

**ARIZONA WATER BANKING AUTHORITY**  
**Final Meeting Summary**

**December 7, 2022**  
**Arizona Department of Water Resources**  
(Hybrid Meeting)



**AUTHORITY MEMBERS**  
Thomas Buschatzke, Chair  
Mark Clark, Vice-Chair  
Alexandra Arboleda, Secretary  
Eric Braun  
Joseph Olsen

**EX OFFICIO MEMBERS**  
The Honorable Karen Fann  
The Honorable Gail Griffin

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## **I. Welcome**

Chair Tom Buschatzke and Commission members Mark Clark and Eric Braun attended in person. Commission members Joseph Olsen and Alexandra Arboleda attended via video conference. *Ex-officio* members, Senate President Karen Fann and Representative Gail Griffin, were not in attendance.

The meeting was called to order at 10:00 a.m.

## **II. Consideration of Action to go into Executive Session of the Commission**

Chair Buschatzke entertained a motion to go into executive session of the Commission for the purpose of obtaining legal advice from its attorneys on agenda item No. 5 pursuant to A.R.S. § 38-431.03(A)(3). Executive session is not open to the public. Commissioner Joe Olsen moved to enter executive session. Commissioner Clark seconded the motion. Chair Buschatzke asked for a discussion. There was no discussion. The motion passed unanimously.

The Executive Session started at 10:05 a.m.

The regular session reconvened at 10:57 a.m.

Chair Buschatzke said no action will be taken pursuant to Executive Session.

## **III. Approval of Meeting Minutes**

Chair Buschatzke asked for a motion. Commissioner Arboleda moved to approve the September 13, 2022 AWBA Regular Meeting minutes with any needed corrections. Commissioner Olsen provided the second to the motion. Chair Buschatzke asked for a discussion. There was no discussion. The minutes were unanimously approved.

## **IV. Water Banking Staff Activities**

**Quarterly report of AWBA credit purchases for calendar year 2022.** Ms. Virginia O'Connell informed Commission members that there were no credit purchases for the fourth quarter of 2022. The AWBA has been contacted by the Tohono O'odham Indian Nation regarding credits that they are required to offer to the AWBA for purchase. The

AWBA is looking at purchasing 1,300 acre-feet of Long-Term Storage Credits (LTSCs) for \$300,000 in 2023.

Chair Buschatzke asked Commission members if there were any questions. There were none.

**Status report on Colorado River conditions.** Rachel von Gnechten, Water Resources Engineer with ADWR's Colorado River Management Section, gave the Colorado River Basin update. She noted the forecasted inflow for the water year 2022 was 6.08 million acre-feet (maf), which is 63 percent of the average. She added that improved flows are unlikely.

Ms. von Gnechten then moved to the projected Lake Powell and Lake Mead end-of-month elevations from the Bureau of Reclamation's (Reclamation) most recent 24-Month Study (MS) and 2-Year Probabilistic Projections. For Lake Powell, the end of calendar year (EOCY) 2022 most probable elevation projection is 3,524.31 feet and the EOCY 2023 most probable elevation projection is 3,529.49 feet. Ms. von Gnechten added that there is increasing hydrologic uncertainty and some of the driest traces fall below Minimum Power Pool (3,490 feet) at Lake Powell. For Lake Mead, the EOCY 2022 most probable elevation projection is 1,046.49 feet and the EOCY 2023 most probable elevation projection is 1,021.77 feet. These projected elevations refer to the actual physical elevations.

Ms. von Gnechten reminded Commission members that Reclamation Commissioner Touton had stated in June 2022 that an additional 2-4 maf of conservation was needed to protect the system. Media coverage leading up to the August 24-MS was anticipating an announcement by Reclamation; however, neither additional mandatory cuts nor an agreement to conserve water by the Basin States was announced. In September 2022, at the Water Education Foundation's biannual Colorado River Symposium in Santa Fe, the Secretary of the Interior outlined the Department of the Interior's (DOI) plans. DOI further announced a funding opportunity for water users in the Lower Basin to participate in voluntary conservation actions. This was the first indication that the federal government was preparing to take steps to limit releases below 7 maf from Glen Canyon Dam to protect infrastructure.

