

## **Appendix F**

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**Comments and Responses on Draft RMPU**

## COMMENTS AND RESPONSES

## F.1 CITY OF POMONA – RAUL GARIBAY

| Comment Number | Page Reference in Draft | Comment   | Response  |
|----------------|-------------------------|---|---|
|                |                         | <b>Section 5: Storm Water Recharge and Recharge Enhancement Opportunities</b>   |   |
| 1              |                         | General comment: What is the marginal benefit of each successive phase? For example, going from Phase III to Phase IV, increases the potential recharge about 2,000 AF at a cost of \$84,552,000 in capital costs. What about increase in Energy and O&M costs as well? | Energy and O&M costs are discussed in Section 5.4.8 & 5.4.9; Add incremental cost to Table 5.4-15 ( <i>to be renumbered</i> ) to show annualized cost increases by phase including energy and O&M. <i>WBE</i>   |
| 2              | 60                      | Figure 5.2.2-1: Since San Bernardino County and Chino Conservation District have facilities in the area, this figure would be more useful if the boundaries of these agencies were superimposed here for clarity.   | What is shown on Figure 5.2.2.1 are possible locations of potential recharge sites. No assertion is made that they were or are viable as recharge sites and there is no relevance to adding County or District boundaries. <i>WBE</i>   |
| 3              | 79                      | Table 5.3.2-1: a. Wouldn't the size of the basins be limited if you are trying to adhere to a certain embankment slopes?<br>b. Is this practical, from a maintenance perspective, to have embankment heights of up to 40 feet?  | a. Embankment slopes alone are not the limiting factor in basin sizing. Basin area would expand as required to meet the required capacity while maintaining desired embankment slopes. <i>WBE</i><br>b. Embankment slopes can be designed to accommodate maintenance requirements. <i>WBE</i> |



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| 4.             | 85                      | <p>Figure 5.3.1-1: a. Since a range of embankment heights is being considered, the piping and pumping infrastructure would vary for the Diversion Pump Station as well as the Transfer Pump station, correct?</p> <p>b. What embankment height is the conceptual drawing able to accommodate?</p>   | <p>a. Yes, however for conceptual evaluation the piping and pumping facilities were not considered to vary significantly. <i>WBE</i></p> <p>b. Question is not clear. <i>WBE</i></p>  |
| 5              | 93                      | <p>Table 5.4-2: a. According to the numbers, the potential recharge capacity of the Jurupa Basin would decrease by 396 acre-feet. Why would we want to invest in a project that would yield less recharge capacity? The only way this makes sense if, in making the improvements, it helps Wineville Basin in its recharge efforts.</p> <p>b. Spillway Gate improvements have been identified for Wineville Basin. But, I recall reading somewhere in the Section that the current percolation rate is low due to clay layers. Does this number include work to rehabilitate the soil to improve percolation?</p> | <p>a. Total recharge to the Chino Basin is improved in aggregate of all project components.</p> <p>Recharge at RP3 is improved by Jurupa Basin improvements by an amount greater than the reduction of recharge at Jurupa Basin. Phase I project improvements proposed transfer of storm water from Jurupa to RP3 basin. Improvements to Jurupa will not affect Wineville recharge in Phase I development. <i>WBE</i></p> <p>b. The existing basin will be cleaned and recontoured. Percolation rates are estimated to be between 0.25 and 0.5 ft/day. <i>WBE</i></p> |
| 6              | 93                      | Table 5.4-3: The inlet improvements must be tied to a certain embankment height. What embankment  | Do not understand question. Embankment heights are not changed from existing conditions. Inlet improvements are proposed to divert additional   |



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|                |                         | height numbers are these related to?  | storm water into basin without enlargement to the basin itself. RP3 is a minor exception as the inlet improvement will enable storage at a higher elevation, but no enlargement of the embankment is proposed. <i>WBE</i> |
| 7              | 97                      | Table 5.4-4: The potential recharge numbers for Wineville Basin go from 3,474 in Table 5.4-2 to 2,425 AF in this Table. Why would we make improvements to a basin if the recharge capacity would decrease by about 1,000 AF?  | Total recharge to the Chino Basin is improved at other facilities by an amount greater than the reduction in recharge at Wineville.<br><br><i>WBE</i>   |
| 8              | 106                     | Table 5.4-8: a. The potential recharge numbers for Phase IV, Wineville Basin go from 2,425 AF in Table 5.4-6 to 1,875 AF in this Table. Why would we make improvements to a basin if the potential recharge decreases by about 450 AF?<br><br>b. It seems that by implementing Phase IV, there will be an additional 2,300 AF potential recharge gained but it is at the expense of a 4,500 AF decrease in Phase I improvements. Is this correct? | a. Same as above. <i>WBE</i><br><br>b. No. Storm water is redistributed to other basin to improve total Chino Basin recharge amount. <i>WBE</i>   |
| 9              | 116                     | 116, 2nd Para: a. If the height of the basin embankment creates a “dam” by the State standards, what other requirements may be imposed? Could it lead to annual surveys, etc?   | a. Following completion of construction, DSOD will perform an annual inspection of the dam. An annual fee will also be assessed based on height of completed dam. <i>WBE</i>  |



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|                |                         | b. Might there be limitations imposed that will restrict maintenance procedures?  | b. Maintenance procedures that do not affect the dam structure or increase the storage capacity of the dam above the elevation of the downstream toe of the embankment will not be restricted by DSOD.<br><i>WBE</i>  |
| 10             | 118                     | Table 5.5.1-1: Of the Potential Recharge in Basin Export column, how much of the 2,597 AF is attributable to export?  | There is no export. Column heading will be revised to remove reference to export. <i>WBE</i>  |
| 11             | 119                     | Table 5.5.1-2: The estimated costs for engineering and administration costs appear to be low. How does this value compare with IEUA previous work on basin improvements   | E&A were assumed at 10% and include efforts to design and build the proposed project. Will consult with IEUA on their direct project experience. <i>WBE</i>   |
| 12             | 120                     | 2 <sup>nd</sup> Para: Roughly the same amount of excavated material, 1,000,000+ CY, is being taken out of the Wineville Basin. As a result of this work, this basin will increase it additional storage by 158 AF while the Wineville Basin will increase by 895 AF. Is this difference attributable to basin configurations? | Lower Day basin would require excavation of 40 to 80 feet of material just to reach the maximum storage elevation of the existing basin. Wineville excavation would occur within the existing storage area of the basin and would directly improve storage capacity by an amount equal to excavated volume.<br><i>WBE</i> |
| 13             | 123                     | Section 5.5.2.3.3: Need to clarify that the 1,469 AF is additional recharge.  | Noted. <i>WBE</i>   |



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| 14             | 124                     | Section 5.5.3.3, Option 2: Need to clarify what is meant by the term <i>dead storage</i> .  | Will add clarification. <i>WBE</i>  |
| 15             | 126                     | Table 5.5.3-1: Given that the Potential Recharge numbers change for each phase, which phase do these numbers represent?   | Recharge at the facility as a stand-alone project with no export of storm water to other facilities. <i>WBE</i>   |
| 16             | 127                     | Table 5.5.3-2: Given that the Costs Estimates change for each phase, which phase do these numbers represent? Do they represent Phase I or Phase I&II?   | Cost estimate for 15 feet of excavation is an option in the improvement of Jurupa Basin. Option 1 improvement is not utilized in the phased development. Option 2 is included in Phase V developments. Inlet improvements estimated on Tables 5.5.3-4 and 5.5.3-5 are included in Phase I-IV developments. <i>WBE</i> |
| 17             | 135                     | Table 5.5.4-3: This Table is for the RP3 project with excavation while Table 5.5.4-2 is without excavation. Although the line item for excavation is different in this Table, other line items are impacted as well. So that it is easier to follow, the other line items that changed need to be placed in bold font for extra emphasis. | Noted. <i>WBE</i>   |
| 18             | 140                     | Section 5.5.6.3: a. Because modifying the Lower Cucamonga Basin would disrupt the Cucamonga Creek (a waterway), would this trigger the need to coordinate with the US Army Corps of Engineers or Fish and Game officials?   | a. Yes. Will review project with all responsible permitting agencies as necessary. <i>WBE</i><br>b. Yes. Maintenance will be required. <i>WBE</i>   |



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|                |                         | b. Would this basin have the potential for high sediment deposits?   |  |
| 19             | 145                     | <p>Section 5.5.7.3: a. Because modifying the Lower San Sevaine Basin would disrupt the San Sevaine and Etiwanda Creek (waterways), would this trigger the need to coordinate with the US Army Corps of Engineers or Fish and Game officials?</p> <p>b. Would this basin have the potential for high sediment deposits?</p> | <p>a. Yes. Will review project with all responsible permitting agencies as necessary. <i>WBE</i></p> <p>b. Yes. Maintenance will be required. <i>WBE</i></p>   |
|                |                         | <b>Section 6: Supplemental Water Recharge Enhancement Opportunities</b>  |  |
| 20             | 6-3                     | Section 6.3.1: Based upon what is stated in this section, there is no recycled water being recharged in the basins during rain events. The reason I ask is that the monthly reports, provided by Watermaster show stormwater and recycled water recharge occurring in the same months.                                     | Recycled water recharge can occur during the same month as storm water recharge but not during storm events. <i>WEI</i>  |
|                |                         | After reviewing, I still have some lingering questions. A. If there is recycled water recharge taking place in the same month as storm water for a basin, is there a chance that recycled water might already be in the basin prior to the rainfall? B. At what point does the recharge of recycled water                  | A. Absolutely. B. The recharge of recycled water stops when there is no more recycled water left in the basin. C. IEUA terminates the discharge of recycled water to recharge basins when they believe, based on weather forecasts, that the recycled water will interfere with the recharge of stormwater. D. |



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|                |                         | <p>stop? C. Does IEUA stop filling the basin a day or two prior to anticipated rainfall? D. The reason I ask this is what happens if the rainfall is significant and water eventually overflows from the basin? E. Since stormwater has a priority, I would suspect that the overflow is deducted from the recycled water recharge and not the storm water recharge, correct? If this is the case, then shouldn't it be stated here?</p> | <p>Presuming there is recycled water in a basin and the volume of storm water causes water stored in the basin (recycled and storm water) to overflow, then the first water lost should be recycled water. E. In recent discussions with Andy Campbell of IEUA he said that he has not given stormwater recharge priority over recycled water recharge when he computes recharge for each basin; and that he doesn't think that this has happened. Watermaster staff has requested detailed operational histories for the CBFIP basins from IEUA to determine if stormwater recharge was lost to recycled water recharge and this request has not yet been fulfilled.<br/><i>WEI</i></p> |
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## COMMENTS AND RESPONSES

