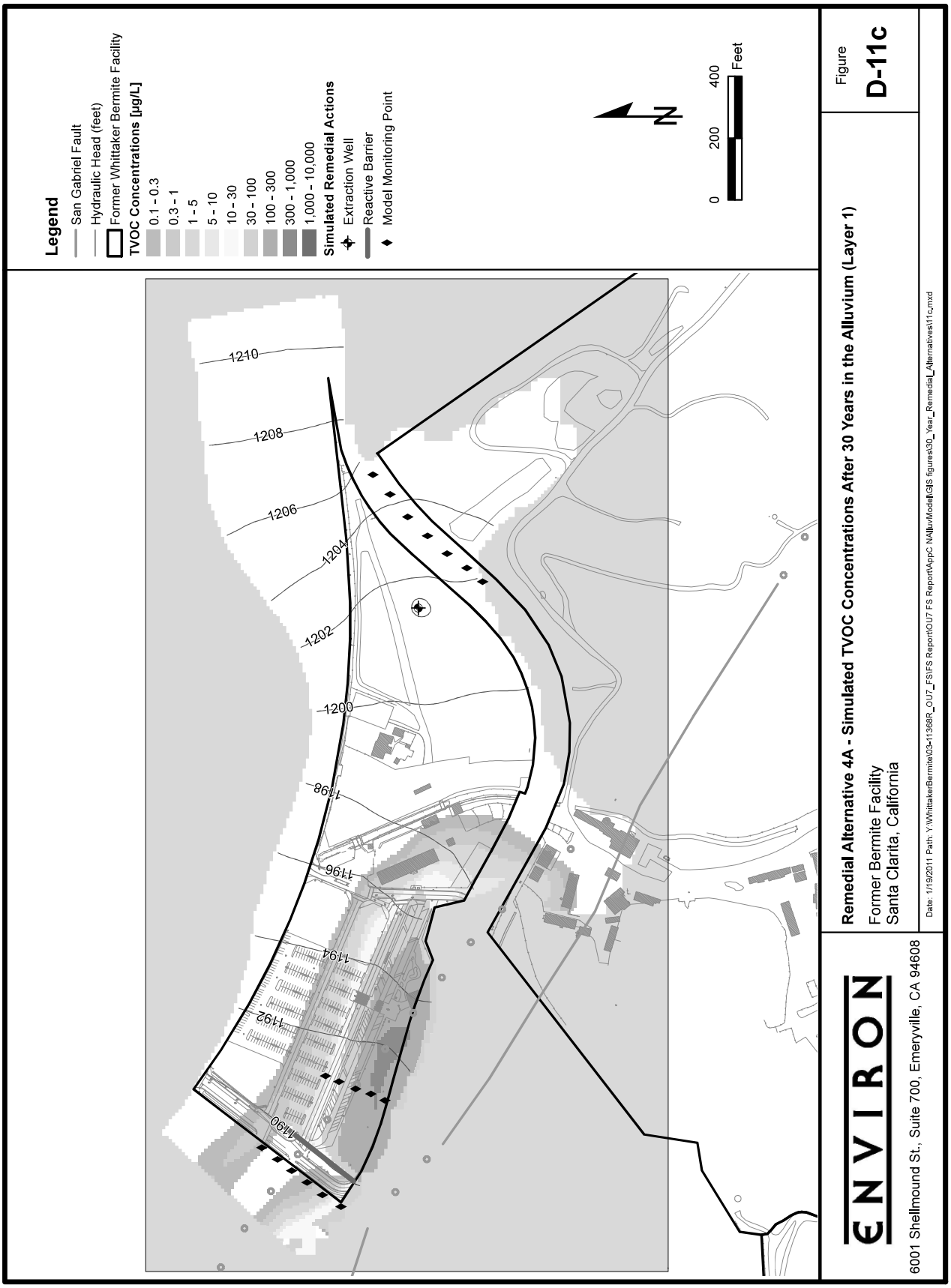
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San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
TVOC Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 5
5 - 10
10 - 30
30 - 100
100 - 300
300 - 1,000
1,000 - 10,000
Simulated Remedial Actions
Extraction Well
Reactive Barrier
Model Monitoring Point
N
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200
400
Feet
1210
1208
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Figure
D-11c
Remedial Alternative 4A - Simulated TVOC Concentrations After 30 Years in the Alluvium (Layer 1)
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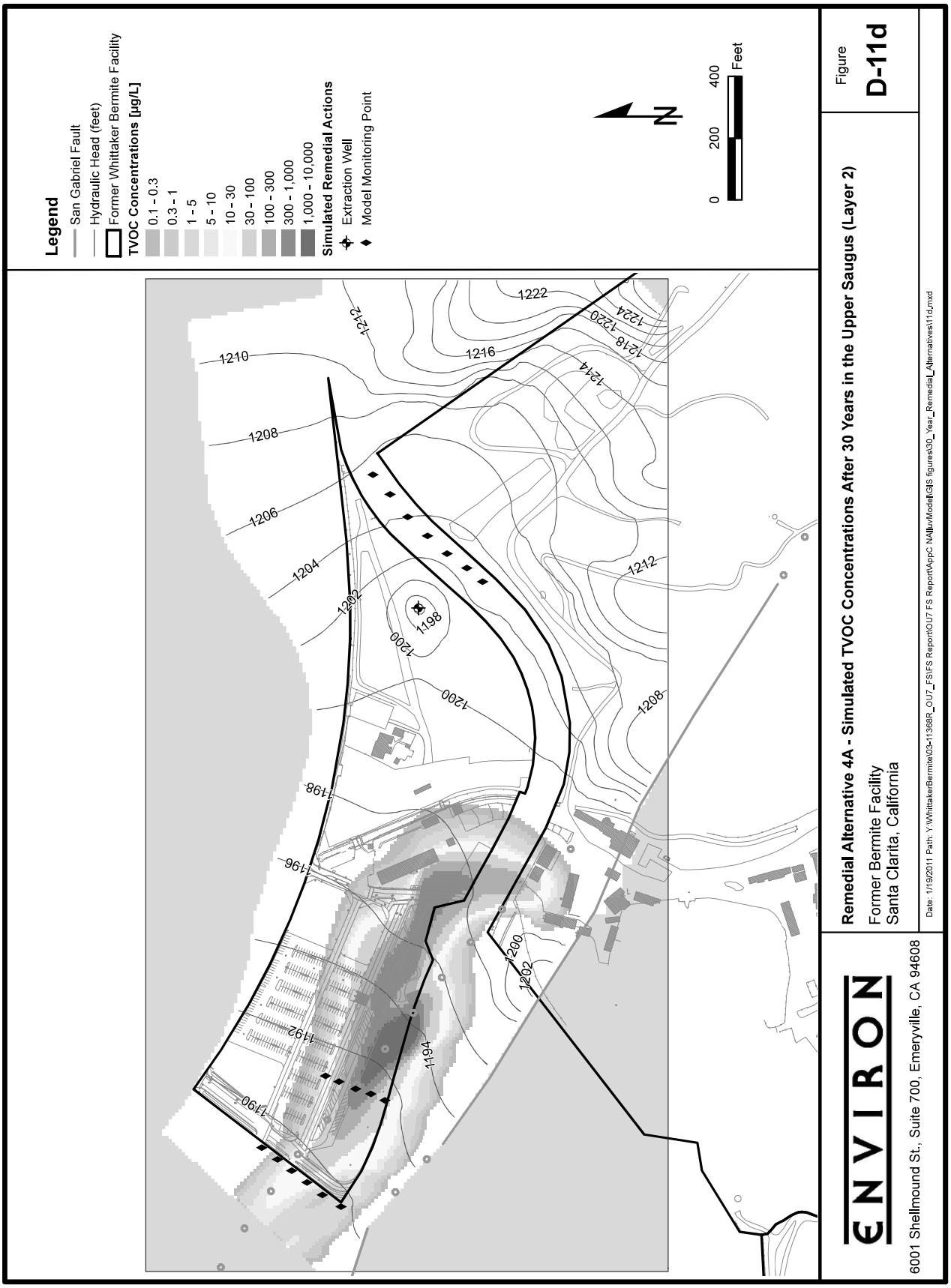
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San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
TVOC Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 5
5 - 10
10 - 30
30 - 100
100 - 300
300 - 1,000
1,000 - 10,000
Simulated Remedial Actions
Extraction Well
Model Monitoring Point
N
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1194
ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
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Former Bermite Facility
Santa Clarita, California
Figure
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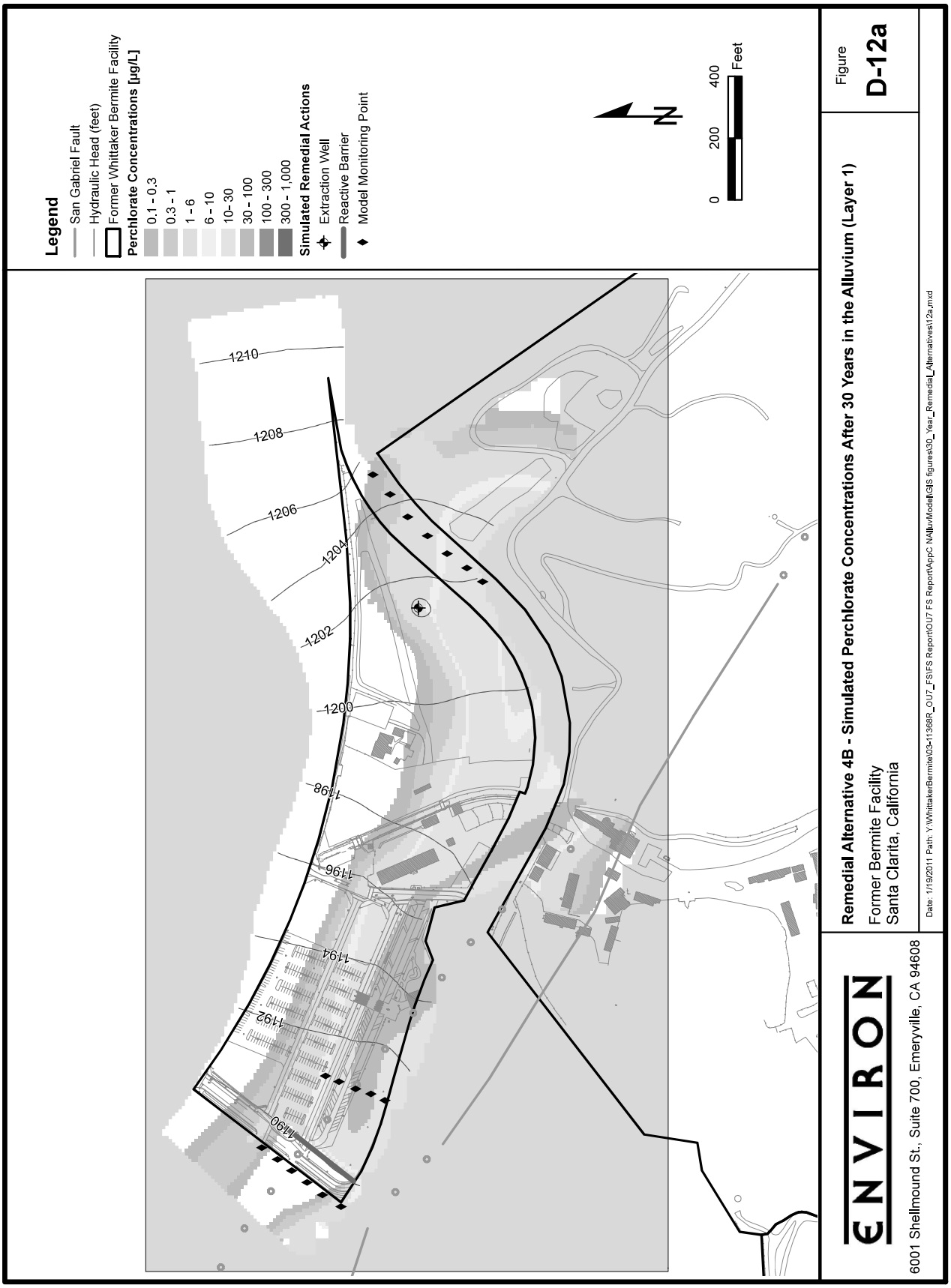
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San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
Perchlorate Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 6
6 - 10
10- 30
30 - 100
100 - 300
300 - 1,000
Simulated Remedial Actions
Extraction Well
Reactive Barrier
Model Monitoring Point
1210
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1200
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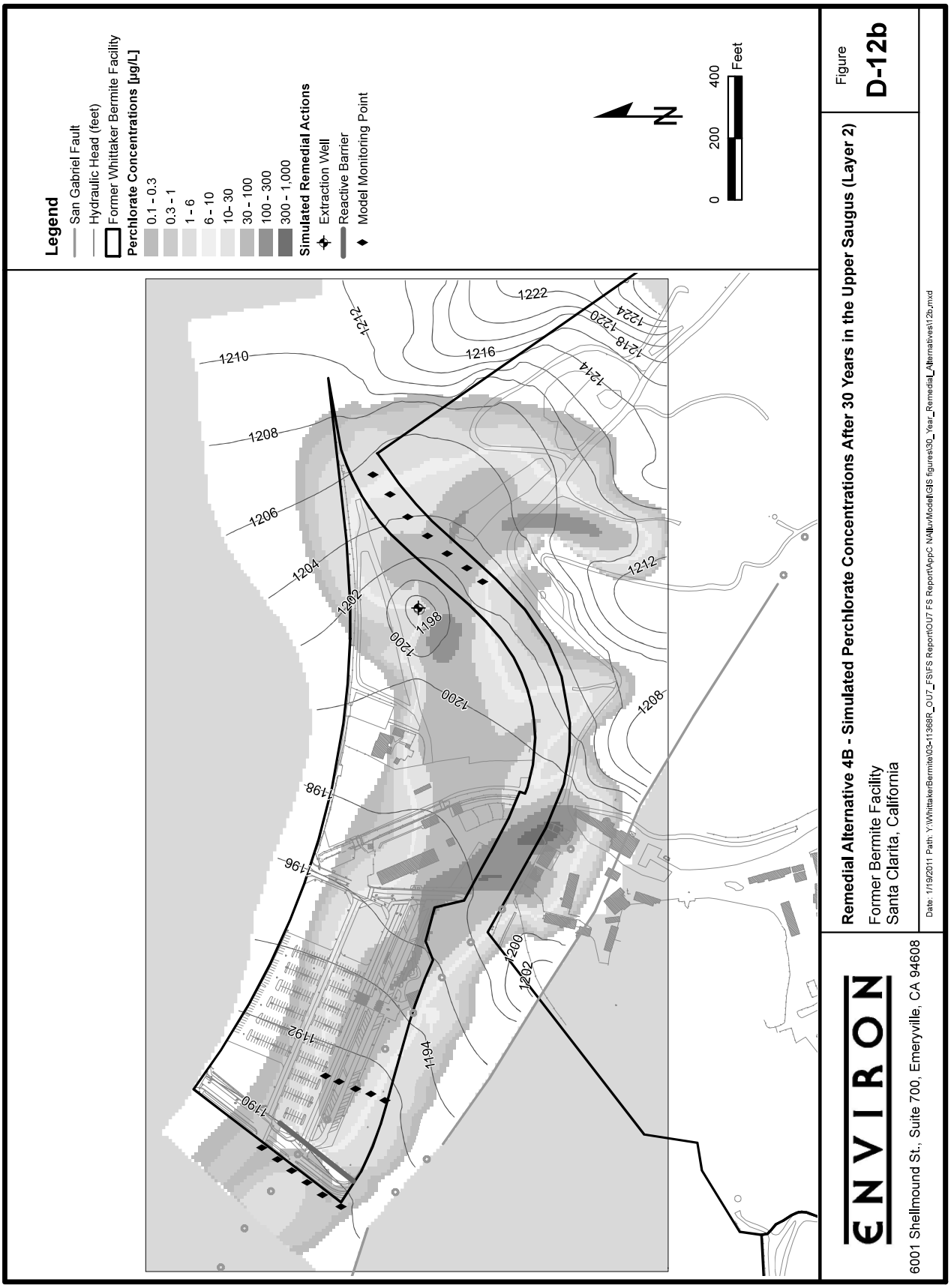
Feet
Figure
D-12a
Remedial Alternative 4B - Simulated Perchlorate Concentrations After 30 Years in the Alluvium (Layer 1)
Former Bermite Facility
Santa Clarita, California
ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\OU7 FS Report\AppC NAI\uvModel\GIS figures\30_Year_Remedial_Alternatives\12a.mxd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Hydraulic Head (feet)
Former Whittaker Bermite Facility
Perchlorate Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 6
6 - 10
10- 30
30 - 100
100 - 300
300 - 1,000
Simulated Remedial Actions
Extraction Well
Reactive Barrier
Model Monitoring Point
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ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
Remedial Alternative 4B - Simulated Perchlorate Concentrations After 30 Years in the Upper Saugus (Layer 2)
Former Bermite Facility
Santa Clarita, California
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D-12b
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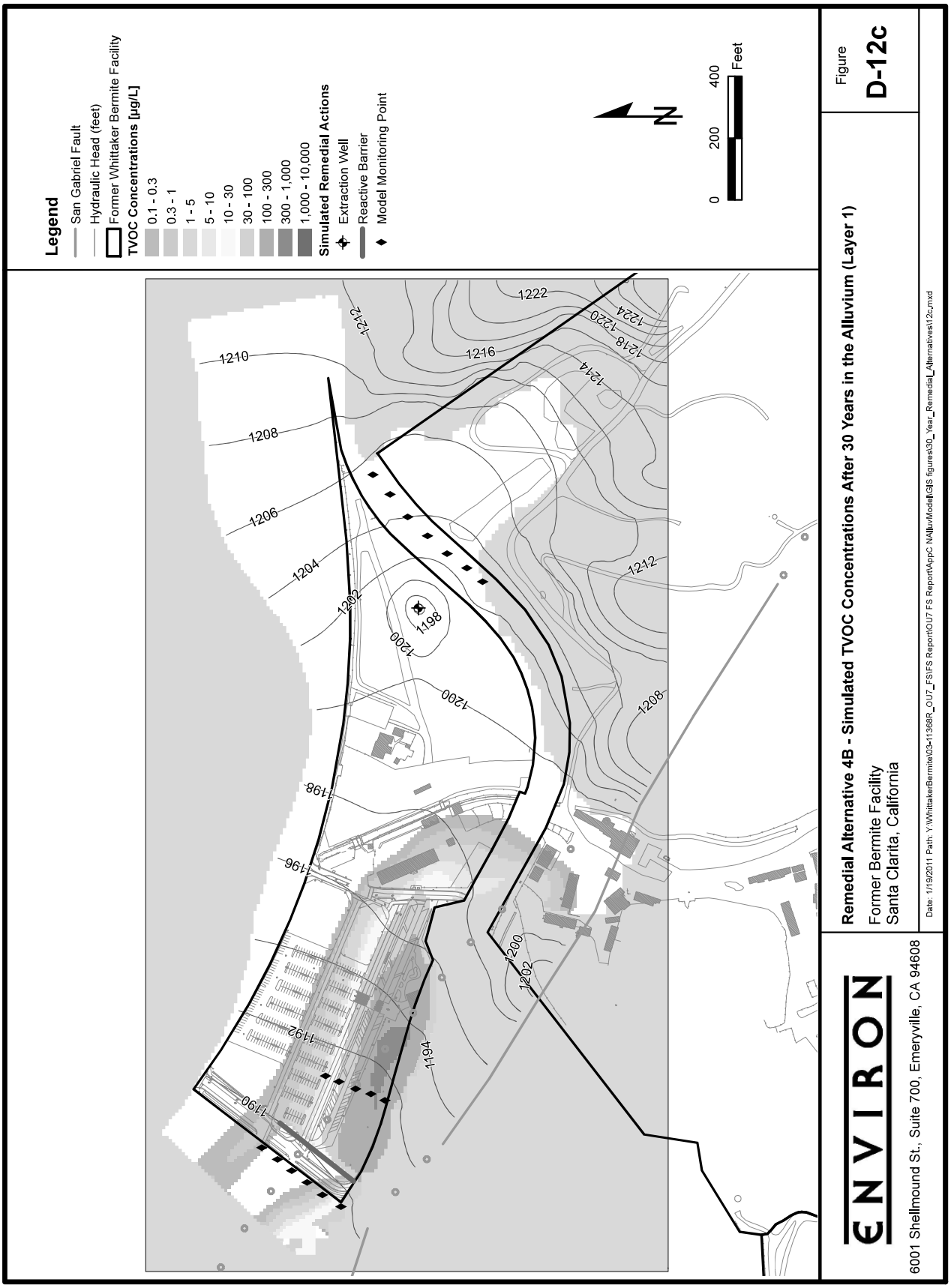
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San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
TVOC Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 5
5 - 10
10 - 30
30 - 100
100 - 300
300 - 1,000
1,000 - 10,000
Simulated Remedial Actions
Extraction Well
Reactive Barrier
Model Monitoring Point
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ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
Remedial Alternative 4B - Simulated TVOC Concentrations After 30 Years in the Alluvium (Layer 1)
Former Bermite Facility
Santa Clarita, California
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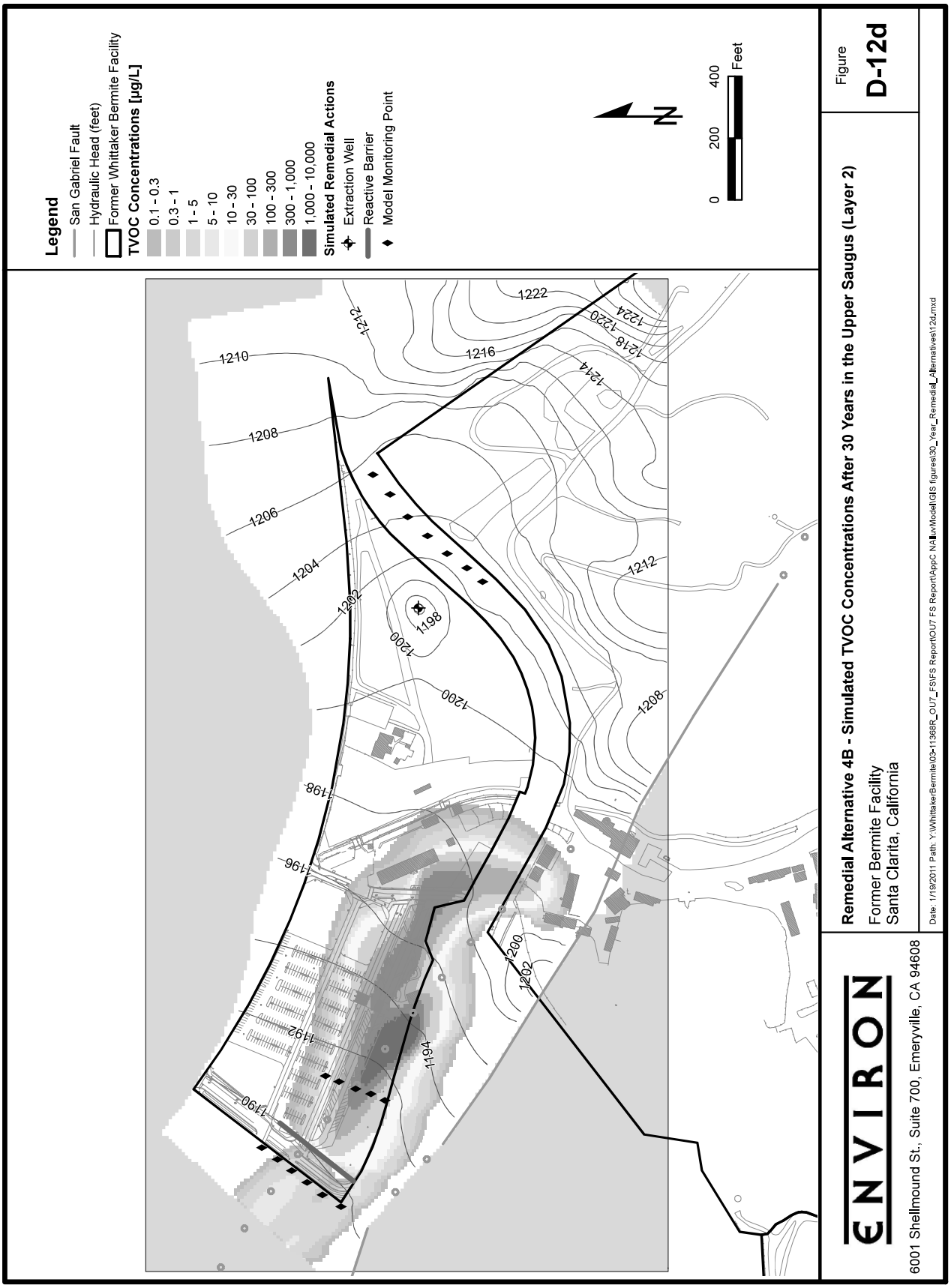
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San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
TVOC Concentrations [µg/L]
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0.3 - 1
1 - 5
5 - 10
10 - 30
30 - 100
100 - 300
300 - 1,000
1,000 - 10,000
Simulated Remedial Actions
Extraction Well
Reactive Barrier
Model Monitoring Point
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ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
Remedial Alternative 4B - Simulated TVOC Concentrations After 30 Years in the Upper Saugus (Layer 2)
Former Bermite Facility
Santa Clarita, California
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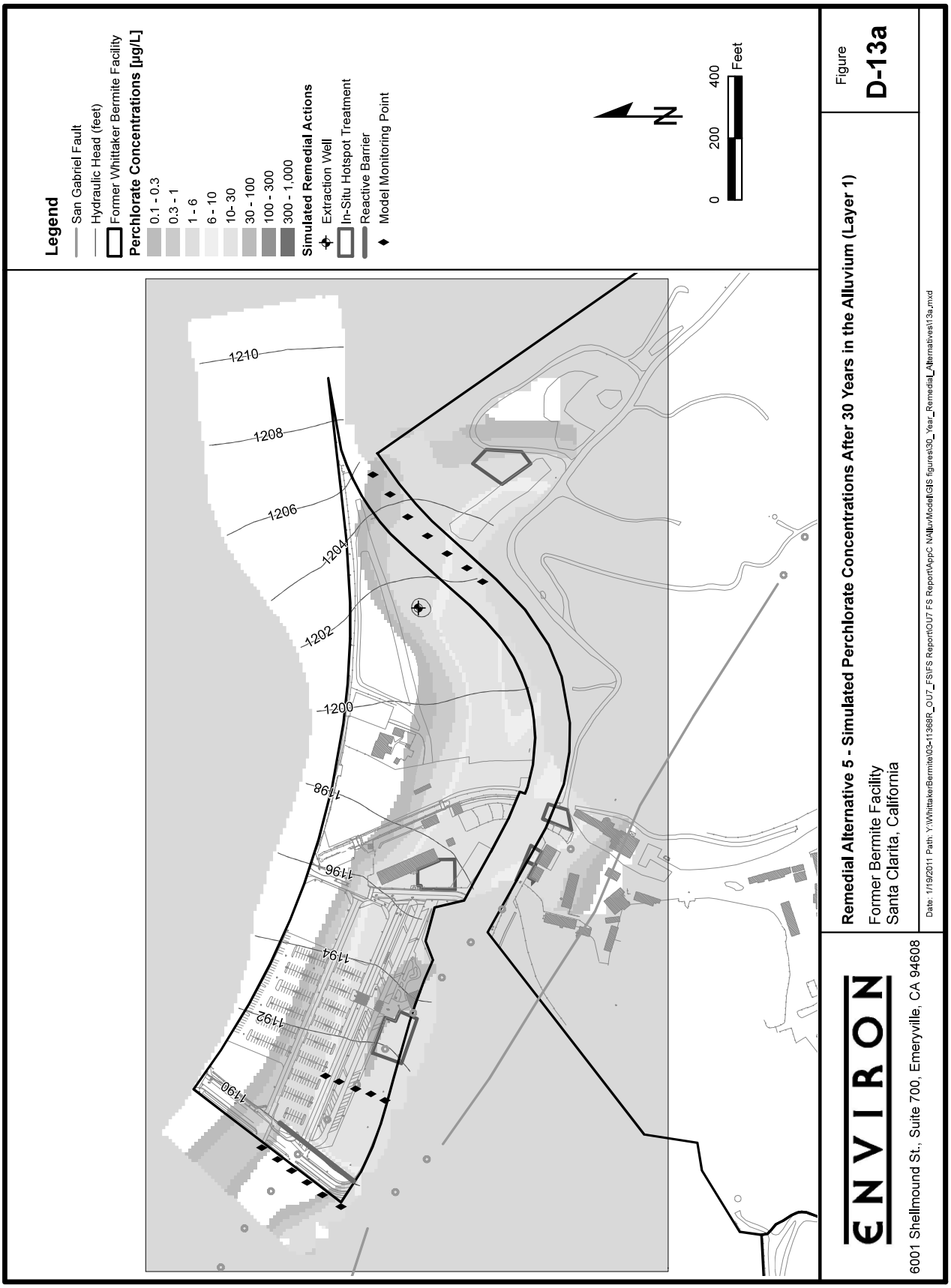
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San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
Perchlorate Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 6
6 - 10
10- 30
30 - 100
100 - 300
300 - 1,000
Simulated Remedial Actions
Extraction Well
In-Situ Hotspot Treatment
Reactive Barrier
Model Monitoring Point
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Feet
1210
1208
1206
1204
1202
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ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
Remedial Alternative 5 - Simulated Perchlorate Concentrations After 30 Years in the Alluvium (Layer 1)
Former Bermite Facility
Santa Clarita, California
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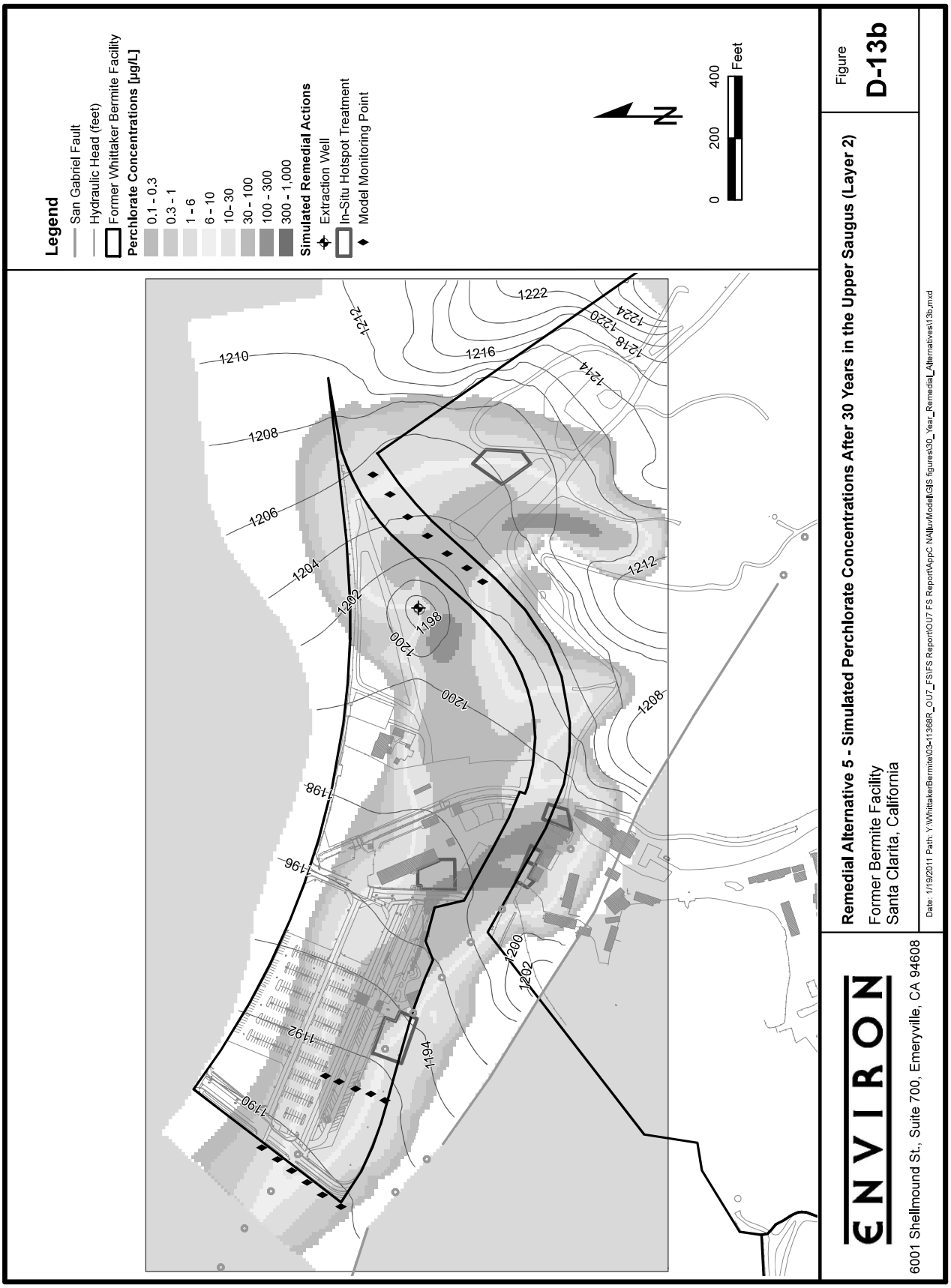
D-13a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San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
Perchlorate Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 6
6 - 10
10- 30
30 - 100
100 - 300
300 - 1,000
Simulated Remedial Actions
Extraction Well
In-Situ Hotspot Treatment
Model Monitoring Point
N
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200
400
Feet
1222
1224
1220
1218
1216
1214
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1210
1208
1206
1204
1202
1200
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ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
Remedial Alternative 5 - Simulated Perchlorate Concentrations After 30 Years in the Upper Saugus (Layer 2)
Former Bermite Facility
Santa Clarita, California
Figure
D-13b
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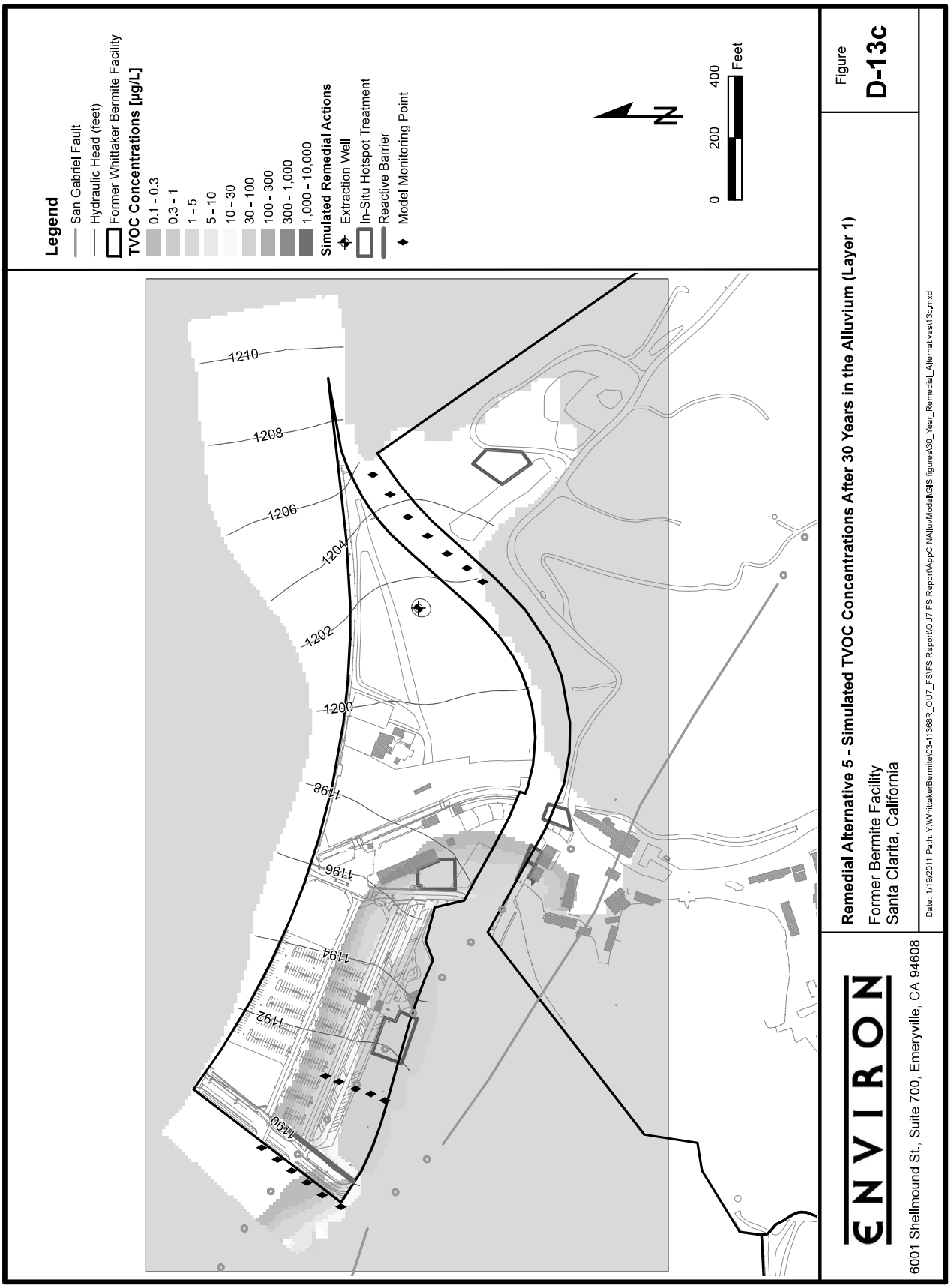
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San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
TVOC Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 5
5 - 10
10 - 30
30 - 100
100 - 300
300 - 1,000
1,000 - 10,000
Simulated Remedial Actions
Extraction Well
In-Situ Hotspot Treatment
Reactive Barrier
Model Monitoring Point
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200
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Feet
1210
1208
1206
1204
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1198
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1194
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Remedial Alternative 5 - Simulated TVOC Concentrations After 30 Years in the Alluvium (Layer 1)
Former Bermite Facility
Santa Clarita, California
Figure
D-13c
ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
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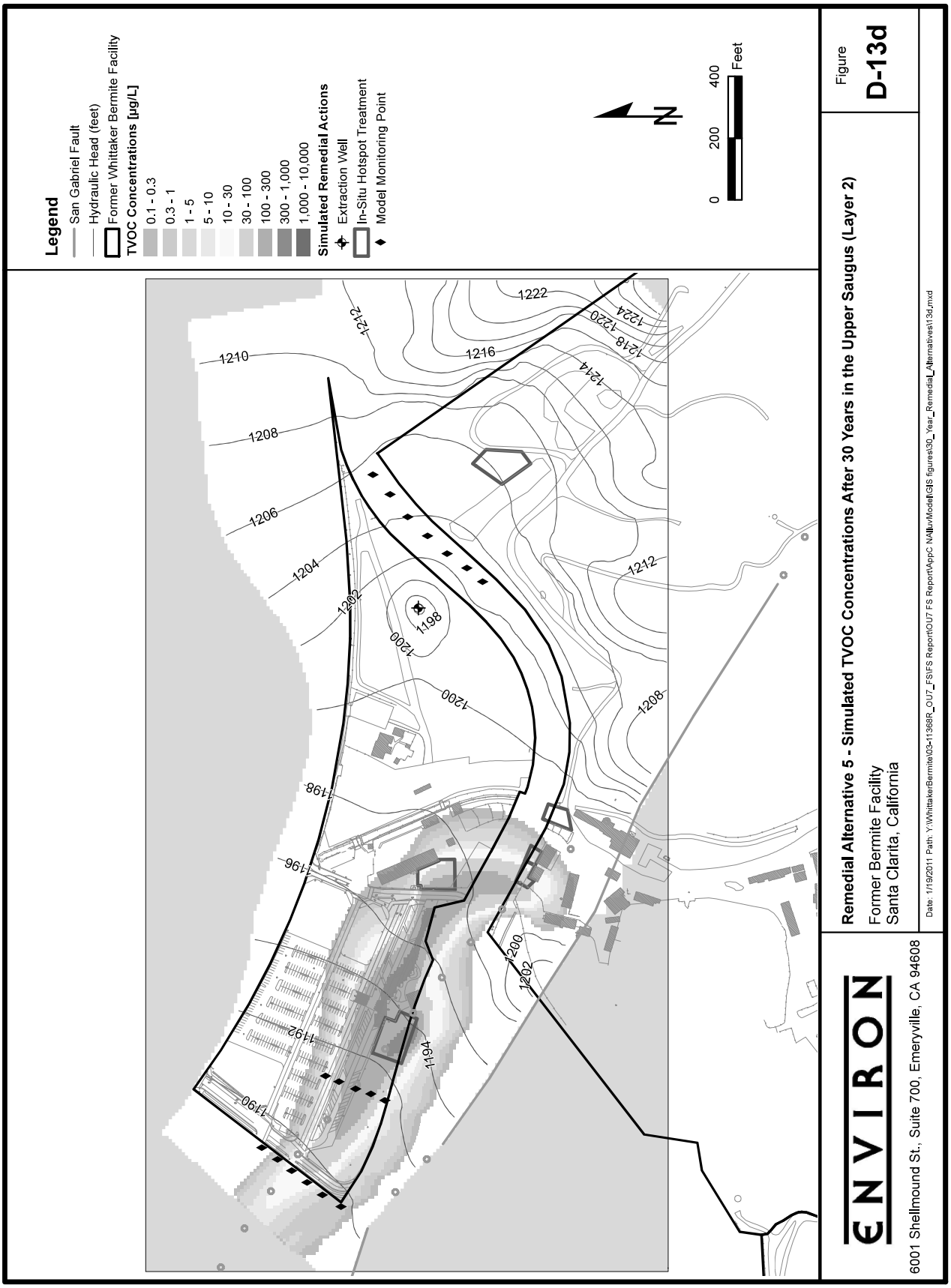
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San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
TVOC Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 5
5 - 10
10 - 30
30 - 100
100 - 300
300 - 1,000
1,000 - 10,000
Simulated Remedial Actions
Extraction Well
In-Situ Hotspot Treatment
Model Monitoring Point
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ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
Remedial Alternative 5 - Simulated TVOC Concentrations After 30 Years in the Upper Saugus (Layer 2)
Former Bermite Facility
Santa Clarita, California
Figure
D-13d
Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\OU7 FS Report\AppC NAPL\ModelGIS figures\30_Year_RemedialAlternatives\13d.mxd

