



***Buckeye Water Conservation
& Drainage District***

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November 12, 2021

Management Plans
Arizona Department of Water Resources
1110 W Washington Street, Suite 310
Phoenix, Arizona 85007

RE: Buckeye Water Conservation & Drainage District Comments on ADWR Proposed 5MP Storage and Recovery Siting Criteria, Chapter 8 (Phoenix AMA only)

Dear Management Plans Team,

Buckeye Water Conservation & Drainage District (BWCCD) submits the following comments on the Proposed 5MP Chapter Eight Regulatory Language Modifications (Phoenix AMA only). BWCCD has participated in many of the meetings leading up to this proposal and has expressed concern over certain aspects of the developing proposal. Those concerns have apparently gone unheeded in the draft released for comment, and so are in part re-iterated and emphasized here.

The proposal begins with the premise that the underground storage of water in areas “experiencing high water levels” contributes to those high-water levels and may result in dewatering of those areas, requiring either a mitigation plan or possible loss of long-term storage credits. From this premise, the proposal then seeks to either require or ***incentivize*** recovery of stored water in areas that are now denominated “areas experiencing shallow depth to water conditions” and defines that terminology as an “area with water levels 50 feet or less below land surface.” BWCCD takes exception to many of the premises and conclusions (spoken and unspoken) in this proposal because they will undoubtedly have an adverse impact to the water uses within BWCCD. To understand this impact, a short background on BWCCD water use is important.

First, however, it is important to note that BWCCD agrees with the notion that someone intentionally storing water in an area experiencing shallow depth to water should be required to recover that water within the area of impact of storage, or otherwise mitigate the impact of that storage upon the surrounding area. Therefore, those portions of the proposal that deal with a requirement that the storer of such water recover that water within the area of impact are not the subject of these comments. These comments are directed to the portions of the proposal that would, in the proposal’s own terms, “***incentivize recovery in areas of shallow groundwater for any entity that stores water in the Phoenix AMA***”. Our analysis is that incentivizing recovery in the Buckeye exemption area as defined by A.R.S. § 45-411.01 will create two negative results that contravene the Groundwater Management Act’s purposes - this provision will incentivize what is effectively groundwater mining in areas of

concern, and negatively impact the Phoenix AMA area that currently meets safe yield standards. It shifts the burden of this mining to the BWCDD.

Water Use in BWCDD

BWCDD was formed to operate the works necessary to divert and deliver mainstream Gila River water to the beneficial farming uses in the BWCDD area dating back to the late 1800s. Express rights to divert and use this water were recognized in the historic decree in *Benson v. Allison* (1917, as modified) providing the water users in BWCDD with enough water flow to adequately maintain the agricultural

lands. Due to the natural geo-hydrology of the BWCDD area, the depth to water below land surface has always been shallow and it has long been necessary to drain water from the agricultural fields and return it either to the natural channel, or directly to the Arlington Canal, where, in either case, it is again diverted by downstream surface water right appropriators and put to beneficial use. In short, the water flowing across the BWCDD lands and captured by drains and drainage wells is not wasted or lost water—it is merely water traversing the land on its way to other uses.

By the late 1920s, the flows in the Gila River had been substantially depleted by upstream uses and the flow at the BWCDD head gate was greatly diminished. The BWCDD farmers instituted a lawsuit in 1929 against many upstream users in an effort to enforce the senior priority of their rights under the *Benson v. Allison* decree. That suit went on for many years but was finally resolved by a stipulated judgment entered in 1944. In that settlement, the Salt River Project agreed to provide water to BWCDD by an amount measured at Granite Reef Dam. Roosevelt Irrigation District agreed to provide water to BWCDD from wells operated by Roosevelt Irrigation District to offset depletions in the river caused by that District's upstream use. Maricopa Water District agreed to provide funding for BWCDD operated wells to offset that District's depletions on the tributary Agua Fria River. Cumulatively, this arrangement made BWCDD more able to meet its irrigation demands, but more importantly set the court approved standard that water removed from the shallow underflow of the Gila River for BWCDD could and would in fact be used to satisfy the senior water rights of the BWCDD farmers to the normal (undiminished) flow of the river.

