TOPICAL RESPONSE 7: PERCHLORATE TREATMENT UPDATE

Comments have been received on the Draft EIS/EIR stating that facilities needed to clean up ammonium perchlorate (perchlorate) contamination found in groundwater in the Santa Clarita Valley are not in place, resulting in reduced water supply while additional housing units are approved in the Santa Clarita Valley. One comment letter from the Sierra Club attached a resolution opposing further development in the Santa Clarita Valley until facilities to remove perchlorate are built and operational. Others have commented generally on the Castaic Lake Water Agency (CLWA) litigation brought in federal court to force payment for clean-up of perchlorate-impacted municipal supply wells.

This response addresses the perchlorate-related comments received on the Draft EIS/EIR, and provides an update on the progress made to date in implementing work plans for the remediation and treatment of perchlorate in the Santa Clarita Valley's groundwater supplies. The response is based on the information regarding perchlorate contamination and treatment that was presented in **Section 4.3**, Water Resources, of the Draft EIS/EIR, which is summarized below. This response also includes updated information received from CLWA and other retail water purveyors in the Santa Clarita Valley since the Draft EIS/EIR was made available for public review in April 2009. In addition, for further responsive information, please see revised **Section 4.3** of the Final EIS/EIR.

Draft EIR/EIS Summary

The Draft EIS/EIR presented substantial information regarding perchlorate contamination and treatment in the Santa Clarita Valley. (Please refer to Draft EIS/EIR, pages 4.3-9 through 4.3-65.) The Draft EIS/EIR also analyzed significant impacts to water resources, including the potential for the proposed Project and alternatives to cause the migration of perchlorate in groundwater beyond the currently affected wells in the Santa Clarita Valley. (Please refer to Draft EIS/EIR, pages 4.3-76 through 4.3-116.) In addition, the Draft EIS/EIR identified a number of technical documents found in the appendices to the Draft EIS/EIR, as well as other documents incorporated by reference and made available for public review that provide perchlorate-related contamination and treatment information and analysis. For example, the Draft EIS/EIR used and relied upon the following documents: (a) Summary Report for the Month of November 2007, prepared by Geomatrix for the Department of Toxic Substances Control (DTSC), dated January 15, 2008; (b) Technical Memorandum No. 6, dated January 2007, Groundwater Monitoring Event, Eastern Santa Clara Subbasin Groundwater Study, Santa Clarita, California, prepared by CH2MHill for the U.S. Army Corps of Engineers (Corps), dated August 2007; (c) 2006 and 2007 Santa Clarita Valley Water Reports; (d) 2005 Urban Water Management Plan, prepared by CLWA and other retail water purveyors; (e) Interim Remedial Action Plan, prepared by Kennedy-Jenks Consultants for CLWA and approved by DTSC, December 2005; and (f) Newhall Ranch environmental documentation. (Copies of these documents are provided in the Draft EIS/EIR, **Appendix 4.3**.)

The Draft EIS/EIR took into account numerous factors affecting water supplies in the Santa Clarita Valley, including perchlorate-impacted wells. The Draft EIS/EIR also accounted for the perchlorate-

impacted wells in the groundwater basin[1] (*i.e.*, both the Alluvial aquifer and the Saugus Formation as described below), and analyzed the data derived from ongoing monitoring by water purveyors, wellhead treatment, and construction of new replacement wells in areas not impacted by perchlorate.[2] After consideration of the factors discussed above, and based on information received from CLWA and other retail water purveyors in the Santa Clarita Valley, the Draft EIS/EIR, on page 4.3-30, determined that an adequate supply of water exists in the Santa Clarita Valley to meet the needs of its residents now and in the future:

> "**Table 4.3-6** summarizes the existing and planned water supplies and banking programs for the CLWA service area. . . . Diversity of supply allows CLWA and the local retail purveyors the option of drawing on multiple sources of supply in response to changing conditions, such as varying weather patterns (average/normal years, single-dry years, multiple dry years), fluctuations in delivery amounts of SWP water, natural disasters, perchlorate-impacted wells, and other factors. *Based on CLWA's conservative water supply and demand assumptions over the next 20 years (i.e., through 2030 as described in the 2005 UWMP), in combination with conservation of non-essential demand during certain dry years, the water supply plan described in the 2005 UWMP achieves CLWA's and the local retail purveyors' goal of delivering reliable and high-quality water supply for their customers, even during dry periods* [footnote omitted]." (Italics added.)