Figure D−14a. Remedial Alternative RA−1: Simulated Maximum Concentrations at Site Boundary Compliance Point and Boundary Performance Monitoring Wells

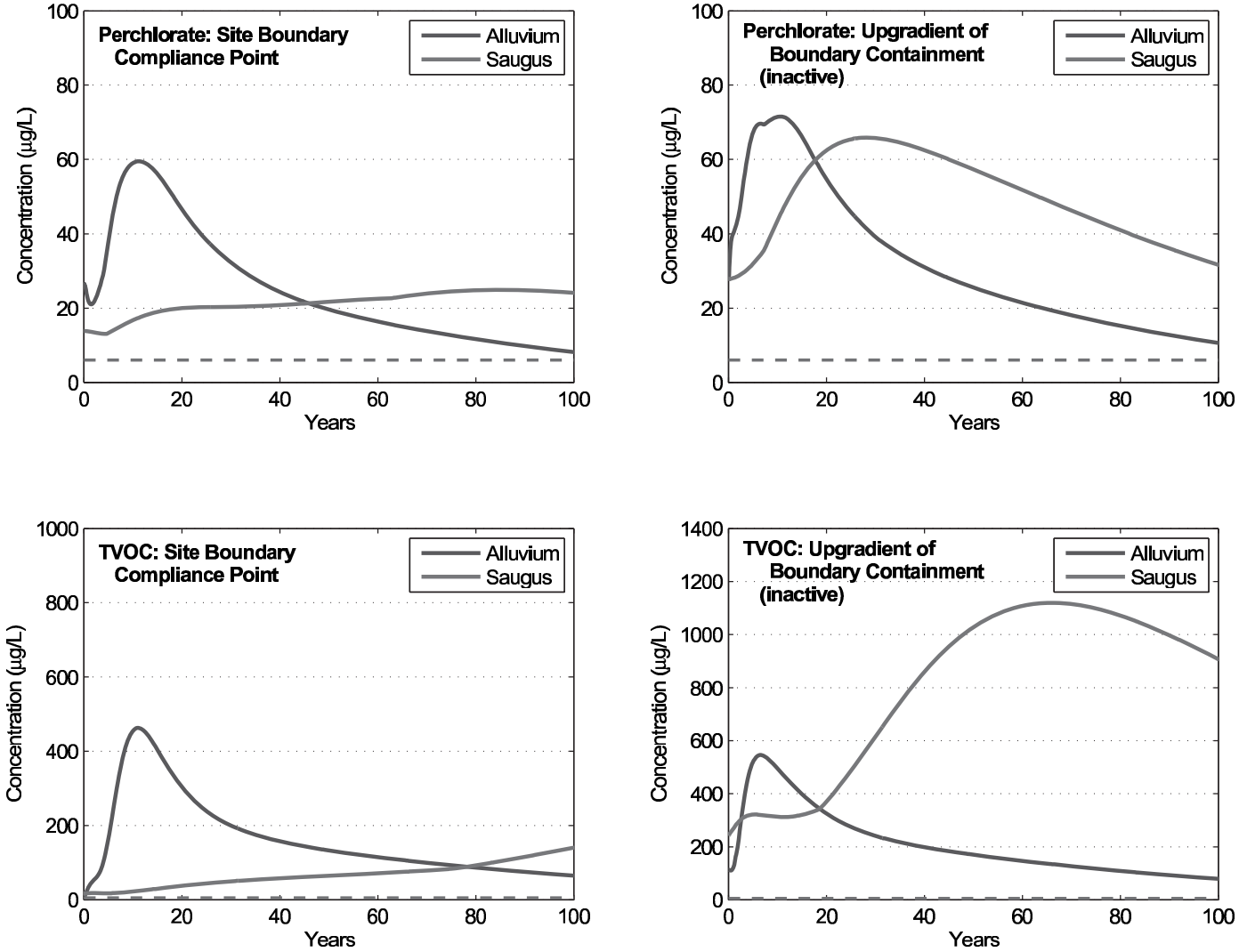

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Figure D−14b. Remedial Alternative RA−1: Simulated Concentrations at Extraction Well 75−MW−35 and Downgradient of Area 11

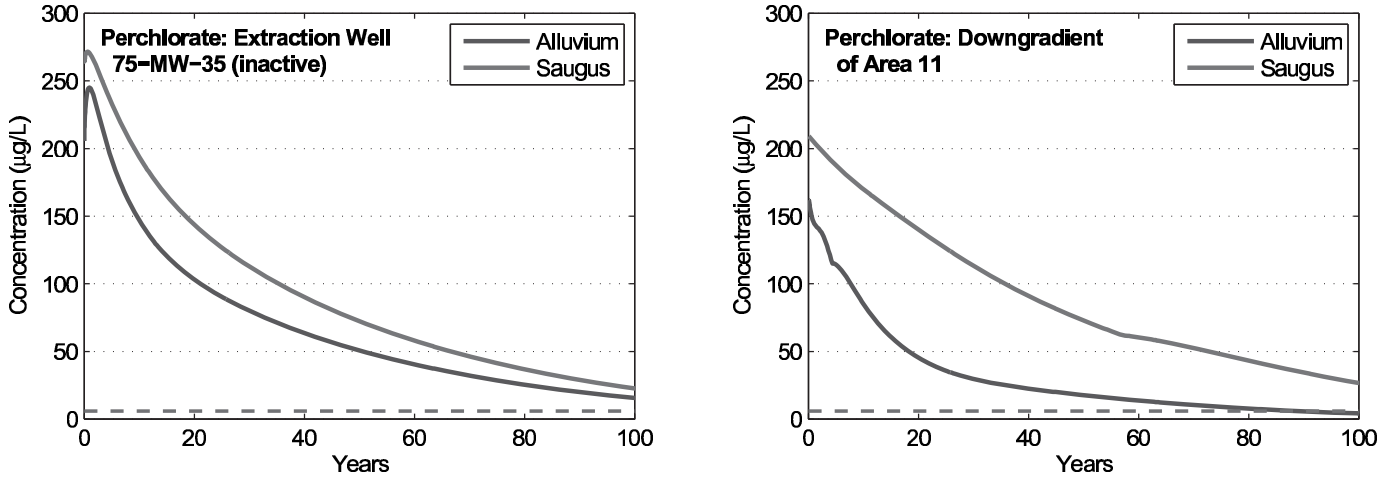

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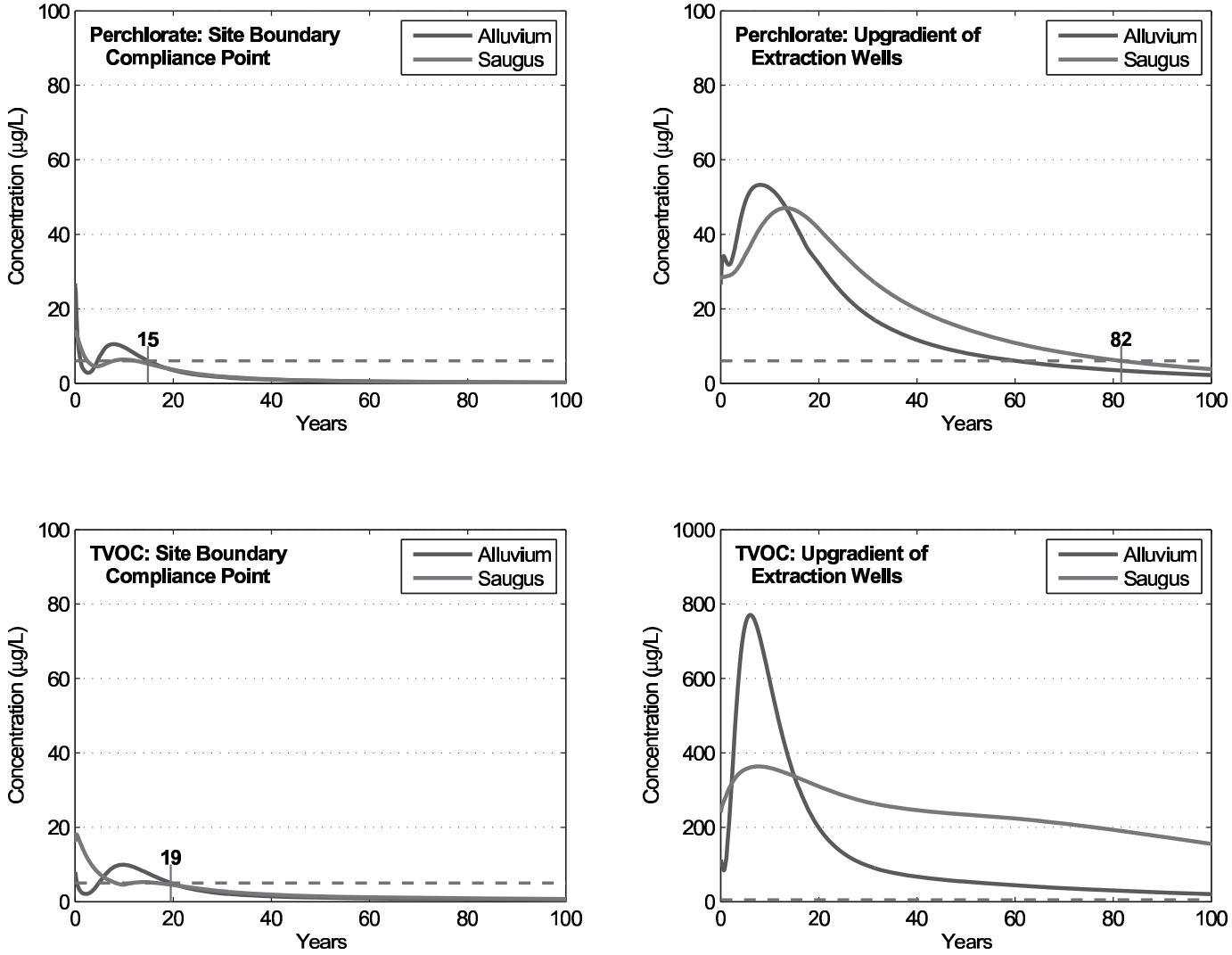
Figure D−15a. Remedial Alternative RA−2: Simulated Maximum Concentrations at Site Boundary Compliance Point and Boundary Extraction Wells



