Task	No.	Date Received	Comment Source	Deliverable	Comment	Response
Task 5 Workplan	1	10/18/12	Daniel Cozad	Draft Workplan	Task 5.1 (subtasks 5.1.2, 5.1.3) - Will the data be available or will they be on the network available with editor permission?	Data are available publicly. Text added in the Workplan to clarify.
Task 5 Workplan	2	10/18/12	Daniel Cozad	Draft Workplan	Task 5.1.3 - no need to include nitrate	Understood. Other constituents will only be retained if they are part of the databases that are captured. Also, nitrate is being addressed by other components of CV-SALTS, so although the data could technically be deleted at any time, this would seem wasteful.
Task 5 Workplan	3	10/18/12	Daniel Cozad	Draft Workplan	Task 5.1.4 - comment regarding potential use of Hilmar dataset	Plans to use this dataset have been dropped.
Task 5 Workplan	4	10/18/12	Daniel Cozad	Draft Workplan	Task 5.1.6 - provide additional information regarding costs for dataset and who owns these data;	Cost is not stated as "complementary", or $0. They will be provided by vendor, who have developed them by a proprietary image analysis approach applied to recent imagery. The data were never on offer for small areas, but the vendor has agreed to provide the summaries now described in the text. The issue of changing land use could be significant, so that this illustrative evaluation of land cover data quality will be useful and cost effective.
Task 5 Workplan	5	10/18/12	Daniel Cozad	Draft Workplan	Task 5.1.6 - Provide more information regarding how data queried; information on percent crop coverage	The various land cover data sources have differing legends. An effort will be made to ensure that there is some consistency among classes containing sensitive crops, so that their significance as a proportion of irrigated area can be quantified. The queries will look at them as a proportion of the irrigated land area (acres of sensitive crop/total irrigated acres) in an area.
Task 5 Workplan	6	10/18/12	Daniel Cozad	Draft Workplan	Task 5.1.7 - information regarding record low, record high and average value could be part of database lookup table	Assume this relates to economic value. This subtask has been dropped to improve focus of work on developing tools relating crop productivity to salinity.
Task 5 Workplan	7	10/18/12	Daniel Cozad	Draft Workplan	Task 5.2.3 - modify purpose of task from delineation of AWQZs to identification of preliminary AWQZs	The AWQZ's seemed to connote more than is possible in a fluid policy climate. Focusing on a Hoffman-like analysis that covers the whole valley and relates productivity of sensitive crops to irrigation water salinity is now the whole focus. These zones have been re-named Crop Sensitivity Zones (CSZs), and, although they could be re-formed later, for the purposes of this work would become definitive.
Task 5 Workplan	8	10/18/12	Daniel Cozad	Draft Workplan	Task 5.3 - Provide clarity on percent level of protection envisioned for analysis. What is the basis for evaluating the "top 5 crop-soil-irrigation groups in the study area"? What level of protection (percent crops) does this number represent?	Figure 1 and text are now clear that several policy related thresholds will either need to be provided by CV-SALTS, or preliminary estimates of ultimate policy outcomes will be employed. In the latter case, the Crop Sensitivity Toolset could be re-run to reflect final policy outcomes. The tolerable level of sensitive crop yield reduction is one of these policy-driven figures.
Task 5 Workplan	9	10/18/12	Daniel Cozad	Draft Workplan	Figure 1 - Explain use of phrase "water quality criteria" in figure. Is this explained in the workplan?	This language has been removed. Tolerable irrigation water salinity (that producing a tolerable yield reduction in sensitive crops) is now the outcome.
Task 5 Workplan	10	10/26/12	Regional Board	Draft Workplan	General Comment: Do not believe the current workplan will be able to deliver the model product.	Workplan has been re-aligned to focus on an explicit, Hoffman-like analysis. Please see Figure 1.
Task 5 Workplan	11	10/26/12	Regional Board	Draft Workplan	General Comment: The workplan seems to vary from gathering quite a bit of information that may be useful to CVSalts in the future with gathering focused information that will allow it to complete the task of developing default AGR water quality objectives for appropriate zones in the Central Valley	Workplan has been re-aligned to focus on an explicit, Hoffman-like analysis. Please see Figure 1.