The Draft EIS/EIR contained a detailed description of groundwater supplies in the Santa Clarita Valley, including graphics depicting both the mapped extent of the Santa Clara River Valley East Subbasin, which is comprised of the Alluvium/Alluvial aquifer and the Saugus Formation, and the locations of the Alluvium and Saugus Formation municipal-supply well locations. (Draft EIS/EIR, pp. 4.3-39-4.3-55.) The Draft EIS/EIR also described the groundwater operating plan "developed by CLWA and the local retail purveyors over the past 20 years to meet water requirements (municipal, agricultural, small domestic), while maintaining the groundwater basin in a sustainable condition (*i.e.*, no long-term depletion of groundwater or interrelated surface water)." (Draft EIS/EIR, p. 4.3-39.) The groundwater operating plan addressed groundwater contamination issues in the basin, consistent with CLWA's Groundwater Management Plan (GWMP). (Draft EIS/EIR, p. 4.3-39; and see p. 4.3-11-4.3-13.) This operating plan quantifies annual pumping volumes (in ranges) from the Alluvium and Saugus Formation. (Draft EIS/EIR, pp. 4.3-1-4.3-2.) Historical and projected groundwater pumping by retail water purveyor is also provided in the document. (Draft EIS/EIR, pp. 4.3-42-4.3-43 [**Tables 4.3-12** and **4.3-13**].)

In addition, the Draft EIS/EIR identified the three factors affecting the availability of groundwater supplies under the groundwater operating plan, which are: "(1) sufficient source capacity (wells and

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[1] The groundwater basin is identified in DWR Bulletin 118 (2003 Update) as the Santa Clara River Valley Groundwater Basin, East Subbasin (Basin). The Basin is comprised of two aquifer systems, the Alluvium (also referred to as the Alluvial aquifer) and the Saugus Formation. The Alluvium generally underlies the Santa Clara River and its several tributaries, and the Saugus Formation underlies practically the entire Upper Santa Clara River area.

[2] At the time the Draft EIR/EIS was circulated for public review in April 2009, there were four remaining perchlorate-impacted wells, consisting of three Saugus wells (Saugus 1 and 2 and NC-11) and one Alluvial well (Stadium well). None of these wells are located in the Project area, and there have been no perchlorate-impacted wells on or in the vicinity of the Project area.

pumps); (2) sustainability of the groundwater resource to meet pumping demand on a renewable basis; and (3) protection of groundwater sources (wells) from known contamination, or provisions for treatment in the event of contamination." (Draft EIS/EIR, p. 4.3-44.) The Draft EIS/EIR analyzed each factor for both the Alluvial aquifer and the Saugus Formation, as summarized below. (See Draft EIS/EIR, pp. 4.3-44-4.3-54.)

Alluvial Aquifer

For the Alluvial aquifer, the Draft EIS/EIR determined that there was more than adequate pumping capacity from active wells (not contaminated by perchlorate) to meet the purveyors' groundwater operating plan, and such capacity did not include the one Alluvial well that has been inactivated due to perchlorate contamination (Stadium well):

> "For municipal water supply, with existing wells and pumps, the three retail water purveyors with Alluvial wells (NCWD, SCWD and VWC) have a combined pumping capacity from active wells (not contaminated by perchlorate) of 36,120 gpm, which translates into a current full-time Alluvial source capacity of approximately 58,000 afy. [footnote omitted] This is more than sufficient to meet the municipal (or urban) component of groundwater supply from the Alluvium, which is currently 20,000 to 25,000 afy of the total planned Alluvial pumping of 30,000 to 40,000 afy. (The balance of Alluvial pumping in the operating plan is for agricultural and other small private, pumping.) Alluvial pumping capacity from all the active municipal supply wells is summarized in **Table 4.3-14**. The locations of the various municipal Alluvial wells throughout the Basin are illustrated on **Figure 4.3-5**. These capacities do not include one Alluvial aquifer well that has been inactivated due to perchlorate contamination, the SCWD Stadium well, which represents another 800 gpm of pumping capacity, or full-time source capacity of about 1,290 afy." (Draft EIS/EIR, p. 4.3-46.)

