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

8-24-09

Attn: Donald Bedford
Re: Newhall EIR/EIS
California Dept. of Fish and Game
4949 Viewridge Ave.
San Diego, CA 92123

Attn: Aaron Allen
Re: Newhall EIR/EIS
US Army Corp of Engineers
2151 Alessandro Dr. Suite110
Ventura, CA 93001

Via email to: newhallranch@dfg.ca.gov Aaron.O.Allen@usace.army.mil

Dear Sirs:

Santa Clarita Organization for Planning and the Environment is a California non-profit corporation founded in 1987 to monitor planning and conservation issues that affect the Santa Clarita Valley. We have sought protection for the Santa Clara River, its tributaries and floodplain for many years because we believe the community will be best served by leaving these resources in as natural a state as possible. A natural river system enhances ground water quality and ground water recharge, provides habitat for wildlife and recreational opportunities for families and children. 1

We urge you to consider these important beneficial qualities of a natural waterway as you evaluate the impacts of this project.

We hereby include by reference all comments made by other organizations that express concerns over the impacts of this project. 2

BACKGROUND

In 1998, the EIR/EIS for Newhall Land and Farming's, euphemistically entitled "Natural River Management Plan" 404 Permit was certified. This plan comprised some 59 projects along fifteen miles of the Santa Clara River that passed through the center of Santa Clarita and up San Francisquito Creek. It was supposed to be a new "comprehensive" permit that would protect the many endangered species along the river as development occurred. It allowed development in the floodplain of the Santa Clara River and San Francisquito Creek to move forward and enabled the elimination of the County's "Significant Ecological Area" designations in those reaches of the river, and in Bouquet Creek, San Francisquito Creek and Castaic Creek. 3

In the opinion of many, the " Natural River Management Plan" has not worked well to protect species and the river.

For instance, to protect endangered bird species, Newhall Land's "Natural River Management Plan" prohibited construction in the breeding season. Biologists were supposed to survey for nesting birds to make sure they were not disturbed by construction activities when nesting was taking place. Instead "noisemakers" were erected in prime habitat locations that emitted piercing tones to keep the birds away. Luckily a local bird enthusiast, Teresa Savaikie, noticed them, and US Fish and Wildlife demanded that they be removed. 3

Endangered or threatened birds and fish have virtually disappeared from the Natural River Plan Management area. No three spined unarmored stickleback can be seen and the arroyo chub died as tributaries were drained and channeled. The arroyo toad has disappeared and no one has seen a long eared jackrabbit in quite some time. Where are the pond turtles that used to frequent the banks of Castaic Creek? What happened to the Spade Foot toads in the wetlands next to what is now the Riverpark project that was supposed to be a mitigation wetland for the West Creek Project? 4

The "Oxbow Pond" in San Francisquito Creek that local conservationists were unable to save, was supposed to be "restored. It is still just a mound of dirt 5

Instead of the magnificent habitat that it once was, the river is now fraught with off road vehicle riders that create noise, dust and destruction. 6

Soil cement bank stabilization did not work as predicted in some areas and banks collapsed in high water events (this occurred near the Jefferson apartments on the Santa Clara River and along San Francisquito Creek near the Valencia II development.) 7

The 1998 Plan was approved for a twenty-year period and was supposed to create the safeguard of five-year periodic reviews to ensure that it was functioning as predicted. These five-year reviews were the only reason that the environmental community did not pursue legal remedies against a plan that appeared unable to carry out its charge of protecting fragile habitat and species on the brink. However, the reviews were not performed as expected, so even this final safeguard failed. Trapping and removing black eared jackrabbits and Spadefoot toads area while destroying their habitat as was conducted in the Riverpark area and in San Francisquito Creek did not save them. 8

All of these issues are easily verifiable with information currently in possession of the California Fish and Game Department and the Army Corps of Engineers. We include this information by reference in our comments.

Conclusion and Recommendations

The area now proposed for this new 404 permit is in an even more sensitive area of the river west of I-5 for the Newhall Ranch project. It is an area that was designated as critical habitat for the Least Bell's Vireo. Biologists have also noted populations of three-spined stickleback 9

fish, arroyo toad, pond turtles and the rare San Fernando Valley Spine flower (that Newhall Land previously tried to illegally destroy) in this area. This plan would once again enable the destruction of a County designated Significant Ecological area and allow building in the floodplain. 9

With thousands of housing units already permitted but unbuilt in the Santa Clarita Valley, pads in the nearby Riverpark project and West Creek standing empty and a looming water crisis, this project does not seem to meet threshold requirements for Federal or State approval. 10

However, should the permitting agencies wish to proceed with such an approval we request the following:

- A survey of the success rate of mitigation for Newhall Land's 1998 404 permit.
- A survey of endangered and threatened species within the 1998 404 permit area to determine their survival rate and thus, how protective that plan was of the various bird, reptile, amphibian and aquatic species. 11
- No new additional permits should be granted until all required mitigation, including wetland restoration, is completed for the previous 404 permit
- A fund must be set up to hire an independent biologist to track mitigation requirements and ensure they are met. 12
- Violations should automatically incur an immediate "stop work" order until restitution is provided (this is already a standard condition of the County's Oak Tree permit)
- A five-year *public* review period should be required. At each five year period the developer and agencies must provide a list of all required mitigation and note whether or not it has been completed, and a recent biological survey to determine whether species are protected by the permit. No further work should occur if mitigation is not completed and species have disappeared. 13
- Off road vehicle use in the river must be banned and a funding mechanism for enforcement created 14
- No automatic Plan amendments should be granted. Public review must be required for all proposed amendments. 15
- A greater set back that protects a larger area of the floodplain must be required 16
- Due to Newhall Land's current tenous financial situation and the current problems in the housing market, bonding must be required to ensure that promised mitigations will be funded. 17

BIOLOGY

Please explain how a "take" permit can be issued for CESA species such as the white-tailed kite and three-spined unarmored stickleback, both present on the project site. It is our understanding that no take is allowed for CESA species. 18

Wildlife Corridors

Due to the intense wildfires we are suffering in this area and will continue to suffer due to global warming, wildlife corridors must be available and numerous, so that animals have both an escape route and a way to move to new forage. 19

Access to the river for animals must be ensured so that they can reach a source of water.

4.8 TRAFFIC

Page 4.8-31 of the traffic section states:

> "The geographic distribution of trips to and from the Project area are shown in **Figure 4.8-12**, Project Distribution Patterns, which shows the percent of Project trips on each major roadway serving the Project area. As expected, there is a high orientation to the VCC area adjacent to the Specific Plan area with 12 percent of the trips attracted there. East of the I-5, trips disperse into areas such as Valencia Industrial Center and the Town Center area." 20

These statements seem to erroneously imply that most people who live in the Specific Plan or Entrada will work in nearby commercial or industrial centers. In fact, that is not the traffic model generated by two income families who must both travel to a job in order to pay the mortgage. Modeling traffic patterns in the west San Fernando Valley where the 101 freeway is now congested in both directions might make a more accurate traffic prediction. In spite of the nearby Warner job Center, people are obviously still driving elsewhere for employment.

The traffic section fails to discuss the serious impacts of this project on the North San Fernando Valley where people already travel and will continue to travel for jobs. While acknowledging that indeed impacts will occur, no modeling is done for traffic to the LA area and no mitigation is provided. 21

Further, increased traffic generated by projects outside the area was not modeled. This includes the proposed Tejon Ranch project and increased container traffic moving up the I-5 from the Port of Los Angeles. 22

Climate Change[1]

The DEIR/EIS admits that neither the Newhall Specific Plan nor the Valencia Commerce Center addressed greenhouse gas (GHG) generation during their project approval processes. Since this document represents the next administrative permit, it is appropriate and required to address this issue now. 23

The DEIR should estimate average trip length and average fuel efficiency of the vehicles and then calculate their carbon dioxide emissions. The EPA has many different tools available for calculating emissions. 24

[1] See attached Appendix A beginning at page 18 for an in depth discussion of effects of Climate Change

They are available at:
http://yosemite.epa.gov/oar/globalwarming.nsf/content/ResourceCenterToolsCalculators.html ; *see also* http://pubs.wri.org/pubs_description.cfm?PubID=3756 (which contains calculators for CO2 emissions from fuel used for heating and transportation, CO2 emissions from purchased electricity, CO2 emissions from business travel by air, train, bus and car, and CO2 emissions from employee commuting).

Calculation of the project's greenhouse gas emissions is the first step to then analyzing and mitigating them. 24

Climate Change Mitigation

The project could include mitigation for these impacts. The Governor has recognized, "mitigation efforts will be necessary to reduce greenhouse gas emissions and adaptation efforts will be necessary to prepare Californians for the consequences of global warming." Executive Order S-3-05, June 1, 2005. Increased public transportation, increased support of alternative fuels and technologies, the purchase of carbon offsets (or mitigation "credits"), installation of electric vehicle charging stations, and other affirmative steps to reduce the transportation impacts of CO, could be considered as potential mitigation projects. These are real, achievable and available mitigation measures that could be considered when the DEIR analyzes the project's greenhouse gas emissions and their impact on climate change. 25

There are many avoidance and mitigation measures available to the applicant. Adopting these measures will benefit the environment, take the state closer to meeting its greenhouse gas emissions reduction targets, and demonstrate responsible development. These measures may also save the applicant and future residents of the project money. Measures to minimize greenhouse gas emissions include: 26

- Following the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) or comparable standards for energy- and resource-efficient building during pre-design, design, construction, operations and management. *See* http://www.usgbc.org and links; Alameda County 2005
- Minimizing and recycling construction-related waste
- Using salvaged and recycled-content materials for building, hard surfaces, and non-plant landscaping materials
- Maximizing water conservation measures in homes and landscaping, using drought-tolerant plants in lieu of turf, planting shade trees
- Installing the maximum possible solar energy array on the building roofs and/or on the project site to generate solar energy for the facility
- Using passive natural cooling, solar hot water systems, and reduced pavement
- Landscaping to preserve natural vegetation and maintain watershed integrity
- Installing electric vehicle charging stations at the facility
- Constructing the most energy-efficient buildings possible, to decrease heating and cooling costs
- Utilizing the combination of construction materials with the lowest carbon footprint
- Utilizing only Energy Star heating, cooling, and lighting devices, and appliances
- Ensuring that public transportation will serve the site, by constructing bus stops or other facilities and funding the transportation agency if necessary

26

- After all avoidance and minimization measures have been incorporated, purchasing offset credits for the project's lifetime greenhouse gas emissions

Once all measures to avoid and minimize greenhouse gas emissions have been adopted, the project's remaining greenhouse gas emissions should be calculated, and offsets purchased to mitigate for them. There are many options for purchasing carbon offsets (or credits), including but not limited to the following:

27

- The Chicago Climate Exchange (http://www.chicagoclimatex.com/)
- Climate Care (http://www.climatecare.org/)
- My Climate (http://www.myclimate.org)
- Climate Friendly (http://www.climatefriendly.com/)
- The Carbon Neutral Company (http://www.carbonneutral.com/)
- The Climate Trust (http://www.climatetrust.org/)
- Renewable Choice Energy (http://www.renewablechoice.com/m/index.php)

Conclusion and Recommendations

A new traffic model must be constructed that accurately depicts the full range of trips to and from outside the area, as well as cumulative traffic trips generated by other projects.

28

A calculation of GHG emissions for the project must be formulated. Additional, updated mitigation measures must be listed in this document.

29

4.3 WATER RESOURCES

The Newhall Ranch Specific Plan was approved in 2003. At that time, California was already experiencing challenging and rapidly changing statewide water supply issues. The County anticipated changed circumstances by crafting conditions of approval requiring water issues to be reviewed at each tract map approval.[2] Among other conditions, these include the following[3]

- SP-4.11-5 (requires annexation to the Valencia Water Company prior to issuance of building permits)
- SP-4.11-6 (requires confirmation of adequate water supply when submitting tentative tract map applications)
- SP-4.11-7 (requires review of recycled water uses)
- SP-4.11-8 (requires the applicants of future subdivisions to finance expansion costs of extending water service)

30

The EIR/EIS jurisdictional decision requires that impacts of the total project be reviewed in order to obtain the Clean Water Act 404 permit and California Fish and Game Streambed Alteration Agreement.

[2] EIR/EIS p. 4.3-4
[3] EIR/EIS p. 4.3-3

In spite of the monumental changes in water supply circumstances that have occurred over the ensuing six years since the approval of the Specific Plan, the water section of the EIR/EIS wrongly begins with the Specific Plan finding that adequate water supply exists for this project. 31

Changed Circumstances

Because the California Environmental Quality Act requires review of substantially changed circumstances at the next administrative hearing, and the EIR/EIS is the next administrative hearing, this document must address whether an adequate water supply for this project exists.

The changed circumstances include:

- 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 as a result mainly of the sharp and continuing increase in the use of imported State Water Project (SWP) water. 32

This failure resulted in the stakeholder development of a comprehensive compromise plan[4] to achieve compliance. Without the immediate construction of the Newhall Ranch Water Reclamation Plant, approved as an RO (reverse osmosis salt removal system) facility, the additional imported Nickels water will add to this load. Apparently there are no plans to build this plant for the first phases of Newhall Ranch. Nor does it appear that the additional unreviewed 1725 units proposed for the Entrada project will be served by a new RO sanitation facility. 33

We believe that the DEIR/EIS must discuss this potential inability to comply with the Clean Water Act. 34

Elimination of brine effluent from the RO (reverse osmosis) sanitation process must also be discussed. There is no brine line from Santa Clarita to the ocean. Therefore this facility must either be built at great expense (an estimate of $50 million was purposed during hearings), the brine effluent must be trucked away, or it must be injected into local oil wells.

Newhall Ranch planned to utilize abandoned oil wells on its property for injection purposes, but no studies have been conducted on the feasibility of this proposal. A study should be conducted and mitigation measures developed to ensure that salty water would not leak from these proposed injection wells and pollute ground water. 35

Also, no estimate of the capacity or life of these abandoned wells exists It is essential to calculate this capacity in order to approximate the number of years for which brine storage would be available before other more expensive methods would have to be utilized. Such an estimate could be made by obtaining production records for the proposed abandoned wells, calculating the amount of brine that will be generated on a daily basis and then calculating how long the storage capacity of the abandoned well will last. **Since Condition 4.11-8 required Newhall to pay for the cost of water expansion and treating effluent will be a** 36

[4] Memorandum of Understanding for Implementation of an Alternative Water Resources Management Plan, Oct. 2008, attached

cost of that water expansion, Newhall must make and disclose these calculations in the EIR/EIS. 36

This compromise Plan to meet an adjusted chloride standard will direct desalinated recycled water to reduce the level of chlorides in the sanitation plant effluent as its first and primary purpose[5], thus reducing the availability of recycled water to the Newhall Ranch Specific Plan. This impact must be disclosed and discussed in the Newhall Ranch DEIR/EIS. 37

Failure to comply with the comprise Plan worked out with basin stakeholders will result in the imposition of the stricter 100 ugl TMDL standard.

- Although Newhall asserts that part of its water supply will come from approximately 9000 AF of recycled water, no contract or option exists between the Sanitation District and the owners of Newhall Ranch for the purchase of recycled water. The Recycled Water Master [6] indicates many other projects that may wish access to recycled water. 38

A contract currently exists between the Sanitation Districts and Castaic Lake Water Agency for only 1700 AF, part of which is now being utilized on another Newhall Land project. 39

- New standards and water quality requirements for water used to recharge ground water aquifers that may affect Newhall's ability to inject water for storage in the local aquifer as previously relied upon for its Aquifer Storage and Recovery (ASR) system. 40

Condition 4.11-14 requires water injected into ground water wells to meet Regional Water Quality Control Board standards. Requirements of the Regional Water Quality Control Board for injection wells into ground water aquifers should be discussed in the EIR/EIS. Current chloride levels in SWP water do not meet these standards. Additional pollutants in ground or surface water sources may limit water well injection. 41

- Numerous Federal Court Decisions and Biological Opinions aimed at protecting listed endangered fish species from extinction in the Sacramento San Joaquin Delta by reducing pumping to the State Water Project Aqueduct. These decisions have reduced the quantity of water available to all users south of the Delta. 42

- Recent changes in State law that would now allow the diversion of residential gray water for home landscaping purposes, thus reducing the amount of recycled water generated (this may result in no net change since it would hopefully reduce the amount of water used for home landscaping, but the issue needs to be reviewed). 43

- It appears that no agreement with the Department of Water Resources (DWR) to move the Kern River water purchased from the Nickels family from the Tubman turnout in Kern County to Newhall Ranch exists.[7] 44

A wheeling agreement must exist before water can be delivered to Newhall Ranch. It is our understanding that the WR does not make such agreements with private parties. How will 45

[5] MOU of an Alternative Water Resources Management Program, Oct 2008, Page 2
[6] Available for review only at library locations
[7] Landmark Village DEIR, Volume VI, Appendix 4.10f, Nickels water contracts, Pages 2 and 5 of Contract between Nickels and NLF pdf pages 121,124

this water be wheeled from the Tubman outlet to the Santa Clarita Valley? If an agreement exists, it should be disclosed in the DEIR/EIS. 45

- The Environmental documentation for the acquisition of this firm water supply by the Nickels family described a "Kern River Restoration and Water Supply Recovery Program". [8] 46

The Environmental documentation did not describe the acquisition of water for transfer out of the Kern Basin for the Newhall Ranch project. Proper environmental review must be completed prior to an actual transfer.

- Contracts for options on an additional 7,648 AF of water transfers counted as available in the Specific Plan EIR expired in 2002. 47

No renewals or additional contracts were disclosed in subsequent environmental documentation, nor in this EIR/EIS.

- The failure of agricultural water calculations to account for the recharge of the basin by agricultural return water and the loss of that recharge to the alluvial system as urban hardscaping occurs.[9] 48

Newhall Land cannot count the same amount of water as it pumped for farming, because farming water recharges the river. Irrigation "returns" account for as much as 70% of the farming water used. It does not appear that the re-charge from irrigation returns was calculated in estimates of water available from ground water pumping.

- Water wheeling projects such as increased SWP water deliveries to projects on the west branch of the State Aqueduct, including the proposed Tejon Ranch, the Nickels Water from Kern County for the Newhall Ranch, Yuba River water recently purchased by Castaic Lake Water Agency and extensive storage agreements in Kern County that will require water deliveries southward, have been negotiated or proposed subsequent to the approval of the Specific Plan. 49

Aqueduct capacity for cumulative wheeling agreements that affect the West Branch of the SWP aqueduct must be evaluated. Although the aqueduct itself may have adequate capacity to support these additional deliveries, bottlenecks such as the Oso pump station may not. 50

- Los Angeles Regional Water Quality Board passed a Resolution[10] re-asserting its authority to develop policies to address the adverse impacts of hydromodification. 51

The EIR/EIS should describe how it plans to comply with 401 certification in light of this Resolution.

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[8] *Ibid.,* Appendix 4.10g, Nickels Water Environmental documents

[9] Correspondence, Fox Canyon Groundwater Management District

[10] RWQCB RESOLUTION NO. 2005-002, January 27, 2005 "Reiteration of Existing Authority to Regulate Hydromodifications within the Los Angeles Region, and Intent to Evaluate the Need for and Develop as Appropriate New Policy or Other Tools to Control Adverse Impacts from Hydromodification on the Water Quality and
Beneficial Uses of Water Courses in the Los Angeles Region"

- A monumental bankruptcy proceeding, from which Newhall and its parent entities have now emerged as a new re-organized company, but which may still make financing for the extensive and expensive infrastructure needed for this project difficult proposition. 52

Specific Plan Condition 4.11-8 requires the applicants of future subdivisions to finance water expansion costs. According to news articles, Newhall emerged from bankruptcy with 90 million in cash. Estimates of costs for a new sanitation plant were around $100 million alone. Acquisition of water transfer authority, pipes, treatment plant expansions, etc will add substantially to this cost. We believe that Newhall must disclose a financial plan detailing estimated costs and how it will pay for these capital improvements. 53

Specific Plan Conditions for which Information should be Provided in the DEIR/EIS

Other conditions required by the Specific Plan indicate areas of concern and provide a road map to indicate what information would be of greatest importance for evaluating this proposal. Much of the required information was however, not included or evaluated by this document.

For example:

- SP-4.11-22 (requires identification of irrigated farmland proposed to be retired in order to serve subdivisions)

Although a map of all irrigated farmland appears in the EIR, the purpose of this condition was to assure that fallowed farmland would yield that amount of water indicated in the Specific Plan. Therefore, the report required by this condition should indicate which crops are currently growing in the area proposed to be fallowed for each tract and how much water that will yield. Such a chart should be easy to compose from Newhall's farming operations. 54

- SP-4.11-15 (requires groundwater pumping from the Alluvial aquifer to be monitored)

Overdraft of the alluvial aquifer has been at issue for many years. While Valencia Water Co., and Newhall Land and Farming argued that the Santa Clara River was not in a state of overdraft, downstream users including United Water Conservation District and Ventura County remained skeptical and concerned. They withdrew their objections only after a Memorandum of Understanding[11] was signed, agreeing to ground water monitoring in which United Conservation District would participate. Ventura County was not included in that agreement and should have been. 55

Interestingly, the most recent report produced for this MOU was completed in April of 2009. It is not included in this document even though its production is solely a result of agreements surrounding the Specific Plan. Why was it excluded? We believe that this report must be provided to all commentors and its findings included in this analysis. 56

The DEIR EIS does not give an accurate view of the full extent of ground water pumping in the Upper Santa Clara Basin. For example, the ground water pumping chart on page 4.3-42 leaves off pumping by Newhall Land and Farming, and private users as disclosed in the 57

[11] MOU August 2001, Available for review only as a hard copy in Library locations in spite of the fact that it is extensively sited in the EIR?EIS (see page 4.3-123) and reviewers are refereed to it for further information.

Water Supply reports in the appendices. Why is this information not in the main body of the document? This information should be included. 57

The local well owner's association has long complained that private pumping is underestimated in ground water documents and have expressed concern that the viability of their wells may be affected by additional pumping[12]. 58

Further, there is considerable biological evidence that overdraft of the Santa Clara River exists, particularly in the upper reaches. The die back of vegetation away from the center of the streambed in the upper reaches is a prime indication of such overdraft as described in USGS "Sustainability of Ground Water Resources", Circular 1186[13]. **No studies exist to evaluate this impact and it is not discussed in the DEIR EIS.** 59

Also, no study of subsidence, another indication of groundwater overdraft has ever been conducted for the Upper Santa Clara Basin.

These omissions become even more disturbing upon reading:

> Groundwater quality is a key factor in assessing the Alluvial aquifer as a municipal and agricultural water supply. In terms of the aquifer system, there is no convenient long-term record of water quality, (*i.e.*, water quality data in one or more single wells that spans several decades and continues to the present). Thus, in order to examine a long-term record of water quality in the Alluvium, individual records have been integrated from several wells completed in the same aquifer materials and in close proximity to each other to examine historical trends in general mineral groundwater quality throughout the basin. Based on these records of groundwater quality, wells within the Alluvium have experienced historical fluctuations in general mineral content, as indicated by electrical conductivity (EC), which correlates with fluctuations of individual constituents that contribute to EC. The historic water quality data indicates that, on a long-term basis, there has not been a notable trend and, specifically, there has not been a decline in water quality within the Alluvium. 60
>
> Specific conductance within the Alluvium exhibits a westward gradient, corresponding with the direction of groundwater flow in the Alluvium. EC is lowest in the easternmost portion of the Basin, and highest in the west. Water quality in the Alluvium generally exhibits an inverse correlation with precipitation and streamflow, with a stronger correlation in the easternmost portion of the Basin, where groundwater levels fluctuate the most. Wet periods have produced substantial recharge of higher quality (low EC) water, and dry periods have resulted in declines in groundwater levels, with a corresponding increase in EC (and individual contributing constituents) in the deeper parts of the Alluvium."[14]

[12] See comment letters, Newhall Ranch Specific Plan and Landmark Village from Santa Clarita Valley Well Owners Association.

[13] Whole document can be viewed at pubs.usgs..gov/circ/circ1186 Relevant section is "Effects of Ground water Development on Ground water Flow – Streams", see especially pg. 5 of pdf attachment

[14] EIS, page 4.3-57

This statement seems to be saying that everything is fine as long as past precipitation trends continue, and that drought particularly causes a problem in the eastern portions of the basin. The discussion continues:

> "Similar to the Alluvium, groundwater quality in the Saugus Formation is a key factor in assessing that aquifer as a municipal and agricultural water supply. As with groundwater level data, long-term Saugus groundwater quality data is not sufficiently extensive (few wells) to permit any basinwide analysis or assessment of pumping-related impacts on quality. As with the Alluvium, EC has been chosen as an indicator of overall water quality, and records have been combined to produce a long-term depiction of water quality. Water quality in the Saugus Formation has not historically exhibited the precipitation-related fluctuations seen in the Alluvium. Based on the historical record over the last 50 years, groundwater quality in the Saugus has exhibited a slight overall increase in EC. More recently, several wells within the Saugus Formation have exhibited an additional increase in EC similar to that seen in the Alluvium."[15]

60

This section states that both the Saugus Aquifer and the Alluvial Aquifer are exhibiting some increase in EC indicative of ground water overdraft. However, the statement is made in such a round about way that the clear conclusion that ground water is indeed being impacted is obscured.

- SP-4.11-16 (requires agricultural groundwater to meet drinking water quality standards)

The Specific Plan requires agricultural wells used to serve the project to meet drinking water standards. The Settlement Agreement requires that those reports be provided to the petitioners.

A water quality report appears in the appendix[16] but most of the data is from 2004 "pending" wells. The only recent report (2008) is for Well E-15. E-15 appears to serve current customers in the Valencia Commerce Center. Please provide the required water quality reports for the wells that will serve this project. Also, please indicate which wells will serve the project.

61

- SP-4.11-18 (requires preparation of annual report on Semitropic Groundwater Banking Project)

This requirement apparently has not been met since no annual report indicating yearly additions or withdrawals to the Banking Project appears anywhere in the EIR/EIS.

This is particularly important because the DEIR/EIS states:

> "Sources of water that could be stored include, but are not limited to, the Nickel Water. The stored water could be extracted in dry years in amounts up to 4,950 afy. As of December 31, 2007, there is 18,828 af of water stored in the Semitropic Groundwater Storage Bank by the Specific Plan applicant for the Specific Plan."[17]

62

[15] *Ibid*, page 4.3-59-60
[16] Appendix 4_3zaWell data
[17] EIS,p. 4.3-37

What are these other sources? Since SWP Article 21 water has not been available for several years and may not be available due to pumping impacts to endangered fish species, it is important that potential sources be listed or that such ambiguous statements be eliminated from the DEIR/EIS. 63

The DEIR/EIS goes on to state that this water will only be needed when agricultural wells can no longer produce an adequate supply to provide for the project units and estimates this limit to not occur until the 21st year.

Such a statement is grossly under supported since no indication of increasing water demand of other previously approved projects in the Santa Clarita Valley is indicated on the needs timeline (Table 4.3-19). Instead, a poorly documented Tech Memo[18], containing no actual unit calculations tries to make the argument that the Specific Plan will use less water than previously estimated. 64

In fact, the Santa Clara River is NOT an adjudicated basin. **Valencia Water Co. has no adjudicated right to any amount of water from the Santa Clara River.** Water needs elsewhere in the upper watershed may have to be supplied from Valencia's existing agricultural wells. Indeed, the one agricultural well that is currently producing, E-15, is now serving existing customers in the Commerce Center. No discussion of existing uses is included. 65

The most recent ground water monitoring report, released in April 2009 and NOT included in this review, stated that the current proposed increased pumping regime might not produce sufficient water supply in the easterly portions of the basin. Wells in the eastern portion already go dry during low precipitation years. Due to this problem, existing western basin housing developments, particularly those in the Valencia Service Area, may need to be supplied by these wells, while existing state water supplies are routed to the eastern reaches to support non-producing wells. 66

Failure to disclose these issues and the failure to include this most recent report in this document is a substantial failure of disclosure on the part of the Applicants. Since Valencia Water Co. is a wholly owned subsidiary of Newhall Land and Farming, Newhall is fully aware of this issue. 67

Finding of No Significant Impact

Thus the finding of **no Impact Significance** for water supply made on page 4.3-87: 68

> "The groundwater supply for the Specific Plan post-development would not require an increase in
> groundwater pumping beyond the applicant's existing agricultural allocation (7,038 afy)."

[18] Appendix 4.3t

is deceivingly inaccurate since 1) there is no existing agricultural "allocation", 2) the most current groundwater monitoring report is missing from the DEIR/EIS, 3) reductions in imported state water supply due to Federal Court decisions and global warming were not considered 4} accurate water demand from existing approved entitlements was not considered. 68

Further the ensuing statement:

> "In addition, irrigation used in the Project area would increase the amount of recharge available to the Santa Clara River."

69

is patently false, since 1) farming operations were already providing more substantial groundwater recharge than urban development will ever provide, 2} the farming return water was not included in calculations of the affect of ag water withdrawals on groundwater levels 3} ag water withdrawals were calculated in concurrence with an aquifer recharge program that seems no longer to be considered in the DEIR/EIS.

Last:

> "Development of the Specific Plan area would significantly increase the area of irrigated landscaping on currently undeveloped land, which would serve to increase the amount of recharge to the area"

This statement supported with memos by Ludorff and Scalminini and Porcello, (both hired by Valencia Water Co. the water company owned by Newhall Land and Farming} representing the clearly absurd hypothesis that urbanization of open, natural areas results in ***additional*** groundwater recharge, is not supportable. Standard reference and teaching materials produced by US EPA, USGS and prior Santa Clarita Valley hydrological reports all document loss of ground water recharge from urbanization hardscaping. Further, standard LA County Flood Control manuals also calculate increased run off from urbanization. Many of us have long believed that such unsupportable statements, made merely to promote a particular developer's project, should lead decision makers to doubt the veracity of other information provided by these consultants. 70

Permanence of the 41,000 AF Monterey Transfer

The environmental documentation for this transfer has not been reviewed or certified as of the date of these comments. The 41,000 AF transfer was not listed as one of the permanent and completed transfers in the settlement agreement between the Planning and Conservation League, et al. and the DWR. Now, with all the additional issues surrounding SWP it is more important than ever that this CEQA document be completed before new projects rely on this water transfer.

71

The DEIR/EIS makes the following statement

> "In Santa Clarita Organization for Planning the Environment v. County of Los Angeles (2007) 157
> Cal.App.4th 149 (SCOPE II), the Second District Court of Appeal, Division Six, affirmed the trial court's decision upholding the validity of the EIR's water supply

> analysis for the West Creek development project in the Santa Clarita Valley, including the EIR's assessment and reliance upon the permanent and final 41,000 afy water transfer. In applying the four principles for a CEQA analysis of future water supplies articulated by the California Supreme Court in Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412 to the 41,000 afy transfer, the Court of Appeal concluded that the transfer is permanent and final, and that with or without the Monterey Agreement and Monterey Amendments, the transfer is valid, permanent, and final, and could be relied upon in the project EIR as part of the water supplies in the Santa Clarita Valley."[19]

71

This statement grossly miss-represents the finding of the Court in this case[20]. The quoted language about "final and permanent" was actually a reference in the decision to the content of the West Creek EIR, not what the Court determined. Based upon the limited record available in that case, the court merely found reasonable the EIR's speculation that the outcome of the Monterey Agreement litigation was unlikely to unwind the transfer.

Consistency with the Urban Water Management Plan

The 1725 unit Entrada project does not appear to be included in the most recent Urban Water Management Plan (2005).

72

Effects of Global Warming on Water Supply

While the DEIR/EIS does discuss a potential reduction in water supply due to global warming, it does not discuss the reduction in energy that such a loss of water supply will also incur.

73

It is estimated that as much 20% of total energy use in California is consumed to move water, particularly by the massive pumps that lift SWP water over the Tehachapi Mountains. Dams generate much of California's electricity. With less water moving through those turbines, energy out put will be reduced statewide unless substitute methods of generation come on line. Such peripheral effects should be discussed.

Conclusion and Recommendations

We believe that the Specific Plan, Entrada and the VCC will significantly impact water resources in the Santa Clara Valley by both the substantial water demand of the projects themselves as well as the need to supply existing approved entitlements with the agricultural water previously proposed to be used to supply the Specific Plan.

74

It appears that information and documents that might show this to be the case have either been excluded from the discussion or obfuscated.

It should be re-iterated that Valencia Water Co. is the wholly owned subsidiary of the Newhall Land and Farming Company. It would be difficult for a general manager, whose job

75

[19] EIS, pg. 4.3-68-69

[20] See Appendix 4.3 for a copy of the SCOPE II Decision

may obviously be subject to his ability to find an adequate water supply for his parent company's developments, may not make as thorough a disclosure of problems as an independent public resource agency.

It should be further noted that Valencia Water Co. manages many of the water reports produced for the Santa Clarita Valley, including the annual Water Report. Thus they control consultants who often are the same ones that work on Newhall Land's development documents. 75

Such concerns over accuracy and disclosure should be obvious to anyone after reading the extent of litigation discussed in the DEIR/EIS related to water issues in the Santa Clarita Valley.

We therefore make several recommendations towards providing a more balanced and thorough document:

1) Require a water analysis to be prepared by an unrelated third party chosen by, for example, the US EPA or USGS. 76
2) Wait until the most recent Water Reliability Report from the Dept. of Water Resources is released (release projected for late 2009 early 2010) so that it can be included in this document.
3) Re-circulate the document with all reference materials included on disc so that they are available to all reviewers. 77
4) Re-circulate the DEIR/EIS making available the Revised Water Supply Assessment for the Landmark Village Recirculated EIR, prepared by Valencia Water Company, April 2009, which was cited in the text[21] but not included in the appendices. 78
5) Re-circulate and include the April 2009 Ground Water Monitoring Report and the Memorandum of Understanding for Implementation of an Alternative Water Resources Management Plan, Oct. 2008 79
6) Require that Ventura County a biologist representing the environmental community be included on the ground water monitoring MOU and receive their evaluation. 80

Thank you in advance for addressing these issues.

Sincerely,

Lynne Plambeck
President

[21] EIR/EIS pg. 4.3-10

Attachments:

1. Appendix A (beginning on Page 18)
2. Memorandum of Understanding for Implementation of an Alternative Water Resources Management Plan, Oct. 2008
3. Correspondence, Fox Canyon Groundwater Management District
4. RWQCB, Resolution #2005-002
5. News Articles Re: Newhall Bankruptcy, July 2009
6. Excerpt. USGS Circular 1186, 2007

APPENDIX A

Global Implications of Climate Change and Greenhouse Gas Emissions

1. Rising Global Average Temperatures

The Intergovernmental Panel on Climate Change ("IPCC") has concluded that the global average temperature has risen by approximately 0.6° C ± 0.2 C during the 20th century (IPCC 2001). There is an international scientific consensus that most of the warming observed has been caused by human activities (ACIA 2004; IPCC 2001). Carbon dioxide emissions, carbon dioxide concentrations, and temperature over the last 1,000 years are all correlated (ACIA 2004). Mean temperatures during the 20th century were the highest in 1,000 years (Albritton et al. 2001). Global climate has changed in other ways as well. For example, precipitation has increased by 0.5 to 1% per decade in the 20th century over most mid- and high latitudes of the Northern Hemisphere continents, and to a lesser degree over the tropical land areas in the Northern Hemisphere (IPCC 2001).

Global average temperature increases mask significant regional variation. Due to a number of positive feedback mechanisms, warming in the Arctic has been and will be greater and more rapid than in the rest of the world (ACIA 2004). Warming in the Arctic is in many ways a harbinger of what is to come in other areas. Changes already observed in some areas of the Arctic dwarf global averages. In extensive areas of the Arctic, air temperature over land has increased by as much as 5° C (9° F) over the 20th century (Anisimov et al. 2001).

All climate models predict significant warming in this century, with variation only as to the rate and magnitude of the projected warming (ACIA 2004). Determining the degree of future climate change requires consideration of two major factors: (1) the level of future global emissions of greenhouse gases, and (2) the response of the climate system to these emissions ("climate sensitivity") (ACIA 2004a). Global warming will continue and accelerate if greenhouse gas emissions are not reduced.

As hard data are not available for events that have not yet occurred, the future level of society's greenhouse gas emissions must be projected. The IPCC has produced a Special Report on Emissions Scenarios ("SRES") (Nakićenović et al. 2000) that describes a range of possible emissions scenarios based on how societies, economies, and energy technologies may evolve, in order to study a range of possible scenarios (ACIA 2004a; Albritton et al. 2001).

Climate models make different assumptions regarding how various aspects of the climate system will respond to increased greenhouse gas concentrations and warming temperatures. These differing assumptions are expressed as "climate sensitivity," defined as the equilibrium response of global mean temperature to doubling levels of atmospheric carbon dioxide (Stainforth et al. 2005). The IPCC (2001) used climate sensitivities of 1.3-5.8K for projections of warming from 1990-2100 (Stainforth et al. 2005).
Using the SRES emissions scenarios and the world's leading climate models, the IPCC predicts that the global average temperature will warm between 1.4 and 5.8°C by the end of

this century. Warming will be greater in the Arctic, where the annual average temperatures will rise across the entire Arctic, with increases of approximately 3-5° C over the land areas and up to 7° C over the oceans. Winter temperatures are projected to rise even more significantly, with increases of approximately 4-7° C over land areas and approximately 7-10° C over oceans (ACIA 2004a). Year-to-year variability is also projected to be greater in the Arctic than in other regions (ACIA 2004a).