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Task 5 Workplan	12	10/26/12	Regional Board	Draft Workplan	General Comment: The workplan appears to rely almost entirely on the GIS mapping tool and does not appear to ground-truth findings with the agricultural community	Workplan has been re-aligned to focus on an explicit, Hoffman-like analysis. Please see Figure 1. Most of the budget will indeed be consumed by data organization, tool building, analysis, presentation, review, revision, and finalization. However, three important reality-check comparisons have been included. Outreach to the agricultural community beyond that provided by the CV-SALTS stakeholder process would require significant budget. We are hopeful that agricultural representatives in CV-SALTS will provide input during the proposed presentation of CSZ's, and there is time to respond to their comments in this regard.
Task 5 Workplan	13	10/26/12	Regional Board	Draft Workplan	General Comment: The plan would benefit from incorporating the agricultural community's knowledge throughout the process—particularly in developing appropriate AGR zones, focus on the layers needed to utilize the Hoffman model and identifying default values as needed, and then cross check with the values developed in the two management zones identifies and perhaps with the work done on the westside of the SJR. Consideration must also be given as to whether groundwater AGR values are best based on background water quality as opposed to the cropping pattern within the zone.	One of the reasons we have shifted the goal to developing a tool set to relate crop production to irrigation water salinity is that we too recognize the extensive consultation and time required to define AGR zones and criteria, and we frankly consider this beyond the budgets and schedules currently under consideration for this work. Furthermore, a number of important policy questions remain under discussion, and these will need to be answered before regulatory approaches are finalized. However, when that time comes, it will be helpful to have invested in this tool set, which can be useful to inform planning under many possible policy outcomes.
Task 5 Workplan	14	10/26/12	Regional Board	Draft Workplan	Page 1, 1st Paragraph - Is there a reason that this effort is focusing on the valley floor? If so, that reasoning should be explained as well as the default that will be utilized in other areas of the Central Valley.	The currently proposed analysis will be extended to any area for which crop, soil, and climatic data are available.
Task 5 Workplan	15	10/26/12	Regional Board	Draft Workplan	Page 1, 2nd Paragraph - Any layer utilized should be crossed checked with the local ag community/coalition. It appears that money and time could be saved by utilizing the readily available map layers from DWR and then checking those with the local ag community/coalitions before spending additional time/resources purchasing other layers which may still need to be adjusted. Raises the issue of whether everything must be GIS based or if there is room for a little reality check before developing draft objectives.	On further investigation, the type of crop data required for this work are not readily available with most Ag Commissioners or coalitions at this time. The former are mostly using the same DWR coverage we propose, and the latter are only now transitioning to GIS. The data sources for GIS land coverages have been listed in the scope, and will be pursued. As better data become available in the future, the tool set is set-up to facilitate updating of land use coverage.
Task 5 Workplan	16	10/26/12	Regional Board	Draft Workplan	Page 1, Bullet 1 - Unclear what "data gaps" would be filled in these areas.	Data gaps will be in areas where, for some reason, inadequate crop, soil, climatic, or agricultural water supply data are lacking. We anticipate that the water supply quality data will be most spotty, but will verify this and identify the gap so that it will be explicit.
Task 5 Workplan	17	10/26/12	Regional Board	Draft Workplan	Page 1, Bullet 2 - Region 5 has a list of the primary factors needed for both the Hoffman and Grattan models. Recommend that these factors serve as the primary considerations for developing initial boundaries.	Workplan has been re-aligned to focus on an explicit, Hoffman-like analysis. Please see Figure 1.
Task 5 Workplan	18	10/26/12	Regional Board	Draft Workplan	Page 1, Bullet 2 - Again, not clear on the benefit of this effort especially when you realize the focus areas have already been modeled based on their boundaries as being appropriate "zones".	Workplan has been re-aligned to focus on an explicit, Hoffman-like analysis. Please see Figure 1.
Task 5 Workplan	19	10/26/12	Regional Board	Draft Workplan	Page 1, Bullet 3 - Strongly recommend comparing the numbers that come out of this effort for the focused areas with the numbers that have already been calculated as a way to help determine sensitivity of the method. This project should not be trying to undo or replace the more detailed work that has already been completed.	Agree, comment adopted and incorporated into approach. Please see Subtask 5.3.