The Draft EIS/EIR also analyzed the sustainability or renewability of Alluvial groundwater, finding that:

> "The Alluvial aquifer is considered a sustainable water supply source to meet the Alluvial portion of the operating plan for the Basin. This is based on the combination of actual experience with Alluvial aquifer pumping at capacities similar to those planned for the future and the resultant sustainability (recharge) of groundwater levels and storage, and further based on modeled projections of aquifer response to planned pumping rates that also show no depletion of groundwater." (Draft EIS/EIR, p. 4.3-49.)

After addressing pumping capacity and long-term sustainability of the Alluvial aquifer, the Draft EIS/EIR described protection of groundwater sources (wells) from known contamination, including perchlorate, and the plans in place to ensure aquifer protection:

> "As of this writing, perchlorate has been detected in two Alluvial municipal-supply wells in the basin; however, wellhead treatment has been permitted and installed at one of the two impacted wells, VWC's Well Q2. The treatment removes perchlorate pumped from the well to a non-detect level . . . As discussed in the 2005 UWMP, Chapter 5 and Appendix D, there has been extensive investigation of the extent of perchlorate contamination which, in combination with the groundwater modeling previously

> described, led to the current plan for integrated control of contamination migration and restoration of impacted pumping (well) capacity in 2006.
>
> The short-term response plan for the protection of other Alluvial wells, down-gradient from the former Whittaker-Bermite site, is to promptly install wellhead treatment to ensure adequate water supplies. This plan complements the longer-term source control actions being undertaken by the Whittaker-Bermite property owner under supervision of [DTSC] to address perchlorate contamination in the northern Alluvium (to the north of the former Whittaker-Bermite site), and the subsequent restoration of the one other perchlorate-contaminated Alluvial well (Stadium well). The long-term plan also includes the CLWA groundwater containment, treatment and restoration project to prevent further downstream migration of perchlorate, the treatment of water extracted as part of the containment process, and the recovery of lost local groundwater production from the Saugus Formation." (Draft EIS/EIR, pp. 4.3-49-4.3-50.)

Saugus Formation

For the Saugus Formation, the Draft EIS/EIR determined that there was more than adequate pumping capacity from active wells (not contaminated by perchlorate) to meet the purveyors' groundwater operating plan in both normal and dry years.

> "In terms of adequacy and availability, the combined active Saugus groundwater source capacity of municipal wells of 24,000 afy, is more than sufficient to meet the planned use of Saugus groundwater in normal years of 7,500 to 15,000 afy. During the currently scheduled time frame for restoration of impacted Saugus capacity (as discussed further in Chapter 5 of the 2005 UWMP), this currently active capacity is more than sufficient to meet water demands, in combination with other sources, if the next two years are dry. At that time, the combination of currently active capacity and restored impacted capacity, through a combination of treatment at two of the impacted wells and replacement well construction, will provide sufficient total Saugus capacity to meet the planned use of Saugus groundwater during dry-years of between 21,500 af to 35,000 af (see **Tables 4.3-5** and **4.3-6**, above)." (Draft EIS/EIR, p. 4.3-53.)

The Draft EIS/EIR analyzed the sustainability or renewability of Saugus groundwater, finding that:

> "To examine the yield of the Saugus Formation or, its sustainability on a renewable basis, the groundwater flow model was used to examine long-term projected response to pumping from both the Alluvium and the Saugus over the 78-year period of hydrologic conditions (purveyors believe that this period best represents potential variations in pumping). The pumping simulated in the model was in accordance with the operating plan for the Basin. For the Saugus, simulated pumpage included the planned restoration of recent historic pumping from the perchlorate-impacted wells. In addition to assessing the overall recharge of the Saugus, that pumping was analyzed to assess the effectiveness of controlling the migration of perchlorate by extracting and treating contaminated water close to the source of contamination. . . .

> Simulated Saugus Formation response to the ranges of pumping under assumed recurrent historical hydrologic conditions is consistent with actual experience under smaller pumping rates. The response consists of: (1) short-term declines in groundwater levels and storage near pumped wells during dry-period pumping; (2) rapid recovery of groundwater levels and storage after cessation of dry-period pumping; and (3) no long-term decreases or depletion of groundwater levels or storage. The combination of actual experience with Saugus pumping and recharge up to about 15,000 afy, now complemented by modeled projections of aquifer response that show long-term utility of the Saugus at 7,500 to 15,000 afy in normal years and rapid recovery from higher pumping rates during intermittent dry periods, shows that the Saugus Formation can be considered a sustainable water supply source to meet the Saugus portion of the operating plan for the Basin." (Draft EIS/EIR, pp. 4.3-53-4.3-54.)