For a number of reasons, IPCC (2001) and ACIA (2004) projections may be significant underestimates of the amount and rate of warming. First, the planet is already committed to an additional 1° F warming from the excess solar energy already in our climate system, due to lag time in the climate response (Hansen 2005). Second, actual worldwide greenhouse gas emissions may be on the high end or above the range of the IPCC scenarios. All scenarios utilized by the IPCC assume that energy use will shift away from fossil fuels to a greater percentage of sustainable energy sources and that worldwide greenhouse gas emissions will begin to decline during this century (IPCC 2001). Yet the most recent energy projections show that if current policies continue, worldwide greenhouse gas emissions will be 52% higher in 2030 than they are today (IEA 2005).

Third, climate sensitivity may be substantially greater than the levels used by IPCC (2001). Results from the *climateprediction.net* experiment indicate that much larger climate sensitivities of up to 11.5K are possible (Stainforth et al. 2005). Chapin et al. (2005) studied the warming amplification caused by the expansion of shrub and tree cover in the Arctic and resulting increase in solar absorption. This amplification could be as much as two to seven times (Chapin et al. 2005), and is not accounted for in the climate models used in IPCC (2001) (Foley 2005).

Recent data on the unexpectedly fast rate of warming in the Arctic also reinforces the likelihood that the IPCC (2001) projections will need to be revised upwards. Overpeck et al. (2005) concluded that the Arctic is on a trajectory towards an ice-free summer state within this century, a state not witnessed in at least the last million years (Overpeck et al. 2005). These scientists conclude that there are few, if any processes or feedbacks within the arctic system that are capable of altering the trajectory toward this ice-free summer state. In September, 2005, scientists reported a new record Arctic sea-ice minimum for the month of September (NSIDC 2005). These scientists called the sea ice reduction “stunning” and concluded that Arctic sea ice is likely on an accelerating, long-term decline (NSIDC 2005).

2. The Impacts of Global Warming Generally

Global warming consists of more than just increases in global average temperature. In 2001 the IPCC predicted a 90-99% chance of the following weather changes:

- Higher maximum temperature and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;

- Increase of heat index over land areas;

- More intense precipitation events.

Albritton et al. 2001.

The IPCC also predicted a 66-90% chance of the following:

- Increased summer continental drying and associated risk of drought;

- Increased in tropical cyclone (hurricane) peak wind intensities;

- Increase in tropical cyclone mean and peak precipitation intensities.

Albritton et al. 2001.

> Greenland ice cores indicate that the climate can change very abruptly. Scientists caution that thresholds may be reached that trigger rapid and extreme climatic changes that are difficult to predict but could be devastating. Examples include the shut down of the North Atlantic thermohaline circulation, which transfers heat from the equatorial regions to the Arctic, which could plunge northern Europe into a new ice age. The more rapid melting of the Greenlandic ice sheet, once thought to be several centuries away, could trigger this impact and also result in global sea level rise of up to six meters, completely eliminating many coastal areas. As in the case of the shift to an ice-free Arctic summer, scientists warn that we may be very close to crossing thresholds of rapid climate change from which there is no return.

Increased intensity of precipitation events due to global warming has long been predicted by climate models and remains a consistent result of the most advanced modeling efforts (Cubasch and Meehl 2001). In global simulations for future climate, extreme precipitation events over North America are predicted to occur twice as often (Cubasch and Meehl 2001).The impacts of global warming, once envisioned to be experienced by future generations, are already upon us, bringing profound climactic and ecological changes, great loss of human life, and likely extinction for many of the planet's non-human species. As written recently in the New England Journal of Medicine,

Since [the release of the *Third Assessment Report* in] 2001, we've learned substantially more. The pace of atmospheric warming and the accumulation of carbon dioxide are quickening; polar and alpine ice is melting at rates not thought possible several years ago; the deep ocean is heating up, and circumpolar winds are accelerating; and warming in the lower atmosphere is retarding the repair of the protective "ozone shield" in the stratosphere….Given the current rate of carbon dioxide build-up and the projected degree of global warming, we are entering uncharted seas.

As we survey these seas, we can see some of the health effects that may like ahead if the increase in very extreme weather events continues. Heat waves like the one that hit Chicago in 1995, killing some 750 people and hospitalizing thousands, have become more common. Hot, humid nights, which have become more frequent with global warming, magnify the effects.

Epstein 2005.

> In 2002, more than 1,000 people died in a spring heat wave in India (Gelbspan 2004). In the spring of 2003, 1,400 people died in another heat wave in India and Pakistan. Also in 2003, a summer heat wave in Europe killed between 21,000-35,000 people (Epstein 2005).

In 1998, Hurricane Mitch dropped six feet of rain on Central America in three days, and was followed by soaring incidences of malaria, dengue fever, cholera, and leptospirosis (Epstein 2005). In 2000, after rain and three cyclones hit Mozambique over a six week time period, the incidence of malaria rose by five times (Epstein 2005). In June, 2001, Houston suffered the single most expensive storm in modern history when tropical storm Allison dropped thirty-five inches of rain in one week, resulting in $6 billion in damages (Gelbspan 2004). In November, 2001, record flooding killed more than 1,000 people in Algeria (Gelbspan 2004). Also in 2002, more than 12 million people were displaced by severe flooding in South Asia (Gelbspan 2004).

In the Eastern United States, the effect of sea level rise over the last century (primarily from thermal expansion as the oceans warm) has also exacerbated the beach erosion and flooding from modern storms that would have been less damaging in the past (Folland and Karl 2001). In August, 2005, Hurricane Katrina killed hundreds and destroyed the city of New Orleans (Epstein 2005). Katrina was quickly followed by Rita, and then Wilma, putting 2005 on track to setting a new record for hurricane season destruction.

While it may not be possible to link individual episodes to global warming, this overall pattern of increasingly violent weather is very likely linked to human-caused warming. But even more subtle, gradual changes can profoundly damage public health (Epstein 2005). During the past two decades, the prevalence of asthma in the United States has quadrupled, at least in part because of climate-related factors (Epstein 2005). Increased levels of plant pollen and soil fungi may also be involved, as experiments have shown that ragweed grown in twice the ambient levels of carbon dioxide produces 60% more pollen (Epstein 2005). High carbon dioxide levels also promote the growth and spore production of some soil fungi, and diesel particles then help to deliver these aeroallergens deep into human lungs (Epstein 2005).

Widening social inequities and changes in biodiversity caused by global warming have also contributed to the resurgence of many infectious diseases (Epstein 2005). Global warming is credited with the current spread of Lyme disease, as well as malaria, hantavirus, and West Nile virus (Epstein 2005). Floods are also frequently followed by disease clusters, as downpours can drive rodents from burrows, deposit mosquito-breeding sites, foster fungus growth in houses, and flush pathogens, nutrients, and chemicals into waterways (Epstein 2005). Droughts also weaken trees' defenses against infestations and promote wildfires, which can cause injuries, burns, respiratory illness, and deaths (Epstein 2005).

Shifting weather patterns are jeopardizing water quality and quantity in many countries, where groundwater systems are overdrawn (Epstein 2005). Most montane ice fields are

predicted to disappear during this century, further exacerbating water shortages in many areas of the world (Epstein 2005).
An even greater threat to human health comes from illnesses affecting wildlife, livestock, crops, forests, and marine organisms (Epstein 2005). One recent report found that 60% of resources examined, from fisheries to fresh water, are already in decline or being used in unsustainable ways (Epstein 2005). This is a grim prognosis indeed as global population continues to rise even as global warming accelerates.

As discussed further below, global warming will also have profound impacts on the earth's biological diversity and threatens many thousands of species. The primary prevention and mitigation of all of these climate impacts is to reduce the nation's energy use and halt the extraction, mining, transport, refining and combustion of fossil fuels (Epstein 2005). Experts believe that a substantial reduction in energy use would have innumerable health and environmental benefits along with stabilizing the climate (Epstein 2005).

3. The Impacts of Global Warming on Threatened, Endangered, Rare, and Special Status Species

The pika is a small, vegetarian relative of the rabbit, which is adapted to life on high, treeless mountain peaks. Because pikas need cold, bare habitat, it is not surprising that their numbers are plummeting all over the globe (Krajick 2004). Fossil evidence shows that pikas once ranged widely over North America but their range has contracted to a dwindling number of high peaks during the warm periods of the last 12,000 years (Krajick 2004). Alpine species like the pika are unable to shift their ranges as warming temperatures and advancing treelines, competitors, and predators impact their mountain habitat (Krajick 2004). Pikas are further limited by their metabolic adaptation to their cold habitat niche, which allows them to survive harsh winters but also causes them to die from heat exhaustion at temperatures as low as 77.9° F (25.5° C) (Krajick 2004).

American pika populations at seven of twenty-five previously recorded localities in the Great Basin of the western United States have disappeared in recent years (Beever 2003). Based on work conducted in the late 1990s, researchers documented that the average elevation of surviving pika populations was 8,310 feet, up from a pre-historic average of about 5,700 feet between 7,500 and 40,000 years ago (Beever 2003; Grayson 2005). Most recently, researchers announced in December, 2005, that at least 2 additional populations have become extinct, and the average elevation of surviving populations has increased by another 433 feet.

In the Yukon, collared pikas declined 90% between 1999 and 2000, when unprecedented midwinter snowmelts, rain, and refreezing eliminated the insulating snow and then iced over the pika's forage plants (Krajick 2004). A pika species endemic to the mountains of northwest China, discovered only in 1986, was not located in extensive surveys in 2002 and 2003 and may be extinct.
Alpine dwelling marmots which rely upon the treeless tundra to visually spot and avoid predators, are also at risk as treelines advance, providing cover for predators like wolves and cougars.

Alpine plants, which have little or no capability to shift their range to higher elevations as the climate warms, may be most at risk. One study predicts that a 3° Centigrade temperature rise over the next century will eliminate eighty percent of alpine island habitat and cause the extinction of between a third and a half of 613 known alpine plants in New Zealand (Krajick 2004).

A study of 15,148 North American vascular plants found that 7%-11% of all species (1,060 to 1,670 plants) could be entirely out of their climate envelopes with just a 5.4° F (3° C) warming, the lower limit of climate change predicted for this century by the IPCC (Morse et al. 1995). At the upper boundary of climate change predicted for this century, 10.4° F (5.8° C), the percentage of plants completely outside their envelope increases to 25-40% (Morse et al. 1995). By contrast, about 90 North American plant species are believed to have become extinct in the past two centuries (Morse et al. 1995).

Species are also at great risk because climate change can alter conditions for diseases and their vectors in a way that allows the incidence of disease to increase and spread. Global warming can exacerbate plant disease by altering the biological processes of the pathogen, host, or disease-spreading organism (Harvell et al. 2002). For example, cold winter temperatures limit disease in some areas because the cold kills pathogens. Warmer winter temperatures can decrease pathogen mortality and increase disease (Harvell et al. 2002). Warmer temperatures can also increase pathogen growth through longer growing seasons and accelerated pathogen development (Harvell et al. 2002). The most severe and least predictable disease outbreaks will likely be when climate change alters host and pathogen geographic ranges, so that pathogens introduced to new and vulnerable hosts (Harvell et al. 2002).

Climate change will also influence wildlife diseases by affecting the free-living, intermediate, or vector stages of pathogens (Harvell et al. 2002). Many vector-transmitted diseases are currently climate limited because the parasites cannot complete development before the vectors are killed by cold temperatures (Harvell et al. 2002). Well studied vector borne human diseases such as malaria, Lyme disease, tick-borne encephalitis, yellow fever, plague, and dengue fever have expanded their ranges into higher latitude areas as temperatures warm (Harvell et al. 2002).

Increased ocean temperatures also cause marine pathogen range expansions. One example is the spread of eastern oyster disease on the east coast of the United States from Long Island to Maine during a winter warming trend in which the cold-water barrier to pathogen growth was removed (Harvell et al. 2002).

A study published in *Nature* has linked the extinction of dozens of amphibian species in the tropical highland forests of Central and South America to global warming due to the creation of ideal conditions for growth of the chytrid fungus, a disease which kills frogs by growing on their skin and attacking their epidermis and teeth, as well as by releasing a toxin (Pounds et al. 2006). Seventy-four of the 110 species of brightly colored harlequin frogs of the genus *Atelopus* have disappeared in the past 20 years due to the spread of the fungus (Pounds et al. 2006). The study's lead author stated "Disease is the bullet killing frogs, but climate change is pulling the trigger" (Eilperin 2006). The golden toad (*Bufo periglenes*), endemic to the

same tropical mountain forests, was also driven extinct by climate change. These amphibian extinctions from the Monteverde Cloud Forest are one of the largest recorded vertebrate extinction events of at least the last 100 years.

Projected increases in atmospheric carbon dioxide and temperature over the next 50 years will rapidly and substantially exceed the conditions under which coral reefs have flourished over the past 500,000 years (Hughes et al. 2003). Coral reefs are already experiencing a major decline (Hughes et al. 2003). Thirty percent of reefs are already severely damaged, and sixty percent of reefs could be gone by 2030 (Hughes et al. 2003). The link between increased greenhouse gases, climate change, and regional-scale bleaching of corals, questioned by some researchers as recently as ten to twenty years ago, is now incontrovertible (Hughes et al. 2003). In the face of elevated ocean temperatures, corals "bleach" by expelling the symbiotic algae that provide them nourishment. Such bleaching events are often fatal, and as they become more frequent with global warming, threaten not just individual coral species but the entire reef ecosystem.

Corals face an additional threat from greenhouse gas emissions: increasing levels of dissolved carbon dioxide in the oceans from society's fossil fuel use reduces the rate of calcification corals need for growth. The frequency and intensity of hurricanes is also projected to continue to increase, leading to a shorter time for recovery between damaging storm events (Hughes 2003). Two species of Caribbean coral, the elkhorn coral (*Acropora palmata*) and staghorn coral (*Acropora cervicornis*) have been listed under the Endangered Species Act, in part due to elevated ocean temperatures from global warming and ocean acidification from anthropogenic carbon dioxide emissions. U.S. Fish and Wildlife Service (USFWS) 2006.

Species in areas of the globe experiencing more rapid warming than the average, such as the Arctic, are also particularly vulnerable to climate change. The Arctic has warmed at over twice the rate of the rest of the world and has been impacted particularly early and intensely by climate change. Winter temperatures in parts of the Arctic have increased by as much as 3-4° C (5-7° F) in just the past 50 years. Over the next 100 years, under a moderate emissions scenario, annual average temperatures are projected to rise 3-5° C (5-9° F) over land and up to 7° C (13° F) over the oceans. Winter temperatures are projected to rise by 4-7° C (5-9° F) over land and 7-10° C (13-18°) over the oceans (ACIA 2004b:2).

The disproportionate regional warming is caused by several unique characteristics and feedback mechanisms in the Arctic. Chief among these is the decrease in Arctic snow and ice cover and northward expansion of boreal forests and shrubs as temperatures warm. These changes greatly decrease the amount of solar radiation reflected back into space and speed regional warming in a positive feedback loop of enormous magnitude. As temperatures go up, Arctic sea ice melts. Summer sea ice extent is already declining at up to 10% per year, and experienced a new record minimum in September 2005 (NSIDC 2005). An area of sea ice of about half a million square miles, or roughly twice the size of Texas, has been lost (NSIDC 2005). If current trends continue, the Arctic will be ice free in the summer in just a few decades. Decreases in winter sea ice extents in the Arctic have also been documented, approaching reductions of 3% per decade (Meier et al. 2005). The Arctic may already be on a trajectory towards a summer ice-free, "super interglacial" state that has not existed for at least

a million years (Overpeck et al. 2005). There appear to be no feedback processes in the Arctic system capable of altering this trajectory towards dramatically less permanent ice than at present (Overpeck et al. 2005).

The rapid warming threatens the entire Arctic web of life, including the polar bear (*Ursus maritimus*), the largest of the world's bear species and an icon of the North. Polar bears live only in the Arctic where sea ice is present for substantial portions of the year. Polar bears are the Arctic's top predator and completely dependent upon the sea ice for all of its essential behaviors. Polar bears are specialized predators of seals in ice-covered waters. Polar bears also use the sea ice to travel, to mate, and some mothers even give birth to their cubs in snow dens excavated on top of the sea ice. The polar bear's dependence on sea ice is so complete that, like whales and seals, they are classified as a marine mammal by scientists and the federal government.

Due to the overwhelming risk to polar bears caused by global warming, in February, 2005, the conservation organization Center for Biological Diversity submitted a Petition to the U.S. Fish and Wildlife Service to list polar bears as a threatened species under the Endangered Species Act. *See http://biologicaldiversity.org/swcbd/species/polarbear/petition.pdf.* In February, 2006, the Fish and Wildlife Service found that listing of polar bears "may be warranted," and the listing process is currently ongoing. 71 Fed.Reg. 6,745 (February 9, 2006).

The number and magnitude of the impacts already recorded from a 1° F increase in average global air temperature is profoundly disturbing. And the projected increase, even under moderate greenhouse gas scenarios, for this century of 2.5- 10.4° F (1.4-5.8° C) is many times the warming already experienced. Not surprisingly, the projections for the future are more disturbing still.

The leading study on the quantification of risk to biodiversity from climate change, published in 2004 in *Nature*, included over 1,100 species distributed over 20% of the earth's surface area (Thomas et al. 2004). Under a relatively high emissions scenario, 35%, under a medium emissions scenario 24%, and under a relatively low emissions scenario, 18% of the species studied would be committed to extinction by the year 2050 (Thomas et al. 2004). Extrapolating from this study to the earth as a whole reveals that over a million species may be at risk. The clear message is that immediate reductions in greenhouse gas emission may save preserve many thousands of species. It is also clear that some impacts from climate change are inevitable, and thus adaptation strategies will be an essential component of any comprehensive strategy to manage the impacts of climate change.

4. The Economic Cost of Carbon

The economic cost of greenhouse gas pollution is the estimated cost of the net impact on economies and societies of long term trends in climate conditions related to anthropogenic greenhouse gas emissions (Downing et al. 2005). The economic cost is generally expressed as the marginal cost of climate change impacts, and is usually estimated as the net present value of the impact over the next 100 years (or longer) of one additional ton of carbon

emitted to the atmosphere today, and is expressed in dollars (or other currency) per ton of carbon (tc).4

Estimating the economic cost of greenhouse gas pollution is a rapidly developing field, and very few studies conducted to date have included any non-market damages such as species extinction, or the risk of potential extreme weather such as hurricanes, droughts, and floods (Watkiss et al. 2005). None have included socially contingent effects, or the potential for longer-term effects and catastrophic events (Watkiss et al. 2005). This indicates that values in the literature are a sub-total of the full economic (or social) cost of greenhouse gas pollution, and therefore by definition an underestimate, though researchers cannot yet say by how much (Watkiss et al. 2005).

Researchers have concluded that $64/tc (year 2000) is a reasonable figure for decision makers to use as a lower benchmark of the economic cost of greenhouse gas emissions (Downing et al. 2005). An upper benchmark is more difficult to deduce from the current literature but the risk of higher values for the social cost of carbon is significant (Downing et al. 2005, Watkiss et al. 2005). Decision makers should use the best available range of values displayed in Table 1.

Table 1: Economic Cost of Carbon: Values for Use in Project Appraisal (USD per ton carbon)
(Source: Adapted from Watkiss et al. 2005:ix)5

Year of Emission	Central guidance	Lower Central Estimate	Upper Central Estimate
2000	$101	$64	$238
2010	$119	$73	$293
2020	$146	$91	$375
2030	$183	$119	$475
2040	$256	$165	$603

CSD C#-4434

MEMORANDUM OF UNDERSTANDING FOR IMPLEMENTATION OF AN ALTERNATIVE WATER RESOURCES MANAGEMENT PROGRAM

Among the

SANTA CLARITA VALLEY SANITATION DISTRICT OF LOS ANGELES COUNTY
UPPER BASIN WATER PURVEYORS
UNITED WATER CONSERVATION DISTRICT, AND
VENTURA COUNTY AGRICULTURAL WATER QUALITY COALITION

October 2008

MEMORANDUM OF UNDERSTANDING FOR THE IMPLEMENTATION OF AN ALTERNATIVE WATER RESOURCES MANAGEMENT PROGRAM

This Memorandum of Understanding for the Implementation of an Alternative Water Resources Management Program ("MOU") is entered into effective October 23, 2008, by and among CASTAIC LAKE WATER AGENCY ("CLWA"), CLWA's SANTA CLARITA WATER DIVISION ("SCWD"), VALENCIA WATER COMPANY ("VWC"), NEWHALL COUNTY WATER DISTRICT ("NCWD"), and LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 36 ("LACWD"), which are collectively referred to as the "UPPER BASIN WATER PURVEYORS ("UBWPs")," the SANTA CLARITA VALLEY SANITATION DISTRICT OF LOS ANGELES COUNTY ("SCVSD"), the UNITED WATER CONSERVATION DISTRICT ("UWCD"), and the VENTURA COUNTY AGRICULTURAL WATER QUALITY COALITION ("VCAWQC"), individually referred to as a "Party" and collectively as the "Parties."

RECITALS

A. A total maximum daily load (TMDL) for chloride in the Upper Santa Clara River (Reaches 5 and 6) was adopted by the California Regional Water Quality Control Board – Los Angeles Region ("Regional Board") and became effective on May 5, 2005. The TMDL established waste load allocations of 100 mg/L for the SCVSD's Saugus and Valencia Water Reclamation Plants (WRPs). The TMDL implementation schedule allows for several special studies to determine whether existing water quality objectives and waste-load allocations for chloride can be revised, and provides for an 11-year schedule to attain compliance with the final water quality objectives and waste-load allocations for chloride.

B. The conventional approach to achieving compliance with the existing 100 mg/L water quality objective and waste-load allocations for chloride would be through constructing desalination facilities at the SCVSD's Saugus and Valencia WRPs and a 43-mile brine line through the Santa Clara River Watershed to an ocean outfall off the Ventura coast. The Parties have collaboratively developed an alternative approach to water resources management that will achieve TMDL compliance, which is set forth in an exhibit to this MOU (Exhibit 1) and entitled "the Alternative Water Resources Management Program" ("the AWRM Program"). This program uses a basin water supply management approach to achieve the final water quality objectives and waste load allocation for chloride determined through the TMDL collaborative process. The AWRM Program, in comparison with the conventional approach, would have economic, public acceptance, feasibility, timing, environmental quality, and water supply benefits.

C. The Parties recognize that the AWRM Program provides multiple benefits for stakeholders in Los Angeles and Ventura Counties. These benefits include the revision of water quality objectives, provision of tertiary recycled water and potential provision of desalinated recycled water that will support increased water recycling and thereby increase water supplies in the City of Santa Clarita and unincorporated areas of Los Angeles County. In addition, the AWRM Program will implement water supply facilities in Ventura County and provide desalinated recycled water to these water supply facilities that will allow for the conjunctive use of groundwater and surface water resources to increase water supplies and improve water quality in groundwater and surface waters of the Santa Clara River watershed.

D. The Parties have determined that this MOU is an appropriate format for initiating implementation of the AWRM Program, and will benefit the water resources of the Santa Clara River Watershed.

E. The Parties desire to establish and maintain cooperative and reciprocal relationships with each other for the planning and preliminary design of facilities and operations that will implement and monitor the effectiveness of the AWRM Program. In order to do this, the Parties are willing to designate individual representatives to participate in an Oversight Committee that will provide oversight of the implementation of the AWRM Program.

F. The Parties acknowledge that a Joint Powers Authority (JPA) may be formed to implement specific activities anticipated by this MOU.

G. The Parties recognize and acknowledge SCVSD's rights under California Water Code, Section 1210, as it pertains to the recycled water, whether tertiary or desalinated, that is produced from the SCVSD's facilities. The Parties further recognize and acknowledge that the primary and first use of all desalinated recycled water is to comply with requirements of the USCR Chloride TMDL.

H. The UBWPs and UWCD have conferred and come to an agreement on the call for any desalinated recycled water for secondary uses in Los Angeles and Ventura Counties.

I. The Parties recognize that the implementation of the AWRM Program is subject to the California Environmental Quality Act, Public Resources Code Sections 21000 *et seq* ("CEQA"). The Parties intend by this MOU to address the manner in which they intend to fulfill their responsibilities under CEQA in regard to the AWRM program and the project specific actions that may be taken by the Parties. This MOU is not intended to limit the Parties' discretion to consider alternatives and additional mitigation measures in regard to the AWRM Program.

MEMORANDUM OF UNDERSTANDING

The Parties therefore agree as follows:

1.1 **Guiding Principles for AWRM Program.** The Parties agree to abide by a set of guiding principles, as described in Exhibit 1, for the implementation of the AWRM Program, as well as any adaptation of the AWRM Program, if necessary, in the future.

1.2 **Revisions to Surface Water and Groundwater Water Quality Objectives and Associated Final Chloride Waste-Load Allocations and Effluent Permit Limits.** The Parties agree to support the revisions to the surface water and groundwater water quality objectives and all associated final chloride waste-load allocations and final effluent permit limits for the Saugus and Valencia WRPs set forth in Exhibit 1, as well as any regulatory actions necessary to allow groundwater to be discharged. The Parties agree to submit written and oral testimony to the Regional Board, the State Water Resources Control Board, and the United States Environmental Protection Agency, Region IX encouraging adoption of such revisions. The Parties also agree to undertake advocacy and outreach activities necessary to obtain the support and acceptance of stakeholder groups within their jurisdictional boundaries for the revisions to water quality objectives and associated final waste-load allocations and effluent permit limits necessary to implement the AWRM Program.

1.3 **Uses of Desalinated Recycled Water**. In accordance with the California Water Code, Section 1210, the SCVSD will designate uses of its desalinated recycled water, at its sole discretion, as follows:

1.3.1 **Primary Uses of Desalinated Recycled Water.** The primary and first use of all desalinated recycled water is for SCVSD compliance-related purposes, which include but are not limited to: (1) complying with water quality objectives for Reaches 4A, 4B, and 5; (2) protecting salt-sensitive agricultural beneficial uses irrigated with Reach 4B surface water as required in the USCR Chloride TMDL; (3) removing past excess chloride load above 117 mg/L from East Piru Basin groundwater that is attributed to the District's facilities; and (4) maintaining a salt balance so that any future cumulative incremental chloride load above 117 mg/L to Reach 4B surface water that is attributed to the District's facilities is removed through the AWRM Program, as required in the USCR Chloride TMDL.

1.3.2 **Secondary Uses of Desalinated Recycled Water.** To the extent that SCVSD does not use its desalinated recycled water for the primary uses identified in Section 1.3.1, and there is sufficient supply available for secondary uses, the SCVSD will make available an amount up to 3 MGD of its remaining desalinated recycled water for calls for utilization by the UBWPs and the UWCD. In the event that the UBWPs desire to implement a program to augment local water supplies by beneficial use of the desalinated recycled water when the desalinated recycled water is not needed to meet the primary uses described in Paragraph 1.3.1, the UBWPs and UWCD shall meet and confer in good faith to develop a mutually agreed-upon division of any available desalinated recycled water for secondary uses. Deliveries of secondary use desalinated recycled water to the UBWPs or UWCD will be accommodated under recycled water agreement(s) between the party(ies) receiving deliveries and the SCVSD.

1.3.3 **Future Rights to Desalinated Recycled Water.** Because SCVSD's primary and first use of desalinated recycled water from facilities implemented under the AWRM program is for compliance related purposes, in accordance with Section 1.3.1, any secondary uses of desalinated water or delivery to the UBWPs or UWCD are not guaranteed. As such, any secondary use of desalinated recycled water from the AWRM Program or delivery to Los Angeles or Ventura Counties will not establish any right on the part of any recipient or other entity to future deliveries of any quantity of desalinated recycled water from the SCVSD.

1.4 **Implementation of Party Commitments.** Subject to completion of any required procedures under CEQA, each Party agrees to implement their respective commitments as described in the AWRM Program, and as follows:

1.4.1 **SCVSD Commitments.** Subject to compliance with CEQA, the SCVSD agrees to implement the following commitments in support of the AWRM Program:

(a) Self-regenerating Water Softeners: The SCVSD shall continue with the planning and implementation of outreach programs and legal procedures for voluntary and mandatory removal of self-regenerating water softeners (SRWS).

(b) Other Source Control Activities. The SCVSD shall consider funding other cost-effective source control activities on a case-by-case basis, if circumstances in the future necessitate the need for additional chloride reduction.

(c) AWRM Environmental Impact Report and Wastewater Facilities Plan: The SCVSD shall act as the Lead Agency and complete planning and programmatic environmental analysis under the California Environmental Quality Act ("CEQA") of the AWRM Program elements specified in Exhibit 1 in an Environmental Impact Report (EIR). In addition, the SCVSD shall complete facilities planning and project level CEQA analysis of the following wastewater-treatment related elements of the AWRM Program:

i. Conversion of the disinfection processes at the Saugus and Valencia WRPs to Ultra-Violet Light Technologies.

ii. Construction of an advanced treatment facility at Valencia WRP, consisting of microfiltration (MF) and reverse osmosis (RO).

iii. Construction of brine disposal facilities associated with the brine generated from reverse osmosis technologies.

iv. Construction of a desalinated recycled water conveyance pipeline from Valencia WRP to the Camulos Ranch surface water diversion.

(d) Certification of AWRM EIR and Wastewater Facilities Plan: The SCVSD shall act as the Lead Agency and consider certification of the AWRM EIR and Wastewater Facilities Plan in accordance with CEQA, which will include an assessment of the elements identified in 1.4.1(c) of this MOU by May 4, 2011 (TMDL Task 13a due date). Other signatories to this MOU may act as responsible agencies for the AWRM EIR, or use the AWRM EIR in connection with their own project approval processes.

(e) Early Start Recycled Water Project: The SCVSD shall work with the UBWPs to develop an early start recycled water project. The objectives of the early start recycled water project are to utilize recycled water from the Saugus Water Reclamation Plant and to reduce the risk of invasive fish migration to critical downstream habitats.

(f) Recycled Water Agreement: The SCVSD and CLWA shall amend or replace the existing recycled water agreement to expand the quantity of recycled water that can be purchased by CLWA from the SCVSD.

(g) CLWA's Recycled Water Program: The SCVSD shall support the implementation of the CLWA's Recycled Water Program, through in-kind services to support regulatory reports/activities needed to utilize recycled water, lobbying efforts to secure grant funds for recycled water infrastructure investments, and in-kind technical support for the CLWA's application for low-interest State Revolving Fund (SRF) loans for the construction of recycled water infrastructure facilities.

(h) Minimum Streamflow Study: Because the supply of recycled water is limited by minimum streamflow requirements in Reach 5 of the Santa Clara River, the SCVSD, together with the UBWPs and possibly others, shall fund a minimum streamflow study to quantify the habitat requirements of Reach 5. The cost allocation of this study shall be determined by mutual agreement.

(i) Groundwater Recharge Program in Los Angeles County: In the event that the UBWPs desire to implement a groundwater recharge program with recycled water, for the purpose of augmenting Los Angeles County water supplies, the SCVSD shall support the UBWPs efforts to obtain regulatory approvals from the Los Angeles Regional Water Quality Control Board, California Department of Public Health, and State Water Resources Control Board, as necessary. Support shall include written

and oral testimony and in-kind technical support on regulatory and technical reports and documents needed to utilize secondary use desalinated recycled water to augment local water supplies.

(j) Completion of Wastewater Facilities: Subject to the scheduling provisions of Section 1.4.5, the SCVSD shall complete and operate the approved wastewater facilities addressed in the Final AWRM EIR and Wastewater Facilities Plan by May 4, 2015 (Revised TMDL Task 13d due date).

(k) Ventura County Water Supply Facilities Scope of Work: The SCVSD shall contract with a firm or firm(s) that are jointly selected by the SCVSD and UWCD, to prepare a conceptual engineering design and engineer's cost estimate for the following Ventura County water supply facilities within 12 months of the approval date of the revised Chloride TMDL:

i. East Piru extraction well network, consisting of 10 extraction wells, with a rated pumping capacity of 2,000 gallons per minute per well.

ii. East Piru conveyance pipelines, consisting of:

1. Desalinated recycled water conveyance pipeline from the Camulos Ranch surface water diversion to the East Piru extraction well network.

2. Blended discharge (RO + Extracted Groundwater) conveyance pipeline from the East Piru extraction well network to the Santa Clara River near the Fillmore Fish Hatchery, in Reach 4A of the Santa Clara River.

The engineer's cost estimate will include the cost for CEQA documentation and construction permitting of the Ventura County water supply facilities. Once completed and approved by the SCVSD and UWCD (or another designated Lead Agency), the conceptual engineering design and cost estimate shall be identified as Exhibit 2 of this MOU, and serve as the agreed-upon scope of work and the basis for the SCVSD's financial commitment and CEQA analysis for the implementation of the Ventura County water supply facilities for the AWRM Program.

(l) Financing – Design, Permitting, CEQA Documentation and Construction of the Ventura County Water Supply Facilities: The SCVSD shall finance the design, construction permitting, CEQA documentation, construction and construction management of the facilities identified in Exhibit 2 of this MOU, subject to and contingent upon all of the following:

i. The Lead Agency for the implementation of the facilities identified in Exhibit 2 has completed and certified a Project Level EIR, procured all necessary permits for construction of the recommended project, and completed all commitments identified in Section 1.4.3(c);

ii. The construction and cost of the facilities is in accordance with the final design and bid documents for the specific facilities identified in Exhibit 2.

iii. The SCVSD's financial responsibility is limited to the cost of design, construction permitting, CEQA documentation, construction, and construction management for only those facilities identified in Exhibit 2 of this MOU. The SCVSD's financial commitment for CEQA documentation and construction permitting will not exceed the cost estimate for these tasks, as identified in Exhibit 2, unless approved by the SCVSD. Any incremental

costs associated with the design, permitting, CEQA documentation, construction, and construction management of other facilities implemented by the Lead Agency that are outside the agreed upon scope of work, will be the responsibility of the Lead Agency.

iv. The SCVSD has the right to review and approve design and bid documents, with the selection of the recommended contractor(s) by the Lead Agency, based on the lowest competitive bid.

v. The SCVSD has reviewed all pertinent construction management records, for the purpose of resolving any disputes related to cost of constructing the facilities identified in Exhibit 2.

vi. The SCVSD has established an escrow account with the Lead Agency to fund the implementation of the Ventura County water supply facilities through a mutually agreed upon disbursement process that is tied to the achievement of project milestones and deliverables approved by the SCVSD.

(m) Operation and Maintenance Costs of Ventura County Water Supply Facilities: During the operation of the Ventura County water supply facilities, the SCVSD shall pay the proportionate cost of the operation and maintenance of the Ventura County water supply facilities associated with removing past excess chloride load above 117 mg/L from East Piru Basin groundwater attributed to its facilities and any future incremental load of chloride above 117 mg/L to Reach 4B surface water attributed to its facilities. The proportionate cost of operation and maintenance of these facilities will be calculated based on procedures that will be mutually determined by the SCVSD and UWCD. When these procedures are determined, they will be identified as Exhibit 3 of this MOU.

(n) Alternative Water Supplies to Reach 4B Surface Water Diverters: The SCVSD shall provide an alternative water supply that is of suitable quality and quantity to surface water diverters in Reach 4B of the Santa Clara River, when the surface water quality exceeds 117 mg/L at the Santa Clara River near the Los Angeles – Ventura County Line. This provision is contingent upon the execution of a separate agreement between the SCVSD and Reach 4B surface water diverter(s) which, when completed, will be identified as Exhibit 4 of this MOU, and will, at a minimum, include the following terms and conditions:

i. Any Reach 4B surface water diverter must provide evidence of its legal right to divert surface water from Reach 4B of the Santa Clara River;

ii. Any Reach 4B surface water diverter must identify the acreage and location by street address or assessor's parcel number of each salt-sensitive crop (i.e. avocados, strawberries, and nursery crops) that is irrigated with surface water diverted from Reach 4B of the Santa Clara River.

(o) Early Start Supplemental Water Releases: Prior to the completion of the wastewater treatment facilities identified in Section 1.4.1(c), the SCVSD shall make all reasonable efforts to procure supplemental waters for release to the Santa Clara River for the purpose of enhancing the assimilative capacity of the Santa Clara River, improving water quality conditions in Reach 4B, and if possible, attaining water quality objectives. The procurement of these early start supplemental waters is contingent upon a number of factors and will be obtained through a separate agreement with the UBWPs, as discussed in Section 1.4.2.

(p) Performance Requirements for Supplemental Water Release: The SCVSD shall establish performance requirements for supplemental water releases to Reaches 5 and 6 of the Santa Clara River, and provide them to the UBWPs to develop a plan, approved by the SCVSD, that provides for supplemental water releases in accordance with Section 1.4.2(b).

(q) Financing – Design, Permitting, CEQA Documentation and Construction of New Supplemental Water Facilities. If the supplemental water plan in Section 1.4.2(b) involves the construction of new facilities (i.e. conveyance pipelines to the Santa Clara River), the SCVSD will finance the design, construction permitting, CEQA documentation, construction and construction management of any new supplemental water facilities subject to and contingent upon all of the following:

i. The SCVSD and Lead Agency, identified in Section 1.4.2(c) shall agree on the scope of work and cost estimate for any new supplemental water facilities necessary to implement the AWRM Program. The SCVSD will contract with a firm or firms that are jointly selected by the SCVSD and UBWPs, to prepare a conceptual engineering design and engineer's cost estimate for new supplemental water facilities identified in the supplemental water plan. The engineer's cost estimate shall include the cost for CEQA documentation and construction permitting of the new supplemental water facilities. Once completed and approved by the SCVSD and Lead Agency, the conceptual engineering design and cost estimate shall be attached with Exhibit 5 of this MOU (supplemental water agreement and plan), and serve as the agreed-upon scope of work and the basis for the SCVSD's financial commitment and CEQA analysis for the implementation of new supplemental water facilities.

ii. The Lead Agency has completed and certified a Project Level EIR, procured all necessary permits for construction of the recommended project, and completed all commitments identified in Section 1.4.2(d).

iii. The construction and cost of the facilities is in accordance with the final design and bid documents for the new supplemental water facilities.

iv. The SCVSD's financial responsibility is limited to the cost of design, construction permitting, CEQA documentation, construction, and construction management for only those facilities in the agreed upon scope of work (attached in Exhibit 5). The SCVSD's financial commitment for CEQA documentation and construction permitting will not exceed the cost estimate for these tasks, unless approved by the SCVSD. Any incremental costs associated with the design, construction permitting, CEQA documentation, construction, and construction management of other facilities implemented by the Lead Agency that are outside the agreed upon scope of work, will be the responsibility of the Lead Agency.

v. The SCVSD has the right to review and approve design and bid documents with the selection of the recommended contractor(s) by the Lead Agency, based on the lowest competitive bid.

vi. The SCVSD has reviewed all pertinent construction management records, for the purpose of resolving any disputes related to cost of constructing any new supplemental water facilities.

vii. The SCVSD has established an escrow account with the Lead Agency to fund the implementation of any new supplemental water facilities through a mutually agreed upon disbursement process that is tied to the achievement of project milestones and deliverables approved by the SCVSD.