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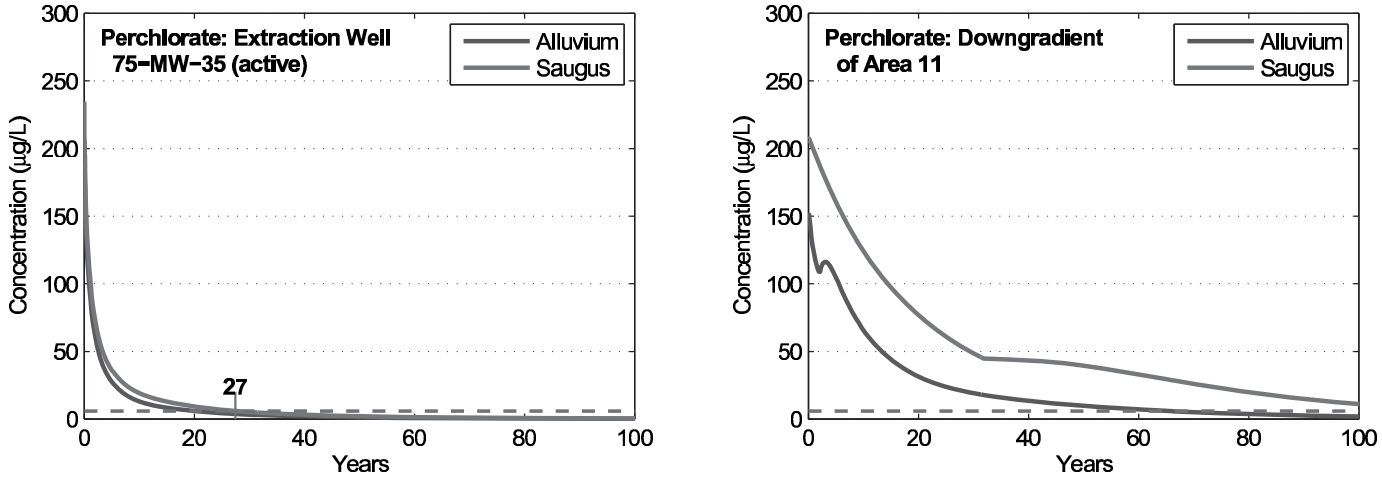
ENVIRON

Figure D−15b. Remedial Alternative RA−2: Simulated Concentrations at Extraction Well 75−MW−35 and Downgradient of Area 11



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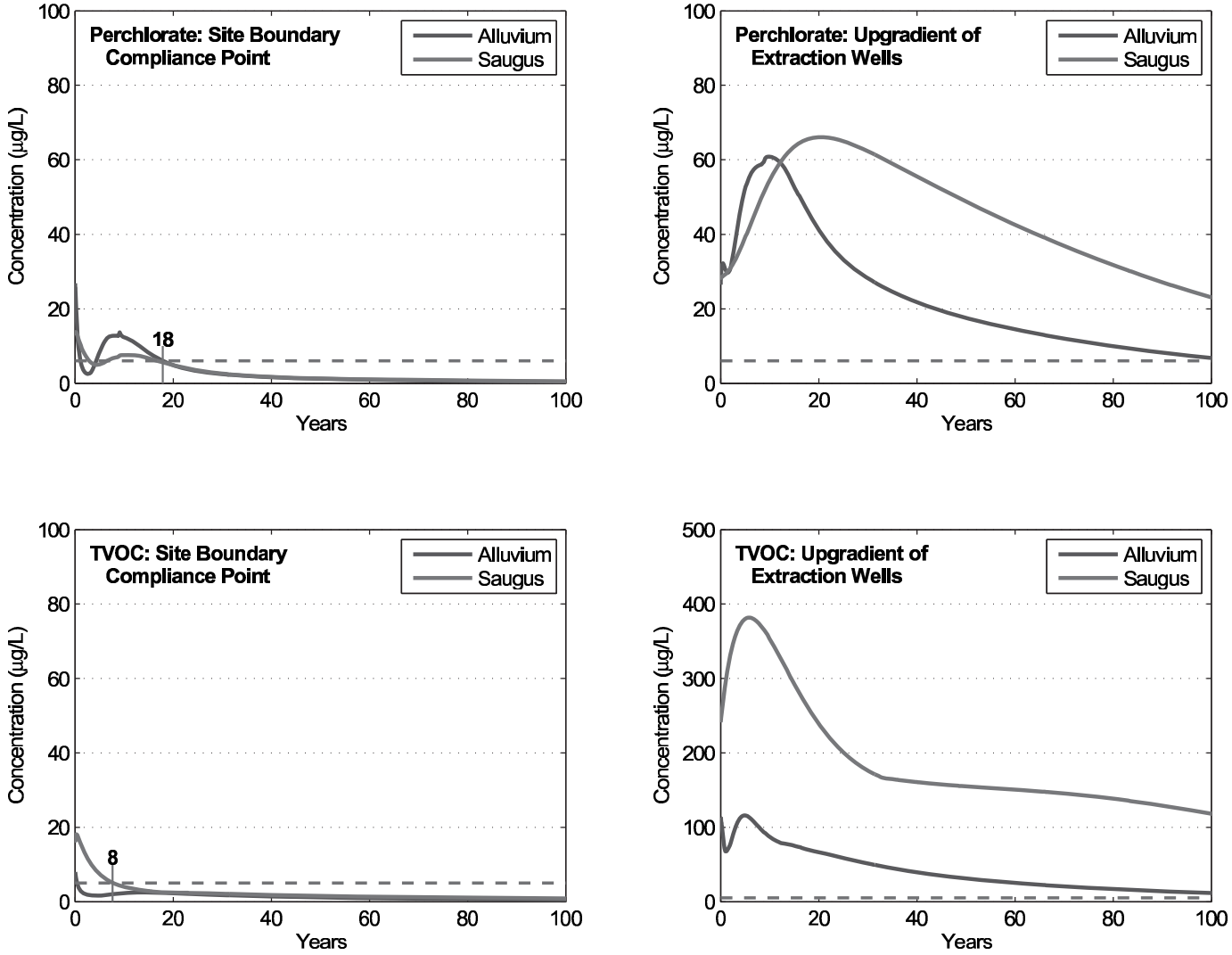
ENVIRON

Figure D−16a. Remedial Alternative RA−3A: Simulated Maximum Concentrations at Site Boundary Compliance Point and Boundary Extraction Wells



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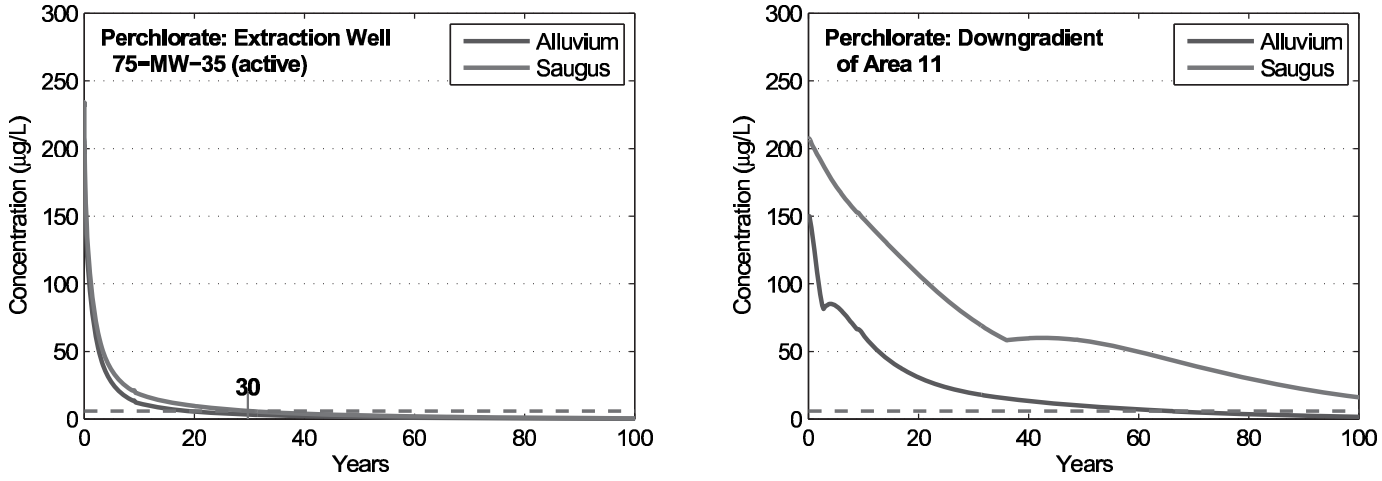
ENVIRON

Figure D−16b. Remedial Alternative RA−3A: Simulated Concentrations at Extraction Well 75−MW−35 and Downgradient of Area 11



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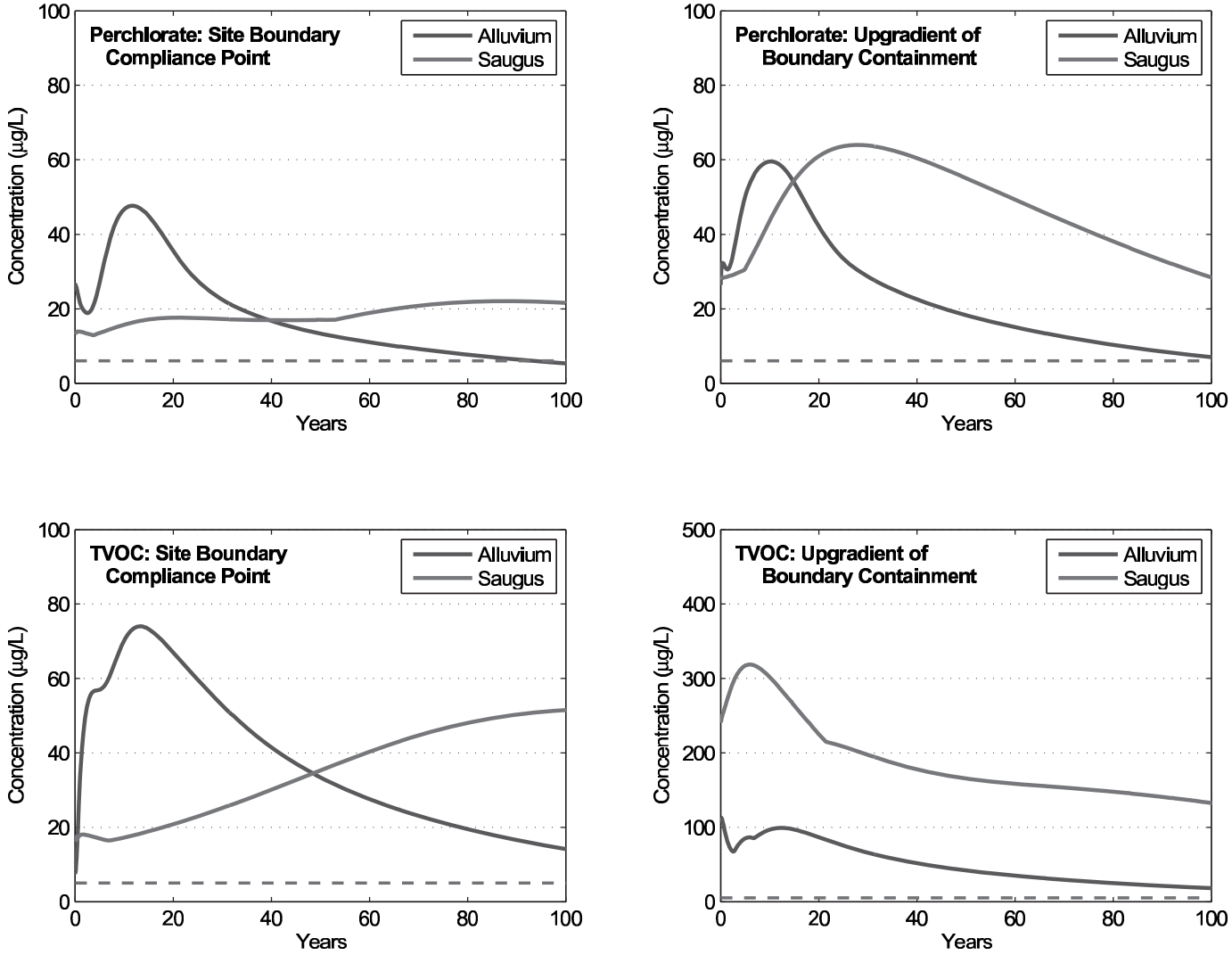
ENVIRON

Figure D−17a. Remedial Alternative RA−3B: Simulated Maximum Concentrations at Site Boundary Compliance Point and Boundary Performance Monitoring Wells



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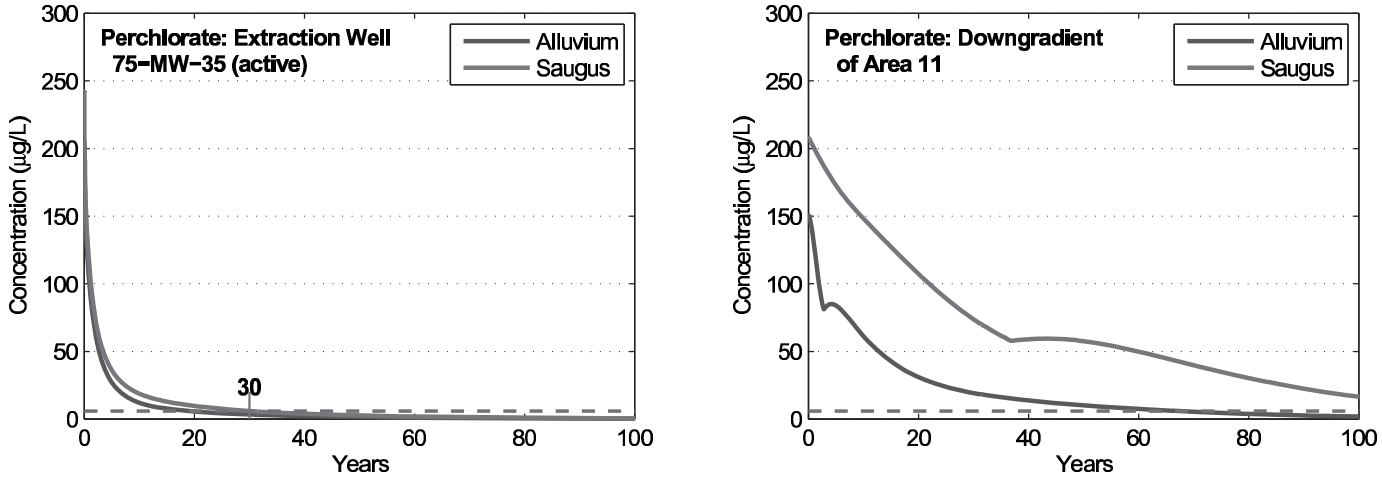
ENVIRON

Figure D−17b. Remedial Alternative RA−3B: Simulated Concentrations at Extraction Well 75−MW−35 and Downgradient of Area 11



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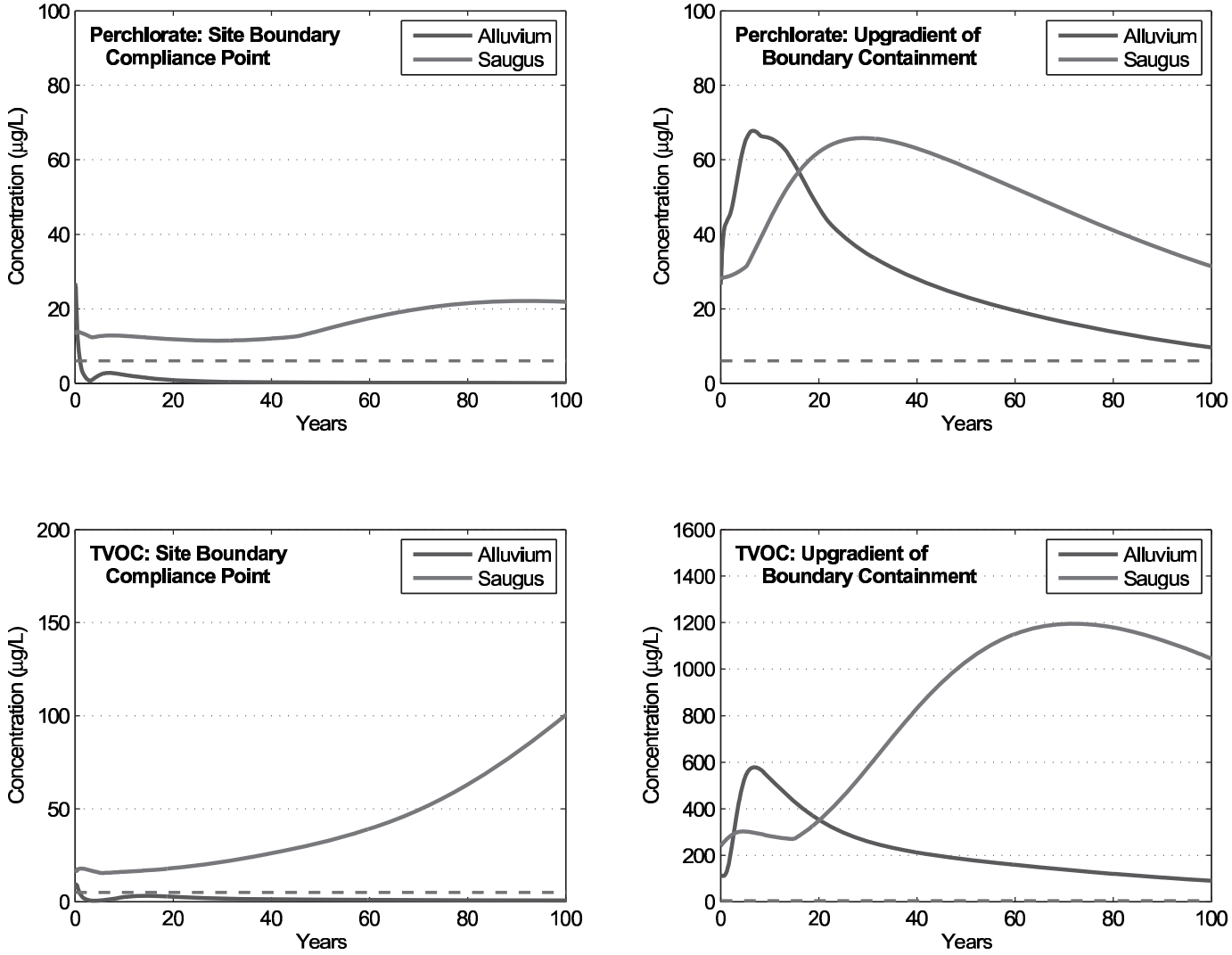
ENVIRON

Figure D−18a. Remedial Alternative RA−4A: Simulated Maximum Concentrations at Site Boundary Compliance Point and Boundary Performance Monitoring Wells



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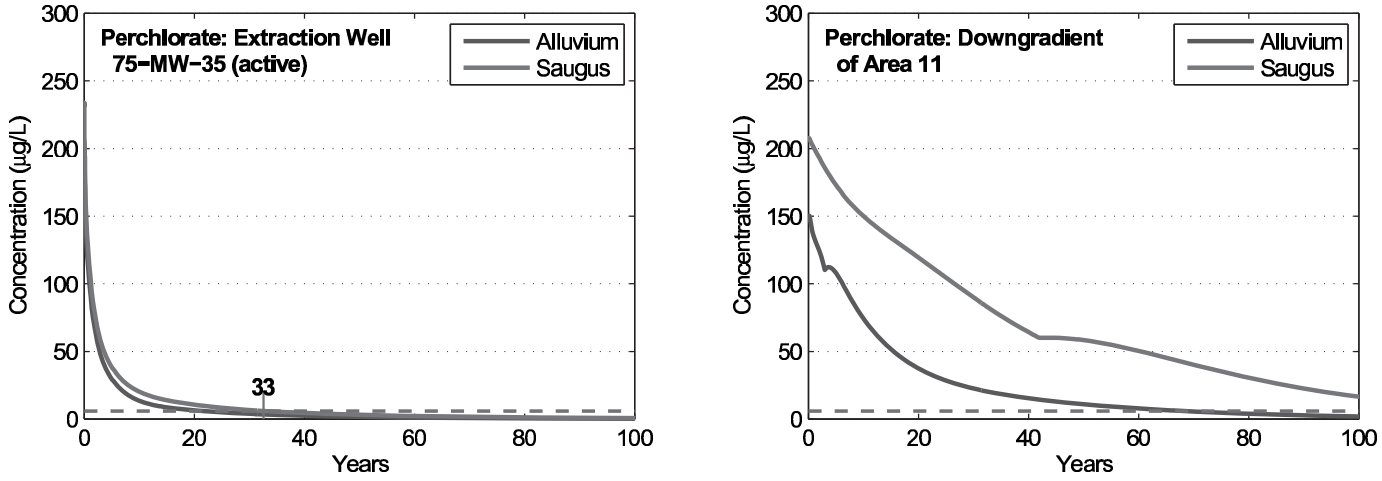
ENVIRON

Figure D−18b. Remedial Alternative RA−4A: Simulated Concentrations at Extraction Well 75−MW−35 and Downgradient of Area 11



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ENVIRON

Figure D−19a. Remedial Alternative RA−4B: Simulated Maximum Concentrations at Site Boundary Compliance Point and Boundary Performance Monitoring Wells

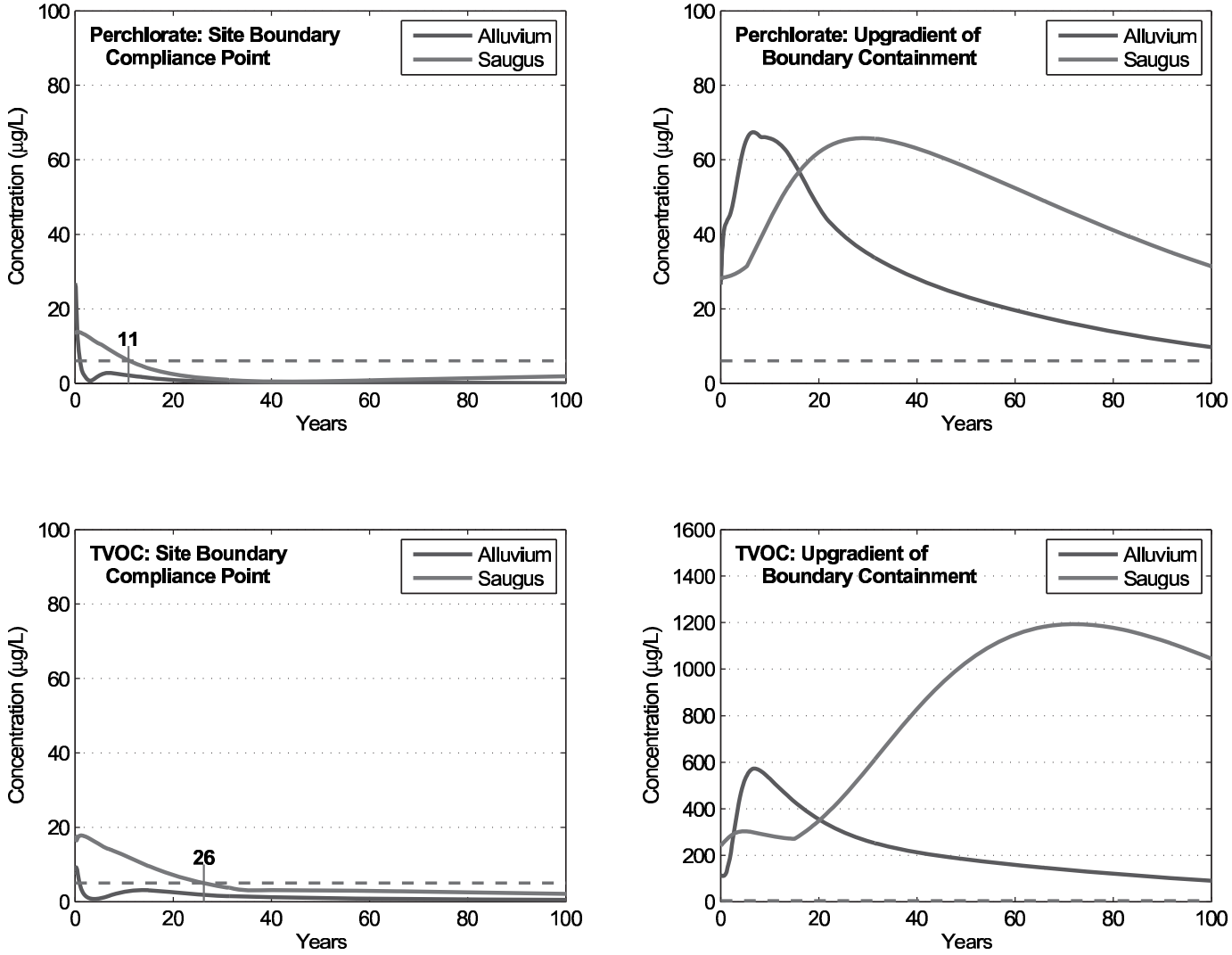

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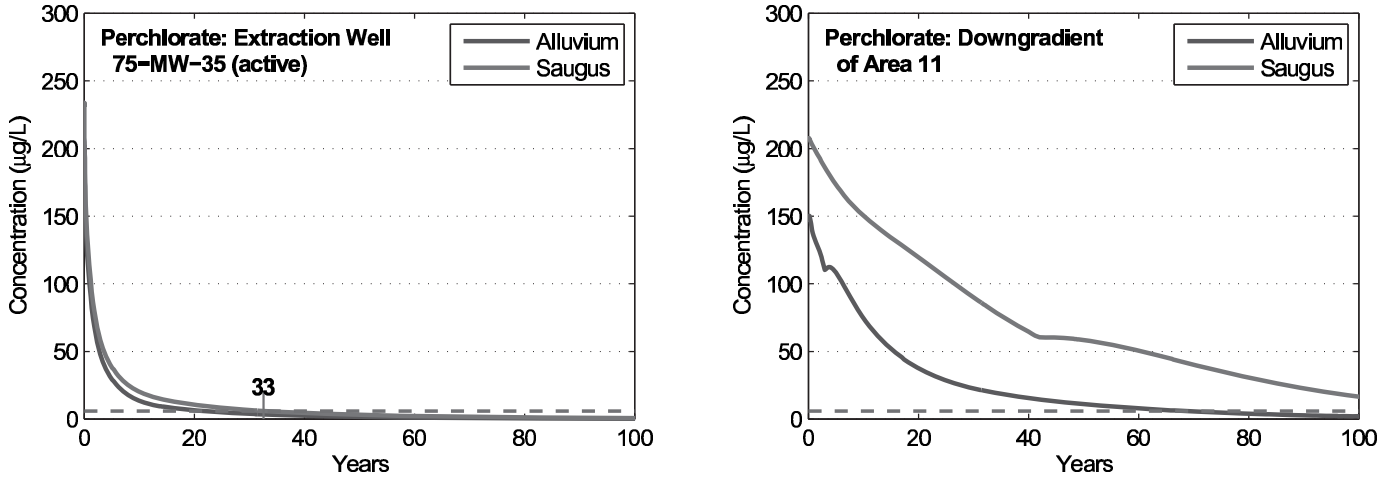
Figure D−19b. Remedial Alternative RA−4B: Simulated Concentrations at Extraction Well 75−MW−35 and Downgradient of Area 11



