



August 1, 2019

Tom Buschatzke, Director
Arizona Department of Water Resources
P.O. Box 36020
Phoenix, Arizona 85067

Re: Fourth Management Plan for the Phoenix Active Management Area

Dear Director Buschatzke:

The Arizona Municipal Water Users Association (AMWUA) is pleased that the Arizona Department of Water Resources (ADWR) has issued the draft Fourth Management Plan for the Phoenix Active Management Area (AMA). The Fourth Management Plan for the Phoenix AMA is long overdue.

While AMWUA understands ADWR's decision to quickly wrap up the belated Fourth Management Plan in order to better focus on the Fifth Management Plan, both the Fourth and Fifth Management Plans are essential statutory opportunities to provide a framework for how to improve the management of water in the Phoenix AMA. A key value of the management plans is to identify and draw attention to policies and ideas, while uncomfortable, necessary to actually achieving true sustainability in the AMA.

AMWUA appreciates being able to provide comments for the draft Fourth Management Plan for the Phoenix AMA. Our comments are intended to highlight those issues important to our members, encourage additional detail on issues that impact water sustainability in the Phoenix AMA, and draw attention to those areas that need to be emphasized in the development of the Fifth Management Plan.

Our comments are not intended to be all inclusive for every matter discussed in this draft plan. We do intend to be active in the process for developing the Fifth Management Plan. We believe many of the issues touched on in the Fourth Management Plan needed to be assessed and scrutinized thoroughly for the Fifth Management Plan. AMWUA looks forward to working with ADWR to ensure that the Fifth Management Plan for the Phoenix AMA is a strong regulatory framework for the next five years and a solid foundation to launch us beyond 2025.

Arizona Municipal Water Users Association

Chapter 1

Section 1.1, ¶2

This paragraph would benefit from a clearer explanation about the development of this draft. For example, is the Fourth Management Plan based on the planning projections from the 2010 Assessment? How have those scenarios changed?

Section 1.5, Meeting the Safe-Yield Goal

It is worth noting that not only is there uncertainty on the appropriate time-scale for analyzing safe-yield, but also the calculation itself. In describing reasons for not being at safe-yield, ag flex credits, extinguishment credits, and municipal groundwater allowances should be specifically mentioned as important factors contributing to whether the Phoenix AMA reaches safe-yield or not.

Section 1.5, Limitations of the Management Plan Authority

This section should more strongly assert the need for ADWR to look at water management tools beyond conservation requirements. Individual water-user choices, city and county ordinances and regional cooperative water management efforts do play a role; however, motivation in the form of incentives, regulations and enforcement is often necessary.

Section 1.7, ¶1

In addition to support from the water community, it would be worth noting support from the Governor and Legislature is crucial if we are to continue to be successful in managing our water.

Chapter 2

Section 2.1, ¶2

We would appreciate a more balanced description about the use of reclaimed water. It would help to expand on where reclaimed water is underutilized since our cities are putting 90% or more of their reclaimed water to beneficial use. Also, we are not certain if turf is the largest use of reclaimed water in the Phoenix AMA. For the AMWUA cities, CAP exchanges, Palo Verde, and LTSCs are larger uses.

Section 2.1, ¶3

It would be useful to note the Phoenix AMA's lack of year-round rivers is not just because of dams but also due to groundwater levels being drawn down. This point emphasizes the hydrological connection absent from current water statutes.

Section 2.2, ¶4

The current on-going drought should be mentioned.

Section 2.3.1, ¶4

Avondale and Tolleson should be included as being encompassed by SRP.

Section 2.4.4, Rainbow Valley Sub-basin

It should be noted that hydrological data about these sub-basins needs to be collected and how ADWR intends to do so.

Section 2.6, ¶1

Long-term, inelastic subsidence must be factored in to how groundwater levels reflect aquifer conditions. Subsidence decreases aquifer storage so the same water levels before and after subsidence do not mean the aquifer is in the same condition.

Section 2.6, ¶2

Decadal well site sweeps are indicative of where funding is needed to help improve data.

