Comment Summary and Responses
Incorporation of Stakeholder-Developed Groundwater Quality Management Measures for Salts and Nutrients in the Upper Santa Clara River Groundwater Basin

Table 1: Commenters

1. Castaic Lake Water Agency, Los Angeles County Flood Control District, City of Santa Clarita, Santa Clarita Valley Sanitation Districts, Valencia Water Company, Castaic Lake Water Agency – Santa Clarita Division, San Gabriel and Los Angeles Rivers and Mountains Conservancy (collectively as the Upper Santa Clara River Integrated Regional Water Management Group (RWMG))
2. Santa Clarita Valley Sanitation Districts of Los Angeles County (Sanitation District)
3. Newhall Land and Farming Company (Newhall LFC)
4. Santa Clarita Organization for Planning and the Environment (SCOPE)

Table 2: Comments and Responses*

No.	Commenter	Comment	Response
1.1	Upper Santa Clara River Integrated Regional Water Management Group (RWMG)	Included as part of our comments are the following attached documents: • An Addendum to the Supplemental Environmental Document (SED) – the original SED analyzed impacts of chloride in recycled water at 125 mg/L. As a result of current drought conditions that caused an increase in chloride levels seen in imported water, a sensitivity analysis was completed that assessed the impacts of chloride in recycled water at a greater concentration of 156 mg/L. The analyzed increase in chloride levels did not result in any new significant impacts or any substantial increase in the severity of any impacts previously identified in the CEQA SED.	Comment noted. Regional Board staff reviewed the sensitivity analysis and addendum to the SED, and on October 24, 2016, issued to interested persons a public notice of availability of an addendum to the substitute environmental document for the SNMP and the Basin Plan amendment incorporating stakeholder-developed groundwater quality management measures for salts and nutrients in the Upper Santa Clara River Groundwater Basin." The projected impacts of the additional scenario considered are contained in Table 1b of the revised Salt and Nutrient Management Plan for the Upper Santa Clara River Basin.

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		• Appendix J of the SNMP – the Chloride Concentration Sensitivity Analysis 2012-2035 which assessed the greater chloride level. • Tables 1a through 1d – Summary tables of assimilative capacity changes resulting from the modeling of the greater chloride level. • Sensitivity Section for the SNMP – this is the revised text for the sensitivity section of the SNMP that reflects the modeling done for the greater chloride levels and the impacts on assimilative capacity. Please include all the attached documents as part of the comments provided by the Regional Water Management Group of the Upper Santa Clara River Basin.	
1.2	RWMG	Thank you for the opportunity to comment on the proposed Basin Plan Amendment for the Upper Santa Clara River Salt and Nutrient Management Plan (SNMP). The Castaic Lake Water Agency (CLWA) submits this comment letter on behalf of the Upper Santa Clara River Integrated Regional Water Management Group (RWMG). The RWMG has been a part of the process of preparing the SNMP since it began in 2010.	Comment noted.
1.3	RWMG	Since the publication of the draft SNMP, we have noted that the level of chloride in the effluent of the	Comment noted. See detailed response, below.

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		two treatment plants in the region has crept upward to the point that the RWMG feels additional information needs to be included in the SNMP. Due to the current historic drought, imported water into the Santa Clara Valley has increased significantly in chloride concentration. This has resulted in the effluent of both the Valencia and Saugus Water Reclamation Plants' (WRPs) chloride concentrations also increasing. In the SNMP, the evaluation of recycled water projects that would use water from the two plants was modeled at a chloride concentration of 125 mg/l. Both plants are currently above that chloride effluent concentration.	
1.4	RWMG	The State Water Resource Control Board has provided direction that future uses of recycled water be permitted under the Recycled Water General Order (State Water Resources Control Board, Order WQ 2016-0068-DDW, Water Reclamation Requirements for Recycled Water Use). To beneficially use recycled water from the two plants under the Recycled Water General Order, the treated wastewater must be in compliance with the applicable SNMP. Since the SNMP only considered a maximum chloride concentration of 125 mg/L in recycled water, use of recycled water with average annual chloride concentrations above 125 mg/L may not be considered consistent with the plan. As a result, deliveries of recycled water would have to stop as it is cost prohibitive to provide additional	The Sensitivity Analysis for the additional scenario considered, and the accompanying addendum to the Substitute Environmental Document (SED) for the SNMP (which evaluated the potential impact of the added scenario) have been made available to the public and will be considered as part of the SED by the Board during the November 10, 2016 public hearing.

