Prescott AMA Draft Fourth Management Plan – Comments Received by ADWR as of 9/16/2013 and Responses.

Date	Name	Entity	Comment Summary	Response	Method of Receipt
8/21/2013	John Zambrano	CWAG	1. Table 3-2 and 2-2 do not match in terms of net natural recharge; 2. Who would purchase LTS credits to offset a violation?	1. ADWR has identified the discrepancy and will correct both tables; 2. In some past cases, ADWR has allowed entities regulated under the management plan, such as Agricultural, Industrial, or Municipal right or permit holders, to mitigate a violation of conservation requirements by performing other actions that have a positive water management benefit. An example might be to address a problem related to withdrawal/use in excess of an allotment by extinguishing an equivalent amount of the party's long-term storage (LTS) credits. If a right or permit holder did not have sufficient LTS credits to offset a violation an option may be to purchase LTS credits from another entity and then extinguish them to offset the violation.	Email Note: response provided previously
8/23/2013	Chris Marley	Town of Chino Valley	1. Opposed to exempt well regulations; 2. Proponent of storm water reclamation and injection wells	1. Groundwater level declines due to a high concentration of local exempt wells is not necessarily an issue uniformly throughout the state. ADWR lacks authority to regulate or restrict exempt wells. However, the community of the PRAMA could garner local support for a legislative initiative to limit exempt wells within the PRAMA; 2. Storm water reclamation will need additional research to determine its viability and potential impacts and benefits.	Email
8/13/2013	Barbara Schroeder	private citizen	1. Why was limiting population growth not included as a potential water management strategy? 2. Requested clarification of "recharge" and "recovery"	1. Limiting population is not a decision made at the state level and is not within ADWR's authority. Limiting population growth is a decision made at the local level; 2. There are three kinds of recharge into the aquifer – natural, incidental, and artificial; artificial recharge occurs when water is added to the aquifer through an Underground Storage Permit or a Groundwater Savings Facility that has been permitted by ADWR. These permitted recharge projects result in credits issued to the water storer which can be redeemed at a later date (long-term storage credit recovery) or in the same year that the water is stored (annual recovery). To recover long-term storage credits, the entity who owns the credits would report the portion of the water pumped from the aquifer that year that the entity elected to call recovered water, and ADWR would reduce the entity's long-term storage account by the appropriate volume. Natural recharge occurs as a result of the infiltration of natural precipitation on mountain fronts and in stream channels, as well as groundwater flowing into the basin, minus groundwater leaving the basin. Incidental recharge is water that recharges the aquifer due to the application of water to the land surface for some other purpose, such as landscape watering or agricultural irrigation.	Email Note: response provided previously
8/6/2013	John Zambrano	CWAG	1. Cannot reproduce the projection scenarios with the information in the draft plan; 2. Figure 11-6 difficult to read; 3. What are the short-term water management issues that lead to using a 5-year moving average for net natural recharge? 4. Do GPCD figures in section 11.2 include reclaimed water? 5. Is there a typo in the growth rate percent? 6. Should Clean Drinking Water Act (CWA) replace Safe Drinking Water Act (SDWA) in section 7.4.3.7?	1. ADWR can add the scenario templates and budgets to the other templates and summary budgets for PRAMA on its web page to help clarify the components of the projection scenarios; 2. ADWR will attempt to make Figure 11-6 easier to read; 3. The 5-year moving average was used to reflect the varying water supply available from the natural system in order to illustrate that using a long-term average for net natural recharge may not work as a water management approach due to the high variability in the volume of the natural supply – in most years, the AMA would receive less net natural recharge than the long-term average, while one extremely high flow year would skew the long-term average figure. This variability needs to be addressed in water management planning in all five AMAs; 4. Yes the GPCD figures in 11.2 include all sources of water supply, including reclaimed water; 5. There is no typo in the growth rate percent. ADWR can expand the description in the txt of how the projected populations were calculated; 6. ADWR will research whether it should be CWA or SDWA.	Email Note: Response provided previously
