

ARIZONA WATER BANKING AUTHORITY  
Meeting Summary  
(virtual meeting)

December 02, 2020  
Arizona Department of Water Resources



AUTHORITY MEMBERS  
Thomas Buschatzke, Chair  
Ray L. Jones, Vice-Chair  
Secretary, vacant  
Alexandra Arboleda  
Mark Clark

EX OFFICIO MEMBERS  
The Honorable Karen Fann  
The Honorable Gail Griffin

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## I. Welcome/Opening Remarks

Chair Buschatzke, Vice-Chair Ray Jones, Commissioner Mark Clark and Commissioner Alexandra Arboleda attended via online virtual conference. *Ex-officio* members, Senate President Karen Fann and Representative Gail Griffin, were not in attendance.

The meeting was called to order at 10:01 a.m.

Chair Buschatzke read aloud a resolution honoring the service of Kathryn Sorensen on the AWBA Commission and asked for a motion. Vice-Chair Ray Jones moved to approve the resolution, Commissioner Mark Clark provided the second to the motion and the resolution was unanimously approved.

## II. Approval of Minutes

Chair Buschatzke asked for a motion to approve the minutes from the September 16, 2020 regular quarterly meeting. Commissioner Mark Clark moved to approve the minutes. Commissioner Alexandra Arboleda provided the second to the motion and the minutes were unanimously approved.

## III. Water Banking Staff Activities

**Quarterly Report on AWBA recharge deliveries and credit purchases.** Virginia O'Connell, AWBA Director, provided an update on fourth quarter recharge deliveries through October. The amended 2020 Plan of Operation (Plan) initially included just over 50,000 AF of water available for storage. Since then, an additional 10,000 AF of turn-back water has become available bringing the total to roughly 60,000 AF. Also, when the Plan was amended in June, staff was asked to seek opportunities to shift some of the storage planned for Tonopah Desert Recharge Project to more effective storage locations. Ms. O'Connell noted that at the AWBA meeting in September, she reported that 4,500 AF in deliveries had been redirected to other facilities located in the Pinal And Tucson AMAs. Since then, an additional 8,200 AF has been redirected to the Tucson AMA: 5,400 AF to the Southern Avra Valley Recharge Project and 2,800 AF to the Pima Mine Road Recharge Project. In the Phoenix AMA, 400 AF has been shifted to Tonopah Irrigation District and 1,000 AF shifted to New Magma Irrigation and Drainage District. Deliveries in the Phoenix AMA will total approximately 36,600 AF in 2020, with

just over 13,000 AF remaining to be delivered. Deliveries in the Pinal AMA will total 12,000 AF, with just under 1,400 AF remaining to be delivered. Deliveries in the Tucson AMA will total 11,700 AF, with roughly 5,000 AF remaining to be delivered.

Ms. O'Connell provided an update on fourth quarter credit purchases, which included a second credit purchase transaction this year with the Ak-Chin Indian Community. A total of 2,300 AF of long-term storage credits (LTSCs) were purchased in the Phoenix AMA for \$548,090 using Maricopa County Water Storage Tax funds. This purchase includes 1,300 AF of credits at the Roosevelt Water Conservation District GSF and 1,000 AF of credits at the Hieroglyphic Mountains Recharge Project. Cumulative credits developed in 2020 total 33,470 AF and includes both LTSCs and Intentionally Created Surplus (ICS) Firming Credits.

**Colorado River Status Update.** Bret Esslin, ADWR Colorado River Management, gave an update on the Colorado River system. He noted that reservoirs are at 46% of capacity or 27.97 MAF as of November 27, 2020 compared to 51% of capacity at the same time last year. Lake Mead is at 39% of capacity and Lake Powell is at 44% of capacity. The 2020 calendar year-end projection for Lake Powell is 3,582.9 ft and 1,084.8 ft in Lake Mead. The 2021 calendar year-end projection in Lake Powell is 3,571.16 ft. resulting in a release of 7.48 MAF to Lake Mead in 2022. The 2021 calendar year-end projection in Lake Mead is 1,073.47, resulting in a Tier 1 shortage for 2022. The 2022 end of water-year projection in Lake Mead is 1,059.80 ft.