After addressing pumping capacity and long-term sustainability of the Saugus Formation, the Draft EIS/EIR described protection of groundwater sources (wells) from known contamination, including perchlorate, and the plans in place to ensure aquifer protection:

> "The remaining key consideration related to current and future use of the Saugus Formation is the impact of perchlorate contamination. The nature and extent of the contamination, and the plans to contain the migration of perchlorate and restore impacted Saugus well capacity are addressed in CLWA's groundwater containment, treatment and restoration project, as discussed in the 2005 UWMP, Chapter 5 and Appendix E (see EIS/EIR, **Appendix 4.3**, for the 2005 UWMP). This project proposes to contain further downstream migration of perchlorate from the former Whittaker-Bermite site, treat water extracted as part of the containment process, and recover lost groundwater production from the impacted wells in the Saugus Formation." (Draft EIS/EIR, p. 4.3-54.)

CLWA/Purveyor Implementation Plan for Perchlorate-Impacted Alluvial and Saugus Wells

Importantly, the Draft EIS/EIR assessed the perchlorate-impacted Alluvial and Saugus wells, based on the best available information provided by CLWA and other retail purveyors in the Santa Clarita Valley. This analysis focused on the status of the implementation plan developed by CLWA and the local retail purveyors to restore well capacity impacted by perchlorate. Contrary to comments received on the Draft EIS/EIR, the CLWA/retail purveyor implementation plan includes a combination of treatment facilities and replacement wells, and is substantially underway. The Draft EIS/EIR provided extensive information concerning this implementation plan and its status. For example, the Draft EIS/EIR disclosed that treatment facilities have been constructed and are either in operation or are close to becoming operational:

> "Treatment facilities for impacted wells are under construction (treatment facilities are well over 75 percent completed, and pipelines are over 35 percent completed). The start-up and operation is scheduled for 2009.
>
> CLWA, in conjunction with the local retail water purveyors, is proceeding with a two-prong perchlorate contamination program. The first prong is to protect non-impacted wells by pumping contaminated groundwater near the former Whittaker-Bermite site, thus preventing further migration within the aquifer and recovering costs incurred in responding to the perchlorate contamination. The second prong of the program is to

> restore the production capacity and water supply from wells that have been temporarily closed due to the detection of perchlorate. *As outlined below, CLWA's containment and water supply restoration program is well underway.*
>
> CLWA developed an Interim Remedial Action Plan (IRAP) to address the groundwater perchlorate contamination, and that action plan was approved by DTSC in January 2006. A groundbreaking ceremony for construction of the perchlorate treatment system and associated pipelines took place in August 2006. Monitoring wells required for the project have been constructed. The final design for treatment facilities and pipelines was completed in May 2007. Bidding has been completed, the contract has been awarded, and construction has commenced for the major construction work." (Draft EIS/EIR, pp. 4.3-54-4.3-55, italics added.)

In addition, the Draft EIS/EIR disclosed that substantial funding for perchlorate remediation/ treatment is currently in place:

> "Significantly, CLWA and the retail water purveyors entered into a settlement agreement in connection with the 2000 lawsuit brought against Whittaker-Bermite whereby CLWA and the purveyors estimate they will receive up to $100 million to construct the necessary perchlorate treatment facilities and pipelines; establish replacement wells as necessary; and, fund the operation and maintenance of these facilities for a period up to 30 years.
>
> Under the terms of the settlement agreement, the current and former owners of the Whittaker-Bermite site and their insurers will provide funding to construct replacement wells for the Stadium well and the NC-11 well, and a treatment plant to remove perchlorate from Saugus wells 1 and 2. Funding also will be provided to pay for the replacement of well V-157 (already undertaken), and the installation of wellhead treatment at well Q2, also already undertaken. The settlement agreement provides funds to operate and maintain the treatment system for up to 30 years, an amount the water agencies estimate could be as much as $50 million.
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> As noted above, the treatment facilities already have been designed and the settlement agreement provides almost $12 million to reimburse the agencies for past expenditures. In addition, a $10 million "rapid response fund" will be established to allow the water agencies to immediately treat specified wells that could become impacted by perchlorate contamination in the future. Costs not covered in the settlement agreement, such as the federal government's fair share of monitoring and treatment, will be sought *via* grant funding, including money made available by the Department of Defense.
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> Because certain defendants had previously filed for bankruptcy protection, the settlement agreement required approval by the U.S. Bankruptcy Court. On June 14, 2007, the Bankruptcy Court granted that approval. Final approval of the settlement agreement also required good-faith settlement determination by the U.S. District Court; that approval was granted on July 13, 2007. The District Court's action constitutes the final required court approval; accordingly, all payments under the settlement agreement were due by approximately August 13, 2007. [footnote omitted.] *Payment under the settlement was received in August 2007.*" (Draft EIS/EIR, pp. 4.3-54-4.3-55, italics added.)