## F.2 IEUA

| Comment Number | Page Reference in the Draft | Comment  | Response   |
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|                |                             | <b>Section 1 – Introduction</b>  |  |
| 1              |                             | General Comment: Two years ago, when we initiated the RMPU process with Chino Basin Watermaster (Watermaster) and Chino Basin Water Conservation District (CBWCD), we agreed to have a financing plan included in the RMPU report. Why has this been deleted from the current outline?   | The assumptions that were made during the development of the RMPU outline regarding planning information were determined to be not valid during the development of the actual 2010 RMPU – the projected groundwater production and the need for new replenishment facilities respectively. As to stormwater recharge, significant additional engineering and planning work will be required. A financing plan will be developed later if and when the RMPU stakeholders determine the need to construct the new stormwater recharge facilities. <i>WEI</i> |
| 2              | 1-1                         | The opening paragraph outlines the schedule of how Watermaster is going to comply with the Chino Basin Groundwater Recharge Master Plan Update (RMPU) portion of Condition Subsequent 5 and 6; however it doesn't outline the schedule that shows how Watermaster will comply with the CEQA portion of Condition Subsequent 5 and 6. | See response to comment 1 above. Watermaster cannot be a lead agency for purposes of CEQA. If and when the RMPU stakeholders determine the need to construct the new stormwater and/or supplemental water recharge facilities, a lead agency will be determined. <i>WEI</i>  |
| 3              | 1-2                         | The table in this section outlines the 10 sections that make up the RMPU. This is different than what is currently outlined on the RMPU website.   | The outline of the RMPU changed slightly to reflect how the investigation actually proceeded, but the content has remained faithful to the outline that was submitted to   |



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|                |                             |   | Court. <i>WEI</i>   |
| 4              | 1-2                         | What is the schedule to complete section 8, which is titled "Integrated Review of Water Supply Plans – Part 2?"   | See response to comment 1 above. The actual report organization was changed to comport with the actual work that was done. The RMPU report contains all the content required by the Court. <i>WEI</i>   |
| 5              | 1-2                         | What is the approach and process to rank and recommend projects? Will there be a schedule associated?   | See response to comment 1 above. No ranking was done and no projects were prioritized. <i>WEI</i>   |
|                |                             | <b>Section 2 – Planning Criteria</b>  |   |
| 6              |                             | General Comment: Sections 5 and 6 are not consistently following the described planning criteria such as Engineering Cost, Piping etc. Recommend updating this section to match the entire document's planning assumptions. | <p>Construction costs were evaluated utilizing as-bid project information obtained from completed portions of the CBFIP together with discussions with various material and equipment suppliers and contractors to obtain a reasonable estimate of potential construction costs.</p> <p>Engineering costs were estimated based on considerations of engineering effort or work required to administer and complete the proposed projects. Projects which have a large number of units such as excavation of a basin generally require a smaller percentage of engineering work than projects with small number of units and/or a high degree of complexity. Similarly projects which involve integration and coordination of many different</p> |



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|                |                             |   | <p>specialties will require more engineering work than projects involving only one, or few. Engineering costs utilized in Section 5 projects cost evaluations were estimated to provide a balance between simple and complex projects. <i>WBE</i></p> <p><i>B&amp;V response:</i> Acknowledged. Edits to section 2 will be made for consistency with TM (Appendix F).</p> |
| 7              | 2-1                         | The Introduction (as well as the RMPU) should also include planning criteria for financial, design, operation and regulatory components that are required for the court and listed in the RMPU Outline. It would be helpful if a discussion of permitting requirements was included with the planning criteria. | See response to comment 1 above. <i>WEI</i>   |
| 8              | 2-5                         | According to the “Watermaster Compliance with Condition Subsequent 5 and 6” court document, the first element requires a number of factors to be included in the baseline conditions; one of which is the total Basin water demand. Where is/will this be discussed in the RMPU?                                | Total Basin water demand was in the Draft of Section 4 and will be updated slightly in the final. <i>WEI</i>  |
| 9              | 2-5                         | According to the “Watermaster Compliance with Condition Subsequent 5 and 6” court document, the fifth element requires that the “Projections should be supported by thorough technical analysis.” Along   | The Optimization Modeling by WEI and the three previously submitted IEUA Tech Memos have been included by reference and discussion in the text and tables. The IEUA Tech Memos are included as a  |



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|                |                             | with the Optimization Modeling that Wildermuth Environmental Inc. (WEI) has done, the three previously submitted IEUA Tech Memos discussing these projections should also be included as part of this analysis and considered included/addressed in the RMPU.   | separate appendix. <i>WEI</i>  |
| 10             | 2-6                         | According to the “Watermaster Compliance with Condition Subsequent 5 and 6” court document, the ninth element requires an appropriate schedule to plan, design and construct recommended projects. IEUA recommends, in coordination with Watermaster and WEI, developing “trigger-points” that signal when a project is needed. One approach would be to develop a Ten-Year Capital Improvement Program based on priorities when funding is available. The “trigger-points” should include consideration of more aggressive implementation of new resource policies and regulations (SBx-7x 20% reduction in per capita use, MS4 permit requirements and AB 1881 implementation) and their potential to defer the need for more costly infrastructure projects. | See response to comment 1 above. <i>WEI</i>                            |
| 11             | 2-7                         | The recently upgraded Sanhill water treatment plant, owned by the Fontana Water Company, should also be included in section 2.3.4.1.  | <i>B&amp;V Response:</i> Acknowledged. This will be added to the Memo. |



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| 12             | 2-8                         | Section 2.3.4.2 should include a discussion about brine disposal, discussing capacity, ownership and volume of brine because in the future this will be a critical constraint for exporting non-reclaimable wastewater.   | <i>B&amp;V Response:</i> Acknowledged. A brief paragraph will be added to the Memo.   |
| 13             | 2-9                         | Section 2.3.4.2 discusses bringing Colorado River Aqueduct water into the Chino Basin. One of the facilities suggested to get water into the Chino Basin was the rehabilitation of the Galvin WTP. Since this is not allowed by the Regional Board's Basin Plan it should be noted that this proposal would require an amendment to the Basin Plan. Is this in Ontario's 2010 General Plan? | <i>B&amp;V Response:</i> This same concept was developed for the DYY Program with no comment. B&V understands this concept may be feasible due to Met's 50 CRW/50 SWP Upper Feeder blend goal. Also, this project may be feasible if: (1) TDS from Upper Feeder supply can be blended with local groundwater prior to delivery to customers; (2) RO with appropriate brine disposal is incorporated into the plant design; (3) excess salt credits from the desalters and/or maximum benefit would offset any additional salt loading in the Basin; or (4) change the Basin Plan. |
| 14             | NA                          | Table 2-3: The table summarizing Recharge Basin Design Criteria has the facility component "basin depth, ft" listed with a design criteria of 16-Aug. This should be updated.   | Table has been corrected. Thank you. <i>WEI</i>   |
| 15             | NA                          | Tables 2-3 and 2-7: This table should also include normal groundwater recharge components such as; storage volume, local run-off flow, flow-through/off-channel, pump stations, rubber dams, drop inlets,   | Storage is a grading issue and is covered. Pump stations, rubber dams, drop inlets, internal berms are site specific and are estimated on a project specific basis. The other listed items in the comment are not   |



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|                |                             | internal berms, etc.   | relevant to either table. <i>WEI</i>  |
| 16             | NA                          | Table 2-4: The title for this table ends in the word Plan, it should be Plant.   | Table has been corrected. Thank you. <i>WEI</i>   |
| 17             | NA                          | Table 2-5: This table is titled as the CVWD WTP; it should be listed as the WFA WTP.   | Table has been corrected. Thank you. <i>WEI</i>   |
| 18             | NA                          | Table 2-8: Is this a summary of annual unit costs? MWD rates should be updated. There are several footnotes missing. What are the costs associated with the advanced treatment line items? What are the costs associated with the pump station line item? What are the costs associated with the misc. basin maintenance line item?  | Table has been corrected. Thank you. <i>WEI</i>   |
| 19             | NA                          | Table 2.9: Based on previous engineering and construction management experience of the Phase 1 and Phase 2 CBFIP, IEUA recommends the following: use 15% for engineering service. This is a typical percentage which covers consulting/design services, project management and administrative support. Recommend separating CM support and using 7%. Recommend adding a line item cost for a 5% mobilization. Is the 90% on-line factor for all alternatives/projects? | Review of the project costs elements incorporating the percentages suggested by IEUA for mobilization, E&A and CM indicates that the total cost of the project is unchanged when compared with the +15-percent range shown on Table 5.4-15. The majority of the additional cost occurs in the latter phases of the project where significant costs attributable to excavation and pipelines occur which generally would have a less intensive per-unit cost for engineering and contract management. In addition, an additional 7% of the project cost for CM is not within the Task 3 Planning Criteria document |



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|                |                             |  | prepared for the RMPU. <i>WBE</i>   |
|                |                             | <b>Section 3 – Safe Yield</b>  |   |
| 20             | 3-3                         | Section 3.2.2 states that the safe yield can be calculated in one of two ways: either by negotiation among interested parties or based on hydrologic principles. If and/or when has the safe yield been calculated by negotiation? Does Watermaster foresee this method being used in the planning period of the RMPU? | There are several adjudicated basins in California where the <i>final</i> safe yield is determined by negotiations. Watermaster will compute safe yield based on hydrologic principles. <i>WEI</i>  |
| 21             | 3-6                         | The title for Section 3.2.5 is listed as Areal.  | The correct title is Areal Considerations. Thank you. <i>WEI</i>  |
| 22             | 3-10                        | The last sentence in section 3.3.4 states that Watermaster will re-calculate the safe yield for the first time in FY 2010/11. Is there a proposed schedule for how often the safe yield will be re-calculated, going forward?  | The Special Referee reported to the Court that Watermaster <i>should</i> compute safe yield every year and Court included her recommendations in its Approval of the Peace II Agreement on December 21, 2007 and acknowledged that Watermaster would recompute the safe yield in 2010-11. Watermaster will recompute safe yield in fiscal 2010-11. Watermaster will need to determine the frequency of recomputation thereafter. <i>WEI</i> |
| 23             | NA                          | Table 3-7: It appears that the footnotes were cut-off.   | Table has been corrected. Thank you. <i>WEI</i>   |
| 24             | NA                          | Table 3-6: Does the Deep Percolation of Applied Water column include the potential stormwater  | No. <i>WEI</i>  |