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		treatment for these uses. As the increases in chloride concentrations are directly correlated to impacts of the drought, it would cause a further impact to water resources during periods when water resources are already strained. In order to account for this change, the consultant preparing the SNMP was asked to prepare a Sensitivity Analysis for future recycled water projects with average annual chloride levels at 156 mg/l. This was done to reflect the level of chloride that might occur in recycled water supplied by the two WRPs under severe drought conditions. The results of the Sensitivity Analysis (which are attached to this letter) indicate only nominal losses in chloride assimilative capacity of 0.5 and 1.3 mg/l in the affected water management zones, measured against a chloride Basin Objective of 100 mg/l. On the basis of these findings, we respectfully ask that the Regional Water Board allow the amendment to the SNMP to include the Sensitivity Analysis to avoid the necessity for a subsequent Basin Plan amendment to use recycled water that has chloride concentrations higher than 125 mg/L. The higher recycled water chloride level does not apply to the required compliance with the chloride TMDL limit for discharge to the Upper Santa Clara River (USCR).	

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		CLWA and the RWMG appreciate your careful consideration of this comment. We look forward to working with Regional Water Board staff through the adoption process.	
2.1	Santa Clarita Valley Sanitation Districts of Los Angeles County (Sanitation District)	The Santa Clarita Valley Sanitation District of Los Angeles County (Sanitation District) appreciates the opportunity to comment on the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) proposed amendment to the Basin Plan that would incorporate stakeholder-proposed control measures for salts and nutrients in the Santa Clara River Valley East Subbasin. The Sanitation District strongly supports the Regional Board's efforts to increase recycled water use while properly protecting water quality. In this effort, we strongly recommend the inclusion of the chloride Sensitivity Analysis developed by Geoscience Support Services Inc. into the Salt and Nutrient Management Plan for the Santa Clara River Valley East Subbasin. Including the Sensitivity Analysis will allow for continued and additional recycled water use in this basin, especially during periods of drought and the related increases in chloride. We would like to commend Regional Board staff for their support and work on this effort and look forward to continuing this collaboration during the development of other salt and nutrient	Comment noted. See Response to Comment No. 1.4.

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		management plans.	
3.1	Newhall Land and Farming Company (Newhall LFC)	The Newhall Land and Farming Company, a subsidiary of Five Point Holdings, LLC (Newhall Land), is pleased to comment on the proposed amendments to the Water Quality Control Plan for the Los Angeles Region (Basin Plan) to incorporate salt and nutrient management measures for the Upper Santa Clara River Basin. Newhall Land supports the proposed Basin Plan amendment and requests that the Los Angeles Regional Water Quality Control Board (Regional Board) adopt the amendment substantially as proposed, with appropriate revisions to address the issues identified in this comment letter.	Comment noted.
3.2	Newhall LFC	Newhall Land previously submitted technical comments to the working group developing the Salt and Nutrient Management Plan for the Upper Santa Clara River Basin (SNMP) during development of the draft SNMP, and some of those comments remain unresolved. We have attached the prior comments to this letter and incorporate them by reference.	According to the RMWG, the previous comments submitted by Newhall Land, dated January 26, 2015 and July 23, 2015, were reviewed. Further, with the exception of the revised project description, all other comments were considered and responded to, as the stakeholders deemed appropriate, and reflected in the text and tables of the SNMP. The stakeholders further agreed to incorporate the revised project description proposed by Newhall Land into the final version since it does not impact the SNMP analysis.