8/30/2013	John Zambrano	CWAG	1. Section 2.6.2 page 2-10 - water level rise for the Agua Fria sub-basin is missing - what is that figure?	1. ADWR has identified and corrected this omission and reposted this chapter to ADWR's website.	Email Note: response provided previously

9/4/2013	Doug McMillan	private citizen	1. Clarify the definition of safe-yield relative to natural discharges; 2. Consider storm water harvesting and underground storage as an offset to overdraft rather than an accrual of LTS credits; 3. Clarify whether safe-yield is the same as creating zero net recharge; 4. Clarify the timeframe when COP can store - is it 90 days or 8 months? (April 1 through November 30th?); 5. The impact of Big Chino importation depends on whether the water comes from storage or natural discharges - request ADWR explore mitigation alternatives in the 4MP; 6. Propose macro-rainwater harvesting and storage along Granite Creek - could contribute to downstream surface flows.	1. In order to calculate safe-yield ADWR subtracts the sum of groundwater pumping from the net natural recharge in the AMA. Net natural recharge includes mountain front and stream channel recharge plus groundwater inflow, minus groundwater outflow, minus riparian transpiration. Then ADWR adds in any cuts to the aquifer resulting from artificial recharge, plus any canal recharge, plus any incidental recharge; 2. Storm water reclamation will need additional research to determine its viability and potential impacts and benefits; 3. The statutory definition of safe-yield is not the same thing as a hydrologic determination of zero net recharge. See response #1 above; 4. City of Prescott may store between April 1 and November 30th, a period of 244 days or 8 months; 5. ADWR appreciates the comment; however, this is outside the scope of the management plan process; 6. Macro-scale rainwater harvesting and storage along Granite Creek or in another suitable location will need additional research to determine its viability and potential impacts and benefits.	Email
9/6/2013	John Munderloh	Town of Prescott Valley	1. Do not include exempt well pumping in the Municipal demand category; 2. Report should explain strides made toward reaching SY; 3. Does 4,530 AFY = the allowable SY pumping? 4. Do not infer that COP and PV will be paying for the most expensive water while others (exempt wells) use inexpensive local GW; 5. Limiting exempt wells is the State's responsibility - not local responsibility; 6. Include history of expenditures to date to achieve SY; 7. Add history on COP's water development; 8. Expand history of Bond Ranch surface water use; 9. Chapter 4, pg. 4-6 - add language clarifying water will be put to use within the Town of PV; 10. Chapter 5, Table 5-1 - units missing; 11. Chapter 5, pg. 5-10 - mention "Water Smart"; 12. Chapter 6, pg. 6-5 - clarify that reclaimed water has been used by 4 out of 6 golf courses; 13. Chapter 7, pg. 7-13 - clarify PV has a constructed USF permit; 14. Chapter 8, pg. 8-3 - whether OD is increasing or decreasing depends on the period of record examined; 15. Chapter 8, pg. 8-4 - correction - COP has been recharging in the LIC not the UAF; 16. Chapter 8, Table 8-2 - "Year" column has description "Treatment Plant" in it; 17. Chapter 8, pg. 8-7, section 8.4.2 PV wastewater treatment plant capacity is 4,200 AFY (3.75 mgd); 18. Chapter 8, pg. 8-8 - correct statement about base flow at Del Rio Springs and its use.	1. ADWR considers domestic use of water by exempt wells to be for purposes such as residential indoor and outdoor uses, landscaping uses, and commercial uses. However, ADWR recognizes that exempt wells are not regulated, unlike small and large municipal water providers (and untreated water providers, in some AMAs). ADWR can add text to clarify that ADWR has limited authority at present to regulate exempt wells but that domestic uses of water via exempt wells (as opposed to stock watering exempt wells), are similar types of uses as those served by small and large municipal water providers; 2. ADWR appreciates the comment and will consider this suggestion ; 3. Based on the assumptions used in the projection scenarios an annual pumping rate of less than 5,000 AFY results in the achievement of safe-yield; 4. The language in this section of Chapter 11 will be revised; 5. Groundwater level decline due to a high concentration of