Response to Comments – Public Review Draft (May 2016)

#	Comment by	Component of SNMP	Comment	Team Response
1	Group at large at meeting	Table of Contents	Include a Report Preparer's Page	Added to document
2	John Ricker at meeting	Chapter 5.3	Suggested showing nitrate loading by regions and targeting management efforts to the areas of high loading.	Figures showing nitrate loading potential maps (see Workshop #2 presentation) were presented early on in the SNMP development process and due to stakeholder concerns those maps were excluded from the SNMP. No additional changes to the report have been made.
3	John Ricker at meeting	Chapter 6.1	The goals section could be written differently to more clearly explain how conservation projects improve water quality.	Agreed. Text revisions in Chapter 6 have been made to more clearly explain the connection between conservation and water quality.
4	Cecile DeMartini at meeting	Overall	SNMP should stand separate from BMP.	The Basin Management Plan (BMP) describes PVWMA's water resources management approach to balancing the groundwater basin and stopping seawater intrusion. The BMP was developed by a stakeholder committee and approved by the board of directors. By design, the implementation of the BMP will improve the quality of groundwater within the basin and meet the objectives of the SNMP. Text revisions have been made throughout the document to more clearly explain the connection between conservation and water quality. Figure 2.3 has been added to demonstrate that the PVGB functions similar to a closed basin, and therefore water conservation programs accompanied by supplemental water supply facilities that reduce groundwater production have significant water quality benefits.

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5	Cecile DeMartini at meeting	Chapter 6	SNMP should have target values/goals to be able to determine success. This would provide a more communicable goal for achievement.	Based on previous direction on SNMP requirements, we do not believe this is a requirement. As specified in Chapter 5, the values used in the loading estimates are theoretical values and we have concerns for establishing a numerical target based on these estimates. No changes have been made to the report.
6	Cecile DeMartini at meeting	Chapter 6	Expressed concern that the goals and objectives section focused on conservation and not water quality improvements.	Text changes were made throughout Chapter 6 to discuss the role water conservation and supplemental water supply projects have on improving water quality. The PVGB behaves similar to a closed basin. Groundwater overdraft has the effect of concentrating solutes in the basin over the long term. Seawater intrusion (SWI) is the single largest source of salt to the basin. Eliminating groundwater overdraft, and stopping SWI through water conservation programs and supplemental water projects improves water quality with respect to salts/chlorides. Through growers pumping groundwater high in nitrate and economically managing applied nitrogen, the operation functions like a pump and treat system to remove nitrate from groundwater. Also, through efforts that minimize excess irrigation and keep the nitrogen in the root zone available for uptake, the quantity of nitrate being leached to groundwater will be lessened.
7	John Ricker at meeting	Table of Contents	Add inside cover page	Added to document
8	John Ricker at meeting	Table of Contents	Add list of figures & tables	Added to document
9	Group at large at meeting	Chapter 5.3.2, page 65	typo in bullets - two #1s	This has been fixed

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10	John Ricker via email	Chapter 5.3.1	The report does not really take into account the significant denitrification likely to take place in stream bottoms and soils.	No changes were made to Chapter 5.3.1. In Chapter 5.3.2, adjustments were made to denitrification as shown Table 5.23 to account for denitrification in slough system. We address denitrification of soils in comment #13. For stream bottoms, denitrification may be occurring in the wetland areas and we adjust the values due to the presence of the slough system as addressed in comment #14. As shown in Figure 5.14, the slough systems are largely not represented in the surface water recharge analysis. Therefore, we chose to address this issue in Chapter 5.3.2, rather than here, as we do not have sufficient information on the denitrification rates across all streams in the basin.
11	John Ricker via email	Chapter 5.3	I would like to see the map that shows calculated loading from ag, even if it is not made public.	Figures showing nitrate loading potential maps (see Workshop #2 presentation) were presented early on in the SNMP development process and due to stakeholder concerns those maps were excluded from the SNMP. No additional changes to the report have been made.
12	John Ricker via email	Chapter 5.3.1, Figure 5.14	I am trying to figure out why the high nitrate level near Corralitos Rd and Freedom Blvd. It does not seem to correspond to stream input or high recharge area. Is it ag inputs? Or is it one well with high values, perhaps a shallow well? Does the report address the very large difference in nitrate concentration between the upper aquifers and the lower aquifers in many parts of the basin?	No changes to the report have been made. Based on Figure 5.9, the streambed vertical conductivity for that reach is high. In Figure 4.13, the Q3 average concentration is between 11-45 mg/L. The intersection of these data results in the red reach in Figure 5.14. Upstream in Corralitos Creek, there are similar reaches of high conductivity, but the measured nitrate concentrations are lower. In the nearby creek, the concentrations are similar, but the measured conductivity was very low. These analyses are based on surface water monitoring performed by PVWMA locations shown in Figure 4.10. The difference in upper and lower aquifers should not influence this analysis.