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3.3	Newhall LFC	**Comments on the Draft Final SNMP dated August 29, 2016** The text and tables presented in Section 9 of the SNMP, Anti-degradation Analysis, present project-specific effects on assimilative capacity (AC) for the projected future land use build-out conditions. For each of the water quality constituents analyzed, the projected future land use takes up the majority of the available AC; however, the SNMP states in several instances that projects and programs consume more than 10% or 20% of the AC remaining **after** the projected future land use impacts on AC are considered. For example, the summary statement for the CLWA Recycled Water Master Plan (page 163) reads in part: " ... when compared to Land Use Build-Out conditions, implementation of the CLWA Recycled Water Master Plan decreases the assimilative capacity for chloride in Management Zone 4 by 2 mg/L (50% of assimilative capacity under Land Use Build-Out conditions) and has no effect on the remaining projected assimilative capacities." In this example, the 50% value is incorrect; the project decreases AC from 7 to 5 mg/L under Land Use Build-Out conditions, which means the 2 mg/L decrease is 28% (2/7ths) of the AC under those conditions, rather than the reported 50%. More important, the statement is potentially confusing because it is our understanding that, when	The assessment of assimilative capacity changes in the groundwater basins cannot exclude the impact of Land-Use Build-out (LUB) conditions since the impacts are cumulative. Therefore although discussed, using LUB as a baseline is not appropriate in future predictions of water quality conditions from projects in the subbasins. The example used by the commenter is noted. The narrative will be revised to clearly note the positive impact of projects on constituent concentrations, relative to Land Use Build-out conditions.

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		permitting a specific project or program in the future, the Regional Board will use the actual ambient groundwater quality existing at that time (incorporating updated monitoring data), not the currently (2016) projected future land use scenario, as the baseline against which project-induced changes in AC will be considered. For the CLWA Recycled Water Master Plan, which the Regional Board has already considered, the relevant baseline for comparison would be the currently existing conditions, yet the text does not reflect that the project-specific 2 mg/L decrease in the chloride AC consumes less than 10 percent of the AC when compared to existing ambient baseline conditions (based on a current assimilative capacity of 23 mg/L). We believe it would be appropriate to clarify the baseline that will be used and to describe the impact on AC for each constituent on the basis of both projected future land use AND ambient baseline water quality for all of the projects.	
3.4	Newhall LFC	Table 9-1. "Agency" should be revised from Newhall Ranch to Newhall Ranch Sanitation District (NRSD). Section 9.2: References to Appendix G should instead refer to Appendix H.	The text will be revised accordingly.
3.5	Newhall LFC	Section 9.6.1, page 172: Please explain the basis for the statement in paragraph 2, "The chloride	With respect to chloride, the statement on page 172 is referring to impacts in Management

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		concentration would be most impacted by the implementation of the Newhall WRP." This appears to misrepresent the analysis results. The data in Table 1b and elsewhere in the SNMP show that the other projects will have a greater effect on chloride concentration than the Newhall WRP. Compare Figures 22 through 36; see also Table 3b.	Zone 5, MZ-5. Table 1b reports a decrease in assimilative capacity by all other projects by 0-3%. The decrease in assimilative capacity by the Newhall WRP is 4%. Table 3b also notes that with respect to LUB, the project will decrease assimilative capacity. Although slight, the chloride change impact from the Newhall WRP is greater than the other projects. This will be clarified in the final text.
3.6	Newhall LFC	The SNMP implementation does not appear to acknowledge the up-gradient impacts on downgradient assimilative capacity, even while modeling the flux. Future changes to assimilative capacity within a management zone will be caused both by projects within that management zone, and also by upgradient management zone changes to assimilative capacity migrating downgradient. The SNMP does not discuss how future implementation will account for changes to assimilative capacity within a management zone that are caused by up-gradient management zones. We recommend adding an explanation of how this issue will be addressed.	The spreadsheet model incorporates the volumes and concentrations of water moving from up-gradient water management zones to downstream ones in calculating the resulting change in groundwater concentrations. Please see Figures 27a-27g, 29a-29g, etc. and the tables in Appendix F and Appendix I.
3.7	Newhall LFC	**Comments on the Proposed Basin Plan Amendment, Attachment A to Reso. No. R16-0XX** Page 4 - Background: The first sentence of the fourth paragraph states "[s]urface water flowing into the subbasin percolates into the highly permeable	The statement in question was based on information/ language contained in the draft SNMP. The language in the proposed Basin Plan amendment, Staff Report and SNMP has been revised as requested (by deleting the text "~~in~~