Again in 1949, when the City of Phoenix and the Salt River Project proposed to construct flood gates on Horseshoe Dam in the Verde River, BWCDD farmers objected and filed a lawsuit to prevent the further impoundment of water that would otherwise reach BWCDD. That suit also resulted in a settlement whereby the City of Phoenix agreed to provide effluent to BWCDD to offset the diminished flow in the Gila River. Those arrangements have been modified over the years, but BWCDD still has effluent under contract from the 91st Avenue treatment plant and relies heavily on the remaining effluent from that treatment plant that is discharged to the Gila River. The future of that effluent discharge is uncertain and, if it diminishes substantially, BWCDD will find itself in the same position as it was in 1929 when the initial lawsuit against the upstream appropriators was filed.

Restoring the normal flow of the Gila River at the BWCDD headgate is not likely. Therefore, to maintain the agricultural beneficial use in BWCDD, the farmers must rely more heavily on the capture of underflow within the saturated floodplain Holocene alluvium of the river. BWCDD today operates several production wells that are immediately adjacent to or in very close proximity to the river. These

wells are shallow, many not exceeding 150' below land surface, but produce sufficient water, at very low pumping costs, to supply the agricultural needs of the BWCDD farmers. They rely on this water supply for their daily livelihood, and this in turn supports the regional economy.

With the passage of the 1980 Groundwater Management Act, it became apparent that the restrictions placed on agricultural water use elsewhere in the Phoenix Active Management Area would have a devastating effect on the farmers in BWCDD and surrounding irrigation districts. Therefore, A.R.S. § 45-411.01 was adopted to declare the area as “waterlogged” such that it could be uniquely exempted from the conservation requirements and groundwater withdrawal fees that would otherwise be applicable. While this relief greatly improved the situation, it had the unintended consequence of creating the perception that there is a new water source or over-supply of water to offset groundwater mining, and that the source is legally available.

This is an unfortunate misinterpretation of the reality in BWCDD and surrounding irrigation districts and cities. The exemption area defined in A.R.S. § 45-411.01 is not a problem or a nuisance—it is a source of water that is relied upon daily for the economic productivity of the region. It is perhaps the only area within the Phoenix Active Management Area that can be said to be truly in safe yield. As such, it represents a stable and **sustainable** water supply for those that rely upon it. It is of constant concern to the BWCDD farmers, and those many others similarly situated in the area, that this water supply would be “targeted” by those seeking to better their own supplies by appropriating this water.

The Definition of “Areas Experiencing Shallow Depth to Water”

Through the course of the development of this 5MP proposal, BWCDD and others have questioned the definition of “areas experiencing shallow depth to water.” The definition is vague, and it is unclear where the Department believes these conditions exist. BWCDD has requested, more than once, that the Department identify these areas with at least some reasonable approximation, but no response has been received. It is abundantly clear, however, that the one area of focus is the exemption area for the Buckeye exemption area as defined by A.R.S. § 45-411.01.

Regardless of where the areas may be, the following points should be considered, and the definition should be revised:

- The definition uses the term “water” as opposed to “groundwater” perhaps in recognition that a high degree of shallow water is probably more accurately defined as appropriable surface underflow. Yet no recognition is made of the prior appropriative rights that may be attached to this underflow and the Department’s proposal appears to ignore this distinction by giving license to extract this appropriable water under the legal fiction that it is the “recovery” of water stored at distant locations.
- Whatever the legal nature of the water, water at depth 50' below land surface is generally not considered a problem—it is a blessing. While water that inundates the root zone of agricultural plants (usually not to exceed 20' below land surface) may and often does require drainage, this proposal does not appear directed at supporting beneficial drainage. If it were, a definition of 20' below land surface would be appropriate.
- Under the current proposal, without identification of the areas of this shallow groundwater, it is impossible to predict what impacts the authorization of additional withdrawals will have on neighboring landowners. There are no precautions built into the regulatory structure to even

consider such impacts. Rather, the proposal sanctions unlimited (or at least potentially very large scale) withdrawals as consistent with the management plan, regardless of any impact that such withdrawals may have on maintaining safe yield in the targeted area.