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Task 5 Workplan	20	10/26/12	Regional Board	Draft Workplan	Page 2 - We do not understand the benefit of conducting “further delineations of zones within the two focus areas”. It sounds like what you are talking about is a more detailed study using a more robust & detailed data set. What is the purpose of this? Extensive work has already been conducted in those 2 areas. If you are proposing an entirely new methodology, why not simply compare the results obtained from this study with the results of the Hoffman Report and the Grattan Woodland EC study report? IF the results are significantly different, benefit may be gained with further review to determine source of discrepancy.	Workplan has been re-aligned to focus on an explicit, Hoffman-like analysis. Please see Figure 1.
Task 5 Workplan	21	10/26/12	Regional Board	Draft Workplan	Task 5.1, 1st Paragraph - It is critical to involve the agricultural community and coalitions (i.e., Central Valley Agricultural Water Quality Coalitions) early and throughout this project since the ultimate goal is to develop zones and water quality objectives that make sense for agricultural operations.	One of the reasons we have shifted the goal to developing a tool set to relate crop production to irrigation water salinity is that we too recognize the extensive consultation and time required to define AGR zones and criteria, and we frankly consider this beyond the budgets and schedules currently under consideration for this work. Furthermore, a number of important policy questions remain under discussion, and these will need to be answered before regulatory approaches are finalized. However, when that time comes, it will be helpful to have invested in this tool set, which can be useful to inform planning under many possible policy outcomes.
Task 5 Workplan	22	10/26/12	Regional Board	Draft Workplan	Task 5.1, Paragraph 4 - Is the project basinwide or valley floor. There is a very big difference.	The currently proposed analysis will be extended to any area for which crop, soil, and climatic data are available.
Task 5 Workplan	23	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.1 - (1) It is hard to understand why this particular task is not a duplicate of the other work being done as part of the broader GIS contract. (2) Seems like you would want to just ask the ag community which boundaries to focus on.	One of the reasons we have shifted the goal to developing a tool set to relate crop production to irrigation water salinity is that we too recognize the extensive consultation and time required to define AGR zones and criteria, and we frankly consider this beyond the budgets and schedules currently under consideration for this work. Furthermore, a number of important policy questions remain under discussion, and these will need to be answered before regulatory approaches are finalized. However, when that time comes, it will be helpful to have invested in this tool set, which can be useful to inform planning under many possible policy outcomes.
Task 5 Workplan	24	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.3 - Regarding "Irrigation supply water data will include water quality data compiled from irrigation districts for service areas", is this information readily available?	Data gaps will be in areas where, for some reason, inadequate crop, soil, climatic, or agricultural water supply data are lacking. We anticipate that the water supply quality data will be most spotty, but will verify this and identify the gap so that it will be explicit.
Task 5 Workplan	25	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.3 - Regarding statement "surface water data will be compiled from CVHM…", does CVHM contain surface water data? In addition, following general comment: The workplan seems to go back and forth between a surface water and groundwater focus.	See previous. Surface and groundwater are used for irrigation, so that to the extent possible, quality for both will be compiled. CVHM has no groundwater quality data.
Task 5 Workplan	26	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.4 - (1) Does CVHM contain surface water data? (2) Based on discussion later in the Workplan, it appears the purpose of collection of irrigation water supply and groundwater quality data is to delineate the agricultural zones. Is this correct, or would the water quality data also be used in establishing salinity thresholds protective of agriculture within the specific zones?	See previous. CSZ's are indeed independent of ag supply quality, but findings have direct bearing on what might be needed to avoid sensitive crop yield loss. Thus, results will be compared to existing ag water quality data, where those data permit this comparison. We consider this an obvious and useful part of the work as currently proposed and are eager to have the opinions of our reviewers after they have considered it.
Task 5 Workplan	27	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.5 - It is not clear why this task is included as it should already be included under Task 3 of the overall GIS project. Should just mention that the layer will be completed as part of Task 3. Not clear what benefit this subtask provides.	Workplan has been re-aligned to focus on an explicit, Hoffman-like analysis. Please see Figure 1.

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Task 5 Workplan	28	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.6 - Regarding "However, this mapping is performed only every 7 or more years, so that in some areas the data may be out-of-date", What is the determining factor for “out of date”. Is there a check with the ag coalitions?	On further investigation, the type of crop data required for this work are not readily available with most Ag Commissioners or coalitions at this time. The former are mostly using the same DWR coverage we propose, and the latter are only now transitioning to GIS. The data sources for GIS land coverages have been listed in the scope, and will be pursued. As better data become available in the future, the tool set is set-up to facilitate updating of land use coverage.
