## Task 2 - Workplan

| Comment Source | Deliverable | Comment | Response |
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| Central Valley Regional Water Quality Control Board | Tech Memo and Tables | On the first page of the Larry Walker Associates April 22, 2014 memo, it states that “This work was completed in December 2013 and approved by the LSJRC in January 2014.”. We find no documentation in meeting minutes or related documents that the work was approved by the Committee. | "Approved by" has been replaced by "submitted to". However, it should be noted that, although the meeting notes may not reflect it, the first portion of the work completed pursuant to this Task was (according to our notes) approved by the LSJRC in January 2014. |
| Central Valley Regional Water Quality Control Board | Tech Memo and Tables | The overall goal of the task is to finish the Crop Tolerance Report so that scientifically defensible water quality objectives protective of AGR can be developed and evaluated. Specifically the comments need to be reviewed as to whether the report as it stands is sufficient with information currently available or if the approach needs to be adjusted. Many of the current responses are not clear as to whether it would be helpful to have more data or if it is necessary to do the additional studies Much of the confusion may be alleviated if the responses start with, "The approach utilized in the report is appropriate given the currently available data. Calculations should be re-evaluated when "x" is available." | The LWA Team responses are an update of previous author responses that consider data and policy newly available since original the responses were drafted. The recommendations were not scoped as such, but have been added as a way to tie the recommendations regarding update of the report (also required in the scope) to previous comments and responses, wherever possilble. The recommendations are also presented in a separate table, in which the antcedent, related comments and responses, are not shown. |
| Central Valley Regional Water Quality Control Board | Task 1 Tech Memo | LWA’s April 2014 recommendations include many references to the use of a transient model when, in fact, it has been made clear that we can only consider recommendations that utilize a model that has been peer-reviewed by the scientific community. This includes LWA’s recommendations to the following numbered comments presented in Tables 1 and 3: Comments 21, 24, 26, 58, and 45. Perhaps, at a minimum, the recommendations should be caveated with a statement regarding the fact that such a peer-reviewed, transient model has not been identified. | For practical reasons (e.g., availability and difficulty of assembly of detailed input data for large, diverse areas), we agree that the first cut of these types of analyses will generally need to be made with steady state models. However, later analyses with transient models may be necessary for the reasons discussed under Comment 21. Text has been modified to reflect this general thinking. Specifically, responses and recommendations related to comments 21, 24, and 26 were found to be consistent with this thinking and remain unchanged. Responses and/or recommendations related to comments 58 and 45 were revised. |
| Central Valley Regional Water Quality Control Board | Task 1 Tech Memo | Pg. 6. Recommend not implying that once almonds are in they will stay permanently. It is true that orchards are a large investment, but in the past 30-years, thousands of acres have been put in, torn up and put in again depending more on available water supply and market than the salinity of the supply water. The drought in the 80's saw several orchards abandoned. | Good point. Text modified. |
| Central Valley Regional Water Quality Control Board | Task 1 Tech Memo | In the 80's, when new orchards went in, beans were also typically planted for the first few years for some income and also increased soil fertility. It was not clear if this practice continues and if so if it was counted as part of the "double cropping". It is also not clear if the double cropping results in year-round agriculture or if the irrigation period is correctly identified as from April through the end of September. | Good point. No changes made to memo, as the point is general and not in conflict with the memo. |

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| Central Valley Regional Water Quality Control Board | Task 1 Tech Memo | The leaching fraction discussion is confusing. There is a reference to the CVSalts default of 15% on page 2, but the responses appear to disregard the default and recommend further studies of 20-25% for beans and additional studies for almonds (Table 1, comments 9, 59 and 66 and also page 9, second bullet). Seems that the default should be utilized until such studies are completed. | Changes made to address comment, except for in the referenced bullet, where it appeared unnecessary in the context of other discussion in the memo. Hoffman modeling performed by the Regional Board examined a range of LF for each crop. Interpretation of these results for policy would most reasonably focus on an LF that is reflective of predominant field conditions for the crop in question. Reasonable LF will need to be determined for each sensitive crop analyzed. The manner in which drip and microspray salinity is represented needs to be reviewed with irrigation specialists. The memo has been revised to reflect this. |
| Central Valley Regional Water Quality Control Board | Task 1 Tech Memo, Table 3 | LWA's November 2013 response to Comment 51 in Table 3 is unclear. | Revised. Recommendation added. |
| Central Valley Regional Water Quality Control Board | Task 1 Tech Memo, Table 3 | We appreciate the comments, analyses, and recommendations LWA presents in Table 3 for comments 56 and 64. The November 2013 response to Comment 56 mentions that special studies of salinity thresholds "can be useful but also relatively costly and time consuming". Would this also hold true for the recommended studies under Comment 64? Note that the USDA Salinity Lab was contacted several times since 2004 with specific inquiries on conducting updated yield response curves for beans and other crops. No such studies are being considered. | We have not costed salt tolerance studies as a part of this work. However, we note that such studies have been performed for around 100 species, and that the institutional and technical apparatus apparently remain intact to perform further studies. Furthermore, these are located relatively close by, in Riverside, California. Thus, should such studies be indicated, they could reasonably be expected to be feasible. |
| Central Valley Regional Water Quality Control Board | Task 1 Tech Memo, Table 3 | Regarding LWA's November 2013 response to Comment 43 in Table 3, we are unclear on what "Dr. Hoffman's Appendix A" is. Is it unpublished? | Origin of reference unclear. It has been removed. |
| Central Valley Regional Water Quality Control Board | Task 1 Tech Memo, Table 3 | The comment response to Comment 27 in Table 3 reads more like a critique than a response. The "response" may be more appropriate as as end notes in the technical memo and factors that should be considered while the response in the comment table should stay focused on the two issues mentioned. | Good point. Response has been modified. |
| Central Valley Regional Water Quality Control Board | Task 1 Tech Memo Appendix A | Before Appendix A, PlanTierra's Tabulation of Crop Acreage in the Lower San Joaquin Service Area: Analysis of Common Crops, is finalized it needs to be updated with crop data from most of the remaining one third of the LSJR Irrigation Service Area. | The memo has been finalized with an introduction explaining that the analysis portion is based on currently available data, and should be updated to reflect the full study area acreage before being used. |