#	Comment by	Component of SNMP	Comment	Team Response
13	John Ricker via email	Chapter 5.3.2, Page 70	The amount of atmospheric losses estimated in the report seems very low. Calibrated Nitrogen budgets for the very sandy soils in the San Lorenzo Watershed indicated that significant nitrogen was lost in the soil prior to leachate reaching groundwater. For septic systems there was about a 25% loss, for livestock and fertilizer applications on the ground surface, there was an estimated 50-70% loss. For most of the soils of the Pajaro Valley with higher clay content and stratification, the loss to denitrification would be expected to be much higher. All of this is somewhat confounded by the very large reservoir of organic nitrogen in the soil that the report correctly points out (p. 72).	Revisions made to Chapter 5.3.2 to account for denitrification in sloughs (from 8-12%). In regards to denitrification, there are 4 conditions that must be met for significant denitrification to occur. These conditions, in order of importance, include high soil water holding capacity (or lack of drainage), low oxygen levels, high pH, and moderate temperature. Research shows that soils with water holding capacity of 50% do not have active denitrification. The water holding capacity must be at least 75% or the soil waterlogged to that level for 10% of the nitrogen to be denitrified. The heaviest clay soils in the valley have a water holding potential of approx. 60% and we have this data from the soils study. The oxygen level must be below 10% and an exponential increase in denitrification occurs when the oxygen level approaches 0%. We believe that the majority of soils farmed in the valley do not have active denitrification occurring. The farmers manage the irrigation and drainage to actively avoid the conditions necessary for active denitrification. The conditions of pH and temperature are appropriate in the Pajaro Valley. However, we do believe that some adjustment for the widespread presence of the slough system is necessary. As stated in the California Nitrogen assessment, the state average for denitrification is 10%, where 70% of this if from human activities and 30% is from natural lands - and wetlands are the largest contributor. Given that sloughs in the PVGB account for a greater areal percentage than the state average, it is appropriate to use a higher denitrification value than the state average.

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14	John Ricker via email	Chapter 5.3.2, Page 73	I don't understand the basis for concluding at the bottom of the page that the range of nitrate concentration in the infiltrating water from ag is 109-275 mg/L. That seems contrary to the discussions on the page just above it.	The calculation is a unit conversion of the potential nitrogen mass leaching to the groundwater from agriculture (Table 5.25) and infiltration rates, to estimate what the concentration of infiltrating water we would expect based on our modeled loading calculations. This is for comparative purposes only, to show how our estimates compare to measured data. The modeled data has a number of assumptions to estimate a value for the entire basin, and the measured data is limited temporally and spatially. These are the qualifications we then make in the next paragraph on page 74 of May 2016 report, for why there may be differences in the values. To improve clarity, this discussion has been moved to Chapter 5.3.2.9, where it more appropriately follows the discussion of data provided.
15	John Ricker via email	Chapter 6	As discussed at the meeting, it would be good to have the goals relate back to some of the key findings and issues, eg. "In order to stop seawater intrusion, which is the largest single source of salts in the basin, prevent further increase in groundwater overdraft."	Agreed. Text in Chapter 6 has been modified to more clearly explain the connection between the findings and the goals.
16	John Ricker via email	Chapter 6, Page 84	Seems like the recommendation at the bottom of the page on p84, should be elevated to a standalone objective and fleshed out more. Seems like it should also include providing assistance to growers to take into account nitrogen present in irrigation water (recycled water and groundwater), and to reduce or eliminate other nitrate inputs accordingly. This could also eventually reduce nitrate levels in groundwater by promoting nitrogen loss through harvesting and denitrification in the upper soil layers, and would help to increase assimilative capacity (p. 89).	Minor changes made to the recommendation and text throughout Chapter 6 modified to more clearly state the connection between recycled water use and water quality improvements.