(r) Modification of the Castaic Lake Flood Flow Agreement: The West Branch Contractors of the State Water Project and Downstream Water Users to the 1978 Castaic Lake Flood Flow Agreement, anticipate requesting a modification of the 1978 Castaic Lake Flood Flow Agreement with the California Department of Water Resources. In the event that such a modification is requested, the SVCSD shall support the modifications request through written and oral testimony to any necessary regulatory agencies, so long as these modifications are consistent with compliance with WQOs and requirements of the USCR Chloride TMDL.

(s) Extension of the Groundwater-Surface Water Interaction Model (GSWIM): Together with the UWCD, the SCVSD agrees to participate in the financing of the extension of the existing GSWIM from its current model boundary at the "A Street, Fillmore," to the "Santa Clara River at the Freeman Diversion." SCVSD's financial contribution shall be 75% of the total cost to extend the model boundary and will be contingent upon UWCD contributing the remaining cost to extend the GSWIM boundary and, in good faith, negotiating and securing low cost supplemental water, if available, on an annual basis for the term of the MOU, in accordance with Section 1.4.3(f).

(t) SCVSD Commitment Contingencies: The commitments described in Section 1.4.1 of this MOU may be terminated (by SCVSD) if any of the termination contingencies set forth in Section 1.9 of the MOU occur.

1.4.2 **UBWPs Commitments.** Subject to compliance with CEQA, the UBWPs agree to implement the following commitments in support of the AWRM Program:

(a) Support for Revisions to WQOs and Implementation of AWRM Program:

i. Revisions to WQOs: In accordance with the AWRM Program and Section 1.2 of this MOU, the Upper Basin Water Purveyors agree to support the necessary revisions to surface water and groundwater quality objectives and associated final waste-load allocations and effluent permit limits for chloride for the Saugus and Valencia WRPs.

ii. Implementation of AWRM: The implementation of the AWRM Program will require the SCVSD to make changes to the point of discharge, place of use, and/or purpose of use of its recycled water, and may require the SCVSD to file a wastewater change petition with the State Water Resources Control Board, in accordance with the California Water Code, Section 1211. The Upper Basin Water Purveyors will support the SCVSD efforts in the submittal of any wastewater change petitions required to support the AWRM Program, which include:

1. Wastewater change petitions for the purpose of recycled water uses in the Santa Clarita Valley and Piru Basin;

2. Wastewater change petitions for the purpose of changing the location of the point of discharge of the SCVSD's water reclamation plants.

(b) Procurement of Supplemental Waters: Based on the performance requirements provided by the SCVSD, the UBWPs shall develop a supplemental water plan involving an imported water-local groundwater exchange program, in support of the AWRM Program. The CLWA, on behalf of the UBWPs, shall develop a plan to procure, make reliable, deliver, treat, and convey imported water to replace local groundwater utilized as supplemental water as envisioned in the AWRM Program. To the fullest extent possible, the plan shall be developed to utilize available and unused Ventura County annual State Water Project (SWP) Table A and other water allocations, in cooperation with the UWCD as described in Section 1.4.3(f). The plan and its estimated costs shall be submitted to the SCVSD for review, comment, and approval. Based on the approved plan, the Upper Basin Water Purveyors shall execute the plan in accordance with an agreement to be negotiated (Exhibit 5). The SCVSD shall pay for the costs of executing the plan in accordance with the agreement (Exhibit 5) as well as provisions identified in Section 1.4.1(q), if applicable. The UBWPs shall make all reasonable efforts to execute the supplemental water plan for the AWRM Program. However, the UBWPs shall have no obligation to provide supplemental water for the AWRM Program to the SCVSD if extenuating factors outside the control of the UBWPs (i.e.., earthquake, flood, fire, or legal challenges to use of banked or imported SWP water), prevent or impede the ability to execute the supplemental water plan.

(c) Lead Agency CEQA Responsibilities: The UBWPs (or another designated agency) agree(s) to be the Lead Agency for the purpose of completing any necessary project-level environmental assessments under CEQA related to the procurement of supplemental water, operating an imported water – groundwater exchange program, releasing supplemental waters to the Santa Clara River to improve water quality and attain water quality objectives, or constructing conveyance pipelines to route supplemental water to the Santa Clara River.

(d) Planning, Permitting, Design and Construction Costs for New Supplemental Water Facilities: If new supplemental water facilities are necessary, the Lead Agency will make all reasonable efforts to control the cost of any new supplemental water facilities that will be financed by the SCVSD in accordance with Section 1.4.1(q), and at a minimum, include the following review procedures:

i. The Lead Agency shall develop for SCVSD review and approval, a detailed project implementation schedule that identifies key project milestones/deliverables and a schedule for financial disbursements. When completed, the project implementation and finance disbursement schedule shall be attached within Exhibit 5.

ii. The Lead Agency shall document all change orders and impacts to project budget and submit them to the SCVSD for approval. Any cost overruns associated with change orders for the planning, construction permitting, design, construction, or construction management of new supplemental water facilities that are not approved by the SCVSD shall be the responsibility of the Lead Agency. SCVSD shall not unreasonably withhold approval of change orders that appropriately relate to the project.

The Lead Agency shall receive financial disbursements related to the planning, design, construction and construction management activities for new supplemental water facilities, through an escrow account that will be funded based on an agreed upon disbursement process between the Lead Agency and SCVSD that is tied to the

completion of key project milestones and project deliverables in accordance with the detailed implementation schedule and bid documents.

(e) UBWPs Commitment Contingencies: The UBWPs commitments in Sections 1.4.2(a) through 1.4.2(c) are contingent upon the execution of a separate agreement between the SCVSD and UBWPs, which when completed, shall be identified as Exhibit 5 of this MOU, and which will be based on the following principles:

i. The UBWPs are made financially whole, in terms of the total cost to implement any supplemental water releases that support the AWRM Program.

ii. The UBWPs are provided replacement water of suitable quality and reliability for any local groundwater that is utilized as supplemental water in an exchange program with imported water supplies.

In addition, the UBWPs commitments in Sections 1.4.2 may be terminated (by the UBWPs) if any of the termination contingencies set forth in Section 1.9 of the MOU occur.

1.4.3 **UWCD Commitments.** Subject to compliance with CEQA, the UWCD agrees to implement the following commitments in support of the AWRM Program:

(a) Support for Revisions to WQOs and Implementation of AWRM Program:

i. Revisions to WQOs: In accordance with the AWRM Program and Section 1.2 of this MOU, the UWCD agrees to support the required revisions to surface water and groundwater quality objectives and associated final waste-load allocations and effluent permit limits for chloride for the Saugus and Valencia WRPs to implement the AWRM plan.

ii. Implementation of AWRM: The implementation of the AWRM Program will require the SCVSD to make changes to the point of discharge, place of use, or purpose of use of its recycled water, which may require the SCVSD to file a wastewater change petition with the State Water Resources Control Board, in accordance with the California Water Code, Section 1211. The UWCD will support the SCVSD efforts in the submittal of any wastewater change petitions required to support the AWRM Program, which include:

1. Wastewater change petitions for the purpose of recycled water uses in the Santa Clarita Valley and Piru Basin;

2. Wastewater change petitions for the purpose of changing the location of the point of discharge of the SCVSD's water reclamation plants.

(b) Lead Agency CEQA Responsibilities: UWCD (or another designated agency) agrees to act as the Lead Agency for the implementation of the Ventura County water supply facilities identified in Exhibit 2, and shall be responsible for any project-level environmental analysis required under CEQA for these facilities, and the procurement of any permits necessary for construction of these facilities.

(c) Planning, Permitting, Design and Construction Costs: The Lead Agency will make all reasonable efforts to control the cost of the Ventura County Water Supply facilities

that will be financed by the SCVSD in accordance with Section 1.4.1(I), and at a minimum, include the following review procedures:

i. The Lead Agency shall develop for SCVSD review and approval, a detailed project implementation schedule that identifies key project milestones/deliverables and a schedule for financial disbursements. When completed, the project implementation and finance disbursement schedule shall be attached within Exhibit 2.

ii. The Lead Agency shall document all change orders and impacts to project budget and submit them to the SCVSD for approval. Any cost overruns associated with change orders for the planning, construction permitting, design, construction, and construction management of the Ventura County water supply facilities that are not approved by the SCVSD shall be the responsibility of the Lead Agency. SCVSD shall not unreasonably withhold approval of change orders that appropriately relate to the project.

The Lead Agency shall receive financial disbursements related to the planning, design, construction and construction management activities for new supplemental water facilities, through an escrow account that will be funded based on an agreed upon disbursement process between the Lead Agency and SCVSD that is tied to the completion of key project milestones and project deliverables in accordance with the detailed implementation schedule and bid documents.

(d) Ownership and Maintenance of Ventura County water supply facilities: Once constructed, the UWCD (or another designated agency) will assume ownership and maintenance responsibilities of the Ventura County water supply facilities and any permitting responsibilities associated with the operation and maintenance of the facilities identified in Exhibit 2 of this MOU.

(e) Use of Developed Water Supplies: To the extent that AWRM Program activities result in water supplies that would otherwise not be available to UWCD, UWCD shall utilize its best efforts to utilize the developed water supplies from the AWRM Program to achieve sustainability with respect to current groundwater demand-supply imbalances within its service area.

(f) Procurement of Supplemental Waters: Based on the UBWPs supplemental water plan (1.4.2(b)), the UWCD shall make good faith efforts to secure any available SWP water annually, as needed, from the Ventura County Table A allocation as supplemental water in support of the AWRM Program. UWCD's groundwater recharge operations receive primary consideration for any available SWP water from Ventura County's Table A allocation with any available balance secured to support the AWRM Program. UWCD, in good faith, will annually negotiate the purchase of any available SWP water at the lowest possible agreed upon rate with its partners, City of Ventura and Casitas Municipal Water District, review the purchase agreement with CLWA and SCVSD, execute the appropriate purchase agreement documents, and invoice CLWA and copy the SCVSD for the cost of purchasing any secured SWP water for the AWRM Program. The parties acknowledge that the City of Ventura and Casitas may not wish to enter into a purchase agreement with UWCD. Thus, there is no guarantee that supplemental water can be obtained.

(g) UWCD Commitment Contingencies: The commitments described in Sections 1.4.3 of this MOU may be terminated (by UWCD) if any of the termination contingencies set forth in Section 1.9 of the MOU occur.

1.4.4 VCAWQC Commitments. The VCAWQC agrees to implement the following commitments in support of the AWRM Program:

(a) Support for Revisions to WQOs and Implementation of AWRM Program:

i. Revisions to WQOs: In accordance with the AWRM Program and Section 1.2 of this MOU, the VCAWQC agrees to support the necessary revisions to surface water and groundwater quality objectives and associated final waste-load allocations and effluent permit limits for chloride for the Saugus and Valencia WRPs.

ii. Implementation of AWRM: The implementation of the AWRM Program will require the SCVSD to make changes to the point of discharge, place of use, and/or purpose of use of its recycled water, which may require the SCVSD to file a waste water change petition with the State Water Resources Control Board, in accordance with the California Water Code, Section 1211. The VCAWQC will support the SCVSD efforts in the submittal of any wastewater change petitions required to support the AWRM Program, which include:

1. Wastewater change petitions for the purpose of recycled water uses in the Santa Clarita Valley and Piru Basin;

2. Wastewater change petitions for the purpose of changing the location of the point of discharge of the SCVSD's water reclamation plants.

(b) Use of Developed Water Supplies. VCAWQC shall support UWCD's efforts to utilize developed water supplies from the AWRM program to achieve sustainability with respect to current groundwater demand-supply imbalances within its service area.

(c) VCAWQC Commitment Contingencies: The commitments described in Sections 1.4.4 of this MOU may be terminated (by VCAWQC) if any of the termination contingencies set forth in Section 1.9 of the MOU occur.

1.4.5 Schedule of Implementation Commitments. The Parties have prepared a preliminary schedule, attached in Exhibit 1, which describes the tasks and estimated time to implement the AWRM Program by each of the respective parties. The SCVSD shall be responsible for implementing all wastewater related facilities as identified in Section 1.4.1(c). The UWCD or another designated Lead Agency shall be responsible for implementing all Ventura County water supply facilities as identified in Exhibit 2. The UBWPs or another designated agency shall be responsible for implementing all supplemental water activities and, if necessary, construct facilities as identified in Section 1.4.2(b) and 1.4.2(d). Detailed schedules of the implementation activities of each party shall replace the schedules in Exhibit 1, as they are developed and completed. The Parties acknowledge that the AWRM Program implementation will be an ongoing and evolving process and may change due to future amendments to the AWRM Program, challenging implementation issues or other unforeseen circumstances. The Parties agree that if delays in the implementation schedule occur because of the circumstances

discussed above, the SCVSD will request and the UWCD and VCAWQC will support extensions in the TMDL Implementation Schedule from the Regional Board, as appropriate, in order to accommodate such delays for the TMDL. Any changes or adaptations to the AWRM Program or AWRM Program implementation schedule shall be made in accordance with Section 1.6 of this MOU.

1.5 **Program Committee Oversight.** The General Manager or President of each Party (or their designees) shall meet as the AWRM Program Oversight Committee ("Oversight Committee") within 30 days of the execution of this MOU. The Oversight Committee may establish appropriate subcommittees, if necessary, to implement the AWRM Program and determine the meeting times and locations for the various committee/subcommittee meetings. The Oversight Committee or subcommittees will discuss and coordinate the implementation and monitoring of the AWRM Program, and, if necessary, develop a mutually agreed upon mediation process to resolve any disputes that may arise between the Parties during the implementation of the AWRM Program.

1.6 **Adaptation of the AWRM Program**. The Oversight Committee will be responsible for making determinations of any necessary adaptations of the AWRM Program that are necessary during implementation. Adaptation of the AWRM Program must be approved by all Parties, and effectuated through an amendment of the MOU describing the adaptations of the AWRM Program mutually agreed upon by all Parties.

1.7 **Term.** This MOU shall remain in effect until May 4, 2016 and shall be automatically renewed for additional one-year increments thereafter unless otherwise unanimously decided by members of the Oversight Committee that the term of the MOU shall be allowed to expire.

1.8 **Duplicate Originals.** This MOU shall be executed as duplicate originals, each of which, when so executed, will be deemed to be an original and all of which taken together will constitute one and the same agreement.

1.9 **Termination Contingencies.** The Parties may elect to terminate this MOU in the event of any of the following contingencies, in which case this MOU shall be of no further force and effect:

1.9.1 Should the Regional Board, State Water Resources Control Board, U.S. EPA, Region IX, or the California Office of Administrative Law fail to revise the water quality objectives for groundwater and surface water to the values shown in Exhibit 1, as necessary to implement the AWRM Program.

1.9.2 Should any of the Lead Agencies responsible for implementing major elements (i.e. Conversion to Ultra Violet Disinfection Technology, Procurement of Supplemental Waters, Advanced Treatment Facilities at the Valencia WRP, Brine Disposal Facilities, East Piru Extraction Well Network, Desalinated Recycled Water Pipelines to Camulos Ranch and East Piru, or East Piru Blended Discharge Conveyance Pipeline – Exhibit I) of the AWRM Program fail to complete or certify the necessary environmental impact reports or other assessments needed to comply with CEQA.

1.9.3 Should any of the Parties not implement their specific commitments as specified in Sections 1.4.1 through 1.4.4 of this MOU.

If such termination contingencies occur, all commitments described in Sections 1.4.1 through 1.4.4 of this MOU shall terminate and be of no further force or effect. In the event of MOU termination, each party shall bear their own project-specific costs incurred prior to termination. Any controversies concerning the responsibility for such costs shall be subject to mediation upon

terms to be agreed upon by the Oversight Committee. This MOU does not in any way relieve the Parties of any obligations under the TMDL. Inability by any Party to complete AWRM Program element implementation on schedule (Exhibit 1), due to circumstances beyond the Party's reasonable control as determined by the Oversight Committee, shall not constitute grounds for termination of this MOU.

1.10 **Warranties of Authority**. Each Party hereby represents and warrants that it is fully authorized to enter into this MOU; that it has taken all necessary internal legal actions to duly approve the making and performance of this MOU; that no further internal approval is necessary; and that the making and performance of this MOU does not violate any provision of any governing statutes or regulations, articles of incorporation, charters or by-laws.

1.11 **Exhibits for the MOU.** The exhibits for this MOU are as follows, with Exhibits 2 through 5 to be included in the future, when such exhibits are developed by the parties and become available:

1.11.1 Exhibit 1 – The Alternative Water Resources Management Program

1.11.2 Exhibit 2 – Conceptual Engineering Design, Cost Estimate and Scope of Work for the Ventura County Water Supply Facilities of the AWRM Program

(To be developed and attached to this MOU in the future)

1.11.3 Exhibit 3 – Procedures for the Determination of Future Operation & Maintenance Costs of the Ventura County Water Supply Facilities of the AWRM Program Between the SCVSD and the UWCD

(To be developed and attached to this MOU in the future)

1.11.4 Exhibit 4 – Alternative Water Supply Agreements Between the SCVSD and Santa Clara River, Reach 4B Surface Water Diverters

(To be developed and attached to this MOU in the future)

1.11.5 Exhibit 5 – Supplemental Water Agreement, Supplemental Water Plan, and Conceptual Engineering Design / Cost Estimate / Scope of Work for the Supplemental Water Facilities of the AWRM Program

(To be developed and attached to this MOU in the future)

The Parties are signing this MOU as follows.

United Water Conservation District

By: _____
General Manager

Date: 10/10/08

Castaic Lake Water Agency

By: _____
General Manager

Date: 10/10/08

Newhall County Water District

By: _____
General Manager

Date: 10.10.08

Valencia Water Company

By: _____
President

Date: 10/10/08

Santa Clarita Water Division
of Castaic Lake Water Agency

By: _____
Retail Manager

Date: 10/10/08

Ventura County Agricultural Water Quality
Coalition

By: _____
Chairman

Date: 10/14/08

Los Angeles County Waterworks District
No. 36

By: _____
County of Los Angeles

Date: 10/28/08

Santa Clarita Valley Sanitation District
of Los Angeles County

By: _____
Chief Engineer and General Manager

Date: 10-23-08

Exhibit 1 - Alternative Water Resources Management Program

Upper Santa Clara River Chloride TMDL Background

The California Regional Water Quality Control Board - Los Angeles Region (Regional Board) adopted the Upper Santa Clara River (USCR) Chloride Total Maximum Daily Load (TMDL) in 2002, establishing waste-load allocations for the Santa Clarita Valley Sanitation District's (SCVSD) Valencia and Saugus WRPs at 100 mg/L. Amendments to the TMDL in 2004 and 2006 established a phased TMDL approach, which allowed for the development of several scientific studies and potential site-specific objectives (SSOs) for chloride that the Regional Board may consider to revise the existing 100-mg/L water quality objectives (WQOs). The TMDL implementation schedule specified, among other requirements, that special scientific studies be conducted to: a) evaluate the appropriate chloride threshold for the protection of sensitive agriculture; b) evaluate the appropriate chloride threshold for the protection of endangered species; and c) develop a groundwater/surface water interaction model to evaluate the impacts of chloride loading from all sources on water quality. The results of these studies would then become the technical basis by which potential SSOs for chloride could be developed for Regional Board consideration. The TMDL required development of these studies in a collaborative process to ensure substantial agreement between the Regional Board staff, SCVSD's staff, and other stakeholders, regarding the scientific and technical basis for establishing water quality objectives for chloride. Each of the major studies conducted as part of the TMDL and their current status are summarized as follows.

Threatened and Endangered Species Chloride Threshold Study (T&Es Study) – The T&Es Study was completed in November 2007 and determined that the 1988 United States Environmental Protection Agency ambient water quality criteria for chloride for the protection of aquatic life (230 mg/L Cl as chronic and 860 mg/L Cl as acute) are protective of locally important T&Es.[i] The chloride threshold for the protection of locally important T&Es was considerably higher than the threshold range for the protection of salt-sensitive agriculture.

Agricultural Chloride Threshold Study (Ag Study) - The Ag Study was a two-part study, with a Literature Review and Evaluation (LRE) completed in September 2005,[ii] and an evaluation of the appropriate averaging period completed in January 2008.[iii] The Ag Study determined that the appropriate chloride threshold for salt-sensitive agriculture

[i] Advent-Environ, 2007. *Evaluation of Chloride Water Quality Criteria Protectiveness of Upper Santa Clara River Aquatic Life: An Emphasis on Threatened and Endangered Species*. May 2007.
[ii] CH2M Hill, 2005. *Final Report: Literature Evaluation and Recommendations, Upper Santa Clara River Chloride TMDL Collaborative Process*. September 2005.
[iii] NewFields Agricultural and Environmental Resource, 2007. *Technical Memorandum: Compliance Averaging Period for Chloride Threshold Guidelines in Avocado*. December 2007.

(avocados, strawberries, and nursery crops) grown in the USCR watershed is a guideline range between 100 and 117 mg/L Cl, with an averaging period of approximately 3 months.

Groundwater – Surface water Interaction Model (GSWIM) Study – The GSWIM Study developed a calibrated numerical model in March 2008,[iv] to evaluate the impact of WRP effluent discharges to the river on downstream surface water and groundwater in the Los Angeles and Ventura County portion of the Santa Clara River watershed. The GSWIM is now being utilized to evaluate various alternatives to comply with the existing water quality objectives and potential SSOs in consideration. One of the alternatives being considered is the Alternative Water Resources Management (AWRM) Program, which is described in more detail below.

Site Specific Objectives (SSO) and Anti Degradation Analysis (ADA) Study – The SSO and ADA Study provides the technical and regulatory basis for the Regional Board to consider potential SSOs that support the AWRM Program, as discussed in more detail below. As part of the SSO effort, a white paper on the agricultural beneficial uses in Reaches 5 and 6 of the USCR was developed in September 2007,[v] which assessed whether salt-sensitive agriculture was an existing or potential beneficial use. The white paper concluded that salt-sensitive agriculture was not an existing or potential beneficial use for surface water or underlying groundwater that could be impacted by surface water in Reaches 5 and 6. Since salt-sensitive agriculture was not an existing or potential beneficial for the surface waters or underlying groundwater that could be impacted by surface water in these reaches, SSOs higher than the Ag Study threshold range of 100-117 mg/L are potentially possible, and are being considered as part of the AWRM Program. The SSO-ADA study[vi] has recommended the following SSOs for chloride, TDS and sulfate for surface water reaches and groundwater in the USCR watershed, as shown in Table 1:

[iv] CH2M Hill, 2008. *Final Report: Task 2B-1 – Numerical Model Development and Scenario Results, East and Piru Subbasins.* March 2008.

[v] Santa Clarita Valley Sanitation District, 2007. White Paper No. 2A Agricultural Beneficial Use Considerations for Santa Clara River – Reaches 5 and 6., September 2007.

[vi] Larry Walker and Associates. *Draft Report: Upper Santa Clara River Chloride TMDL Task 7 and 8 Report- Site Specific Objective and Anti-degradation Analysis.*, July 2008.

Exhibit 1 - Alternative Water Resources Management Program

Table 1 –SSOs to Support AWRM Program

Surface Water SSOs for AWRM Program			
Mineral WQO	**Reach 4B*** (3 to 12-month avg.)	**Reach 5** (12-month avg.)	**Reach 6** (12-month avg.)
Chloride	~~100~~ 117 (SWP Cl < 80 ppm) 130 (SWP Cl >= 80 ppm)	~~100~~ 150	~~100~~ 150
TDS	1300	1000	1000
Sulfate	600	400	~~350~~ 450
Groundwater SSOs for AWRM Program			
Mineral WQO	**East Piru** (3 to 12-month avg.)	**Castaic Valley** (12-month avg.)	**Santa Clara - Bouquet & S.F. Canyons** (12-month avg.)
Chloride	~~200~~ 130 to 150 (TBD)	150	~~100~~ 150
TDS	~~2500~~ 1300 (TBD)	1000	~~700~~ 1000
Sulfate	~~1200~~ 600 (TBD)	350	~~250~~ 450

* When water quality in Reach 4B (Blue Cut) exceeds 117 mg/L, an alternative water supply will be provided to Reach 4B surface water diverters to protect salt-sensitive agricultural uses.

Alternative Water Resources Management Program Background

Since November 2007, the Santa Clarita Valley Sanitation District (SCVSD), Ventura County Agricultural Water Quality Coalition (VCAWQC), United Water Conservation District (United Water), and the Upper Basin Water Purveyors[vii] have been working together to develop an alternative water resources management (AWRM) Program for the USCR Chloride TMDL. The purpose of the AWRM Program is to develop a regional watershed solution for chloride as an alternative to compliance with the existing 100 mg/L water quality objective, recognizing that compliance with the existing 100 mg/L WQO would be a challenging and costly project, requiring many years to implement. The AWRM Program considers the use of SSOs and water resource management facilities that would allow for the full protection of all beneficial uses, while simultaneously providing a more feasible compliance solution, maintaining a chloride balance in the USCR Watershed, and providing salt export and water supply benefits to Ventura County stakeholders. Through this process, the SCVSD, VCAWQC, United Water, and the Upper Basin Water Purveyors have come to conceptual agreement on the guiding principles,

[vii] Castaic Lake Water Agency, Valencia Water Company, Newhall County Water District, Los Angeles County Water Works District No. 36, and the Santa Clarita Water Division of the Castaic Lake Water Agency.

key elements, implementation tasks and agency responsibilities associated with the AWRM Program. Discussion of the guiding principles, each of these specific elements of the AWRM Program, and implementation task and agency responsibilities, is presented in the following sections.

The Guiding Principles of the AWRM Program

The following guiding principles have been established between the SCVSD, VCAWQC, United Water, and the Upper Basin Water Purveyors for the development and implementation of the AWRM Program:

- The AWRM Program will strive to avoid and, if necessary, mitigate any water quality impacts to direct agricultural users of surface and groundwater from the Santa Clara River in East Piru (i.e., Camulos Ranch).
- The AWRM Program will not cause long-term water quality degradation of groundwater, and agricultural uses of groundwater will be protected. (i.e., salt balance in any affected basin can be achieved within a reasonable time).
- The AWRM Program will include a plan to improve groundwater quality in East Piru Basin and expedite water quality improvements. (i.e., water quality in groundwater and surface water in East Piru Basin will be improved before the end of the USCR Chloride TMDL implementation compliance period).
- The AWRM Program will improve water supplies in Ventura County.
- The AWRM Program will be implemented, monitored and funded by the Santa Clarita Valley Sanitation District.
- The AWRM Program will provide for stakeholder oversight during implementation.
- The AWRM Program must comply with regulations and protect all beneficial uses.

Key Elements of the AWRM Program

The AWRM Program consists of several key elements, which combined, would provide a regional watershed solution for the Upper Santa Clara River Chloride TMDL that benefits all stakeholders within the watershed. The key elements of the AWRM Program include: (1) implementing measures to reduce chloride in the recycled water at the SCVSD's WRP discharges; (2) constructing advanced treatment for a portion of the recycled water from the SCVSD's Valencia WRP; (3) procuring supplemental water (i.e. local groundwater or surface water) for release to the Santa Clara River to improve water quality conditions and attain

WQOs; (4) constructing water supply facilities in Ventura County; (5) providing alternative water supply to protect salt-sensitive agricultural beneficial uses of the Santa Clara River; (6) supporting the expansion of recycled water uses within the Santa Clarita Valley; and (7) revising the surface water and groundwater WQOs to support all of these elements. Each of these key elements is discussed in further detail, below.

Element No. 1: Reduction of Chloride Levels in WRP Recycled Water

As part of the AWRM Program, as well as any solution to the TMDL, the SCVSD will reduce the chloride levels in the recycled water discharged from the Valencia and Saugus WRPs. Reduction in the recycled water chloride levels would be achieved through enhanced source control, specifically the removal of self-regenerating water softeners (SRWS), which are a significant source of chloride to the SCVSD's sanitary sewer collection system, and conversion of the current beach-based disinfection facilities, which contribute an additional 10 mg/L of chloride in recycled water at each WRP, to Ultra-Violet Light Disinfection technology. Through removal of SRWS and conversion to UV disinfection technologies, the incremental chloride contribution from wastewater sources above the contribution from water supply can be reduced to a level of approximately 50 mg/L. This reduction in chloride will allow for the SCVSD's Valencia and Saugus WRPs to comply with revised WQOs in varying water supply chloride conditions,[viii] and minimize the amount of advanced treatment required. As discussed below, revisions to the existing WQOs are necessary to support this AWRM Program element.

Element No. 2 Advanced Treatment at the SCVSD's Valencia WRP

While removal of chloride loading through enhanced source control would help the Saugus and Valencia WRPs comply with revised WQOs a majority of the time, additional chloride reduction would still be necessary for compliance with downstream revised WQOs in Reach 4B, through the construction and operation of a 3 MGD advanced treatment facility, using Micro-Filtration (MF) and Reverse Osmosis (RO) treatment technologies at the Valencia WRP. These facilities would serve four purposes: (1) continuous removal of approximately 3,200 pounds per day of chloride from the WRP effluent; (2) reducing chloride levels in the Santa Clara River in Reach 4B, through discharge of the high quality Valencia RO product water to the Santa Clara River, when necessary to achieve compliance with revised WQOs for this reach; (3) delivering high quality Valencia RO product water to blend with surface water diversions in Reach 4B so that the irrigation water quality is of sufficient quality to protect salt-

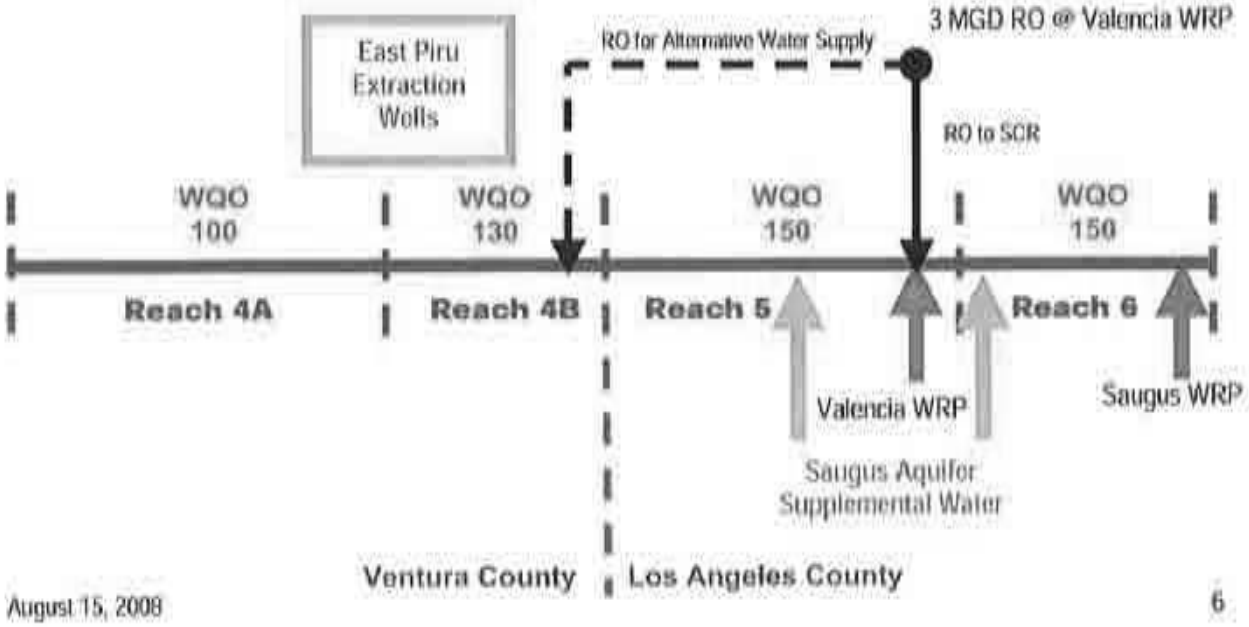
[viii] Imported water supply chloride concentrations have often exceeded 100 mg/L during drought conditions, due to the influence of poor quality imported water supplies delivered from the State Water Project stored at the Castaic Lake Reservoir.

sensitive agricultural uses, when necessary; and (4) providing a salt export and water supply benefit to Ventura County through delivery of the high quality Valencia RO product water to the Ventura County water supply facilities. These facilities and the salt export and water supply benefits associated with these facilities are discussed in greater detail below.

In addition to the advanced treatment facilities, construction of brine disposal facilities to dispose of the brine waste from the RO treatment process via deep well injection would be required. The use of deep well injection becomes a more plausible and sustainable brine disposal option, with a smaller advanced treatment facility, as proposed in the AWRM Program. The brine disposal for a 3MGD MF-RO facility is estimated at 0.5 MGD.

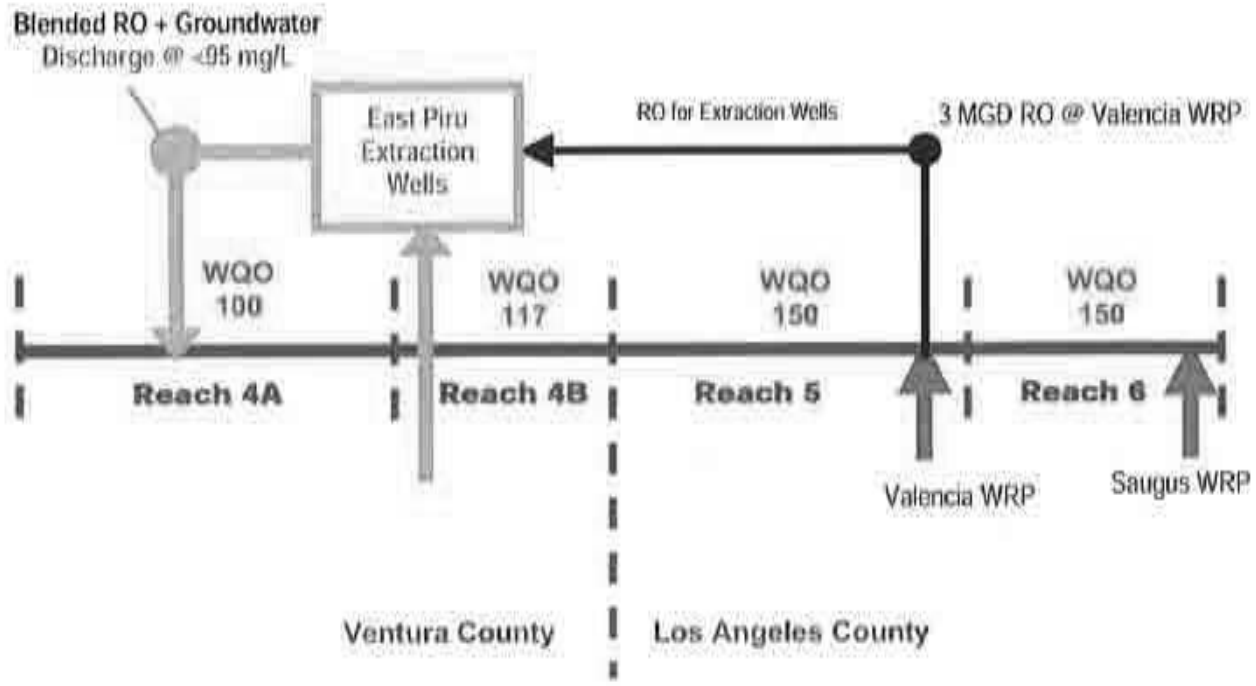
As mentioned above, when necessary, the high quality Valencia RO product water would be discharged directly to the Santa Clara River to reduce chloride levels in the river and comply with revised WQOs. Based on the results of the GSWIM Study, the discharge of Valencia RO product water to the river would occur, when chloride levels in the State Water Project (SWP) water stored in the Castaic Lake Reservoir are greater than or equal to 80 mg/L. The GSWIM study also found that the use of supplemental water released to the Santa Clara River, discussed in more detail below, is needed in certain critical conditions of extreme drought to assure compliance with the revised WQOs in Reach 4B. Finally, a portion of the high quality Valencia RO product water would also be delivered to blend with surface water diverted for irrigation of salt-sensitive agriculture, so that the irrigation water quality is less than 117 mg/L. A schematic of this operational management of the Valencia RO during conditions when the imported SWP exceeds 80 mg/L is presented in Figure 1a.

Figure 1a. AWRM Operation when SWP Cl ≥ 80 mg/L



In conditions when the chloride levels in the SWP water stored in the Castaic Lake Reservoir are below 80 mg/L, the GSWIM Study found that the high quality Valencia RO product water does not need to be discharged to the Santa Clara River to comply with revised WQOs. In fact, the GSWIM study estimates this condition occurs approximately 70% of the time, which then would allow for the high quality Valencia RO product water to be delivered to the Ventura County water supply facilities, in order to blend with high saline groundwater[ix] underlying Reach 4B and produce a blended water supply that can be discharged into the wetted portions of Reach 4A of the Santa Clara River and comply with the existing 100 mg/L WQO for this reach. The discharge of this blended water supply in the wetted reaches of the Santa Clara River, where the "Dry Gap" ends, allows for greater base flow in the river, which ultimately can then be diverted at the Freeman Diversion and increase water supplies for Ventura County. A schematic of this operational management of the Valencia RO deliveries to the Ventura County water supply facilities during conditions when the imported SWP is less than 80 mg/L is presented in Figure 1b.