- By identifying and encouraging recovery in any “areas experiencing shallow depth to water”, the policy allows more groundwater withdrawals in one particular area where the ground water is in safe yield pursuant to the Groundwater Management Act.

Adverse Impact to Surface Water Rights

As noted briefly above, BWCDD and others similarly situated hold valid appropriative surface water rights to the flow of the Gila River. Arizona has long recognized that the definition of surface water includes some component of underflow, culminating in the Arizona Supreme Court’s adoption of the saturated floodplain Holocene alluvium of a stream as the natural boundary of this appropriable underflow. The Department, on the other hand, maintains that any water extracted from beneath the surface of the earth is presumed to be legally classified as groundwater, even if that water is extracted at the bank of the stream.

Even more troubling in the present context, the Department appears to be intentionally sanctioning the “recovery” of water stored at a distant location in areas that are almost certain to be dominated by a surface stream and its accordant underflow. In this instance, the water “recovered” from beneath the stream would allegedly maintain the legal character of the water stored (e.g., Central Arizona Project water) even though it is physically impossible to be recovering that water in this newly sanctioned area of recovery.

No consideration whatever is given or discussed in the proposal that would even purport to protect the rights of those relying on the shallow water located in the saturated floodplain Holocene alluvium of the Gila River in the area immediately above Gillespie Dam. While the Department may believe that any such rights cannot be affected by this proposal, and those rights if any will have to be protected elsewhere, the Department by its own words is seeking to *incentivize* this attack on valid surface water rights, which is contrary to Arizona law, and knowing full well that an individual’s ability to protect these appropriative rights is extremely limited at the present time. The only conclusion that can be drawn is that the Department is intending to sacrifice these appropriative rights in favor of facilitating access to water by those that have chosen to store water in convenient locations elsewhere and now seek to recover that water in areas where water happens to be plentiful. Again, this would run afoul of the Groundwater Management Act’s core purpose – to increase the AMA to safe yield.

Groundwater Management

As noted above, the exemption area of A.R.S. § 45-411.01 is unique. BWCDD and others similarly situated have managed this accumulated water resource well over the last 120+ years and have worked diligently to maintain the incoming flow against upstream depletions while extracting the excess to the benefit of other downstream appropriators. The exemption area is, and has been for the last many

decades, in a true state of safe yield. As such, it is a sustainable sub-area within the Phoenix Active Management Area that has been successfully managed by the local constituents for their own protection.

BWCDD and others similarly situated understand that water is becoming increasingly in short supply. There are areas within the Phoenix Active Management Area where it is difficult, and perhaps impossible, to show 100 year physically available groundwater to support new growth. We are also aware that an unintended consequence of Arizona Underground Storage and Recovery laws is to facilitate storage of water in areas where it cannot easily be recovered, yet to allow recovery of that water in distant locations that exacerbate declining groundwater levels and lack of physically available groundwater.

A more direct solution to the problem would be to require the recovery of water either within the area of storage, or in some reasonable down-gradient location where the water would naturally migrate in reasonable time, or at least within the service territory (not necessarily service area) of the storing entity, such that the water stored would in fact be physically available under the assured water supply standards and yet not unduly impact the water supply of others.

The expedient approach of incentivizing recovery of distant stored water in an area that happens to currently enjoy stable and sustainable water resources is merely taking one person's water for the benefit of another. BWCDD urges the Department to retract this proposal from the Fifth Management Plan until it can be further evaluated.

Sincerely,

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