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|                |                             | capture via MS4 permits; which ranges from 25,000 AF – 50,000 AF, according to Table 3-7?  |   |
| 25             | NA                          | Table 3-6: The recycled water recharge projections should be updated with the revised projections provided by IEUA in the previously submitted Tech Memo #3.   | Table 3-6 shows the water budget from a prior modeling study conducted by WEI in 2009 and predates IEUA’s May 2010 recycled water estimates. Table 3-6 was included to illustrate the change in safe yield. Recycled water recharge is not included in the safe yield calculation. The recycled water estimates used in Section 6 reflect the May 2010 “Mid-Range” recycled water recharge estimates.<br><i>WEI</i> |
|                |                             | <b>Section 4 – Integrated Review of Water Supply Plans – Part I</b>  | Note that in the final report this section name has been changed slightly to <i>Section 4 – Integrated Review of Water Supply Plans</i> . <i>WEI</i>  |
| 26             | 4-1                         | The opening paragraph explains how the Peace Agreement holds the Watermaster responsible for constructing recharge capacity to meet all of its replenishment needs through “wet” water recharge. Does the Peace Agreement or Watermaster ever address “in-lieu” actions as a possible recharge capacity? | The final Section 6 does include in-lieu recharge capacity and the final Sections 6 and 7 include recommendations for in-lieu recharge to address the balance of recharge and discharge in the managed area of MZ1, JCSD service area and in the north central Chino Basin. <i>WEI</i> .  |
| 27             | 4-1                         | Section 4.1 is titled “Initial Water Supply Plans for All Entities That Use the Chino Basin.” Is there an approach and/or schedule for developing “Final   | Both the final Section 4 and 7 contain recommendation that the 2010 RMPU be updated in fiscal 2011-12 to incorporate the groundwater  |



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|                |                             | Water Supply Plans?"   | production projections from the 2010 Urban Water Management Plans and to complete subsequent RMPUs with 12 months of completing future UWMPs. <i>WEI</i>   |
| 28             | 4-1                         | Please include information from IEUA's previously submitted Tech Memo's (#1-3).  | Based on our conversation with the Appropriator parties, the IEUA Tech Memo's 1 through 3 do not reflect the groundwater production projections of the appropriator parties. The projected 2010 production was replaced with the actual production in 2008-09 to make the short-term production projection consistent with actual production. <i>WEI</i> |
| 29             | 4-3                         | Section 4.2 can be updated with the revised recycled water recharge projections provided by IEUA in the previously submitted Tech Memo #3.   | The "midrange" recycled water recharge projection from IEUA's May 2010 Tech Memo #3 was incorporated into production rights in Section 4. <i>WEI</i>   |
| 30             | 4-3                         | The last few paragraphs highlight a few of the current and future demand conditions that can be found in IEUA's previously submitted Tech Memo's (#1-3) on the Water Supply Plans. IEUA recommends including all the conditions in these Tech Memo's, in this section of the RMPU. | Comment noted. <i>WEI</i>  |
|                |                             | <b>Section 5 – Stormwater Recharge Enhancement Opportunities</b>   |  |
| 31             | NA                          | Cost Estimate Comments: Recommend adding an O&M cost for each improvement as part of the   | O&M costs were calculated and added to the total project cost in the aggregate of all storm water  |



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|                |                             | evaluation and discussion; recommend the use of the revised percentage for engineering, CM support and permitting cost; and recommend adding a line item cost of 5% for mobilization for each estimate table.                | recharged in the basins for each phase of project development evaluated for the RMPU. A more detailed O&M cost evaluation will be computed upon completion of a preliminary design of each project component. <i>WBE</i><br><br>(See A.4 for WBE's <i>General Responses to Comments</i> .)   |
| 32             | NA                          | General Comment: Recommend using a lower percolation rate for each proposed project (ie. ½ ft/day) to give a range of possible recharge. Stated recharge estimates will likely provide overestimates of recharge capability. | The ranges of recharge for each project component shown in Section 5.5 are applicable to recharge operations when the project component is operated independently of other storm water distribution systems. Estimates of recharge for facilities included in the recharge distribution system are assumed to be more dependent upon diversion rates and timing of diversions between basins than the recharge rates of the basin themselves. Verification and/or determination of recharge rates should be performed for each component of the RMP along with optimization of the diversion and distribution system as the planning and implementation process is further developed. <i>WBE</i> |
| 33             | NA                          | General Comment: It is difficult to follow the potential recharge and costs from phase to phase. A more detailed discussion for each phase, and the differences, is needed. Recharge improvements are                        | A discussion section of recharge and costs will be added to the report to clarify that the phasing is more convenience for design and construction rather than marginal cost analysis. Each time we add a phase  |



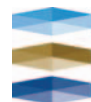
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|                |                             | shown to be moved into subsequent phases within the document which results in changes to previously stated project phase cost effectiveness. Request that each phase clearly identify the amount of water to be developed and the cost for that phase. If a subsequent phase results in changes to either the amount of water being recharged or cost to an earlier phase, this needs to be clearly identified and the estimates for the early phases modified so that the impacts of the additional investments can be evaluated. | the incremental water cost is significantly higher. The project is not prioritized or fully optimized and there is no recommendation that water be purchased at a price higher than its actual value. Looking at total asset costs the presumption that the water captureable is firm annual yield and is not available somewhere else. If water is available somewhere else, either by purchase or conservation, there will not be need to press forward with advanced phases of the project. <i>WBE</i> |
| 34             | NA                          | General Comment: Recommend review of DSOD limitation at each facility and opportunities to work with DSOD and/or SBCFCD to increase storage volume and time based on coordination and study as necessary.  | Noted. Will be evaluated during the preliminary design and project optimization of the RMPU. <i>WBE</i>   |
| 35             | NA                          | General Comment: Recommend reviewing San Antonio dam release coordination and agreements, as well as other opportunities to coordinate operations with ACOE and SB County in the upper watershed (ie. there are debris dams that could also be evaluated).   | Will be considered for incorporation into the RMPU during further optimization of the project. <i>WBE</i>   |
| 36             | 11                          | Section 5.1.1.2: The Victoria Basin inlet from San Sevaine Channel (destroyed in the 2003 winter) is assumed to exist. While there has been discussion   | Will be considered for incorporation into the RMPU during further optimization of the project. We question why the inlet has not been repaired. <i>WBE</i>  |



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|                |                             | with SBCFCD, these repairs have not been made to date. The reconstruction of this inlet is important to capturing water that escapes the Etiwanda Debris basin and San Sevaine 5. These costs need to be added to the evaluation.  |  |
| 37             | 11                          | Section 5.1.1.2: A small upper level basin exists at the Lower Day basin site can be easily modified to hold stormwater. Currently stormwater enters this smaller basin and runs into the active recharge portion of the site. Holding water in the upper level would preserve capacity in the lower level. The upper level and lower level designations are not to be confused with the Upper Day basin located north of Banyon Street adjacent Day Creek. The Lower Day facility is incorrectly labeled "Days" on Figure 5.1.1-1. The figure also incorrectly labels the "Upper Days" basin. The Upper Day basin is located to the north in the Cucamonga Basin. | Will be considered for incorporation into the RMPU during further optimization of the project. <i>WBE</i>  |
| 38             | 11                          | Section 5.1.1.2: [1] Channel and inlet modifications to the Lower Day basin were evaluated in the W&B report as necessary. IEUA has not observed a need for increasing the inlet capacity. There may be some confusion between the actual inlet capacity and the maximum rate of imported water delivered to the site. Imported water delivery is limited to 22  | [1] Modifications were made to inlet facilities to maximize use of the basin to accommodate the hydrologic modeling performed by WEI. <i>WBE</i><br><br>[2] Hydrologic modeling by WEI assumed the entire flow of Day Creek flowed into the Lower Day basin. The capacity of the inlet for the proposed inlet modifications is assumed to equal the design |



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|                |                             | <p>cfs.</p> <p>[2] Above this rate, rolling waves develop in the channel and can periodically surge water over the rubber dam. Due to the high cost of imported water, its loss is controlled by lowering the delivery rate. IEUA was not able to find a reference to the inlet capacity used by B&amp;W. For stormwater a higher capacity should be used to represent actual inflow.</p> <p>[3] The existing flow control gate at Lower Day basin does not open to its full diameter due to its construction. While this had not been seen to impact inflow, removal of this restriction would improve flow through should any limit exist. Lower Day is located high on the alluvial fan at the basin of the mountains and generally receives only small flows during times when snow pack accumulates. For Lower Day the WEI rainfall-run off model should account for periods of snow accumulation and melting prior to implementation of inlet improvements, which may preclude the need to upgrade the channel inlet.</p> | <p>capacity of the existing flood control inlet channel.<br/><i>WBE</i></p> <p>[2] We were unaware of the delayed maintenance of the facility. Will be considered for incorporation into the RMPU during further optimization of the project.<br/><i>WBE</i></p> |
| 39             | 11                          | Section 5.1.1.2: A mid level uncontrolled outlet exists at Lower Day at an invert water depth of about 15 feet. Additional controls to this outlet can preserve water above this depth.   | Will be considered for incorporation into the RMPU during further optimization of the project. <i>WBE</i>  |



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| 40             | 11                          | Section 5.1.1.2: This section mentions improving Lower Day banks to meet DSOD requirements. The facility currently meets DSOD requirements.   | Noted. Modifications to the facility or facility operations, including flood routing changes, will require review and approval from DSOD. <i>WBE</i>  |
| 41             | 13                          | Section 5.1.1.2: The habitat referenced in Cell 2 at Declez is actually at the RP-3 Basins.   | Noted. <i>WBE</i>   |
| 42             | 47                          | Section 5.2.1: Paragraph 1 indicates the LID facilities in Table 5.2.1-1 are upstream of recharge basins and that their use would not create significant new recharge. Figure 5.1.2-5 is a map of the LID facilities and shows they are downstream of existing recharge basins. This statement on page 47 is only true if the Lower Cucamonga basin is developed for stormwater capture. Please correct the figure and subsequent evaluation. The discussion of Lower Cucamonga Basin should include discussion of LID ability to capture stormwater and the net potential improvement gained through the development of this facility. | The facilities listed in Table 5.2.1-1 are not LID facilities. Facilities listed in Table 5.2.1-1 and shown on Figure 5.2.1-1 are potential recharge basin locations or locations where open space exists within the Chino Basin where a recharge basin could potentially be constructed if the land was available and could be purchased. <i>WBE</i> |
| 43             | 69                          | Section 5.3: This section discusses that stormwater water is available for capture above that currently captured. While there is no disagreement, there is no clear documentation of this availability. What is documented is how much could be captured with improvements, but not how much actually exists to   | Hydrology models were prepared by WEI based on 58 years of hydrologic record. The amount of recharge for stormwater projects is the amount of increase above the historic operations. <i>WBE</i>  |