Further, the Draft EIS/EIR analyzed the groundwater quality of both the Alluvial aquifer and the Saugus Formation, including perchlorate contamination and that analysis did not identify any significant impacts associated with the perchlorate-impacted wells in the Santa Clarita Valley. (See Draft EIS/EIR, pp. 4.3-57-4.3-65.) The Draft EIS/EIR also identified the perchlorate treatment technology, which is effective in treating perchlorate in water in order to meet drinking water standards. (See Draft EIS/EIR, pp. 4.3-63-4.3-64.) Based on the results of CLWA's investigation of perchlorate removal technologies, approval of ion exchange treatment technology in other settings by the California Department of Health Services (DHS), and the successful wellhead treatment installed at Valencia Water Company's Well Q2, the Draft EIS/EIR further disclosed that CLWA is currently utilizing the ion exchange technology for the restoration of impacted capacity (wells) in accordance with the permitting, testing, and installation process as described in the 2005 UWMP and other published reports issued by CLWA. (See Draft EIS/EIR, p. 4.3-64.)

In the discussion of impacts of the proposed Project and alternatives, the Draft EIS/EIR also identified significance criteria specific to the proposed Project and its alternatives as it relates to the presence of perchlorate in groundwater supplies. The significance criteria used in the Draft EIS/EIR stated that, given the presence of perchlorate created by other land uses in the Santa Clarita Valley (former Whittaker-Bermite site), impacts to water resources would be significant if implementation of the proposed Project or its alternatives would:

> "3. Result in the spreading of perchlorate in groundwater beyond the wells currently affected by perchlorate. (Significance Criterion 3)." (See Draft EIS/EIR, p. 4.3-76.)

The Draft EIS/EIR then analyzed the direct, indirect, and secondary impacts on water supplies associated with the proposed Project and alternatives based on the significance criteria, including the perchlorate criterion (Significance Criterion 3, discussed above). (See Draft EIS/EIR, p. 4.3-76-4.3-116.) The Draft EIS/EIR determined, based on modeling analysis, that:

> "The groundwater model was adaptable to analyze both the sustainability of groundwater under an operational scenario that includes full restoration of perchlorate-contaminated supply and the containment of perchlorate near the Whittaker-Bermite property (*i.e.*, by pumping some of the contaminated wells). In 2004, DTSC reviewed and approved the development and calibration of the regional model. After DTSC approval, the model was used to simulate the capture and control of perchlorate by restoring impacted wells, with treatment. The results of that work are summarized in a report entitled, *Analysis of Perchlorate Containment in Groundwater Near the Whittaker-Bermite Property, Santa Clarita, California* (CH2MHill, December 2004; see **Appendix 4.3**).
>
> The modeling analysis indicates that the pumping of impacted wells SCWD-Saugus 1 and SCWD-Saugus 2 on a nearly continual basis will effectively contain perchlorate migrating westward in the Saugus Formation from the Whittaker-Bermite property. The modeling analysis also indicates that: (1) no new production wells are needed in the Saugus Formation to meet the perchlorate containment objective; (2) impacted well NCWD-11 is not a required component of the containment program; and (3) pumping at SCWD-Saugus 1 and SCWD-Saugus 2 is necessary to prevent migration of perchlorate to other portions of the Saugus Formation. This report, and the accompanying modeling analysis, was approved by DTSC in November 2004. With that approval, the model is

being used to support the source water assessment and the balance of the permitting process required by [DHS]. (For additional information regarding ongoing groundwater monitoring and other activities related to the treatment of perchlorate-impacted groundwater and the planned return of this water to active public use in the Santa Clarita Valley, please see the Summary Report for the Month of November 2007, prepared by Geomatrix for DTSC, dated January 15, 2008, and Technical Memorandum No. 6, January 2007 Groundwater Monitoring Event, Eastern Santa Clara Subbasin Groundwater Study, Santa Clarita, California, prepared by CH2MHill for the U.S. Army Corps of Engineers, August 2007. Both documents are found in **Appendix 4.3** of this Draft EIS/EIR.)