#	Comment by	Component of SNMP	Comment	Team Response
17	Group at large at meeting	Chapter 5.1, Figure 5.5	typo in title	This has been fixed
18	Group at large at meeting	Chapter 7, Table 7.5	two table 7.5s	This has been fixed
19	Group at large at meeting	Chapter 7, Table 7.6	duplicate table titles	This has been fixed
20	Group at large at meeting	Chapter 8, Figure 8.2	two figure 8.2s	This has been fixed
21a	Kirk Schmidt via email	Chapter 5.3.2	The SNMP states: "Areas with low recharge potential have a low risk that salts and nutrients from surface water, irrigation water, or seawater will reach groundwater." (SNMP pg. 38) The SNMP goes on to review various studies as shown in Figures 5.5, 5.6 and 5.8. It concludes, based on figure 5.8, that 19% of the basin, or 13,720 acres have a low groundwater recharge potential (pg. 45). Regrettably, the analysis stops there and does not complete the review, which would show that the majority of this area, as shown on Figure 5.8, is in commercial agriculture. Based on the limited references it is necessary to extrapolate that possibly 8-10,000 of the 26,000 irrigated acres have a low groundwater recharge potential. This would be consistent with the work by Andy Fisher studying areas with a recharge potential.	In Section 5.3.2.2, added language on the spatial distribution of ag lands in the groundwater recharge potential zones to justify using the average numbers. Previous versions did include a higher resolution of spatial analysis, which examined the intersection of irrigation volumes based on assumptions by crop type with groundwater recharge potential. Based on stakeholder feedback, we revised the analysis to be conducted at the basin scale using average values. Using the previous analysis, the spatial breakdown of ag land within each of the three GW recharge potential zones is: 30% high, 46% moderate, and 24% low. Given this distribution, we believe that applying the basin average is sufficient for the purposes of the SNMP and aligns with the spatial scale used throughout the report. There are likely many areas where a more discrete spatial analysis and intersection of datasets would result in different loading estimates. However, at this point in time there are insufficient resources to consider redoing the analysis at a higher spatial scale.

#	Comment by	Component of SNMP	Comment	Team Response
21b	Kirk Schmidt via email	Chapter 5.3.2	Comparing the recharge map, Figure 5.8, and the crop map, Figure 5.16 (pg. 61), most of the highest recharge land is not prime farm land. In Monterey County the hills on both sides of Hall Road are almost entirely unfarmed. Many areas which represent prime farm land are in areas of low recharge potential. For example, the area west of Highway 1, along Beach Road, has no recharge potential with tile drains which discharge water from below the root zone to drainage ditches and eventually into the lower Pajaro River and Monterey Bay, outside the plan area.	Added language about tiles drains as a potential output to Section 5.3.2.2, and suggested that further research is needed. Using the PVWMA available spatial information, we determined that 21% of the agricultural lands are underlain by tile drains. However, there is no information on the age and effectiveness of tile drain systems within the Pajaro Valley. Given that we cannot know whether these tile drain systems transport the water off-site or keep the water on property, we have insufficient information to ascribe a removal rate for tile drains. This issue should be researched further to be accounted in a future nitrate loading analysis.
22	Kirk Schmidt via email	Chapter 5.2.3, Chapter 5.3.1	This is shown initially as “streambed vertical conductivity” in Figure 5.9 (pg. 46). However, areas of very low conductivity on figure 5.9 changed to moderate TDS loading potential in figure 5.12. There is no data to support this metamorphosis. Again the Fisher studies seem to support Figure 5.9. Figure 5.14 shows yet another recharge map, this time for Nitrate. Nitrate is another “salt” and in many ways is not distinguishable from TDS.	No changes to the report have been made. Figures 5.12 and 5.14 represent the intersection of the streambed vertical conductivity data (Figure 5.9) with the Q3 concentration data (Figures 4.11 and 4.13). Tables 5.6 and 5.10 show under what conditions low streambed recharge can be designated as moderate loading potential (when concentration values are measured as high).