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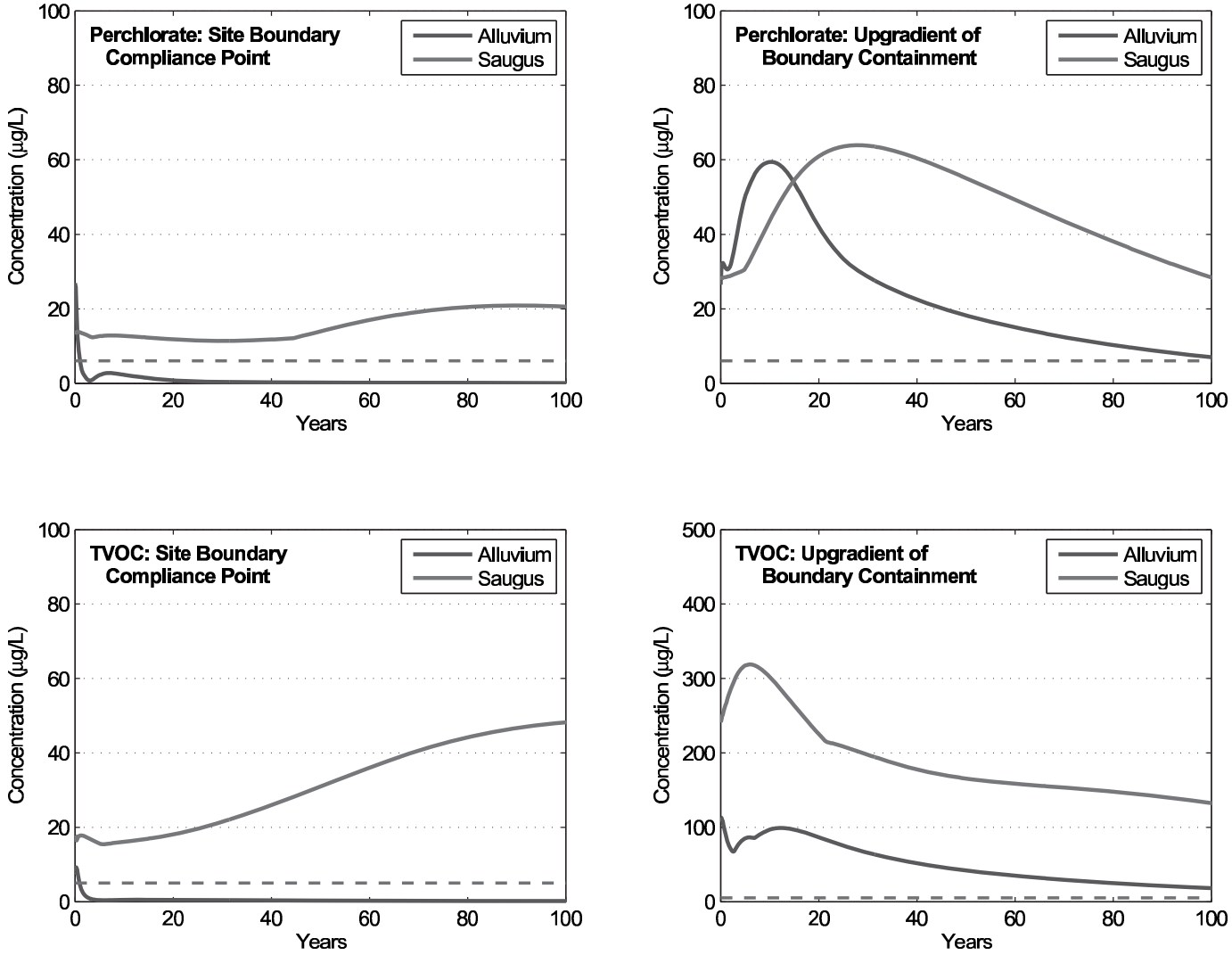
ENVIRON

Figure D−20a. Remedial Alternative RA−5: Simulated Maximum Concentrations at Site Boundary Compliance Point and Boundary Performance Monitoring Wells



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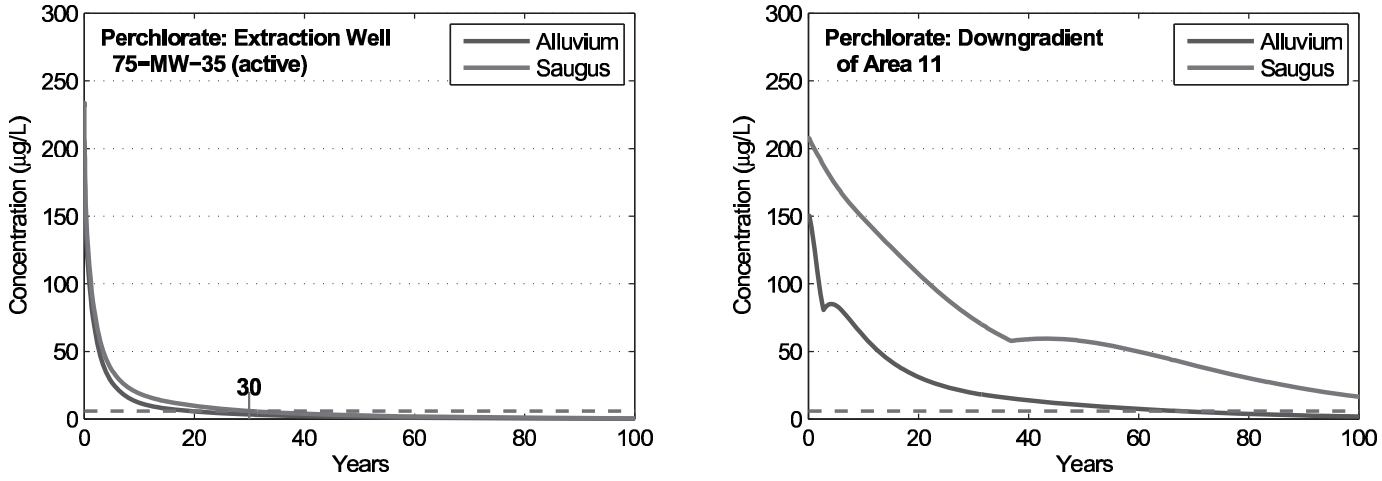
ENVIRON

Figure D−20b. Remedial Alternative RA−5: Simulated Concentrations at Extraction Well 75−MW−35 and Downgradient of Area 11



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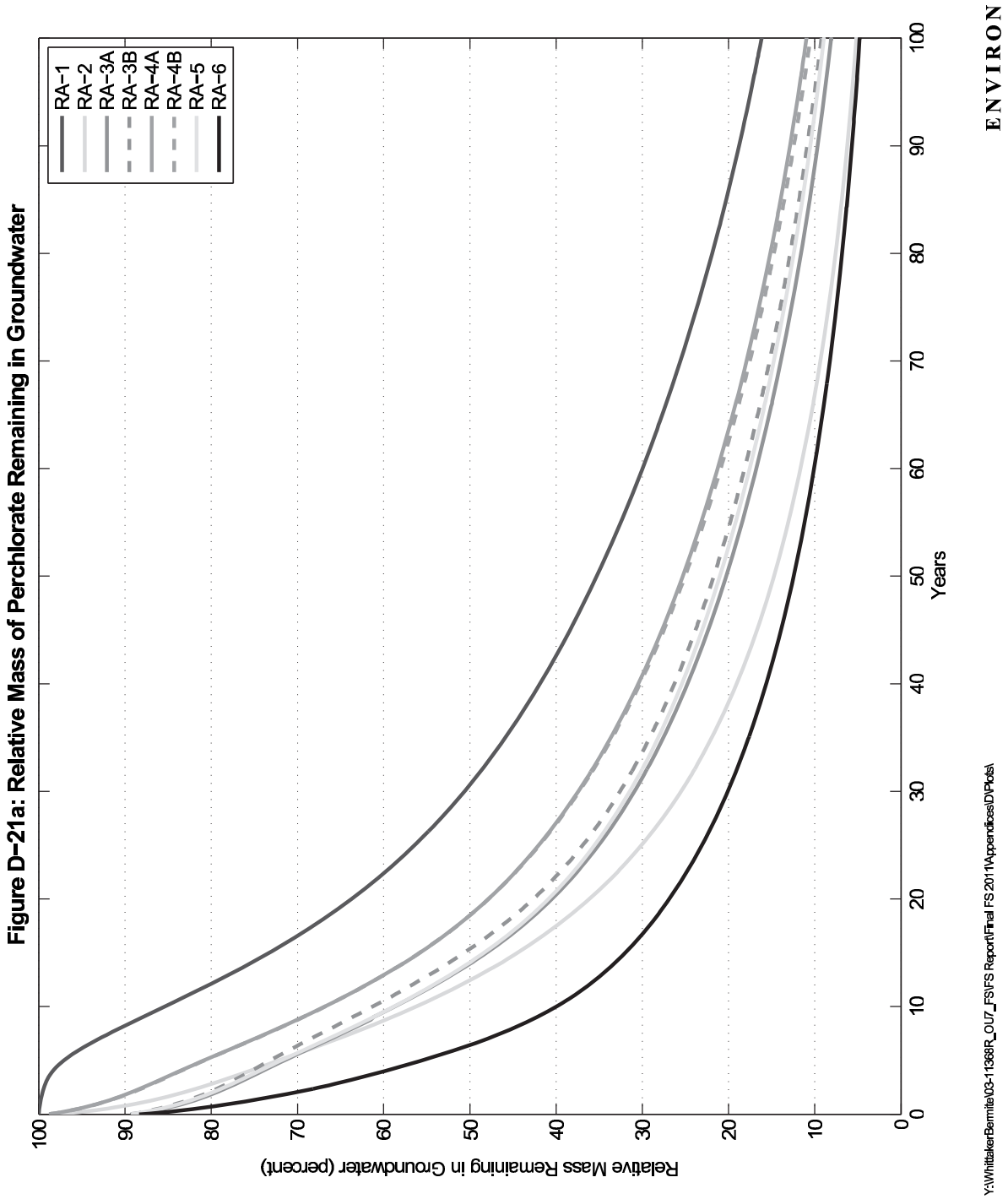


Figure D−21a: Relative Mass of Perchlorate Remaining in Groundwater
RA−1
RA−2
RA−3A
RA−3B
RA−4A
RA−4B
RA−5
RA−6
Relative Mass Remaining in Groundwater (percent)
100
90
80
70
60
50
40
30
20
10
0
0
10
20
30
40
50
60
70
80
90
100
Years
ENVIRON
Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\D\Plots\

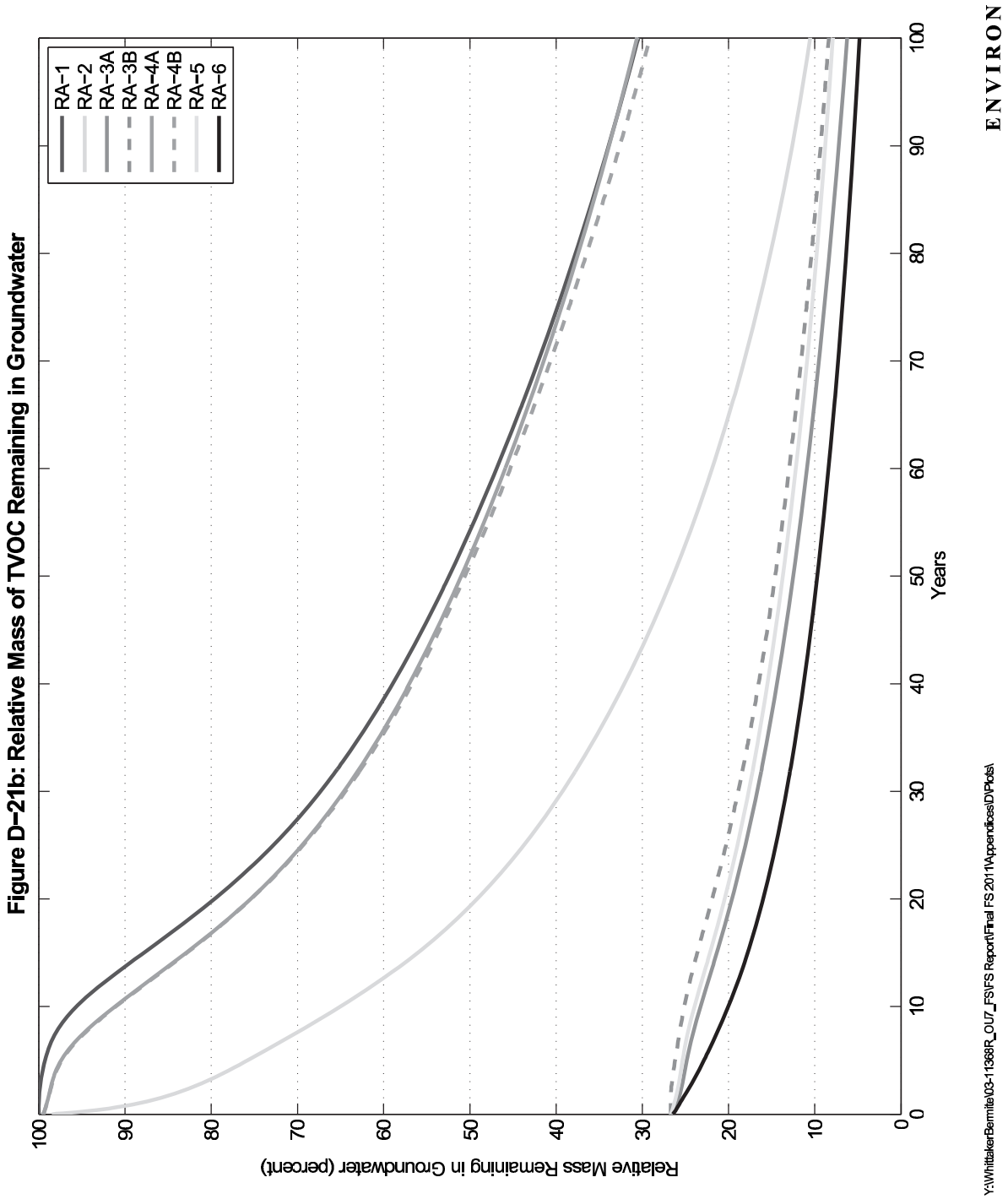
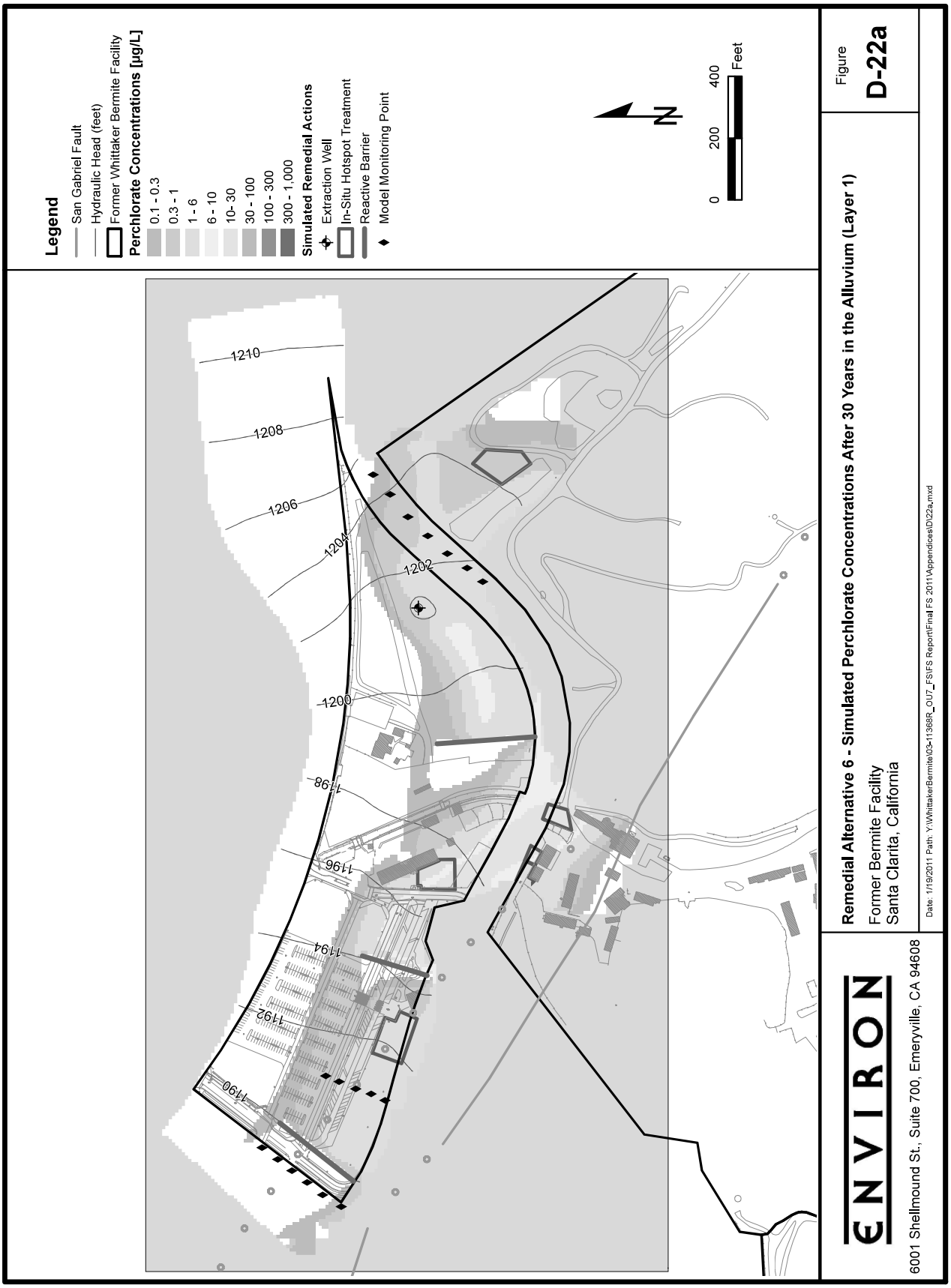
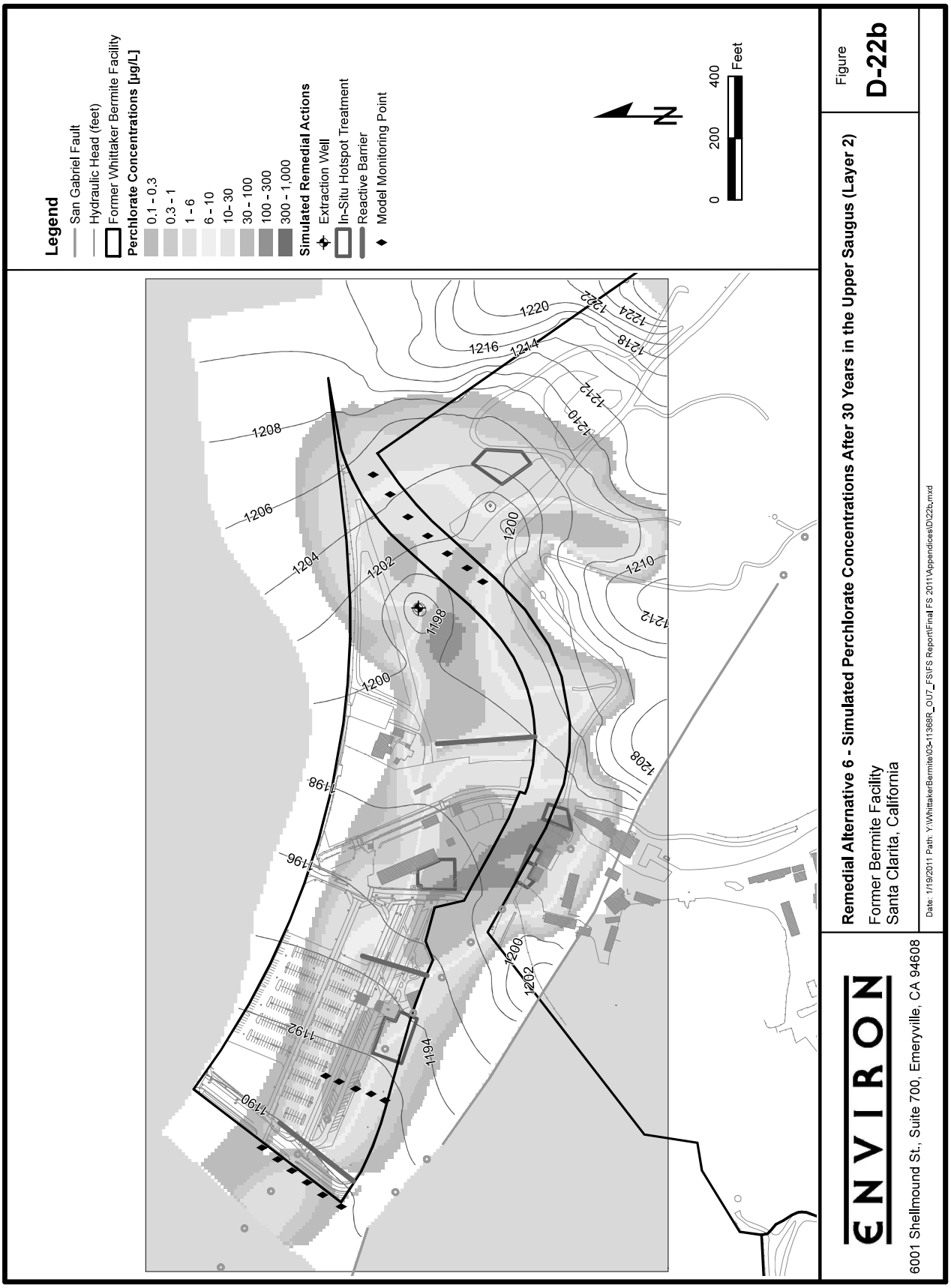
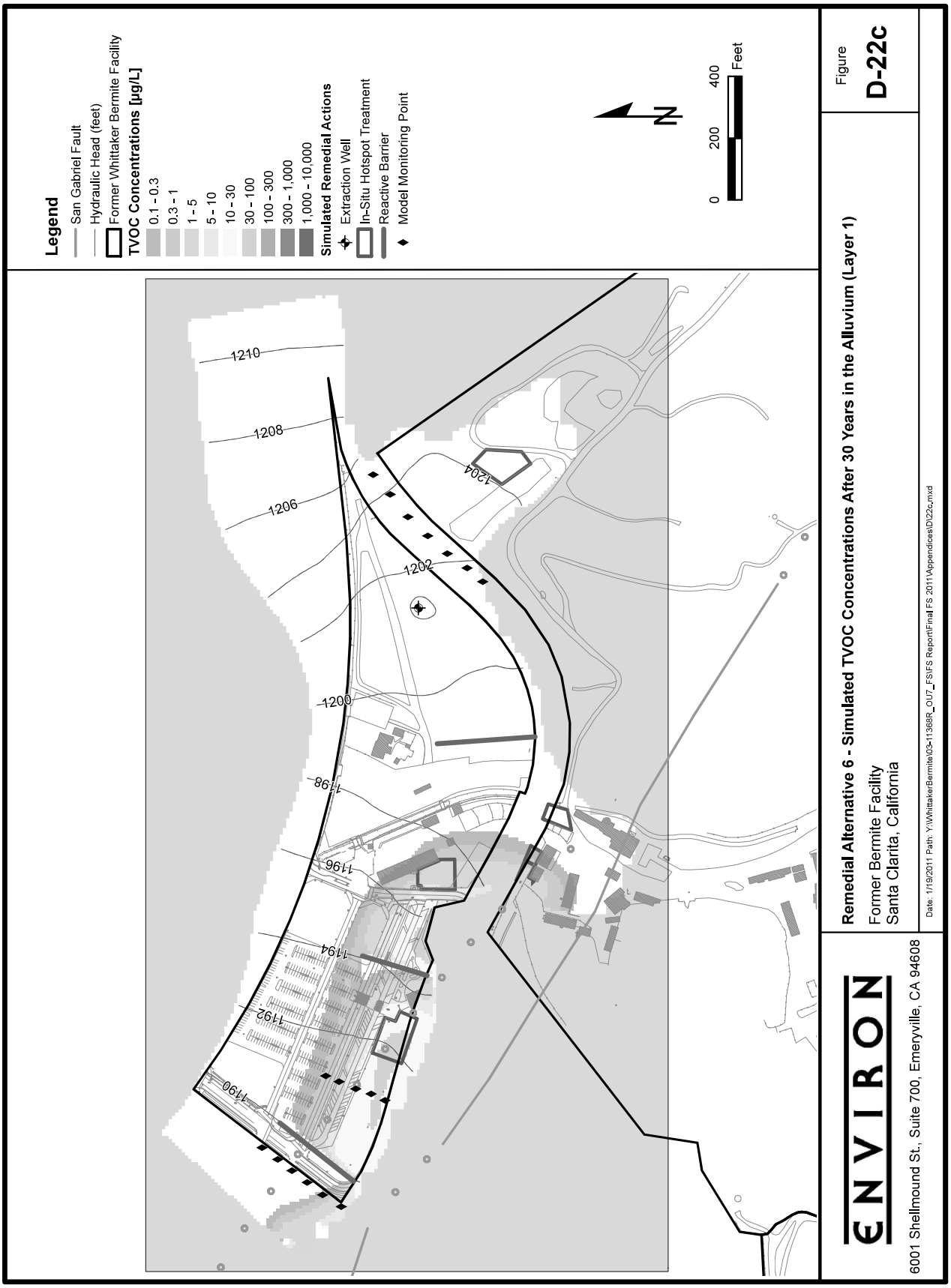
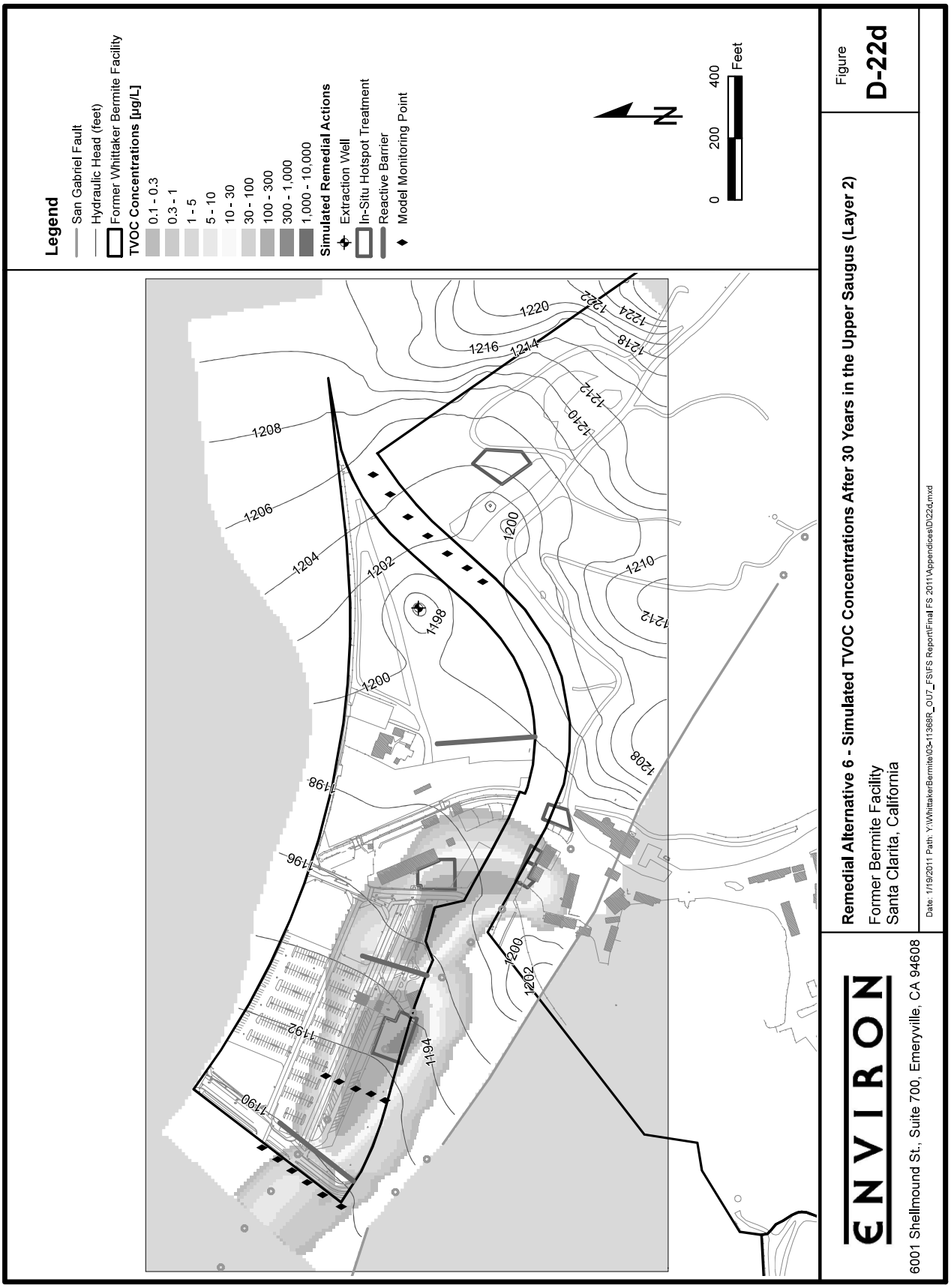