Section 2.6.1, ¶1

While it is noted that some portion of the 84 MAF groundwater in storage may be physically or practically unrecoverable, ADWR should provide a stronger statement that this incredible amount of groundwater is an insurance backup or safety net that must be wisely managed. Despite this volume being available under AWS rules, i.e., above 1,000 feet, removing a sizeable portion of 84 MAF from the aquifers could cause catastrophic land subsidence.

Section 2.7, ¶5

It is noted that the CAP runs through documented subsidence zones, but it is not noted that CAP has already had to repair and retrofit the canal through the North Scottsdale/Phoenix subsidence zone, i.e., this is another example that damage is already occurring. <https://www.cap-az.com/departments/recharge-program/pool-24-subsidence>

Section 2.8.1, ¶1

There is a significant amount of treated effluent used for CAP water exchanges with agricultural and tribal partners that should be acknowledged.

Chapter 3

Section 3.2.1, Table 3-2

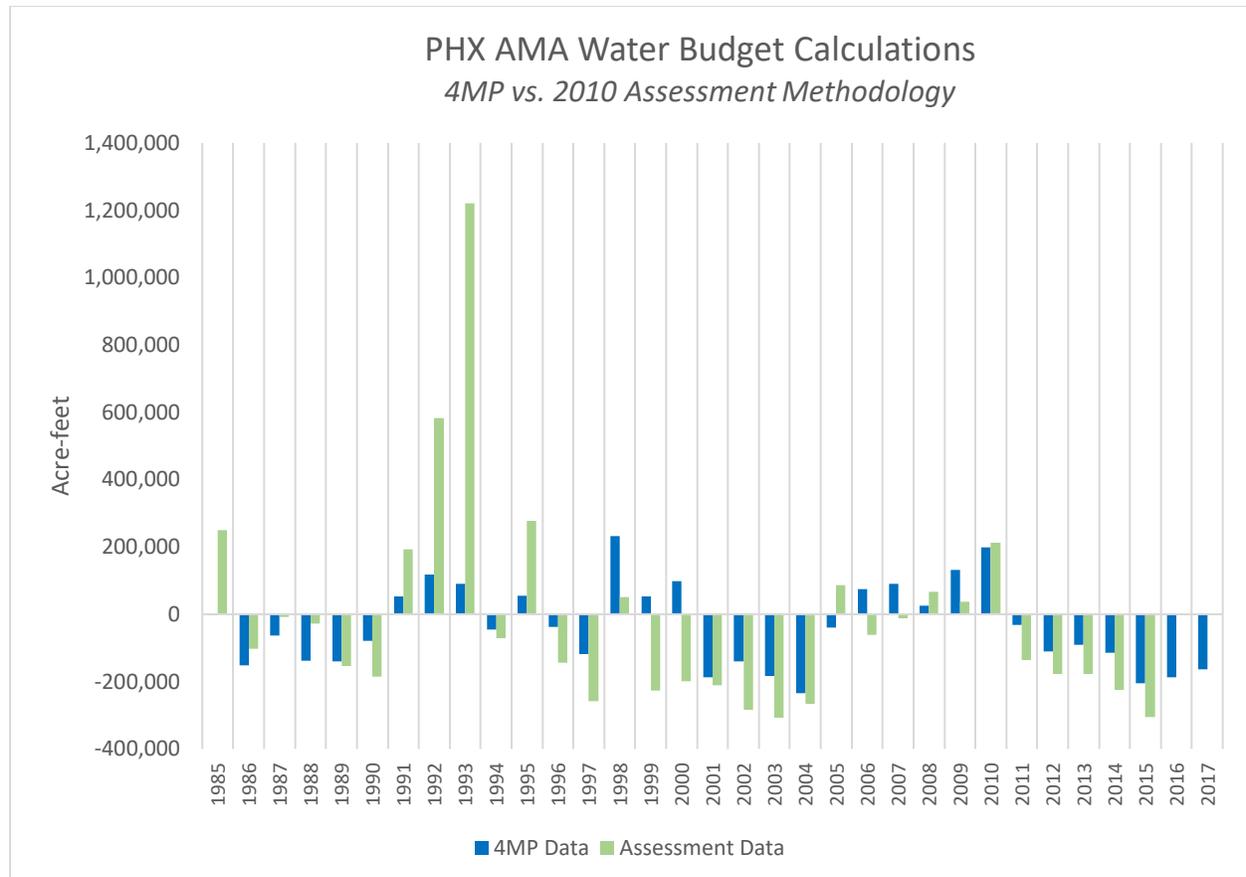
Using the 2018 State Population Estimates would be more relevant than census data from 2010 for the fastest growing county in the U.S.