Task 5 Workplan	29	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.6 - Again, seems more prudent to use DWR as a base and check with the coalitions on accuracy. Not sure how one limited cross check of data would provide much use since earlier it appears clear that there is wide variability within the entire DWR Central Valley data set. You’d get a different answer for each 100 square km’s purchased.	See previous.
Task 5 Workplan	30	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.7 - Whether or not this was a layer identified in the original RFP, if it does not have use for this effort, the task should be deleted	Not sure what layer this refers to.
Task 5 Workplan	31	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.8 - Regarding bulleted list: It seems like some of this information is not available or may be difficult to collect. There is a list of the key factors utilized in the Hoffman model itself and others that should be considered but are not necessarily inputs. This section should be clear on the priorities of gathering data where data is available and setting defaults (e.g. 15% leaching fraction) if the data is not available..	The workplan has been re-written and is explicit about the source and use of data, and about data that, while worth pursuing, may be spotty.
Task 5 Workplan	32	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.8 - Regarding the last paragraph in this section: The paragraph above is confusing. It seems like what is being said is that generally only water quality and soils data will be collected. Please clarify.	See previous.
Task 5 Workplan	33	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.9 - See Regional Board staff’s comment on page 2 regarding the two focus area studies (Comment 20, above). This task should be limited to first checking the sensitivity of this methodology with the methods employeed in the focus areas. If there is a significant difference, there should be a second step to evaluate which inputs (layers?) may be causing the difference.	The comparisons currently proposed will include a brief analysis of the reasons for the correspondences observed.
Task 5 Workplan	34	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.9, Paragraph 2 - Regarding "It is recognized that water quality data will be sparse in a basinwide scale of mapping", the actual water quality data is NOT a key input for the Hoffman model.	CSZ's are indeed independent of ag supply quality, but findings have direct bearing on what might be needed to avoid sensitive crop yield loss. Thus, results will be compared to existing ag water quality data, where those data permit this comparison. We consider this an obvious and useful part of the work as currently proposed and are eager to have the opinions of our reviewers after they have considered it.
Task 5 Workplan	35	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.9, Paragraph 2 - Regarding the Davis/Woodland areas, those two areas were already chosen as being appropriate “zones” so the additional work described here to identify does not appear to add any benefit and it is unclear how it would apply to other areas.	The revised workplan simply compares results of the abbreviated analysis to those of the detailed studies. This should help us to evaluate the accuracy and utility of the proposed tool set.
Task 5 Workplan	36	10/26/12	Regional Board	Draft Workplan	Subtask 5.1.9 - Final comment on section: Still unclear on the benefit of this task for the overall project as it is currently written. It seems like you would develop the key layers needed for Hoffman, run the model and see how close it is before delving into this additional work.	See previous. We agree. The workplan has been revised.

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Task 5 Workplan	37	10/26/12	Regional Board	Draft Workplan	Task 5.2, 1st Paragraph - Regarding this statement: "The level of detailed, site-specific analysis in the Hoffman and Grattan methodologies is not feasible at a Central Valley Floor scale with the allotted time and resources", we are not convinced that this statement is accurate in relationship to the Hoffman methodology. It may be necessary to make more assumptions and use more default values than in the South Delta study, but we believe the Hoffman methodology could be utilized on this scale.	We agree that, with some simplifications, the Hoffman approach is feasible. The entire scope has been revised to reflect this.
Task 5 Workplan	38	10/26/12	Regional Board	Draft Workplan	Task 5.2, Paragraph 2 - This makes it sound like the purpose of this study is to develop a template for a more detailed analysis that would follow at some point in the future. Are we understanding this correctly?	The reviewed version of the scope was correctly understood. In the new version, it is still the case that future revisions are anticipated. Why? 1) The policy discussion regarding basic assumptions is still ongoing, and we cannot anticipate the outcome. And 2) data availability and conditions will change, and the tool set should be constructed to accommodate these changes.
Task 5 Workplan	39	10/26/12	Regional Board	Draft Workplan	Task 5.2, Paragraph 2 - Figure 1 shows 11 categories of specific GIS data. However, the paragraph above indicates the analyses will be based mainly on cropping, water quality and irrigation supply data. And the second paragraph of Section 5.2.1 below gives 4 factors –cropping, water quality, soils, and climatic conditions. This is very confusing.	The new scope is pretty clear about the 4 factors. It should be less confusing.