Figure 1b. AWRM Operation when SWP Cl < 80 mg/L



[ix] The groundwater in Reach 4B has chloride concentrations at 150 mg/L.

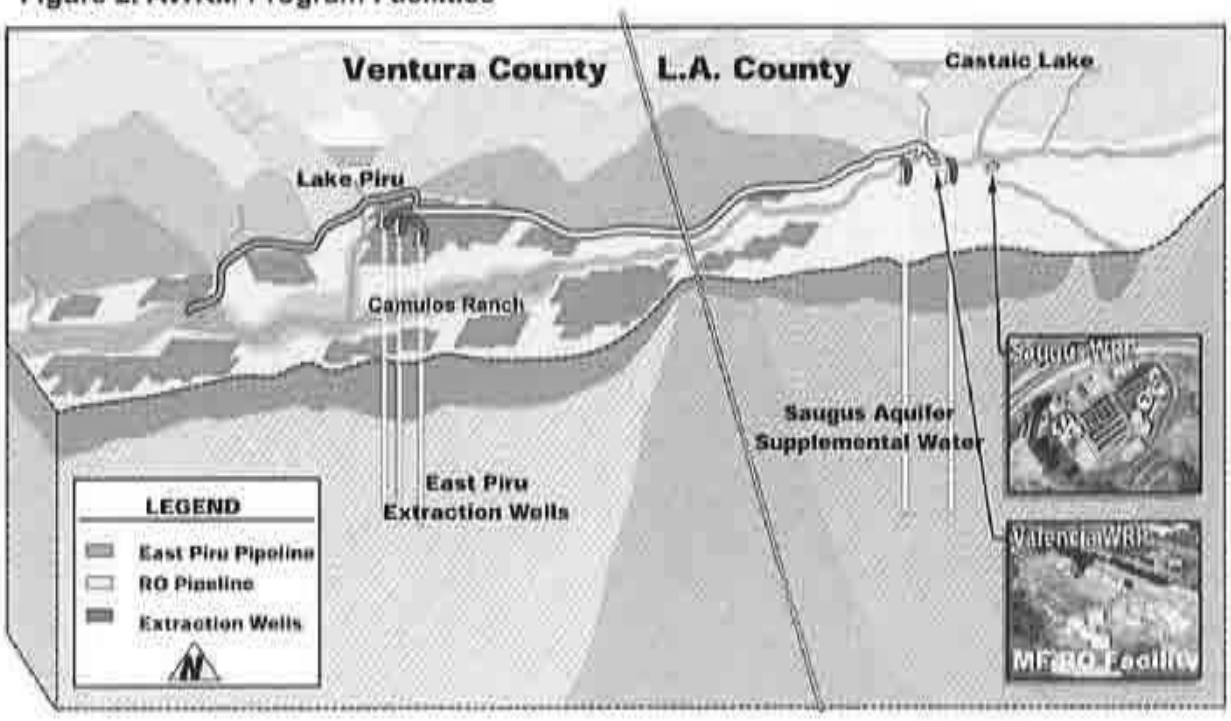
Element No. 3: Procuring Supplemental Water for Releases to the Santa Clara River

Recognizing that conducting environmental studies, permitting, designing and constructing an MF-RO facility at the Valencia WRP will take a significant period of time, the AWRM Program includes a commitment, contingent upon the necessary environmental assessments required under the California Environmental Quality Act, to provide supplemental water from the Saugus Aquifer and/or some other local water resource, to the Santa Clara River as an interim measure prior to completion of the AWRM Program facilities. Additionally, as discussed previously, the GSWIM study found that the use of supplemental water released to the Santa Clara River would be needed during extreme drought conditions to comply with revised WQOs for Reach 4B. These supplemental waters would be delivered through contractual arrangements between the SCVSD and the Upper Basin Water Purveyors.

Element No. 4: Ventura County Salt Export and Water Supply Benefits

In order to export accumulated salt in groundwater and provide the water supply benefits for Ventura County, a key element of the AWRM Program is the construction of the Ventura County water supply facilities, as shown in Figure 2.

Figure 2. AWRM Program Facilities

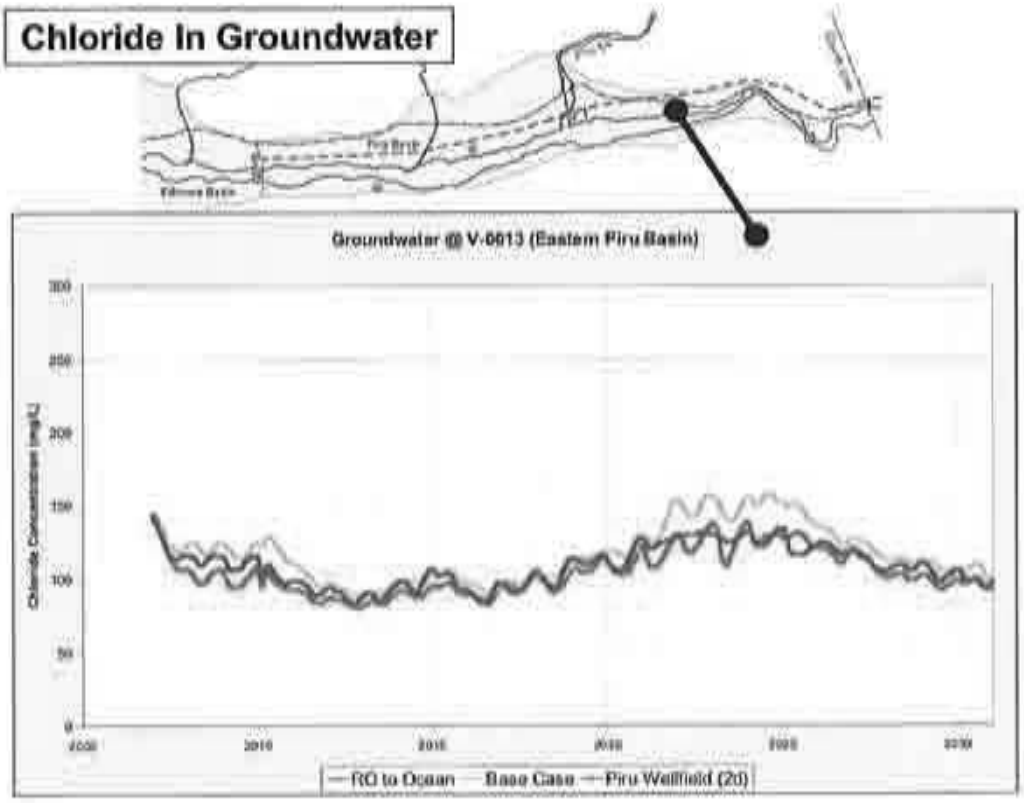


These facilities which would allow for salt export and water supply benefits by blending high quality Valencia RO product water with more saline groundwater in East Piru, to develop a

blended water supply that is less than 95 mg/L in chloride. The Ventura County water supply facilities would be comprised of the following: (1) 10 groundwater extraction wells in the East Piru groundwater basin; (2) a 12-mile RO product water conveyance pipeline from the Valencia WRP to the East Piru extraction wells; and (3) a 6-mile conveyance pipeline for the blended East Piru groundwater and Valencia WRP RO product water (East Piru Pipeline) for discharge to Reach 4A of the Santa Clara River, downstream of the "Dry Gap."

Collectively, these facilities would be utilized for water supply and salt export benefits. Through the blending of high quality Valencia RO product water with more saline groundwater underlying Reach 4B, a new blended water supply can be developed and managed, which will not only export salt accumulated in groundwater in the East Piru basin, but comply with downstream surface water WQOs in Reach 4A, and increase water supplies in Ventura County. In addition, the extraction of more saline groundwater underlying Reach 4B, will allow for greater recharge of high quality storm flows in the SCR, which are typically low in chloride, lowering chloride levels in the groundwater. The reduction in chloride levels associated with AWRM Program, identified as "Piru Wellfield (Option 2d)," is presented in Figure 3.

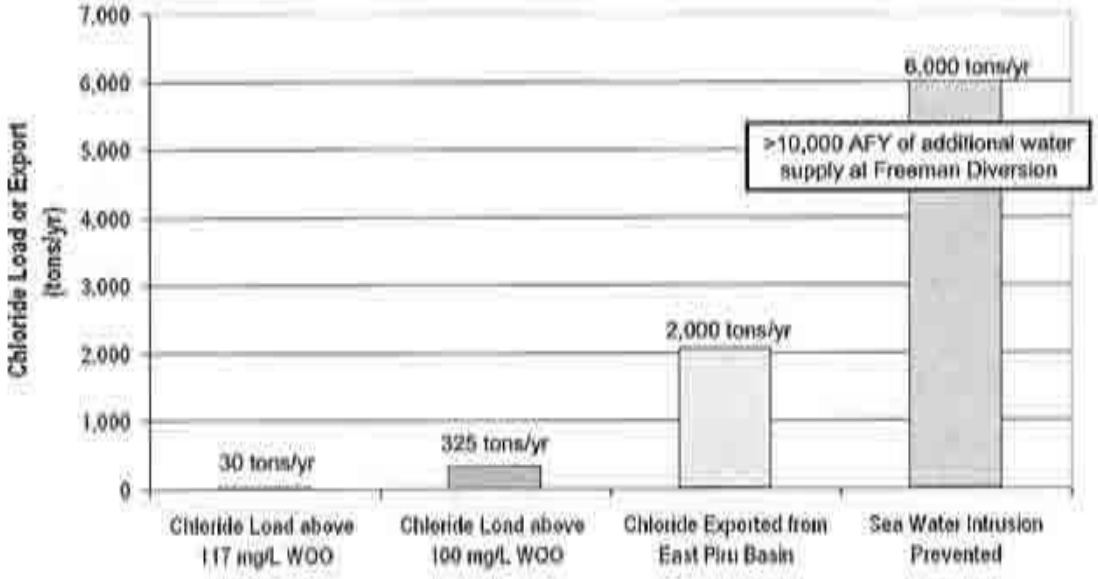
Figure 3. Chloride in Groundwater in East Piru



Source: Bachman, Steve. 2008. *Alternative Water Resources Management Program-Effects in Ventura County*. June 2008.

The salt export from East Piru Basin and resultant reduction in saltwater intrusion provided by the increased water supply benefits, vastly outweigh the incremental loading above the WQO that occurs during extreme drought conditions, when SWP chloride levels are elevated.[x] A comparison of the yearly excess chloride loading above the existing (100 mg/L) and revised (117 mg/L) WQOs in Reach 4B, with the yearly chloride export through the extraction wells and prevention of saline intrusion are shown in Figure 4.

Figure 4. Chloride Balance with the AWRM Program



Element No. 5: Protection of Salt-Sensitive Agricultural in Reach 4B

The AWRM Program recognizes that chloride levels in Reach 4B of the Santa Clara River may exceed the protective range for salt sensitive agriculture of 100 - 117 mg/L chloride, as determined by the Ag. Study, discussed previously. In order to protect this salt sensitive agricultural beneficial use along Reach 4B of the SCR, the AWRM Program proposes to protect surface water diverters along this reach of the SCR with a suitable alternative water supply, when chloride concentrations in surface water exceed 117 mg/L making surface water quality unsuitable for the direct irrigation of salt-sensitive crops with surface water. Alternative water supplies of will be provided to temporarily protect salt-sensitive agricultural uses in Reach 4B, through the delivery of high quality RO product water to blend with Reach 4B surface water

[x] Imported water supply chloride concentrations have often exceeded 100 mg/L during drought conditions, due to the influence of poor quality imported water supplies delivered from the State Water Project stored at the Castaic Lake Reservoir.

diverted for irrigation of salt-sensitive crops, so that the blended irrigation water quality is 117 mg/L or less. The use of alternative water supplies allows for the full protection of beneficial uses, during temporary and intermittent periods when water quality due to extreme drought conditions does not support those beneficial uses.

Element No. 6: Support for Expansion of Recycled Water Uses in the Santa Clarita Valley

The AWRM Program includes provisions to support recycled water uses in the Upper Basin Water Purveyor service areas. Increasing recycled water uses in the Santa Clarita Valley, will not only improve water supply reliability in the area, but also, reduce the chloride loading directly discharged to the Santa Clara River From the WRP discharges.

Element No. 7: Revisions to WQOs to support the AWRM Program

As indicated above, the feasibility of the AWRM Program is dependent upon revising the existing water quality objectives for surface water and groundwater to various levels that support the different elements of the AWRM Program. A summary of the recommended WQO revisions for surface water and groundwater, in support of the AWRM Program, were previously presented in Table 1. Through revision of these surface water and groundwater WQOs, the amount of advanced treatment required to achieve compliance with these WQOs is significantly reduced, which allows for the disposal of brine wastes generated from the RO processes through deep well injection as opposed to the construction of a 43-mile brine line and ocean outfall. In addition, the revision of these WQOs would better facilitate the permitting of recycled water uses in the Santa Clarita Valley, which will improve water supply reliability in the area, and reduce the chloride loading from recycled water that can now be beneficially reused, as opposed to directly discharged to the Santa Clara River. Ultimately, the cumulative benefits of the AWRM Program elements will improve water quality in surface water and groundwater, improve water supplies to Ventura County, protect all beneficial uses, and reduce the amount of advanced treatment and associated brine disposal needed for compliance.

Implementation Tasks and Responsibilities for the AWRM Program

The SCVSD will be the lead agency for the development of a Programmatic Environmental Impact Report (PEIR) to assess the AWRM Program, and if appropriate, certify the PEIR, make CEQA findings, and approve the project. The SCVSD has the principal responsibility for carrying out and implementing the AWRM Program, because it is a necessary program to comply with the Upper Santa Clara River Chloride TMDL. In addition to the PEIR, the SCVSD will conduct a Facilities Plan for the necessary wastewater treatment facilities

associated with AWRM Program (i.e. UV Disinfection, MF-RO Facilities and Brine Disposal Facilities). The United Water Conservation District (or another agency in Ventura County with water supply responsibilities) will become the lead agency responsible for conducting Project Level EIR / CEQA Assessments to implement the Ventura County water supply facilities associated with AWRM Program (i.e. Conveyance pipelines, East Piru extraction wells, and East Piru pipeline). Finally, the Upper Basin Water Purveyors/SCVSD will identify a lead agency for the purpose of conducting Project-Level EIR / CEQA Assessments to utilize and deliver supplemental water to achieve compliance on an interim and long-term basis for the AWRM Program. Figure 5 is a schematic that defines the proposed agency roles and responsibilities for implementing the necessary planning elements of the AWRM Program. Figure 6 is a preliminary implementation schedule associated with various, planning, design and construction activities required to implement the AWRM Program. The AWRM Program will achieve compliance with the schedule deadlines associated with TMDL Tasks 13a, 13b, 13c and 13d of the Upper Santa Clara River Chloride TMDL.

Figure 5. AWRM Program Implementation by SCVSD, United Water and Upper Basin Water Purveyors

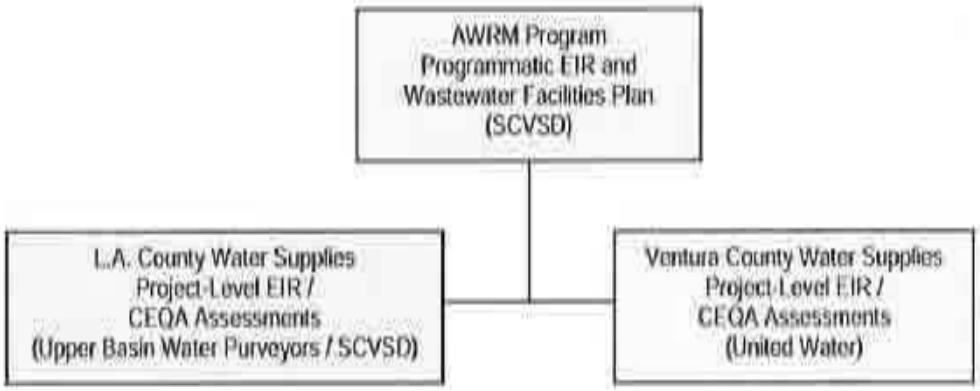


Figure 6. Alternative Water Resources Management Program Implementation Schedule

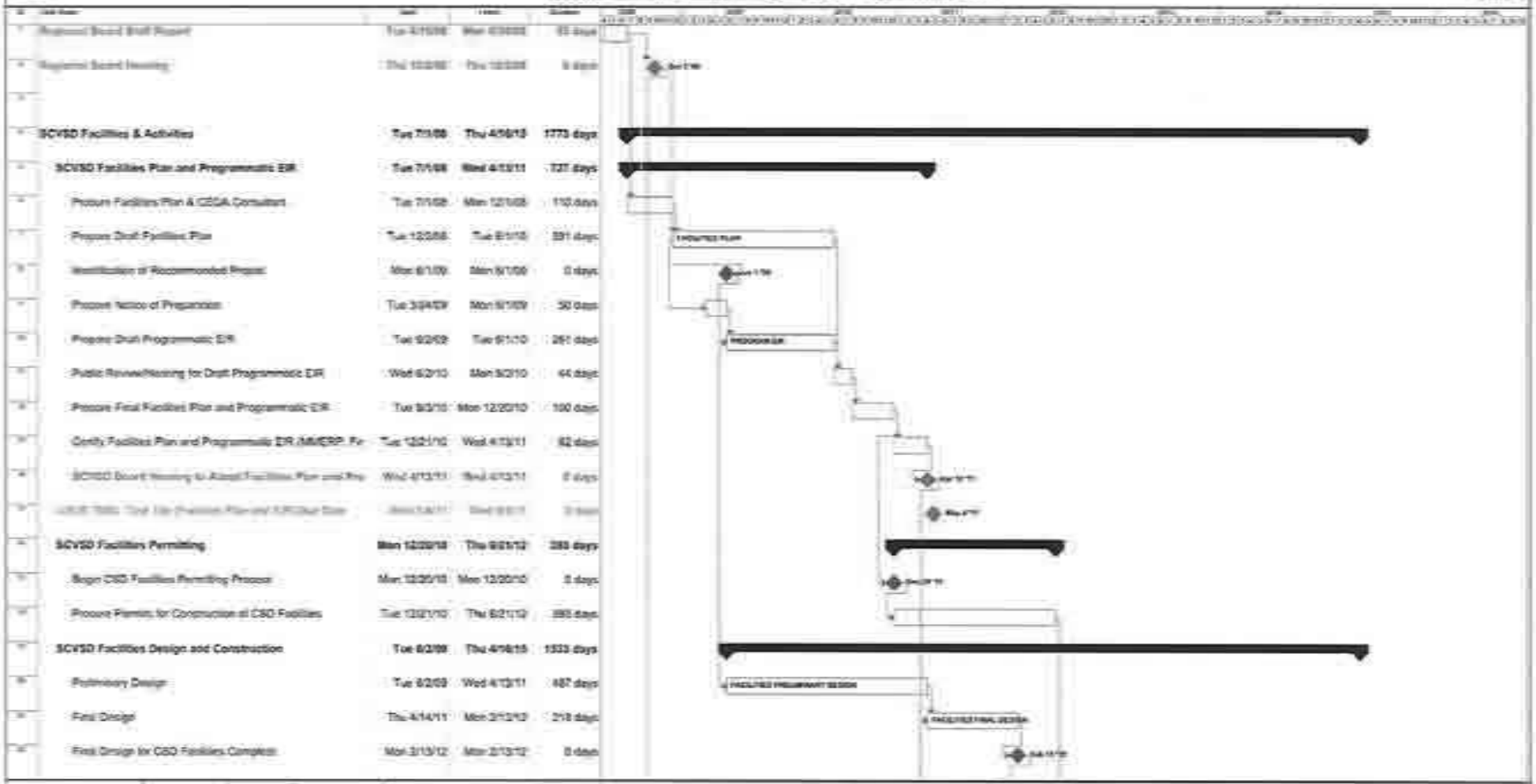


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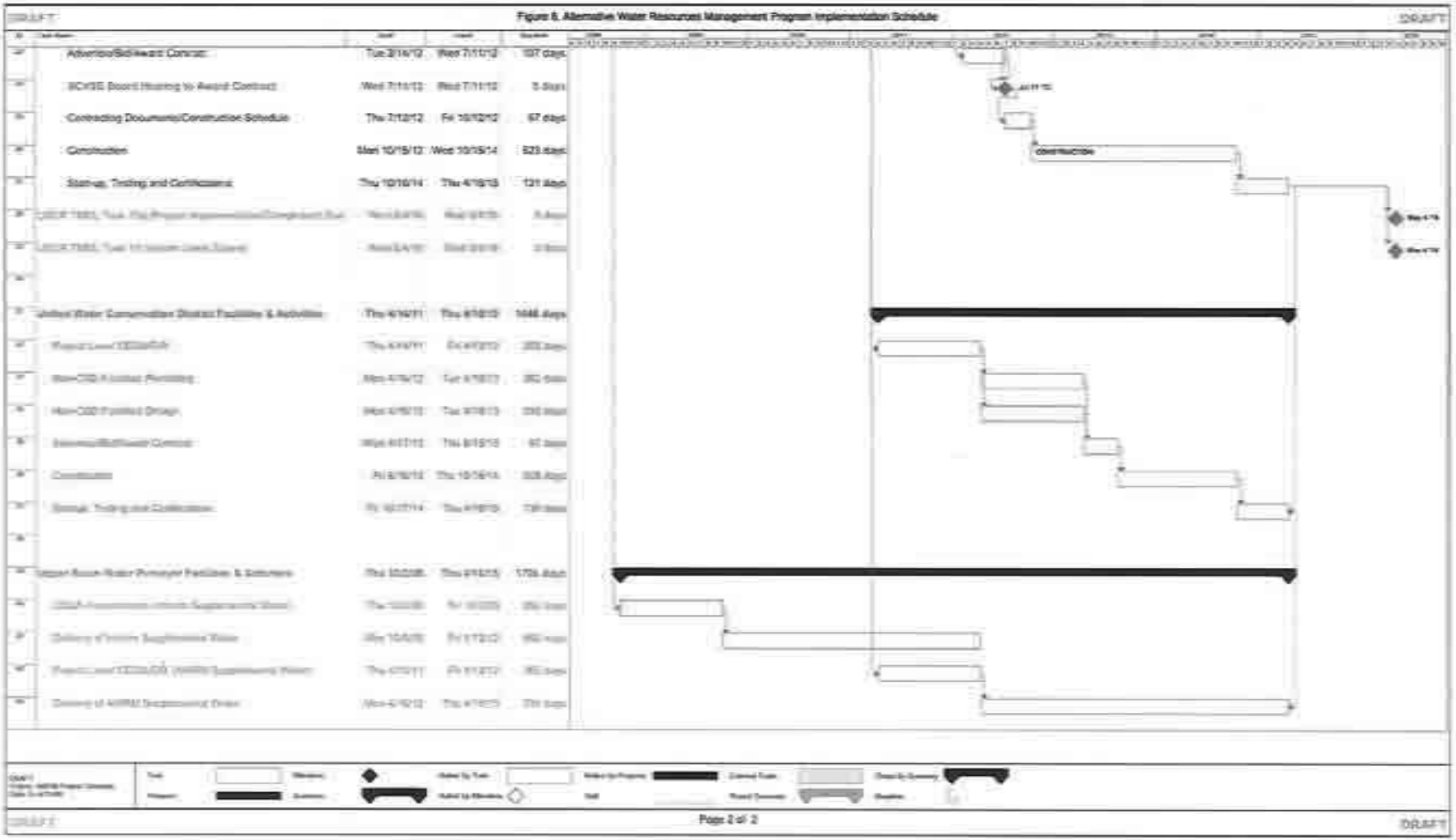
Figure 6. Alternative Water Resources Management Program Implementation Schedule



DRAFT

FOX CANYON GROUNDWATER MANAGEMENT AGENCY

RECEIVED

December 24, 2001

Los Angeles County Board of Supervisors
C/O Ms. Joanne Sturges, Executive Officer
Room 383
500 W. Temple Street
Los Angeles, CA 90012

Subject: **Final Additional Analysis and Staff Report (Water Resources) for the Newhall Ranch Specific Plan FEIR DATED October 2001**

Dear Members, Board of Supervisors:

The subject report addresses the utilization of agricultural water, state project water and reclaimed water to support a demand of 17,680 acre feet for the subject project. Additional sources of ASR banking, water from Kern Water Bank and flood flows have also been identified as potential supplies. The Fox Canyon Groundwater Management Agency (FCGMA) has reviewed the Staff Report and the Final Additional Analysis for the Newhall Ranch Specific Plan and provides the following comments:

Irrigation Water. The applicant proposes to transfer the irrigation water previously used by Newhall Ranch to be used as a supply for the Newhall Ranch Development. We concur that the agricultural irrigation water used on parcels that will be taken out of service and become part of the Newhall Ranch Project represent an existing use and can therefore be shown as a source of water for the project. This only applies to the parcels that are within the boundary of this project. We agree that this is a valid supply and we agree that the existing use can be reasonably determined by applying the California Irrigation Management Information System (CIMIS) formula. However, we believe that additional accuracy is required. The FCGMA uses CIMIS as one means of managing the groundwater within its boundary. Due to this employment of CIMIS, the FCGMA has an indepth awareness of the detailed requirements necessary to determine the quantity of irrigation water used by various crop types. The following comments apply to the use of CIMIS: 1

1. The rainfall was not accounted for in the calculation of water use. Evapotranspiration (Et) values represent the water needed by a crop type. When there is rainfall the amount of rainfall that deep percolates supplies part of the total water required for that period. This part of the needed supply would not have been drawn from groundwater. The applicant made no provision to include rainfall. This inflates the water use. 2
2. The calculated irrigation water use included an additional arbitrary factor of 60% or 70% for soil type and irrigation method that is not part of the CIMIS formula. This factor inflates the water use. 3
3. Et is applicable to irrigated acreage. The calculated value did not explain how the acreage was determined. Experience from the FCGMA has shown that the acreage is typically overstated by 10 to 20% by simply using the parcel size and not deducting areas not irrigated. 4

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Web sites: www.foxcanyongma.org or www.ventura.org/pwa/fcgma

4. There was no description of the irrigated agricultural properties. It is assumed that the irrigation water to be transferred to supply the demand for the project is currently being used on properties that are within the project boundary. Due to difficulties of monitoring and control, we do not concur with the use of irrigation water from any area not within the project boundary. 5

If the property currently receiving the irrigation water is within the project boundary, Table 1 shows a more accurate calculation of the irrigation water used. To construct Table 1., a crop factor of 1.0 was used since there is no detailed explanation of the crops actually grown. This favors the applicant. An effective rainfall of 25% of the approximately 16 inch annual average rainfall was applied.

Table 1.

Year	Crop	Acres	Et	Rain	Crop Factor	AF	Sub Totals
2000	Alfalfa	55	62.21	4	1	266.2958	
	Sudan/pasture	150	62.21	4	1	727.625	
	Veg. Row crop	722	62.21	4	1	3502.302	4496.223
1999	Alfalfa	55	63.08	4	1	270.7833	
	Sudan/pasture	150	63.08	4	1	738.5	
	Veg. Row crop	709	63.08	4	1	3490.643	4499.927
1998	Alfalfa	115	56.39	4	1	502.0708	
	Sudan/pasture	100	56.39	4	1	436.5833	
	Veg. Row crop	663	56.39	4	1	2894.548	3833.202
1997	Alfalfa	160	61.34	4	1	764.5333	
	Sudan/pasture	103	61.34	4	1	492.1683	
	Veg. Row crop	663	61.34	4	1	3168.035	4424.737
1996	Alfalfa	105	61.28	4	1	501.2	
	Sudan/pasture	170	61.28	4	1	811.4667	
	Veg. Row crop	537	61.28	4	1	2563.28	3875.947
	Average						4226.107

6

The irrigated acreage was not changed nor was there an additional factor employed to account for soil type and irrigation method. It is believed that, even though the average annual use is considerably less, Table 1. shows a reasonable accommodation of the proposed methodology while still relating to CIMIS concept.

The agricultural water available for transfer to the new project is on the order of 4200 to 4300 acre feet per year. If the water is used, then recycled, approximately 50% to 80% of the water can be recovered depending upon the treatment selected. Using the maximum of 80% would result in a supply of 3440 acre feet available for irrigation. This would then make up a total supply of 4300+3440 = 7740 acre feet. Adding the 3691 acre feet of reclaimed water from CLWA would bring the total excluding imported water to 7740+3691 = 11431 acre feet. The balance of water needed can then be supplied by imported water 7

(New Imported Water 17580-11431 = 6249 Imported water would be any water obtained from a source not in hydrologic continuity with the Santa Clara River (e.g. water stored in the Kern Water Bank) 7

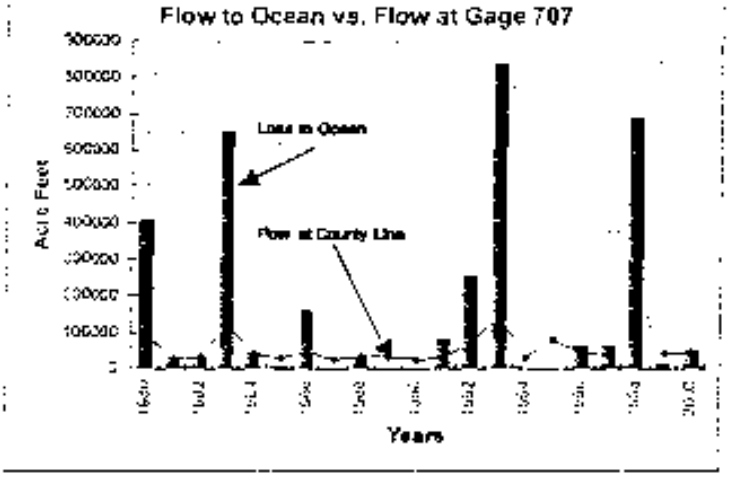
Regarding the ASR project. The ability of the Saugas Aquifer to function under storage and recovery operations has been shown by testing and is no longer a point of contention. However, the lack of calibration to transient conditions is still questioned. 8

The applicant addressed the impacts to Ventura County by comparing the existing and future flows at the County line during wet periods and dry years. Constructing a model calibrated to steady state conditions facilitated a conclusion that the net water flowing into Ventura County would be increased. There are two problems with this procedure; 1) the steady state model selected, and 2) the analysis using a net flow criterion.

1) The problem with the model produced by the additional analysis is that a steady state solution was used to determine the effects of the injection/extraction. Since the pumping and recharge to the aquifer varies over time, the model used to portray the system must have the ability to incorporate the changing environment to which it is exposed. The effects to an aquifer result in different pressures in the aquifer. These pressures are called heads. Steady state solutions are useful to determine the relative difference in heads due to drawdown from pumping, but they do not produce the absolute value of the head. The absolute value of the head is the true pressure in the aquifer and the pressure that produces the gradient that is used to determine the potential for flow (in this case flow into Ventura County). Steady state conditions do not incorporate regional flow caused by regional head gradients and are not appropriate to represent systems that change over time. To determine the effects of time dependent influences, a transient model is required. The difference between a transient model and a steady state model is that a steady state model generates one set of heads and a transient model produces a set of heads for each time period. 9

The proponent's response to this problem contended that one steady state pressure head was compared to a new steady state pressure head thereby eliminating the necessity for transient calibration. This is inaccurate for two reasons; 1) the steady state model does not apply to a system constantly under going changes, and 2) because the question of concern is the absolute value of the pressure head, not the relative difference between two heads.

Figure 1.
Flow to Ocean vs. Flow at Gage 707



10

The analysis of the results of the model is also inaccurate because increasing the water crossing the County line at USGS Gauging Station Number 707 during a wet year does not contribute to recharge and

consequently has no value. This happens because river water is already being lost to the ocean. **Figure 1.** shows the water lost to the ocean in wet years as compared to river flow. It is easy to see that any time there is increased flow at the County Line there is an even greater loss to to the ocean during that same period. This leads to discounting the potential benefit of additional water during wet years. 10

An adequate model of the river system is complicated and difficult. However, a solution that would be adequate consists of injecting 9000 acre feet before the first 4100 acre feet is extracted. Thereafter an injection of 4500 acre feet may be followed by an extraction of 4100 acre feet without damage to downstream flows. This solution adds an additional 4500 acre feet to the Saugas Aquifer that is never removed. 11

In summary, there are three problems:
1) The calculation of the agricultural water used.
2) The type of model selected for analysis.
3) The wet year/dry year analysis.

All three of these issues can be resolved by:
1) Limiting the groundwater use to the 4300 acre feet that is available from the current agricultural irrigation water.
2) Increasing the imported water to 6249 acre feet. (State water or water stored in a location not hydrologically connected to the Santa Clara River)
3) Injecting 9000 acre feet during the first year of the ASR program and subsequently withdrawing 4100 acre feet as proposed. After the first year, 4500 acre feet could be added and 4100 acre feet extracted. 12

It is requested that this letter be made a part of the Administrative Record.

Very truly yours,

Lowell Preston, Ph.D.

cc: Lee Stark, Los Angeles County Planning Department, 320 Temple St., Los Angeles Ca 90012

State of California
California Regional Water Quality Control Board, Los Angeles Region

RESOLUTION NO. 2005-002
January 27, 2005

Reiteration of Existing Authority to Regulate Hydromodifications within the Los Angeles Region, and Intent to Evaluate the Need for and Develop as Appropriate New Policy or Other Tools to Control Adverse Impacts from Hydromodification on the Water Quality and Beneficial Uses of Water Courses in the Los Angeles Region

WHEREAS, the California Regional Water Quality Control Board, Los Angeles Region, finds that:

1. Protecting beneficial uses within the Los Angeles Region consistent with the Federal Clean Water Act and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) requires careful consideration of projects that result in hydrogeomorphic changes and related adverse impacts to the water quality and beneficial uses of waters of the State. The alteration *away from a natural state* of stream flows or the beds or banks of rivers, streams, or creeks, including ephemeral washes, which results in hydrogeomorphic changes, is generally referred to in this resolution as a hydromodification.

2. This resolution is intended to reiterate the existing authority the Regional Board relies upon to regulate hydromodifications within the Los Angeles Region. As such, it has no regulatory effect. This resolution represents a initial step in the process of first, heightening awareness about the potential impacts of hydromodification on water quality and beneficial uses and evaluating existing laws and regulations and the current methods employed by Regional Board staff when reviewing proposed hydromodification projects and, second, strengthening, if necessary, controls and policies governing hydromodifications that negatively affect water quality and beneficial uses. As a first step, it sets forth a process to achieve one of the Regional Board's highest priorities, which is to maintain and restore, wherever feasible, the physical and biological integrity of the Region's water courses. Secondarily, maintaining the natural functions of water courses maximizes opportunities for stormwater conservation and groundwater recharge, which is very important in the semi-arid Los Angeles region where groundwater makes up half of the Region's water supply.

3. In addition to the process outlined in this resolution, the Regional Board has and will continue to strongly support restoration efforts in and along the Region's urbanized, highly modified water courses. The Regional Board also strongly supports preservation efforts geared toward ensuring long-term protection for the Region's remaining natural water courses.

4. Section 101(a) of the Clean Water Act, sets forth a national objective "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." (33 U.S.C. § 1251(a).) Chapter 1 of the Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan) recognizes this national goal and specifies that the Basin Plan is designed to implement the Clean Water Act and its goals. As a result, a regional priority of maintaining and restoring, wherever feasible, the physical and biological integrity of the Region's water courses is firmly grounded in federal and state law.

5. To realize this objective, the Clean Water Act (33 U.S.C. § 1313(c)) and federal regulations (40 C.F.R. § 131.10(a)) direct States to specify appropriate designated uses to be achieved and protected. The classification of the waters of the State must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial and other purposes including navigation. The standards must explicitly be designed to "protect the public health or welfare and enhance the quality of the water." (33 U.S.C. § 1313(c).)

6. The Basin Plan designates the beneficial uses of the Region's water bodies consistent with the California Water Code, federal Clean Water Act, federal regulations, and with the national "fishable/swimmable" goal of the CWA forming the broad basis for the beneficial use designations of surface waters throughout the Region. Some of the beneficial uses most benefited by preserving water courses in a natural state include aquatic life [WARM and COLD among others], wetland habitat, and groundwater recharge. In addition, the Basin Plan establishes water quality objectives for the protection of these beneficial uses. An important provision of the Basin Plan, which is required by federal law (40 C.F.R. § 131.12) and state law (SWRCB Resolution No. 68-16), is an anti-degradation policy designed to maintain existing, high quality waters. The beneficial uses of water bodies, water quality objectives and anti-degradation policies, together, constitute a State's water quality standards.

7. The Regional Board primarily relies upon a three-pronged approach to regulating hydromodifications. The first two are (1) waste discharge requirements issued pursuant to Water Code section 13263 and waivers issued pursuant to Water Code section 13269 to protect waters of the State and (2) certifications issued in accordance with Clean Water Act section 401 to protect waters of the U.S. These two approaches are not mutually exclusive. (Cal. Code Regs., tit. 23, § 3857.) The third prong consists of municipal stormwater permits issued pursuant to section 402 (p) of the Clean Water Act to address stormwater related problems including stormwater quality and increased flows.

8. "Waters of the State" include all waters of the U.S. In addition, waters of the State include waters that are not "navigable waters" under the federal Clean Water Act, including certain intermittent and ephemeral streams, wetlands, lakes, reservoirs, and other isolated non-navigable waters.