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		alluvial sediments, which underlie the Santa Clara River." The Mint Canyon Subunit is also Management Zone 1. This characteristic is not restricted to the Mint Canyon Subunit, and is in fact characteristic of the alluvial aquifer throughout much of the Upper Santa Clara River watershed, with the primary exception being along the portion of the alluvium in which the Santa Clara River is present downstream of the Valencia WRP. This sentence should be corrected to reflect this. This statement is carried through to the DRAFT Staff Memorandum (Page 3, second paragraph), and should be clarified there as well.	~~the Mint Canyon Subunit~~").
3.8	Newhall LFC	Pages 10-16, Tables 8.4-2A through 8.4-2G: Of these seven tables of "SALT AND NUTRIENT BALANCE IN MANAGEMENT ZONE" 1A through 6, only the first two are referred to in the body of the text. In addition, the data reported in these tables (tons of TDS, Chloride, Nitrate and Sulfate) are not provided with any qualifying description. Therefore, it is hard to understand how the values can differ between tables- for example, how the values in Table 8.4-2E for "Underflow *to* Management Zone 5 *from* Management Zone **4"** can differ from the values in Table 8.4-2F for "Underflow *from* Management Zone **4** *to* Management Zone 5." The discrepancy is likely because these tables must represent average or median values on an annual basis (unclear which of these) for the period 2001 to	Clarifying language will be added to text referencing the tables in question. Also, regarding discrepancies in underflow values for Zones 4 and 5, the differences in values are an artifact of model calibration. The model assumes instantaneous mixing of water from all sources, whereas in the environment mixing takes time. In order to simulate the ambient concentrations in each water management zone as a result of the water quality from historical inflows and outflows, adjustment of concentrations were required. This approach was suggested by previous commenters. The approach allows the predictive scenarios to start at a baseline that is consistent with the calculated ambient or

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		2012. Because most of these tables are not referred to in the text, they should be deleted. If they are referred to, then an accompanying explanation of what the values represent should be provided.	baseline concentration. Checking the accuracy of water quality impact predictions will occur through the on-going SNMP water quality monitoring and reporting.
3.9	Newhall LFC	**Comments on the Draft Staff Memorandum** 8. Page 6, paragraph 1: Please identify the "planned treatment facility" described in this section of the text. The text may be read as implying that the facility will treat or reduce stormwater runoff. If the text refers to the Newhall WRP, this is inaccurate as the Newhall WRP will not treat or reduce stormwater (nor will any other existing or proposed WRP analyzed in the SNMP).	The "planned treatment facility" was cited in error. What was being referred to was the "Water Use Efficiency Program," which is designed to reduce residential and commercial urban water use and urban runoff. The Newhall WRP is not part of this program. The language in the Staff Memorandum has been revised to reflect this.
4.1	Santa Clarita Organization for Planning and the Environment (SCOPE)	We understand the need to begin a monitoring and management program to ensure that the build-up of unwanted pollutants including chlorides, nitrates and sulfates does not increase substantially as our community moves to include more recycled water in our supply mix. Our comments represent only factual inaccuracies in the Plan which can be addressed in the final document.	Comment noted. The proposed Basin Plan amendment contains management measures and a monitoring program developed by groundwater basin stakeholders.
4.2	SCOPE	**<u>Salt and Nutrient Management Plan Measures for the Upper Santa Clara River Basin</u>** Page 19 – Removal of self-regenerating water	According to the RWMG, the removal of self-regenerating water softeners is an ongoing effort. The District is continuing enforcement

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		softeners. While this was the goal, we note that many such softeners must continue to exist since salt for that system is still being sold by local retailers.	of the ordinance which prohibits self-regenerating water softeners. The majority of retailers in the Santa Clarita Valley stopped selling rock salt and potassium chloride pellets for self-regenerating water softeners in 2010. The District continues to work with the remaining local retailers to encourage them to stop selling rock salt and potassium chloride pellets.
4.3	SCOPE	Page 20 – "Other methods of salt reduction have included a pilot water softening treatment for drinking water for the VWC service area. This system precipitates out ions of magnesium and other salts. The objective of the program is to encourage individual home owners to not install or to remove existing SRWSs" This system has been off line for several years due to problems that arose. It has not been returned to service as of this date.	According to the RMWG, this comment is correct; however, there are near-term plans by the Valencia Water Company to return the pilot water softening treatment facility back to operation after an operational issue is resolved. Additionally, the Newhall County Water District has proposed to build a similar plant and was preparing a grant application to pay for its development, but decided against it at that time. Therefore, a water softening facility in the SCV remains a conceptual project in the SNMP.
4.4	SCOPE	"In addition, imported water is normally blended with groundwater supplies to reduce hardness. The relatively low TDS, chloride and nitrate concentrations in the imported water, particularly during wet years, results in lower salts and nutrient concentrations in supplied water than would occur if only local sources were used."	This comment is correct. To clarify, in normal to wet years, imported water is generally low in TDS, chloride, sulfate and nitrate and when blended with local groundwater supplies reduces the salt and nutrient concentrations in the groundwater. However, during dry or