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| M Johnson LSJRC Manager | Task 1 Tech Memo | Page 2. The section that explains the memorandum organization should include information on the Tech Memo Appendix | Done. |
| M Johnson LSJRC Manager | Task 1 Tech Memo | Throughout there is the use of the term "common" crops but no definition is provided. A definition should be provided and if that definition changes depending on the method used to identify "common" crops, the distinction should be explained because later in the memo, the term is used a great deal with no reference to method. | Done. |
| M Johnson LSJRC Manager | Task 1 Tech Memo | Table 1. In general a large number of the recommendations are uninformative or unhelpful. For example, the comments make statements such as unrealistic leaching fractions are being used and the recommendation is that realistic leaching fractions should be investigated and used. While there are some qualifiers in the responses and some clear recommendations, a large number of recommendations may not be specific enough to provide significant guidance to the LSJRC as it moves forward with its analyses. Comments below point out specifics. | See responses to referenced comments, below. |
| M Johnson LSJRC Manager | Task 1 Tech Memo | Comment #21. The comment calls for a revised steady state model run. It's not clear if the comment refers to a revised model or a revised run. If it is the later, what original run is to be revised? Also, it's unclear if the recommendation is to run a transient model (rather than the steady-state model) or hope someone else does and then use the results. | Recommendation clarified. Discussion of transient models is pretty clear that it is not a recommendation to run them, but rather a recommendation to consider the results of runs that are devleoped at any point in a serious manner. This discussion is more appropriate as a response to the original comment, and has thus been removed from the recommendation and placed in the response to comment field. |
| M Johnson LSJRC Manager | Task 1 Tech Memo | Comment #9. How should information on leaching fractions be acquired in a short time? | Recommendation 9 has been revised to address previous comments. Recommendations for issues like this are pretty clear and consistent now: discuss with available experts and irrigators. Without these discussions, the analysis will be weaker and more vulnerable to criticisms such as those leveled in the original comments. It seems the most efficient and realistic approach. |

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| M Johnson LSJRC Manager | Task 1 Tech Memo | Comment #9. The response to comment 20 indicates that the modelers should avoid using/compounding the most conservative assumptions but the recommendation here is to use the most conservative approach. Are these two responses compatible? | The two responses were compatible because the response to comment 9 recommends the most conservative **predominant** approach, with predominant specified to represent practices on >5% of irrigable land. If a crop occupied 10% of the land, the practice would need to represent at least 50% of the crop. It seems reasonable that any practice that is this widespread should be protected. If the "predominance" provision is heeded, this recommendation will not lead to excessive conservatism. Recommendation 9 has been revised to address previous comments. |
| M Johnson LSJRC Manager | Task 1 Tech Memo | Comment #59. There is a statement that any leaching fraction assumption should be bracketed in analyses. Is this being offered as an alternative to obtaining information on leaching fraction from irrigators or should both be done? | Good question. Both are recommended, both should be done. The information will serve to inform the choice of LF range (which is probably fine as it is), and to help inform those who interpret the results of the analysis to develop numeric AGR thresholds & standards. |
| M Johnson LSJRC Manager | Task 1 Tech Memo | Comment #57. What specifically are the uncertain parameters? | Examples are listed in the recommendation. Those that were bracketed in the analysis were crop, LF, and moisture extraction pattern. |
| M Johnson LSJRC Manager | Task 1 Tech Memo | Comment #89. Do you mean parameters or parameter values? | Response modifed to reflect recent discussions with Jim Brownell. Policy guidance on how to handle drought is not clear, and a process to clarify appropriate goals for drought years and technical approaches is recommended. |
| M Johnson LSJRC Manager | Task 1 Tech Memo | Comment #25. It's not clear what "primarily referenced" means. Does it mean that the exponential uptake approach should be used rather than the 40-30-20-10 approach? | Clarified. |