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|                |                             | capture.   |   |
| 44             | 76                          | Section 5.3.1: This section references an option to remove the basin cells. This option provides insignificant volumetric benefit and significantly hinders basin operations and maintenance.  | Removal of the basin cells was conceptually evaluated as part of a preliminary review of potential recharge improvement projects. This concept was not evaluated in the conceptual project evaluation presented as part of the RMPU project. <i>WBE</i>           |
| 45             | 82                          | Section 5.3.3: Paragraph 3 indicates the RP-3 site is a SBCFCD-owned facility. It is not, it is an IEUA-owned facility.  | Noted. <i>WBE</i>   |
| 46             | 82                          | Section 5.3.5: Indicates the Cucamonga Creek inlet to Turner could be improved to bring more water into Turner up to the outlet spillways. In fact, Turner 1&2 are filled to capacity with little water being bypassed during storms. Limitations on capture at Turner 1 are mostly due to muddy water. The limitation is on the elevation of the inlet on Deer Creek into the Turner 3&4 basins. Discussion needs to be added regarding development of the Turner basins east of Archibald Avenue, which have the potential capturing the estimated additional 700 to 1,200 AF of stormwater from Deer Creek. | Inlet modifications were a part of a preliminary review of potential recharge improvement projects. When sufficient details of the Turner basins east of Archibald Avenue become available, an evaluation of the Deer Creek inlets could be completed. <i>WBE</i> |
| 47             | 88                          | Section 5.4: The bullet that suggests adding a pump station to Hickory basin to pump stormwater to Banana basin is not necessary. Such a facility  | Noted. Will be incorporated in further optimization of the project. <i>WBE</i>  |



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|                |                             | already exists, but is used for imported water transfers. Operations experience has indicated that Banana Basin overtops in larger storms and would not benefit from pump station operation during winter months.   |   |
| 48             | 88                          | Section 5.4: The bullets suggest enlargement of the RP3 basins to increase storage. While there is some area not used for recharge, operational uses the open space to dry out weeds and to store and process soils for construction contractors. Recommendations to use available space should be weighed with the space's value for maintenance activities on IEUA-owned basins given the SBCFCD's practice of prohibiting such activities at their basins. | Enlargement to RP3 basins involves excavation of the existing basin cells to a deeper depth and not expanding the footprint area. No expansion of the existing cells is proposed in the conceptual project evaluations, however the expansion of the cells to include area not currently utilized for recharge may be considered during further optimization of the project. <i>WBE</i> |
| 49             | 93                          | Section 5.4.3.1: the current recharge at RP3 is estimated too low. The low for the past 5 years has been 511 AF while that listed in table 5.4-2 is 244 AF. All current recharge numbers in the evaluation should be reviewed with historical operations.   | Noted. Recharge rates will be reviewed and/or verified for all recharge facilities as part of the preliminary design and optimization of the RMPU project. <i>WBE</i>   |
| 50             | 93                          | Table 5.4-2: [1] It is unclear whether operations guidelines, modes, and SBCFCD flood routing would allow operation at the levels indicated. Current groundwater recharge operations agreements with SBCFCD should be incorporated  | [1] Noted. Will review and incorporate as necessary during the preliminary design and optimization of the RMPU project. <i>WBE</i><br><br>[2] Noted. <i>WBE</i>   |



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|                |                             | <p>and resolved that would allow more water to be stored and recharged in existing basins.</p> <p>[2] Existing agreements require water to be released from Grove Basins when it is over 5 feet deep. The Grove basin midlevel outlet and spillway are at depths of approximately 17 feet and 25 feet, and the basin area is approximately 13 and 14 acres at these depths.</p> <p>[3] For Ely Basin, storm water releases are required at a water depth above 835 feet. The Ely spillway is at an elevation of approximately 838 feet, and the basin area is approximately 32 acres at that depth. Additional storage could also be made available at Lower Day, San Sevaine (1, 2, and 3), and Victoria by increasing the operational depth and basin modifications such as increasing the spill point elevation.</p> | <p>[3] Noted. Will be considered for incorporation into the RMPU during further optimization of the project.<br/><i>WBE</i></p>   |
| 51             | 94                          | <p>Section 5.4.4: Declez basin is currently fully utilized with winter flows and would not have available space to receive pumped water from Wineville, Jurupa, or Lower Cucamonga basins until summer months (page 94).</p>  | <p>Hydrologic modeling by WEI indicates similar results. Declez Basin improvements were removed from the RMPU as significant increases in recharge were not realized by the proposed improvements. Removal of the improvements to Declez basin does not remove its capability to recharge additional water as part of the recharge distribution system as water pumped from Jurupa basin into RP3 basin, in excess of RP3</p> |



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|                |                             |  | basin's storage or recharge capacity, will accrue to the Declaz basin where it can be recharged. <i>WBE</i>   |
| 52             | 94                          | Section 5.4.4: Jurupa Basin is currently limited by the pump station capacity (20 cfs). A second pump bay exists for another 20 cfs pump. Addition of this pump and full utilization of the Jurupa basin storage should be a priority project. While it has been expressed to increase the inlet capacity of Jurupa basin from the San Sevaine Channel, during local intense rain events the three existing large storm drains entering along the north basin wall provide storm water approaching the current 20 cfs pump capacity. Prioritization of a second pump over the inlet upgrade should be made in Phase 1 and not in Phase 2. Ability to increase channel diversions into Jurupa basin would be most effectively used if additional storage capacity within Jurupa basin could be utilized (i.e. increase operating depth currently restricted by SBCFCD contractor mobilized in basin). | Noted. Will be considered for incorporation into the RMPU during further optimization of the project. <i>WBE</i>  |
| 53             | 97                          | Section 5.4.4.1: For Tables 5.4-4 through 5.4-7, please provide clarification for the justification for Phases II and III. These tables show no potential recharge increase at a construction cost of \$46 million.  | The potential recharge increases realized by Phase II and Phase III projects are shown by the increase recharge in the recharge basins served by the improvements (the end use facilities). Following completion of Phase II projects, improvements in Phase III, at an additional construction cost of |



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|                |                             |   | \$37,777,000, result in an additional 3,206 acre-feet of total recharge to Chino Basin. <i>WBE</i>   |
| 54             | 97                          | Section 5.4.4.2: Table 5.4-5 uses cost estimates that do not match the detailed estimates prepared in Tables 5.5.9-1 and 5.5.9-2.   | Noted. Tables 5.5.9-1 and 5.5.9-2 will be updated. <i>WBE</i>  |
| 55             | 102                         | Section 5.4.5.2: Table 5.4-7 uses cost estimates that do not match the detailed estimates prepared in Tables 5.5.9-1 and 5.5.9-2.   | Noted. Tables 5.5.9-1 and 5.5.9-2 will be updated. <i>WBE</i>  |
| 56             | 103                         | Section 5.4.6: This section suggested removal of the Cell 2 habitat. This habitat is permitted to exist in perpetuity as mitigation for the CBFIP. While the site has a place in stormwater capture and release to other RP3 cells, there should not be a suggestion for its removal. IEUA suggests the current afterbay of cell 2 (not habitat) be connected to adjacent cell 3 to facility use of the habitat as a settling basin and water holding/transfer basin. | Removal of the cell 2 habitat is presented as a consideration to be evaluated in the preliminary design or optimization portion of the RMPU project. It may be possible to provide the mitigation at an alternate location. Incorporation of the existing afterbay portion of cell 2 into the improvements of the RP3 basin will be considered in the preliminary design or optimization portion of the RMPU project. <i>WBE</i> |
| 57             | 119                         | Section 5.5.1.3.2: For tables 5.5.1-2 thru 5.5.9-2, the planning criteria in this section is not consistent with the cost methodology noted in Section 2, Planning Criteria. Recommend using a 5% cost for mobilization, recent project costs are averaging at this percentage.   | Noted, see previous comments. <i>WBE</i>   |



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| 58             | 132                         | <p>Section 5.5.4.3: Figures 6.5.4-3 shows concepts for reconfiguration of the RP3 basin site. The concepts include a transfer pipe from Cell 1 to cell 3. In fact, such a transfer pipe already exists and the cost of which should be removed from the evaluation. While a second inlet to the RP3 site may be warranted, its purpose is in part to retain water that would flow to and overflow from Declez basin. A significant flow originates from a storm drain located immediately downstream of the existing rubber dam at the RP3 basins. A new diversion located at the currently outlet to the RP3 basins would pick up these flows and eliminate the need for the approximately 1,000 feet of 8ftx10ft diversion conduit shown on the concept map through the SCE easement. The overflow spillways and energy dissipaters shown on the concept map are not required as the basin currently is constructed to spill back into the Declez channel when full. Significant discussion is given to building pipelines and pumping captured storm water to RP3 basins from Wineville, Lower Cucamonga, and Jurupa Basin. During wet years, the RP3 capacity will be occupied by local flows and Jurupa basin pumping. The report should address that the use of RP3 storm capacity for Wineville and Lower Cucamonga Basin pumping may only be available in drier years.</p> | <p>The transfer pipe from cell 1 to cell 3 is proposed to hydraulically connect the two cells with a conduit of sufficient capacity such that the cells would operate as one basin. The existing transfer pipe is relatively small in size and capacity and would limit the transfer of water between cells.</p> <p>The second inlet is proposed to divert additional water which the existing inlet structure is not capable of diverting and will also allow for water to be stored at a higher elevation thereby creating additional storage and recharge.</p> <p>A new diversion located at the current outlet to the RP3 basins will be limited in diversion potential as the elevation of the channel at this point would limit storage to only the lower portions of cells 3 and 4. This can be evaluated further in the preliminary design or optimization portion of the project.</p> <p>The overflow spillways and energy dissipaters are required to accommodate the additional inflow from the new diversion inlet and conveyance conduits between the cells and the increase in storage elevation allowed by the new inlet diversion. The spillways located in each cell will provide operational flexibility and redundancy in case operational controls malfunction or in case flows in excess of the</p> |