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		This is an inaccurate statement since state water is often higher in chlorides than local ground water. State water is especially high in chlorides during periods of drought that affect the San Joaquin Delta. The two charts below from a presentation made by the Los Angeles County Sanitation Districts, illustrate the loading of chlorides in state water.	drought years, chloride levels in imported water increase. The text in the SNMP has been revised.
4.5	SCOPE	Page 25 "Additional conceptual implementation measures include groundwater recharge in the Saugus Formation using State Water Project water during wet years with recovery during dry years, and a proposed brine line in the lower sections of the Santa Clara River Valley that could be extended to Los Angeles County." The Saugus Aquifer currently is seriously polluted by ammonium perchlorate from the Whittiker Bermite Industrial site. Many drinking water wells have been closed due to this problem, with only a few being re-opened after expensive water treatment facilities were added (Saugus well 1 and 2). While cleanup of the soil may be completed by 2018, ground water cleanup is not estimated to be complicated [completed] for over 40 years. It is therefore highly unlikely that this aquifer will be used for re-charge during this period.	While this comment is correct, however, according to the RMWG, the ammonium perchlorate (perchlorate) contamination is localized to a small area within the aquifer and the majority of the Saugus wells remain below the drinking water standard for perchlorate. The conceptual project was identified in a water supply augmentation reconnaissance study which noted that any potential recharge would be away from the known contaminant plume. By increasing the amount of water in the Saugus Formation, the conceptual project, if built, would help to contain the existing plume. Also, prior to initiation of such a project an assessment would be conducted to evaluate any potential risk of spreading the contamination.
4.6	SCOPE	A brine line was discussed in relation to a solution to the high chloride levels in the effluent from the Sanitation plants. There was considerable resistance	This comment is correct; however, according to the RMWG, there is still the potential for a brine line since the City of Ventura will be

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		from downstream property owners to a line that would extend to Ventura County as well as an extremely high cost for such a line. There was also discussion of a line through Los Angeles County, but again the cost of such a long line was considered to make the project infeasible. At this time, aquifer re-charge and brine line should therefore not be considered as a means of reducing salt loads at this time or in the near future.	constructing a brine line from its wastewater treatment plant along the Santa Clara River to an ocean outfall. Wastewater entities along the river were solicited to see if they might wish to connect to the brine line and help in its construction. If this line were to extend to close to the water reclamation plants in the Santa Clara Valley then this conceptual project might be considered. If implemented, this could be a potential way for the SCV to dispose of salts and nutrients.
4.7	SCOPE	**Monitoring Program** We support the monitoring program but ask that the reviewing agency be identified and be a neutral party.	The responsible agency for reporting purposes is the Castaic Water Agency. The reviewing agency is the Los Angeles Regional Board.
4.8	SCOPE	**Resolution** The Resolution for this Amendment states that salt loading from recycled water may cause an exceedance of the groundwater Quality Objectives for these pollutants. We would like to know how the Plan will address this problem when it arises. The management tools presented in the plan do not seem sufficient to manage increased loads.	At present, based on an assessment of current groundwater basin conditions, basin water quality is below (better than) Basin Plan objectives in most of the subbasins, except for TDS in Santa Clara-Bouquet and San Francisquito Canyon subbasin (Zone 4), and TDS and sulfate in a localized area of Santa Clara-Mint Canyon subbasin (Zone 1), where high salt concentrations are thought to be associated with groundwater flow in the native geologic materials.

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			The management tools presented in the SNMP are projected to rectify the TDS impairment in Zone 1 (i.e. result in TDS concentrations below (better than) water quality objectives), and reduce the degree of exceedance for TDS in Zone 4 and sulfate in Zone 1, while maintaining these parameters below water quality objectives in the other subbasins.

* Salt and Nutrient Management Plans are developed by basin stakeholders through a collaborative process, as directed by the State Water Board's Recycled Water Policy. Therefore, the Regional Board worked with the Upper Santa Clara River (USRB) Basin stakeholders while reviewing the comments received and developing the above responses.