Chair Buschatzke asked if there was room in the 2021 conservation programs to do enough additional conservation to stay above 1,075 ft in Lake Mead. Mr. Esslin responded the Lower Basin would need to conserve an additional 133,000 AF to stay above 1,075 ft in Lake Mead. The projections for end of year 2021 already include a total of 264,000 AF of conservation from AZ, NV and CA and any additional conservation would have to come from CA or be categorized as system conservation. Chair Buschatzke noted this will require some difficult decisions to be made.

**CAP System Update.** Marcus Shapiro, CAWCD Water Systems Supervisor, gave an update on the CAP water operations and reviewed the CAP System Conservation activities to support Lake Mead conservation efforts. The total volume conserved by these programs was 308,293 AF in 2019 and 345,273 AF in 2020. The projected conservation for 2021 is 307,796 AF.

The CAP delivery supply projection for 2021 estimates approximately 1.67 MAF will be available to CAP. With DCP reductions of 192 KAF and 75 KAF CAP system losses, the actual CAP delivery supply is projected to be 1.452 MAF. After reductions of 54,000 AF of conservation contributions by long-term contractors, there will be 1.398 MAF of wet water deliveries made for long-term contracts and 258 KAF made available to the Ag Pool. Excess water is not expected to be available for AWBA storage in 2021.

Chair Buschatzke asked if there will be an ag forbearance program in 2021. Mr. Shapiro responded that the Ag Forbearance 3 program is part of the 2021 ICS creation plan and

there are currently approximately 40 KAF of ag forbearance commitments for 2021.

**Report on Recovery Planning Activities.** Simone Kjolsrud, Technical Administrator, provided an update on recovery planning activities. The interagency recovery planning group continues to draft an update to the 2014 Joint Recovery Plan. Sections 1-5 of the update document are complete and have been posted on the RPAG Website ([new.azwater.gov/rpag](http://new.azwater.gov/rpag)). Section 6 of the update document describes the recovery well capacity required for each of the AWBA firming obligations. The first draft of section 6 was shared with the RPAG in September and included an analysis to estimate the recovery capacity required specifically for firming CAP M&I subcontractors.

Based on feedback at the September RPAG meeting, staff from AWBA, ADWR and CAP worked with several RPAG members to schedule meetings to present this analysis to a larger audience of M&I subcontractors. M&I subcontractors indicated support for the overall approach and methodology in the analysis and offered to help refine the analysis by providing additional feedback. Staff sent each subcontractor a spreadsheet representing their individual components of the larger analysis for review and comment. The feedback received is being compiled and the M&I recovery capacity estimates will be updated. A revised version of section 6 will be shared with RPAG members prior to the next meeting on December 16, 2020 1-3pm. Additionally, section 7 of the update document is also currently being drafted. It describes the procedural steps for recovery implementation, including the distribution of AWBA credits and CAP recovery costs.

#### **IV. Discussion of AWBA Numeric Firming Goals**

Ms. O'Connell briefed Commission members on the hydrologic modeling analysis conducted to evaluate the AWBA's projected firming volumes under the Lower Basin Drought Contingency Plan (LBDCP). She pointed out that the modeling assumptions are the same as the assumptions used in recovery planning efforts. However, instead of going to 2045, the modeling analysis was extended 100-years (through 2120), to evaluate AWBA firming goals. Two scenarios for Upper Basin (UB) demands were included. The "As-is" scenario utilizes the UB demands inherent in the Colorado River Simulation System (CRSS), while the second scenario reduces projected UB demands by 15% based on a trend analysis of actual and unverified demands for the last twenty years. The CRSS model results were further analyzed to evaluate shortage impacts specific to Colorado River water users within Arizona.

The modeling results show an increase in the volume of Non-Indian Agricultural (NIA) supplies firming by the AWBA under the Arizona Water Settlements Act. The AWBA has an obligation to firm Tribal NIA supplies through 2107. The firming volume previously estimated by the Indian Firming Study Commission in 2006 was 550 KAF. New modeling projects a mean firming volume for the UB 15% reduction scenario of 717 KAF, an increase of 167 KAF or a 30% increase. The mean firming volume for the UB "As-is" scenario is 907 KAF, an increase of 357 KAF or a 65% increase. The portion of these firming volumes needed for firming the Gila River Indian Community is 456 KAF under the UB 15% reduction scenario and 577 KAF under the UB "As-is" scenario, with

the remainder being for future Indian settlements.