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|                |                             |   | <p>existing overflow system are experienced. This will be evaluated further in the preliminary design or optimization portion of the project.</p> <p>Hydrologic modeling by WEI indicates that on average there is and will be capacity at RP3 basin for storm water to be pumped from Wineville, Lower Cucamonga, and Jurupa Basins. This will be evaluated further in the preliminary design and optimization portion of the project. <i>WBE</i></p> |
| 59             | 138                         | <p>Section 5.5.5.3.1: This section lists the cost-share of CBWM as being \$2,446,000. There should be a list of the total project costs, who the other cost sharing parties might be, and what the other shares would be. The basin concepts as should are only a minimal, and should include internal management of the water in cells and perhaps a pump station to drain the basin. Flows on West Fontana Channel are muddy and would require such management.</p> | <p>The other parties involved in the cost sharing are the current pit owners/operators, SBCFCD, and Watermaster. Elements to be incorporated in the preliminary design of the project will be developed in consultation with all parties involved. <i>WBE</i></p>  |
| 60             | 140                         | <p>Section 5.5.6.3: This section mentions an IEUA bacteria problem of dry weather flows. How is this defined as an IEUA problem? The incorrect acronym IEUD is used in the second paragraph.</p>  | <p>Memorandum dated February 24, 2010 prepared by CDM suggests collaboration with IEUA to resolve the bacteria problem. The idea is to incorporate facilities to divert bacteria-laden dry-weather flows, which could also be used in wet-weather conditions, into the proposed Lower Cucamonga Basin as part of the RMPU project of which IEUD is a principal member.</p>   |



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|                |                             |  | Further review of the concept would need to be undertaken to determine if the potential idea is viable and could be incorporated into the RMPU project. <i>WBE</i>                  |
| 61             | 141                         | Section 5.5.6.3: This section mentions relocating burrowing owls from this site. F&G mitigation for disturbing burrowing owls is 6 acres per owl. With this restriction, it may be preferable to purchase the required land and use it for recharge. The conceptual reconfiguration of the Lower Cucamonga Basin should retain internal cells to facilitate management and maintenance of water held at this location. | Noted. <i>WBE</i>   |
| 62             | 153                         | Section 5.5.9.4: For Tables 5.5.9-1 and 5.5.9-2, the noted cost for conveying and pumping from Hickory West to Victoria is not fully discussed in this section. Please clarify if the line item is included or excluded from the proposed improvements.  | Question is unclear. The cost for conveying and pumping from Hickory West to Victoria is included in the proposed improvements. <i>WBE</i>  |
| 63             | NA                          | DSOD Facilities – Working with the Division of Safety of Dams (DSOD) to allow longer than 24 hours of storage on the existing DSOD jurisdictional facilities was initiated by CBWM with Gordon Treweek, but has not been carried further since his retirement. These include Jurupa, Lower Day, San Sevaine 5, and Hickory. Evaluation and possible  | Noted. Consultation with DSOD will be integral to the preliminary design of the proposed RMPU project components and will be included in the preliminary design process. <i>WBE</i> |



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|                |                             | modification to the water-soil interface at these locations could allow longer storage and increased storm water volume to be captured and recharged at these existing locations.  |  |
| 64             | NA                          | Turbidity Sensing to Prevent Degradation of Infiltration Rates – IEUA has advocated the use of turbidity sensors at all basin inlets. Use of these sensors would allow automated control of basin gates, would minimize storm water lost in a first flush and would also minimize damage to basin infiltration rates during intermittent periods of muddy water flows during storms. This alternative should be addressed by the evaluation. | Will be considered for incorporation into the RMPU during further optimization of the project. <i>WBE</i>  |
| 65             | NA                          | Etiwanda Conservation Basin/Etiwanda Regulatory Storage Tanks – CBWM currently is leasing the rights to develop this location. The report gives no discussion of the use of this site for recharge, and or use for a transfer facility.  | The location of the regulatory storage tanks at the Etiwanda Conservation Basin site was chosen for its general proximity to the proposed project alignment. Alternate sites can be evaluated in the preliminary design of the project. <i>WBE</i> |
| 66             | NA                          | San Sevaine 5 – San Sevaine Basin 5 routinely fills and spills during storm events while its adjacent basins San Sevaine 3 and 4 can receive little to no water during the same event. Rather than let this water spill to lower basin, a pump station from basin 5 to basin 3 should be evaluated. Preserving the capture of water in the upper watershed can   | Will be considered for incorporation into the RMPU during further optimization of the project. <i>WBE</i>  |



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|                |                             | significantly change the need for a pump station in Lower Cucamonga basin.   |  |
| 67             | NA                          | Lower San Sevaine (Victoria Basin) – A new basin is mentioned in this report as Lower San Sevaine Basin. This new basin has been discussed in previous Watermaster discussions and meetings as the Lower Victoria Basin. The name use is irrelevant, but this point should be made to avoid confusion.   | Noted. <i>WBE</i>  |
|                |                             | <b>Section 6 – Supplemental Recharge Enhancement Opportunities</b>   |  |
| 68             | 6-1                         | Section 6.2: Paragraph should be updated with the revised replenishment requirements considering the revised production data and recycled water recharge data.   | Section 6.2 has been updated based on the update to Section 4 and the May 2010 Tech memo. <i>WEI</i>   |
| 69             | 6-2                         | Section 6.2: As discussed in this section, one of the outcomes of the 2009 Watermaster Strategic Planning Meeting was to “give authority” to Watermaster to do whatever it takes to acquire supplemental water. Prior to Watermaster acquiring new supplemental water (most likely extremely expensive water) there are numerous “low-hanging fruit” projects that should be considered and evaluated that will reduce or even eliminate the | Our review of IEUA’s “low hanging fruit” suggests that the total increase in new stormwater recharge would be small compared to the projected replenishment demand. <i>WBE and WEI</i> |



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|                |                             | need to acquire new supplemental water (many of these were discussed at our meeting on 5/12/10 at IEUA and detailed in Section 5 comments).  |   |
| 70             | 6-3                         | Section 6.3.1: One of the recommendations given at the April 25, 2010 RMPU workshop was to develop a CURO limit; 100,000 AF was recommended. What are the next steps in developing a CURO limit, assuming it is still necessary? Recommend using "trigger-points" to determine when approved projects should begin; this is similar to IEUA's Regional Sewage system expansions. | The 100,000 acre-ft limit to CURO is recommended as an interim limit and that final CURO limit should be determined based on updated projections of production and production rights. <i>WEI</i>  |
| 71             | 6-5                         | Section 6.3.3: This section mentions an in-lieu limit of 25,000 AFY. Where did this come from?   | Section 6.3.3 was revised to say that the existing in-lieu recharge capacity ranges between 25,000 to 40,000 acre-ft/yr and that this capacity will increase when the Riverside Corona feeder connection to JCSD is completed. <i>WEI</i> |
| 72             | 6-5                         | Section 6.3.4: Why were there two different supplemental recharge capacity used for the Baseline Scenario and Peace II Scenario?   | The Peace II scenario required less recharge capacity because the amount of replenishment is less. See <i>2009 Production Optimization and Evaluation of the Peace II Project Description</i> (WEI, 2009). <i>WEI</i>                     |
| 73             | 6-11                        | Section 6.5.2: Please update the Historical and Planned Recycled Water Recharge table with the most recent projections previously provided in  | The text and table have been updated. <i>WEI</i>  |



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|                |                             | IEUA's Tech Memo #3.  |  |
| 74             | 6-11                        | Section 6.6.1: There are several non-MWD imported water sources listed; is there an estimate of how much these would cost and what MWD's wheeling fees would be?  | The commodity cost is unknown. The current (2010) rate for MWD's wheeling fees is \$314 per acre-ft and may increase to \$372 in 2011 and to \$396 in 2012 based on MWD's published rates. <i>SWG</i>  |
| 75             | 6-13                        | Section 6.6.2: Please refer to comments on Appendix F about the RIX and WRCRWAP concepts.   | Comment noted. <i>WEI</i>  |
|                |                             | <b>Appendix B – IEUA Tech Memo's</b>  |  |
| 76             | NA                          | No comment.   |  |
|                |                             | <b>Appendix E – Water Transfers Report</b>  |  |
| 77             | NA                          | General Comment: In several locations of this report, it is mentioned that Watermaster would not want to share the estimated costs of Water Transfer transactions in this report; what is the plan to share this information with IEUA and the retail agencies? | Currently, there is no active water market for long-term water transactions in California. Water pricing tends to be very subjective. In addition, there is little or no advertising of potential transactions. Watermaster has paid for consulting services to develop pricing and transaction information to address the CURO. Until Watermaster has an opportunity to fully utilize the information, it should not be included in a public document. <i>SWG</i> |
| 78             | 3                           | The first sentence of the first paragraph in the "Imported Water Projections" section should be   | : In the Water Transfers Report, imported water demand refers to water supply used for direct  |



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|                |                             | revised to; “The imported water demand for replenishment purposes is based on the overproduction by the Basin entities.”  | delivery and for replenishment purposes. Both types of imported water impact the groundwater balance in the Chino Basin. For operational or cost reasons, a water retailer in the Chino Basin may switch between both types of imported water to meet its water demands. The reduction in the direct delivery of imported water may result in overproduction from the groundwater basin. The report does not distinguish between the operational uses of the imported water. SWG                      |
| 79             | 4                           | The first sentence of the fourth paragraph uses a CURO estimate from work done in April 2010 by WEI. This should be updated with a range of possibilities based on our recent technical comments and meetings with WEI. | The CURO estimate is a moving target. The recent technical comments by IEUA do not change the direction or the magnitude of the CURO estimate. Since the CURO will continue to change, the April 2010 estimate by WEI is sufficient for the current analysis. SWG   |
| 80             | 9                           | The third paragraph in the “Imported Demand” section states that MWD replenishment water can only be made available if 50% of their storage is full. Please provide reference.  | The report states that Metropolitan’s Water Storage Program needs to be at an appropriate account balance before Replenishment Water becomes available. Metropolitan has to focus on the delivery of Tier 1 water supplies to its member agencies. Over the last three years, Tier 1 water deliveries would have been substantially reduced without the Water Storage Program. The last time that Metropolitan provided Replenishment Water to the groundwater basins was fiscal year 2006-07. During |