Figure D−21b: Relative Mass of TVOC Remaining in Groundwater
RA−1
RA−2
RA−3A
RA−3B
RA−4A
RA−4B
RA−5
RA−6
Relative Mass Remaining in Groundwater (percent)
100
90
80
70
60
50
40
30
20
10
0
0
10
20
30
40
50
60
70
80
90
100
Years
ENVIRON
Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\D\Plots\


Legend
San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
Perchlorate Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 6
6 - 10
10- 30
30 - 100
100 - 300
300 - 1,000
Simulated Remedial Actions
Extraction Well
In-Situ Hotspot Treatment
Reactive Barrier
Model Monitoring Point
0
200
400
Feet
N
1210
1208
1206
1204
1202
1200
1198
1196
1194
1192
1190
ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
Remedial Alternative 6 - Simulated Perchlorate Concentrations After 30 Years in the Alluvium (Layer 1)
Former Bermite Facility
Santa Clarita, California
Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\D\22a.mxd
Figure
D-22a


Legend
San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
Perchlorate Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 6
6 - 10
10- 30
30 - 100
100 - 300
300 - 1,000
Simulated Remedial Actions
Extraction Well
In-Situ Hotspot Treatment
Reactive Barrier
Model Monitoring Point
N
0
200
400
Feet
1190
1192
1194
1196
1198
1200
1202
1204
1206
1208
1210
1212
1214
1216
1218
1220
1222
1224
1242
1240
1208
ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
Remedial Alternative 6 - Simulated Perchlorate Concentrations After 30 Years in the Upper Saugus (Layer 2)
Former Bermite Facility
Santa Clarita, California
Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\D22b.mxd
Figure
D-22b


Legend
San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
TVOC Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 5
5 - 10
10 - 30
30 - 100
100 - 300
300 - 1,000
1,000 - 10,000
Simulated Remedial Actions
Extraction Well
In-Situ Hotspot Treatment
Reactive Barrier
Model Monitoring Point
N
0
200
400
Feet
1210
1208
1206
1204
1202
1200
1198
1196
1194
1192
1190
Figure
D-22c
Remedial Alternative 6 - Simulated TVOC Concentrations After 30 Years in the Alluvium (Layer 1)
Former Bermite Facility
Santa Clarita, California
Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\D\22c.mxd
ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608


Legend
San Gabriel Fault
Hydraulic Head (feet)
Former Whittaker Bermite Facility
TVOC Concentrations [µg/L]
0.1 - 0.3
0.3 - 1
1 - 5
5 - 10
10 - 30
30 - 100
100 - 300
300 - 1,000
1,000 - 10,000
Simulated Remedial Actions
Extraction Well
In-Situ Hotspot Treatment
Reactive Barrier
Model Monitoring Point
0
200
400
Feet
N
1190
1192
1194
1196
1198
1200
1202
1204
1206
1208
1210
1212
1214
1216
1218
1220
1222
1224
1242
1240
ENVIRON
6001 Shellmound St., Suite 700, Emeryville, CA 94608
Remedial Alternative 6 - Simulated TVOC Concentrations After 30 Years in the Upper Saugus (Layer 2)
Former Bermite Facility
Santa Clarita, California
Date: 1/19/2011 Path: Y:\WhittakerBermite\03-11368R_OU7_FS\FS Report\Final FS 2011\Appendices\D\224.mxd
Figure
D-22d

Letter No. G9 SCOPE, September 25, 2011

Response 1

Introduction

This response addresses the letter from Santa Clarita Organization for Planning and the Environment (SCOPE), dated September 25, 2011. Upon review of this letter, the commenter makes references to specific development projects within the Newhall Ranch Specific Plan area (i.e., the Landmark Village project and the Mission Village project) and the applicant for those projects, the Newhall Land and Farming Company. Consequently, it is unclear at times whether the comment is addressing the EIR prepared for Landmark Village project, the Mission Village project, or the One Valley One Vision plan. Further, it is not within the scope of this OVOV Program EIR to address specific issues related to a development project (e.g., Landmark Village project, Mission Village project, etc.). Notwithstanding this, the County has prepared a specific response to the issues raised in an effort to provide the public with as much information as is practical. It should also be understood that comments in this letter have already been provided to the County Board of Supervisors (Board) by this commenter. These issues, which are known to the Board, were considered by the Board during its October 4, 2011 public hearing regarding the Newhall's Landmark Village project and its October 25, 2011 public hearing regarding Newhall's Mission Village project. Because comments have raised issues in reference to the Mission Village and Landmark Village projects, information presented to the Board in the project EIRs prepared for those EIRs is pertinent to the OVOV Plan and its EIR.

Response 2

Response to Perchlorate Comments

In the letter, pages 1-4, SCOPE comments on ammonium perchlorate (perchlorate) and the spread of perchlorate to Valencia Water Company's Saugus Formation municipal supply Well 201. SCOPE questions the circumstances surrounding Valencia Water Company's detection of perchlorate at Well 201. It also states that the detection of perchlorate at Well 201 means that CLWA's "pump and treat" program is not working, and questions why perchlorate in Well 201 was not contained by that program. Further, SCOPE requests additional testing and new modeling and wants the Landmark Village project delayed until the testing and modeling are completed. Lastly, SCOPE cites a 2004 Court of Appeal decision and testimony from the Department of Toxic Substances Control (DTSC) cited in that decision.

In response, perchlorate is a regulated drinking water contaminant in California with a maximum contaminant level (mcl) of 6 parts per billion (ppb). The Valencia Water Company test in August 2010 was 5 ppb. Since that time, readings have varied from 5 to 12 ppb (see Valencia Water Company's letter, dated June 8, 2011, included in Final EIR, **Appendix F3.13**.)

Further, the Revised Final EIR contains a thorough update of the detection of perchlorate in the local groundwater basin, including the recent detection of perchlorate in Valencia Water Company's Well 201 (see **Topical Response 1: Perchlorate Update**). The topical response summarizes the current status of the perchlorate cleanup in the groundwater basin.

In summary, a total of seven municipal drinking water wells, each located relatively near the site of the former Whittaker-Bermite munitions facility, have been taken out of service for varying periods of time since perchlorate was first detected in the groundwater in 1997. The seven closed wells include six originally impacted wells and the recent closure of Valencia Water Company Well 201.

Five of the six originally impacted wells have been either returned to service with perchlorate treatment facilities or replaced by new wells drawing from the non-impacted portion of the groundwater basin. The five wells collectively restore much of the temporarily lost well capacity. An additional two wells will be drilled to restore the operational flexibility that existed prior to the detection of perchlorate.

Specific to Well 201, Valencia Water Company plans to actively seek remediation and restore the impacted well capacity in the near term. With that said, however, Well 201 remains out of service since August 2010. Valencia Water Company's plan is to either replace the closed well with a new replacement well in a non-perchlorate impacted portion of the groundwater basin, or install wellhead treatment at the well site in order to treat the water to non-detect levels, which has been successfully accomplished by Valencia Water Company at another well site (Well Q2). Nonetheless, it is important to emphasize that Well 201 was taken out of service in August 2010, and has not been returned to municipal supply service since that time. Before either remediation option takes place, Valencia Water Company has committed to working with CLWA and the regulatory agencies (*e.g.*, Department of Public Health, or DPH) before implementation of either remediation option. This includes an ongoing effort by the Valencia Water Company and CLWA to update the existing groundwater modeling to assist in addressing questions from the regulatory agencies.[5]

The Well 201 capacity also is not included in the active groundwater sources listed in the 2010 Urban Water Management Plan (UWMP),[6] and its capacity will not be "counted" in water supply calculations until it is remediated. The recently adopted 2010 UWMP also finds that there are sufficient water supplies to meet the Santa Clarita Valley's existing and planned water demand through 2050 -— without taking into account the capacity from the inactivated Well 201.

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5 Pers. Comm. Keith Abercrombie, General Manager, Valencia Water Company, September 30, 2011.

6 For a copy of the 2010 UWMP, please see **Appendix F3.13**.

In response to SCOPE's claims surrounding Valencia Water Company's detection of perchlorate in Well 201, the County provided responses based on the Revised Final EIR, **Section 3.13, Water Service**, and **Topical Response 1: Perchlorate Update**.

In summary, in August 2010, perchlorate was detected at Well 201 at levels *below* the regulatory standard (i.e., level of 5 ppb was detected and the standard is 6 ppb). The Valencia Water Company, owner and operator of Well 201, immediately took the well out of service and notified the state DPH, of the detection. The DPH directed Valencia Water Company to perform *quarterly* testing at the inactive well to track perchlorate levels. The Valencia Water Company has voluntarily elected to perform *monthly* testing.

By April 2011, the Valencia Water Company had gathered sufficient data to conclude that: (1) the perchlorate levels at Well 201 were above the adopted maximum contaminant level (MCL) on a regular basis; and (2) remediation would be required. The Valencia Water Company notified CLWA, the other water purveyors, the County,[7] the City, and others that the well was impacted by perchlorate at levels over the regulatory standard. The Valencia Water Company also requested that Well 201's supply be excluded from the 2010 UWMP supply calculations until the well is fully remediated. The Valencia Water Company took this action to ensure that the 2010 UWMP would adequately address the impacted well.

Next, SCOPE states that the perchlorate detected at Well 201 means that CLWA's "pump and treat" program is not effective. Based on information presented in Revised Final EIR **Topical Response 1**, and 2010 UWMP Appendix I, the County does not concur with SCOPE's claim.

In summary, CLWA's "pump and treat" program has been endorsed by DPH, and has been successful in containing the spread of perchlorate in the basin. The detection of perchlorate in Well 201 is attributable to the length of time it took to get the "pump and treat" program up and running, not to the effectiveness of the program.

Before issuing a permit to a water utility for use of an impaired source as part of the utility's overall water supply permit, DPH requires that studies and engineering work be performed to demonstrate that pumping the well and treating the water will be protective of public health for users of the water. The DPH approved the return to service of the previously closed Saugus 1 and Saugus 2 wells, and specifically approved the Final Interim Remedial Action Plan for the containment and extraction of perchlorate in January 2006. Therefore, DPH determined that the local water agencies devised a treatment approach that adequately contains the perchlorate contamination and is protective of public health; otherwise, DPH would not have authorized and permitted the Saugus 1 and 2 "pump and treat" program.

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7 For a copy of the letter from Valencia Water Company to the County, please see **Appendix F3.13**.

The DPH endorsement of CLWA's "pump and treat" program is consistent with multiple technical reports referenced in the EIR and 2010 UWMP that have determined that the pumping rates at the restored Saugus wells are sufficient to prevent further migration of perchlorate in the Saugus Formation groundwater.

According to the 2010 UWMP, the primary reason for the recent detection of perchlorate in Well 201 is the length of time it took between the initial detection of perchlorate in the basin in 1997 and actual implementation of the "pump and treat" containment program in 2010. As reported in the 2010 UWMP, Appendix I, the combination of litigation, settlement, permitting, and construction constrained actual implementation of the containment program until 2010, *six years after* the impact of the containment program on perchlorate migration in groundwater was analyzed. That time, combined with the preceding seven years since perchlorate first impacted water supply wells, resulted in a greater risk of downgradient migration of perchlorate in the Saugus Formation, and is considered the primary reason for the recent detection of perchlorate in Well 201.

Responsive to SCOPE's call for additional testing, on August 4, 2011, the DPH sent letters to both Valencia Water Company and Newhall County Water District requesting that the local water agencies increase perchlorate monitoring from annually to quarterly at specified wells. The County has confirmed that both water agencies will conduct the perchlorate monitoring quarterly as requested by the DPH; therefore, adequate oversight from the appropriate regulatory agency, DPH, is in place.

As to SCOPE's modeling comments, it should be noted that Well 201 has been taken out of service, and is not a supply relied upon in either the OVOV EIR or the recently adopted 2010 UWMP. As such, Well 201 is not currently in operation or being pumped; and, therefore, it is not causing perchlorate to "spread" as claimed in SCOPE's letter, page 3, fourth paragraph. As to requests by DPH for modeling, the modeling would not be needed, unless and until Valencia Water Company were to place Well 201 back into service as a municipal supply source with wellhead treatment installed. Under such circumstances, Valencia Water Company would coordinate its efforts with CLWA and the regulatory agencies in the event additional modeling were needed in the future.[8]

Based on the information presented in the OVOV EIR Section 3.13, Water Service, and **Topical Response 1: Perchlorate Update**, an adequate supply of existing and planned water exists to meet the needs of Santa Clarita Valley residents now and in the future, despite the loss in capacity due to the perchlorate-impacted wells.

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8 Pers. Comm. Keith Abercrombie, General Manager, Valencia Water Company, September 30, 2011.

In summary, two of the originally impacted Saugus wells, Saugus 1 and 2, were placed back in service in January 2011, restoring approximately 3,544 acre-feet (af) of water supply in a normal year. (2010 UWMP, Table 3-9.) The contaminated Stadium Well and VWC Well 157 have been replaced and the pumping capacity lost due to that contamination has been restored with two new replacement wells in non-impacted portions of the basin.

Based on this information, the conclusions reached in the Revised Final EIR that groundwater from existing and replacement wells is available to assist in meeting the current and projected water demands for the Santa Clarita Valley is reasonable and supported by the evidence.

In addition, SCOPE's reliance on the 2004 Court of Appeal decision is not applicable. First, neither the applicant nor the County is responsible for the ongoing efforts to remediate perchlorate in the groundwater basin. This clean-up effort remains with CLWA, the retail suppliers, and the regulatory agencies providing oversight.

Second, as evidenced in **Topical Response 1: Perchlorate Update**, substantial progress has been made in responding to the detection of perchlorate, and substantial facilities needed for remediation/treatment are in place and actively monitored by CLWA, the local retail suppliers, and several regulatory agencies, which was not necessarily the case in the early 2000 era.

Third, there is a timeline for remediation (replacement or wellhead treatment) of Valencia Water Company's Well 201. The Valencia Water Company plans to actively seek remediation (replacement or wellhead treatment) under the Whittaker-Bermite perchlorate litigation settlement agreement and rapidly restore the impacted well capacity. Given Valencia Water Company's experience of: (1) bringing its Well Q2 back into production; (2) actions under the DPH 97-005 Policy Memo; (3) participating in bringing treatment facilities on line for the Saugus 1 and Saugus 2 wells; and (4) replacing capacity for its Well 157, Valencia Water Company has determined that it could either install wellhead treatment to bring the well back into service or replace the capacity with a new well within two years. As explained above, this time estimate is conservative because of Valencia Water Company's prior success in 2005 in restoring Well Q2 to municipal-supply service within an approximate six-month period. As explained, there also are now funds in place to remediate Well 201 upon the permitting and installation of wellhead treatment or replacement of Well 201's capacity with a new replacement well.

Fourth, from a regional perspective, CLWA and the local retail suppliers have evaluated the perchlorate impact upon the groundwater basin, and continue to monitor perchlorate in the basin, with the assistance of the regulatory agencies (e.g., DPH, DTSC). For a detailed discussion of that regional effort, please see the recently adopted 2010 UWMP, Appendix I, which is found in **Appendix F3.13**.

Based on the information summarized above and found elsewhere in the OVOV EIR, there is no reason to defer or delay consideration of the Landmark Village project or the OVOV plan.

Response 3

Response to Chloride Comments

In the letter, pages 4-9, SCOPE claims that there is a failure to address compliance with the chloride Total Maximum Daily Load (TMDL), referencing the interim treatment of wastewater from the first 6,000 units within Newhall Ranch at the existing Valencia Water Reclamation Plant (WRP). SCOPE asserts that such interim use was neither contemplated in the Newhall Ranch Specific Plan, nor the certified EIR for that project. SCOPE also claims that the applicant "no longer intends" to build the Newhall Ranch WRP. Further, SCOPE claims that the 2002 Interconnection Agreement was not disclosed. SCOPE claims that the Regional Water Quality Control Board, Los Angeles Region (RWQCB) has issued administrative notices of violation to the Santa Clarita Valley Sanitation District (SCVSD) for the Saugus and Valencia WRPs for not complying with the chloride TMDL.

In response, each of SCOPE's claims is addressed in the Revised Final EIR, **Section 3.12, Hydrology and Water Quality** and **Topical Response 4: Chloride**. In summary, there is no conflict between the Landmark Village project's interim use of the Valencia WRP and the approved Newhall Ranch Specific Plan. The Newhall Ranch environmental documentation (1999 and 2003) evaluated the environmental impacts related to development of the Newhall Ranch Specific Plan, including constructing the Newhall Ranch WRP at a project level, and implementing the new sewerage facilities to serve the Specific Plan at a programmatic level.

The project-level EIR for Landmark Village has been completed. The Landmark Village project-level EIR correctly disclosed that the environmental effects of constructing and operating the Newhall Ranch WRP at buildout were thoroughly evaluated in the prior 1999/2003 Newhall Ranch Specific Plan environmental documentation. The project-level EIR also identified options to treat wastewater generated by the Landmark Village project during an interim period until the first phase of the Newhall Ranch WRP is constructed. Specifically, the EIR identified an option to construct a pump station at the Landmark Village project site where wastewater would be pumped back to the existing Valencia WRP until construction of the Newhall Ranch WRP.

This option is consistent with the Interconnection Agreement that Newhall and Sanitation District Nos. 26 and 32 (later consolidated as Santa Clarita Valley Sanitation District or SCVSD) entered into on January 9, 2002.[9] The Interconnection Agreement sets conditions under which the first 6,000 dwelling units within

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9 A copy of the 2002 Interconnection Agreement is in **Appendix F3.13**.

the Specific Plan area may temporarily discharge wastewater (up to 1.6 mgd) to SCVSD's Valencia WRP. Newhall remains obligated to fund and construct the Newhall Ranch WRP for ultimate buildout of the Specific Plan. However, practical, technical, and economic reasons support the phasing for wastewater treatment, in coordination with the SCVSD.

Also, SCVSD approved the 2002 Interconnection Agreement in duly noticed public meetings, and it has been referenced in subsequent official documents, including Los Angeles County and LAFCO resolutions supporting formation of the new Newhall Ranch Sanitation District (NRSD). Most recently, the County Board of Supervisors considered the January 18, 2011 Department of Public Works (DPW) staff report and resolution confirming formation of the Newhall Ranch Sanitation District, and adopted that resolution. In doing so, the Board of Supervisors found that formation of the NRSD was within the scope of the previously certified 1999/2003 Newhall Ranch EIR, as well as the Addendum certified by the Board on December 13, 2005. The Board specifically referenced the Interconnection Agreement as allowing wastewater for up to 6,000 dwelling units to be treated at the existing Valencia WRP as needed. In addition, an earlier December 1, 2005, staff report prepared by DPW to the Board concerning formation of the Newhall Ranch Sanitation District, pages 3-4, refers to the District entering into the Interconnection Agreement with Newhall to coordinate wastewater management facilities at Newhall Ranch and adjacent facilities. The 2005 staff report also specifically referred to the Agreement allowing up to 6,000 capacity units to be treated at existing District wastewater treatment facilities, as needed, and finding further that the District has sufficient capacity to accommodate the use of its facilities. (Both the January 18, 2011, and the December 1, 2005, DPW staff reports are incorporated by reference and available for public review and inspection upon request to the County's Department of Regional Planning.)

In addition, temporary use of the Valencia WRP to treat Landmark Village wastewater does not eliminate the requirement for Newhall or its designee to construct the Newhall Ranch WRP or to finance the new sewerage system within the Specific Plan area. Per the 2002 Interconnection Agreement with the Santa Clarita Valley Sanitation District, Newhall must construct the Newhall Ranch WRP and have it operational before construction of the 6,000th dwelling unit on Newhall Ranch. Temporary treatment of the Landmark Village wastewater at Valencia WRP is a practical engineering decision based on the need to build up an adequate steady flow of wastewater before starting up the Newhall Ranch WRP.

SCOPE's comments point out that on May 27, 2011, the Los Angeles RWQCB issued administrative notices of violation to SCVSD regarding the Valencia and Saugus WRPs. On June 27, 2011, the SCVSD responded to the RWQCB and recommended to its Board of Directors that staff prepare a Wastewater Facilities Plan and EIR for facilities to comply with a final effluent chloride limit of 100 mg/L at the point of discharge and begin design of the facilities. On July 26, 2011, the SCVSD Board of Directors *approved*

the staff recommendation. The SCVSD estimates that it will complete the Wastewater Facilities Plan and EIR by December 31, 2012.

As part of the Wastewater Facilities Plan and EIR, SCVSD intends to address an alternative compliance approach that responds to changed chloride conditions as of 2011, which would fully protect all designated beneficial uses in the Santa Clara River watershed. The SCVSD believes that changed conditions will show that it is more environmentally and economically sound to implement an alternative compliance approach, rather than an advanced treatment approach, in meeting a 100 mg/L final effluent limit. As part of this effort, the SCVSD also intends to perform the modeling and scientific and technical studies necessary to demonstrate the adequacy of its alternative compliance approach and to request reopening of the chloride TMDL at a later time based on the modeling in those studies.

Contrary to SCOPE's arguments, the interim use of the Valencia WRP to treat the wastewater from the first 6,000 dwelling units in Newhall Ranch (including Landmark Village) will not increase chloride levels in the Santa Clara River, nor make it more difficult for the Santa Clarita Valley Sanitation District to comply with the adopted chloride TMDL. According to the Santa Clarita Valley Sanitation District, the cost and environmental effects of the Valencia WRP's temporary treatment of wastewater generated by the first 6,000 dwelling units constructed within the Specific Plan were addressed by the Districts in its detailed memorandum to the Board of Supervisors, dated March 8, 2011 (see **Appendix F3.13**). As provided in that memorandum, the Newhall Ranch wastewater would neither add to nor alleviate the Santa Clarita Valley Sanitation District's financial burden to comply with the chloride TMDL.

Also, as stated in the District's March 8, 2011 memorandum, the temporary use of the Valencia WRP for treatment of Newhall Ranch wastewater does not eliminate the Specific Plan requirement for Newhall to construct the Newhall Ranch WRP and to finance the new sewerage system within the Specific Plan. According to the memorandum, Newhall must construct the Newhall Ranch WRP per the Specific Plan, and must have it operating properly before the next phase after Landmark Village/Mission Village (up to 6,000 units).

In addition, the Landmark Village project has been shown to produce wastewater chloride concentrations *similar* to those in the existing SCVSD service area. In addition, the Landmark Village project will not use SWP water, but will be supplied with local groundwater from the Alluvial aquifer with an average chloride concentration of 82 mg/L (concentrations ranging from 74 to 96 mg/L have been measured in E Wells, *similar* to the chloride concentrations in Santa Clarita Valley water supplies from 2002 to 2010.

Thus, the interim discharge of wastewater from the Valencia WRP due to the Landmark Village project's wastewater would have a less than significant impact on chloride in the Santa Clara River, because:

(1) the discharge of wastewater from the Valencia WRP has been shown to be similar as between the Landmark Village project's wastewater and the wastewater from existing Santa Clarita Valley communities; (2) the use of the Valencia WRP for treatment of the Newhall Ranch wastewater (*i.e.*, first 6,000 units) would be temporary until construction of the Newhall Ranch WRP; and (3) the Valencia WRP has sufficient capacity to accommodate the interim wastewater discharge from the first 6,000 units from Newhall Ranch.

Lastly, to confirm full and complete compliance with the chloride TMDL, the project applicant (Newhall) has identified interim chloride reduction treatment at the Valencia WRP. This involves chloride treatment of the effluent amount originating from Newhall Ranch (up to 6,000 units) at the Valencia WRP during the operation period of the 2002 Interconnection Agreement. (For further information, please refer to the Landmark Village Final EIR (September 2011), New Topical Response 12: Revised Project Design.)

The result is that the Project effluent discharged to the Santa Clara River through the permitted Valencia WRP outfall would result in discharge equivalent to 100 mg/L chloride (or other applicable standard), which is the chloride effluent treatment standard under the Newhall Ranch WRP NPDES permit. This additional treatment process would remove chloride from the Newhall Ranch effluent at the Valencia WRP, so that the interim chloride reduction would be equivalent to that of the Newhall Ranch WRP under the Newhall Ranch WRP Permit (100 mg/L). For additional information regarding these chloride issues, including chloride levels in SWP water, please see **Topical Response 4: Chloride.**

Response 4

Response to Brine Comments

In the letter, pages 8 and 9, last paragraph, SCOPE refers to Newhall's planned use of well sites to dispose of brine (a byproduct of the reverse osmosis [RO] treatment process from the Newhall Ranch WRP and Newhall's chloride reduction treatment plan). SCOPE limits its comment to the fact that the brine disposal process is "an expensive proposition" that should not be "foisted" onto local taxpayers.