local exempt wells is not necessarily an issue uniformly throughout the state. ADWR lacks authority to regulate or restrict exempt wells. However, the community of the PRAMA could garner local support for a legislative initiative to limit exempt wells within the PRAMA; 6. See response #2 above; 7. See response #2 above; 8. ADWR will explore adding information about the Bond Ranch; 9. The language in this section of Chapter 4 will be revised; 10. Table 5-1 will be corrected; 11. The language in this section of Chapter 5 will be revised; 12. The language in this section of Chapter 6 will be revised; 13. The language in this section of Chapter 7 will be revised; 14. The language in this section of Chapter 8 will be revised; 15. The language in this section of Chapter 8 will be revised; 16. Table 8-2 will be corrected. 17. The language in this section of Chapter 8 will be revised; 18. The language in this section of Chapter 8 will be revised.	Email
9/5/2013	David Roberts	SRP	1. COP importation of BC GW not likely to occur by 2020; 2. Earliest date for having all components of the BC monitoring plan in place is 2017; 3. Not likely BC importation will occur until 2022; 4. Expand discussion of COP's limitations on using additional SW; 5. SRP supports enhanced aquifer management; 6. Chapter 2, section 2.3 - clarify uses of Watson/Willow; 7. Chapter 5, section 5.2 - correct 290 acres to 290 square miles; 8. Chapter 5, section 5.6 - add language clarifying the inclusion of the Basic Public Information Program in the NPCCP; 9. Chapter 8, section 8.4 typo - 859 should be 1,859; 10. Chapter 8, section 8.4.1 - COP stores in the LIC not the UAF.	1. ADWR may develop additional scenarios during the fourth management period; 2. See response #1 above; 3. See response #1 above; 4. ADWR will explore modifying the language in this section; 5. Recovering water within the area of impact of storage is a useful water management strategy and a method of adding physical availability to an application for Assured Water Supply; 6. ADWR will clarify this section of Chapter 2; 7. This section of Chapter 5 will be corrected/updated; 8. This section of Chapter 8 will be revised; 9. This section of Chapter 8 will be revised; 10. This section of Chapter 8 will be revised.	Email

9/5/2013	John Zambrano	CWAG	1. Add language specifying that cooperative management include an action plan to be evaluated by ADWR and the public; 2. ADWR should commit to educating the public on the need to reach SY; 3. Encourage publication of annual water budgets; 4. Adopt adaptive management strategy with triggers for increasingly aggressive regulation of timeframes are not met; 5. Enforcement provisions for exceeding conservation requirements should directly benefit the aquifer (as opposed to monetary penalties); 6. Increase/require reclaimed cuts to the aquifer for large annexed subdivisions; 7. 4MP should require greater conservation effort - increase the number of required Best Management Practices (BMPs); 8. Encourage additional conservation for new construction; 9. The projection of fluctuating net natural recharge is not helpful; 10. Quantify the groundwater withdrawal limit necessary to achieve SY; 11. Suggest natural recharge of 9,900 AFY and natural outflow as a decreasing trendline starting about 5,000 AFY; 12. Values for net natural recharge in Table 3-2 and 2-2 differ; 13. Figure 3-5 needs to be corrected; 14. Would like to see a budget showing overdraft if steps to achieve SY are not taken; 15. Budgets included are difficult to understand - include components and calculations in an appendix; 16. ADWR should prepare a list of the conservation and augmentation projects that could be considered to leave for providers to assemble into their own strategies; 17. Add detail on COP's other SW supplies and how COP could use them and if they did, the impact on discharge and water rights of others, and what would happen if these sources go dry; 18. Evaluate the impact of projected growth based on whether it is subject to AWS requirements or not; 19. Focus on projected growth from exempt wells and pre-AWS consistency with goal CAWS can help identify the volume of additional water needed to achieve SY; 20. Include discussion of mitigation of any potential impact on the Verde of BC GW importation; 21. Recognize the risk of recovering treated wastewater from within the AOI (WQ); 22. Expand definition of augmentation to include rainwater harvesting and work to resolve legal issues; 23. ADWR should incentivize and coordinate formation of a Replenishment District in PRAMA; 24. Include a