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|                |                             |  | that period, the Water Storage Program was approximately 50.0% of capacity. Metropolitan's storage account peaked at 2.74 million acre-feet of water in July 2006 (Metropolitan Water District of Southern California Waterworks General Obligation Refunding Bonds, 2009 Series, dated December 1, 2009, Appendix A, page A-23). From a water management perspective, it is prudent for Metropolitan to restore the Water Storage Program to pre-drought levels before providing Replenishment Water to the groundwater basins. SWG |
| 81             | 12                          | In the "Replenishment Guidelines" section, guideline #6 (Chino Basin Capacity) states that a maximum of 84,600 AFY of Transferred Water could be delivered. Does this exclude stormwater and recycled water recharge?                            | No. <i>WEI</i>   |
| 82             | 13                          | In the "Replenishment Guidelines" section, guideline #9 (Water Transfers Rate Structure) states that Watermaster will develop a funding program for the purchase of future Water Transfers. Are there any concepts being put forth in this RMPU? | Historically, Watermaster allowed overproduction in the Basin with the expectation that Metropolitan would provide Replenishment Water. The payment by the producers for the overproduction was made in arrears. This was a year-to-year approach to address the overproduction. This approach has changed without the availability of Replenishment Water. The acquisition of long-term water supplies may require upfront payments or financing. In either case, Watermaster will have to develop a program to                     |



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|                |                             |   | identify the sources of funding before long-term commitments are made. At this time, the funding program is a concept. <i>SWG</i>   |
| 83             | 20                          | In the “Institutional Issues” section, a brief summary of MWD’s Water Supply Allocation Plan may be appropriate under issue #5-Shortages.   | Metropolitan’s Water Supply Allocation Plan provides guidelines for the reduction of water use during a multi-year drought. The Plan does not create a framework for long-term planning. It is unclear if the Plan will be implemented on a multi-year basis. As a result, it was premature to summarize the Plan in the Water Transfers Report. <i>SWG</i> |
| 84             | 32                          | Why is it assumed that the price of water south of Delta is more expensive than above?  | Put simply, south of Delta water transfers do not have the same transfer risks. Buyers are willing to pay more for the certainty of delivery in a drought year from a source south of the Delta. <i>SWG</i>   |
| 85             | 38                          | Under the “Peace II Alternative” section, the second paragraph mentions three options were analyzed but only two are represented in this report. Is there a third option?   | Corrected – only two are analyzed in the report. <i>SWG</i>   |
| 86             | 38-39                       | The two replenishment options that were analyzed appear to have extremely conservative cost assumptions. For example, option 2 (No Metropolitan Replenishment Water) states it will cost \$1 billion to meet a full CURO in 2030 of 700,000 AF (\$1400/AF). Does this mean that the | Both options are based on twenty year projections of water rates by Metropolitan. The water rates are escalated each year by the historic average increases by Metropolitan. The charts are a summary of the spreadsheets prepared to project the costs of each option. The first option (“100.0%   |



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|                |                             | replenishment water purchased in the year 2020 or 2030 are also \$1400/AF or is there an increasing cost as time goes on?   | Replenishment”) sets the floor on expected costs. The second option (“No Metropolitan Replenishment Water”) sets the ceiling on expected costs. The only variable that changes between the two options is the cost of the water resource (System Access Rate, Water Stewardship Rate, and System Power Rate are the same for both options). Without a Water Transfer Program that seeks non-Metropolitan water supplies, these two options provide the range of expected costs for water to address the CURO over the next twenty years. SWG |
|                |                             | <b>Appendix F – Supplemental Water Recharge Concept Development (Black &amp; Veatch)</b>  |  |
| 87             | 1                           | Section 1.2: The section should reference the 2002 RMP which developed the original concepts and proposed projects to increase recharge into the Chino basin with increased imported water from MWD, enhanced stormwater capture through improvements in the SBFCD and CBWCD facilities (and IEUA’s RP-3), plus significant increase in the recharge of recycled water. | <i>B&amp;V Comment:</i> A reference was incorporated into Section 1.1. An additional summary sentence similar to above shall be added.   |
| 88             | 1                           | Section 1.2: The references to MWD revised forecast (2008) on availability of replenishment supplies should be referenced.  | <i>B&amp;V Comment:</i> Referenced from a Watermaster-approved, WEI handout from the 2009 Strategic Planning Conference, dated 9-28-09, titled “The Challenge of the Cumulative Unmet Replenishment  |



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|                |                             |   | Obligation.” Reference shall be incorporated into text and references section.   |
| 89             | 1                           | Section 1.2: The sentence, “as a result, major groundwater basins in the MWD service area may become over drafted in the next ten or twenty years,” is unsubstantiated based on any technical analyses and appears to be another’s opinion. | <i>B&amp;V Comment:</i> Referenced from a Watermaster-approved, WEI handout from the 2009 Strategic Planning Conference, dated 9-28-09, titled “The Challenge of the Cumulative Unmet Replenishment Obligation.” Reference shall be incorporated into text and references section.   |
| 90             | 2                           | Section 1.3: This section should discuss the 2002 RMP and summarize the Phase I and Phase II improvements implemented to date as an approximate cost of \$50 million.   | <i>B&amp;V Comment:</i> Acknowledged. Information requested from IEUA.   |
| 91             | 8                           | Section 2.2.1: Table 2-1 lists SWP water with moderate to high TOC. What is this compared to? SWP water typically has low TOC in comparison to CRA or other local sources.  | <i>B&amp;V Comment:</i> Historical SWP TOC concentrations can be higher than CRW TOC concentrations during certain times of the year. However, it appears on average, the TOC concentrations between the two sources are fairly comparable. Text will be modified to “Moderate TOC.” |
| 92             | 10                          | Section 2.2.1.1: Please reference the agreement (2005) between MWD, SGVMWD, TVMWD and IEUA regarding one of the Azusa Devil Canyon Pipeline and the approved connections.   | <i>B&amp;V Comment:</i> Acknowledged. A reference shall be added.  |
| 93             | 11                          | Section 2.2.1.1: Please reference the replenishment   | <i>B&amp;V Comment:</i> Details requested from IEUA.   |



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|                |                             | connector, CB-8.  |   |
| 94             | 11                          | Table 2-2: The notes in the “Issues” column are inaccurate (e.p. Rialto was at full capacity generally from 2002-2006 and will be in the future when the CRA is reduced in flow or has an outage).  | <i>B&amp;V Comment:</i> See Figure 2-2 for availability of Rialto Pipeline. Comment in notes column for the Rialto pipeline will be modified to “Unused capacity may only be available during winter months.” |
| 95             | 15                          | Table 2-4: This table should include TVMWD Miramar water treatment since it serves Pomona and is proposed to be interconnected with the WFA.  | <i>B&amp;V Comment:</i> Acknowledged. The Miramar WTP will be added.  |
| 96             | 16                          | Table 2-5: The “Basin Type” column shows Upland, Montclair and Brooks basins along the San Antonio Creek Channel as flow-through Basins; they should all be flow-by.  | <i>B&amp;V Comment:</i> Acknowledged. Change to flow-by will be made.   |
| 97             | 16                          | Table 2-5: RP-3 began receiving recycled water for recharge in August 2009.   | <i>B&amp;V Comment:</i> Acknowledged. Column entry will be changed to “yes.”  |
| 98             | 16                          | Section 2.2.2: The last sentence on page 16 should end by saying “...is dependent on the volume of diluents water available.”   | <i>B&amp;V Comment:</i> Acknowledged. Edit will be made.  |
| 99             | 16-17                       | Section 2.2.2: This section is out of date with regards to the permit for recharge of recycled water (Section 2.2.2.1). The Upland Hills Water Reclamation Plant is out of service and inoperable. Why the reference to the Indian Hills Golf Course? | <i>B&amp;V Comment:</i> Acknowledged. Reference to both the Upland Hills and Indian Hills plants will be deleted.   |



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| 100            | 17                          | Section 2.2.2: In paragraph 2, the Cities of Upland and Montclair should also be listed as agencies that IEUA provides recycled water to.  | <i>B&amp;V Comment:</i> Acknowledged. Cities will be added.  |
| 101            | 17                          | Table 2-6: The title of Table 2-6 is Recycled Water Treatment Plants in the Chino Basin; RIX and WRRCRWAP are not permitted to recharge in the Chino Basin. RP-5 has been permitted at 16.5 mgd (not 15 mgd). WRRCRWAP is only 8 mgd not 32 mgd. | <i>B&amp;V Comment:</i> Acknowledged. References to the RIX and WRRCRWAP plants have been removed from the table. Each of these plants is described in section 4 (Concept Nos. 6 and 7). Edit to WRRCRWAP capacity was made. |
| 102            | 18                          | Section 2.2.2.1: Paragraph 1 has a sentence that should include the following change; "...recycled water to 50% of total recharge and diluent water."  | <i>B&amp;V Comment:</i> Acknowledged. Edit will be made.   |
| 103            | 18                          | Section 2.2.2.1: Please update Table 2-7 and the following paragraphs with language from the RWQCB permit amendment and expert-panel report  | <i>B&amp;V Comment:</i> Edits will be made upon receipt of RWQCB permit from IEUA.   |
| 104            | 18                          | Section 2.2.2.1: The last sentence on this page should include the following change; "...NPDES permits for water reclamation facilities."  | <i>B&amp;V Comment:</i> Acknowledged. Edit will be made.   |
| 105            | 24                          | Section 3.0: Shouldn't in-lieu be discussed in this section?   | <i>B&amp;V Comment:</i> In-lieu is discussed in section 3.2 and also in section 3.8 (concept for ad-hoc appropriator in-lieu). No edits have been made.  |
| 106            | 26                          | Section 3.3.3: Isn't a more cost effective alternative   | <i>B&amp;V Comment:</i> Acknowledged. This concept will be   |