According to modeling completed in CRMMS-ESP, should water year (WY) 2023 be like WY 2002 (the lowest unregulated inflow into Lake Powell since 1964) and should the release from Glen Canyon Dam be adjusted to 5.5 maf to maintain an elevation of 3,490 feet at Lake Powell, the projected EOCY 2023 elevation would be 991.40 feet.

On November 17, 2022, DOI issued a Notice of Intent to prepare a Supplemental Environmental Impact (SEIS) to look at operational alternatives and potential other actions to reduce the deliveries from Glen Canyon Dam (potentially less than 7 maf) and from Hoover Dam. So far, Reclamation has not reduced the annual total release volume of 7 maf.

The Notice of Intent outlined two possible action alternatives and a no action alternative. Under the “Framework Agreement Alternative,” DOI is hoping the Basin States will work towards a consensus agreement. The scoping period is open through December 20, 2022. DOI hopes to have a Draft Environmental Impact Statement out for review and comments by Spring of 2023 and a Record of Decision in July 2023. That will allow DOI to implement any potential actions or reduced deliveries in 2023, and any adjustments to Shortage Tier determinations in the August 2023 24-MS.

Chair Buschatzke added that Reclamation told Arizona that it would release less than 7 maf in years in which there would be less than 50 percent of runoff. Regarding the supplemental SEIS process, Chair Buschatzke recommended that anyone with an alternative for Reclamation should submit it by December 20, 2022.

Chair Buschatzke asked if there were questions. Commissioner Braun asked for dead pool elevations, to which Ms. von Gnechten replied 895 feet. Director Buschatzke added that under DCP, below 1,025, the system should be protected by water reductions. In addition to the 512,000 acre-feet reduction Arizona is experiencing, the state will be saving an additional 325,000 acre-feet through the voluntary compensation conservation plan connected to the 500+ Plan. He added that Arizona has done significantly more than what was required to reduce its use of Colorado River to protect Lake Mead and the state from draconian CAP reductions. Chair Buschatzke added that there are still many uncertainties. Reclamation has not shared any details about voluntary compensated conservation. Chair Buschatzke noted that the Imperial Irrigation District of California might participate in voluntary conservation.

Chair Buschatzke asked if there were any more questions. There were none.

**Report from the Central Arizona Water Conservation District (CAWCD).** Mr. Marcus Shapiro, CAWCD Water Systems Supervisor, started his report with water deliveries to groundwater savings facilities (GSFs) in the Pinal Active Management Area (AMA) under Arizona's Implementation Plan for the Lower Basin Drought Contingency Plan (LBDCP). Under the agreement, the AWBA will exchange its LTSCs accrued in the Phoenix and Tucson AMAs for an equal volume of LTSCs accrued by the storing entities in the Pinal AMA. He noted that 45,379 acre-feet have already been delivered out of the 45,500 acre-feet scheduled for 2022. The remainder is expected to be delivered by the end of the year.

Mr. Shapiro followed with a review of the anticipated CAP delivery demand and supply for 2023. Under a Tier 2a shortage condition, CAP's allocation of 1,676,000 acre-feet will be reduced by 592,000 acre-feet, plus an additional 75,000 acre-feet to account for system loss. Demand orders are anticipated to be 1,245,167 acre-feet. This means only 5,702 acre-feet from the Non-Indian Agriculture (NIA) pool will be available. Mitigation supplies (95,528 acre-feet) will be added to the 1,009,000 acre-feet remaining after water cuts.

CAWCD anticipates no reduction to the Indian and M&I pools, but an almost 100 percent cut to the NIA pool, which will create a firming commitment from the AWBA in 2023 to the Gila River Indian Community (Community).

Chair Buschatzke asked how the 1,676,000 acre-feet of supply available to CAP compared to the last couple of years. Mr. Shapiro replied that it was the same. Chair Buschatzke encourages entities scheduled to receive mitigation water to discuss monetary compensation to keep water (CAP Intentionally Created Surplus) in Lake Mead if they want to.