The modeling projections for CAP M&I firming (through 2120) have also increased. The previously established goal for M&I firming was 2.7 MAF. New modeling shows a mean firming volume for the UB 15% reduction scenario of 3.2 MAF, an increase of 545 KAF or a 20% increase. The mean firming volume for the UB “As-is” scenario is 5.1 MAF, an increase of 2.4 MAF or a 90% increase.

In contrast, the modeling results for on-River firming (through 2120) show a decrease in the projected firming volume. The previously established goal was 420 KAF. New modeling projects a mean firming volume for the UB 15% reduction scenario of 221 KAF, a decrease of 199 KAF or a 90% decrease. The mean firming volume for the UB “As-is” scenario is 359 KAF, a decrease of 61 KAF or a 17% decrease.

While the AWBA has essentially met its existing M&I numeric firming goals in the Phoenix and Pinal AMAs, these new modeling projections show that the credits accrued through 2020 specifically for this purpose may not be sufficient to firm all Colorado River reductions for the entire 100-year period and the goal in the Tucson AMA is even further behind. Likewise, the AWBA may not have sufficient credits to meet its Indian settlement obligations. Due to limitations in excess water and diminishing long-term funding sources, it will be challenging for the AWBA to make up the difference. It is likely that all withdrawal fee credits in the Phoenix and Pinal AMAs will be needed for firming Tribal settlements and withdrawal fee credits in the Tucson AMA will be needed for M&I firming.

Commissioner Arboleda asked for additional clarification on the two UB scenarios and asked which one is more likely. Vineetha Kartha, CRM Manager ADWR, pointed out that the UB demands inherent in the CRSS model were created in 2005 as basin states and the Bureau of Reclamation were negotiating the 2007 Interim Guidelines. ADWR expects the CRSS model will be updated with the 2016 Upper Colorado River Commission (UCRC) schedule in January 2021. With the UB demand inherent in CRSS being outdated, it was important to include the additional scenario based on UB historic use. ADWR did a trend analysis which showed projections more in line with a 15% reduction in projected UB demands.

Chair Buschatzke asked if the CRSS updates from the 2016 UCRC schedule will likely push estimates for the UB down (the green line). Ms. Kartha confirmed she expects those CRSS updates will likely push the green line down because UB demands in the 2016 UCRC schedule are closer to the actual demand. Chair Buschatzke noted that this is a sensitive topic in the Upper Basin and this scenario is for planning purposes to create a range of possible future firming obligations for the Water Bank.

Vice-Chair Jones asked for more information about the AWBA 20% cap on M&I firming. Ms. O’Connell responded that AWBA modeling has historically used 20% as a planning assumption for M&I firming. This is in line with Assured Water Supply requirements that designated providers must meet demand with at least 20% renewable supplies.

However, to support the Arizona implementation plan for the LBDCP, the AWBA adopted a policy to firm up to 100% through 2026. The new modeling for M&I firming volumes is based on 100% firming through 2026 and then reverts back to 20% firming after 2026. Chair Buschatzke noted that M&I firming volumes are based on water orders and does not distinguish between water being used directly and water being used for underground storage. In light of these new firming volumes and the legal obligation for Indian firming, moving forward discussions need to continue with CAP and stakeholders as to whether the 20% policy is achievable and whether that policy needs to be adjusted. Maybe the main policy question to consider is whether firming should occur when the water is being stored underground for long-term storage credits. Several years ago there were very vibrant discussions about this issue. In both the short-term and long-term, the Commission is going to have to grapple with this issue. Through the RPAG process, discussions with CAP, M&I subcontractors and stakeholders, the Commission will need to address these issues. Chair Buschatzke noted that Virginia would be sharing this presentation with the CAP board tomorrow.

## **V. Discussion and Consideration of Action to Approve AWBA 2021 Plan of Operation**

Ms. O'Connell briefed Commission members on the draft AWBA 2021 Plan of Operation (Plan). In 2021, the CAP System will operate under Tier Zero conditions, which requires contributions of 192 KAF to Lake Mead. As a result, there will be no excess CAP water available for AWBA storage. The Water Bank will continue to achieve its goals through the purchase of long-term storage credits and ICS Firming Credits. There is no interstate storage planned for 2021 and no anticipated distribution of credits.