list of the types of additional augmentation authorities ADWR might pursue	1. ADWR will consider adding this language or similar language; 2. ADWR appreciates the comment and will consider this suggestion; 3. ADWR intends to update the Assessment historical budgets, which are currently posted on ADWR's website, each year; 4. ADWR appreciates the comment and will consider this suggestion; 5. ADWR appreciates the comment and will consider this suggestion; 6. ADWR appreciates the comment and will consider this suggestion; 7. ADWR has recently adopted the Non-Per Capita Conservation Program (NPCCP) and is still collecting information to be able to analyze the program's effectiveness. ADWR will consider changing the proposed GPCD program for PRAMA.; 8. This could be implemented by municipalities and/or the county via ordinances now, and is a BMP under the NPCCP; 9. See response #3 under ADWR's responses to your 8-6-2013 comments; 10. Based on the assumptions included in Chapter 11 of the draft plan, that volume is less than 5,000 AFY; 11. The result of this calculation is less than 5,000 of net natural recharge; 12. The differences in tables 3-2 and 2-2 have been addressed by ADWR and will be corrected in the next draft; 13. Figure 3-5 will be revised; 14. ADWR appreciates the comment and will consider this suggestion; 15. See response #1 under ADWR's response to your 8-6-2013 comments; 16. ADWR appreciates the comment and will consider this suggestion; 17. ADWR appreciates the comment and will consider this suggestion; 18. ADWR appreciates the comment and will consider this suggestion; 19. ADWR appreciates the comment and will consider this suggestion; 20. See response #5 under response to Doug McMillan's comments; 21. In order for reclaimed water to be stored underground, it must meet aquifer water quality standards; 22. ADWR appreciates the comment and will consider this suggestion; 23. ADWR appreciates the comment and will consider this suggestion; 24. ADWR appreciates the comment and will consider this suggestion.	Email

9/6/2013	Jocelyn Gibbon	Environmental Defense Fund	1. Supports efforts to incorporate scenario planning into the 4MP process; 2. Could ADWR show the cumulative effect of overdraft combined with the years of surplus graphically? 3. The additional scenarios ADWR intends to create will be crucial to identifying the right solutions and creating the awareness that will be needed to bring them to fruition; 4. Resources to develop additional scenarios will need to be made available to ADWR and by ADWR sufficient to complete the task 5. Significant efforts will be required at many levels, across jurisdictions to address SY; 6. Although conservation, efficiency and curtailment will not by themselves result in SY they are important – would like to see development of how measures in new and existing development can assist in achieving SY 7. As strategies for reclaimed water are explored environmental consequences need to be identified and thought through (this also applies to surface water strategies)	1. ADWR appreciates the comment ; 2. ADWR appreciates the comment and will consider this suggestion; 3. ADWR appreciates the comment; 4. ADWR appreciates the comment ; 5. ADWR appreciates the comment and agrees with the comment; 6. ADWR appreciates and agrees with the comment and will consider this suggestion; 7. ADWR appreciates the comment.	Email

9/9/2013	Linda Stitzer	Western Resource Advocates (Western Resources	1. Key issue of AWS allowable pumping - that it will continue to deplete the aquifer - is not directly addressed in the draft plan; 2. Encourage ADWR to be a catalyst and provide assistance for implementation of meaningful local actions to reduce AMA OD; 3. Portraying annual OD as a 5-yr running average illustrates the variability of annual recharge and OD lagtime and is a useful tool to plan for variability and management to address local aquifer conditions affected by drought. However, the long-term net natural recharge is also value for planning and supply development purposes and should be reflected in the plan budgets; 4. Support the suggestion of adopting WaterSense as a code for new subdivisions; 5. Sewer flow and wastewater treatment system problem due to low interior demand do not appear to be a widespread problem (Alliance for Water Efficiency Fact sheet reference –online); 6. Retrofitting existing home fixtures to achieve additional conservation is less expensive than supply augmentation; 7. Encourage a scenario with reduction in existing demand due to increased conservation; 8. Encourage ADWR to