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|                |                             | concept for Jurupa CSD to use WRRCRWAP recycled water for irrigation of parks, schools, etc. The estimate is about 3,000-4,000 AFY and would reduce Chino basin groundwater pumping by an equivalent amount.  | mentioned in section 4.4.7 (Concept No. 7).   |
| 107            | 28                          | Section 3.5.1: With the new Regional Board permit amendment approved in October 2009, advanced treatment is not cost effective at IEUA's water recycling facilities.  | <i>B&amp;V Comment:</i> Acknowledged. This is mentioned in Section 2.2.2.1. A similar sentence will be added to section 3.5.1.  |
| 108            | 28                          | Section 3.5.1: Paragraph 1 includes statements without reference. Please reference or update. Paragraph 3 should be updated with information from IEUA's FY 2010/11 TYCIP.  | <i>B&amp;V Comment:</i> Reference is provided in first sentence of paragraph 3 under section 3.5.1. Data provided is from e-mail received from Ryan Shaw dated 8/3/09. If data has been updated since this e-mail, please provide TYCIP for review. |
| 109            | 29-30                       | Section 3.6: These are good concepts; however, all new connections and pipelines would need to be funded by Watermaster and its stakeholders.   | <i>B&amp;V Comment:</i> The supplemental water TM is not intended to address funding concepts.  |
| 110            | 35                          | Section 4.2: Concepts No. 6 and 7 (recycled water from RIX and WRRCRWAP) have many technical and institutional issues. In addition, the cost estimates appear to be very low based on an assumption of using the supply for 9 months. IEUA has surplus recycled water supplies generally from October through May each year. Therefore, only during | <i>B&amp;V Comment:</i> Acknowledged. Additional background information will be added to these sections.  |



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|                |                             | June-Sept is it likely that any supplemental recycled supply could be recharged (and that would not be on a continuous basis). Please also note that WRCRWAP TDS averages over 600 mg/L and JCSD and Norco plants use locally for greenbelt irrigation. Recommend that WRCRWAP uses recycled water locally within the JCSD service area. |   |
| 111            | 35                          | Section 4.2: Table 4-1 lists turnout potential capacity, where will this additional water come from? Any existing turnouts should already have enough capacity to take the amount of water needed (or that there would be basin capacity for).   | <i>B&amp;V Comment:</i> Concept includes new turnout from either the Azusa Devil Cyn Pipeline or the Met Etiwanda Pipeline in order to enhance turnout capacity and flexibility if Rialto Pipeline is at capacity.  |
| 112            | 36                          | Section 4.3: Please remove the “Unit Water Cost” column from Table 4-2. It shouldn’t use “capacity” to define this unit cost. It should reflect expected/actual cost.  | <i>B&amp;V Comment:</i> Acknowledged. Unit cost column shall be deleted from Table 4-2. Unit costs shall remain in detailed annual cost tables for concepts.  |
| 113            | 37                          | Section 4.4.1: Paragraph 3 mentions the ADC pipeline, for the purposes of the RMPU, with a capacity of approximately 10,000 AFY. What flow is assumed and what time of the year?   | <i>B&amp;V Comment:</i> From discussions with SGVMWD (referenced in TM), the ADC pipeline is currently not used during 3 winter months and remains hydrostatic. Assuming full capacity of ADC (55 cfs) can be conveyed for Basin use during 3 months, this equates to 10,000 afy. |
| 114            | 38                          | Figure 4-1: This figure should show the existing turnout on the Rialto Pipeline.   | <i>B&amp;V Comment:</i> Acknowledged. Existing turnout has already been added.  |



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| 115            | 40                          | Section 4.4.1: Recommend changing the “Total Increased Recharge AFY” row to “Total Maximum Recharge AFY.” What does the \$5,000 for annual O&M cover? Expenses for additional water to the basin?  | <i>B&amp;V Comment:</i> Acknowledged. This edit will be made to the same table for each concept. \$5k annual O&M covers general pipeline maintenance (see Section 2 for criteria). Footnote 2 notes that the unit cost shown does not include the cost of water supply.   |
| 116            | 57                          | Section 4.4.6: A general comment; there is no RP-3 recycled water distribution system. The nearest regional recycled water pipeline is in the vicinity of the I-15 and Jurupa Road. The pipeline at RP-3 is the pump discharge pipeline from Jurupa basin, not a recycled water pipeline | <i>B&amp;V Comment:</i> Acknowledged. Paragraph will be modified.   |
| 117            | 57                          | Section 4.4.6: Paragraph 1 suggests that 5,000 – 10,000 AFY of recycled water from RIX could be moved to IEUA’s distribution system. Please keep in mind that only the peaking months (generally summer months) is when IEUA would not have excess recycled water to recharge.           | <i>B&amp;V Comment:</i> Acknowledged. Additional background will be added to this concept description.  |
| 118            | 60                          | Section 4.4.6: Please give further explanation of the assumptions behind the costs listed in the two tables on page 60.  | <i>B&amp;V Comment:</i> Unit cost assumptions are provided in Section 2 and page 59 provides a description of the major facilities that are part of the concept. See footnotes 2 and 3 under the Annual Cost Estimate table on page 60 for additional assumptions. See also final paragraph on page 57 for additional |



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|                |                             |   | caveats.  |
| 119            | 61                          | Section 4.4.7 The WRCRWAP is only 8 mgd, not 32 mgd as listed in paragraph 1. | <i>B&amp;V Comment:</i> Acknowledged. Capacity has been modified. |



## COMMENTS AND RESPONSES

## F.3 IEUA – ANDY CAMPBELL

| Comment Number | Page Reference | Comment  | Response                               |
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|                |                | <b>Section 5 – Stormwater Recharge Enhancement Opportunities</b>   | (All responses below provided by WBE.) |
| 1              | 69             | Available Storm Water Not Currently Captured: Page 69 discusses that stormwater water is available for capture above that currently captured. While there is no disagreement, there is no clear documentation of this availability. What is documented is how much could be captured with improvements, but not how much actually exists.  | See IEUA Comment #43                   |
| 2              | NA             | SBCFCD Operations Modes: Potential increases in recharge are highlighted in the report table 6-4.2. It is unclear to whether operations guidelines, modes, and SBCFCD flood routing would allow operation at the levels indicated.<br><br>Current groundwater recharge operations agreements with SBCFCD should be incorporated and resolved that would allow more water to be stored and recharged in existing basins. Existing agreements require water to be released from Grove Basins when it is over 5 feet deep. The Grove basin midlevel outlet and spillway are at depths of approximately 17 feet and 25 feet, and the | See IEUA Comment #50                   |



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|                |                | <p>basin area is approximately 13 and 14 acres at these depths. For Ely Basin, storm water releases are required at a water depth above 835 feet. The Ely spillway is at an elevation of approximately 838 feet, and the basin area is approximately 32 acres at that depth. Additional storage could also be made available at Lower Day, San Sevaine (1, 2, and 3), and Victoria by increasing the operational depth and basin modifications such as increasing the spill point elevation.</p>                              |                      |
| 3              | NA             | <p>DSOD Facilities: Working with the Division of Safety of Dams (DSOD) to allow longer than 24 hours of storage on the existing DSOD jurisdictional facilities was initiated by CBWM with Gordon Treweek, but has not been carried further since his retirement. These include Jurupa, Lower Day, San Sevaine 5, and Hickory. Evaluation and possible modification to the water-soil interface at these locations could allow longer storage and increased storm water volume to be captured at these existing locations.</p> | See IEUA Comment #63 |
| 4              | NA             | <p>Turbidity Sensing to Prevent Degradation of Infiltration Rates: IEUA has advocated the use of turbidity sensors at all basin inlets. Use of these sensors would allow automated control of basin gates and would minimize storm water lost in a first flush and also minimize damage to basin infiltration rates during intermittent periods of muddy water</p>  | See IEUA Comment #64 |



## COMMENTS AND RESPONSES

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|                |                | flows during storms. This alternative should be addressed by the evaluation.  |  |
| 5              | 47             | Low Impact Developments: Page 47, paragraph 1 indicates the LID facilities in Table 6.2.1-1 are upstream of recharge basins and that their use would not create significant new recharge. Figure 6.1.2-5 is a map of the LID facilities and shows they are all downstream of existing recharge basins. This statement on page 47 is only true if the Lower Cucamonga basin is developed for stormwater capture. | See IEUA Comment #42                                 |
| 6              | Multiple       | [1] Declez Basin: Page 13 erroneously refers to the Cell 2 habitat at Declez. In fact this cell 2 habitat is at RP3 basins.<br><br>[2] Declez basin is currently fully utilized with winter flows and would not have available space to receive pumped water from Wineville, Jurupa, or Lower Cucamonga basins until summer months (page 94).   | [1] See IEUA Comment #41<br>[2] See IEUA Comment #51 |
| 7              | NA             | Etiwanda Conservation Basin / Etiwanda Regulatory Storage Tanks: CBWM currently is leasing the rights to develop this location. The report gives no discussion of the use of this site for recharge, and or use for a transfer facility.  | See IEUA Comment #65                                 |
| 8              | 88             | Hickory Basin: Page 88 contains a bullet to add a   | See IEUA Comment #47                                 |



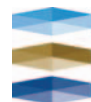
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|                |                | <p>pump station to Hickory basin to pump stormwater to Banana basin. Such a facility already exists, but is used for imported water transfers. Operations experience has indicated that Banana Basin overtops in larger storms and would not benefit from pump station operation during winter months.</p>  |   |
| 9              | NA             | <p>Jurupa Basin: Jurupa Basin is currently limited by the pump station capacity (20 cfs). A second pump bay exists for another 20 cfs pump. Addition of this pump and full utilization of the Jurupa basin storage should be a priority project. While it has been expressed to increase the inlet capacity of Jurupa basin from the San Sevaine Channel, during local intense rain events the three existing large storm drains entering along the north basin wall provide storm water approaching the current 20 cfs pump capacity. Prioritization of a second pump over the inlet upgrade should be made in Phase 1 and not in Phase 2 (page 94).</p> | See IEUA Comment #52  |
| 10             | NA             | <p>[1] Lower Day Basin: A small upper level basin exists at the Lower Day basin site can be easily modified to hold stormwater. Currently stormwater enters this smaller basin and runs into the active recharge portion of the site. Holding water in the upper level would preserve capacity in the lower level. The upper level and lower level designations are not to be confused with the Upper Day basin</p>   | <p>[1] See IEUA Comment #37<br/>                     [2] See IEUA Comment #38<br/>                     [3] See IEUA Comment #40<br/>                     [4] See IEUA Comment #39</p> |