Section 3.3

We encourage a robust discussion about how the goal of safe-yield is defined and overdraft is calculated as the Fifth Management Plan is developed. We support the formation of the Safe-Yield Technical Group. It is critical to have a collective understanding and agreement about the goal of safe-yield.

This section would benefit from more discussion on the difference in water budget calculations between the 2010 Assessment Methodology and the 4MP methodology. For example, ¶3 states that the “actual estimated stream-channel recharge” was used instead of “a long-term average for stream-channel recharge as was done in the [2010] Assessment.” In the AMA water budget

data, it appears that actual stream-channel recharge *was* used in the 2010 methodology. See Sheet “Historic Template,” Row 107. Is this the only significant change between the two methodologies? What are the ramifications of the different overdraft calculations? The chart below illustrates the differences between the two approaches:



Section 3.3, Figure 3-6 and Table 3-8

A moving average or cumulative average in the Figure and a cumulative total in the Table would be very beneficial to show cumulative impacts of these fluctuations, i.e., en masse, is the aquifer in a better or worse position since 1985?

Section 3.4, ¶1 (also 11.3.2)

There is little regulatory incentive for entities to invest in infrastructure necessary to directly access renewable supplies. If you can put water in the ground and take it out forty miles away and receive the same level of designation or certification as an entity that builds infrastructure to directly utilize renewable supplies, why invest? This should be noted as a regulatory need.

Section 3.4, ¶3 (also 11.3, Possible Solutions)

Whether safe-yield is achieved or not is almost entirely based on willingness-to-pay. Reducing groundwater allotments creates a cost to replace those supplies. Physically tying recharge to recovery or extraction to replenishment requires expensive infrastructure. Land for new recharge

facilities to address physical availability limitations is very expensive. Achieving safe-yield is very possible *if* people are willing to pay for it. This challenge should not be framed as a matter of individual responsibility or water availability that is outside our control, but as a matter of a willingness to invest in achieving safe-yield knowing that the return on that investment is the foundation for economic viability in the Phoenix AMA.

Chapter 5

Appendix 5C Non-Per Capita Conservation Best Management Practices

The proposed point system for the BMPs needs refinement, and the BMPs will need to be updated to reflect industry changes, particularly for commercial and industrial properties. This will best occur through the Fifth Management Plan process, allowing stakeholders and ADWR staff adequate time and discussion. Items to consider:

- The majority of the additional points are assigned to rebates. The weighting favors measures that the public and policy makers already associate with conservation and appears to value measures that pay to incentivize efficiency more highly than other measures that can be equally or more effective at driving per capita reductions.
- Further thought should be given to the potential for demand reductions a BMP could achieve and the required investment to implement the BMP when assigning points.
- Find common ground for more granular data gathering and incorporation into the Conservation Efforts Report (CER). Specifically, what information should be gathered to describe Arizona's efforts and demonstrates results. Ensure the BMP language and the CER align.
- Remove or revise BMPs that are not utilized by providers.

Appendix 5C, 2.1 Adult Education or Training Program

- BMP does not require results. Include count of events (workshops/classes) and participants in the CER per program.

Appendix 5C, 2.2 Youth Education Program

- BMP does not require results. Include count of events (workshops/classes) and participants in the CER per program.

Appendix 5C, 3.2 Landscape Consultations (Residential or Non-Residential)

- Strike "provide a follow-up visit or interview" and insert "offer a follow-up visit, interview or conduct a survey for feedback." Customers do not always respond if their concern was resolved or the contact leaves.
- BMP does not require results. Include the number of consultations in the CER.