develop meaningful benchmarks of NPCCP effectiveness and periodically review the program; 9. Encourage requiring additional mandatory BMPs tailored to individual providers that have measurable water savings rather than focusing on education and awareness; 10. GPCD target methodology does not promote conservation and sends a message that conservation is not important; 11. Encourage use of WMA funds for conservation assistance programs that measurably reduce GW pumping rather than for research; 12. Support extension of conservation efforts to exempt well users targeting highest potential to conserve in hydrologically sensitive areas – WRA has a methodology to estimate water demand and conservation potential for exempt wells and is available to discuss this with ADWR and the PRAMA GUAC if interested; 13. Agree to maximize benefit of recharge (along Granite Creek); ADWR should support a regional storage and recovery plan; 14. Recommend plan address mitigation strategies (of BC pumping on the Verde), including options to reduce the volume of imported water needed; 15. Low priority of CAP water that will become available for reallocation, its costs limit its viability as an augmentation strategy 16. Lot-scale and neighborhood rainwater/storm water harvesting should be incentivized; larger scale capture must be carefully evaluated to environmental and resource implications; 17. Augmentation actions should not lead to a GW pumping credit until, at a minimum, the aquifer is in long-term surplus.	1. ADWR appreciates the comment and will consider adding language to the draft plan; 2. ADWR appreciates the comment and will consider this suggestion; 3. ADWR appreciates the comment and will consider this suggestion; 4. ADWR appreciates the comment. Adopting WaterSense can occur at the local level without statutory change or additional ADWR authority; 5. ADWR appreciates the comment and will research further; 6. ADWR appreciates the comment and will consider adding language to the draft plan; 7. ADWR appreciates the comment and will consider this suggestion; 8. ADWR appreciates the comment ADWR has recently adopted the NPCCP and is still collecting information to be able to analyze the program's effectiveness; 9. ADWR appreciates the comment. The NPCCP program is in statute, and requires a public education program. ADWR has recently adopted the NPCCP and is still collecting information to be able to analyze the program's effectiveness; 10. ADWR will consider changing the proposed GPCD program for PRAMA; 11. ADWR appreciates the comment and will consider this suggestion; 12. ADWR appreciates the comment and will consider this suggestion. ADWR is interested in WRA's methodology; 13. ADWR appreciates the comment and agrees; 14. See response #5 under response to Doug McMillan's comments; 15. ADWR appreciates the comment and will consider this suggestion; 16. Rainwater/Storm water reclamation will need additional research to determine its viability and potential impacts and benefits; 17. ADWR appreciates the comment and will consider this suggestion.	Email

8/1/2013	Thomas Atkins	private citizen	1. Should express safe-yield goals in terms of GPCD, not acre-feet 2. What is the GPCD rate for the LIC and UAF today? 3. If we were at SY (with the current AMA population) what would be the GPCD value for the LIC and the UAF? 4. What is the projected GPCD in 2025 that will lead to SY?	1. GPCD is just one of the statutory tools available to ADWR to help move an AMA toward achievement of safe-yield, and must be used in concert with other water management tools. Safe-yield is a long-term balance between the annual amount of pumping and net natural and artificial recharge. Each year, the volume of net natural recharge, incidental recharge, and any cuts to the aquifer associated with artificial recharge fluctuates. Therefore the volume of pumping each year that would result in safe-yield on an annual basis will also vary. Because the AMA population grows each year, and the volume of net natural recharge changes each year, any calculation of the "safe-yield" GPCD would change every year. Further as the AMA population increases, there would be less net natural recharge per person, so the "safe-yield" GPCD figure would reduce over time with population growth. For these reasons, ADWR believes there are better approaches to the safe-yield problem than from the perspective of an AMA-wide target GPCD ; 2. ADWR has not compiled this information; 3. See response #1 above; 4. See response #1 above.t one of the statutory tools available to ADWR to help move an AMA toward