Proposed 5MP Recharge & Recovery Regulatory Language Modifications

(Version 3 – updated January 6, 2022)

BACKGROUND/CURRENT STATE:

The narrative portion of the Storage and Recovery Siting Criteria section of Chapter 8 of the PhxAMA 4MP states that "[i]f storage occurs in an area experiencing high water levels and recovery occurs away from the area of impact, the water storage will contribute to those high-water levels. If dewatering is required as a direct result of water storage or savings, either the storage facility's operational plan should be adjusted to minimize impact, which may include strategic recovery locations to mitigate impacts, or the storer may not be issued credits."

In response to the issue described above, the existing regulatory language in the PhxAMA 4MP addresses shallow water level conditions (Siting Criteria 8-801(B)(1)(a)) by requiring an entity recharging in an area experiencing shallow water levels to recover the stored water within the area of impact of the facility. The only exceptions to this are if the water storage was:

- a component of a remedial action project under the CERCLA Act (Siting Criteria 8-801(B)(1)(b)); or
- otherwise determined by the Director to have contributed to the objectives of this chapter (Siting Criteria 8-801(B)(1)(c))

8.8 AUGMENTATION AND RECHARGE REQUIREMENTS

8-801 Storage and Recovery Siting Criteria

During the fourth management period, for the purposes of A.R.S. § 45-834.01(A)(2) recovery of stored water at a location is consistent with the management plan and achievement of the management goal for the active management area:

A. If recovery will occur within the area of impact of the stored water, regardless of whether the recovery well permit applicant was the storer of the water; or

B. If recovery will occur outside of the area of impact of the stored water, all of the following three criteria are met:

1. The water storage that resulted in the right to recover water:

a. Is contributing to groundwater supplies that are accessible to current groundwater users or that have been committed to establish a Designation, Certificate, or Analysis of Assured Water Supply pursuant to A.R.S. § 45-576 or rules adopted thereunder so long as the areas in which water is stored are not experiencing problems associated with shallow depth to water; or

b. Is a component of a remedial action project under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) or Title 49, Arizona Revised Statutes, except projects for which groundwater is withdrawn to provide an alternative water supply pursuant to A.R.S. § 49-282.03, and the Director has determined that the remedial action will contribute to the objectives of this chapter or the achievement of the management goal for the active management area; or

c. Is otherwise determined by the Director to have contributed to the objectives of this chapter or the achievement of the management goal for the active management area.

This management plan requirement is not being administered by the Department, and Recharge staff are currently working to develop a process to implement it for the 5MP.

PROPOSAL:

In order to address the issue of recharge exacerbating shallow water levels, beginning with the 5MP the Recharge Program is proposing the following:

> When the requirements of the 5MP become effective (expected to be January 1, 2025), **staff will begin enforcing the existing Management Plan Siting Criteria 8-801(B)(1)(a))** which requires that if an entity recharges in an area deemed by the director to be experiencing shallow water levels, recovery of that water must be within the area of impact of the facility. Evaluation for this requirement would apply to water stored at any new underground storage facility that is permitted or any existing USF permit that is modified or renewed and as part of that process is determined will be contributing to an area of shallow groundwater. **Water stored pursuant to permits issued prior to January 1, 2025 would not be subject to this requirement.**

IMPLEMENTATION:

Once the 5MP requirements go into effect, any applicant who applies for a new USF permit, to modify an existing USF permit or to renew an existing permit would be subject to Management Plan Siting Criteria 8-801(B)(1)(a)). If the maximum area of impact of a USF, calculated as part of that permitting process, overlaps an area determined by the Director to have shallow groundwater conditions, then that facility would be considered to be contributing water to an area determined by the Director to have shallow groundwater conditions. Those USF applications could be approved without additional demonstrations, but the USF permit and all associated WSP(s) would be conditioned to indicate that water stored at that facility must be recovered within the area of impact of that USF only. **Water stored pursuant to permits issued prior to January 1, 2025 would not be subject to this requirement.**

After the 5MP requirements become effective, water stored at new, modified, or renewed facilities that are subject to the Siting Criteria will be tracked separately from water stored at these facilities prior to the effective date of the 5MP requirements. This tracking would be performed using the water storage permit(s) associated with these USFs, and these water storage permits will be flagged in the database as being subject to the 5MP shallow groundwater requirements.

DEFINITION OF SHALLOW DEPTH TO WATER:

For the purposes of this proposal, shallow depth to water will be defined as 50 feet or less below land surface. This is the value that has been used at the county level to delineate areas of shallow groundwater in Arizona[1,2]. GWSI water level data collected as part of regular basin sweeps and index well measurements will be the primary data source used to identify areas of shallow depth to water within the PHXAMA.

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[1] Pima Association of Governments (PAG), 2000, *Sonoran Desert Conservation Plan: GIS Coverage of Perennial Streams, Intermittent Streams, and Areas of Shallow Groundwater*, January 2000.

[2] Pima Association of Governments (PAG), 2012, *Shallow Groundwater Areas in Eastern Pima County, Arizona Water Well Inventory and Pumping Trend Analysis*, October 2012.

Using this data, the Department will perform an analysis delineating areas of shallow water levels using a method approved by the Director. This method and analysis will be developed and published to ADWR's website by January 1, 2024 and will be updated on a regular schedule thereafter, until subsequent recovery requirements become effective, if any. At a minimum, the Department will consider the duration of the shallow depth to water conditions as well as the duration of the water level record for a particular well or area. Based on the quantity, quality, and availability of water level data, the Department may consider additional factors.