In response, the disposal of brine generated by the Newhall Ranch WRP RO treatment process and/or Newhall's chloride reduction plan is under the jurisdiction of agencies other than Los Angeles County. Notwithstanding, the following responsive information is provided.

In summary, Newhall has submitted to the U.S. Environmental Protection Agency (USEPA) the "USEPA Class I Injection Well Application," prepared by Luhdorff and Scalmanini Consulting Engineers, revised June 30, 2011. This permit application is incorporated by reference and available for public review and inspection upon request to the County's Department of Regional Planning.

As part of a separate permit process with USEPA, Newhall is proposing the disposal of brine concentrate by deep well injection. Injection will occur at depths ranging between 3,500 to 9,500 feet, well below the lowermost underground source of drinking water (USDW). An application has been submitted to secure a Class I non-hazardous injection well permit from USEPA's Underground Injection Control (UIC) program. The application analyzed the feasibility of injection by identifying the extent of the USDW, the injection and confining zones, and calculated the anticipated injection life. The revised application also demonstrated that the proposed injection will not impact the USDW.

Summary of Brine Disposal Process

Brine, a byproduct, would be injected into abandoned oil wells, which may include the unproductive eastern edge of the Del Valle oil field and the abandoned Castaic Junction oil field. The maximum estimated volume of brine to be injected is 0.5 million gallons per day (mgd) for approximately five months per year.

Groundwater used for municipal, industrial, and agricultural purposes is obtained from the Quaternary Alluvium and the Pleistocene Saugus Formation. The Alluvium is a shallow aquifer present along drainages, such as the Santa Clara River and associated tributaries. The Saugus Formation lies below the Alluvium and is present at the very eastern edge of the Del Valle oil field and thickens to the east. The Alluvium and Saugus aquifers comprise the USDW in the project area. Water wells within the project area are located adjacent to the Santa Clara River and vary in depth from approximately 135 to 800 feet below ground surface. Most of the water wells were completed in the interval from approximately 50 to 240 feet below ground surface.

Beneath the Alluvium and Saugus Formation lies the Pico Formation. The Upper Pico is the confining zone and consists of low permeability clay, shale, and siltstone at depths ranging from 3,000 to 3,500 feet. The confining zone of the Upper Pico Formation provides an effective barrier to vertical migration of injected fluids into the upper Alluvium and Saugus Formation, and protects the USDW from injected fluids.

Injection Zone

The potential injection zones, the Pliocene Pico and the Miocene Modelo formations, have produced oil and gas and have proven injection potential associated with the oil field operation in the Del Valle, Castaic Junction, and surrounding oil fields. The potential injection zone depths range from 3,500 feet to 9,500 feet, well *below* the confining zone and USDW. The application described the geological evaluation that identified the injection zones and demonstrated that injection into these zones is both feasible and would not impact USDW. Newhall is solely responsible for the costs associated with both the permitting

process with USEPA and the operation of the brine disposal process. Those costs cannot, and will not, be passed on to the taxpayers.

In the letter, page 9, SCOPE claims that there is "no analysis" of whether there is sufficient sewer treatment capacity for the Valencia WRP to temporarily treat the wastewater for the first 6,000 units within Newhall Ranch until the Newhall Ranch WRP is constructed. This claim is not correct. According to the Santa Clarita Valley Sanitation District, there is sufficient sewer treatment capacity to temporarily treat the wastewater from the first 6,000 units within Newhall Ranch. This statement is supported by the information presented in the Revised Final EIR, the Landmark Village Final EIR New Topical Response 12: Revised Project Design; and **Topical Response 4: Chloride**. Further support is provided in the Districts' memorandum to the Board of Supervisors, dated March 8, 2011 (see **Appendix F3.13**).

Response 5

The comment only expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed project. However, because the comment does not raise an environmental issue, no further response is required.

Letter No. G10

STATE OF CALIFORNIA–THE NATURAL RESOURCES AGENCY EDMUND G. BROWN, JR., Governor

SANTA MONICA MOUNTAINS CONSERVANCY
RAMIREZ CANYON PARK
5750 RAMIREZ CANYON ROAD
MALIBU, CALIFORNIA 90265
PHONE (310) 589-3200
FAX (310) 589-3207
WWW.SMMC.CA.GOV

September 26, 2011

Regional Planning Commission
c/o Mr. Mitch Glaser
Los Angeles County Department of Regional Planning
320 West Temple Street
Los Angeles, California 90012

One Valley One Vision
Santa Clarita Valley Area Plan Update

Dear Commissioners:

The Santa Monica Mountains Conservancy (Conservancy) respects the time and energy invested in the One Valley One Vision planning process, by both the public and County staff. The joint process with the City of Santa Clarita was an innovative and ultimately productive approach to addressing the shared issues between the two jurisdictions. Many of the goals and policies in both the City's and County's respective plans are vast improvements over the current plan and will result in greater protections for the Conservancy's areas of concern. There are certain policies which the Conservancy strongly supports. 1

Unfortunately, we cannot support the final product without stronger land use protections and modifications to the circulation element in the Angeles Linkage in the eastern part of the planning area. Our issues are well documented in the record and understood by County staff. 2

Like California State Parks and the Department of Fish and Game, the Conservancy finds that Alternative 2 is the environmentally superior alternative, which includes the stronger land use controls lacking in the proposed plan. It is our understanding that this alternative includes the same goals and policies as the plan, but with different land use designations in sensitive areas. As such, the Conservancy believes that this alternative accomplishes the smart growth objectives of One Valley One Vision better than the proposed plan because it directions more growth away from sensitive resources in outlying areas and into the already urbanized areas that can accommodate it. Therefore, the Conservancy urges you to recommend that the Board of Supervisors adopt Alternative 2 in lieu of the proposed plan. 3

Thank you for your consideration of these comments. If you have any questions, you can reach me at (310) 589-3200, ext. 128. 4

Sincerely,

PAUL EDELMAN
Deputy Director
Natural Resources and Planning

Letter No. G10 Santa Monica Mountains Conservancy, September 26, 2011

Response 1

The commenter states that the Santa Monica Mountains Conservancy (Conservancy) respects the time and effort invested in the One Valley One Vision planning process by both the public and by County staff. The commenter states that the joint process with the City of Santa Clarita was an innovatively and ultimately productive approach to addressing shared issues. The commenter states that many of the goals and policies represent an improvement over the currently adopted Area Plan and that there are certain policies that the Conservancy strongly supports.

The comment is directed to the proposed Area Plan, not the EIR, and raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 2

The commenter states that the Conservancy cannot support the proposed Area Plan without stronger land use protections and modifications to the circulation element in the Angeles Linkage in the eastern part of the planning area. The commenter states that the Conservancy's issues are well documented in the record and understood by County staff.

The comment is directed to the proposed Area Plan, not the EIR, and raises issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 3

The commenter states that the Conservancy finds that Alternative 2 is the environmentally superior alternative, which includes the stronger land use controls lacking in the proposed Area Plan. The commenter states that it believes that Alternative 2 accomplishes the smart growth objectives of the One Valley One Vision planning process better than the proposed Area Plan because it directs more growth away from sensitive resources in outlying areas and into the already urbanized areas that can accommodate it. The commenter recommends adoption of Alternative 2 in lieu of the proposed Area Plan.

The comment expresses the opinions of the commenter. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Response 4

The comment is noted. No further response is required given that the comment does not address or question the content of the EIR.

Letter No. G11

Friends of the Santa Clara River
660 Randy Drive Newbury Park, CA 91320 805-498-4323
www.fscr.org

9-26-11

Mitch Glaser, Planner
Los Angeles County Dept of Regional Planning
300 W. Temple St.
Los Angeles, CA 90012

Re: One Valley One Vision General Plan Update and EIR,
Wednesday September 28th Agenda Item

Please Copy to All Commissioners

Dear Mr. Glaser:

Friends of the Santa Clara River submit the following comments on the subject Agenda Item.

As the County is undoubtedly aware, several new developments have come to light in the last few months that will affect water supply and water quality for the proposed One Valley One Vision General Plan update. 1

This Plan proposes to allow development and a population projection of nearly double the currently residents in the Santa Clarita Valley. It is therefore imperative that the County ensures that both existing and future residents have a clean and safe drinking water supply and that the water quality of the Santa Clara River is protected.

Chlorides

A news article in the Newhall Signal dated June 8th 2011, stated that the Los Angeles Regional Water Quality Control Board has issued Notices of Violation for the Saugus and Valencia Treatment plants for failure to address the Chloride TMDL. The OVOV Plan should disclose these Notices and discuss how the County plans to comply with the Clean Water Act while doubling the current population and increasing effluent flow to the Santa Clara River. 2

Statements by Castaic Lake Water Agency and the Sanitation Districts that water from the Kern area serves to reduce the chloride concentration in State Water Project (SWP) water are not accurate for the following reasons:

1. no study exists to verify this hypothesis
2. CLWA water wheeled from banking projects in the Kern area through the aqueduct is only a small percentage of the total state water delivered through the east and west branch of the aqueduct. Thus, this water could not possibly reduce chloride levels in SWP water in any appreciable amount.

Spread of Ammonium Perchlorate Pollution to Well V201 3

Health Concerns

Ammonium perchlorate interferes with iodine uptake by the thyroid gland, thus producing hypothyroidism. This condition especially affects sensitive populations including fetuses, infants, small children and those with impaired immune systems. It can cause retardation in infants and children.

Ammonium perchlorate has now also been identified in as many as 285 different foodstuffs[1] from crops and cows that have absorbed it through a contaminated water supply. Thus, according to the Environmental Working Group, "every day, the average two-year-old will be exposed to more than half of the EPA's safe dose of perchlorate from food alone," [2]a dose that is much higher than that allowed in California drinking water.

3

A study providing the basis for setting the ammonium perchlorate MCL at 2ppb in Massachusetts concluded that: "Current data indicate that perchlorate exposures attributable to drinking water in individuals at sensitive life stages should be minimized....Widespread exposure to perchlorate and other thyroid toxicants in drinking water and foods suggest that more comprehensive policies to reduce over all exposures and enhance iodine nutrition are needed."[3]

While State officials recently urged an even lower Maximum Contaminant Level (MCL) for ammonium perchlorate and the Environmental Working Group urges a 0 tolerance level for children, the public in this Valley was not even alerted to the closure of yet another drinking water well due to perchlorate pollution.

New Information

On June 9th, 2011, the Newhall Signal ran a news story regarding the spread of the pollution plume to Valencia Saugus water well 201. (Press release attached).

Interestingly, the press release noted that this well has been closed since August 2010. However, the OVOV Plan did not disclose or discuss this information. Failure to disclose such important information in the DEIR and to the public constitutes a serious deficiency in the CEQA document and in the planning process. Since this well has been closed for almost a year, during which time many hearings on the OVOV plan were held, there seems to have been a deliberate effort to miss-inform the public and the decision-makers. We strongly protest the Water Agencies' lack of transparency on this matter.

4

As the County undoubtedly knows, this is an extremely serious situation since it means that the pollution plume has moved beyond the "pump and treat" capture wells and is moving at a much faster rate of travel than previously estimated would occur. If pumping from this well continues, such pumping would likely draw the pollution plume further in a westerly direction, thus spreading the contamination into an even greater portion of the Saugus aquifer and possibly making that ground water source unusable. A Signal article written in August 2011, described similar concerns expressed by the California Dept. of Health Services. They have requested additionally modeling of the contamination plume.

This now likely possibility has major implications for water supply in the Santa Clarita Valley. As noted in the 2011 Urban Water Management approved in June and on file with the County

[1] Murray, C.W., Egan, S.K., Kim, H., Beru, N., and Bolger, P.M. (2008). US Food and Drug Administration's Total Diet Study: Dietary Intake of Perchlorate and Iodine. JESEE 18:571-580.

[2] "Perchlorate in Food and Beverages", Environmental Working Group, 2008 http://www.ewg.org/reports/FDA-Finds-Rocket-Fuel-%28Perchlorate%29-in-Food-and-Beverages

[3] "Basis for Massachusetts Reference dose and Drinking Water Standard for Perchlorate", Zewdie, Smith, Hutchinson, West", Massachusetts Department of Environmental Protection

(hereby incorporated by reference), the Saugus Aquifer is a major source of water supply and the only local backup source in the event of a severe drought. We therefore believe it is imperative that the County delay approval of the OVOV Plan in its current form. We also believe the Plan must now be re-written to address the following areas of concern:

The water supply from well 201 should be permanently removed as available in the Plan until new modeling that indicates continued pumping would not spread the plume is provided. Pump and Treat scenarios are not acceptable if they will merely spread the plume and pollute more wells.

1. Well Q2 should be re-tested on a monthly basis to make sure that pollution is not occurring there again.
2. All wells in the plume area should be tested for TCE and PCE.
3. All results for contamination by ammonium perchlorate and TCE, PCE should be idisclosed in the EIR so that decision makers can be aware of the full extent of the problem.
4. The Plan should be re-evaluated for the adequacy of the water supply.
5. The Plan should require automatic re-evaluation if/when further well closures occur.

4

In 2004 the Appellate Court[4] found for the Sierra Club and the Friends of the Santa Clara River and set aside CLWA's 2000 Urban Water Management Plan for failure to provide a timeline indicating when treatment facilities for water polluted by ammonium perchlorate would be available. In light of this precedent setting legal decision involving the Agencies' failure to adequately disclose the ammonium perchlorate pollution problem, we encourage the Agencies to act in good faith, withdraw the current plan and address these serious issues.

Conclusion

Friends ask that the County delay the approval of the OVOV Plan and the certification of the EIR until this new information is evaluated and addressed.

Sincerely,

Ron Bottorff, Chairman

Attachments:

1. RWQCB Notices of Violation for SCV treatment plants dated 5-27-11
2. Press release regarding closure of well 201
3. Signal News Article – "Perchlorate Spread worries State"

[4] *Friends of the Santa Clara River v. Castaic Lake Water Agency* (2004) 123 Cal.App.4th

FOR IMMEDIATE RELEASE
June 9, 2011

PERCHLORATE DETECTED DURING ROUTINE TESTING
Well Removed from Service Pending Treatment Covered By Whittaker Bermite Settlement Agreement

Valencia Water Company has notified the Whittaker Bermite property owners that it will seek remediation funds to clean up a closed well near Santa Clarita City Hall following routine water quality testing that detected low levels of perchlorate. The remediation funds are being sought under a 2007 settlement agreement among Castaic Lake Water Agency (CLWA), Newhall County Water District, Santa Clarita Water Division and Valencia Water Company and Whittaker Corporation and others to address clean-up of impacted wells from the former munitions site.

In August 2010, Valencia Water Company detected perchlorate in Well 201 near City Hall. Although the perchlorate levels were within safe drinking water standards, the company immediately took the well out of service and notified the State Department of Public Health. Valencia Water Company continued to monitor the inactive well on a monthly basis. The most recent sample confirmed that perchlorate is still present and that wellhead treatment is needed as outlined by the settlement agreement with Whittaker Bermite.

"Our diligence in conducting extensive testing enabled us to quickly shut down the well and continue to provide safe water to our customers," said Keith Abercrombie, General Manager for Valencia Water Company. "The removal of this well from service will not have any near-term or long-term impacts on the quality or cost of water to our customers. To the extent it is even necessary, we will shift production to other wells elsewhere in the groundwater basin."

CLWA General Manager Dan Masnada said, "The closing of this well will not impact the Santa Clarita Valley Family of Water Suppliers' ability to adequately provide water to our customers and will not have a negative impact on the Valley's water supply. CLWA and the water retailers continue to ensure that all drinking water quality standards are met and long-term solutions are put in place to address the presence of perchlorate in small portions of the Valley's groundwater aquifers.

"In addition, a pending update of the 2010 Santa Clarita Valley Urban Water Management Plan will examine the presence of perchlorate in Well 201," Masnada said.

Valencia Water Company works cooperatively with and as a member of the Santa Clarita Valley Family of Water Suppliers to provide customers a mix of groundwater pumped from area wells and imported state water. In April 2007, the local water suppliers and the Whittaker Bermite

-more-

property owners negotiated a settlement, which establishes funding to address the clean-up of perchlorate from the former munitions site.

Last year, a $13 million treatment facility near Bouquet Canyon Road and the Santa Clara River came on line to treat perchlorate in groundwater emanating from the Whittaker Bermite property. That treatment facility is part of a larger program that includes the restoration of two perchlorate-impacted wells to extract contaminated groundwater and control the migration of perchlorate in the Saugus Formation aquifer. The cost of that "pump and treat" system is also covered under the settlement agreement that protects the public from paying for the remediation costs.

As part of the settlement, several wells were identified as potentially threatened by perchlorate, including Well 201. Thus, while the now-operational pump and treatment program is intended to control migration of perchlorate, the possibility of further contamination in the direction of groundwater flow was recognized before its installation, and provisions were incorporated in the program to treat any additional wells impacted by perchlorate. Initial operation of the pump and treatment remediation is functioning as planned, and is still applicable for both of its objectives – to control contaminant migration near the source and to extract perchlorate from the aquifer system. In short, the detection of perchlorate at Well 201 does not reflect any change in the anticipated long-term effectiveness of the containment and treatment remedy.

Prior impacted wells included Q2, a Valencia Water Company well that underwent successful wellhead treatment in 2005 utilizing the same treatment technology contemplated for Well 201, and today has no perchlorate detection. Since 1997, seven wells in the Santa Clarita Valley, including this most recent one, have been impacted by perchlorate. Three of those wells have been successfully treated and returned to service, two have been replaced, one is planned to be replaced and this most recent well will have treatment installed.

Perchlorate is a regulated drinking water contaminant in California with a maximum contaminant level (mcl) of 6 parts per billion (ppb). The Valencia Water Company test in August 2010 was 5 ppb. During the last several months, readings have varied from 5 to 12 ppb in the most recent test.

Perchlorate is both a naturally occurring and man-made ion used to form a variety of salts. Perchlorate is primarily used today as an oxidizer in solid rocket fuel and other propellants and to a lesser extent, in fireworks, explosives and air-bag inflators. It is highly soluble in water and has been detected in ground and surface water in 26 states. It has also been detected in water supplies in close proximity to sites where solid rocket fuel was manufactured or used, such as the Whittaker Bermite site.

Valencia Water Company is a water provider to 113,000 residential, commercial, industrial and business customers in Valencia, Stevenson Ranch and portions of Saugus and Castaic.

Contact: Keith Abercrombie, General Manager, Valencia Water, (661) 295-6501
Dan Masnada, General Manager, CLWA, (661) 297-1600 Ext. 239

California Regional Water Quality Control Board
Los Angeles Region

320 West Fourth Street, Suite 200, Los Angeles, California 90013
(213) 576-6600 • Fax (213) 576-6640
http://www.waterboards.ca.gov/losangeles

Linda S. Adams
Acting Secretary for Environmental Protection

Edmund G. Brown Jr.
Governor

May 27, 2011

Mr. Stephen R. Maguin
Chief Engineer and General Manager
County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, California 90607-4998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 7010 3090 0002 1022 3824

Dear Mr. Maguin:

***NOTICE OF VIOLATION* - SANTA CLARITA VALLEY SANITATION DISTRICT OF LOS ANGELES COUNTY, SAUGUS WATER RECLAMATION PLANT (ORDER NO. R4-2009-0075 NPDES NO. CA0054313, CI 2960)**

Santa Clarita Valley Sanitation District of Los Angeles County (hereinafter Discharger or SCVSD, formerly referred to as Los Angeles County Sanitation District), discharges wastewater pursuant to Order No. R4-2009-0075 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0054313 (Order), which was adopted by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board).

The Order authorizes the Discharger to discharge up to 6.5 MGD of tertiary-treated wastewater from the Saugus Water Reclamation Plant (hereinafter Facility). The Order sets forth waste discharge requirements, including effluent limits, and a monitoring and reporting program (MRP CI-2960) that apply to the discharges of pollutants from the Facility. This wastewater contains chlorides and other pollutants that can degrade water quality and impact beneficial uses of water, and that are defined as wastes under the Porter-Cologne Water Quality Control Act (Cal.Wat. Code § 13000 et seq.). The treated wastewater is discharged to the Santa Clara River, a navigable water of the United States.

MRP CI-2960 requires that the Discharger submit self-monitoring reports, discharge monitoring reports, and an annual summary report to this Regional Board in compliance with all Standard Provisions related to monitoring, reporting, and recordkeeping.

Provision VI.C.8, on page 40 of the Order reads: "The discharger shall comply with the applicable TMDL-related tasks[1], and future revisions thereto, in Attachment K of this Order."

[1] The Upper Santa Clara River Chloride TMDL was approved by the Regional Board, the State Water Resources Control Board, the State Office of Administrative Law (OAL), and the U.S. EPA, and became effective on April 6, 2010. The USCR Chloride TMDL Implementation Plan, including Task 17(a), was accommodated into Order No. R4-2009-0075 and NPDES Permit No. CA0054313 on June 4, 2009 and became effective on July 24, 2009.

Attachment K lists the TMDL tasks. Page K-3 lists Task 17(a).

You are hereby notified that the Discharger is out of compliance with requirements established in the Order and has violated California Water Code section 13383 for failure to complete Task 17(a) in Attachment K as follows:

- Failure to complete a Programmatic Environmental Impact Report (EIR) for facilities to comply with final permit effluent limits for chloride. The Discharger submitted a copy of a Notice of Exemption from the requirement to prepare an EIR or Negative Declaration to the Regional Board on May 2, 2011. The Notice of Exemption does not meet the requirements of Task 17(a) in Attachment K because it does not constitute a programmatic EIR and it addresses actions to meet the conditional wasteload allocations (WLAs) not actions to meet the final effluent limits for chloride.

- Failure to submit an adequate Wastewater Facilities Plan for facilities to comply with final permit effluent limits for chloride. The Santa Clarita Valley Chloride TMDL Facilities Plan (Facilities Plan) submitted by the SCVSD on May 2, 2011 is inadequate because it is not a plan for actions to meet the final effluent limits for chloride of 100 mg/L. If the Facilities Plan was intended to comply with the conditional WLAs in the TMDL, it is inadequate because it does not provide the facilities necessary to allow application of conditional WLAs.

You are required to comply immediately with the following tasks:

1. Ensure that Task 17(a) in Attachment K is completed and the Wastewater Facilities Plan and Programmatic Environmental Impact Report for facilities to comply with final permit effluent limits for chloride are submitted to the Regional Board.

2. Ensure full implementation of all requirements contained in MRP CI-2960.

3. Submit a written response (1) confirming you have corrected these violations with a brief description of how you have corrected them, or (2) identifying when you will have completed correcting these violations and a brief description of how you will correct them. Submit your written response by June 27, 2011 to:

   Jenny Newman
   Chief, TMDL Unit 3
   California Regional Water Quality Control Board
   Los Angles Region
   320 W. 4th Street, Suite 200
   Los Angeles, CA 90013- 2343

Pursuant to CWC § 13385, you are subject to administrative civil liability of up to $10,000 for each day in which the violation occurs plus $10 multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons. These civil liabilities may be assessed by the Regional Board for failure to comply, beginning with the date that the violations first occurred, and without further warning.

The matter may be referred to the Attorney General for further enforcement. In such case, the Attorney General may seek up to $25,000 per day and $25 per gallon. The Regional Board reserves its right to take any further enforcement action authorized by law.

In SCVSD's semi-annual status reports submitted on November 4, 2010, and May 2, 2011, SCVSD requested to use the reconsideration clause under Task 16 of the Upper Santa Clara River Chloride TMDL implementation plan to revise the TMDL to incorporate the Alternative Compliance Plan (ACP). The intent of the reconsideration clause under Task 16 is to consider extending the implementation schedule to implement control measures necessary to meet final conditional WLAs, not to revise the conditional WLAs to accommodate the ACP, as requested by SCVSD. Therefore, Regional Board staff is hereby declining to recommend to the Board a reconsideration under Task 16.

If you have any questions regarding this matter, please contact Jenny Newman at (213) 576-6691 or at jnewman@waterboards.ca.gov.

Sincerely,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

cc: Julie Macedo, Office of Enforcement, State Water Resources Control Board
Frances McChesney, Office of Chief Counsel, State Water Resources Control Board

California Environmental Protection Agency

Recycled Paper

California Regional Water Quality Control Board
Los Angeles Region

320 West Fourth Street, Suite 200, Los Angeles, California 90013
(213) 576-6600 • Fax (213) 576-6640
http://www.waterboards.ca.gov/losangeles

Linda S. Adams
Acting Secretary for Environmental Protection

Edmund G. Brown Jr.
Governor

May 27, 2011

Mr. Stephen R. Maguin
Chief Engineer and General Manager
County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, California 90607-4998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
NO. 7010 3090 0002 1022 3817

Dear Mr. Maguin:

***NOTICE OF VIOLATION* - SANTA CLARITA VALLEY SANITATION DISTRICT OF LOS ANGELES COUNTY, VALENCIA WATER RECLAMATION PLANT (ORDER NO. R4-2009-0074 NPDES NO. CA0054216, CI 4993)**

Santa Clarita Valley Sanitation District of Los Angeles County (hereinafter Discharger or SCVSD, formerly referred to as Los Angeles County Sanitation District), discharges wastewater pursuant to Order No. R4-2009-0074 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0054216 (Order), which was adopted by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board).

The Order authorizes the Discharger to discharge up to 21.6 MGD of tertiary-treated wastewater from the Valencia Water Reclamation Plant (hereinafter Facility). The Order sets forth waste discharge requirements, including effluent limits, and a monitoring and reporting program (MRP CI-4993) that apply to the discharges of pollutants from the Facility. This wastewater contains chlorides and other pollutants that can degrade water quality and impact beneficial uses of water, and that are defined as wastes under the Porter-Cologne Water Quality Control Act (Cal.Wat. Code § 13000 et seq.). The treated wastewater is discharged to the Santa Clara River, a navigable water of the United States.

MRP CI-4993 requires that the Discharger submit self-monitoring reports, discharge monitoring reports, and an annual summary report to this Regional Board in compliance with all Standard Provisions related to monitoring, reporting, and recordkeeping.

Provision VI.C.8, on page 41 of the Order reads: "The discharger shall comply with the applicable TMDL-related tasks[1], and future revisions thereto, in Attachment K of this Order."

[1] The Upper Santa Clara River Chloride TMDL was approved by the Regional Board, the State Water Resources Control Board, the State Office of Administrative Law (OAL), and the U.S. EPA, and became effective on April 6, 2010. The USCR Chloride TMDL Implementation Plan, including Task 17(a), was accommodated into Order No. R4-2009-0074 and NPDES Permit No. CA0054216 on June 4, 2009 and became effective on July 24, 2009.