#	Comment by	Component of SNMP	Comment	Team Response
23	Kirk Schmidt via email	Chapter 5.2.3, Chapter 5.3.1	All of this (2N note: "this" is comment #22) is then disregarded to determine stream nitrate recharge potential: "…low and high estimates for the nitrate concentrations in surface waters is determined by taking 20% below and above the average (20 mg/L NO3), yielding 16 mg/L and 24 mg//L respectively. When multiplied by the annual infiltration rate of 14,960, the theoretical nitrate N loads range from 73 to 110 t N/yr. leached to groundwater as a result of stream infiltration." (pg. 56). The methodology outlined above fails to distinguish between areas of high potential recharge with those reaches having very limited stream flow loss. While it is easy to point to high potential for streamflow recharge at Murphys Crossing and Corralitos this rate cannot be extrapolated over the entire basin. For example, high N concentrations at CCHL, below Corncob Canyon on Watsonville Creek (figure 4.13) are not likely to recharge groundwater due to the very low vertical conductivity shown on figure 5.9. The same is true of site BRD at the lower end of the Beach Road Ditch. For these reasons the overall N loading "average" used to calculate nitrate loads should be significantly reduced, along with the resulting loads calculated.	No changes to the report have been made. Previous SNMP versions included a higher resolution of spatial analysis; however, at the direction of the stakeholders, the loading estimates are provided at the basin scale. The analysis includes a spatial weighting of the results shown in Figures 4.11 and 4.12 to determine the values in Table 5.7. The infiltration rate is determined based on the PVHM and is a basin average. We agree that the analysis at this scale misses some of the specific differences we know to be present within the basin. However, at this point in time there are insufficient resources to consider redoing the analysis at a higher spatial resolution.
24	Kirk Schmidt via email	Chapter 5.3.2	The focus of the following discussion deals with the Agricultural Nitrogen Loading Potential in §5.3.2 starting at page 58. There is no integration of this section with the prior analysis of recharge potential. The study treats all 28,230 agricultural acres as equal, which as discussed above is not correct.	See response to comment #21a

25a	Kirk Schmidt via email	Chapter 5.3.2	The primary reference point of the study is a 2012 study, cited as Viers et al, however the primary author was Dr. Harter and is more commonly referred to as the Harter Report.1) The shortcomings of the Harter Report are discussed, concluding: “Given this significant limitation, the rates of nitrate leaching calculated are only theoretical and in all probability overestimate the level of nitrate leaching” (SNMP pg. 58, emphasis added) During the meeting I distributed a copy of pie chart showing nitrogen inputs and outputs from the Harter Report.The Nitrate Expert Panel was assembled by the State Water Board to review how to reduce agricultural N use pursuant SBX 2 1 of the California Legislature. Their final report, referred to here as the Expert Panel2, commented on the mass balance pie chart: “In the mass balance above, the “leaching to groundwater” is a mathematical remainder term, where: Leaching = (everything on the left) – (everything else but leaching on the right) While it can be desirable to provide simple depictions such as this, a logical question is: Why does the harvested nitrogen nearly equal the nitrogen in land-applied dairy manure? Surely some of the harvested nitrogen was destined to something other than manure. The study has numerous assumptions (which all studies must have), one of which is that all harvested alfalfa received all of its nitrogen from the atmosphere. However, alfalfa is generally planted in a rotation with other crops, and alfalfa will use readily available soil N before it fixes atmospheric N for its use. On a macro level, just the nitrogen in milk in the area of the pie chart is about 58,000 ton/yr. of N – accounting for a significant part of the harvested N. In other words, the depiction of a simple conceptual nitrogen balance for one intensively studied area as a product of a multi-million-dollar effort suffers from a lack of clarity.	In Chapter 5.3.2.9, removed references to Salinas Valley results and removed from Figure 5.17. Previous Table 5.13 (Comparison of crop group distribution for area analyzed by Viers and the PVGB area) has been removed to remove focus from Viers inputs. We agree that comparing the Harter report results to PVGB is problematic. We apply the Harter/Viers methodology to Pajaro Valley using local data as much as possible, and state and national data when PVGB-specific information is not available. Given the issues of comparing Salinas Valley data to PVGB practices (alfalfa irrigation, dairy, etc.), we have removed all comparisons to the Harter report results and instead reply on the methodology only. Throughout document, references to Viers report were amended to cite the report only as a methodology example to generate the analysis, but that for this analysis, the focus has been on the use of local data to the maximum extent possible.