Task 5 Workplan	40	10/26/12	Regional Board	Draft Workplan	Task 5.2, page 8 - Regarding "Evaluate factors affecting crop response to salinity" (Item #1 in list), should be based on key inputs to Hoffman model.	Key inputs to the model are now the sole focus.
Task 5 Workplan	41	10/26/12	Regional Board	Draft Workplan	Subtask 5.2.1 (Intro) - If the goal of this task is to develop the boundaries of the AWQZs, then water management/distribution is as critical if not more so than source and water quality. Somewhere in this overall task is the need to confirm appropriate zones with the ag coalitions.	Review of CSZs with CV-SALTS is the main stakeholder review provided for in the revised scope. This should be a suitable venue for interested coalitions to provide their review comments.
Task 5 Workplan	42	10/26/12	Regional Board	Draft Workplan	Subtask 5.2.1 (Crops) - What is the time frame that is proposed for this type of mapping? Is the goal to show changes in tolerance over time or a snap shot of today?	The most recent available, no-cost land cover mapping is proposed for use. This is a snap-shot. However, the CST is designed to facilitate re-analysis with new patterns of land cover, or other changes to input data and assumptions.
Task 5 Workplan	43	10/26/12	Regional Board	Draft Workplan	Subtask 5.2.1 (Source and Water Quality of Irrigation Water) - Regarding statement "Irrigation source water quality is a prime consideration in defining the draft AWQZs and corresponding thresholds", please explain exactly how irrigation water quality data would be used in the process of establishing salinity thresholds protective of crops in a particular zone?	In the revision, it is simply compared to tolerable irrigation water salinity.
Task 5 Workplan	44	10/26/12	Regional Board	Draft Workplan	Subtask 5.2.1 (Soils) - There has already been a map developed of saline and sodic soils per the NRCS. Not sure why you would remap rather than obtain their layer.	If so, then we would happily obtain this layer. However, saline soils are also explicit in NRCS mapping data we plan to acquire so that other properties can also be referenced.
Task 5 Workplan	45	10/26/12	Regional Board	Draft Workplan	Subtask 5.2.2 (Crops and Climate Conditions) - Not clear why climate conditions will be “mapped with crops”.	Climate data procurement has been clarified in the revision.
Task 5 Workplan	46	10/26/12	Regional Board	Draft Workplan	Subtask 5.2.3 - Nothing in this task seems to ground-truth the draft zones with the ag community. How the water is actually delivered and managed should be a critical factor in determining the zones that may need a certain baseline water quality. The ag community could also tell you whether they have hot spots or favorable conditions.	On further investigation, the type of crop data required for this work are not readily available with most Ag Commissioners or coalitions at this time. The former are mostly using the same DWR coverage we propose, and the latter are only now transitioning to GIS. The data sources for GIS land coverages have been listed in the scope, and will be pursued. As better data become available in the future, the tool set is set-up to

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Task 5 Workplan	47	10/26/12	Regional Board	Draft Workplan	Task 5.3 , General Comment - This section and focus should be revised based in part on discussions at the Oct. 18, 2012 CV-SALTS Policy meeting. Developing groundwater AGR objectives may need a different approach than relying on area cropping patterns.	We consider the anticipation of ongoing policy discussion outcomes to be out-of-scope. The revised scope attempts to focus work so that, whatever the policy discussion outcome, the work will be useful.
Task 5 Workplan	48	10/26/12	Regional Board	Draft Workplan	Task 5.3, 1st Paragraph - This paragraph is too vague to figure out exactly what is being proposed. As stated previously, the Hoffman model had key inputs and has been utilized on broad scales (South Delta and westside of the Lower San Joaquin River Basin) and should not be “too involved to use at a broad geographic scale”. The above method proposed is not clear and does not have any weight of peer review to back it. It also appears to only develop crop water quality requirements in the two focus areas.	The revised scope proposes an abbreviated Hoffman-like analysis for the region.
Task 5 Workplan	49	10/26/12	Regional Board	Draft Workplan	Task 5.3 - Regarding paragraph that begins with "The LWA Team will construct…, Will likely find areas where AGR objectives are different for surface vs. groundwater within a given zone due to the difference in background quality of the two.	Comment not clear.
Task 5 Workplan	50	10/26/12	Regional Board	Draft Workplan	Task 5.3, Bulleted Deliverables List - Regarding the 2nd and 3rd deliverables "Calculate salinity water quality thresholds protective of agriculture within each zone" and "Draft salinity water quality threshold values protective of irrigated agriculture within each zone", respectively, please explain the difference between these two.	Revised scope focuses on the relationship between salinity in irrigation water and reductions in yields of sensitive crops.