The water demand for the operation of the Specific Plan under Alternative 2 would be met by the applicant's groundwater supplies, which are presently used for agricultural operations and pumped from the Alluvial aquifer (operation of the Specific Plan would be served by municipal supply wells located in the VCC area, replacing the existing agricultural wells, which will be closed). No net increase in groundwater usage (*i.e.*, 7,038 afy) would occur due to the conversion of agricultural water to urban uses in order to implement the Specific Plan. *As indicated above, because of the Specific Plan mitigation requirement to create no net increase in groundwater usage resulting from the Specific Plan, and the fact that the area in the basin known to be impacted by perchlorate is over four miles from the Specific Plan area, the Specific Plan would not result in the spread of perchlorate beyond the presently affected wells. Therefore, no significant impacts relative to the perchlorate-impacted groundwater would occur under Significance Criterion 3*." (Draft EIS/EIR, pp. 4.3-90-4.3-91, italics added; and see Draft EIS/EIR, pp. 4.3-95; pp. 4.3-100-4.3-101; pp. 4.3-104-4.3-105; pp. 4.3-109; pp. 4.3-113-4.3-114.)

Updated Information Since Public Circulation of Draft EIS/EIR

Since public circulation of the Draft EIS/EIR in April 2009, additional progress has been made in terms of perchlorate remediation/treatment in the Santa Clarita Valley, all of which has been conducted in cooperation with CLWA, local retail water purveyors, City of Santa Clarita, the Corps, DHS, DTSC, Los Angeles County Department of Public Works (DPW), community groups, Whittaker Corporation, and numerous consultants, contractors, supplies and others.[3]

For example, in September 2009, CLWA, in partnership with other local retail purveyors and the City of Santa Clarita, completed construction of CLWA's Rio Vista Intake Pump Station, which is CLWA's new perchlorate treatment facility. The facility is designed to restore groundwater production capacity impacted by perchlorate contamination and stop migration of perchlorate from the former Whittaker-Bermite site. The new plant is expected to be in operation beginning January 2010. Through new pipelines, perchlorate-impacted water from Saugus Wells 1 and 2 will be pumped and treated at the plant, restoring approximately 3,400 afy of groundwater. Pumping and treatment operations are expected to occur on a continuous basis for several years. The new facility will remove perchlorate from the

[3] As stated in Draft EIS/EIR, **Section 4.4**, Water Quality, no perchlorate has ever been detected in the Project area.

groundwater using ion-exchange technology. In addition, with approval from DHS, wellhead perchlorate treatment at Well Q2 has also been completed and will be removed after two years of non-detect levels of perchlorate.

As of August 31, 2009, approximately 23 million gallons of perchlorate-impacted groundwater have been treated and discharged under the National Pollutant Discharge Elimination System (NPDES) permit authorizing such activities. Routine weekly and monthly NPDES sampling, treatment, and discharge is continuing in compliance with NPDES permit requirements. An additional 12 to 14 wells also are being installed on the Whittaker property to pump and treat contaminated perchlorate on site.

Additional perchlorate-related remediation activities continue to move forward at the former Whittaker-Bermite site. For example, soil remediation operations are continuing on site, including completion of the third draft Remedial Action Plan (RAP) for site-wide soils remediation. The revised draft RAP was submitted to DTSC on August 14, 2009. DTSC's preliminary review comments were incorporated and a revised draft RAP was resubmitted to DTSC on August 31, 2009. Groundwater and surface water issues also continue to be addressed and reported to DTSC. (See Final EIS/EIR, **Appendix F4.3** [Progress Letter Report from Hassan Amini, Ph.D., Project Coordinator for AMEC Geomatrix, to DTSC, dated September 15, 2009].)

Comments also state that perchlorate contamination and the "lack of clean up" facilities has precluded the water purveyors from providing the amount of groundwater required to meet the needs of existing and future Santa Clarita Valley residents. As indicated above, however, the Draft EIS/EIR has reported that 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 four remaining perchlorate-impacted wells. This is achieved through an available and varied water supply portfolio. As indicated above, groundwater from Saugus Wells 1 and 2, unavailable since 1997, will now be treated at the newly constructed CLWA treatment plant, restoring approximately 3,400 afy of water supply. The contaminated Stadium Well and Valencia Water Company Well 157 have been replaced and the pumping capacity lost due to that contamination has been restored. Based on this information, the Draft EIS/EIR's conclusion that groundwater from existing and replacement wells will be available to assist in meeting the current and projected water demands in the Santa Clarita Valley is reasonable.