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25b	Kirk Schmidt via email	Chapter 5.3.2	(*2N note – continued from #25a*) The complexity of individual field nitrogen budgets is even more daunting. Research on a single plot to define nitrogen transformations as they vary with soil depth and time is very expensive, requires special university-level chemistry and biological expertise, and yet often still gives inconclusive answers. As a side point, the graph in Figure 8 does not clearly indicate that very little manure is applied on the Central Coast (part of the study area). It would also be incorrect to extrapolate the findings from the limited study area to other areas of the state." (Expert Panel, pg. 23, emphasis added) The Nitrate Expert Panel went on to distinguish real world agricultural practices, fertilizer use and potential N losses to groundwater from the generalizations in the Harter Report. In particular, they found the weight of emphasis on areas with perennial crops and dairies was not applicable to vegetable crops on the Central Coast.	See response to comment #25a

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26a	Kirk Schmidt via email	Chapter 5.3.2	Simultaneously with the development of the Harter Report UC Davis Sustainability Institute professors authored the California Nitrogen Assessment. During the SNMP meeting I distributed a sheet showing N groundwater sources from the Nitrogen Assessment (attached). In the portion of the study addressing groundwater N impairment they found that: "Leaching from cropland ... was the predominant (88%) input of N to groundwater: It appears that N is rapidly accumulating in groundwater with only half of the annual N inputs extracted in irrigation and drinking water wells or removed by denitrification in the aquifer." (The California Nitrogen Assessment, Thomas Tomich et al, Sustainability Institute at UC Davis, 2016, pg.117) The Nitrogen Assessment adds two key elements to the formula proposed in the SNMP at page 64: denitrification and extraction: NGW = Nfert + Nirrig + Ndeposit – (Nharvest + Nrunoff + Natmos) – **(Ndenitrification + Nextracted)**	See response to comment #13. Our term Natmos includes denitrification, as described in Chapter 5.3.2.8. As stated in response to comment #13, the denitrification values have been adjusted upwards to account for the large slough system within the Pajaro Valley. NGW is the average annual flux of nitrogen remaining in the system (lbs/acre/yr), within the reservoir.
26b	Kirk Schmidt via email	Chapter 5.3.2	(*2N note – continued from #26b*) This needs to be taken into account in SNMP section 5.3.2.9 (SNMP pg. 70 – 72) resulting in significantly less leaching to groundwater in the conclusions shown in Table 5.22 and Figure 7.17. Since Nirrig is pumped groundwater then there should be an equal credit for removing that much N from the aquifer through extraction, Nextracted. Denitrification and re-extraction of groundwater for irrigation reduces the net N accumulating in the aquifer by up to 50% of the N percolating below the root zone.	Extraction of groundwater at a concentration equal to the reservoir concentration will have no impact on the N within the groundwater reservoir. It is similar to the concept of pouring a cup of lemonade from a premade pitcher. Removing the drink volume, which is of equal concentration to what is in the pitcher, has no effect of the concentration of what remains in the pitcher.