Task 5 Workplan	51	10/27/12	Richard Meyerhoff	Draft Workplan	General comment - Given the Board's overall comment on the Workplan ("Do not believe the current workplan will be able to deliver the needed product" - see Comment No. 10, above), I think one of the issues is that there are different visions of what this deliverable should look like in the end. Relating the workplan to that vision can be challenging. Therefore, it may be helpful to create a mock-up of the envisioned product to illustrate what you see this workplan producing. That will give you something to compare with the Board's vision.	Previous scopes were developed in response to specific requirements in the RFP. After ensuing discussions, it has become clear than another approach is desired and needed. We have attempted to address the board's concerns by radically revising the scope, and hope that this version is found to be responsive.
Task 5 Workplan	52	10/27/12	Richard Meyerhoff	Draft Workplan	Task 5.1.4 - General question - this reads like new data compilation, but I would have thought these data would have already been gathered for the ICM. Correct?	Budgets have been developed to reflect the difficulty of bringing in data. If they are already in-hand under other tasks, budgetary impact is minimal. However, they are mentioned if relevant to the current analysis.
Task 5 Workplan	53	10/27/12	Richard Meyerhoff	Draft Workplan	Task 5.1.6 - See Regional Board comment re engaging agricultural community. Would that be an alternative to purchasing?	On further investigation, the type of crop data required for this work are not readily available with most Ag Commissioners or coalitions at this time. The former are mostly using the same DWR coverage we propose, and the latter are only now transitioning to GIS. The data sources for GIS land coverages have been listed in the scope, and will be pursued. As better data become available in the future, the tool set is set-up to facilitate updating of land use coverage.
Task 5 Workplan	54	10/27/12	Richard Meyerhoff	Draft Workplan	Task 5.1.7 - This is included as a subtask, which suggests it is an activity to be completed - it does have a budget. But the text suggests that it only may be done. I have highlighted the suggestive text.	Not clear what is referenced, but it has probably been changed in the most recent revision.

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Task 5 Workplan	55	10/27/12	Richard Meyerhoff	Draft Workplan	Task 5.3 - The Board has a comment that that this section should be revised per Oct 18 policy discussion (see Comment No. 47, above). I agree, but I suggest recognizing that those policy discussions are ongoing. Since this task does not occur until Feb/Mar and AGR discussions are ongoing, you might consider revising text to make it consistent with current policy discussions (as requested by the Board) but add a note that it is recognized that these policy discussions continue and that in the end this effort will be consistent with where policy discussions are at when this effort is initiated. You could even include a check in step to verify that your approach and policy are consistent before initiating task.	We consider the anticipation of ongoing policy discussion outcomes to be out-of-scope. The revised scope attempts to focus work so that, whatever the policy discussion outcome, the work will be useful.
Task 5 Workplan	56	10/29/12	Roger Reynolds	Draft Workplan	The two focus areas proposed for the development of Proposed Water Quality Thresholds Protective of Irrigated Agriculture are the Yolo County area around Woodland and the South Delta Area. Page 1 states “These two areas would be strong candidates for the focused work efforts since agricultural and groundwater conditions have already been studied relative to AGR designations … These detailed, local studies will provide the additional data to be able to evaluate and refine the methods developed as part of Tasks 5.2 and 5.3.” The additional studies referred to are the 2010 Hoffman report and other data available for Yolo County. Questions: (1) Do the two focus areas truly represent a significant percentage of other similar agricultural areas throughout the Central Valley for which ag management zones will be developed in the future? (2) Using the two proposed focus areas can the developed models readily be used to accurately represent other agricultural areas? Are irrigation practices comparable? (3) What is the % of surface water and groundwater use which will be used for these focus areas to develop the models? (4) In the South Delta is surface water the primary irrigation supply or will there be a combination of groundwater and surface supplies with varying water quality which will be used in the models? (5) The surface water quality will probably be better in the Delta than in the agricultural areas of the central, west side and southern portions of the S.J. Valley. Will the water quality data included in the database models be able to account for these differences?	1) The two areas are not a significant percentage of the Valley, 2) the Hoffman model can be used in these areas, 3) surface and groundwater % use for irrigation is not to be calculated under this scope, 4) assume surface water is predominant in the south Delta, but this is not critical to determining maximum tolerable irrigation water salinity, which applies to any irrigation supply, 5) unclear what "accounts for" means in this context, but probably no. More generally, we hope that the revised scope is more transparent, and provokes fewer questions of this sort.