achievement of safe-yield, and must be used in concert with other water management tools. Safe-yield is a long-term balance between the annual amount of pumping and net natural and artificial recharge. Each year, the volume of net natural recharge, incidental recharge, and any cuts to the aquifer associated with artificial recharge fluctuates. Therefore the volume of pumping each year that would result in safe-yield on an annual basis will also vary.. Because the AMA population grows each year, and the volume of net natural recharge changes each year, any calculation of the "safe-yield" GPCD would change every year. Further as the AMA population increases, there would be less net natural recharge per person, so the "safe-yield" GPCD figure would reduce over time with population growth. For these reasons, ADWR believes there are better approaches to the safe-yield problem than from the perspective of an AMA-wide target GPCD	Email

9/6/2013	Leslie Graser	City of Prescott	1. In 2010 COP, PV and SRP entered into an Agreement in principle. In 2012 Comprehensive Agreement (CA1) was approved for increased and targeted monitoring in the BC. The timetable for completion of these activities may span 8-10 years. The arrangement among the CA1 parties and other future activities may show other future outcomes within the PRAMA than those shown in the draft plan; 2. Suggest providing a concise history of efforts of the local communities to move towards SY; 3. What would the AMA's OD be if there was no GW Code or AWS Rules? 4. Chapter 3 - make exempt well demand a separate category if this sector is intended to assist in solutions to SY; 5. Chapter 3, section 3.1 - COP water development and service dates back to 1864; starting the City's water history with 1948 seems insufficient; is the intent of the information to address municipal groundwater activity? If so, information on the neighboring towns is appropriate. What time period? 6. Chapter 3, section 3.1 - a table showing the estimated number of exempt wells per decade may be helpful; 7. Chapter 8, figure 8-1 – the map doesn't show the Airport Water Reclamation Facility (which is being expanded), and it may be difficult to show the USF at the same location; 8. Chapter 8, section 8.3 – the COP has two wells within the AOI; one well is documented; 9. Chapter 8, section 8.3.2 – use the term "further compromised" rather than "destroyed" when describing the AMA riparian habitat; movement of Del Rio Springs water has the potential to further compromise the riparian area; 10. Chapter 8, section 8.4.1 – COP recharges in the LIC sub-basin; 11. Chapter 8, section 8.4.3 – Legal complexities of using Watson and Willow lakes are not reflected; the window the COP can move water is April 1 through November 30; language here should be consistent with language in Chapter 12, section 12.2.5; changing the agreement would be very complicated; 12. The description of how water can be moved from Del Rio Springs doesn't seem to be needed; 13. Chapter 8, section 8.6.2 – COP maintains a non-recoverable water storage permit and the COP charter speaks to permanent recharge of effluent generated by new developments greater or equal to 250 acres; may be appropriate to note this in the plan; 14. Chapter 12, section 12.2.1 – may be time to seek WMA funds to seek additional information and conservation opportunities for exempt wells; A.R.S. § 45-454 does not address exempt wells connecting to the COP for the benefit of SY opportunities outlined by ADWR; 15. Chapter 12, section 12.2.2 – it is inaccurate to say there are no storage projects along Granite Creek; COP's USF is adjacent to Granite Creek; 16. Chapter 12, section 12.2.2 – include Doug McMillan in the bibliography	1. ADWR appreciates the comment and may develop additional scenarios during the fourth management period; 2. See response #2 under John Munderloh; 3. See response #14 under John Zambrano's 9-5-2013 comments; 4. See response #1 under John Munderloh; 5. See response #2 under John Munderloh; 6. ADWR appreciates the comment and will add this suggested table to the draft plan; 7. ADWR will amend the map; 8. ADWR will add language to this section; 9. ADWR appreciates the comment and will consider the suggestion; 10. ADWR will make this correction; 11. See response #4 under Dave Roberts; 12. ADWR appreciates the comment and will consider the suggestion; 13. ADWR will add language to this section; 14. ADWR appreciates the comment and will consider the suggestion; 15. ADWR will add language to this section; 16. ADWR will add Doug McMillan to the bibliography.	Email