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27	Kirk Schmidt via email	Chapter 5.3.2, Table 5.22	Table 5.22 (SNMP pg. 71) is biased in that it assumes that the farms with the highest inputs are also the farms with the lowest outputs. There is absolutely no correlation which supports this math. It is no more credible than assuming that farms with low inputs have low removal rates. Some crops require higher fertilization rates and also have a higher percentage of N removed at harvest. Based on the above discussion this table should be adjusted to show that the average percent leaching to groundwater is between 35 and 50 percent, and only in areas with a recharge potential, not 43 to 74 percent as shown.	Improved layout of Table 5.25 to reduce confusion. As stated in Chapter 5.3.2.2, we want to calculate NGW, min and NGW, max. To do this, we are aligning the min inputs with the max outputs and the max inputs with the min outputs, respectively. We did not intend to imply that there was a spatial correspondence to these columns. We are simply aligning the min and max values presented in the preceding sections.

#	Comment by	Component of SNMP	Comment	Team Response
28	Kirk Schmidt via email	Chapter 5.3.2.6	There is great uncertainty in what percentage of N applied is removed at harvest. Yet this information is important to know in order to determine what constitutes efficient fertilizer use, and how much of the N applied may leach below the root zone. The Nitrate Expert Panel specifically raised this question. Specific studies of Central Coast vegetable crops show significantly more N consumed than the USDA report cited in the SNMP (page 69). For example work by Michael Cahn of the UC Ag Extension with strawberries shows that between 34% and 49% of N applied is removed as fruit during harvest. (*Nitrogen Management in Strawberry Production*, Bottoms, Hartz and Cahn, UCCE, attached). The Regional Water Quality Control Board, Central Valley, has also determined that there are significant knowledge gaps in N removed at harvest. The CVRWQCB Executive Officer, in a letter dated February 19, 2015 (attached) stated: “I have concluded that the knowledge gaps identified by you (Coalitions) and the state Water Board’s Expert Panel are crucial deficiencies and must be addressed.” The Coalitions were specifically mandated to develop a Gap Study Plan. Given that the lack of knowledge in the percent of N removed at harvest has been acknowledged by the Water Board it is incorrect for the SNMP to state, without reservation, the efficiency of N uptake for the Pajaro.	Revised Chapter 5.3.2.6 to discuss this uncertainty and the data used in this analysis. We agree that there are certainly limitations to the data used in the analysis. We have added text to more clearly state these deficiencies and suggest that more data research and collection with regard~~s~~ to harvested nitrogen would improve a future analysis. However, at this time we do not have sufficient resources and available data to revise the calculations.
29	Kirk Schmidt via email	Chapter 5.3.2	The SNMP should reduce overall recharge loading potential due to the fact that 30 to 40% of agricultural land is in areas with low groundwater recharge potential.	See responses to comment #21a

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30	Kirk Schmidt via email	Chapter 5.3.2	Denitrification and groundwater reuse in irrigation need to be credited with a reduction of N groundwater loading.	See responses to comment #13 and comment #26a and 26b
31	Kirk Schmidt via email	Chapter 5.3.5, Page 78-80	Overall the total loading attributed to agriculture should be reduced in areas of low recharge and du to denitrification and extraction. The high attributable to agriculture (Table 5.26, pg. 78 and Figure 5.21, pg. 80) should be reduced from 2,644 t N/yr to 1,296 t N/yr and the low end changed from 1,047 t N/yr to 513 t N/yr. In the alternative the SNMP should be revised to omit §5.3.5 (pg. 78-80) as it is too speculative, as the SNMP points out: "… these estimates are based on a theoretical calculation…" (SNMP pg. 78)	See responses to comments #13, 21a, and 26a&b. More description of limitations has been provided in Chapter 5.3.6. Revisions have been made to the denitrification rates and are incorporated into the analysis. Limitations and assumptions of our analysis are provided throughout the chapter. Updated language throughout report to clarify that we are using a modeled approach to provide nutrient loading estimates, and we selected the best available model (Viers et al. 2012) given the data and information available for Pajaro Valley.
32	Cecile DeMartini via email	Chapter 6.1	The seven Goals presented in the Plan do not address salt and nutrients adequately as summarized below. Goal Nos. 1, 5, and 6 addresses water supply. Goal No. 4 preserves ag production and will assist growers in nutrient best management practices. Only goal that address salts and nutrients but gives no goal other than support growers. Goal Nos. 2, 3 and 7 address Salt and Nutrients but have very undefined narrative goals of "improving" understanding, "improving" management, and "improving" source water quality.	Text revisions in Chapter 6 have been made to more clearly explain the connection between water conservation, water supply, and water quality.