**Report on Recovery Planning Activities.** Ms. O'Connell informed Commission members that the AWBA has met with most CAP M&I subcontractors to assess firming methods, i.e., whether they would need a delivery of water through the CAP canal (direct delivery) or if they would be requesting a distribution of credits from the AWBA (independent recovery). The AWBA completed an analysis of the preferred firming method: 27 percent of the water would be delivered directly by CAP and 73 percent through independent recovery. She noted that several subcontractors said they might forgo receiving LTSCs from the AWBA. Firming proposals will need to be refined by May 2023 before a shortage in 2024. Since the Commission approved the AWBA M&I Firming Agreement on September 13, 2022, the AWBA has received 27 requests to enter into agreements. AWBA staff continues to coordinate with ADWR and CAP.

Ken Seasholes presented the measures CAP is taking for recovery planning and capacity. He said that two pilot recovery wells will be drilled in 2023 in the vicinity of Tonopah Desert Recharge Project to evaluate water quality and aquifer characteristics. He added that CAP is working on making their partnership with Roosevelt Conservation District more flexible for a CAP recovery exchange. In addition, CAP is finalizing the CAWCD firming agreement for subcontractors who will opt for direct delivery.

## **V. Discussion Concerning the Distribution of AWBA Long-term Storage Credits for Firming Central Arizona Project Municipal and Industrial Priority Subcontract Supplies**

**Report on the long-term availability of AWBA LTSCs for firming CAP M&I Priority Subcontractors.** Dr. Rebecca Bernat presented results of different analyses conducted to estimate potential utilizations of LTSCs.

Based on the AWBA Drought Contingency Firming Policy, results show that the AWBA could use a total of 177,382 acre-feet of LTSCs from 2024 to 2026. This amount represents approximately 8 percent of the total LTSCs the AWBA will have as of December 31, 2023. Under these conditions, by December 31, 2026, the AWBA will have 1,470,945 acre-feet of LTSCs remaining in the Phoenix AMA, 222,992 acre-feet in the Pinal AMA, and 458,178 acre-feet in the Tucson AMA. Under Tier 3 shortage conditions from 2024 to 2026, results show that the AWBA could use a total of 231,948 acre-feet of

LTSCs from 2024 to 2026. This amount represents approximately 10 percent of the total LTSCs the AWBA will have as of December 31, 2023<sup>1</sup>.

To analyze the potential use of LTSCs after 2026, a simple analysis was conducted assuming 20 percent of full CAP M&I firming entitlement use after 2026. Under this condition, there would be enough LTSCs to absorb 19.1 years of water reductions in the Phoenix AMA, 25.2 years in the Pinal AMA and 11.6 years in the Tucson AMA.

To take demand into consideration, as well as the timing and magnitude of shortage, three different hydrologic modeling scenarios were used: the Stress Test, CMIP3 and the New Normal. When looking at the average firming volumes, and according to the Stress Test hydrology, the Tucson AMA would run out of LTSCs in 2052; by 2055, the Phoenix and the Pinal AMAs would have 13 percent and 43 percent of LTSCs left, respectively. According to CMIP3 hydrology, the Tucson AMA would run out of LTSCs in 2059; by 2061, the Phoenix and the Pinal AMAs would have 21 percent and 47 percent of LTSCs left, respectively. According to the New Normal hydrology, by 2043, the Tucson AMA would only have 11 percent of LTSCs left, the Phoenix AMA would have 41 percent left, and the Pinal AMA would have 57 percent left. Dr. Bernat also provided results of the analysis looking at the median firming volumes, which, in the case of CMIP3, showed slower depletion of LTSCs due to half of the hydrologic traces being wet enough to cause no need for M&I firming. Dr. Bernat noted that the CMIP3 model assumes that all the CMIP3 climate model projections and traces built from them are equally possible outcomes, which in reality might not be the case.

Finally, Dr. Bernat showed an analysis of maximum firming exposure conducted to evaluate firming for 100 percent of estimated CAP M&I orders (should Lake Mead drop below elevation 895 feet (dead pool) where downstream releases are no longer possible). In that case, the AWBA would have enough LTSCs to absorb 4.2 years of water reductions in the Phoenix AMA, 5.9 years in the Pinal AMA, and 2.8 years in the Tucson AMA.