9. Human civilization has attempted to alter the environment through hydromodifications for centuries. In the Los Angeles Region, beginning in the early part of the 20th century, hydromodifications were constructed by public agencies to protect residents from floods and to collect and conserve stormwater for drinking water purposes and recreation. In addition, extensive urban development, and the corresponding increase in impervious area within the watershed and decrease in the width of natural floodplains, has often resulted in significantly altered patterns of surface runoff and infiltration and, consequently, stream flow. This, in turn, has necessitated further in-stream hydromodification in order to stabilize banks and constrain the stream to the channel to prevent flooding. The sequence of events is discussed extensively in the Basin Plan and in the Regional Board's municipal storm water permit for Los Angeles County. (Regional Board Order No. 01-182.)

10. Many hydromodifications were undertaken with laudable goals often for public safety and welfare, but have later been shown to de-stabilize and enlarge stream channels as well as degrade habitat and reduce species abundance and diversity. As a result, when reviewing

hydromodification projects it is important to carefully consider whether the immediate improvements sought are designed in such a way as to avoid unintended adverse consequence on the character of the receiving water and its beneficial uses in the vicinity, and downstream of the hydromodification.

11. Activities that alter natural *stream flows* may include increasing the amount of impervious land area within the watershed, altering patterns of surface runoff and infiltration, and channelizing natural water courses. Activities that alter the natural *stream channel* include but are not limited to human-induced straightening, narrowing or widening, deepening, lining, piping/under-grounding, filling or relocating (i.e. channelization); bank stabilization; in-stream activities (e.g. construction, mining, dredging); dams, levees, spillways, drop structures, weirs, and impoundments.

12. Hydromodifications may impair beneficial uses such as warm and cold water habitat, spawning habitat, wetland habitat, and wildlife habitat in a variety of ways. Modifications to stream flow and the stream channel may alter aquatic and riparian habitat and affect the tendency of aquatic and riparian organisms to inhabit the stream channel and riparian zone. As a result of these hydromodifications, the biological community (aquatic life beneficial uses) may be significantly altered, compared to the type of community that would inhabit an unaltered, natural stream.

13. For example, channelization usually involves the straightening of channels and hardening of banks and/or channel bottom with concrete or riprap. These modifications may impair beneficial uses by disturbing vegetative cover, removing habitat; modifying or eliminating instream and riparian habitat; degrading or eliminating benthic communities; increasing scour and erosion as a result of increased velocities, and increasing water temperature when riparian vegetation is removed. The regular maintenance of modified channels may impair beneficial uses by disturbing instream and riparian habitats if not managed properly. These modifications may also, if not managed properly, impair beneficial uses by depriving wetlands and estuarine shorelines of enriching sediments or by excessive deposition in downstream environments; changing the ability of natural systems to both absorb hydraulic energy and filter pollutants from surface waters; and altering habitat for spawning and other critical life stages of aquatic organisms. Hardening of channels may also eliminate opportunities for groundwater recharge in some areas. Furthermore, some hydromodifications may reduce recreational opportunities and may reduce the aesthetic enjoyment of people engaged in recreation in and around the water body.

14. As a result of past hydromodifications, there are few natural stream systems remaining in the region. Water bodies that have not undergone extensive hydromodification such as portions of the Santa Clara River, upper San Gabriel and Los Angeles Rivers, Malibu Creek, Topanga Canyon, coastal streams in the Santa Monica Mountains, and tributaries to these larger rivers provide immeasurable benefits to the Region. These benefits include high quality warm and cold-water aquatic habitat, spawning habitat, migratory pathways, wildlife corridors, wildlife and riparian habitat, wetland habitat, recreational and aesthetic enjoyment, and groundwater recharge. Yet, many of these water bodies and their tributaries continue to be threatened by expanding urban development.

15. The Regional Board acknowledges that there is a wide array of hydromodification projects. Some result in positive environmental impacts such as stream restoration projects. Others result in negligible or temporary adverse environmental impacts if managed properly. These may include widening bridges and installing flow measuring devices, such as weirs, or energy

dissipating devices where a constructed channel meets a natural channel. On the other end of the continuum are large hydromodification projects or multiple projects with cumulative impacts that permanently alter the hydrologic and ecological functions of a stream and, thus, adversely affect the beneficial uses described above. These include, but are not limited to, projects that bury natural stream channels, channelize natural water courses, or involve instream activities such as mining or construction. Regional Board staff evaluates the severity of adverse environmental impacts on a project-by-project basis.

16. The Regional Board recognizes that maintenance activities are required in modified channels in order to ensure continued flood protection and vector control. The Regional Board has authorized such activities through the issuance of Section 401 certifications in the past and would expect to continue to authorize such activities. The Regional Board also recognizes that maintenance activities may need to be carried out on an emergency basis due to various exigencies, including brush fires and flooding. The Board through the issuance of Section 401 certifications has also authorized these emergency maintenance activities. Nothing in this resolution is intended to alter the ability of these local agencies to continue ongoing maintenance activities.

17. The Regional Board also recognizes the value of the spreading grounds that have been constructed along many of the Region's larger water courses. These spreading grounds serve a valuable function by recharging storm water into the Region's groundwater to bolster local water supplies. Nothing in this resolution is intended to alter the ability of local and regional agencies to conserve stormwater within existing regulations with the goal of increasing local water supplies.

18. The Regional Board and local agencies have undertaken or sponsored hydromodification field assessments and studies to develop peak flow design criteria to minimize or eliminate adverse impacts from urbanization for water courses in the counties of Ventura and Los Angeles. These studies include the 'Urbanization and Channel Stability Assessment in the Arroyo Simi Watershed of Ventura County, CA' (2004), and the 'Peak Impact Discharge Study' sponsored by the County of Los Angeles, which is in progress. The results from these studies will be used to develop objective criteria to reduce or eliminate the adverse impacts of hydromodification in the Los Angeles Region from new development and redevelopment.

19. Though the Regional Board does not have authority to regulate land use, the Regional Board strongly encourages land use planning agencies and developers to carefully consider, early in the development planning process, the potential impacts on water quality and beneficial uses of hydromodification projects proposed as part of new development. The Regional Board strongly discourages direct hydromodification of water courses except in limited circumstances where avoidance or other natural alternatives are not feasible. In these limited circumstances, project proponents must clearly demonstrate that a range of alternatives, including avoidance of impacts, has been thoroughly considered, hydromodification has been minimized to the extent practicable, and adequate in situ and/or off site mitigation measures have been incorporated to offset related impacts. Project proponents must also document that there will be no adverse effects to water quality or beneficial uses. This approach is consistent with the California Environmental Quality Act (CEQA), federal regulations and State and federal antidegradation policies.

20. Chapter 4 of the Basin Plan, "Strategic Planning and Implementation", outlines the suite of regulatory tools available to the Regional Board to maintain and enhance water quality. One of these tools is the 401 Certification Program. This federally required program regulates

most hydromodification projects to ensure that the projects will not violate State water quality standards of which beneficial uses are an essential component. Section 401 Certifications may include conditions to minimize impacts from hydromodification activities by implementing Best Management Practices such as working in the dry season or out of the water, among many others. Certifications may also include monitoring requirements in order to ensure that the project is completed as specified and any proposed mitigation is successful.

21. Under section 401 of the Clean Water Act, the State Water Resources Control Board and the Regional Boards have a time limit as prescribed by applicable laws and regulations, from the receipt of a complete application, to certify that a project will comply with applicable state water quality standards prior to issuance of a federal 404 dredge and fill permit for any activity that may result in a discharge to a surface water of the United States. In the event that a project will not comply with applicable water quality standards, even with all conditions proposed, then the certification may be denied. (Cal. Code Regs., tit. 23, § 3837, subd. (b).)

22. Under section 402 (p) of the federal Clean Water Act, the State Water Resources Control Board and the Regional Boards are required to issue storm water permits to owners and operators of municipal separate storm sewer systems (MS4s). On a permit-by-permit basis, MS4 permits may identify storm water-related problems and include provisions requiring municipalities to implement measures to reduce adverse impacts of hydromodification, primarily increased flows, on beneficial uses.

23. Under separate authority granted by State law (see Article 4 (commencing with section 13260) of Chapter 4 of the Porter-Cologne Act), a Regional Board may regulate discharges of dredge or fill materials as necessary to protect water quality and the beneficial uses of waters of the State by issuing or waiving waste discharge requirements, a type of State discharge permit. For projects that may result in a discharge to a surface water of the U.S., waste discharge requirements may be issued in addition to the 401 certification. (Cal. Code Regs., tit. 23, § 3857.) Issuance of waste discharge requirements may be the only option for the Regional Board in situations where the proposed discharge is to waters of the state (e.g. isolated waters, vernal pools, etc.) rather than waters of the U.S., or in situations where the federal agency does not claim jurisdiction. All discharges of waste, including dredged and fill material, to waters of the State are privileges and not rights.

24. With certain exceptions, the California Environmental Quality Act (CEQA) requires the preparation of environmental documents for all projects requiring certifications by the state or state-law-only waste discharge requirements from the Regional Board. Hydromodification activities discussed above that require certification under section 401 of the Clean Water Act or that require waste discharge requirements for dredging and filling of State waters may be subject to CEQA. For projects that may have a significant effect on the environment that cannot be mitigated, an environmental impact report must be prepared that requires consideration of feasible alternatives to the project. (Pub. Resources Code, § 21061.)

THEREFORE, be it resolved that

1. Maintaining and restoring, where feasible, the physical, chemical and biological integrity of the Region's watercourses is one of the Regional Board's highest priorities.

This resolution reiterates existing law and regulatory requirements and current staff practices. As such, it has no regulatory effect. However, the Regional Board directs staff to undertake a two-step process to evaluate and consider further action to control adverse impacts from hydromodification. During this process, staff is directed to involve stakeholders and regulatory agencies with jurisdiction, consistent with the requirements of the Porter-Cologne Water Quality Control Act. The first step shall be an evaluation process and shall address, at a minimum, the following:

- Prioritization for control of those hydromodification activities that cause the greatest adverse effects on water quality and beneficial uses;
- Evaluation of existing regulation of hydromodification as defined herein;
- Consideration, in light of the existing regulatory scheme, of issues affecting the Board's ability to achieve its identified objectives;
- Consideration of existing legal authorities for Board actions;
- Consideration of staff resources; and
- Evaluation and identification of the best regulatory means available to the Board and the other agencies with jurisdiction to fulfill Board objectives.

The second step shall involve, as necessary based on the above evaluation, proposals for Board consideration of actions, including without limitation educational campaigns, memoranda of understanding with other regulatory agencies, adoption of new guidance, additional municipal stormwater permit requirements or further Basin Plan amendments as necessary to address gaps in existing hydromodification control in order to maximize the Regional Board's authority to ensure that a hydromodification project does not adversely affect water quality or degrade beneficial uses of those waters.

2. Given the priority set forth in paragraph 1, the Regional Board reaffirms that the Executive Officer will only issue a certification pursuant to Clean Water Act section 401 with adequate documentation (i) that the project will comply with applicable water quality standards, including antidegradation policies, and (ii) if necessary, that adequate analysis of a range of alternatives has been performed consistent with federal regulations, the California Environmental Quality Act, and antidegradation requirements.

3. Furthermore, given the significant potential adverse impact of large-scale or multiple hydromodification projects, the Regional Board reaffirms that the Executive Officer may at his discretion choose to bring a proposed project before the Board for direction prior to certification or recommend waste discharge requirements for the proposed project, which would be subject to Board approval.

4. Given the priority set forth in paragraph 1, the Regional Board reaffirms that it will only issue waste discharge requirements with adequate documentation (i) that the WDR will implement any relevant water quality control plan, including the water quality standards contained therein, and (ii) that adequate analysis of a range of alternatives, where an alternatives analysis is required, has been performed consistent with the Porter-Cologne Water Quality Control Act, CEQA and antidegradation requirements.

5. Following completion of the two-step evaluation process described in 2 above, the Regional Board directs staff to develop, if necessary based on the conclusions of the evaluation, new policy or additional regulatory or non-regulatory tools to control adverse impacts from hydromodification, which may include educational campaigns, memoranda of understanding,

guidelines, additional municipal stormwater permit requirements and amendments to the Basin Plan.

Regulatory tools may incorporate specific criteria and evaluation requirements to be used by Regional Board staff when evaluating projects for water quality certification or waste discharge requirements, and setting conditions for certification or for Standard Urban Stormwater Mitigation Plan (SUSMP) or Stormwater Quality Urban Impact Mitigation Plan (SQUIMP) approval by the local agency. If a Basin Plan amendment is necessary, the Regional Board further directs staff to bring said amendment to the Board for its consideration in the near future. Any proposed criteria and evaluation requirements should ensure that developers avoid, minimize or, as a last course, compensate for both the on-site and downstream adverse impacts of development on the water quality and beneficial uses of watercourses.

6. When evaluating the issue of hydromodification and identifying specific actions to be taken if necessary, the Regional Board shall consider at a minimum the following:

- Existing federal and state law and regulation; state and regional policies; and current methods employed by Regional Board staff related to hydromodification of water courses.
- Consistency and coordination with other agencies' authorities over hydromodifications.
- Existing staff resources available to implement current Regional Board programs and regulations related to hydromodification of water courses.
- The local and regional value of maintaining water courses in their natural state.
- Federal guidelines including, but not limited to, section 404(b)(1), which constitutes the substantive federal environmental criteria that are used in evaluating applications for certain discharges of dredge or fill material;
- Statewide General Waste Discharge Requirement for certain dredge and fill activities not requiring a Section 404 Permit or a Section 401 Certification under the federal Clean Water Act (State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ);
- State Water Resources Control Board, "Regulatory Steps Needed to Protect and Conserve Wetlands not subject to the Clean Water Act," Report to the Legislature, Supplemental Report of the 2002 Budget Act, April 2003.
- The State Water Resources Control Board Workplan: Filling the Gaps in Wetlands Protection (Sept. 24, 2004);
- State Water Resources Control Board Guidance for Regulation of Discharges to "Isolated" Waters (June 25, 2004);
- National Research Council, "Riparian Areas: Functions and Strategies for Management, Committee on Riparian Zone Functioning and Strategies for Management," National Academy Press, Washington, D.C., 2002.
- State guidance including, but not limited to, "A Primer on Stream and River Protection for the Regulator and Program Manager" (by Ann L. Riley) and the "California Rapid Assessment Method for Wetlands" for evaluating mitigation sites;
- "Stream Corridor Restoration: Principles, Processes, and Practices." Prepared by the Federal Interagency Stream Restoration Working Group (FISRWG) (10/1998);
- General principles of low impact development (various sources);
- The findings of the study commissioned by the Los Angeles County Department of Public Works through the Storm Water Monitoring Coalition in order to satisfy a requirement of the Los Angeles County Municipal Storm Water Permit (Regional Board Order No. 01-182), which calls for a study to evaluate peak flow control and determine numeric criteria to prevent or minimize erosion of natural stream channels and banks caused by urbanization, and to protect stream habitat;

- The findings of the study "Urbanization and Channel Stability Assessment in the Arroyo Simi Watershed of Ventura County, CA – Final Report" (2004) completed by the Ventura County Watershed Protection District, in order to satisfy a requirement of the Ventura County Municipal Storm Water Permit (Regional Board Order No. 00-108), which calls for the development of criteria to prevent or minimize erosion of natural channels and banks caused by urbanization and protect stream habitat; and
- Additional data collected or initiated by municipalities, dischargers and developers on stream stability for study sites in Los Angeles and Ventura Counties to reduce statistical uncertainty and/or improve model predictability when establishing stream stability protective criteria.

7. If a Basin Plan amendment is deemed necessary, staff is directed to consult with affected state and local agencies prior to formulating the draft amendment(s).

8. During the evaluation process, staff is directed to seek input from:

- the Department of Fish and Game and the U.S. Army Corps of Engineers, the United States Fish and Wildlife Service and other agencies with jurisdiction over hydromodification projects to ensure that any future policies and requirements to be proposed do not conflict with the jurisdiction and regulatory authority of these agencies; and
- stakeholders, including flood control agencies, agricultural interests, the building and construction industry, and environmental groups.

9. Pursuant to section 13224 and 13225 of the California Water Code, the Regional Board, after considering the entire record, including oral testimony at the hearing, hereby adopts the Resolution.

I, Jonathan Bishop, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Los Angeles Region, on January 27, 2005.

ORIGINAL SIGNED BY *2/23/05*

_____ _____

Jonathan S. Bishop, P.E. Date
Executive Officer

LandSource Communities Emerges from Chapter 11 as Newhall Land Development with a Strong Balance Sheet

August 22nd, 2009

(VerticalNews.com) -- LandSource Communities Development LLC announced that it has emerged from Chapter 11 reorganization as Newhall Land Development LLC. The new company is financially strong with more than $90 million of cash and no debt on its beginning balance sheet. Newhall Land will have the additional resources and financial flexibility necessary to focus on planning and developing the remainder of the existing community of Valencia and the future Newhall Ranch. The company consists primarily of the Newhall Land and Farming Company in Los Angeles County, the Newhall Orchard, Valencia Water Company, and the TPC Valencia Golf Club.

Newhall Land is backed by strong ownership that consists of a group of investment funds led by Anchorage Advisors LLC, Third Avenue Management LLC, funds affiliated with Och-Ziff Capital Management Group, LLC, funds affiliated with Marathon Asset Management, LP and TPG Credit Management, L.P., along with Lennar Corp.

Newhall Land will be managed by Emile Haddad, the CEO of Five Point Communities Management, Inc., a newly formed management company jointly owned by Mr. Haddad and Lennar. Mr. Haddad resigned as Lennar's Chief Investment Officer to assume his new duties at Five Point and will be joined by more than 20 former Lennar executives. Five Point will augment Newhall's existing strong management team, which has more than 150 years of combined real estate and land development experience.

"I know that all of the new equity owners of Newhall share our excitement about this investment opportunity," said Michael Winer of Third Avenue Management LLC. "We look forward to partnering with Five Point and Newhall Management as they embark on developing Newhall Ranch."
Mr. Haddad said: "Today marks an important day in Newhall Land's future. We are extremely pleased that we were able to complete our reorganization with the full support of our creditors and emerge as a stronger company. Newhall now has an unleveraged balance sheet, sufficient cash to fund operations going forward and is well positioned to navigate this unprecedented market.

"Newhall Land is proud of its 100-year tradition of land stewardship and its community of Valencia, a world-class master plan development with more than 20,000 homes built and 60,000 current jobs," Mr. Haddad added. "Tomorrow we will roll up our sleeves and focus full attention on bringing final neighborhoods and 40,000 additional new jobs to Valencia and perfecting Newhall Ranch entitlements. Newhall Ranch, when completed, will be a hallmark for planned communities providing North Los Angeles County with an additional 20,000 homes and almost 20,000 jobs. Together Valencia and Newhall Ranch will have an employment base of approximately 120,000 permanent jobs." About Newhall Land Development LLC Newhall Land Development LLC primary investment is The Newhall Land and Farming Company which owns 15,000 acres of land in the rapidly growing Santa Clarita Valley, approximately 30 miles north of downtown Los Angeles. Newhall owns some of the last remaining large, undeveloped land in the greater Los Angeles area. It also owns 700 acres of commercial land and other property in the Santa Clarita Valley.

LandSource to Vanish, Become Newhall

Source: BIG BUILDER News
Publication date: July 30, 2009
By Teresa Burney

LandSource Communities Development, a company rich in land, but heavy with debt, dies today, July 31, only to re-emerge Phoenix-like from the pyre of bankruptcy, free from debt and with more than $90 million in cash and its most precious land asset intact.

With its reincarnation, the California-based company gets a fitting new name with old roots--Newhall Land Development, named for the Newhall Ranch land 30 miles north of Los Angeles which forms the core of its remaining land holdings and future hope.

It might have just as easily been ripped to pieces and sold for its parts under a Chapter-7 liquidation under bankruptcy. At various times its creditors called for that. Instead, after 14 months of sometimes contentious negotiations, it managed to convince creditors to take less with the hope that they will get more later when the real estate market returns.

"For a while there it looked like it might not" survive, said Larry Webb, a home-building industry icon who was hired, along with Timothy Hogan formerly of Warmington Homes, as neutral parties to manage the LandSource assets through bankruptcy.

On Monday, Aug. 3, Webb will be leaving LandSource to return to his favored job--running a home building business of his own.

"Actually, I am pretty proud that we saved a bunch of jobs," he said of his work with LandSource. "It all worked out. It was good for us all that the classes (of creditors) agreed to the plan. That was a goal, but we weren't necessarily sure that we would get that."

LandSource has new owners now. A Barclays-led banking consortium, which financed a giant loan to purchase the majority of the company from Lennar Homes and LNR Property Corp. just 2 ½ years ago, took back their $1 billion investment from MW Housing Partners.

The consortium will be contributing more than$100 million more to help re-capitalize the company. MW Housing Partners, a partnership among the California Public Employees' Retirement System (CalPERS), MacFarlane Partners, and Weyerhaeuser Real Estate that bought the majority interest in the company from Lennar using the Barclays loan, lost their interests in the bankruptcy.

The other major owner in the new Newhall will be its old owner, Lennar. It was Lennar that put together the original LandSource assets. After the sale to MW Housing Partners in early 2007, Lennar retained 16% interest in the company, which was wiped out in the bankruptcy. But Lennar bought much of that back. It spent $140 million for 15% of reorganized Newhall, full ownership of several of LandSource's other assets, and the elimination of any potential legal awards related to its 2007 sale of LandSource.

Management of the reorganized company won't fall far from the Lennar tree either. It will be managed by Five Point Communities, a management company run by Emile Haddad, Lennar's chief investment officer who will resign from that position to become CEO of Five Point.

Haddad is investing $1 million of his own cash in Newhall, giving him 0.4% of the new company. To secure the position, the steering committee of the reorganized company told him he needed some personal investment in the game.

"The members of the Steering Committee explained to me that they wanted to make sure that I believed strongly enough in the business plan and the prospects--that I was willing to make an investment on the same terms as they were," Haddad said in a court document he filed supporting the company's reorganization plan.

Haddad said several months ago that Newhall will have a board of seven members, five representing the five top lenders on the project, one from Lennar and Haddad himself. Five Point will be managing several other assets besides Newhall. Five Point will manage other Lennar land assets including El Toro, Treasure Island, Hunters Point, and Candlestick Point.

"It's very exciting," Haddad said of managing Newhall. "Those are great assets and I've lived with them since God knows when."

EFFECTS OF GROUND-WATER DEVELOPMENT ON GROUND-WATER FLOW TO AND FROM SURFACE-WATER BODIES

As development of land and water resources intensifies, it is increasingly apparent that development of either ground water or surface water affects the other (Winter and others, 1998). Some particular aspects of the interaction of ground water and surface water that affect the sustainable development of ground-water systems are discussed below for various types of surface-water features.

As development of land and water resources intensifies, it is increasingly apparent that development of either ground water or surface water affects the other.

Streams

Streams either gain water from inflow of ground water (gaining stream; Figure 12*A*) or lose water by outflow to ground water (losing stream; Figure 12*B*). Many streams do both, gaining in some reaches and losing in other reaches. Furthermore, the flow directions between ground water and surface water can change seasonally as the altitude of the ground-water table changes with respect to the stream-surface altitude or can change over shorter timeframes when rises in stream surfaces during storms cause recharge to the streambank. Under natural conditions, ground water makes some contribution to streamflow in most physiographic and climatic settings. Thus, even in settings where streams are primarily losing water to ground water, certain reaches may receive ground-water inflow during some seasons.

Losing streams can be connected to the ground-water system by a continuous saturated zone (Figure 12*B*) or can be disconnected from the ground-water system by an unsaturated zone (Figure 12*C*). An important feature of streams that are disconnected from ground water is that pumping of ground water near the stream does not affect the flow of the stream near the pumped well.

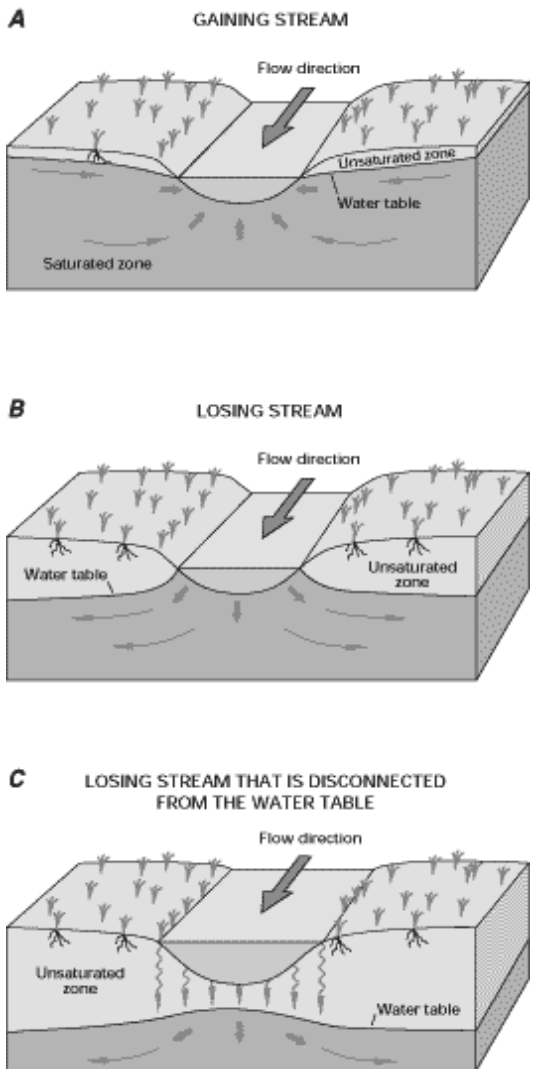


Figure 12. *Interaction of streams and ground water. (Modified from Winter and others, 1998.)*

Gaining streams (A) receive water from the ground-water system, whereas losing streams (B) lose water to the ground-water system. For ground water to discharge to a stream channel, the altitude of the water table in the vicinity of the stream must be higher than the altitude of the stream-water surface. Conversely, for surface water to seep to ground water, the altitude of the water table in the vicinity of the stream must be lower than the altitude of the stream surface. Some losing streams (C) are separated from the saturated ground-water system by an unsaturated zone.

A pumping well can change the quantity and direction of flow between an aquifer and stream in response to different rates of pumping. Figure 13 illustrates a simple case in which equilibrium is attained for a hypothetical stream-aquifer system and a single pumping well. The adjustments to pumping of an actual hydrologic system may take place over many years, depending upon the physical characteristics of the aquifer, degree of hydraulic connection between the stream and aquifer, and locations and pumping history of wells. Reductions of streamflow as a result of ground-water pumping are likely to be of greatest concern during periods of low flow, particularly when the reliability of surface-water supplies is threatened during droughts.

At the start of pumping, 100 percent of the water supplied to a well comes from ground-water storage. Over time, the dominant source of water to a well, particularly wells that are completed in an unconfined aquifer, commonly changes from ground-water storage to surface water. The surface-water source for purposes of discussion here is a stream, but it may be another

surface-water body such as a lake or wetland. The source of water to a well from a stream can be either decreased discharge to the stream or increased recharge from the stream to the ground-water system. The streamflow reduction in either case is referred to as streamflow capture.

In the long term, the cumulative stream- flow capture for many ground-water systems can approach the quantity of water pumped from the ground-water system. This is illustrated in Figure 14, which shows the time-varying percentage of ground-water pumpage derived from ground-water storage and the percentage derived from streamflow capture for the hypothetical stream-aquifer system shown in Figure 13. The time for the change from the dominance of withdrawal from ground-water storage to the dominance of streamflow capture can range from weeks to years to decades or longer.

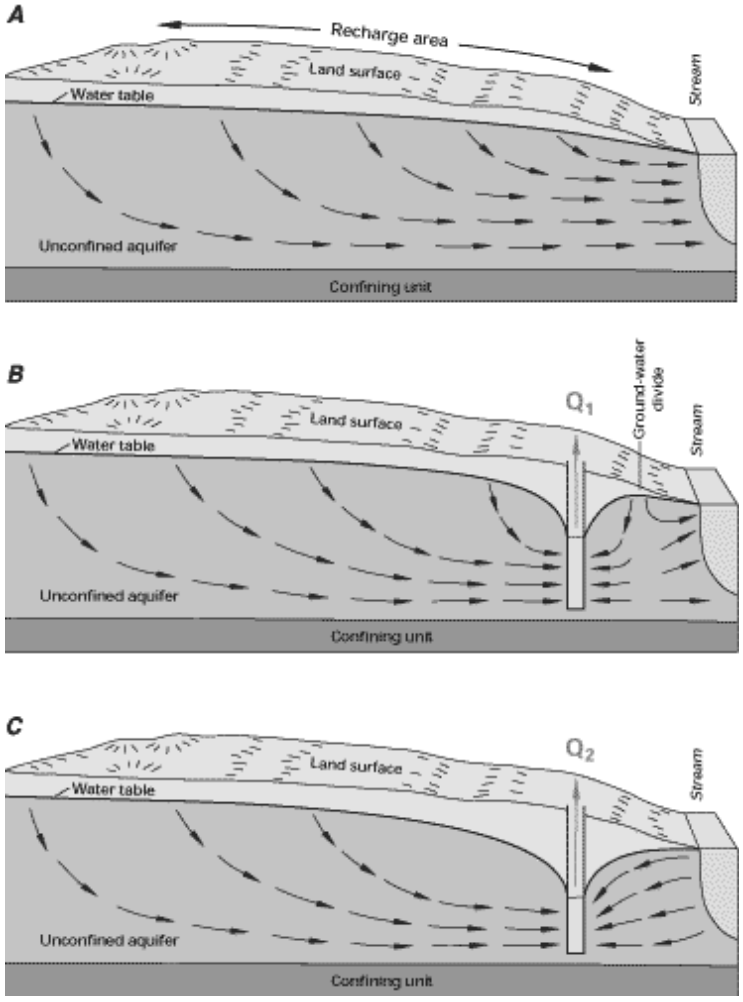


Figure 13. *Effects of pumping from a hypothetical ground-water system that discharges to a stream. (Modified from Heath, 1983.)*

Under natural conditions (A), recharge at the water table is equal to ground-water discharge to the stream. Assume a well is installed and is pumped continuously at a rate, Q_1, as in (B). After a new state of dynamic equilibrium is achieved, inflow to the ground-water system from recharge will equal outflow to the stream plus the withdrawal from the well. In this new equilibrium, some of the ground water that would have discharged to the stream is intercepted by the well, and a ground-water divide, which is a line separating directions of flow, is established locally between the well and the stream. If the well is pumped at a higher rate, Q_2, a different equilibrium is reached, as shown in (C). Under this condition, the ground-water divide between the well and the stream is no longer present, and withdrawals from the well induce movement of water from the stream into the aquifer. Thus, pumping reverses the hydrologic

condition of the stream in this reach from ground-water discharge to ground-water recharge. Note that in the hydrologic system depicted in (A) and (B), the quality of the stream water generally will have little effect on the quality of ground water. In the case of the well pumping at the higher rate in (C), however, the quality of the stream water can affect the quality of ground water between the well and the stream, as well as the quality of the water withdrawn from the well. Although a stream is used in this example, the general concepts apply to all surface-water bodies, including lakes, reservoirs, wetlands, and estuaries.

From a sustainability perspective, the key point is that pumping decisions today will affect surface-water availability; however, these effects may not be fully realized for many years.

Most ground-water development is much more complex than implied in Figure 13; for example, it may comprise many wells pumping from an aquifer at varying pumping rates and at different locations within the ground-water-flow system. Computer models commonly are needed to evaluate the time scale and time-varying response of surface-water bodies to such complex patterns of ground-water development. From a sustainability perspective, the key point is that pumping decisions today will affect surface-water availability; however, these effects may not be fully realized for many years.

The eventual reduction in surface-water supply as a result of ground-water development complicates the administration of water rights. Traditionally, water laws did not recognize the physical connection of ground water and surface water. Today, in parts of the Western United States, ground-water development and use are restricted because of their effects on surface-water rights. Accounting for the effects of ground-water development on surface-water rights can be difficult. For example, in the case of water withdrawn to irrigate a field, some of the water will be lost from the local hydrologic system due to evaporation and use by crops, while some may percolate to the ground-water system and ultimately be returned to the stream. Related questions that arise include: how much surface water will be captured, which surface-water bodies will be affected, and over what period will the effects occur? Some of these issues are illustrated further in Box C.

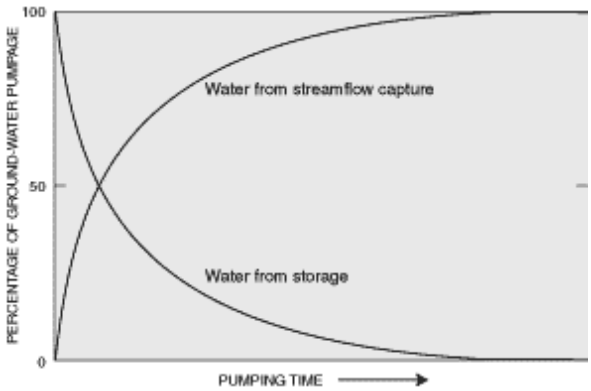


Figure 14. *The principal source of water to a well can change with time from ground-water storage to capture of streamflow.*

The percentage of ground-water pumpage derived from ground-water storage and capture of streamflow (decrease in ground-water discharge to the stream or increase in ground-water recharge

from the stream) is shown as a function of time for the hypothetical stream-aquifer system shown in Figure 13. A constant pumping rate of the well is assumed. For this simple system, water derived from storage plus streamflow capture must equal 100 percent. The time scale of the curves shown depends on the hydraulic characteristics of the aquifer and the distance of the well from the stream.

Ground-water pumping can affect not only water supply for human consumption but also the maintenance of instream-flow requirements for fish habitat and other environmental needs. Long-term reductions in streamflow can affect vegetation along streams (riparian zones) that serve critical roles in maintaining wildlife habitat and in enhancing the quality of surface water. Pumping-induced changes in the flow direction to and from streams may affect temperature, oxygen levels, and nutrient concentrations in the stream, which may in turn affect aquatic life in the stream.

Perennial streams, springs, and wetlands in the Southwestern United States are highly valued as a source of water for humans and for the plant and animal species they support. Development of ground-water resources since the late 1800's has resulted in the elimination or alteration of many perennial stream reaches, wetlands, and associated riparian ecosystems. As an example, a 1942 photograph of a reach of the Santa Cruz River south of Tucson, Ariz., at Martinez Hill shows stands of mesquite and cottonwood trees along the river (1st photograph). A replicate photograph of the same site in 1989 shows that the riparian trees have largely disappeared (right photograph). Data from two nearby wells indicate that the water table has

declined more than 100 feet due to pumping, and this pumping appears to be the principal reason for the decrease in vegetation. (Photographs provided by Robert H. Webb, U.S. Geological Survey.)

In gaining and in losing streams, water and dissolved chemicals can move repeatedly over short distances between the stream and the shallow subsurface below the streambed. The resulting subsurface environments, which contain variable proportions of water from ground water and surface water, are referred to as hyporheic zones (see Figure 15). Hyporheic zones can be active sites for aquatic life. For example, the spawning success of fish may be greater where flow from the stream brings oxygen into contact with eggs that were deposited within the coarse bottom sediment or where stream temperatures are modulated by ground-water inflow. The effects of ground-water pumping on hyporheic zones and the resulting effects on aquatic life are not well known.

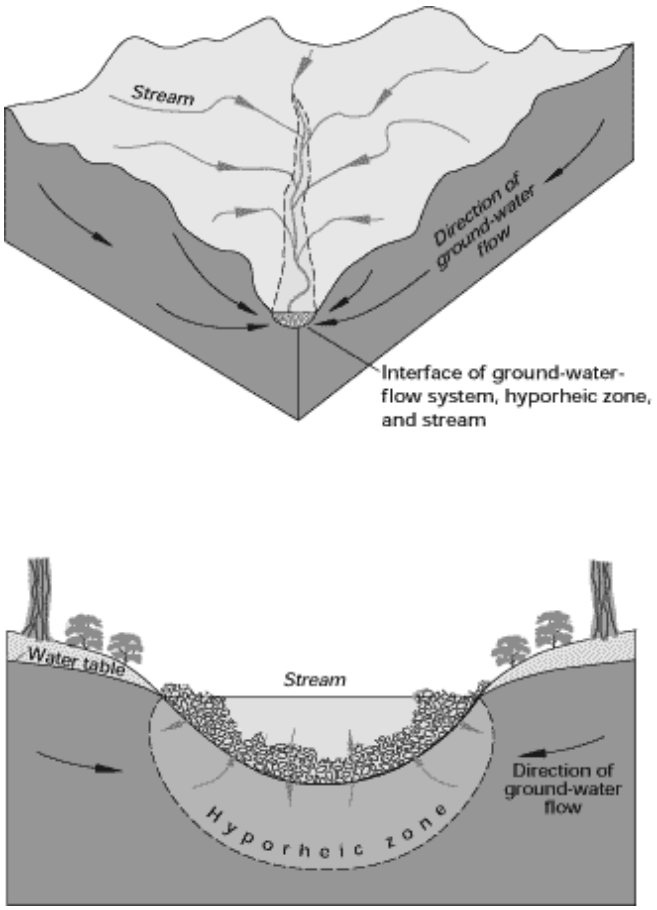


Figure 15. *The dynamic interface between ground water and streams. (Modified from Winter and others, 1998.)*

Streambeds are unique environments where ground water that drains much of the subsurface of landscapes interacts with surface water that drains much of the surface of landscapes. Mixing of surface water and ground water takes place in the hyporheic zone where microbial activity and chemical transformations commonly are enhanced.

(BOX C)

Lakes

Lakes, both natural and human made, are present in many different parts of the landscape and can have complex ground-water-flow systems associated with them. Lakes interact with ground water in one of three basic ways: some receive ground-water inflow throughout their entire bed; some have seepage loss to ground water throughout their entire bed; and others, perhaps most lakes, receive ground-water inflow through part of their bed and have seepage loss to ground water through other parts. Lowering of lake levels as a result of ground-water pumping can affect the ecosystems supported by the lake (Figure 16), diminish lakefront esthetics, and have negative effects on shoreline structures such as docks.