Task 5 Workplan	57	10/29/12	Roger Reynolds	Draft Workplan	The southern, central and western S.J. Valley have the Corcoran Clay and shallow clay layers created perched groundwater with numerous drainage issues and hot spots. Are the areas of perched “hot spot’ groundwater areas in the S.J. Valley comparable to Yolo County and the South Delta for the development and verification of the model? The geology and water supplies utilized in the Yolo County area and the South Delta agricultural areas seem significantly different from the west side, central and western S.J. Valley. Can, as stated on page 8, “Draft Agriculture Water Quality Zones (AWQZ) and associated draft thresholds … be developed for later refinement …”?	No to the first question. With regard to the second question, the scope has been revised significantly. However, it is still the intention that the tools developed will be readily revised as conditions change, policy is developed, and new data becomes available.
Task 5 Workplan	58	10/29/12	Roger Reynolds	Draft Workplan	Water quality issues are impacted significantly the further south you move from the Delta. This is especially true in dry or drought years when surface water supplies are reduced and water is recycled with available drainage water and groundwater supplies resulting in higher applied electrical conductivities. Can the two focus areas be used to accurately model this situation for the development of the future ag management zones?	The two focus areas were selected because there are detailed studies available, and it seemed prudent to compare the results of this work with results of those detailed analyses. Never did anyone suggest that the two areas represent other areas of the Central Valley in any perfect fashion. This is not the case.

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Task 5 Workplan	59	10/29/12	Roger Reynolds	Draft Workplan	I am assuming increased groundwater pumping occurs in drought years in the Yolo County areas, but is there a significant change in the percentage of surface water supplies to groundwater supplies as experienced in the southern, central and western portions of the S.J. Valley when dry year water shortages often lead to increased salt loading? Page 12 states "Draft AGR thresholds will be of greatest interest for zones where a significant proportion of the irrigation is with groundwater …" Do either of the proposed focus areas use groundwater as the primary water supply?	The analysis is simply at the scoping stage, and does not in any case involve a partitioning of groundwater and surface water irrigation supply, zone-by-zone. Please see previous comment.
Task 5 Workplan	60	11/9/12	Dennis Westcot	Draft Workplan Version 2 (11/5/12)	The use of a Hoffman-like model or approach is appropriate. The Grattan model is a transient model and probably better but two thing are limiting its application; 1- the data requirements are intense and there is no evidence that it gives you any more accuracy and 2- the Grattan approach has not been field tested or verified. This process will take an extended period of time and since it is pushing the envelope of accuracy, sticking to the Hoffman-like approach is best	Comment noted. No changes required to the Workplan.
Task 5 Workplan	61	11/9/12	Dennis Westcot	Draft Workplan Version 2 (11/5/12)	I support the comments of Roger Reynolds about his concern as to whether the two areas picked for comparision are going to be applicable to the remainder of the Central Valley. I am most concerned about the use of the South Delta as the soils (organic peat) and irrigation and drainage practices in the South Delta occur no where else in the Central Valley. A better comparision may be to use the Draft Regional Board analysis using the Hoffman-like analysis for the westside of the San Joaquin River from the Merced inflow to Vernalis. This area could be quickly expanded to include the inorganic soils in the South Delta from Vernalis to Tracy.	The two areas identified within the Workplan were primarily because detailed studies are available. However, if detailed studies are made available for other areas, such as the draft analysis for the areas currently noted within the Workplan, then these studies can be used instead. The geographic specificity relative to these comparisons has been removed within the Workplan to provide this flexibility. In addition, in response to a verbal comment that was received, the LWA team will perform the analyses and checks for these areas before we analyze other areas, so that the results may be used to help refine the approach, if necessary. The Workplan has been modified to reflect this.
Task 5 Workplan	62	11/9/12	Nigel Quinn	Draft Workplan Version 2 (11/5/12)	I endorse Denni's comments (#60 and #61). I have also voiced my concerns that the areas picked for comparison do not provide a robust test of the conceptual approach. I would have liked to see application to the west-side as Dennis suggests. Not only is this the major source of salt loading into the San Joaquin River but it is also very heterogeneous and will provide a rigorous test of our numerical models and their ability to produce realistic simulations. Because we measure drainage flows and salt loads it is also a region where we have enough feedback from the physical system to be able to evaluate the performance of our models. This isn't as easy in other areas where deep percolating irrigation water remains in the shallow aquifer.	Please see previous comment #61.