Appendix 5C, 3.3 Water Budget Program

- One point per separate and distinct programs, limit up to three points. Water budget programs require a great deal of effort, including follow up visits and may include ongoing communications. They also have a high potential to save water. Examples of distinct programs:

- Large scale single-family (over 500 properties) residential budget programs as occurring with the use of “smart” water meters and their associated customer web portals.
- Non-residential water budgets for commercial, industrial, institutional.
- Non-residential water budgets for multifamily (HOAs, apartments, condos).
- Include a count of budgets per program in the CER.

Appendix 5C, 5.3 Plumbing Requirements Stricter Than Current Arizona Code

Considering most cities and towns have adopted codes that require fixtures that are more water efficient than those required in the state code, assigning two points to this BMP is generous.

Appendix 5C, 6.1 Toilet Replacement Program

Update to require “WaterSense labeled” toilets, the current water efficiency standard (1.28gpf).

Chapter 6

Sections 6.3.1 and tables associated with Turf-Related Facilities that are not Golf Courses

Much of the Industry Chapter would benefit from a comprehensive reworking to simplify and more straightforwardly describe the regulations particularly those related to turf. This could be an objective when drafting the Fifth Management Plan. For the Fourth Management Plan, we would like to better understand the implications for the 4.6 application rate.

Section 6.3.2.2 ¶4

Utilizing a calculation similar to the “New Large Landscape User Program (6.3.8), where a percentage of the landscape area may be water intensive, would be more effective than limiting the acreage for turf related facilities to 90 acres under the individual user requirements. The 90-acre limit could be easy to evade, either by phasing in development, or by subdividing the land.

Chapter 11

Chapter 11 is important for outlining the issues that the State and water community needs to address in the Fifth Management Plan and beyond 2025. We appreciate that ADWR is highlighting the areas and issues in need of solutions.

Section 11.2, ¶1

We agree that even if we get to safe-yield, local challenges will exist. It would be beneficial to introduce the need for a proactive management at the sub-basin level including the consideration of safe-yield at the sub-basin level. Addressing local challenges in the Fifth Management Plan and beyond 2025 needs a robust discussion.

Section 11.2.1

We agree that moving away from a single set of assumptions for projections is a good thing. However, here is another opportunity to highlight that it would be more effective to have current data to dissect problem areas allowing the formation of targeted, efficient solutions.

Section 11.2.3, Exempt Wells

It might be beneficial to broach the idea of reporting requirements for exempt wells or a rotating data sampling program similar to index wells. This is a relatively small but fast growing un-replenished pumping problem.

Section 11.2.8, ¶1

We agree with the acknowledgement that it is important to discuss the challenge of having new growth on native desert land rather than on retired farmland. It would be beneficial to re-introduce the idea of a program to retire IGFRs as a means to get closer to safe-yield, e.g., incentivizing development on IGFRs rather than raw desert.

Section 11.3, ¶2

We support the periodical publishing of an analysis of each AMA's progress towards its goal as a part of the Conservation Report.

Section 11.3.1, Municipal Sector, ¶2

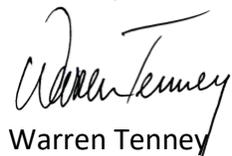
As also cited in 1.5, Physical Availability of Groundwater within the Phoenix AMA, areas of localized concern exist. Unfortunately, groundwater use is not regulated on a localized level but at an AMA-wide level even though AWS rules require local physical availability. We agree that the development of sub-regional water management policies within AMAs is necessary. We acknowledge that developing such oversight will be challenging. But without more localized management, there will be no AMA-wide incentive to address this matter until the AWS analysis, certificate, or designation is denied. As previously noted, addressing local challenges in the Fifth Management Plan and beyond 2025 needs a discussion that leads to solutions.

Section 11.3.2

With the availability of Colorado River supplies noted as being a significant variable in safe-yield, it is important for ADWR to engage in activities within Arizona and in the Colorado Basin to ensure the availability of Colorado River water.

Thank you for considering these comments. AMWUA believes strengthening water management in the Phoenix AMA ensures our members continue to thrive here in Arizona. We look forward to working with ADWR on the Fourth Management Plan, Fifth Management Plan and beyond 2025.

Sincerely,



Warren Tenney
Executive Director