Attachment K lists the TMDL tasks. Page K-3 lists Task 17(a).

You are hereby notified that the Discharger is out of compliance with requirements established in the Order and has violated California Water Code section 13383 for failure to complete Task 17(a) in Attachment K as follows:

- Failure to complete a Programmatic Environmental Impact Report (EIR) for facilities to comply with final permit effluent limits for chloride. The Discharger submitted a copy of a Notice of Exemption from the requirement to prepare an EIR or Negative Declaration to the Regional Board on May 2, 2011. The Notice of Exemption does not meet the requirements of Task 17(a) in Attachment K because it does not constitute a programmatic EIR and it addresses actions to meet the conditional wasteload allocations (WLAs) not actions to meet the final effluent limits for chloride.

- Failure to submit an adequate Wastewater Facilities Plan for facilities to comply with final permit effluent limits for chloride. The Santa Clarita Valley Chloride TMDL Facilities Plan (Facilities Plan) submitted by the SCVSD on May 2, 2011 is inadequate because it is not a plan for actions to meet the final effluent limits for chloride of 100 mg/L. If the Facilities Plan was intended to comply with the conditional WLAs in the TMDL, it is inadequate because it does not provide the facilities necessary to allow application of conditional WLAs.

You are required to comply immediately with the following tasks:

1. Ensure that Task 17(a) in Attachment K is completed and the Wastewater Facilities Plan and Programmatic Environmental Impact Report for facilities to comply with final permit effluent limits for chloride are submitted to the Regional Board.

2. Ensure full implementation of all requirements contained in MRP CI-4993.

3. Submit a written response (1) confirming you have corrected these violations with a brief description of how you have corrected them, or (2) identifying when you will have completed correcting these violations and a brief description of how you will correct them. Submit your written response by June 27, 2011 to:

   Jenny Newman
   Chief, TMDL Unit 3
   California Regional Water Quality Control Board
   Los Angles Region
   320 W. 4th Street, Suite 200
   Los Angeles, CA 90013- 2343

Pursuant to CWC § 13385, you are subject to administrative civil liability of up to $10,000 for each day in which the violation occurs plus $10 multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons. These civil liabilities may be assessed by the Regional Board for failure to comply, beginning with the date that the violations first occurred, and without further warning.

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If you have any questions regarding this matter, please contact Jenny Newman at (213) 576-6691 or at jnewman@waterboards.ca.gov.

Sincerely,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

cc: Julie Macedo, Office of Enforcement, State Water Resources Control Board
Frances McChesney, Office of Chief Counsel, State Water Resources Control Board

California Environmental Protection Agency

Recycled Paper

Print This Article

Pollutant spread worries state

Official said treatment of SCV groundwater needs to be re-evaluated due to spread of perchlorate

By Natalie Everett
Signal Assistant City Editor
neverett@the-signal.com
661-259-1234 x538
August 12, 2011

A state health official said the treatment of Santa Clarita Valley groundwater to remove a contaminant should be revisited, and possibly expanded, in light of the spread of the substance.

Since perchlorate was detected at a Valencia well, local water agencies have been asked to step up the previously yearly testing at 12 local wells to quarterly testing as agencies re-evaluate the spread of the munitions-manufacturing byproduct in groundwater, said Jeff O'Keefe, an engineer with the state Public Health Department.

"We need to re-evaluate the containment of the (perchlorate) plume," O'Keefe told about 20 members of the Whittaker-Bermite Citizens Advisory Group on Wednesday. "There needs to be careful, thoughtful analysis of (the Valencia well). ... It can't be 'Let's slap another treatment plant on it.'"

The August 2010 discovery of 5.7 parts per billion of perchlorate in water sampled from the well at McBean Parkway and Valencia Boulevard was surprising, O'Keefe said. Six parts per billion is the level that the state considers safe.

Since August 2010, that well has been closed, and is no longer contributing to the valley's water supply.

Officials with Valencia Water Company, the retailer that operates the well, are conducting monthly testing. Those tests show levels have almost tripled in the well to 13 parts per billion in June, O'Keefe said.

"It seemed to move fast in the last six months," O'Keefe said.

2007 agreement

Perchlorate, a salt found to hamper human thyroid function, is believed to be spreading from the Whittaker-Bermite site, located near the junction of Bouquet Canyon Road and Valencia Boulevard/Soledad Canyon Road.

Munitions were manufactured at the site for decades. Perchlorate is a byproduct of rocket fuel and one of several contaminants on the nearly 1,000-acre property.

Its discovery in the well in Valencia raises new questions about efforts to rid the Santa Clarita Valley's groundwater of the salt.

Those questions include whether the pump-and-treat system should be expanded beyond two Saugus wells, dubbed Saugus 1 and 2, that re-opened after more than a decade in 2010 equipped with perchlorate-treatment facilities.

Valencia Water Company and Castaic Lake Water Agency both said in June, when the perchlorate finding was made public, that the spread of perchlorate was expected to happen eventually.

Officials with both agencies pointed to a 2007 settlement agreement between local water agencies, including Valencia Water, and Whittaker Corp., which is the company paying to rid groundwater and the Whittaker-Bermite site of perchlorate and other pollutants.

Location a mystery

Dan Masnada, general manager of the Castaic Lake Water Agency, said the settlement agreement laid out 11 wells to which the perchlorate plume may eventually travel in groundwater, and the Valencia well was one of them. Whittaker Corp. agreed to pay to remove the salt if contamination occurs.

There was no real way of knowing how far past the Saugus wells the perchlorate plume had spread in 1997, when perchlorate was first detected there, he said. Saugus 1 and 2 are located in the Santa Clara River bed much closer to Whittaker-Bermite than the Valencia well.

Masnada said detected perchlorate also shut down a well near Magic Mountain Parkway and Valencia Boulevard near the Valencia well.

Since testing is only done where there's a well, "We don't know if the plume had just passed that well, or whether it was right next to the Valencia well," said Masnada, whose agency sells wholesale water to local water retailers.

Most water used in Santa Clarita Valley homes is a 50-50 mix of well water and State Water Project water.

'Not in the drinking water'

O'Keefe said Wednesday night, during the citizens' group quarterly meeting, that the perchlorate discovery "really was a surprise to everyone."

"Those legal documents served a different purpose," he said of the Whittaker settlement. "From my perspective, the Saugus wells were the impacted wells. That was the project, that's what we believed were impacted. ... We didn't anticipate the plume spreading. We thought Saugus 1 and 2 would provide containment."

Masnada said the Saugus treatment plant might have been the sole groundwater remedy — if it had opened 10 years previously.

"But that's not the case, and we have to deal with the cards we've been dealt," Masnada said.

O'Keefe commended Valencia Water for its swift action in shutting down the well.

"Everybody is safe," O'Keefe said. Water from the well "is not in the drinking water."

Some members of the public, including Citizens Advisory Group members, said Valencia Water should have notified the public as soon as perchlorate was detected. The Valencia well is part of a water supply that serves between 4,000 and 5,000 people.

http://www.the-signal.com/section/36/article/49405/

Letter No. G11 Friends of the Santa Clara River, September 26, 2011

Introduction

This response addresses the letter from the Friends of the Santa Clara River (Friends), dated September 26, 2011. Please note that this letter included a number of attachments, all of which are presented with this response. It should also be noted that the content of this letter has also been presented in the letter from the Sierra Club dated September 22, 2011. See also responses to the Sierra Club letter.

Response 1

General Comment

This comment is introductory in nature and does not require a response. Responses to substantive issues raised in this letter are provided below.

Response 2

Response to Chloride Comments

Comments point out that on May 27, 2011, the Los Angeles RWQCB issued administrative notices of violation to SCVSD regarding the Valencia and Saugus WRPs. On June 27, 2011, the SCVSD responded to the RWQCB and recommended to its Board of Directors that staff prepare a Wastewater Facilities Plan and EIR for facilities to comply with a final effluent chloride limit of 100 mg/L at the point of discharge and begin design of the facilities. On July 26, 2011, the SCVSD Board of Directors *approved* the staff recommendation. The SCVSD estimates that it will complete the Wastewater Facilities Plan and EIR by December 31, 2012.

As part of the Wastewater Facilities Plan and EIR, SCVSD intends to address an alternative compliance approach that responds to changed chloride conditions as of 2011, which would fully protect all designated beneficial uses in the Santa Clara River watershed. The SCVSD believes that changed conditions will show that it is more environmentally and economically sound to implement an alternative compliance approach, rather than an advanced treatment approach, in meeting a 100 mg/L final effluent limit. As part of this effort, the SCVSD also intends to perform the modeling and scientific and technical studies necessary to demonstrate the adequacy of its alternative compliance approach and to request reopening of the chloride TMDL at a later time based on the modeling in those studies.

The comment also disputes the position of the Castaic Lake Water Agency (CLWA) and the Sanitation Districts that water from the Kern area serves to reduce the chloride concentration in State Water Project (SWP) water. Chloride levels in the Upper Santa Clara River have improved significantly since 2009, in part as a result of court-imposed pumping restriction on State Water Project (SWP) operations, coupled with implementation of groundwater banking and pump back operations along the SWP aqueduct. Peak

SWP chloride concentrations at Castaic Lake during drought conditions have been reduced from historical values exceeding 100 mg/L to a current range of 80 – 85 mg/L.

SCVSD has achieved a significant reduction of effluent chloride levels through the water softener renewal program. As a result of this program and the improved SWP water quality, effluent chloride levels have dropped approximately 70 mg/L since 2003. Further actions by the SCVSD, including a water softener ban enforcement program which has been initiated and the commitment to upgrade the Valencia and Saugus WRPs to ultraviolet disinfection, will further lower effluent chloride levels by 10 mg/L to 15 mg/L.

Further responses to these topics can be found in **Topical Response 4: Chloride**, which is included in this document.

Response 3

Response to Comments Regarding Health Concerns Related to Perchlorate

In the letter, the Friends provides information regard the health effects from perchlorate. The comment also indicates that the public in the Santa Clarita Valley was not alerted to the closure of a drinking water well due to perchlorate pollution.

The Revised Final EIR contains a thorough update of the detection of perchlorate in the local groundwater basin, including the recent detection of perchlorate in Valencia Water Company's Well 201 (see **Topical Response 1: Perchlorate Update**). The topical response summarizes the current status of the perchlorate cleanup in the groundwater basin.

Response 4

Response to Comments Regarding "New Information" Associated with Perchlorate Discovered in Well 201

This comment claims that the recent discovery of perchlorate in Well 201 is not disclosed or addressed in the OVOV EIR. This is incorrect as this topic is specifically described in Revised Final EIR **Topical Response 1: Perchlorate Update**. In summary, a total of seven municipal drinking water wells, each located relatively near the site of the former Whittaker-Bermite munitions facility, have been taken out of service for varying periods of time since perchlorate was first detected in the groundwater in 1997. The seven closed wells include six originally impacted wells and the recent closure of Valencia Water Company Well 201.

Five of the six originally impacted wells have been either returned to service with perchlorate treatment facilities or replaced by new wells drawing from the non-impacted portion of the groundwater basin. The

five wells collectively restore much of the temporarily lost well capacity. An additional two wells will be drilled to restore the operational flexibility that existed prior to the detection of perchlorate.

Specific to Well 201, Valencia Water Company plans to actively seek remediation and restore the impacted well capacity in the near term. With that said, however, Well 201 remains out of service since August 2010. Valencia Water Company's plan is to either replace the closed well with a new replacement well in a non-perchlorate impacted portion of the groundwater basin, or install wellhead treatment at the well site in order to treat the water to non-detect levels, which has been successfully accomplished by Valencia Water Company at another well site (Well Q2). Nonetheless, it is important to emphasize that Well 201 was taken out of service in August 2010, and has not been returned to municipal supply service since that time. Before either remediation option takes place, Valencia Water Company has committed to working with CLWA and the regulatory agencies (*e.g.*, Department of Public Health, or DPH) before implementation of either remediation option. This includes an ongoing effort by the Valencia Water Company and CLWA to update the existing groundwater modeling to assist in addressing questions from the regulatory agencies.[10]

The Well 201 capacity also is not included in the active groundwater sources listed in the 2010 Urban Water Management Plan (UWMP),[11] and its capacity will not be "counted" in water supply calculations until it is remediated. The recently adopted 2010 UWMP also finds that there are sufficient water supplies to meet the Santa Clarita Valley's existing and planned water demand through 2050 — without taking into account the capacity from the inactivated Well 201.

In response to Friends claims surrounding Valencia Water Company's detection of perchlorate in Well 201, the County provided responses based on the OVOV Draft EIR, **Section 3.13, Water Service**, and Final EIR **Topical Response 1: Perchlorate Update**.

In summary, in August 2010, perchlorate was detected at Well 201 at levels *below* the regulatory standard (i.e., level of 5 ppb was detected and the standard is 6 ppb). The Valencia Water Company, owner and operator of Well 201, immediately took the well out of service and notified the state DPH, of the detection. The DPH directed Valencia Water Company to perform *quarterly* testing at the inactive well to track perchlorate levels. The Valencia Water Company has voluntarily elected to perform *monthly* testing.

By April 2011, the Valencia Water Company had gathered sufficient data to conclude that: (1) the perchlorate levels at Well 201 were above the adopted maximum contaminant level (MCL) on a regular basis; and (2) remediation would be required. The Valencia Water Company notified CLWA, the other

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10 Pers. Comm. Keith Abercrombie, General Manager, Valencia Water Company, September 30, 2011.

11 For a copy of the 2010 UWMP, please see **Appendix F3.13**.

water purveyors, the County,[12] the City, and others that the well was impacted by perchlorate at levels over the regulatory standard. The Valencia Water Company also requested that Well 201's supply be excluded from the 2010 UWMP supply calculations until the well is fully remediated. The Valencia Water Company took this action to ensure that the 2010 UWMP would adequately address the impacted well.

In summary, CLWA's "pump and treat" program has been endorsed by DPH, and has been successful in containing the spread of perchlorate in the basin. The detection of perchlorate in Well 201 is attributable to the length of time it took to get the "pump and treat" program up and running, not to the effectiveness of the program.

Before issuing a permit to a water utility for use of an impaired source as part of the utility's overall water supply permit, DPH requires that studies and engineering work be performed to demonstrate that pumping the well and treating the water will be protective of public health for users of the water. The DPH approved the return to service of the previously closed Saugus 1 and Saugus 2 wells, and specifically approved the Final Interim Remedial Action Plan for the containment and extraction of perchlorate in January 2006. Therefore, DPH determined that the local water agencies devised a treatment approach that adequately contains the perchlorate contamination and is protective of public health; otherwise, DPH would not have authorized and permitted the Saugus 1 and 2 "pump and treat" program.

The DPH endorsement of CLWA's "pump and treat" program is consistent with multiple technical reports referenced in the EIR and 2010 UWMP that have determined that the pumping rates at the restored Saugus wells are sufficient to prevent further migration of perchlorate in the Saugus Formation groundwater.

According to the 2010 UWMP, the primary reason for the recent detection of perchlorate in Well 201 is the length of time it took between the initial detection of perchlorate in the basin in 1997 and actual implementation of the "pump and treat" containment program in 2010. As reported in the 2010 UWMP, Appendix I, the combination of litigation, settlement, permitting, and construction constrained actual implementation of the containment program until 2010, *six years after* the impact of the containment program on perchlorate migration in groundwater was analyzed. That time, combined with the preceding seven years since perchlorate first impacted water supply wells, resulted in a greater risk of downgradient migration of perchlorate in the Saugus Formation, and is considered the primary reason for the recent detection of perchlorate in Well 201.

Responsive to the Friends' call for additional testing, on August 4, 2011, the DPH sent letters to both Valencia Water Company and Newhall County Water District requesting that the local water agencies

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12 For a copy of the letter from Valencia Water Company to the County, please see **Appendix F3.13**.

increase perchlorate monitoring from annually to quarterly at specified wells. The County has confirmed that both water agencies will conduct the perchlorate monitoring quarterly as requested by the DPH; therefore, adequate oversight from the appropriate regulatory agency, DPH, is in place.

As to the Friends' modeling comments, it should be noted that Well 201 has been taken out of service, and is not a supply relied upon in the recently adopted 2010 UWMP. As such, Well 201 is not currently in operation or being pumped; and, therefore, it is not causing perchlorate to "spread" as claimed. As to requests by DPH for modeling, the modeling would not be needed, unless and until Valencia Water Company were to place Well 201 back into service as a municipal supply source with wellhead treatment installed. Under such circumstances, Valencia Water Company would coordinate its efforts with CLWA and the regulatory agencies in the event additional modeling were needed in the future.[13]

Based on the information presented in the Revised Final EIR, **Section 3.13, Water Service**, and **Topical Response 1: Perchlorate Update**, an adequate supply of existing and planned water exists to meet the needs of Santa Clarita Valley residents now and in the future, despite the loss in capacity due to the perchlorate-impacted wells.

In summary, two of the originally impacted Saugus wells, Saugus 1 and 2, were placed back in service in January 2011, restoring approximately 3,544 acre-feet (af) of water supply in a normal year. (2010 UWMP, Table 3-9.) The contaminated Stadium Well and VWC Well 157 have been replaced and the pumping capacity lost due to that contamination has been restored with two new replacement wells in non-impacted portions of the basin.

Friends suggest that Santa Clarita Valley water agencies conduct water quality testing in the perchlorate plume area for trichloroethylene (TCE) and tetrachloroethylene (PCE), in addition to perchlorate. The Draft OVOV EIR incorporates by reference *The Santa Clarita Valley Water Report*, for 2008 through 2010 (see pages 3.13-8 and 3.13-9). All water quality testing conducted in the Santa Clarita Valley, including they various types of contaminants tested for, meets the requirements of United States Environmental Protection Agency (USEPA), the California Department of Public Health (DPH) and California Environmental Protection Agency (CalEPA). The Santa Clarita Valley water purveyors already test for both PCE and TCE.

As indicated in The Santa Clarita Valley 2010 Water Report,

> "In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the California Department of Public Health (DPH) prescribe regulations that limit the amount of certain contaminants in water provided by

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13 Pers. Comm. Keith Abercrombie, General Manager, Valencia Water Company, September 30, 2011.

> public water systems. USEPA, DPH and the California Environmental Protection Agency (CalEPA) set goals and legal standards for the quality of drinking water. These standards are intended to protect consumers from contaminants in drinking water. Most of the standards are based on the concentration of contaminants, but a few are based on a Treatment Technique (TT) to remove the contaminant. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk."

As also indicated in The Santa Clarita Valley 2010 Water Report,

> "Organic chemical contaminants, including synthetic and volatile organic chemicals, are by products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems. Organic compounds also include pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses. Water is tested for two types of organic compounds: volatile organic compounds (VOCs) and non-volatile synthetic organic compounds (SOCs). These organic compounds are synthetic chemicals produced from industrial and agricultural uses. Castaic Lake is checked annually for VOCs and SOCs. Local wells are tested at least annually for VOCs and periodically for SOCs. Tetrachloroethylene (PCE) was found in trace levels (below the MCL in groundwater in the SCV. Some people who use water containing tetrachloroethylene in excess of the MCL over many years may experience liver problems, and may have an increased risk of getting cancer."

It is important to understand that the contaminants listed in the Santa Clarita Valley Water Quality Report (see table entitled "The Results of Thousands of Tests on Your Water") include only those that were detected during a test. If a contaminant is not listed, that contaminant was not detected. This was the case for TCE in the 2010 Report, which was not detected.[14]

The Draft EIR also presents additional information regarding the quality of water in the Santa Clarita Valley (see Draft EIR pages 3.13-54 through 3.13-66). The commenter is referred to the Draft EIR and the Santa Clarita Valley Water Quality Reports for additional information. Because no specific reasons why TEC should be tested for, no further response can be provided. Again, all water quality testing conducted in the Santa Clarita Valley, including they various types of contaminants tested for, meets the requirements of USEPA, DPH and CalEPA.

Based on this information, the conclusions reached in the Revised Final EIR that groundwater from existing and replacement wells is available to assist in meeting the current and projected water demands for the Santa Clarita Valley is reasonable and supported by the evidence.

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14 James Saenz, Valencia Water Company, personal communication, December 2011.

In addition, the Friends' reliance on the 2004 Court of Appeal decision is not applicable. First, the County is not responsible for the ongoing efforts to remediate perchlorate in the groundwater basin. This cleanup effort remains with CLWA, the retail suppliers, and the regulatory agencies providing oversight.

Second, as evidenced in **Topical Response 1: Perchlorate Update**, substantial progress has been made in responding to the detection of perchlorate, and substantial facilities needed for remediation/treatment are in place and actively monitored by CLWA, the local retail suppliers, and several regulatory agencies, which was not necessarily the case in the early 2000 era.

Third, there is a timeline for remediation (replacement or wellhead treatment) of Valencia Water Company's Well 201. The Valencia Water Company plans to actively seek remediation (replacement or wellhead treatment) under the Whittaker-Bermite perchlorate litigation settlement agreement and rapidly restore the impacted well capacity. Given Valencia Water Company's experience of: (1) bringing its Well Q2 back into production; (2) actions under the DPH 97-005 Policy Memo; (3) participating in bringing treatment facilities on line for the Saugus 1 and Saugus 2 wells; and (4) replacing capacity for its Well 157, Valencia Water Company has determined that it could either install wellhead treatment to bring the well back into service or replace the capacity with a new well within two years. As explained above, this time estimate is conservative because of Valencia Water Company's prior success in 2005 in restoring Well Q2 to municipal-supply service within an approximate six-month period. As explained, there also are now funds in place to remediate Well 201 upon the permitting and installation of wellhead treatment or replacement of Well 201's capacity with a new replacement well.

Fourth, from a regional perspective, CLWA and the local retail suppliers have evaluated the perchlorate impact upon the groundwater basin, and continue to monitor perchlorate in the basin, with the assistance of the regulatory agencies (e.g., DPH, DTSC). For a detailed discussion of that regional effort, please see the recently adopted 2010 UWMP, Appendix I, which is found in Revised Final EIR **Appendix F3.13**. Based on the information presented in the OVOV Draft EIR and Final EIR, there is no reason to defer or delay consideration of the OVOV Plan.

Glaser, Mitch

From: Sadiq Ghias [sadiq@gpmusa.net]
Sent: Thursday, September 15, 2011 3:51 PM
To: Glaser, Mitch
Subject: Re: Notice Regarding Santa Clarita Valley Area Plan Update

Mr. Mitch Glaser
Department of Regional Planning
320 W. Temple Street
Los Angeles, CA 90012

RE: Plan Amendment and Zone Changes
APNs: 3209-010-034 (old # 3209-010-030), 3209-010-033 (old # 3209-010-026) and 3209-010-031

Dear Mr. Glaser:

Please help. When purchasing the property located at 7601 Soledad Canyon Road, Acton, Ca 93510, I was aware that it had A-2, C-3 and R-R zoning. I was also aware that it had an existing CUP for use as a campground. I was also aware that, due to the zoning, I could expand the existing use. For this, I paid a premium beyond just the value of the existing campground and the adjacent land.

My long term vision for this property included the possibility of additional uses which would improve the current use as a campground. Toward that end, I have already converted the campground from a stand-alone use to a franchise of the KOA system which has greatly improved the overall site. In the future, I see other uses which would serve both the campground and the area at large. For example, I may wish to incorporate an artists studio, bicycle shop, antique shop, etc. 1

These and other similar uses would be allowed under the existing zoning of C-3, but I don't see them as permitted use under the proposed zoning change. **Therefore, the existing zoning for my parcels should remain "as is" so that I can use them as I expected when I purchased the property.** Please note, any change in the permitted use would deprive me of my expectations and would mean that I paid extra money for something I cannot use.

Thank you for your attention to this matter.

Sadiq Ghias
CalWest Realestate Investments, LP.
Los Angeles, CA 90012

From: "Glaser, Mitch" <mglaser@planning.lacounty.gov>
To: "Glaser, Mitch" <mglaser@planning.lacounty.gov>
Sent: Thu, September 8, 2011 12:10:17 PM
Subject: Notice Regarding Santa Clarita Valley Area Plan Update

Good Afternoon:

Please see the attached notice regarding the Santa Clarita Valley Area Plan Update project, a component of "One Valley One Vision," a joint planning effort with the City of Santa Clarita. You are receiving this notice because you have previously submitted oral or written testimony on this project or you have expressed and interest in this project.

Thanks,
Mitch

Letter No. G12 Sadiq Ghias, September 15, 2011

Response 1

Please see response to **Letter No. D74**.

Letter No. G13

Jay Rodgers Inc.

September 21, 2011

Mr. Mitch Glaser
Supervising Regional Planner
Community Studies, North Section
LA County Dept. of Regional Planning
320 West temple Street
Los Angeles, CA 90012

Re: Proposed One Valley One Vision General Plan
APN # 2839-005-027, 021
Vesting Tentative Tract Map No. 54372

Dear Mr. Glaser,

This letter is written in response to our understanding of the zone change proposed for our above mentioned property under the new OVOV General Plan. I now understand that you are proposing the down-zoning of our property from its current U-3 and Hillside Management designation to "RL5" , Rural Land -5. This change would effectively reduce the allowable density of these properties from the existing 55-60 units allowable under current zoning to 2 units under the proposed density. We feel strongly that this unreasonable reduction should be changed and the existing zoning should be left in place for several reasons including:

- Properties in the immediate area have already been developed at much higher densities than those proposed by your new plan.
- Density proposed by the City of Santa Clarita's OVOV General Plan Update immediately South of the properties are significantly greater than that proposed by your plan. 1
- These properties are located along Sand Canyon Road, a secondary highway planned with infrastructure to support this project.
- We have been processing VTTM 54372, an active tentative map for 5 years with the Department of Regional Planning at considerable expense, and believe it unreasonable to try to assert this significant down-zoning of our project at this time.
- This is a significant taking of our property's value and its rights.

We request that these properties be zoned "H5-Residential 5" in what we understand to be your new designation most similar to the existing zone designation. Additionally, the

28100 Bouquet Canyon Road, Santa Clarita, CA 91350
661.296.0288

"H5" Residential zone will be consistent and compatible with the surrounding urban community as well as allowing the same approximate units to be developed as the current general plan allows. 1

Please give our request serious consideration and make these changes prior to gaining Commission or Board approval.

Sincerely,

Matt Craig
Project Manager
Jay Rodgers, Inc

Letter No. G13 Jay Rogers, Inc., September 21, 2011

Response 1

The comment raises issues related to the proposed Area Plan that do not appear to any physical effect on the environment, as well as economic, social, or political issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Letter No. G14

Glaser, Mitch

From: Diana Larios [diana.larios@sbcglobal.net]
Sent: Monday, September 26, 2011 11:59 AM
To: Glaser, Mitch
Cc: ovov
Subject: In Favor of IEC Committee's Recommendation to Remove Sloan Cyn Rd (north of Hillcrest Pkwy) from Master Plan of Highways - OVOV

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Planning Commission Members,

I am in favor of IEC Committee's Recommendation to Remove Sloan Canyon Rd (between Hillcrest Pkwy and Mandolin Canyon) from the OVOV Master Plan of Highways.