The 2021 Plan includes a summary of the estimated funding sources available and the corresponding credits developed with each funding source. The withdrawal fees collected in the Phoenix AMA will be utilized to purchase just over 2,700 AF of ICS firming credits, resulting in 2,450 AF of ICS firming credits after the 10% loss factor. In the Pinal AMA, withdrawal fees levied through 2026 will not be available to the AWBA, as they will be used to support groundwater infrastructure and irrigation efficiency projects in that AMA. In the Tucson AMA, withdrawal fees will be used to purchase approximately 590 AF of LTSCs. The AWBA requested the CAWCD board reserve a total of \$10 million from water storage tax funds to purchase LTSCs, \$4 million in Maricopa County funds and \$6 million in Pima County funds. The 2021 Plan anticipates purchasing approximately 42,610 AF of credits using water storage tax funds. In total, the 2021 Plan proposes to develop an estimated 45,060 acre-feet of credits for a total cost of \$10.84 million.

Staff presented the 2021 Plan to the Groundwater Users Advisory Councils (GUACs) in the Phoenix, Pinal and Tucson AMAs. The public comments received at the GUACs were supportive of the Plan. In the Phoenix AMA, there was a question on what the term "firming" means. Staff clarified that LTSCs accrued by the AWBA can be recovered to mitigate reductions in Colorado River supplies during times of shortage. By providing this back-up supply, the shorted supply is firmed-up.

Ms. O'Connell reviewed the cumulative credits accrued in each AMA and the progress made toward the previously established firming goals for each objective. With new modeling results for AWBA firming, the established goals may not be sufficient for future firming needs and staff requested direction from the Commission on how the progress toward firming goals should be reflected in future reports.

Chair Buschatzke directed AWBA staff to use the new modeling results to update future Plans and include a range of possible future outcomes. Commissioner Jones asked if there would be a process to formally adopt new goals and what the expected use of this new information will be. Chair Buschatzke responded that there will need to be additional discussions and the Commission will need to consider what the AWBA is going to be able to deliver for M&I firming. There are legal issues to be considered and expectations that have been created over the years. The new modeling will help inform this discussion and give M&I subcontractors an idea of how much AWBA firming may be available so they can plan appropriately.

Chair Buschatzke asked if the previously established goals were ever formally adopted by the Commission. The former AWBA Director, Tim Henley, explained that the current goals were established for planning purposes only and were not formally adopted by the Commission. Commissioner Jones expressed concerns that reporting firming progress based on the previously established goals could misrepresent the future firming and possibly impact funding sources to help achieve the goals. Commissioner Jones noted he supports including new planning goals in future AWBA planning and reports. Chair Buschatzke suggested adding the mean, max and min from the updated modeling in order to show a range of future outcomes.

Commissioner Jones moved to adopt the AWBA 2021 Annual Plan of Operation as submitted with minor or technical changes. The motion was seconded by Commissioner Clark. Chair Buschatzke asked for public comment. With no public comment, the motion passed unanimously.

## **VI. Discussion and Consideration of Action to Approve AWBA Calendar Year 2021 Water Operating Budget**

Ms. O'Connell briefed the Commission on the 2021 Water Operating Budget which reflects expenditures of \$10.84 million identified in the 2021 Plan of Operation. She noted the Commission would be approving expenditures of withdrawal fees from the Arizona Water Banking Fund (AWB Fund) in support of the 2021 Plan as well as water storage tax monies deposited to the AWB Fund by CAWCD for LTSC purchases.

Commissioner Clark moved to adopt the Arizona Water Banking Authority Water Operating Budget for Calendar Year 2021. Commissioner Arboleda provided the second to the motion. Chair Buschatzke called for public comment. With no public comment, the motion passed unanimously.

## **VIII. Call to the Public**

There were no comments. Chair Buschatzke announced future meeting dates. The meeting adjourned at 11:29 a.m.

### **Future Meeting Dates:**

Wednesday, March 17, 2021

Wednesday, June 16, 2021

Wednesday, September 15, 2021

Wednesday, December 1, 2021