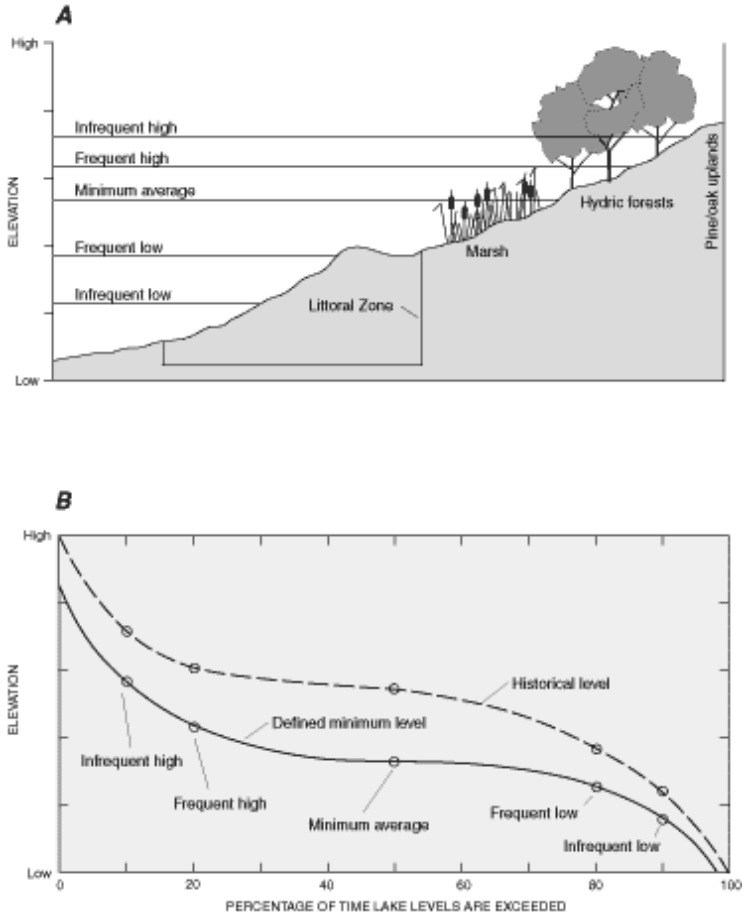


Figure 16. *Setting minimum water levels in Florida lakes. (Modified from McGrail and others, 1998.)*

As part of efforts to prevent significant undesirable environmental consequences from water-resources development, water-management agencies in Florida are defining minimum flows and water levels for priority surface waters and aquifers in the State. For lakes, the minimum flows and water levels describe a hydrologic regime that is less than the historical or optimal one but allows for prudent water use while protecting critical lake functions. As an example, five possible minimum water levels defined for a lake are shown in A. An elevation and a percentage of time the level is exceeded characterize each of these levels. The upper curve in B shows the percentage of the time that the lake is historically above each corresponding level. The goal is to ensure that water withdrawals and other water-resource management actions continue to allow the lake water levels to be at or above the minimum levels shown by the lower curve in B for the percentage of time shown.

Dock on Crooked Lake in central Florida in the 1970's.

The same dock in 1990.

As a result of very low topographic relief, high rainfall, and a karst terrain, the Florida landscape is characterized by numerous lakes and wetland areas. The underlying Floridan aquifer is one of the most extensive and productive aquifers in the world. Over the past two decades, lake levels declined and wetlands dried out in highly developed west-central Florida as a result of both extensive pumping and low precipitation during these years. Differentiating between the effects of the drought and pumping has been difficult. (Photographs courtesy of Florida Water Resources Journal, August, 1990 issue.)

The chemistry of ground water and the direction and magnitude of exchange with surface water significantly affect the input of dissolved chemicals to lakes. In fact, ground water can be the principal source of dissolved chemicals to a lake, even in cases where ground-water discharge is a small component of a lake's water budget. Changes in flow patterns to lakes as a result of pumping may alter the natural fluxes to lakes of key constituents such as nutrients and dissolved oxygen, in turn altering lake biota, their environment, and the interaction of both.

Wetlands

Wetlands are present wherever topography and climate favor the accumulation or retention of water on the landscape. Wetlands occur in widely diverse settings from coastal margins to flood plains to mountain valleys. Similar to streams and lakes, wetlands can receive ground-water inflow, recharge ground water, or do both. Wetlands are in many respects ground-water features.

Public and scientific views of wetlands have changed greatly over time. Only a few decades ago, wetlands generally were considered to be of little or no value. It is now recognized that wetlands have beneficial functions such as wildlife habitat, floodwater retention, protection of the land from erosion, shoreline protection in coastal areas, and water-quality improvement by

filtering of contaminants.

The persistence, size, and function of wetlands are controlled by hydrologic processes (Carter, 1996). For example, the persistence of wetness for many wetlands is dependent on a relatively stable influx of ground water throughout changing seasonal and annual climatic cycles. Characterizing ground-water discharge to wetlands and its relation to environmental factors such as moisture content and chemistry in the root zone of wetland plants is a critical but difficult to characterize aspect of wetlands hydrology (Hunt and others, 1999).

Wetlands can be quite sensitive to the effects of ground-water pumping. Ground-water pumping can affect wetlands not only as a result of progressive lowering of the water table, but also by increased seasonal changes in the altitude of the water table. The amplitude and frequency of water-level fluctuations through changing seasons, commonly termed the hydroperiod, affect wetland characteristics such as the type of vegetation, nutrient cycling, and the type of invertebrates, fish, and bird species present. The effects on the wetland environment from changes to the hydroperiod may depend greatly on the time of year at which the effects occur. For example, lower than usual water levels during the nongrowing season might be expected to have less effect on the vegetation than similar water-level changes during the growing season. The effects of pumping on seasonal fluctuations in ground-water levels near wetlands add a new dimension to the usual concerns about sustainable development that typically focus on annual withdrawals (Bacchus, 1998).

Springs

Springs typically are present where the water table intersects the land surface. Springs serve as important sources of water to streams and other surface-water features, as well as being important cultural and esthetic features in themselves. The constant source of water at springs leads to the abundant growth of plants and, many times, to unique habitats. Ground-water development can lead to reductions in springflow, changes of springs from perennial to ephemeral, or elimination of springs altogether. Springs typically represent points on the landscape where ground-water-flow paths from different sources converge. Ground-water development may affect the amount of flow from these different sources to varying extents, thus affecting the resultant chemical composition of the spring water.

Comal Springs

The highly productive Edwards aquifer, the first aquifer to be designated as a sole source aquifer under the Safe Drinking Water Act, is the source of water for more than 1 million people in San Antonio, Texas, some military bases and small towns, and for south-central Texas farmers and ranchers. The aquifer also supplies water to sustain threatened and endangered species habitat associated with natural springs in the region and supplies surface water to users downstream from the major springs. These various uses are in direct competition with ground-water development and have created challenging issues of ground-water management in the region. (Photograph by Robert Morris, U.S. Geological Survey.)

Coastal Environments

Coastal areas are a highly dynamic interface between the continents and the ocean. The physical and chemical processes in these areas are quite complex and commonly are poorly understood. Historically, concern about ground water in coastal regions has focused on seawater intrusion into coastal aquifers, as discussed in a later chapter of this report. More recently, ground water has been recognized as an important contributor of nutrients and contaminants to coastal waters. Likewise, plant and wildlife communities adapted to particular environmental conditions in coastal areas can be affected by changes in the flow and quality of ground-water discharges to the marine environment.

In summary, we have seen that changes to surface-water bodies in response to ground-water pumping commonly are subtle and may occur over long periods of time. The cumulative effects of pumping can cause significant and unanticipated consequences when not properly considered in water-management plans. The types of water bodies that can be affected are highly varied, as are the potential effects.

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046. Letter from Santa Clarita Organization for Planning and the Environment, Lynne Plambeck, dated August 24, 2009

Response 1

The comment provides background information, and urges consideration of "important beneficial qualities of a natural waterway" as the proposed Project and its alternatives are evaluated. The U.S. Army Corps of Engineers (Corps) and the California Department of Fish and Game (CDFG) appreciate the comments and they will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Project.

Response 2

The comment includes by reference all comments made by other organizations that express concerns over the impacts of the proposed Project. The Final EIS/EIR includes written responses to all comments received on the Draft EIS/EIR during the public review period. Please refer to Final EIS/EIR for these responses.

Response 3

The comment asserts that the Natural River Management Plan (NRMP) "has not worked well to protect species and the river." With regard to species protection within the NRMP area, CDFG has determined that threatened and endangered species, fully protected species, and species of local, regional, or statewide significance or concern continue to be present in the NRMP site and are receiving adequate protection under the terms of the Mitigation Monitoring and Reporting Plan and Incidental Take Permits. Please see **Topical Response 3: Natural River Management Plan Projects and Mitigation** for a discussion of mitigation, monitoring and threatened or endangered and fully protected species in the NRMP area.

Regarding the hazing machines, they were used for a period time within the NRMP permit area. The use of such devices was subsequently discontinued, and no hazing machines were used at any time within the RMDP/SCP study area, nor will such machines be used should federal and state permits be issued as part of the proposed Project or any alternative.

Response 4

With respect to the western spadefoot toad, San Diego black-tailed jackrabbit ("long eared"), and the western pond turtle, although no post-construction surveys for these species were required by the NRMP, field data indicate that they continue to reside in and/or use the NRMP area. Western spadefoot toad tadpoles were located in 2004 and again recently at the River Village (also known as Riverpark) mitigation ponds. Western pond turtles were surveyed in 2001 and located on the Santa Clara River, east and west of the San Francisquito confluence, just west of the I-5, and at Castaic Junction within the Santa Clara River. The black-tailed jackrabbit ("long eared") were rarely seen in the initial NRMP EIS/EIR surveys. The NRMP did require pre-construction surveys to locate any black-tailed jackrabbits and provide other suitable upland habitat at a 1:1 ratio. None were observed during pre-construction surveys, although they have been observed during construction monitoring within the NRMP permit area. Generally black-tailed jackrabbit does not adapt well to urban development, so it is not expected to occur at high frequency within the developed areas within the NRMP site. However the species has been

observed during construction monitoring of a bridge project at the eastern edge of the NRMP development boundary. (See Final EIS/EIR, **Appendix F4.5**, Compliance Biology, Inc. letter, dated March 18, 2010, providing compendia of special status species survey information within Santa Clarita and the Natural River Management Plan Area.)

Response 5

The comment criticizes the "Oxbow Pond" restoration project and describes it as "just a mound of dirt." However, progress on the Oxbow Pond restoration project is being made. Site soil preparation, seeding, and temporary irrigation system installation are scheduled to be completed in 2010. The planting phase is scheduled to be completed by the fall/winter of 2010.

Response 6

The comment indicates that off-road vehicle use is creating impacts within the NRMP planning area. Please note that trespass laws and environmental regulations prohibit off-road vehicles from entering sensitive habitat areas, and that any existing, illegal off-road vehicle use is not an impact of the proposed Project. When confronted with this issue in the past, the applicant has worked with local law enforcement, CDFG and the U.S. Fish and Wildlife Service (USFWS) to investigate and if possible issue citations for trespassing by off-road vehicles. Further, as discussed in **Response 14**, below, increased human activity, including off-road vehicle use, was addressed in Draft EIS/EIR, **Subsection 4.5.5.1.3.**2 as a long-term, secondary impact related to implementation of the RMDP and SCP, and build-out of the specific plan, Valencia Commerce Center (VCC), and Entrada planning areas. As discussed in **Section 4.5**, Specific Plan Mitigation Measures SP-4.6-17 and SP-4.6-29 through SP-4.6-32 limit access to daytime use of the designated trail system; prohibit pets (with the exception of horses on established trails); prohibit hunting, fishing, and motor or off-trail bike riding; and provide trail design guidelines to minimize impacts to native habitats within the River Corridor Special Management Area (SMA) and High Country SMA. In addition to the mitigation measures provided in the Draft EIS/EIR, the applicant will continue to work with local law enforcement, CDFG, the Corps, and USFWS to investigate and eliminate trespassing by off-road vehicles.

Response 7

The comment states that banks stabilized as part of the NRMP "collapsed in high water events." The commentor then gives specific examples of where these bank stabilization failures occurred: "[N]ear the Jefferson apartments on the Santa Clara River and along San Francisquito Creek near the Valencia II development." The Corps and CDFG have investigated the bank stabilization projects at the two locations referenced in the comment. To clarify, segments of the two trails were eroded by historic flood flows. Buried soil cement banks did not fail in either case. In one of the locations, the trail was not protected by any form of bank stabilization. At the other location, near the Jefferson apartments, the trail was on the river side of the buried soil cement bank protection (*i.e.*, it was unprotected by soil cement). The City of Santa Clarita obtained the necessary federal, state, and local approvals and has since installed bank protection for both locations and reconstructed the trails.

Response 8

The comment refers to "five-year periodic reviews" that were supposed to ensure that the NRMP "was functioning as predicted." According to the comment, these five-year periodic reviews were the only

reason the environmental community did not file a legal challenge to the NRMP when it was approved. According to Condition 15, set forth on page 8 of the Streambed Alteration Agreement adopted in connection with the NRMP, the Streambed Alteration Agreement granted under the NRMP is renewed automatically every five years (the first five year term plus four additional five year terms, for a total of 25 years in December 2023), provided CDFG does not seek to revoke the permit for non-compliance. The Corps' permit granted under the NRMP does not include any specific periodic review or renewal mechanism prior to its expiration after year 20 in December 2018. In administering the NRMP, the Corps and CDFG review the mitigation performance requirements of the NRMP continually. The Corps and CDFG are satisfied that the NRMP mitigation program is functioning and progressing consistent with the terms of the Mitigation Monitoring and Reporting Program (MMRP) and have not taken steps to revoke any NRMP permit.

Response 9

Please see **Responses 3 through 8**, above. Please also refer to **Topical Response 3: Natural River Management Plan Projects and Mitigation**; **Topical Response 11: River Corridor SMA/SEA Consistency**, and Draft EIS/EIR **Section 4.2**, Geomorphology and Riparian Resources for information responsive to this comment. In addition, the Draft EIS/EIR, **Section 4.5**, Biological Resources, extensively analyzed the listed and non-listed species within the Project area and the potential effects of the proposed Project on these species. Please also see revised **Sections 4.2** and **4.5** of the Final EIS/EIR.

Response 10

The comment provides opinions concerning housing units already permitted within the Santa Clarita Valley and "a looming water crisis," and questions whether, in light of these issues, the proposed Project meets unspecified "threshold requirements for Federal or State approval." Because it is not clear to which threshold requirements the comment refers, it is not possible to directly address this concern. However, the Draft EIS/EIR evaluated the potential environmental impacts of the proposed Project in light of all past, present and reasonably foreseeable projects with the potential to have similar environmental effects in **Section 6.0**, Cumulative Impacts, of the Draft EIS/EIR. The Draft EIS/EIR analyzed impacts to water supply in **Section 4.3**, Water Resources. Please also see revised **Sections 4.3** and **6.0** of the Final EIS/EIR. The Corps and CDFG appreciate the comments and they will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Project.

Response 11

The comment states that should the proposed Project or any of its alternatives be approved, the agencies should conduct a survey of the success rate of mitigation under the 1998 NRMP, and a survey to determine how protective the 1998 NRMP has been with respect to endangered and threatened bird, reptile, amphibian, and aquatic species. The comment also indicates that no additional permits should be granted until mitigation required for a previously issued 404 permit has been implemented. It is assumed that this comment is referring to mitigation measures identified in the previously prepared and adopted Natural River Management Plan.

As discussed in **Topical Response 3: Natural River Management Plan Projects and Mitigation**, the NRMP is a separate, ongoing project that is not part of the proposed Project assessed in this EIS/EIR; it is governed by its own federal and state permits and conditions and was subject to its own environmental

review under the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA), and the California Endangered Species Act (CESA) and federal Endangered Species Act (ESA) prior to its approval in 1998. Prior and ongoing actions by CDFG, the Corps, the applicant and other parties in connection with the NRMP are not relevant to the feasibility, enforceability or effectiveness of the proposed Project and associated mitigation measures currently under review in this EIS/EIR and, it is beyond the scope of the proposed Project to require the agencies or applicant to conduct the suggested surveys in the area encompassed by the separate 1998 NRMP. However, the analysis of biological resources in this EIS/EIR (see **Section 4.5**), including impacts to threatened or endangered, and fully protected species, accounted for the current status of such species within the NRMP area to the extent necessary to evaluate baseline conditions against which the impacts of the proposed Project were measured. Furthermore, this EIS/EIR analyzed the cumulative impacts to such species from past, present and reasonably foreseeable future projects within the geographic scope of the cumulative effect, including the various NRMP projects. Please see **Topical Response 3: Natural River Management Plan Projects and Mitigation**, for additional information regarding the NRMP.

Response 12

Please refer to **Responses 3** and **11**, above, and **Topical Response 3: Natural River Management Plan Projects and Mitigation** for information regarding the mitigation required under the 1998 NRMP. Please refer to **Topical Response 2: Bankruptcy-Related Comments** for additional information regarding funding for mitigation measures. Further, upon project approval, CDFG would adopt a mitigation monitoring or reporting program, pursuant to Public Resources Code section 21081.6, to ensure that the mitigation measures and project revisions it has adopted to mitigate or avoid significant impacts of the Project are implemented, consistent with CDFG's regulatory jurisdiction under the California Endangered Species Acts CESA) and California Fish & Game Code section 1600 *et seq*. Similarly, the Corps would adopt a monitoring program, pursuant to 33 C.F.R. Part 325, Appendix B, paragraph 21, and 40 C.F.R. § 1505.2(c) and § 1505.3, to ensure that any mitigation measures it has adopted in the Record of Decision to avoid or mitigate significant impacts are implemented, consistent with the Corps' regulatory authority under section 404 of the CWA.

Because the comment does not address the adequacy of the information or impact analysis provided in the Draft EIS/EIR, no further response is provided. The Corps and CDFG appreciate the comments and they will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Project.

Response 13

The comment requests stop work orders should violations occur with respect to the proposed Project and a requirement for a public review period at five-year intervals. The mitigation measures identified in the EIS/EIR would provide sufficient mitigation to ensure that all impacts are reduced to the greatest degree feasible. The lead agencies may take various administrative actions including revocation of the permit(s) to which mitigation measures attach if the responsible entity fails to adhere to the terms and conditions set forth in the subject permit(s). Further, under the requirements of CEQA, an approved Project would be required to implement a monitoring and reporting program for all mitigation measures, which would be available to the public upon request. Under CEQA, a lead agency has discretion to determine the appropriate way to interpret and monitor the terms and conditions set forth in permits issued for a project or its alternatives, and there is no requirement to adhere to the specific manner of review and monitoring

requested in the comment (see CEQA Guidelines § 15097). Similarly, as stated above, the Corps would adopt a monitoring program, pursuant to 33 C.F.R. Part 325, Appendix B, paragraph 21, and 40 C.F.R. § 1505.2(c) and § 1505.3, to ensure that any mitigation measures it has adopted in the Record of Decision to avoid or mitigate significant impacts are implemented, consistent with the Corps' regulatory authority under section 404 of the CWA.

Because the comment does not address the adequacy of the information or impact analysis provided in the Draft EIS/EIR, no further response is provided. The Corps and CDFG appreciate the comments and they will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Project.

Response 14

The comment calls for a ban on off-road vehicle use in the river and a funding mechanism for enforcement. Increased human activity, including off-road vehicle use, was addressed in Draft EIS/EIR, **Subsection 4.5.5.1.3.2** as a long-term, secondary impact related to implementation of the RMDP and SCP, and build-out of the specific plan, VCC, and Entrada planning areas. As discussed in **Section 4.5**, Specific Plan Mitigation Measures SP-4.6-17 and SP-4.6-29 through SP-4.6-32 limit access to daytime use of the designated trail system; prohibit pets (with the exception of horses on established trails); prohibit hunting, fishing, and motor or off-trail bike riding; and provide trail design guidelines to minimize impacts to native habitats within the River Corridor SMA and High Country SMA. Trespass laws applicable to private property and environmental regulations also prohibit off-road vehicles from entering sensitive habitat areas. In addition to the mitigation measures provided in the Draft EIS/EIR, the applicant will continue to work with local law enforcement, CDFG, the Corps, and USFWS to investigate and eliminate trespassing by off-road vehicles.

Response 15

The Corps and CDFG appreciate the comment and will comply with all applicable laws in considering any proposed Plan amendment. The proposed Newhall Ranch RMDP, which is found in **Appendix 1.0** of the Draft EIS/EIR, specified an extensive regulatory framework and permitting process (see **Section 3.0**), which includes minor and major amendment processes with the potential for additional required CEQA/NEPA compliance, which would trigger a public review process. 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.

Response 16

The Draft EIS/EIR included a range of alternatives that provide varying levels of floodplain avoidance, including Alternative 7. The Final EIS/EIR, revised **Section 3.0**, Description of Alternatives, revised **Section 5.0**, Comparison of Alternatives, and the Corps' draft 404(b)(1) alternatives analysis (**Appendix F1.0)**, provide the decision makers with detailed information associated with increased avoidance of impacts in and adjacent to the Santa Clara River Corridor. The Draft and Final EIS/EIR will be reviewed by the decision makers, and this 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.

Response 17

Financial assurances such as bonding or letters of credit would be required to ensure successful completion of mitigation. Please see **Topical Response 2: Bankruptcy-Related Comments** for additional responsive information.

Response 18

The comment questions how CDFG can issue a "take" permit for CESA-listed species, specifically white-tailed kite and unarmored threespine stickleback. Also, the comment states that take is not allowed for CESA-listed species.

The white-tailed kite is a State of California Fully Protected Species (Fish and G. Code § 3511 (b)(12)). It is not a CESA-listed species and, therefore, is not subject to an incidental take permit under Fish and Game Code section 2081. Impacts to this species were evaluated in the Draft EIS/EIR, **Subsection 4.5.5.3**, Impacts to Special-Status Species, and were found to be less than significant with the implementation of mitigation measures.

The unarmored threespine stickleback is listed as an endangered species under CESA and the federal Endangered Species Act (ESA). In addition, the species is a State of California Fully Protected Species (Fish & G. Code § 5515, subd. (b)(9)), and, therefore, is not subject to an incidental take permit under Fish and Game Code section 2081; that is, take of unarmored threespine stickleback as defined by state law is prohibited. No take authorization from CDFG has been requested by the applicant for the unarmored threespine stickleback as a result. Potential impacts to unarmored threespine stickleback were evaluated in the Draft EIS/EIR, **Subsection 4.5.5.3**, Impacts to Special-Status Species, and were found to be less than significant with the implementation of mitigation measures.

Response 19

The comment states that intense wildfires will occur in the Project area, possibly due to global warming. The comment suggests that wildlife corridors must be numerous for animals to escape wildfire conditions, move to new foraging areas, and have access to the Santa Clara River for water.

Subsection 4.5.5.2.4, Impacts to Wildlife Movement and Habitat Connectivity, of the Draft EIS/EIR analyzed wildlife movement at three separate scales, including landscape habitat linkages, local wildlife corridors, and site-specific wildlife crossings. The Draft EIS/EIR concluded that impacts to landscape habitat linkages and wildlife crossing would be adverse but not significant, and that impacts to local wildlife corridors would be significant, absent mitigation. Significant impacts to wildlife corridors would be reduced to a less-than-significant level with implementation of identified mitigation measures. The main mitigation measures are dedication of the River Corridor SMA, High Country SMA, and Salt Creek area through implementation of Mitigation Measures SP-4.6-23, SP-4.6-37, and BIO-19, respectively. Please also refer to **Topical Response 12: Wildlife Habitat Connectivity, Corridors, and Crossings** for additional detail regarding wildlife corridors and wildlife movement. This topical response provides specific information regarding wildlife linkages, movement corridors, barriers to movement, and species access to water, foraging, and refugia. With implementation of these mitigation measures, wildlife would have the ability to disperse through preserve areas in response to wildfires.

Climate change impacts were discussed in both the Draft EIS/EIR, **Section 8.0**, Global Climate Change, and the Final EIS/EIR, revised **Section 8.0**, including revised appendices (**Appendix F8.0**), and **Topical Response 13: Global Climate Change Update**.

Response 20

The trip distribution patterns utilized in the Draft EIS/EIR traffic impacts analysis for the Santa Clarita Valley were determined by the Santa Clarita Valley Consolidated Traffic Model (SCVCTM), which takes into account the types of employment available on site and in the surrounding land uses to derive the distribution patterns for proposed Project traffic. (Draft EIS/EIR, **Subsection 4.8.2.2**.) The SCVCTM determined that 78 percent of the proposed Project's residential home-to-work vehicle tripends will be for external trips in which the destination will be off of the Project site, while 22 percent of the proposed Project's residential home-to-work tripends will be for internal trips. Thus, the analysis did not determine that most people who live in the proposed Project would work in the immediate community. (Please see **Topical Response 10: Vehicle Trip Distribution Methodology**, for a detailed explanation regarding the SCVCTM trip distribution methodology.) In addition, please also see Final EIS/EIR, revised **Section 4.8**, Traffic, for further responsive information.

Response 21

The Project study area extends south of the Santa Clarita Valley and includes the north San Fernando Valley area. (Draft EIS/EIR, p. 4.8-9.) As shown on Figure 2, Study Area - Los Angeles County, Draft EIS/EIR, **Appendix 4.8**, "Newhall Ranch RMDP and SCP EIR/EIS Traffic Analysis" (December 2008), the study area extends south of the I-405/I-5 merge to SR-118. Additionally, consistent with the study area, Year 2030 traffic forecasts for the north San Fernando Valley area were calculated and proposed Project impacts were evaluated. (See Draft EIS/EIR, **Appendix 4.8**, December 2008 Traffic Analysis, Figures 14, 16, 18, 20, 22, and 24.) The impacts analysis determined that the proposed Project, and each of the alternatives, would not result in significant impacts south of the Santa Clarita Valley area; and, therefore, no mitigation is necessary. (See, *e.g.*, Draft EIS/EIR, **Table 4.8-7** and p. 4.8-46.) For further responsive information, please refer to the Final EIS/EIR, revised **Section 4.8**, Traffic.

Response 22

The cumulative traffic impact analysis is based on build-out of the land uses identified in the Los Angeles and Ventura County General Plans, the City of Santa Clarita General Plan, and growth in the adjacent communities. (Draft EIS/EIR, p. 4.8-9.) The land use database used by the SCVCTM includes all approved General Plan projects, as well as proposed General Plan amendments. Regional growth, which is traffic volume increases occurring outside of the SCVCTM area, also is incorporated into the SCVCTM. These outside or external trips take two forms, trips with one tripend internal to the SCVCTM area and the other tripend external to the SCVCTM area ("external" trips), and trips with both tripends external to the SCVCTM area ("through" trips). The SCVCTM forecasts for 2030 traffic volumes at those points crossing the SCVCTM area boundary represent a 70 percent increase over 2004 volumes in external trips and a 111 percent increase in through trips. (See **Response 22** to letter from TriCounty Watchdogs, dated August 22, 2009 (Letter 042), Table 1, SCVCTM Cordon Summary.) Thus, the SCVCTM long-range cumulative traffic accounts for traffic generated outside of the SCVCTM area that the model estimates will more than double by 2030. As such, ambient growth from outside the SCVCTM area, such as the Tejon Ranch project and increased container traffic moving up the I-5 from the Port of

Los Angeles, is accounted for in the analysis. (Please see **Response 22**, Table 1, SCVCTM Cordon Summary, to letter from TriCounty Watchdogs, dated August 22, 2009 (Letter 042).)

Response 23

The comment states that, because the previously certified environmental documentation for the Newhall Ranch Specific Plan (Specific Plan) and VCC did not address the generation of greenhouse gas emissions and related impacts to global climate change, the Draft EIS/EIR must address such issues now.

Section 8.0, Global Climate Change, contained a thorough analysis of potential project-level impacts to global climate change, and **Section 6.0**, Cumulative Impacts, addressed potential cumulative climate change impacts resulting from the proposed Project and each of the alternatives. The referenced analysis included the preparation of a quantitative emissions inventory, which accounted for the greenhouse gas emissions that would result from build-out of the Specific Plan and VCC planning areas. (Please note that the global climate change technical analysis also quantified emissions associated with build-out of the Entrada planning area.) For example, the inventory accounted for the emissions that would be generated by the following Specific Plan and VCC-related sources: vegetation/land use change; construction-related activities; electricity and natural gas usage in the residential and non-residential buildings; mobile sources; municipal activities (*e.g.*, water treatment and distribution); golf courses; area sources (*e.g.*, landscaping); and, pools located in recreation centers. (See also **Appendix 8.0**, "Climate Change Technical Report" (February 2009), prepared by ENVIRON International Corporation.) Based on the analysis, both the Draft and Final EIS/EIR conclude that impacts to global climate change, at the project and cumulative level, would be less than significant as the proposed Project does not impede the State of California's ability to return to 1990 emission levels by 2020, as required by Assembly Bill 32 (AB 32; the Global Warming Solutions Act of 2006). (See also ENVIRON's "Climate Change Technical Addendum" (October 2009), which can be found in **Appendix F8.0** of the Final EIS/EIR, and revised **Section 8.0** of the Final EIS/EIR.)

As the comment does not raise any specific issue regarding that analysis, no more specific response can be provided. However, 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.

Response 24

The comment states that the Draft EIS/EIR should estimate the average trip length and average fuel efficiency of the vehicles, and calculate the resulting carbon dioxide emissions. The comment further references various mobile source modeling tools, made available by the United States Environmental Protection Agency (USEPA).

The greenhouse gas emissions associated with mobile sources already are estimated for the proposed Project and each of the alternatives in the Draft EIS/EIR. (See, *e.g.*, Draft EIS/EIR, **Subsection 8.5.2.1.1**, RMDP Direct/Indirect Impacts, pp. 8.0-38-8.0-41; see also Draft EIS/EIR **Appendix 8.0**, "Climate Change Technical Report" (February 2009), prepared by ENVIRON International Corporation, Section 4.9.) A summary of the methodological approach utilized to calculate the mobile source emissions is presented below.

First, the environmental consultant retained to study potential impacts to global climate change (ENVIRON International Corporation) identified the appropriate trip lengths. ENVIRON coordinated with the traffic engineer, Austin-Foust Associates, Inc., to identify the appropriate average trip lengths based on the Santa Clarita Valley Consolidated Traffic Model (SCVCTM). (The SCVCTM was developed by the City of Santa Clarita and the Los Angeles County Department of Public Works.) The SCVCTM identified trip lengths for home-work, home-shop, and home-other of 10.7, 5.2, and 7 miles, respectively. Of note, the average home-based trip length was 7.7 miles, which is significantly shorter than trip lengths for the rest of the Santa Clarita Valley, and reflects the inclusion of commercial uses and employment opportunities near the Project site.

Second, the total number of vehicle miles traveled (VMT) was calculated by multiplying the above-referenced trip lengths by the total number of trips.

Third, the greenhouse gas emissions were calculated by running URBEMIS 9.2.2 with the trip rates and trip lengths. Fleet distribution types from EMFAC2007, from the year 2020, were used in conjunction with URBEMIS default trip speeds.

Fourth, because other greenhouse gases are emitted from mobile sources, the USEPA recommends assuming that methane, nitrogen dioxide, and hydrofluorocarbons account for five percent of mobile source emissions. Therefore, the total emissions were divided by 0.95 to account for non-carbon dioxide greenhouse gases.

Please note that ENVIRON's "Climate Change Technical Addendum" (October 2009), which is found in **Appendix F8.0** of the Final EIS/EIR, updated the fuel economies in accordance with the emission reductions anticipated from implementation of Assembly Bill 1493 (Pavley). Based on ENVIRON's analysis, the proposed Project would result in 112,138 tonnes of carbon dioxide equivalents per year attributable to mobile sources. Please also see **Topical Response 13: Global Climate Change Update**, which provides additional information regarding the revised mobile source emission estimates, and Final EIS/EIR, revised **Section 8.0**, Global Climate Change.

Response 25

The comment states that the proposed Project could offer increased public transportation, increased support of alternative fuels and technologies, the purchase of carbon offsets, installation of electric vehicle charging stations, and other unspecified affirmative steps to reduce mobile source emissions.

To preface, the lead agencies are not required to mandate additional mitigation measures, even if feasible, because the proposed Project's impacts to global climate change already are less than significant. Under NEPA, impacts of the proposed Project and alternatives must be evaluated. (40 C.F.R. § 1502.14.) In addition, CEQA only requires adoption of feasible mitigation measures where impacts would be potentially significant. (See, *e.g.*, Cal. Code Regs., tit. 14, § 15126.4, subd. (a)(3).) With that said, each of the mitigation strategies identified in the comment letter are discussed in further detail below:

Public Transportation:

As discussed in **Table 8.0-50**, Compatibility with California Attorney General GHG Emission Reduction Strategies, "the land use and circulation plans for the development

enabled by the proposed Project have been designed to minimize car trips and reduce GHG emissions. Accordingly, mass transit would be conveniently located through the development of a new transit station, park-and-ride lots(s), and bus stops. In addition, an approximate 5-mile right-of-way for a potential Metrolink extension also is included in the circulation plan. Trails and bike paths leading to close-to-home jobs, neighborhood serving retail, and the elementary school would encourage residents to enjoy the walkability of the community." (Draft EIS/EIR, pp. 8.0-117-8.0-118.)

Alternative Fuels/Technologies:

As also discussed in **Table 8.0-50**, Compatibility with California Attorney General GHG Emission Reduction Strategies, "[a]s provided in the Specific Plan's air quality mitigation measures, TLEV, ULEV, LEV, and ZEV would be operated in connection with the commercial and business park land uses." However, "[m]arket forces will drive the installation and use of 'light vehicle' networks, and the Project applicant has little to no control over whether future project users and occupants choose to utilize such networks." (Draft EIS/EIR, p. 8.0-119.)

Carbon Offsets/Credits:

Please see **Response 27**, below, for responsive information. In addition, please note that carbon offsets or credits would be purchased by the applicant, as provided in Mitigation Measures GCC-3 and GCC-4, in the event that photovoltaic power systems, or their equivalents, are not installed on the single-family residential units and every 1,600 square feet of non-residential roof area.

Electric Vehicle Charging Stations:

See discussion of "Alternative Fuels/Technologies," above.

Other Steps:

The comment does not identify the specific mitigation measures that are contemplated by the comment author; therefore, no more specific response can be provided.

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.

Response 26

The comment identifies a number of potential mitigation measures that it suggests are available to the applicant. The comment states that adopting such measures would benefit the environment, demonstrate responsible development, reduce emissions, and save the applicant and future residents money. The recommended measures are addressed below.

LEED Standards:

Los Angeles County has adopted a green building program that requires achievement of LEED design standards. Specifically, section 22.52.2130 of the Los Angeles County Code requires the following for projects whose building permit applications are filed on or after January 1, 2010:

- For a residential project containing five (5) or more dwelling units, the project shall achieve GPR, CGB, or LEED™ certification or, at the option of the applicant, shall achieve the equivalency of any such certification, as determined by Public Works.

- For a hotel/motel, lodging house, non-residential or mixed-use building, or first-time tenant improvement, with a gross floor area of at least 10,000 square feet but less than 25,000 square feet, the project applicant shall retain a LEED™ accredited professional or other green building professional, approved by the Director and the Director of Public Works, to be part of the project design team. In addition, the project shall achieve the equivalency of LEED™ certification, either through USGBC certification or through an equivalency determination by Public Works. The building design submitted to Public Works shall show all of the building elements that will be used to achieve such certification or such equivalency determination.

- For a hotel/motel, lodging house, non-residential or mixed-use building, or first-time tenant improvement project, with a gross floor area greater than 25,000 square feet or for a high-rise building greater than seventy-five (75) feet in height, the project applicant shall retain a LEED™ accredited professional or other green building professional, approved by the Director and the Director of Public Works, to be part of the project design team. In addition, the project shall achieve the equivalency of a LEED™ silver certification, either through USGBC certification or through an equivalency determination by Public Works. The building design submitted to Public Works shall show all of the building elements that will be used to achieve such certification or such equivalency determination.

Therefore, in accordance with existing regulatory requirements in Los Angeles County, the build-out enabled by approval of the proposed Project and certification of the EIS/EIR would follow the U.S. Green Building Council's LEED program.

Construction-Related Waste:

As discussed in **Section 4.20**, Solid Waste Services, of the Draft EIS/EIR, the applicant would comply with all state- and locally-mandated waste diversion and recycling requirements. For example, Los Angeles County's green building ordinance requires that all new residential projects containing five or more units and hotels/motels, lodging houses, non-residential, and mixed-use buildings with a gross floor area of 10,000 square feet or more must recycle and/or salvage for reuse a minimum of 65 percent of non-hazardous construction and demolition debris by weight.

Salvaged and Recycled Building Materials:

The Draft EIS/EIR, **Section 8.0**, Global Climate Change, contained an extensive array of mitigation measures that reduce greenhouse gas emissions to less-than-significant levels under both project and cumulative conditions. As a result, the lead agencies have determined that there is no need to impose further measures, particularly in this area especially because market conditions are expected to drive the feasibility of salvaged and recycled building materials as awareness and further regulations are developed in this emerging area. See also, Final EIS/EIR, revised **Section 8.0**, Global Climate Change; and **Topical Response 13: Global Climate Change Update**.

Water Conservation:

First, Los Angeles County has adopted green building and drought-tolerant landscaping ordinances that would apply to the proposed Project and would reduce water consumption. (See Los Angeles County Code, §§ 22.52.2100 *et seq.*, 22.52.2200 *et seq.*) The green building ordinance addresses indoor and outdoor water conservation, while the drought-tolerant landscaping ordinance identifies appropriate plant palettes.