I have lived on Sloan Canyon Road for over 17 years and have been very active with the creation of Castaic's CSD. Sloan Canyon Road (north of Hillcrest Pkwy to Quail Valley Rd.) has been identified by the Castaic Community, by way of our Community Standards District (CSD) and several previous letters from our Town Council, as a rural road. Having it designated as a "Local street" is in compliance with our CSD and the wishes of the Castaic Community as a whole. As you are probably aware, this portion of Sloan Canyon Road is currently unpaved and adjacent to large rural, ranch properties; which is completely inconsistent with the designation "Limited Secondary Highway". Removing this designation will be a great benefit to our community. 1

Unfortunately, there are developer's, that don't live on this portion of Sloan Canyon Road, that would like to see this road remain on the map so that they can exploit our canyon and profit from its development. I encourage the planning commission to look at the history of Castaic and the creation of its CSD just a few years ago, to be reassured that the residents of Castaic would like Sloan Canyon to be removed from the highway map.

Thank you for your consideration on this matter.

Kind Regards,
Diana Larios
30758 Sloan Canyon Road
Castaic, CA 91384

1

Letter No. G14 Diana Larios, September 26, 2011

Response 1

The comment raises issues related to the proposed Area Plan that do not appear to any physical effect on the environment, as well as economic, social, or political issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

TESORO
del Valle

September 26, 2011

By E-mail
rruiz@planning.lacounty.gov

Pat Modugno, Chair
Esther L. Valadez, Vice Chair
David W. Louie, Commissioner
Harold V. Helsley, Commissioner
Curt Pedersen, Commissioner
Regional Planning Commission, Los Angeles County
320 W. Temple Street
Los Angeles, California 90012

Re: Proposed OVOV - Land Use Designation – Tesoro del Valle Project - VTT Map # 51644

Dear Chairman Modugno and Commissioners:

I am writing you on behalf of the 1,077 homeowners and approximately 3,700 residents of the Tesoro Del Valle Master Homeowners Association to oppose the proposed RL5 and RL10 Rural Land use designations for the as yet undeveloped Tesoro Planning Areas B & C.

I am a Member of the Board of Directors of the Tesoro Del Valle Master Homeowners Association. I am chairman of the Security Committee and a member of the Land Use Committee. I have served my community in one official capacity or another since early 2007. I attended the majority of the Board Meetings for the two years prior to that. I am also an original homeowner.

I specifically purchased my suburban-style home here in 2003 for the family life-style, the close knit neighborhood life-style, the wonderful non-rural community amenities which include our private park, pools, spas, tennis courts, clubhouse, other recreation facilities, and our landscaped and manicured common areas and slopes. The controlled environment provided for us by our CC&R's and the governing documents was also extremely appealing. I am not unique. I believe that virtually all the owners in our community bought for similar reasons. 1

I believe the Commission may have started down the path towards a rural land use designation at the December 2010 meeting without having heard several important points. Accordingly, I would like to highlight several provisions of our CC&R's and governing documents and give a little history for you to keep in mind as you make your decision.

We are one master planned community that includes Planning Areas A, B and C. Who says so? There are four determinative sources.

- The County Planning Department has recognized it as such since 1999.
- Our CC&R's specifically call for all of Tesoro, the developed section and Planning Areas B & C, to be one master planned community.
- An official state document, the Final Subdivision Report, also issued in 2003, states that all of "…Tesoro Del Valle is a master planned community…" which "…is subject to the Master Declaration" (aka the CC&R's).
- And the County's own actions speak volumes. All of Areas B, C as well as the already completed portion are within one Landscape and Lighting District (LLAD) zone. The CC&R's state that each owner acknowledges that the entire development is within LLAD #4 Zone 76 and each unit shall be subject to assessments therefore. This zone was established by the County. Why would the County create a zone covering all of Tesoro if it did not expect all of the planning Areas to be part of the same cohesive community?

Giving Areas B & C a vastly different land use than that in the already built Area A will make governing the community unnecessarily complex and difficult. Our one community deserves one land use or, at a minimum, similar, consistent and compatible land use designations.

1

On another point, please do not be fooled by the red herring that the "equestrian nature" of Areas B & C should be preserved, and therefore should have a rural land use. The facts don't bear this out.

The Final Subdivision Report recognizes the existence of a horse community in San Francisquito Canyon. This community is completely outside Areas B & C. With the appropriate mitigations that have been requested by the Planning Department, this community is not negatively impacted by a suburban development in Areas B & C.

The Report further states that horses are not allowed overnight anywhere in Tesoro. The Report said that there was going to be a trail through Tesoro that horses would be allowed on – the Cliffie Stone Multi-Use Trail with connector trails allowing access from San Francisquito Canyon – and that horses are never allowed in any other part of Tesoro.

Our CC&R's and the County's actions are equally explicit. The clear intent is that horse riding shall only be allowed on the trail created by the recorded easement entered into between the County and the master developers.

Another section of the CC&R's prohibits horses from being anywhere within the boundaries of Tesoro Del Valle. A third section states that "…no livestock shall be brought within the Project…" except on the County maintained trail.

We also have a rule consistent with our CC&R's which has been on the books since August 2003 that says "No… undomesticated or farm animals, livestock, horses, or poultry shall be brought within the Association or kept in any Unit".

I have witnessed this non-equestrian nature with my own eyes. As chairman of the Association's Security Committee I have been on numerous patrols over the past 4+ years of Areas B & C. Yet I have never seen anyone riding a horse there.

It is a virtual impossibility to modify the CC&R's such as splitting off Areas B & C into a separate HOA or to allow horses or livestock there. The law requires that such changes be approved by two-thirds of the voters in the HOA. We have never even had a two-thirds turnout for any of our elections let alone have two-thirds come together on any single issue.

Further, the CC&R's, per state law, are a contract that is legally binding on all our property owners and the HOA. Each original owner and subsequent owner bought their home subject to the terms and conditions of the CC&R's and in reliance on the information approved by the state in the Final Subdivision Report. 1

Please do not irrevocably change what Tesoro owners are legally entitled to and negatively impact the desirability of living there.

Please balance the equities. Vastly different land uses designations will divide and harm our community.

Sincerely,

Richard Galway

Richard Galway
For the Tesoro Del Valle Master Homeowner's Association
Board Member
Security Committee Chairman
Land Use Committee Member
Homeowner

cc: Richard J. Bruckner, Planning Director
Mitch Glaser, Supervising Regional Planner, mglaser@planning.lacounty.gov
Rosalind Wayman, Senior Deputy to Supervisor Antonovich

Letter No. G15 Richard Galway, September 26, 2011

Response 1

The comment raises issues related to the proposed Area Plan that do not appear to any physical effect on the environment, as well as economic, social, or political issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Letter No. G16

TESORO
del Valle
DISCOVER THE TREASURE

September 26, 2011

By E-mail
rruiz@planning.lacounty.gov

Pat Modugno, Chair
Esther L. Valadez, Vice Chair
David W. Louie, Commissioner
Harold V. Helsley, Commissioner
Curt Pedersen, Commissioner
Regional Planning Commission, Los Angeles County
320 W. Temple Street
Los Angeles, California 90012

Re: Proposed OVOV - Land Use Designation – Tesoro del Valle Project - VTT Map # 51644

Dear Chairman Modugno and Commissioners:

I am the President of the Tesoro del Valle Master Homeowners Association which governs the Tesoro del Valle Master Planned Community. In addition, to my officer position on the Board I serve as Chairman of the Landscape Committee and a member of the Land Use Committee. The Tesoro HOA is a very professional and sophisticated organization structured with seven working committees (Security, Architecture, Finance, Clubhouse, Enforcement, Landscape, and Land Use) to manage a challenging controlled master planned community environment of mix uses of residential housing (single family, townhouse, detached condos, and estate), commercial shopping center, elementary school, historic district, recreational amenities, and Copper Hill Drive parkway and median. The first of four planning phases of Tesoro has been completed with 1077 homes and approximately 3,700 residents on approximately 400 acres and the remaining acres are ready for development with the existing major infrastructure and urban services. 1

The Tesoro HOA was formed in May 2003 with governing documents of CC&R's, By Laws, and Design Guidelines to manage the Tesoro Master Planned Community. The Tesoro HOA has also worked closely with the County in monitoring three Landscape and Lighting Act Assessment Districts to provide funding to maintain open space, Tesoro Adobe Park, and Copper Hill Dr. Median.

The homeowners are proud of their community and have supported a substantial investment of money and time in maintaining and continuing to improve their master planned community. The HOA Board is dedicated to provide a high quality and well managed planned community as envisioned and expected by our homeowners when they purchased.

The HOA Board and Land Use Committee have been reviewing the OVOV General Plan update and other pending applications in the Santa Clarita Valley. We are in support of the County Planning Staff's recommendation for H2-Residential designation as an appropriate land use for OVOV and the remaining Tesoro undeveloped land. Recently, we were informed of a proposed change from H2-Residential to RL5 and RL10 Rural Land Use, since we are perceived to be an anomaly, with the residential land use surrounded by rural land use and lifestyle to the East and West.

I would like to address the misconception:

1) Our homeowners do not consider the Tesoro Master Planned Community to be a rural community, but a seamless extension of the Valencia Master Planned Communities of West Creek, West Hills, and North Park. They chose to live in a master planned community, governed by a HOA, CC&R's, Design Guidelines, and to pay monthly dues to manage and maintain the community. If they had wanted to live in a rural community with limited access and a lack of heavy infrastructure and urban services, they would have elected to do so; and
2) We understand why the County Planning Staff recommended RL-5 and RL-10 Rural Land Use for the property owners to the East and West of us, due to their desire and request to preserve their rural life style, which the County did accommodate with the approved San Francisquito and Castaic CSD, but we are not in the San Francisquito CSD and are exempt from the Castaic CSD. The perceived anomaly is due to the existing approved Tesoro Master Planned Community and Vesting Tentative Tract Map # 51644. Therefore, the Tesoro HOA respectfully requests the Commission to accommodate our desire to preserve our master planned community life style with the H2-Residential designation, as recommended by Planning Staff, instead of RL5 and RL10 Rural designations for the remaining undeveloped Tesoro property.

1

We applaud the Commission in instructing the County Planning Staff to respect the comments and recommendations of community organizations, who are more informed about their properties. The Tesoro HOA has been diligently involved in the present and future planning of its master planned community and is supportive of the Residential H2-Residential designation, that staff has recommended, as the appropriate OVOV Land Use. Our homeowners are the primary property owners directly impacted by having a residential land use designation. So please respect the Tesoro HOA Board's request, representing approximate 3,700 residents, in its determination that the H2-Residential designation is what is best for our community.

Sincerely,

Rick Ryan
Board President
Landscape Committee Chairman
Land Use Committee Member
For the Tesoro del Valle Master Homeowner's Association
Homeowner

Cc Richard Bruckner, Planning Director
Mitch Glaser, Supervising Regional Planner, mglaser@planning.lacounty.gov
Rosalind Wayman, Senior Deputy to Supervisor Antonovich

Letter No. G16 Rick Ryan, September 26, 2011

Response 1

The comment raises issues related to the proposed Area Plan that do not appear to any physical effect on the environment, as well as economic, social, or political issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Letter No. G17

TESORO
del Valle
DISCOVER THE TREASURE

September 26, 2011

By E-mail
rruiz@planning.lacounty.gov

Pat Modugno, Chair
Esther L. Valadez, Vice Chair
David W. Louie, Commissioner
Harold V. Helsley, Commissioner
Curt Pedersen, Commissioner
Regional Planning Commission, Los Angeles County
320 W. Temple Street
Los Angeles, California 90012

Re: Proposed OVOV - Land Use Designation – Tesoro del Valle Project - VTT Map # 51644

Dear Chairman Modugno and Commissioners:

I am chairman of the Tesoro del Valle Master Homeowner Association Finance Committee and homeowner. I wish to express our support for County Planning Staff's Dec. 2010 recommendation of H-2 Residential Land Use for the pending OVOV General Plan Update on behalf of the Committee and financial health of the Tesoro HOA, that has financial obligations, which depend on the successful completion of the Tesoro Master Planned Community. Proposing a RL5 and RL10 Rural Land Use designation could jeopardize the ultimate build-out of the project. An incomplete project would cause a financial hardship for the Tesoro HOA by reducing the projected revenue, used to determine the monthly homeowner dues, which was approved by the California Department of Real Estate. 1

In addition to the financial impact on the Tesoro HOA, caused by an incomplete project, the Los Angeles County Landscape and Lighting Act Assessment District for the Tesoro Adobe Park, the Tesoro Commercial Shopping Center, and the Saugus School District could experience an economic hardship.

Again, on behalf of the Finance Committee, representing approximate 3,700 residents of the Tesoro del Valle Community, we request the H2-Residential designation and oppose the RL5 and RL10 Rural Land Use designation being proposed, which are not reflective of our community with the existing infrastructure and urban services suitable for future residential land use.

Thank you for your time and we look forward to your response. If you require any additional information, please let us know immediately. Thank you. 1

Sincerely,

Rick Friedman
Finance Committee Chairman
For the Tesoro del Valle Master Homeowner Association

cc: Richard J. Bruckner, Planning Director
Mitch Glaser, Supervising Regional Planner, mglaser@planning.lacounty.gov
Rosalind Wayman, Senior Deputy to Supervisor Antonovich

Letter No. G17 Rick Friedman, September 26, 2011

Response 1

The comment raises issues related to the proposed Area Plan that do not appear to any physical effect on the environment, as well as economic, social, or political issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

September 27, 2011

By E-mail
rruiz@planning.lacounty.gov

Pat Modugno, Chair
Esther L. Valadez, Vice Chair
David W. Louie, Commissioner
Harold V. Helsley, Commissioner
Curt Pedersen, Commissioner
Regional Planning Commission, Los Angeles County
320 W. Temple Street
Los Angeles, California 90012

Re: Proposed OVOV - Land Use Designation – Tesoro del Valle Project - VTT Map # 51644

Dear Chairman Modugno and Commissioners:

My name is Andrew Daymude, I am a Los Angeles County resident of Tesoro del Valle community for the last 7 years. I am a Regent of the California Architecture Foundation, a licensed landscape architect and a professional land use planner who has served on the Design Review Board (DRB) of the Tesoro del Valle community since its inception and served a two year term as a Tesoro Land Use Committee member. As part of the Land Use Committee, our charter was to review and analyze land use physical and policy changes in the Santa Clarita Valley that may have an effect on Tesoro. To that end, it is my opinion the residential land use designation H2 is consistent with the OVOV Policy and Vision, for the remaining undeveloped land, where infrastructure and urban services are in place to serve and to continue the residential master-planned community life style that exists today at Tesoro and the adjacent Valencia master-planned communities of North Park, West Creek, and West Hills.

Furthermore, as a Tesoro del Valle community homeowner and former Land Use Committee member, I have been specifically involved in reviewing the future planning of the Tesoro del Valle master-planned community and other related planning issues such as the County's OVOV General Plan Update. The Land Use Committee after reviewing the proposed H2 Residential land use designation for the future Planning Areas B and C are in support of the residential land use as the completion of the Tesoro del Valle master-planned community life style, existing Planning Area A first-phased development of 1,077 homes and approximately 3,700 residents. 1

As a long-range planner, visioning and planning for the full build-out of the master plan is important to the community as a whole. Therefore, residential land use is appropriate for Areas B and C, as undeveloped areas of the approved Vesting Tentative Tract Map No. 51644, since the Tesoro property has the backbone infrastructure completed to date with sewer, water, storm drains, dry utilities, water storage tanks, on-site access to the six lane Major Highway Copper Hill Drive and four lane bridge. In addition, on-site urban services are available such as the

Tesoro del Valle Elementary School, Tesoro Shopping Center, Tesoro Adobe Regional Park, and Tesoro Swim and Racquet Club Park.

For the future planning of residential land use, the Tesoro del Valle remaining land is appropriate as a continuation of the existing build-out of the multi-phased master planned community and adjacent Valencia master-planned communities of West Creek, West Hills, and North Park, and with existing urban services of Rio Norte Junior and Valencia High Schools, Copper Hill Fire Station, Copper Hill Drive transit services., and the Valencia and Lockheed Industrial Centers. The Tesoro property with the existing backbone infrastructure, commercial shopping center, adjacent industrial business center, and major highway access does not appear to meet the OVOV definition for RL5 and RL10 Rural Land Use with limited access and lack of heavy infrastructure and urban services. In the past, Los Angeles County has recognized the Tesoro property with similar topography as West Creek and is suitable for land use with improved access, which occurred with the construction of Copper Hill Drive. 1

In addition, we have heard of some concerns that residential land use would have an impact on the San Francisquito Canyon community life style, which is simply a misperception, since Los Angeles County has minimized that risk with the approval of the San Francisquito Canyon Community Standards District. These were further reduced by limiting portions of the areas B and C to one story structures and below the ridgeline to eliminate and visual impact to our neighbors in the San Francisquito Canyon area.

In conclusion, as a professional land planner in southern California, it is my opinion the residential land use designation H2 is consistent with the OVOV Policy and Vision, for Tesoro's remaining undeveloped land, where infrastructure and urban services are in place to serve and to continue the residential master planned community life style that exists today at Tesoro and adjacent Valencia master planned communities of North Park, West Creek, and West Hills.

Respectfully,

E. Andrew Daymude
Tesoro del Valle Master homeowner
Former Tesoro ARC & Land Use Committee Member

cc: Richard J. Bruckner, Planning Director
Mitch Glaser, Supervising Regional Planner, mglaser@planning.lacounty.gov
Rosalind Wayman, Senior Deputy to Supervisor Antonovich

Letter No. G18 E. Andrew Daymude, September 27, 2011

Response 1

The comment raises issues related to the proposed Area Plan that do not appear to any physical effect on the environment, as well as economic, social, or political issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Letter No. G19

Castaic Area Town Council

September 27, 2011

County of Los Angeles
Department of Regional Planning
Attn: Mitch Glaser
320 West Temple Street
Los Angeles, CA 90012

Re: One Valley One Vision – Charlie Canyon RL2 Designation

Dear Planning Commission,

It is imperative the Planning Commission to reconsider our last request to designate Charlie Canyon as RL-2.

The only chance our community has of getting a secondary cross valley road to Tesoro/ Copperhill (for snow closures, fires and other emergency situations) is a RL-2 density that will help pay for the cost of the road. Regional Planning's proposed RL-10 designation in Charlie Canyon will stifle any chance for growth and would adversely affect our community. 1

Please contact me directly with any questions at (661) 205-9245.

Sincerely,

Scott A. Wardle
President
Castaic Area Town Council

Cc: Rosalind Wayman

Castaic Area Town Council P.O. Box 325 Castaic, CA 91310-0325 (661) 295-1156

Letter No. G19 Castaic Area Town Council, September 27, 2011

Response 1

The comment raises issues related to the proposed Area Plan that do not appear to any physical effect on the environment, as well as economic, social, or political issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.

Letter No. G20

Montalvo VENTURES

3600 Birch Street, Suite 220 | Newport Beach, CA 92660
p: 949.863.9099 | f: 949.863.9010| www.montalvoventures.com

September 27, 2011

By E-mail
rruiz@planning.lacounty.gov

Pat Modugno, Chair
Esther L. Valadez, Vice Chair
David W. Louie, Commissioner
Harold V. Helsley, Commissioner
Curt Pedersen, Commissioner
Regional Planning Commission, Los Angeles County
320 W. Temple Street
Los Angeles, California 90012

Re: *Santa Clarita Valley Area Plan Update (One Valley One Vision)*
Agenda Item No. 6; Project No. R2007-01226-(5)

Dear Commissioners:

We represent the family that has owned the balance of the undeveloped phases of the Tesoro del Valle master-planned community since 1950. The Tesoro del Valle planned community is located in unincorporated Los Angeles County, within the Santa Clarita Valley, approximately two miles north of the City of Santa Clarita. We submit this letter on the family's behalf in response to the Regional Planning Commission's upcoming public hearing concerning the Santa Clarita Valley Area Plan Update (One Valley One Vision [OVOV]), which is scheduled for September 28, 2011.

At the December 8, 2010 Planning Commission hearing on the OVOV Update, a discussion took place regarding staff's recommendation for the H2-Residential designation for Tesoro's remaining phases within the planned community. After presentation of a PowerPoint slide characterizing the proposed H2-Residential designation as an anomaly, the Commission instructed staff to change the designation of Tesoro's undeveloped phases from H2-Residential to the RL5 and RL10 Rural Land designations. 1

The purpose of this letter is to provide the Commission with the reasons why staff was correct in originally designating Tesoro's remaining phases as H2-Residential. We also respectfully request that the Commission implement staff's original designation, so that Tesoro's remaining

phases are designated as H2-Residential in the OVOV Update. With that said, the letter includes important background concerning the Tesoro del Valle planned community.

Background of the Tesoro del Valle Master-Planned Community

Existing Development

In 1999, the County Board of Supervisors approved the entire Tesoro del Valle master-planned community for development in four phases (Planning Areas A-D). Phase A is fully constructed, with 1,077 homes and approximately 3,700 residents. Phases B and C are situated generally to the north of Phase A, on about 1260 acres, all of which is part of the approved Tesoro del Valle planned community.

Approved Project Area

As stated, in 1999, the Board of Supervisors approved a General Plan Amendment, Zone Change, Conditional Use Permit, Oak Tree Permits, a Vesting Tentative Tract Map (VTTM No. 51644), and an Environmental Impact Report (EIR) for development of the entire Tesoro del Valle planned community. At that time, the Board made the policy decision to approve a mixed-use planned community, consisting of urban, commercial, non-urban, open space, hillside management, and significant ecological area (SEA) designations. Thereafter, federal and state resource agencies issued federal and state permits authorizing development of the entire Tesoro project site.

1

As approved, the Tesoro planned community is a phased development that was planned to transition from higher density in Phase A to lower density in Phases B and C as development moved northerly toward the Angeles National Forest. (Phase D, an area next to the San Francisquito Creek SEA, located to the east, has no infrastructure, nor is development feasible in that area due to SEA restrictions.)

Infrastructure

The major backbone infrastructure required to serve the Tesoro planned community was installed with completion of the first phase (Phase A) of the existing community. This infrastructure includes water, sewer, storm drain, and dry utilities. The infrastructure has been stubbed to the currently undeveloped portions of Phases B and C. The infrastructure also has been sized to accommodate the future development of Phases B and C.

Public Services and Urban Capacity

The following public services are either on site or in close proximity to the Tesoro planned community: Tesoro del Valle Elementary School (designed for 930 students), Rio Norte Jr. High School, Valencia High School, Tesoro Shopping Center, Fire Station, Transit Service on Copper Hill Drive, Tesoro Adobe Regional Park and parking lot, the Valencia and Lockheed Industrial Parks, and Newhall Ranch Road Commercial Village.

Circulation/Access

The Tesoro project (Phase A) was part of a partnership with the County in dedicating land and contributing substantial funds toward building the existing six-lane major highway, Copper Hill Drive (three lanes in each direction), along the southerly boundary of the Tesoro project site, which provides two major connections to the existing planned community. A four-lane bridge was constructed concurrently with Copper Hill Drive, with another two lanes to be built by the Tesoro project as a condition of the final development of the remaining currently undeveloped phases (Phases B and C). There also is a future third access road, connecting to the adjacent West Hills project area, again to be constructed by the Tesoro project. In addition, in close proximity to the Tesoro planned community is McBean Parkway, an existing four-lane secondary highway.

Environmental

In 1999, the Board of Supervisors certified the Tesoro project EIR, which assessed the environmental effects of the entire Tesoro del Valle planned community. Future project development also is regulated by the Board-approved mitigation monitoring report. Project conditions already are in place to preserve the highest quality environmental resource identified in the 1999 EIR, which is SEA 19 (designed to protect the migratory path of the unarmored threespine stickleback from the Angeles National Forest to the Santa Clara River). Most of SEA 19 is now protected by County-approved projects, including Tesoro, Burnam/SunCal, and the Valencia master-planned communities.

1

VTTM No. 51644

The entire Tesoro planned community is subject to the approved and current "vesting" tract map (VTTM No. 51644) and associated project approvals.

OVOV Update Designations and Policies

Currently, the Commission is considering updating the Santa Clarita Valley Area Plan, a component of the Los Angeles County General Plan. Because Tesoro's remaining phases (Phases B and C) are part of the previously approved Tesoro del Valle planned community, and because those remaining phases were approved as a transition from the higher density in the southerly portion of the community (Phase A), your staff recommended that the remaining phases be designated H2-Residential. The H2-Residential designation "provides for residential neighborhoods at densities that require urban services." (Final Draft Santa Clarita Valley Area Plan, Chap. 2, p. 52.) This designation is intended for residential neighborhoods that "provide a transition between higher density urban development and rural communities throughout the planning area," and the designation "is appropriate in such urban/rural interface areas." (*Id.*)

Reasons for the H2 Designation

As explained above, Tesoro's remaining phases (Phases B and C) are part of the existing Tesoro neighborhoods within the planned community. These remaining phases were intended to

transition from the higher density located in the southerly portion of the community. The remaining phases are part of an urban/rural interface within the existing community. Existing infrastructure, public services, and circulation/access already are in place to serve the remaining phases of the Tesoro planned community. Your staff recognized these unique land use considerations and appropriately designated the balance of the Tesoro community as H2-Residential. We ask that you support your staff's original designation for the reasons provided.

1

There is one other important reason for supporting your staff's original H2 designation for the remaining phases of the Tesoro community. The proposed, changed designations (RL5 and RL10) are not appropriate for the Tesoro community. Those two designations focus primarily on undeveloped hilly or mountain land areas with limited access. Tesoro's remaining phases (Phases B and C) have areas where the terrain is neither hilly nor mountainous; and as stated, Phases B and C have excellent access to the infrastructure, public services, and circulation/ access necessary to serve those areas.

For all the above reasons, we respectfully request your consideration in returning to the previous, staff-recommended H2-Residential designation for Tesoro's remaining phases (Phases B and C). Thank you for your consideration.

Sincerely,

John E. Evans and Timothy C. Collins
Owner's Representatives

cc: Richard J. Bruckner, Planning Director
Mitch Glaser, Supervising Regional Planner
Rosalind Wayman, Senior Deputy to Supervisor Antonovich

Letter No. G20 John E. Evans and Timothy C. Collins, September 27, 2011

Response 1

The comment raises issues related to the proposed Area Plan that do not appear to any physical effect on the environment, as well as economic, social, or political issues that do not appear to relate to any physical effect on the environment. The comment will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Area Plan. However, because the comment does not raise an environmental issue, no further response is required.