#	Comment by	Component of SNMP	Comment	Team Response
33	Cecile DeMartini via email	Chapter 6.2	The four Objectives presented in the Plan do not address salt and nutrients adequately as summarized below. Objectives A, B and C (four of five sub-objectives) do not address salt and nutrients. They address increased reclaimed water production, storage and use and increased ag water use efficiency. Objective C has five sub-objectives and only one of the five addresses salt and nutrient loading control, but with no clear objective. The sub-objective states " increase efficiency" and "reduction of annual application" of nutrient application programs. This is not an objective statement. Objective D does not address salt and nutrients. It discusses gray water reuse and disposal to land. Objective E does not address salt and nutrients. It addresses conducting additional studies on surface and groundwater interaction, which has already been completed in the Pajaro Basin Management Plan. The draft Plan presents 90% of nutrient impacts to groundwater is due to Ag practices. None of the goals or objectives state, 'The end toward which effort is directed.' None of the objectives stated objectively manage salts and nutrients.	Text revisions in Chapter 6 have been made to more clearly explain the connection between water conservation, water supply, and water quality.
34	Cecile DeMartini via email	Chapter 8, page 95, Tables 8.1 and 8.2	Section 8 does not address salt and nutrient management adequately. All priority programs presented are Basin Management Projects for water resource conservation. How does this improve/protect water resources from Salt and Nutrient loading?	Text revisions in Chapter 6 have been made to more clearly explain the connection between water conservation, water supply, and water quality. Figure 2.3 has been added to demonstrate that the PVGB functions similar to a closed basin, and therefore water conservation effort can have significant water quality benefits.

#	Comment by	Component of SNMP	Comment	Team Response
35	Cecile DeMartini via email	Overall	The draft Plan presented does not meet the intent of the Policy. If the draft Plan is not further developed in order to meet the intent of the Policy then the PVWMA will run the risk of forfeiting any grant funds received to produce the Plan. These comments summarize the reasons why the draft Plan does not meet the intent of the Policy. Paragraph 6.a.(2) of Recycled Water Policy states: "It is the intent of this Policy that salts and nutrients from all sources be managed on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses." The draft Plan being developed does not meet this basic intent for the following reasons: (1) The draft Plan does not address the most significant sources of salt and nutrient loading. Irrigated agricultural land use is the primary source of regional-scale salt and nutrient loading in the Central Coast Region. The relative contribution of agricultural loading is 80 percent or higher in some basins. Even though the source identification and loading analyses developed as part of the draft Plan document this, the plan does not contain objectives, goals, and implementation measures addressing salt and nutrient loading. (2) The assimilative capacity and antidegradation study only seeks to maintain the status quo of degraded water quality conditions and to further degrade a water source up to beneficial use water quality standards. (3) Stakeholder Roles and Responsibilities are never defined in the draft Plan	#1 – The most significant source of salt loading is from seawater intrusion, while the most significant source of nutrient loading is from agriculture. The issues are exacerbated by long-term groundwater overdraft, which has the ability to concentrate solutes within the groundwater basin. The Agency's Basin Management Plan contains a suite of projects and programs intended to address these issues. Text revisions in Chapter 6 have been made to more clearly explain the connection between water conservation, water supply, and water quality. #2 - Assimilative capacity and anti-degradation sections were drafted with direction provided by the Regional Water Quality Control Board. #3 - Chapter 1.2 SNMP Stakeholder Process, Roles & Responsibilities has been added.
36	Group at large at meeting	Chapter 5.3.1, Figure 5.14	Typo in title	This has been fixed