Second, the applicant is committed to using native (or non-native/non-invasive) and drought-tolerant vegetation when revegetating the Project site.

Third, the proposed Project would use reclaimed/recycled water for landscape irrigation, and the infrastructure needed to deliver and use this water would be provided as part of the Newhall Ranch Water Reclamation Plant. (For additional information, please see the discussion of "Water Conservation and Efficiency" strategies in **Table 8.0-50**, Compatibility with California Attorney General GHG Emission Reduction Strategies, of the Draft EIS/EIR.)

Solar Energy:

The applicant has committed to providing photovoltaic energy systems (or their equivalent) on every single-family residential unit and every 1,600 square feet of non-residential roof area, *or* securing comparable carbon offsets/credits. (See Mitigation Measures GCC-3 and GCC-4 in the Final EIS/EIR, revised **Section 8.0**, Global Climate Change; and **Topical Response 13: Global Climate Change Update**.)

Passive Natural Cooling, Solar Hot Water Systems, Reduced Pavement:

The Draft EIS/EIR, **Section 8.0**, Global Climate Change, identifies an extensive array of project design features, recommended for incorporation as mitigation measures, which reduce greenhouse gas emissions to less-than-significant levels under both project and cumulative conditions. No additional mitigation measures are required under CEQA as a result. Even so, the additional mitigation measures identified in the comment are unnecessary because market conditions are expected to drive the feasibility of solar hot water systems and "permeable" pavement technologies as awareness and further regulations are developed in this emerging area. In addition, as to the Newhall Ranch

Specific Plan, specific subdivision projects still require local Los Angeles County approval, and these suggested measures are more appropriately considered in conjunction with project-specific design options at the project/subdivision stages. See also, Final EIS/EIR, revised **Section 8.0**, Global Climate Change; and **Topical Response 13: Global Climate Change Update**.

Landscaping to Preserve Natural Vegetation and Watershed Integrity:

As discussed in **Table 8.0-50**, Compatibility with California Attorney General GHG Emission Reduction Strategies, the primary goal of low-impact site design is to maintain a landscape functionally equivalent to predevelopment hydrologic conditions and to minimize the generation of pollutants of concern. The Los Angeles County Municipal Stormwater Permit and the State Board's Construction Storm Water General Permit regulate construction Best Management Practices for private and public construction in Los Angeles County, and the Newhall Ranch Specific Plan is featured as a "low impact development." **Section 4.4**, Water Quality, of the Draft EIS/EIR discusses various low-impact project design features of the development enabled by the proposed Project (*e.g.*, clustered development; reserved open space; minimizing impervious areas through landscaping; buffer areas between the project site and the Santa Clara River Corridor; *etc.*). See also, Final EIS/EIR, revised **Section 4.4**, Water Quality.

Relatedly, Los Angeles County has adopted low-impact development standards, the purpose of which is to encourage "site sustainability and smart growth in a manner that respects and preserves the characteristics of the County's watersheds, drainage paths, water supplies and natural resources." (Los Angeles County Code, § 12.84.410 *et seq.*)

In addition, as discussed in **Section 4.16**, Parks, Recreation, and Trails, of the Draft EIS/EIR, build-out of the Specific Plan would provide the following acreages of parks and Open Area: 10 public Neighborhood Parks totaling 55 acres; Open Areas totaling 1,106 acres, of which 186 acres are Community Parks; High Country Special Management Area of 4,214 acres; River Corridor Special Management Area of 819 acres; a 15-acre Lake; an 18-hole Golf Course; and, a trail system consisting of a Regional River Trail, Community Trails, and Unimproved Trails. The proposed Project also would result a managed preserve comprised, in part, of a 1,517-acre portion of the Salt Creek watershed and wildlife corridor in Ventura County and the grant of a conservation easement to CDFG over approximately 167.6 acres of the applicant's land holdings in Los Angeles County.

Electric Vehicle Charging Stations:

As also discussed in **Table 8.0-50**, Compatibility with California Attorney General GHG Emission Reduction Strategies, "[a]s provided in the Specific Plan's air quality mitigation measures, TLEV, ULEV, LEV, and ZEV would be operated in connection with the commercial and business park land uses." However, "[m]arket forces will drive the installation and use of 'light vehicle' networks, and the Project applicant has little to no control over whether future project users and occupants choose to utilize such networks."

(Draft EIS/EIR, p. 8.0-119.) See also, Final EIS/EIR, revised **Section 8.0**, Global Climate Change; and **Topical Response 13: Global Climate Change Update**

Energy Efficient Buildings:

The applicant is committed to exceeding whatever is the currently applicable version of the Title 24 standards by 15 percent as build-out of the development that would be facilitated by Project approval and certification of the EIS/EIR occurs.

ENERGY STAR Heating, Cooling, Lighting, Appliances:

For information responsive to this comment, please refer to **Response 103** to letter from United States Environmental Protection Agency, dated September 1, 2009 (Letter 006).

Public Transportation:

As discussed in **Table 8.0-50**, Compatibility with California Attorney General GHG Emission Reduction Strategies, "the land use and circulation plans for the development enabled by the proposed Project have been designed to minimize car trips and reduce GHG emissions. Accordingly, mass transit would be conveniently located through the development of a new transit station, park-and-ride lots(s), and bus stops. In addition, an approximate 5-mile right-of-way for a potential Metrolink extension also is included in the circulation plan. Trails and bike paths leading to close-to-home jobs, neighborhood serving retail, and the elementary school would encourage residents to enjoy the walkability of the community." (Draft EIS/EIR, pp. 8.0-117-8.0-118.) See also, Final EIS/EIR, revised **Section 8.0**, Global Climate Change; and **Topical Response 13: Global Climate Change Update**.

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.

Response 27

The comment states that once all mitigation measures that minimize greenhouse gas emissions have been adopted, offsets or credits should be purchased for all of the proposed Project's remaining greenhouse gas emissions. The comment identifies various carbon exchanges and registries that may be used to obtain credits and/or offsets.

This comment suggests the implementation of a zero emissions significance threshold, which was not the approach taken in the Draft EIS/EIR. As discussed in **Section 8.0**, the significance of the proposed Project's greenhouse gas emissions is assessed by considering whether the proposed Project would impede compliance with the greenhouse gas emission reduction mandates in AB 32 (*i.e.*, whether the proposed Project would prevent the State of California from returning to 1990 emission levels by 2020). (See Draft EIS/EIR, **Subsection 8.4**, Impact Significance Criteria, p. 8.0-29.) The technical analysis prepared by ENVIRON International Corporation showed that the proposed Project's impacts would be less than significant at the project and cumulative level, due to the incorporation of several green building design commitments, evolving regulatory improvements in vehicle and fuel efficiencies, overall site design, *etc.*

Importantly, neither the California Natural Resources Agency/Office of Planning and Research nor the California Air Resources Board nor the South Coast Air Quality Management District are pursuing adoption of a zero emissions threshold. Instead, such agencies have acknowledged the discretion afforded to local lead agencies in identifying the appropriate significance criterion and considered the implementation of performance-based thresholds, tiered thresholds, and/or plan-based thresholds. (See, *e.g.*, CARB's "Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases Under the California Environmental Quality Act" (October 24, 2008), p. 4 ["[CARB] staff believes that for the project types under consideration [*i.e.*, industrial and commercial/residential], non-zero thresholds can be supported by substantial evidence. [CARB] staff believes that zero thresholds are not mandated in light of the fact that (1) some level of emissions in the near term and at mid-century is still consistent with climate stabilization and (2) current and anticipated regulations and programs apart from CEQA . . . will proliferate and increasingly will reduce the GHG contributions of past, present, and future projects."]. The referenced report is incorporated by reference, and available for public inspection and review as part of the Final EIS/EIR at the Valencia Library, 23743 Valencia Boulevard, Santa Clarita, California 91355.)

Moreover, the recently adopted amendments to the CEQA Guidelines did not incorporate a zero emissions threshold. Instead, as provided in CEQA Guidelines section 15064.4 and the Appendix G environmental checklist, a lead agency should look at the following three factors, among others, when assessing the significance of greenhouse gas emissions: (i) the extent to which a project increases or decreases existing emission levels; (ii) the extent to which project emissions exceed a threshold of significance that the lead agency determines applies to a project; and (iii) the extent to which a project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. (See Cal. Code Regs., tit. 14, §15064.4, subd. (b).) These factors confirm that continuing discretion is afforded to lead agencies when determining the significance of project impacts, and support the analytical approach utilized in the Draft EIS/EIR.

In addition, the California Air Pollution Control Officers Association (CAPCOA) has identified three basic options that lead agencies can pursue when contemplating thresholds of significance for greenhouse gases: (i) no significance threshold; (ii) a threshold set at zero; and, (iii) a non-zero threshold. (CAPCOA, "CEQA & Climate Change" (January 2008), pp. 2-3.) Of note, when exploring non-zero thresholds, CAPCOA discusses two primary approaches: "The first is grounded in statute (AB 32) and executive order (EO S-3-05) . . . The options under this approach are variations of ways to achieve the 2020 goals of AB 32 from new development . . .." (CAPCOA, p. 3.) The analysis presented in revised **Section 8.0** of the Final EIS/EIR is consistent with this threshold approach.

In summary, there is no basis in law for additional mitigation, including carbon offsets or credits, because proposed Project impacts were determined to be less than significant. For further responsive information, please refer to Final EIS/EIR, revised **Section 8.0**, Global Climate Change. 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.

Response 28

The comment states that a new traffic model must be constructed to depict the full range of trips to and from outside the area, as well as cumulative trips. However, for the reasons explained in **Responses 20-22**, above, the SCVCTM traffic model that was utilized to derive project trip distribution patterns and

long-term cumulative traffic growth volumes accurately depicted the full range of trips to and from outside the model area, as well as cumulative traffic trips generated by other projects. Therefore, it is not necessary to construct or utilize a new traffic model for the EIS/EIR traffic impacts analysis, as the comment suggests. Nonetheless, 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.

Response 29

The comment states that (i) greenhouse gas emissions for the proposed Project must be formulated; and (ii) additional, updated mitigation measures must be identified. Please see **Response 23** and **Responses 25-27**, above, for responsive information. 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.

Response 30

The comment provides background information and does not address the adequacy of the information or impact analysis provided in **Section 4.3**, Water Resources of the Draft EIS/EIR; therefore, no further response is provided. For further responsive information, please refer to Final EIS/EIR, **Section 4.3**, Water Resources. The Corps and CDFG appreciate your comments and they will be made available to the decision makers prior to a final decision on the proposed Project.

Response 31

The comment states that monumental changes in "water supply circumstances" have occurred since Los Angeles County approved the Newhall Ranch Specific Plan in May 2003 and that **Section 4.3**, Water Resources, of the Draft EIS/EIR "wrongly begins with the Specific Plan finding that adequate water supply exists for this project." The comment also states that the Draft EIS/EIR "must address whether an adequate water supply" exists for the Specific Plan project.

Each environmental impact assessment section of the Draft EIS/EIR begins by summarizing the findings from the previously certified Newhall Ranch Specific Plan Program EIR. Those findings do not dictate the results of the analysis undertaken in **Section 4.3**; instead, they are provided for historical context, and to provide information pertinent to the overall analysis. The Draft EIS/EIR correctly stated the conclusion of the Newhall Ranch Specific Plan Program EIR regarding water supply in **Subsection 4.3.1.1** and then provides a separate and additional assessment of the water demand and supply impacts associated with the proposed Project and the alternatives. The EIS/EIR impact analysis includes an analysis of the proposed Project's indirect impacts, which focus on an assessment of the water resource impacts associated with development facilitated by approval of the proposed Project and alternatives. Specifically, RMDP approval would facilitate development of the approved Newhall Ranch Specific Plan, and SCP approval would create designated spineflower preserves within portions of the Specific Plan and the Entrada planning area, and authorize take of spineflower within the VCC and Entrada planning areas, all of which enables development of the Specific Plan, VCC, and a portion of Entrada. **Subsection 4.3.6.2.2** provides an analysis of the Specific Plan water demand and the supply needed to meet that demand, if the proposed Project is approved. This analysis was based on the most recent water supply and demand data available and does not rely on the conclusions and analysis provided in the 2003 Newhall Ranch Specific Plan Program EIR.

The Final EIS/EIR includes the following responses that address various water-related topics raised in comments to **Section 4.3**, Water Resources, of the Draft EIS/EIR: **Topical Response 4: Nickel Water**;

Topical Response 5: Water Litigation and Regulatory Action Update; **Topical Response 6: CLWA's 41,000 AFY Water Transfer**; **Topical Response 7: Perchlorate Treatment Update**; **Topical Response 8: Groundwater Supplies and Overdraft Claims**; and **Topical Response 9: State Water Project Supply Reliability**. These Topical Responses provide clarification regarding the analysis in **Section 4.3**, Water Resources, and update information since publication of the Draft EIS/EIR. See also, Final EIS/EIR, revised **Section 4.3**, Water Resources. The Corps and CDFG appreciate the comments and they will be included as part of the record and made available to the decision makers prior to a final decision on the proposed Project.

Response 32

The comment states that the County Sanitation Districts have failed to meet the Santa Clara River chloride total maximum daily load (TMDL) standard of 100 mg/L, mainly as a result of the increase in use of State Water Project (SWP) water and that this failure resulted in the stakeholder development of a comprehensive compromise plan to achieve compliance.

SWP water intended for use by the Castaic Lake Water Agency (CLWA) is conveyed through the West Branch of the California Aqueduct to Quail and Pyramid Lakes and then to Castaic Lake, the terminus for the West Branch. Chloride concentrations in SWP water at Castaic Lake have been consistently below 80 mg/L since 2004 based on data collected by CLWA (see Figure 1, below). This water quality is well below the adopted SSOs for Santa Clara River Reach 5 (*e.g.*, 150 mg/L as a 12-month rolling average) and the lower reaches of the Santa Clara River (*e.g.*, 117 mg/L as a 3-month rolling average at Reach 4B, downstream of Blue Cut). Therefore, SWP water is not expected to cause the Santa Clarita Sanitation District to fail to meet the TMDL for chloride.

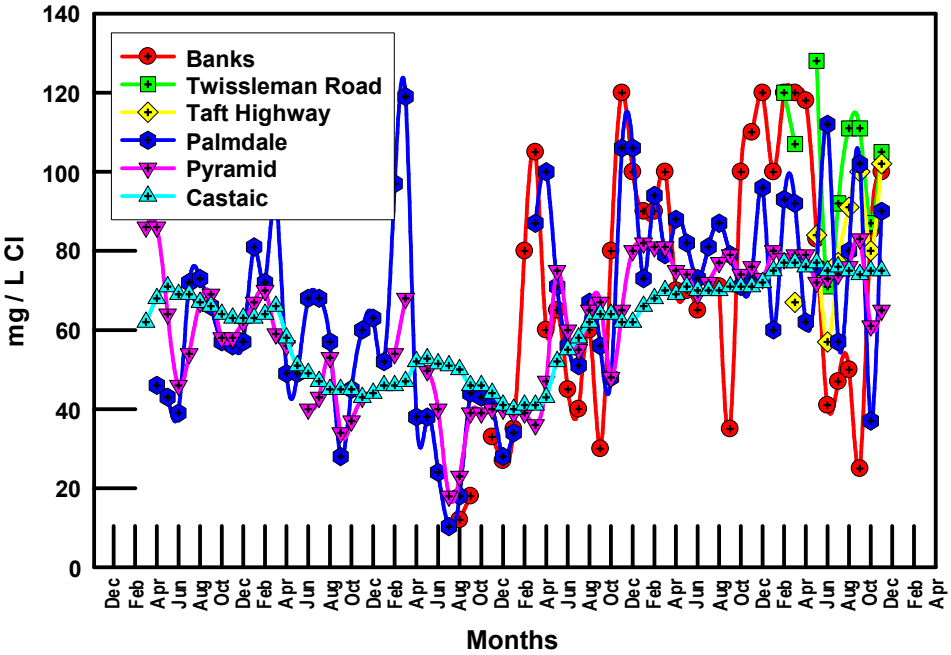

Figure 1: Chloride Concentrations in Locations throughout the State Water Project

The Los Angeles Regional Water Quality Control Board (RWQCB) first adopted a TMDL for chloride in the Upper Santa Clara River in October 2002 (Resolution No. 2002-018). On May 6, 2004, the RWQCB amended the Upper Santa Clara River chloride TMDL to revise the interim wasteload allocations (WLAs) and implementation schedule (Resolution 04-004). The amended TMDL was approved by the State Water Resources Control Board (SWRCB), Office of Administrative Law, and the USEPA, and became effective on May 4, 2005.

As stated in the TMDL, the principle source of chloride loads in the Upper Santa Clara River is the effluent from the Saugus and Valencia water reclamation plants (WRP). The WRP effluent chloride load is comprised of two main sources: chloride present in the imported water supply and chloride added by residents, businesses, and institutions in the Saugus and Valencia WRP service areas. The chloride load added by users can be further divided into two parts: brine discharge from self-regenerating water softeners (SRWS) and all other loads added by users. Excluding the chloride load that exists in the water supply, non-SRWS sources of chloride include: residential, commercial, industrial, infiltration, and wastewater disinfection. The two largest sources of chloride in the WRP effluent are the imported water supply and SRWS, which have historically comprised from 37 percent to 45 percent and from 26 percent to 33 percent of the chloride in the WRP effluent, respectively (RWQCB, 2008)

At the time the TMDL was adopted and approved, there were key scientific uncertainties regarding the sensitivity of crops to chloride and the complex interactions between surface water and groundwater in the Upper Santa Clara River watershed. The TMDL recognized the possibility of revised chloride water quality objectives (WQO) and included mandatory reconsiderations by the RWQCB to consider Site Specific Objectives (SSO). The TMDL required the County Sanitation Districts to implement special studies and actions to reduce chloride loadings from the Saugus and Valencia WRPs. The TMDL included the following special studies to be considered by the RWQCB:

- Literature Review and Evaluation (LRE) -- review agronomic literature to determine a chloride threshold for salt sensitive crops.

- Extended Study Alternatives (ESA) -- identify agricultural studies, including schedules and costs, to refine the chloride threshold.

- Endangered Species Protection (ESP) -- review available literature to determine chloride sensitivities of endangered species in the Upper Santa Clara River.

- Groundwater and Surface Water Interaction Study (GSWI) -- determine chloride transport and fate from surface waters to groundwater basins underlying the Upper Santa Clara River.

- Conceptual Compliance Measures -- identify potential chloride control measures and costs based on different hypothetical WQO and final WLA scenarios.

- Site Specific Objectives and Antidegradation Analysis -- consider a site-specific objective for chloride based on the results of the agricultural chloride threshold study and the GSWI.

The TMDL special studies were conducted in a facilitated stakeholder process in which stakeholders participated in scoping and reviewing the studies. This process has resulted in an alternative TMDL implementation plan that addresses chloride impairment of surface waters and degradation of

groundwater. The alternative plan, termed Alternative Water Resources Management (AWRM), was first set forth by Upper Basin water purveyors and United Water Conservation District (UWCD), the management agency for groundwater resources in the Ventura County portions of the Upper Santa Clara River watershed.

Revised Chloride TMDL Resolution No R4-2008-012, which was approved by the RWQCB on December 11, 2008, established numeric targets that are equivalent to conditional SSOs. The conditional SSOs are based on the 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 conditional chloride SSO of 150 mg/L (based on a 12-month rolling average) supersedes the previous water quality objective of 100 mg/L for Santa Clara River Reaches 5 and 6. This SSO is conditional in that it applies only when chloride load reductions and/or chloride export projects are in operation by the County Sanitation Districts. If these conditions are not met, WLAs shall be based on existing water quality objectives for chloride of 100 mg/L.

Response 33

The comment states that the Nickel water (1,607 acre-feet) to be imported to the Newhall Ranch Specific Plan site will add to the chloride load unless the Newhall Ranch WRP, approved as a reverse osmosis salt removal system facility, is constructed immediately to mitigate for chloride. The comment states that the first phases of the Specific Plan and the Entrada planning area portion of the Project will not be served by the WRP.

The Nickel water is not contemplated to be needed to serve the Newhall Ranch Specific Plan until the Newhall agricultural water to be used as a potable water source for the Specific Plan (*i.e.*, 7,038 acre-feet per year (afy)) would be completely committed to the Specific Plan. According to the Newhall Ranch Revised Additional Analysis, Volume VIII (May 2003), Section 2.5, Water Resources, page 2.5-140-2.5-142, the Nickel water would not be needed until the 21st build-out year. (The Newhall Ranch Revised Additional Analysis (May 2003) was incorporated by reference in the Draft EIS/EIR. It was also available for public review at specified libraries.)

A GSWI model was developed to assess the linkage between chloride sources and in-stream water quality and to quantify the assimilative capacity of Santa Clara River Reaches 4A, 4B, 5, and 6 and the groundwater basins underlying those reaches (RWQCB, 2008). 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 proposed Project, in order to determine appropriate WLAs and load allocations. The linkage analysis demonstrated 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 (RWQCB, 2008). The watershed chloride reduction plan will be implemented through National Pollutant Discharge Elimination System (NPDES) permits for the Valencia WRP and a new NPDES permit for discharge into Reach 4A. The document referenced in the response, RWQCB 2008, is found in **Appendix F4.4** of the Final EIS/EIR (see "Upper Santa Clara River Chloride TMDL Reconsideration and Conditional Site Specific Objectives for Chloride and Interim Wasteload Allocations for Sulfate and Total Dissolved Solids Staff Report," California Regional Water Quality Control Board - Los Angeles Region, November 24, 2008).

See also, Final EIS/EIR, revised **Section 4.3**, Water Resources.

Response 34

Use of SWP water and Nickel Water would not result in a significant impact under Alternatives 2-7 to water quality under Significance Criterion 1: violate any water quality standards or waste discharge requirements. Please see **Responses 32** and **33**, above and Final EIS/EIR, revised **Section 4.4**, Water Quality, **Subsection 4.4.6.2.2**.

Response 35

The comment generally states that the Draft EIS/EIR must analyze the disposal of brine (a by-product of the reverse osmosis [RO] treatment process) from the Newhall Ranch WRP into local abandoned oil wells. The Newhall Ranch Water Reclamation Plant (WRP), including the disposal of brine generated by the RO treatment process, is under the jurisdiction of agencies other then the Corps and CDFG. Notwithstanding this, the following information is provided in response to the comments received. The source of the summary that follows is the document entitled, "Revised U.S. EPA Permit Application for Class I Non-Hazardous Injection Well(s) Area Permit," prepared by WZI, Inc., dated November 2008. A copy of the permit application is provided in Final EIR/EIS, **Appendix F4.4**.

Newhall Land is proposing the disposal of brine concentrate generated by the RO process 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 application also demonstrated that the proposed injection will not impact the USDW.

Background

The Newhall Ranch WRP was approved by the Los Angeles County (County) Board of Supervisors (Board) in May 2003 after certifying the EIR prepared to analyze the impacts of the plant. The WRP will be constructed by Newhall Land, and owned and operated by the Newhall Ranch County Sanitation District formed in 2006. The WRP will be located on the Specific Plan site, south of State Route 126 (SR-126), north of the Santa Clara River near the Los Angeles County/Ventura County boundary. A National Pollutant Discharge Elimination System (NPDES) permit (#CA0064556) was issued to the Newhall Ranch County Sanitation District on September 6, 2007 for discharge of up to 2 million gallons per day (mgd) of tertiary treated wastewater from the WRP to the Santa Clara River. It is anticipated that the WRP will treat 2 mgd of influent during the first phase of development of the Newhall Ranch Specific Plan, increasing to 6.8 mgd at final build-out.

Summary of Brine Disposal Process

Brine, a by-product of the RO treatment process, would be injected into abandoned oil fields, which included 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 mgd for approximately five months per year. Installation of a RO system at the WRP is proposed to meet the NPDES water quality effluent limit of 100 mg/l chloride for discharge to the Santa Clara River. The majority of the effluent from the

WRP would be used for reclaimed water purposes. The planned use of the reclaimed water is for landscape irrigation during the dry months, generally April through October. When the reclaimed water cannot be used for irrigation, RO would be used to treat a portion of the effluent to meet the NPDES discharge limits for discharge to the Santa Clara River. The resulting RO permeate would be blended with the remaining flow to meet the required chloride discharge limit.

Extent of Underground Source of Drinking Water (USDW):

Groundwater in the Project area 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 (Final EIR/EIS, **Appendix F4.4**, General Geologic Map, Exhibit 5) 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.

Confining Zone:

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 Saugus and Alluvium Formations, and protects the USDW from injected fluids.

Injection Zone:

The potential injection zones, the Pliocene Pico and the Miocene Modelo formations (Final EIR/EIS **Appendix F4.4**, Type Log, Exhibit 4), 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. Furthermore, the reported water quality of the proposed injection zones ranges from approximately 21,800 parts per million (ppm) to 13,800 ppm total dissolved solids (TDS), and, therefore, the injection zones are not considered USDW as defined in UIC regulations 40 CFR Parts 144 *et seq*. .(*i.e.*, less than 10,000 ppm TDS).

Injection Life:

The estimated injection life for the brine disposal project was calculated to be in excess of 150 years, based on a ramp-up injection calculation (Final EIR/EIS, **Appendix F4.4**, Injection Pressure Calculation Ramp Up Influent to 6.8 mgd - Exhibit 12). The injection life was determined by multiplying the daily well injection rate times the estimated five month period each year that injection is required to calculate the annual injection volume and corresponding formation pressure, taking into consideration formation permeability, porosity, viscosity and compressibility. The injection volume was increased annually to

reflect the increase in development in the Specific Plan area to build-out. The estimated injection life occurs when the incremental addition of annual injection volume reaches the calculated formation pressure limit. This analysis was conservative as it did not account for any decrease in formation pressure that has occurred related to the decades of historic oil production.

Response 36

The comment states that the Draft EIS/EIR must include information regarding the costs of water infrastructure and wastewater treatment process. While it is correct that the applicant will fund these required services, the Draft EIS/EIR is not the forum for addressing such costs. The funding of these services is not under the jurisdiction of the Corps nor CDFG, and the provision for funding of mitigation measures does not itself create the prospect of a physical change to the environment and, therefore, is not a potentially significant effect on the environment requiring analysis under CEQA or NEPA. (Pub. Res. Code, § 21060.5; 40 C.F.R. § 1508.14.) Consequently, this information is not required and no further response is provided. 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.

Response 37

The comment states that the Memorandum of an Alternative Water Resources Management Program (October 2008) will direct desalinated recycled water to reduce the level of chlorides as its first and primary purpose, thereby reducing the availability of recycled water to the Newhall Ranch Specific Plan. However, the treatment process to be employed in the Newhall Ranch WRP (reverse osmosis) will reduce the chloride levels in treated effluent to less than the TMDL standard for the Santa Clara River. Pursuant to the NPDES permit (#CA0064556) issued to the Newhall Ranch County Sanitation District on September 6, 2007, this process will not reduce the amount of recycled water available for use on the Specific Plan site for irrigation. Please see **Response 35**, above, for additional information.

Response 38

The comment states that no contract or option exists between the Newhall Ranch County Sanitation District and applicant for the purchase of recycled water. Due to the nature of the proposed Project, compliance with SB 610/SB 221, which mandate the identification of water service contracts in a water supply assessment (WSA), is not required. (Wat. Code, §10910.) The proposed Project is not a "project" subject to Water Code section 10910. (Wat. Code, §§ 10910, 10912.) See **Response 2** to letter from Planning and Conservation League, dated August 25, 2009 (Letter 052), for additional information regarding the requirements for a WSA. The County of Los Angeles also has already committed to complying with these water supply requirements in connection with the Newhall Ranch Specific Plan subdivision maps and associated project EIRs. In addition, the County has committed to complying with these requirements for both the VCC and Entrada planning areas as they proceed to project-specific development stages in the County.

Moreover, adequate assurances are in place for the provision of recycled water for the Newhall Ranch Specific Plan and the Santa Clarita Valley. Currently, recycled water is available from two water reclamation plants operated by the Sanitation Districts of Los Angeles County. In 1993, CLWA prepared a draft Reclaimed Water System Master Plan that outlined a multi-phase program to deliver recycled water in the Valley. CLWA previously completed environmental review on the construction of Phase I of

the project, which will deliver 1,700 afy of water. Deliveries of recycled water began in 2003 for irrigation water supply at a golf course and in roadway median strips. In 2008, recycled water deliveries were 311 af. Surveys conducted by CLWA indicate an interest for recycled water by existing water users as well as by future development as recycled water becomes available. In 2002, CLWA produced an updated Draft Recycled Water Master Plan. Overall, the program is expected to ultimately recycle up to 17,400 acre-feet (af) of treated (tertiary) wastewater suitable for reuse on golf courses, landscaping and other non-potable uses, as set forth in the Urban Water Management Plan (UWMP).

In 2007, CLWA completed the CEQA analysis for the Recycled Water Master Plan (2002). This analysis consisted of a Program EIR covering the various options for a recycled water system as outlined in the Master Plan. The Program EIR was certified by the CLWA Board in March 2007. Since that time, CLWA has been working on the design of the second phase of the Recycled Water Master Plan. As the plan continues to develop, its progress will be reported in the annual Santa Clarita Valley water reports. (See, for example, Final EIS/EIR, **Appendix F4.3** [2008 Santa Clarita Valley Water Report, April 2009, pp. 3-18-3-19].)

Response 39

The comment accurately states that a contract exists between the Newhall Ranch County Sanitation District and CLWA for the delivery of 1,700 afy of recycled water. The comment does not address the adequacy of the information or impact analysis provided in the Draft EIS/EIR; and, therefore, no additional response is provided. 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.

Response 40

The comment indicates that new water quality standards may affect the applicant's ability to recharge groundwater aquifers as part of an Aquifer Storage and Recovery (ASR) system. The once-proposed ASR system is no longer a necessary component of the water delivery system for the Newhall Ranch Specific Plan. Consequently, the applicant is no longer pursuing an ASR system.

Response 41

The comment states that requirements of the RWQCB for groundwater well injections should be discussed in the Draft EIS/EIR. Please see **Response 40**, above, for responsive information. The comment also states that current chloride levels in the SWP water do not meet Santa Clara River TMDL standard of 100 mg/l. Because the Newhall Ranch Specific Plan does not rely on SWP water to serve the site, supplying water to the Specific Plan would not impair local water bodies, including the Santa Clara River. The comment suggests that current chloride levels in the SWP water do not meet Santa Clara River TMDL standard of 100 mg/l. Data obtained from CLWA, presented in Final EIR/EIS, **Appendix F4.3**, shows that recent chloride levels in SWP water received by CLWA between October 2008 and October 2009 ranged between 74 mg/l and 81 mg/l, well below the 100 mg/l standard. The comment also states that "additional pollutants in ground or surface water sources may limit water well injection." Water well injection is no longer proposed as part of the Specific Plan and, the commentor has not specified which "additional pollutants" may limit well injection. Therefore, no further response to this comment can be provided. Please refer to **Topical Response 8: Groundwater Supplies and Overdraft Claims**, for

further responsive information. The water quality impacts of the proposed Project are addressed in the Final EIS/EIR, revised **Section 4.4**, Water Quality.

Response 42

The comment states that numerous federal court decisions and biological opinions concerning endangered fish species in the Sacramento/San Joaquin Delta have recently been issued. This issue received extensive analysis in the Draft EIS/EIR, specifically **Subsection 4.3.4.2.2**, SWP Operations, Deliveries, and Constraints. In addition, please refer to **Topical Response 5: Water Litigation and Regulatory Action Update**, and **Topical Response 9: State Water Project Supply Reliability**, which discuss these decisions and updates since publication of the Draft EIS/EIR. Finally, please refer to the Final EIS/ EIR, revised **Section 4.3**, Water Resources, for further responsive information.

Response 43

The comment states that the use of grey water (wastewater generated by residential activities) for residential landscaping purposes needs to be reviewed in the Draft EIS/EIR. The comment also speculates that if grey water is diverted, then the amount of recycled water generated may be reduced. A grey water program is not within the jurisdiction of the Corps or CDFG, and such a program has not yet been developed by the Santa Clarita Valley water purveyors. It also is not proposed for use within the Newhall Ranch Specific Plan or the VCC and Entrada planning areas. Therefore, it cannot be relied upon to support the possibility for the generation of less recycled water or as a means of reducing Valley water demands for potable water. The information presented in the Draft EIS/EIR supports the conclusion that no significant project-specific or cumulative water resource impacts would occur. The Draft EIS/EIR includes a cumulative analysis of impacts to water resources, including a determination of whether enough water would exist in the future to meet the needs of existing residents, the Specific Plan, as well as development approved but not yet constructed and development still in the proposal stages (including general plan amendment requests). (See Draft EIS/EIR, **Subsection 6.5.3.2**, Cumulative Water Resources Impacts.) As summarized in the Draft EIS/EIR:

> "As depicted in **Table 6.0-25**, purveyors have access to an amount of water that exceeds demand under all conditions. As discussed in **Section 4.3**, adequate water exists to serve the proposed Project, and the proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Therefore, the incremental effects of the proposed Project are not significant when viewed in connection with the effects of other past, present, and foreseeable future development projects. Cumulative water resources impacts are less than significant, and the proposed Project's incremental contribution to cumulative impacts is less than cumulatively considerable (Criteria 1 and 2)." (See Draft EIS/EIR, p. 6.0-79)

Response 44

The comment states that no agreement with the California Department of Water Resources (DWR) exists with respect to moving the Nickel water, as referred to in the Draft EIS/EIR, from the Tubman turnout in Kern County to the Project site. Please refer to **Topical Response 4: Nickel Water**, for responsive information.

Response 45

The comment states that a wheeling agreement must be executed before the Nickel water can be delivered to the Project site. Please refer to **Topical Response 4: Nickel Water**, for responsive information.

Response 46

The comment expresses concern regarding the lack of environmental documentation disclosing and discussing the transfer of the 1,603 acre feet of Lower Kern River water to the Project site. Please refer to **Topical Response 4: Nickel Water** for responsive information.

Response 47

The comment states that contracts for options on an additional 7,648 af of water transfers counted as available in the certified Specific Plan Program EIR expired in 2002. The purchase of this additional water is no longer being pursued by the applicant because adequate supplies are available to serve the proposed Project without it. Therefore, the expiration of these contracts does not affect the analysis in the Draft EIS/EIR. In addition, please see the Final EIS/EIR, revised **Section 4.3**, Water Resources.

Response 48

The comments state that the amount of agricultural water that can be used to serve the Specific Plan (*i.e.*, 7,038 afy) is overstated in the Draft EIS/EIR because irrigation "returns" were not considered in determining the amount of water that would be available. Based on the certified Newhall Ranch Revised Additional Analysis, Volume VIII (May 2003), Section 2.5, Water Resources, the County of Los Angeles found that the Specific Plan's agricultural water supply (7,038 afy) was adequate and not overstated. Please refer to **Topical Response 8: Groundwater Supplies and Overdraft Claims**, and revised **Section 4.3**, Water Resources, of the Final EIS/EIR for further responsive information.

Response 49

The comment lists various "wheeling" agreements that have been completed or proposed subsequent to the approval of the Newhall Ranch Specific Plan. The comment does not address the adequacy of the information or impact analysis provided in the Draft EIS/EIR; and, therefore, no additional response is provided.

Response 50

The comment states that although the West Branch aqueduct may have adequate capacity to transmit water from Kern County to locations south, bottlenecks, such as the Oso pump station, may not. Please refer to **Topical Response 4: Nickel Water**, and **Topical Response 9: State Water Project Supply Reliability**, for responsive information.

Response 51

The comment states that the Draft EIS/EIR should describe how it plans to comply with 401 certification in light of RWQCB Resolution No. 2005-002, January 27, 2005 "Reiteration of Existing Authority to Regulate Hydromodifications within the Los Angeles Region, and Intent to Evaluate the Need for and Develop as Appropriate New Policy or Other Tools to Control Adverse Impacts from Hydromodification

on the Water Quality and Beneficial Uses of Water Courses in the Los Angeles Region." Please refer to the Draft EIS/EIR, **Section 4.2**, Geomorphology and Riparian Resources, for information regarding hydromodification control. (See also, Final EIS/EIR, revised **Section 4.2**, Geomorphology and Riparian Resources.) As stated on page 4.2-15, the Newhall Ranch Specific Plan Subregional Stormwater Mitigation Plan (Draft EIS/EIR, **Appendix 4.4**) provides a performance standard for the Project build-out that was developed to ensure the stability of drainages by maintaining sediment transport characteristics rather than relying solely on a "flow based" standard. The Specific Plan projects, Entrada, and VCC will be conditioned to require, as a project design feature, sizing and design of hydraulic features as necessary to control hydromodification impacts in accordance with the Newhall Ranch Specific Plan Subregional Stormwater Management Plan. The Specific Plan projects will comply with the following performance standard:

> "The erosion potential (Ep) of stormwater discharges from the Project shall be maintained within 20% of the target value in the tributary drainages that will receive postdevelopment flows. The target erosion potential (Ep) will consider changes in sediment supply."

The erosion potential (Ep) is a metric that measures the potential impact of modified flows on stream stability and substantial erosion, and has been developed as a means to define an instream performance standard and a "significance test" of the effectiveness of proposed hydromodification control strategies. An equivalently effective, similarly geomorphically-referenced approach may be developed and applied in the future in place of the erosion potential approach. The hydromodification performance standard will be met for all of the Project build-out from the point of discharge to the tributary drainage channel downstream to the confluence of the tributary drainage with the Santa Clara River, and shall be achieved through on-site or in-stream controls, or a combination thereof.

Response 52

Please see **Topical Response 2: Bankruptcy-Related Comments** for information responsive to this comment.