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|                |                | <p>located north of Banyon Street adjacent Day Creek. The Lower Day facility is incorrectly labeled “Days” on Figure 6.1.1-1. The figure also incorrectly labels the “Upper Days” basin. The Upper Day basin is located to the north in the Cucamonga Basin.</p> <p>[2] Channel and inlet modifications to the Lower Day basin were evaluated in the W&amp;B report as necessary. IEUA has not observed a need for increasing the inlet capacity. There may be some confusion between the actual inlet capacity and the maximum rate of imported water delivered to the site. Imported water delivery is limited to 22 cfs above this rate, rolling waves develop in the channel and can periodically surge water over the rubber dam. Due to the high cost of imported water, its loss is controlled by lowering the delivery rate. IEUA was not able to find a reference to the inlet capacity used by B&amp;W. The existing flow control gate at Lower Day basin does not open to its full diameter due to its construction. While this had not been seen to impact inflow, removal of this restriction would improve flow through should any limit exist. Lower Day is located high on the alluvial fan at the basin of the mountains and generally receives only small flows during times when snow pack accumulates. The WEI rainfall-run off model should account for periods of snow accumulation</p> |          |



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|                |                | <p>and melting prior to implementation of inlet improvements.</p> <p>[3] Page 121 mentions improving Lower Day banks to meet DSOD requirements. The facility currently meets DSOD requirements.</p> <p>[4] A mid level uncontrolled outlet exists at Lower Day at an invert water depth of about 15 feet. Additional controls to this outlet can preserve water at this location.</p>   |   |
| 11             | Multiple       | <p>[1] RP3 Basins: Page 82, paragraph 3, indicates the RP3 site is a SBCFCD-owned facility. It is not – it is an IEUA-owned facility.</p> <p>[2] Page 103 suggested removal of the Cell 2 habitat. This habitat is permitted to exist in perpetuity as mitigation for the CBFIP. While the site has a place in stormwater capture and release to other RP3 cells, there should not be a suggestion for its removal. IEUA suggests the current afterbay of cell 2 (not habitat) be connected to adjacent cell 3 to facility use of the habitat as a settling basin and water holding/transfer basin.</p> <p>[3] Figures 6.5.4-3 shows concepts for reconfiguration of the RP3 basin site. The concepts include a transfer pipe from Cell 1 to cell 3. In fact, such a transfer pipe already exists and</p> | <p>[1] See IEUA Comment #45</p> <p>[2] See IEUA Comment #56</p> <p>[3] See IEUA Comment #58</p> <p>[4] See IEUA Comment #48</p> <p>[5] See IEUA Comment #44</p> <p>[6] See IEUA Comment #49</p> |



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|                |                | <p>the cost of which should be removed from the evaluation.</p> <p>[3] While a second inlet to the RP3 site may be warranted, its purpose is in part to retain water that would flow to and overflow from Declez basin. A significant flow originates from a storm drain located immediately downstream of the existing rubber dam at the RP3 basins. A new diversion located at the currently outlet to the RP3 basins would pick up these flows and eliminate the need for the approximately 1,000 feet of 8ftx10ft diversion conduit shown on the concept map through the SCE easement.</p> <p>[3] The overflow spillways and energy dissipaters shown on the concept map are not required as the basin currently is constructed to spill back into the Declez channel when full.</p> <p>[3] Significant discussion is given to building pipelines and pumping captured storm water to RP3 basins from Wineville, Lower Cucamonga, and Jurupa Basin. During wet years, the RP3 capacity will be occupied by local flows and Jurupa basin pumping. The report should address that the use of RP3 storm capacity for Wineville and Lower Cucamonga Basin pumping may only be available in drier years.</p> |          |



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|                |                | <p>[4] Page 88 bullets suggest enlargement of the RP3 basins to increase storage. While there is some area not used for recharge, operational uses the open space exist to dry out weeds and to store and process soils for construction contractors. Recommendations to use available space should be weighed with the space’s value for maintenance activities on IEUA-owned basins given the SBCFCD’s practice of prohibit such activities at their basins.</p> <p>[5] Page 76 references an option to remove the basin cells. This option provides insignificant volumetric benefit and significantly hinders basin operations and maintenance.</p> <p>[6] Page 93 the current recharge at RP3 is estimated too low. The low for the past 5 years has been 511 AF while that listed in table 6.4-2 is 244 AF. All current recharge numbers in the evaluation should be scrutinized with historical operations.</p> |                      |
| 12             | NA             | <p>San Sevaine 5: San Sevaine Basin 5 routinely fills and spills during storm events while its adjacent basin San Sevaine 3 and 4 can receive little to no water during the same event. Rather than letter this water spill to lower basin, a pump station from basin 5 to basin 3 should be evaluated. Preserving the capture of water in the upper watershed can</p>   | See IEUA Comment #66 |



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|                |                | significantly change the need for a pump station in Lower Cucamonga basin.   |                      |
| 13             | 82-83          | <p>Turner Basin: Page 82/83 – Indicates the Cucamonga Creek inlet to Turner could be improved to bring more water into Turner up to the outlet spillways. In fact, Turner 1&amp;2 are filled to capacity with little water being bypassed during storms. Limitations on capture at Turner 1 are mostly due to muddy water. The limitation is on the elevation of the inlet on Deer Creek into the Turner 3&amp;4 basins.</p> <p>Discussion needs to be added regarding development of the Turner basins east of Archibald Avenue, which have the potential capturing the estimated additional 700 to 1,200 AF of stormwater in Deer Creek.</p> | See IEUA Comment #46 |
| 14             | 11             | Victoria Basin: The Victoria Basin inlet from San Sevaine Channel (destroyed in the 2003 winter) is assumed to exist by the evaluation (p. 11). While there has been discussion with SBCFCD, the reconstruction of this inlet is important to capturing water that escapes the Etiwanda Debris basin and San Sevaine 5.  | See IEUA Comment #36 |
| 15             | NA             | Lower San Sevaine (Victoria) Basin: A new basin is mentioned in this report as Lower San Sevaine   | See IEUA Comment #67 |



| Comment Number | Page Reference | Comment   | Response  |
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|                |                | Basin. This new basin has been discussed in previous Watermaster discussions and meetings as the Lower Victoria Basin. The name use is irrelevant, but this point should be made to avoid confusion.  |   |
| 16             | 138            | Vulcan Pit: Page 138 lists the cost-share of CBWM as being \$2,446,000. There should be a list of the total project costs, who the other cost sharing parties might be, and what the other shares would be. The basin concepts as should are only a minimal, and should include internal management of the water in cells and perhaps a pump station to drain the basin. Flows on West Fontana Channel are muddy and would require such management.   | See IEUA Comment #59  |
| 17             | 140-141        | <p>[1] Lower Cucamonga/Chris Basin: Page 140 mentions an IEUA bacteria problem of dry weather flows. Is this an IEUA problem? The incorrect acronym IEUD is used in the second paragraph of page 140.</p> <p>[2] Page 141 mentions relocating burrowing owls from this site. F&amp;G mitigation for disturbing burrowing owls is 6 acres per owl. With this restriction, it may be preferable to purchase the required land and use it for recharge.</p> <p>[2] The conceptual reconfiguration of the Lower</p> | <p>[1] See IEUA Comment #60</p> <p>[2] See IEUA Comment #61</p> |



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|                |                | Cucamonga Basin should retain internal cells to facilitate management and maintenance of water held at this location. |          |



## COMMENTS AND RESPONSES

## F.4 GEOFFREY VANDEN HEUVEL

| Comment Number | Page Reference | Comment  | Response  |
|----------------|----------------|--|---|
|                |                | <p>I do not think that the recommendation to lower the baseline recharge from 5600 to 3200 should be part of the RMP. As we have discussed, if a new safe yield is adopted by Watermaster, then in the course of developing that new safe yield calculation the information you have developed in conjunction with the RMP is very relevant.</p> <p>The RMP is a court ordered planning document. It can be used to identify policy issues that Watermaster needs to address. I think the recommendation with regards to adjusting the baseline recharge is outside of the scope of the RMP.</p> | <p>The recommendation to lower the baseline recharge from 5,600 acre-ft/yr to 3,200 acre-ft/yr has been deleted from the RMPU. <i>WEI</i></p> |



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## F.5 WAGNER & BONSIGNORE CONSULTING CIVIL ENGINEERS – GENERAL RESPONSES TO COMMENTS

We received written comments on the RMPU from the City of Pomona, and from Inland Empire Utility Agency. We also heard comments from various individuals as questions during the RMPU Workshops hosted by Chino Basin Watermaster. Comments fall generally into three categories. 1) The cost estimates for the stormwater conceptual projects are not cost effective from a marginal cost perspective. The comments suggest that each subsequent phase is more expensive than the previous phase and sacrifices cheaper water for more expensive water. 2) Cost estimates for construction are understated and should conform to a standard preferred by IEUA. 3) Institutional constraints, particularly related to jurisdiction of California Division of Safety of Dams are understated. We provide the following general response to these comments and also provide a more detailed response to individual comments.

- 1) Marginal Cost of individual conceptual projects. The Phase I projects look compelling due to their relative simplicity and relatively low cost per acre foot. The hydrologic modeling provided by WEI indicates Phase I will allow recharge of an additional 7600 acre-feet annual yield, above the historical amount recharged by the existing recharge basin configuration. Subsequent phases, II and III, for example add recharge to the project as a whole but at a much greater incremental cost. Comments have correctly brought into question the rationale for paying a higher cost for the next increment of water. A more important question might be how much would someone pay for the last acre foot of water (the actual marginal cost). If there is a need for more water, and if there is a cheaper source, then subsequent phases of the conceptual project would be unnecessary. The cheaper source certainly would be preferred, however, if there is no other reliable source we can either decide to pay the incremental cost, or not invest in developing additional recharge.
- 2) The cost estimates that have been developed have generally followed the Technical Memorandum Task 3 Planning Criteria. That criteria assumes a 15% surcharge for Engineering , Inspection and Contract Management. The IEUA comments suggest that we use 15% for Engineering, and 7% for Contract Management. We developed a cost window by increasing the total cost estimate by 15%. For comparison, we re-estimated total project costs using the IEUA criteria from its comments. The result was within the original 15% cost window. We want to point out however that a large part of the project cost is in excavation and hauling. This activity most likely will require substantially less than the indicating amount for Engineering, Administration and Contract Management. While the actual cost for the



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components of the conceptual project will undoubtedly vary, the overall estimate is probably sufficient for planning purposes and prioritizes project selection.

- 3) Administrative constraints will ultimately drive decision making either by requiring re-design, re-conceptualization or abandonment entirely of various components. Discussions with various interested agencies and satisfaction of certain requirements, and obtaining approvals from, for example, Dam Safety, Flood Control, Department of Fish and Game and others, will be necessary.