Ms. O'Connell added that there are still a lot of unknowns, leading to uncertainty. AWBA staff is looking at writing a paper looking at other issues that could impact firming. The hydrology is much more severe than it was when the AWBA DCP Firming Policy was adopted. The AWBA DCP Firming Policy never anticipated a shortage deeper than Tier 3. It was intended to provide certainty to allow mitigation water to flow to CAP M&I subcontractors (lower priority rights). But the fact that there is no mitigation under a Tier 3 shortage questions the need for the AWBA firming 100 percent of supplies. Other issues that could impact firming could be potential decisions by Reclamation, overlaps with ADWR Substantive Drought Volume Exemption Policy, and Colorado River evaporation and system losses.

Chair Buschatzke noted that the federal government will consider public health and safety

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<sup>1</sup> According to Table 2 of the AWBA Plan of Operation, the AWBA will have a total of 2,329,457 acre-feet of LTSCs as of December 31, 2023.

in their decision to have further cuts. In that context, Arizona is advocating to not have CAP water cut down to 0 acre-feet, despite the priority system.

Chair Buschatzke added to Ms. O'Connell's point about the fact that AWBA would firm 100 percent of supplies under a Tier 3 shortage under the current DCP Firming Policy, by saying that this was an oversight, and that new discussions are needed.

Commissioners directed staff to hold a stakeholder process to talk about policy issues related to this agenda item. Chair Buschatzke would like to come to a consensus with stakeholders on how much the AWBA would need to extend out LTSCs, knowing it is unlikely that the AWBA will have the opportunity to create more LTSC with excess supplies. He added that he would like the stakeholder process to discuss policy issues related to this agenda item for the interim period, and eventually post-2026 after we know more about future decisions on the Colorado River. Chair Buschatzke recommended asking Jim Prairie from Reclamation to present modeling projections during the early stage of this stakeholder process to talk about the level of uncertainty.

Commissioner Clark asked for a sensitivity analysis to see how long credits would last under different time periods, under different scenarios (e.g., for firming 100 percent or 50 percent of supplies for 10, 20, and 30 years).

## **VI. Preliminary AWBA 2023 Plan of Operation**

**Discussion of AWBA Preliminary 2023 Plan of Operation.** Dr. Bernat reviewed the 2023 Plan of Operation (2023 Plan). She noted that the firming volumes for 14,575 acre-feet for the Community is the only item that changed since she presented the Plan in September. Ms. O'Connell reviewed the questions and answers that were raised by the public at the Groundwater Users Advisory Council (GUAC) meetings in the Phoenix, Pinal, and Tucson AMAs.

Chair Buschatzke entertained a motion. Commissioner Braun moved to approve the AWBA 2023 Plan of Operation as submitted with minor or technical changes. Commissioner Clark seconded the motion.

Chair Buschatzke asked the public for comments. There were none. He then asked for further discussion by commissioners. There was none. The 2023 Plan was approved unanimously.

## **VII. Operating budget**

Ms. O'Connell explained the goal of the 2023 water operating budget is to approve the

expenditures listed in the Annual Plan of Operation.

Chair Buschatzke asked if there were questions. There were none. Chair Buschatzke asked for a motion. Commissioner Braun moved to adopt the AWBA operating budget for the 2023 calendar year. Commissioner Clark seconded the motion.

Chair Buschatzke asked for questions from the public. There were none.

Chair Buschatzke asked for a discussion. There was none. The motion passed unanimously.

### **VIII. Resolution for Virginia O'Connell**

Chair Buschatzke read a proposed resolution of the AWBA in appreciation of the contributions of Ms. O'Connell. Every Commission member thanked Ms. O'Connell personally for her service.

Chair Buschatzke asked for a motion. Commissioner Braun moved to approve the Resolution honoring the service of Ms. O'Connell in support of the AWBA. Commissioner Clark seconded that motion. The motion was approved unanimously.

### **IV. Call to the Public**

There were no additional comments. The meeting adjourned at 11:36 a.m.

### **Future Meeting Dates:**

Wednesday, March 15, 2023

Wednesday, June 14, 2023

Wednesday, September 20, 2023

Wednesday, December 6, 2023