Task 5 Workplan	63	11/12/12	EKI	Draft Workplan Version 2 (11/5/12)	It is unclear why the Workplan proposes to use the Hoffman irrigation management and crop yield model to estimate the salt concentration in soil water (C_{sw}) instead of using the methodology already incorporated in the Initial Conceptual Model (ICM) for calculating C_{sw}. The Hoffman model, like all steady-state and transient models of the root zone, is based upon mass balances of water and salt. Thus, the methodology in the ICM to calculate water and salt mass balances for the root zone should give the same C_{sw} values as the Hoffman model. No rationale is provided in the Workplan for using the Hoffman model to generate the same information which, in theory, can be obtained from the ICM.	The concept proposed within this comment is in contrast to the approach proposed within the RFP as well as with many other comments received to date from the Project Committee and TAC, including comment 60. Also, there may be some confusion about the purpose of calculating Ecsw in this work, which is to identify a maximum tolerable level. The ICM calculation, on the other hand, is calculating a regional average salinity of infiltrating groundwater, for the purposes of performing regional salt balances. The two figures, representing quite different things, are not interchangeable. No changes required in the Workplan.
Task 5 Workplan	64	11/12/12	EKI	Draft Workplan Version 2 (11/5/12)	Why are C_{sw} values being checked against the Hoffman South Delta study? It is already known that this study validates C_{sw} values for the South Delta calculated by the Hoffman model. Perhaps more useful would be comparison of the C_{sw} values calculated by the Hoffman model to C_{sw} values calculated by the ICM. At a minimum, this comparison would serve as an initial check on the reasonableness of the ICM in describing root zone salinity conditions in the South Delta.	Please see previous comment #63.

Task	No.	Date Received	Comment Source	Deliverable	Comment	Response
Task 5 Workplan	65	11/13/12	Regional Board	Draft Workplan Version 2 (11/5/12)	Ground-truthing crop sensitivity zones with the agricultural community - It is our opinion that review and input from the agricultural community on the draft crop sensitivity zones developed is extremely important. Therefore, within the budget constraints of the project, every effort should be made to seek and encourage input from the agricultural community on this issue.	We recently received from Board Staff a very helpful document including such an outreach effort that will be helpful background. The work is 20 years old, but water systems have not been vastly modified in the interim. This will be used in drafting zones, and then, as scoped, the draft zones will be brought to CV-SALTS for review with, among others, the agricultural stakeholders. It is hoped that, through this stakeholder process, the desired feedback from the agricultural community will be acquired. The Workplan has been modified to reflect this.
Task 5 Workplan	66	11/13/12	Regional Board	Draft Workplan Version 2 (11/5/12)	Methodology for establishing the ratio of soil water EC to irrigation water EC - It is unclear from the workplan text and Figure 1 how the ratio of soil water EC to irrigation water EC will be derived. In the proposed "abbreviated Hoffman-like approach", that ratio is one of the most important factors in developing applied water sensitivity thresholds for the crop sensitivity zones and it is critical that the methodology for its derivation is well documented and scientifically defensible. The description in the workplan does not provide enough detail to make that assessment. Therefore, this issue should be resolved before approval is given to proceed with the workplan.	The steps establishing this relationship are those contained in the Hoffman model. We will reference the existing documentation and include some of this detail as needed within our final report as a part of subtask 5.3. The Workplan has been modified to reflect this.
Task 5 Workplan	67	11/13/12	Regional Board	Draft Workplan Version 2 (11/5/12)	Method for developing leaching fractions - Based on Figure 1, leaching fraction is one of the parameters used in developing the ratio of soil water EC to irrigation water EC. However, the method for calculating or estimating leaching fractions is not described. At its 16 July 2012, the Technical Advisory Committee recommended that, when using the Hoffman methodology, a default leaching fraction value of 15% should be used when site-specific data is not available. We suggest the consultant follow that recommendation where site-specific data is not available or if the project budget does not allow for the collection of the data needed to calculate leaching fractions.	The default will be employed where superior data are not readily available for leaching fractions. The Workplan has been modified to reflect this.