Comments also generally reference the litigation brought in 2000 by CLWA and other local retail purveyors against prior and current owners of the former Whittaker-Bermite facility in order to recover clean-up costs for perchlorate-impacted wells in the basin. The Draft EIS/EIR provides a brief summary of the litigation as well as the Settlement Agreement reached in that action. (See Draft EIS/EIR, p. 4.3-55.) However, in further response, a detailed summary of this litigation is provided below:

> "In 1997, the State of California conducted tests on a number of municipal water wells owned by [the local retail purveyors, which were] located in the vicinity of the former Whittaker-Bermite site. These and subsequent tests found perchlorate in four of the purveyors' deep Saugus Formation aquifer wells: NCWD-11, SCWD Saugus 1, SCWD Saugus, and VWC-157 at maximum levels ranging from 14 ppb to 47 ppb depending on the well. These wells were removed from active service and have not been used for drinking water supplies since 1997. In November 2002, perchlorate was found in a shallow Alluvial aquifer groundwater well -- SCWD Stadium -- at levels up to 5.9 ppb. In April 2005, perchlorate contamination was found in another shallow Alluvial aquifer

groundwater well -- [Valencia Water Company's Well Q2]. The source of the perchlorate is believed to be from the Whittaker-Bermite site given the proximity of all six impacted wells to the property and the fact that both groundwater and surface water flows from the property to the six wells.

In November 2000, [CLWA and the retail purveyors] ("Plaintiffs") filed a complaint against past owner Whittaker and current owners SCLLC and Remediation Financial, Inc. . . . ("Defendants") in the California Central District Court asserting that hazardous substances (including perchlorate) released from the Whittaker-Bermite site contaminated some of Plaintiffs' water production wells. In July 2002, Plaintiffs moved the Court for partial summary judgment [on the grounds] that Defendants were liable for response costs under the Comprehensive Environmental Response, Compensation and Recovery Act ("CERCLA"). At the same time, [Defendants] moved the Court to establish Plaintiffs' liability under CERCLA. In July 2003, the Court granted (in part) Plaintiffs' motion and found that [Defendants] were liable for CERCLA response costs and denied [Defendants'] motion. (See *Castaic Lake Water Agency v. Whittaker Corporation*, 272 F.Supp.2d 1053 (2003).)

In September 2003, the parties entered into an interim settlement agreement that stayed litigation to allow the parties to, *inter alia*, develop an engineering solution to contain and abate the groundwater contamination and negotiate a final settlement agreement. As a condition for staying litigation activities, Defendants were required to reimburse CLWA for past monitoring and investigation costs and fund the development of the engineering solution. While the parties developed a groundwater abatement/containment plan, they were unable to reach a final settlement agreement. The interim settlement agreement expired on January 31, 2005.

In July 2004, . . . the current owners of the [Whittaker-Bermite] property filed a petition for chapter 11 bankruptcy protection and were subject to the automatic stay of litigation. The . . . bankruptcy filing complicated settlement negotiations because any proposed settlement offer that involved [current owners'] insurance proceeds -- a substantial and important source of settlement funds -- required bankruptcy court approval.

The stay of litigation lapsed on January 31, 2005 without a final settlement and on March 23, 2005, the Court ordered the parties to mediate the matter before the Honorable Eugene Lynch (ret.). On April 19, 2005, Plaintiffs and Defendants reached an agreement in principle on damages that was subject to Defendants reaching a settlement funding agreement with their insurance carriers. During the April 2005 mediation, [Valencia Water Company] informed Defendants of the perchlorate contamination found in [Valencia Water Company's] Well Q2. [Defendants] agreed to provide $500,000 for the installation of a wellhead treatment unit. All capital as well as operating and maintenance costs for this treatment unit were funded by insurance companies representing the current and past owners of the [Whittaker-Bermite] property. Utilizing these funds, [Valencia Water Company] installed a perchlorate removal system utilizing ion exchange technology. After only six months from the initial detection of perchlorate in the well, Q2 was returned to active service on October 12, 2005. Subsequently in October 2007, the California Department of [Health Services] approved a request by [Valencia Water

Company] to remove the treatment system as a result of two years of continuous operation without a detection of perchlorate in the untreated groundwater produced by Q2. Currently, Q2 remains in operation without any requirement for wellhead treatment.