Response 53

Please see **Topical Response 2: Bankruptcy-Related Comments** for information responsive to this comment. While it is correct that the applicant will fund the costs of water infrastructure and wastewater treatment processes, the Draft EIS/EIR is not the forum for addressing such costs. The funding of these services is not under the jurisdiction of the Corps or CDFG; and the provision for funding of conditions or mitigation measures does not create a physical change to the environment and is therefore not a potentially significant effect on the environment requiring analysis under CEQA or NEPA. (Pub. Res. Code, § 21060.5; 40 C.F.R. § 1508.14.) Consequently, this information is not required and no further response is provided.

Response 54

The comment states that a report required by Specific Plan Mitigation Measure 4.11-22 should indicate which crops are currently growing in the area proposed to be fallowed for each Newhall Ranch Specific Plan tract map and how much water that will yield. This Specific Plan mitigation measure is part of the County-adopted Mitigation Monitoring and Reporting Plan for the Specific Plan, and it falls within the

County's jurisdiction to ensure enforcement of this measure when appropriate. Specific Plan Mitigation Measure 4.11-22 required the applicant to provide the County with documentation identifying the specific portion(s) of irrigated farmlands in the County proposed to be retired from irrigated production to make agricultural water available to serve each subdivision within the Newhall Ranch Specific Plan. In response to that mitigation measure, the applicant has provided the County with three reports entitled, "Retired Irrigated Farmland" for Landmark Village, Mission Village, and Homestead Village within the Newhall Ranch Specific Plan. Each report is accompanied by two exhibits ("Exhibits A and B"). Exhibits A are figures depicting the Newhall Ranch irrigated farmland proposed to be retired for Landmark Village, Mission Village, and Homestead Village. Exhibits "B" are tables describing the irrigated farmlands to be retired for each village. These tables also describe the types of planted crops to be retired. Please refer to **Appendix F4.3** of the Final EIS/EIR for this data.

Response 55

As stated in **Response 54**, above, the County of Los Angeles adopted a Mitigation Monitoring and Reporting Plan for the Specific Plan, and it falls within the County's jurisdiction to ensure enforcement of Specific Plan Mitigation Measure 4.11-15. The applicant has provided a letter and attachments from Alex Herrell, Director, Community Development, to Sam Dea, Supervising Regional Planner, Los Angeles County Department of Regional Planning, dated April 7, 2009. The letter and attachments were provided to the County in compliance with Newhall Ranch Specific Plan Mitigation Measure 4.11-15. The attachments included: (a) a chart entitled, "Los Angeles County Agricultural Water Use," showing the amount of irrigation water historically and currently used on the applicant's Los Angeles County farm fields for crop seasons 2001-2008, using the same methodology that was used in the Newhall Ranch Revised Additional Analysis (May 2003); (b) Revised Table 2.5-32, page 2.5-140, from the Newhall Ranch Revised Additional Analysis (May 2003), which shows the original information for the years 1996-2000, which served as the baseline for determining the estimated annual average usage of 7,038 acre-feet; and (c) a figure from FORMA entitled, "Newhall Land Historically Irrigated Agricultural Areas within Los Angeles County" showing the specific land in Los Angeles County where the groundwater was historically used. The April 7, 2009 letter and attachments are found in **Appendix F4.3** of the Final EIS/EIR.

The comment also states that overdraft of the Alluvial aquifer has "been an issue for many years." As discussed in the Draft EIS/EIR, **Section 4.3**, Water Resources, and **Topical Response 8: Groundwater Supplies and Overdraft Claims**, there is no evidence to support the statement that the Alluvial aquifer is in a state of "overdraft." In addition, the Memorandum of Understanding (MOU) reached between the Santa Clarita Valley water purveyors and the United Water Conservation District (UWCD) requires monitoring of the groundwater basin to identify overdraft conditions should they occur. Therefore, the Alluvial aquifer is not in a state of overdraft.

Response 56

The comment indicates that the Draft EIS/EIR should have included the 2008 Santa Clarita Valley Water Report (April 2009). This report was not available for use in the Draft EIS/EIR, which was publicly circulated in April 2009, but is included in the Final EIS/EIR, **Appendix F4.3**. The Draft EIS/EIR used the Santa Clarita Valley water reports from 2006 and 2007, which was the best information available at the time of Draft EIS/EIR circulation. (See CEQA Guidelines, § 15151.) Please refer to **Topical Response 8: Groundwater Supplies and Overdraft Claims**, for further responsive information. In

addition, Final EIS/EIR, revised **Section 4.3**, Water Resources, provides updated information from the 2008 Santa Clarita Valley Water Report.

Response 57

The comment states that the Draft EIS/EIR does not give an accurate view of the full extent of groundwater pumping in the Upper Santa Clara Basin. Information regarding groundwater pumping is presented in the Draft EIS/EIR, **Subsection 4.3.4.4**, Description of Groundwater Supplies. Please refer to **Topical Response 8: Groundwater Supplies and Overdraft Claims**, for further responsive information, including a discussion of the latest annual Santa Clarita Valley water report (April 2009), which is found in **Appendix F4.3** of the Final EIS/EIR. Please also see Final EIS/EIR, revised **Section 4.3**, Water Resources.

Response 58

The comment states that the local well owners' association has "long complained that private pumping is underestimated in ground water documents and have expressed concern that the viability of their wells may be affected by additional pumping." The information presented in the Draft EIS/EIR, **Section 4.3**, Water Resources regarding wells is accurate. (Please see Final EIS/EIR, revised **Section 4.3**, Water Resources.) For additional responsive information, please refer to **Topical Response 8: Groundwater Supplies and Overdraft Claims**, and the latest annual Santa Clarita Valley water report (April 2009), which is found in **Appendix F4.3** of the Final EIS/EIR.

Response 59

The comment asserts that die back in the upper reaches of the Santa Clarita Valley is occurring due to the overdrafting of the groundwater basin. Please refer to **Topical Response 8: Groundwater Supplies and Overdraft Claims**, for responsive information.

Response 60

The Draft EIS/EIR does not state, as the comment claims, "…that both the Saugus Aquifer and the Alluvial Aquifer are exhibiting some increase in EC indicative of ground water overdraft…" Nor does the Draft EIS/EIR indicate that increases in electrical conductivity (EC) are indicative of groundwater basin overdraft. They are not. This comment may be referring to the text on page 4.3-57 of the Draft EIS/EIR that states "[g]roundwater quality is a key factor in assessing the Alluvial aquifer as a municipal and agricultural water supply." This sentence and the ensuing text in **Subsection 4.3.4.5.3** of the Draft EIS/EIR are discussing the suitability of the local aquifers (the alluvium and the Saugus) for use as a source of drinking water, using EC data to indicate general trends in the dissolved concentrations of naturally-occurring anions and cations.

As discussed in a widely-used and cited textbook (Freeze, R.A. and J.A. Cherry, Groundwater, Prentice-Hall, Inc., 1979), EC is commonly used as a surrogate measure of the concentration of these total dissolved solids (TDS) and is nothing more than a measure of the ability of a substance (such as water) to conduct an electrical current (Freeze and Cherry, page 139). Freeze and Cherry (on page 84) discuss EC and the nature of dissolved anions and cations in groundwater as follows:

> "As a result of chemical and biochemical interactions between groundwater and the geological materials through which it flows, and to a lesser extent because of contributions from the atmosphere and surface-water bodies, groundwater contains a wide variety of dissolved inorganic chemical constituents in various concentrations. … Groundwater can be viewed as an electrolyte solution because nearly all its major and minor dissolved constituents are present in ionic form."

Freeze and Cherry present their discussion of the use of EC in groundwater studies in a broader discussion of how EC is one parameter that can be measured in the field and provides a good indicator of water quality. EC is commonly used in the hydrogeologic profession to evaluate water quality and therefore is discussed in many references and studies that discuss groundwater quality. Another reference on this subject is a publication entitled, *Groundwater Quality and Groundwater Pollution* (2003), prepared by the University of California, Division of Agriculture and Natural Resources, which was prepared in partnership with the Natural Resources Conservation Service and discusses EC as follows:[1]

> "With more ions in the water, the water's electrical conductivity (EC) increases. By measuring the water's electrical conductivity, we can indirectly determine its TDS concentration. At a high TDS concentration, water becomes saline. Water with a TDS above 500 mg/l is not recommended for use as drinking water (EPA secondary drinking water guidelines). Water with a TDS above 1,500 to 2,600 mg/l (EC greater than 2.25 to 4 mmho/cm) is generally considered problematic for irrigation use on crops with low or medium salt tolerance."

Notwithstanding the fact that EC is used in the Draft EIS/EIR to address water quality, not the sustainability of the groundwater basin, the comment seems to suggest that EC in the Alluvium is rising, and that such a rise is indicative of basin overdraft. The evidence does not support this assertion. The 2007 Water Report presented in Draft EIS/EIR **Appendix 4.3** provides data indicating stable EC levels in the basin (see Water Report, Section 3.5, Water Quality, and Figures III-11, 12, and 13).

Trends in groundwater levels are the primary data used to conduct evaluations of groundwater basin sustainability, and such trends were used in the creation of the extensive groundwater modeling conducted to determine if the groundwater pumping plan for the basin will negatively impact groundwater levels in the Santa Clarita Valley and downstream of the Valley. As discussed in **Response 48** and **Response 59**, above, the assertion that the local groundwater systems are in overdraft is contradicted by groundwater level data, the groundwater modeling conducted in the Santa Clarita Valley, and the multiple detailed studies and annual reports which have concluded that the groundwater pumping operating plan for the basin is sustainable and will not result in overdraft conditions. See **Topical Response 8: Groundwater Supplies and Overdraft Claims** for additional responsive information.

Response 61

The comment requests water quality reports for Alluvial wells used to serve the proposed Project. The comment also indicates that such reports are required by a "Notice of Settlement and Dismissal of Appeal" (Notice of Settlement) filed on April 1, 2004 in the Newhall Ranch state court litigation. (A

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[1] See Regents of the University of California, Division of Agriculture and Natural Resources, 2003. *Groundwater Quality and Groundwater Pollution*, Publication 8084. 2003.

copy of the Notice of Settlement is found in **Appendix F4.3** of the Final EIS/EIR.) To clarify, the Notice of Settlement does not require that agricultural water quality reports for Alluvial wells be provided to the parties that settled the Newhall Ranch litigation. (See Final EIS/EIR, **Appendix F4.3** [Notice of Settlement, p. 5].)

Nonetheless, as stated in the Notice of Settlement, the Newhall Ranch Final Additional Analysis, Volume IV (March 2003), included water quality data from one of the applicant's existing agricultural wells, along with a map depicting its location ("C-Well"). The water quality testing data was considered representative of the applicant's other existing agricultural wells. Additional agricultural water quality data was presented in the 2001 Update Report Hydrogeologic Conditions in the Alluvial and Saugus Formation aquifer systems, prepared by Richard C. Slade and Associates (July 2002). The 2001 Update Report was incorporated by reference in the Draft EIS/EIR, **Section 4.3**, Water Resources, pages 4.3-6-4.3-7. The latest 2008 Santa Clarita Valley Water Report (April 2009), pages 3-14-3 to18, also includes important water quality reporting responsive to this comment. As summarized on page 3-14 of the report:

> "Water delivered by the Purveyors consistently meets drinking water standards set by the Environmental Protection Agency (EPA) and the California Department of Public Health (DPH). An annual Water Quality Report is provided to all Santa Clarita Valley residents who receive water from one of the four water retailers. There is detailed information in that report about the results of quality testing of the groundwater and treated SWP water supplied to the residents of the Santa Clarita Valley during 2008."

(Please see the 2008 Water Report (April 2009), found in **Appendix F4.3** of the Final EIS/EIR.)

In addition, the applicant provided further water quality sampling from six additional Newhall agricultural-supply wells in response to public comments on the Newhall Ranch Final Additional Analysis (May 2003). The additional water quality data was included in the Newhall Ranch Additional Administrative Record (AAR-107:116214-276), which is provided in **Appendix F4.3** of the Final EIR/EIR. The data shows that the agricultural groundwater will meet the drinking water quality standards required under Title 22 prior to use.

Further, the Draft EIS/EIR contained specific reporting of the quality of water (including groundwater) used in the Santa Clarita Valley. (Please see Draft EIS/EIR, pp. 4.3-56-4.3-67.) As stated in the Draft EIS/EIR, page 4.3-56:

> "The groundwater quality of the Alluvial aquifer and the Saugus Formation consistently meets drinking water standards set by the USEPA and DPH. The water is delivered by the local retail purveyors in the CLWA service area for domestic use without treatment, although the water is disinfected prior to delivery. Existing water quality conditions for urban water uses in the CLWA service area are documented in the Santa Clarita Valley Water Quality Report (SCVWP 2005). That report provides the cumulative results of thousands of water quality tests performed in the Santa Clarita Valley area on CLWA's and the local purveyors' water supplies. The annual Santa Clarita Valley Water Report addresses water quality as well (see, for example, 2007 Santa Clarita Valley Water Report (April 2008), pp. III-13 - III-17 [EIS/EIR, **Appendix 4.3**])." (Draft EIS/EIR, p. 4.3-56.)

The Draft EIS/EIR also included a reporting of the quality of groundwater from wells near the Specific Plan site, which are expected to serve the Newhall Ranch Specific Plan. As stated in the Draft EIS/EIR, pages 4.3-64-4.3-65:

> "**Groundwater Quality Near the Specific Plan Site.** *The quality of the groundwater available from the Alluvial aquifer near the Specific Plan site has been tested. Results from laboratory testing conducted for VWC wells expected to serve the Specific Plan site* are provided in **Appendix 4.3** of this EIS/EIR. The wells expected to be used are approved by DPH and are located just northeast of the Specific Plan site in the Valencia Commerce Center. Laboratory testing indicates that all constituents tested were at acceptable levels for drinking water under Title 22. Tests conducted for perchlorate indicated non-detect.
>
> VWC also investigated the future risk of perchlorate contamination on its new wells. In summary, the approach used to investigate the potential capture of perchlorate-impacted groundwater by the new wells involved three sequential steps: identification of local and regional groundwater flow patterns in the Alluvium, the aquifer in which all four wells are located; application of a single layer groundwater flow model to examine the capture zone of the four-well "well field" under planned operating conditions; and interpretation of potential capture of perchlorate via examination of the wells' theoretical independent capture zone relative to the known occurrence of perchlorate in the Alluvium. The latter step was subsequently augmented by considering other factors, such as the locations and magnitude of pumping between the new wells and the known occurrence of perchlorate, which affect the potential capture of perchlorate by the new wells.
>
> *Given that the groundwater resources from the Alluvial aquifer for the Specific Plan would be produced from wells located along Castaic Creek* and over four miles west of the area known to be contaminated with perchlorate (*i.e.,* the former Whittaker-Bermite facility), such supplies are not considered to be at risk as a result of perchlorate contamination released from the former Whittaker-Bermite facility." (Draft EIS/EIR, pp. 4.3-64-4.3-65, italics added.)

As stated above, the Draft EIS/EIR, **Appendix 4.3**, included MWH Laboratories' results from lab testing of groundwater available from the Alluvial aquifer for Valencia Water Company. The lab testing was of the wells expected to serve the Newhall Ranch Specific Plan site (Wells E-14 through E-17). The lab testing data indicated that all constituents tested were at acceptable levels for drinking water under Title 22 and that the tests conducted indicated "non-detect" for perchlorate.

Additional water quality testing data was conducted at Well E-15 in July 2009. The data indicates that all constituents tested were at acceptable levels for drinking water under Title 22 and that tests conducted indicated non-detect for perchlorate. This additional lab testing data was from "CLWA - Water Quality Laboratory" for Valencia Water Company (July 2009). Please refer to **Appendix F4.3** of the Final EIS/EIR for this additional data.

For further responsive information, please see Final EIS/EIR, revised **Section 4.3**, Water Resources.

Response 62

The comment states that reports showing the amount of water stored in the Semitropic groundwater bank have not been provided as required by Specific Plan Mitigation Measure 4.11-18, which provides:

SP-4.11-18 The storage capacity purchased in the Semitropic Groundwater Banking Project by the Newhall Ranch Specific Plan applicant shall be used in conjunction with the provision of water to the Newhall Ranch Specific Plan. The applicant, or entity responsible for storing Newhall Ranch water in this groundwater bank, shall prepare an annual status report indicating the amount of water placed in storage in the groundwater bank. This report shall be made available annually and used by Los Angeles County *in its decision-making processes relating to build-out of the Newhall Ranch Specific Plan*. (Italics added.)

This mitigation measure requires the applicant to provide this information annually to Los Angeles County as part of the *decision-making processes relating to build-out of the Newhall Ranch Specific Plan*. The first tract map associated with build-out of the Specific Plan (*i.e.*, Landmark Village) is still being reviewed by Los Angeles County. Consistent with this mitigation measure, the applicant has submitted a reporting of the amount of water presently in storage as part of the County's decision-making process for this first tract map. As of the time of this writing, the applicant still has 18,828 af stored in the Semitropic groundwater bank. No withdrawals have been made from the applicant's water account. (See the letter from Semitropic Water Storage District, dated February 22, 2010, which confirms that 18,828 af remains stored in the groundwater bank. A copy of this letter is provided in Final EIR/EIS **Appendix F4.3**). Therefore, no additional information is required from the applicant at this time.

Response 63

The comment questions what other sources of water could be stored in the Semitropic groundwater bank by the applicant. At present time, the only source contemplated by the applicant for storage in the bank is the Nickel water. However, while not needed to serve the Newhall Ranch Specific Plan, this measure does not preclude the applicant from securing other sources of water for storage if so desired for other purposes. As discussed in Draft EIS/EIR, **Section 4.3**, Water Resources, no additional water is needed to serve the Specific Plan, and no significant water resource-related impacts have been identified. (Please also see Final EIS/EIR, revised **Section 4.3**, Water Resources.)

Response 64

The comment suggests that, in indicating when Nickel water would actually be needed to serve the Specific Plan, the Draft EIS/EIR does not take into consideration "increasing water demand of other previously approved projects in the Santa Clarita Valley." The Draft EIS/EIR specifically stated in **Subsection 4.3.6.2.2**, Indirect Impacts:

> "As shown in **Table 4.3-19**, Nickel water would only be needed on the Specific Plan site in years when all of the Newhall agricultural water has been used, which is estimated to occur after the 21st year of project construction. Up to that point in time, the unused Nickel water would be available for storage in groundwater banking programs on an annual basis. Given that the Specific Plan's potable water demand would mostly be met

> through the use of the applicant's groundwater, Nickel water would not be needed to serve the Specific Plan until the latter phases.
>
> Until it is needed, the Nickel water would be acquired by the applicant annually (1,607 afy would be purchased), and the water stored in the Semitropic groundwater banking program, located in Kern County. **Table 4.3-19** shows that, at an annual storage rate of 1,607 af, a total of 37,281 af of Nickel water could be stored in groundwater banking facilities in the Semitropic water storage district groundwater banking program by Specific Plan build-out year 25. Thereafter, *the stored Nickel water would be available for use on the Specific Plan site during dry years, thereby, avoiding the need for additional primary potable water supplies beyond these sources.*
>
> At build-out of the Specific Plan, it is expected that approximately 438 af of water from the Semitropic groundwater bank would be needed in a dry year to meet potable demands of the Specific Plan. Dry years are projected to occur once every four years. At this demand rate, the 37,281 af of Nickel water in storage would be available to meet this need for over 340 years." (Italics added.)

The Draft EIS/EIR also included a cumulative analysis of impacts to water resources, including a determination of whether enough water would exist in the future to meet the needs of existing residents, the Specific Plan, as well as development approved but not yet constructed and development still in the proposal stages (including general plan amendment requests). (See Draft EIS/EIR, **Subsection 6.5.3.2**, Cumulative Water Resources Impacts.) As summarized in the Draft EIS/EIR:

> "As depicted in **Table 6.0-25**, purveyors have access to an amount of water that exceeds demand under all conditions. As discussed in **Section 4.3**, adequate water exists to serve the proposed Project, and the proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Therefore, the incremental effects of the proposed Project are not significant when viewed in connection with the effects of other past, present, and foreseeable future development projects. Cumulative water resources impacts are less than significant, and the proposed Project's incremental contribution to cumulative impacts is less than cumulatively considerable (Criteria 1 and 2)." (See Draft EIS/EIR, p. 6.0-79)

There is no evidence that "increasing water demand of other previously approved projects in the Santa Clarita Valley" would occur and that such an increase would decrease the amount of groundwater available for the Specific Plan. Draft EIS/EIR, **Section 4.3**, Water Resources, and **Subsection 6.5.3.2**, Cumulative Water Resources Impacts, include substantial information showing that an adequate amount of groundwater will be available in the future to serve the Specific Plan and other cumulative development in the Santa Clarita Valley. Please refer to Final EIS/EIR, revised **Section 4.3**, Water Resources; and **Topical Response 8: Groundwater Supplies and Overdraft Claims**, for further responsive information.

Further, the water demand estimates presented in the Draft EIS/EIR were prepared by a professional in the field of water use (GSI Water Solutions, Inc.) and are accurate and supported by substantial evidence.

Response 65

The comment alleges that "Valencia Water Co. has no adjudicated right to any amount of water from the Santa Clara River," that "water needs elsewhere in the upper watershed may have to be supplied from Valencia's existing agricultural wells," and that "no discussion of existing uses is included."

To clarify, surface water from the Santa Clara River is not a source of water for the proposed Project. As stated in the Draft EIS/EIR, **Section 4.3**, Water Resources, page 4.3-83, "the Specific Plan water supply sources to meet [the Specific Plan's potable demand] would be: (a) the applicant's historical groundwater pumped from the Alluvial aquifer in Los Angeles County; (b) the applicant's additional water under contract with Nickel Family LLC in Kern County; and (c) the applicant's agreement with the Semitropic Water Storage District (SWSD) to bank water needed in dry years." Each of these supply sources is summarized further in **Section 4.3**, based on the Newhall Ranch Revised Additional Analysis, Section 2.5, Water Resources.

Further, although the local groundwater basin is unadjudicated, under California law, the applicant, as an overlying landowner, has the right to take water from the ground underneath for use on the "overlying" land within the basin or watershed -- the right is based on ownership of the land and is appurtenant to that ownership. The overlying owner is authorized to take such amounts as are reasonably needed for beneficial purposes. (See, *e.g.*, *City of Pasadena v. City of Alhambra* (1949) 33 Cal.2d 908, 925; Cal. Const., art. X, section 2.) The rights of the overlying owner also are generally paramount. (*City of Pasadena*, *supra*, 33 Cal.2d at 927.)

As reported in the Draft EIS/EIR, **Section 4.3**, Water Resources, the applicant would meet all of the Specific Plan's potable water demands by using groundwater pumped from the Alluvial aquifer, which is presently committed to agricultural uses. The amount of water historically and presently available from this source is approximately 7,038 afy. No additional water would be pumped, instead, the water presently and historically used to irrigate crops would be pumped from Valencia Water Company's sanitary-sealed municipal supply wells (as compared to open air agricultural wells), treated at the wellhead to meet Title 22 drinking water standards, and then used to meet the Specific Plan's potable demand, as agricultural areas are taken out of production. The amount of groundwater that will be used to serve the potable demands of the Specific Plan would not exceed the amount of water historically used for agricultural uses. (Please also see Final EIS/EIR, revised **Section 4.3**, Water Resources.)

Studies have been conducted in the groundwater basin, all of which indicate that a sustainable amount of groundwater exists in the basin to meet the needs of *existing* and potential future land uses in the Santa Clarita Valley, including in the "upper" portion of the basin. Please refer to **Topical Response 8: Groundwater Supplies and Overdraft Claims**, for further responsive information.

Response 66

The 2008 Santa Clarita Valley Water Report (2008 Water Report), dated April 2009, was not available when the Draft EIS/EIR was published in April 2009. It has been provided in the Final EIS/EIR, **Appendix F4.3**. Please refer to **Response 56**, above, for more information on the use of the Santa Clarita Valley water reports in the Draft EIS/EIR.

Although the comment states that the 2008 Water Report concludes that the current proposed pumping regime "might not produce sufficient water supply in the eastern portions of the basin," no such statement is found in the 2008 Water Report. Therefore, the comment that "existing western basin housing developments . . . may need to be supplied by these wells, while existing SWP supplies are routed to the eastern reaches" is not supported by the 2008 Water Report. The studies conducted regarding the condition of the groundwater basin indicate that a sufficient amount of groundwater exists to meet the existing and potential future needs of the Santa Clarita Valley. Please refer to **Topical Response 8: Groundwater Supplies and Overdraft Claims**, for further responsive information.

Response 67

All appropriate and relevant information has been disclosed in the Draft EIS/EIR. As discussed above, all reports required by the Newhall Ranch Specific Plan approval have been provided to the County. The 2008 Water Report (dated April 2009) was not available when the Draft EIS/EIR was published in April 2009 and has been provided in the Final EIS/EIR, **Appendix F4.3**. Additional responsive information is provided in Final EIS/EIR, revised **Section 4.3**, Water Resources, and **Topical Response 8: Groundwater Supplies and Overdraft Claims**.

Response 68

The comment questions the finding of no significant impact presented in the Draft EIS/EIR with respect to potential groundwater supply impacts. For information supporting this finding, please see Draft EIS/EIR, **Section 4.3**, Water Resources; Final EIS/EIR, revised **Section 4.3**; **Topical Response 4: Nickel Water**; **Topical Response 5: Water Litigation and Regulatory Action Update**; **Topical Response 6: CLWA's 41,000 AFY Water Transfer**; **Topical Response 8: Groundwater Supplies and Overdraft Claims**; and **Topical Response 9: State Water Project Supply Reliability**.

Additionally, the Draft EIS/EIR considered potential reductions in imported state water supply due to global climate change. **Subsection 8.3.6.4**, The Effects of Global Warming, identified the potential environmental ramifications associated with global climate change, including the increased likelihood of drought, the continued recession of polar ice caps, and the modification in the seasonal pattern of snow accumulation and snow melt. (See Draft EIS/EIR, pp. 8.0-26-8.0-28.) **Appendix 8.0** of the Draft EIS/EIR contained two documents that addressed the water supply issue in greater detail: (i) GSI Water Solutions, Inc.'s (GSI) "Technical Memorandum regarding Potential Effects of Climate Change on Groundwater Supplies for the Newhall Ranch Specific Plan, Santa Clarita Valley, California" (March 18, 2008); and (ii) Impact Sciences, Inc.'s (ISI) "Global Climate Change and Its Effects on California Water Supplies" (February 2009).

In ISI's literature survey of Global Climate Change and its Effects on California Water Supplies, ISI analyzed and summarized the findings of a number of water resources reports, including those prepared by DWR. As the literature and modeling tools continue to develop in their assessment of such issues, DWR will continue to incorporate such information into successive updates to the California Water Plan and biennial assessment reports addressing the delivery reliability of SWP supplies. The development enabled by approval of the proposed Project would employ a number of water conservation measures. (See, *e.g.*, Mitigation Measures SP 4.11-1 through SP-4.11-14, and SP-4.12-1; see also, Los Angeles County Code, Green Building Ordinance, § 22.52.2100 *et seq.* [requiring implementation of both outdoor and indoor water conservation measures, such as smart irrigation controllers for all landscaped areas,

compliance with selected drought-tolerant plant palettes, and installation of high-efficiency toilets (maximum 1.28 gallons per flush)].) Additional responsive information also is provided in **Topical Response 8: Groundwater Supplies and Overdraft Claims**.

In addition, for further responsive information, please see Final EIS/EIR, revised **Section 8.0**, Global Climate Change, including revised appendices (Final EIS/EIR, **Appendix F8.0**).

Response 69

The comment questions the conclusion reached in the Draft EIS/EIR that "irrigation used in the Project area would increase the amount of recharge available to the Santa Clara River." For information supporting the conclusion presented in the Draft EIS/EIR, please see **Topical Response 8: Groundwater Supplies and Overdraft Claims**. As explained in this topical response, the Draft EIS/EIR's analysis of groundwater recharge is based on substantial evidence that supports the conclusion that the Specific Plan's impacts on groundwater recharge and levels would be less than significant. No comments on the Draft EIS/EIR have presented any evidence that calls this conclusion into question. The comment states that "farming return water was not included in calculations of the affect of ag water withdrawals on groundwater levels." As explained in **Topical Response 8: Groundwater Supplies and Overdraft Claims**, based on the information presented in the studies used incorporated by reference in Draft EIS/EIR, **Section 4.3**, this will not have any appreciable effect on the water table elevation or the amount of Alluvial aquifer groundwater available for water supply. This conclusion is based on groundwater elevation records for the past 60 years, which show that the portion of the Alluvial aquifer that lies along the Santa Clara River west of I-5 has shown: (1) no long-term sustained water level declines; and (2) only small year-to-year fluctuations in water levels compared with upgradient portions of the Alluvial aquifer east of I-5. The comment also states that "ag water withdrawals were calculated in concurrence with an aquifer recharge program that seems no longer to be considered in the Draft EIR/EIS." As stated in **Response 40**, above, for responsive information the Aquifer Storage and Recovery (ASR) system is no longer a necessary component of the water delivery system for the Newhall Ranch Specific Plan, and the applicant is no longer pursuing such a system.

For further responsive information, please refer to Final EIS/EIR, revised **Section 4.3**, Water Resources.

Response 70

The comment questions the conclusion reached in the Draft EIS/EIR that "[d]evelopment on the Specific Plan area would significantly increase the area of irrigated landscaping . . . which would serve to increase the amount of recharge." Please see **Response 69**, above, and **Topical Response 8: Groundwater Supplies and Overdraft Claims**, for responsive information. It is not clear to which "standard reference and teaching materials produced by USEPA, USGS, and prior Santa Clarita Valley hydrological reports" or "LA County Flood Control manuals" the comment refers. However, all technical information presented in the Draft EIS/EIR regarding recharge is supported by substantial evidence provided by professionally qualified engineers and/or consultants. See also, Final EIS/EIR, revised **Section 4.3**, Water Resources.

Response 71

The comment questions the availability of the 41,000 afy of SWP Table A water purchased by CLWA in 1999 and the information presented in the Draft EIS/EIR, **Section 4.3**, Water Resources, regarding the

judicial challenges to the 41,000 afy water transfer. Please see **Topical Response 5: Water Litigation and Regulatory Action Update**, and **Topical Response 6: CLWA's 41,000 AFY Water Transfer**, for further responsive information. In addition, please see updated information regarding the 41,000 afy water transfer litigation in the Final EIS/EIR, revised **Section 4.3**, Water Resources.

Response 72

The comment states that the Entrada project is not included in the 2005 Urban Water Management Plan (2005 UWMP). As stated in Draft EIS/EIR, **Subsection 4.3.6.2.2**, Indirect Impacts, SCP Indirect Impacts, "[t]he water demands of Entrada are included as part of the projected future water demand shown in the 2005 UWMP." During preparation of the 2005 UWMP, Valencia Water Company staff provided CLWA with land use information for build-out of the Entrada site. Please see the document entitled, "Valencia Water - Cumulative Projects Submitted to CLWA for 2005 UWMP," presented in Final EIS/EIR, **Appendix F4.3**, which shows the inclusion of the Entrada project in the information provided for completion of the 2005 UWMP.

Response 73

The comment states that while the Draft EIS/EIR discusses a potential reduction in water supply attributable to global climate change, the Draft EIS/EIR does not discuss "the reduction in energy that such a loss of water supply will also incur." The comment states that the Draft EIS/EIR should discuss that "energy out put will be reduced statewide unless substitute methods of generation come on line" with less water moving through turbines in water dams.

The California Energy Commission (CEC) is the state's primary energy policy and planning agency. Created by the Legislature in 1974, the CEC's mission follows:

1. Forecasting future statewide electricity needs and keeping historical data on energy;

2. Licensing power plants to meet those needs;

3. Promoting energy efficiency and conservation;

4. Developing renewable energy resources and alternative energy technologies; and

5. Planning for and directing state response to energy emergencies.

To the extent that the effects of global climate change reduce California's water supply significantly, which at this point in time is too difficult to predict and calls for speculation, the CEC, pursuant to its mission, would be responsible for the identification and implementation of alternative energy resources.

Moreover, the lead agencies find that the causal connection between the proposed Project, climate change-related effects on California's water supply, and water flow-generated turbine power is too speculative for further evaluation in the present context. The lead agencies are obligated to research and disclose with a good faith effort the potential environmental impacts associated with the proposed Project, all within the bounds of reason. However, because the potential impacts to California's water supply as a result of global climate change cannot be quantified with reasonable certainty on a statewide or regional basis, it is not possible to accurately assess the potential implications to energy generation, if any, and

such information is considered well beyond the scope of the proposed Project. Please also see **Appendix F8.0** of the Final EIS/EIR, which contains an updated survey of literature addressing the relationship between global climate change and California's water resources. This information supports the lead agencies' findings regarding the speculative nature of the data and analysis requested.

Response 74

The comment states that the "Specific Plan, Entrada, and VCC will significantly impact water resources in the Santa Clara Valley." This issue has been addressed in detail in **Responses 30 through 73,** above, in the Draft EIS/EIR, **Section 4.3**, Water Resources, and the water-related topical responses prepared in connection with the Final EIS/EIR including **Topical Response 4: Nickel Water**; **Topical Response 5: Water Litigation and Regulatory Action Update**; **Topical Response 6: CLWA's 41,000 AFY Water Transfer**; **Topical Response 7: Perchlorate Treatment Update**; **Topical Response 8: Groundwater Supplies and Overdraft Claims**; and **Topical Response 9: State Water Project Supply Reliability**. The Corps and CDFG appreciate your comment and it will be made available to the decision makers prior to a final decision on the proposed Project.

Response 75

The comment questions the veracity of reports prepared by the Valencia Water Company. Please note that the Valencia Water Company is a California Public Utilities Commission (CPUC)-regulated utility. There is no evidence of improper conduct by Valencia Water Company. 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.

Response 76

The water analysis provided in the Draft EIS/EIR, **Section 4.3**, Water Resources, was prepared by professional experts, and reflects the independent judgment and analysis of the Corps and CDFG; therefore, there no additional water analysis is required. DWR has issued "The State Water Project Delivery Reliability Report 2009," dated December 2009 (DWR 2009 Draft Reliability Report). DWR's 2009 Draft Reliability Report became available after the Draft EIS/EIR was circulated for public review in April 2009. (DWR released the 2009 Draft Reliability Report for public review and comment on January 26, 2010.) DWR's 2009 Draft Reliability Report is available for public review at http://baydeltaoffice.water.ca.gov. (It also is included in **Appendix F4.3** of the Final EIS/EIR.) The report is an update to DWR's 2007 Delivery Reliability Report, issued as final in 2008. DWR issues these delivery reliability reports on a biennial basis. **Topical Response 9: State Water Project Supply Reliability** addresses the conclusions of this report and the Final EIS/EIR, revised **Section 4.3**, has been updated to reflect the latest DWR estimates in determining SWP delivery capability under current and future conditions, based on DWR's updated 2009 Draft Reliability Report. As discussed in **Topical Response 9: State Water Project Supply Reliability**, even with DWR's latest estimates, which have been reduced to account for restrictions in operations due to federal biological opinions, climate change, sea level rise, and vulnerability of Delta levees, substantial evidence supports the conclusion that sufficient SWP supplies remain available to serve the proposed Project and alternatives, as well as projected cumulative development in the Santa Clarita Valley.

Response 77

The comment requests that the EIS/EIR be recirculated with all reference materials included on disc. Reference materials relied upon for preparation of the Draft EIS/EIR were provided to the public for review through acceptable means. Please see **Topical Response 1: EIS/EIR Public Review Opportunities**, for responsive information. All information added to the Final EIS/EIR, since circulation of the Draft EIS/EIR, merely clarifies or amplifies the document. The comment does not provide any new information that would require recirculation under NEPA or CEQA. Therefore, recirculation of the EIS/EIR is not necessary. 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.

Response 78

The comment requests that the EIS/EIR be recirculated with the revised WSA for the Landmark Village project, the first tract map associated with the Newhall Ranch Specific Plan. The information and data presented in the revised WSA was incorporated by reference into the Draft EIS/EIR, **Section 4.3**, Water Resources and, recirculation of the Draft EIS/EIR is not necessary. Please also see **Response 1** to the e-mail from Santa Clarita Organization for Planning and the Environment, dated August 24, 2009 (Letter 045) for information regarding the WSA for the Landmark Village project. In addition, please see Final EIS/EIR, **Appendix F4.3**, for a copy of the latest revised draft WSA for the Landmark Village project.

Response 79

Please see **Responses 56** and **66,** above. Nothing in the referenced reports provides any new information that would require recirculation under NEPA or CEQA.

Response 80

The comment requests that "Ventura County a biologist representing the environmental community be included in the ground water monitoring MOU and receive their evaluation." The referenced MOU was discussed in the Draft EIS/EIR, **Section 4.3**, Water Resources, based on information provided in the County-certified Newhall Ranch Revised Additional Analysis, Volume VIII (May 2003). The MOU process also was referenced in the water-related Specific Plan mitigation measures, which were cited in the Draft EIS/EIR, **Section 4.3**. Those measures are part of the County-adopted Mitigation Monitoring and Reporting Plan for the Specific Plan and are outside the scope of the Corps' and CDFG's jurisdiction. Because the comment does not address the adequacy of the information or impact analysis provided in the Draft EIS/EIR, no additional response is provided. 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.

Comment Letter Attachments

This comment letter included seven attachments that provided information regarding climate change; a water resources management plan; a chloride TMDL for the Santa Clara River; a staff report regarding the water resources analysis provided by the Newhall Ranch Specific Plan EIR Final Additional Analysis; a resolution of the Regional Water Quality Control Board regarding hydromodification; Newhall Land and Farming bankruptcy information; and USGS Circular 1186 regarding groundwater flow. The comments above reference these attachments in support of the claims made in the comments. The

responses above address the information provided in these attachments as it applies to this comment letter and the proposed Project.