In July 2005, the parties reported that settlement negotiations between Plaintiffs and Defendants had not progressed because Defendants and their insurance carriers had not reached an agreement on funding the settlement. The Court ordered the parties to resume litigation activities on August 16, 2005. In November 2005, Defendants and their insurance carriers reached an agreement on the allocation of environmental insurance proceeds for the site and funding of a potential settlement with the Plaintiffs and submitted the proposed settlement agreement to the Bankruptcy Court for approval. The Bankruptcy Court approved the Settlement Agreement involving the insurance proceeds and in January 2006, Defendants provided Plaintiffs with a draft plan to utilize the insurance proceeds to settle Plaintiffs' groundwater contamination claims.

In May 2007, the water purveyors announced a settlement of their lawsuit . . . to contain and remove perchlorate from the Santa Clarita Valley's groundwater aquifers. The water purveyors estimate this settlement provides up to $100 million to address the problem. The underlying litigation was dismissed by the U.S. District Court in August 2007. . . .

The Settlement Agreement provides funding to construct replacement wells, pipelines, and a treatment plant to remove perchlorate. The Settlement Agreement also provides funds to operate and maintain the treatment system for up to thirty years, which is estimated to cost as much as $50 million over the life of the project . . . In addition, a $10 million "rapid response fund" [was] established to allow the water purveyors to immediately treat threatened wells that could become impacted by perchlorate contamination in the future. [Those funds are in an escrow account and available for use by the Purveyors upon request. Each of the Purveyors received $2.5 million under the Settlement Agreement for past environmental claims.] [Valencia Water Company received an additional $1.0 million] to close and abandon V-157 and drill replacement well V-206.

Following the settlement of the litigation, [Valencia Water Company] and the other water purveyors entered into two separate agreements, each formally prepared as a Memorandum of Understanding (MOU). These MOUs were necessary to implement the various obligations under the Settlement Agreement. The first MOU sets forth the rights among the water purveyors to receive payments pursuant to the Settlement Agreement and clarifies project administration, which includes such things as project modification, future perchlorate detections, monitoring, payment of on-going legal fees, dispute resolution, and other provisions described in the Settlement Agreement. The second MOU sets forth the operational plan and financial arrangements to deliver certain quantities of groundwater from the perchlorate treatment system and a future replacement well field that, in total, would restore the water supply capacity impacted by perchlorate to [Santa Clarita Water Division] and [the Newhall County Water District]." (Final EIS/EIR, **Appendix F4.3** for the "Valencia Water Company Perchlorate Litigation Summary," as updated by personal communications with Robert J. DiPrimio, President, Valencia Water Company.)

Finally, a comment letter referenced a one-paragraph resolution approved by the Executive Committee of the Sierra Club, Los Angeles Chapter. A copy of the resolution was attached to the comment letter. The resolution states that "[t]he Angeles Chapter opposes additional land use approvals in Santa Clarita that rely on water from the contaminated Saugus aquifer until clean up facilities to remove the ammonium perchlorate, NDMA and other pollutants from this groundwater source are functioning." 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.

In summary, work continues on multiple levels to address groundwater contaminated by perchlorate stemming from past manufacturing activities on the former Whittaker-Bermite site. CLWA and the local retail purveyors are proceeding to restore the production capacity of the few remaining groundwater supply wells contaminated by perchlorate, while working on the objectives of containing the downgradient migration of perchlorate. For technical information regarding these up-to-date activities, please refer to the following documents in **Appendix F4.3** of the Final EIS/EIR: (a) letter from Hassan Amini, Ph.D., Project Coordinator for AMEC Geomatrix, to DTSC, dated June 8, 2009; (b) CLWA News Release, dated September 14, 2009; (c) Progress Letter Report from Hassan Amini, Ph.D., Project Coordinator for AMEC Geomatrix, to DTSC, dated September 15, 2009; and (d) CLWA Memorandum from Brian J. Folsom to CLWA Board of Directors, dated October 1, 2009.

Based on the information presented in the Draft EIS/EIR, and the updated information provided in this response, it is appropriate to conclude that substantial progress continues to be made in responding to perchlorate contamination resulting from the former Whittaker-Bermite site and that the facilities needed for perchlorate remediation/treatment are either in place or are in the planning stages and actively monitored by CLWA, local retail purveyors, and several regulatory agencies including DTSC.