

**ARIZONA WATER BANKING AUTHORITY**  
**ANNUAL PLAN OF OPERATION**  
**2019**



Thomas Buschatzke, Chair

December 2018

## EXECUTIVE SUMMARY

The role of the AWBA has changed considerably since its inception in 1996. The AWBA was initially established to utilize the unused portion of Arizona's annual Colorado River entitlement. In doing so, the AWBA's objectives were to store water to protect Central Arizona Project and Colorado River municipal and industrial (M&I) water users against future shortages, to assist the state in meeting Tribal water rights claims, to provide groundwater management benefits, and finally to assist both California and Nevada through interstate banking. Over time, as the AWBA's objectives have become more defined, its responsibilities have expanded in some cases to obligations and in all cases to the development of a resource relied upon by many water providers to create a reliable water supply.

Over the last two decades, the AWBA has made considerable progress toward meeting its objectives, developing over 4.3 million acre-feet (MAF) of credits for future use, 3.7 MAF for Arizona uses and over 0.6 MAF for interstate purposes on behalf of Nevada. However, since the AWBA was established, 2019 will be the first year that there will be no excess CAP water available to the AWBA for storage. As a result, the AWBA will concentrate on alternative methods such as credit purchases to continue to make progress on its firming goals.

The AWBA 2019 Plan of Operation (Plan) proposes to purchase an estimated 49,300 acre-feet of credits for a total cost of \$10.96 million. Credit acquisitions are anticipated to occur in all three Active Management Areas (AMA) subject to the availability of funding. Potential credit purchases for firming CAP M&I subcontract supplies total approximately 32,600 acre-feet and are estimated to cost \$7.33 million. Additionally, the AWBA anticipates acquiring up to 20,700 acre-feet of credits for water management purposes at an estimated cost of \$3.63 million. These credits can also be used to meet the AWBA's obligations under the Arizona Water Settlements Act or for firming CAP M&I subcontract supplies.

Because 2019 will be a normal year for Colorado River operations, the 2019 Plan does not include the distribution of AWBA credits for firming purposes. Additionally, the Southern Nevada Water Authority did not request the development of intentionally created unused apportionment. Therefore, there will be no credits recovered for interstate purposes.

## INTRODUCTION

The AWBA was initially created in 1996 to store Arizona's unused Colorado River water entitlement in central and southern Arizona to develop long-term storage credits (credits) to: (1) firm existing water supplies for Colorado River and CAP M&I water users during Colorado River shortages or CAP service interruptions; (2) help meet the water management objectives of the Groundwater Code; (3) meet the State's obligations in the settlement of Indian water rights claims; and (4) assist Nevada and California through interstate banking. The AWBA's enabling legislation has been amended over time allowing it to store other renewable supplies and to purchase credits on top of excess CAP water supplies. The 2019 Plan does not include the storage of other renewable supplies but does include credit purchases.

Although the AWBA can utilize general fund appropriations to conduct its business, in recent years the only funds available to the AWBA have been groundwater withdrawal fees collected in the Active Management Areas (AMA) and *ad valorem* property taxes levied and collected by the Central Arizona Water Conservation District (CAWCD). The availability of these funds for AWBA use varies both on an annual basis and by the amounts collected within each AMA/County. There are also restrictions on how the AWBA may utilize these revenues to meet its firming responsibilities. The costs to store water for Nevada, the AWBA's only interstate partner at this time, are paid by Nevada at the time storage occurs.

The AWBA's storage of water is accomplished through the Underground Water Storage, Savings and Replenishment Program that is administered by the Arizona Department of Water Resources (ADWR). Through this program, the AWBA stores renewable water supplies in either underground storage facilities (USF) or groundwater savings facilities (GSF), also referred to as indirect storage. The program mandates an accounting of the water stored and the corresponding long-term storage credits accrued. The credits will be distributed by the AWBA when future conditions warrant. The use of the credits is dependent on the source of funds utilized to develop the credits.

The AWBA is required by statute to approve an annual Plan of Operation (Plan) by January 1 of each year. Prior to approval of the final Plan, the AWBA is required to solicit public comment. Presentation of the draft Plan must be made at publicly-noticed open meetings at which members of the public are permitted to provide comment. A draft of the Plan was presented at meetings of the Groundwater Users Advisory Councils (GUAC) for the Phoenix, Pinal and Tucson AMAs. The AWBA also makes the Plan available on its web page and accepts public comment in writing up to the time the final draft Plan is presented for approval.

The Plan is intended to govern the operations of the AWBA over the course of the entire calendar year. The AWBA recognizes that day-to-day adjustments in the normal operations of the CAP or the individual storage facilities may affect the actual monthly deliveries made on behalf of the AWBA. If the adjustments do not impact the overall annual delivery projections contained in the Plan, they will be addressed by staff and reported to the AWBA members on an as-needed basis.

## 2018 PLAN OF OPERATION

The AWBA had 38,000 acre-feet of excess Colorado River water available for use in 2018. Additionally, the AWBA stored 13,500 acre-feet of Nevada’s unused Colorado River entitlement for interstate banking purposes. Arizona also plans to conserve over 181,000 acre-feet of water in Lake Mead to benefit system storage. As a result, Arizona’s adjusted apportionment of Colorado River water in 2018 is approximately 2.63 MAF. The Bureau of Reclamation’s forecasted water use report shows that as of November 20, 2018, Arizona’s projected end of year use is 2.62 MAF (incl. NV), slightly lower than the adjusted apportionment (see Figure 1).

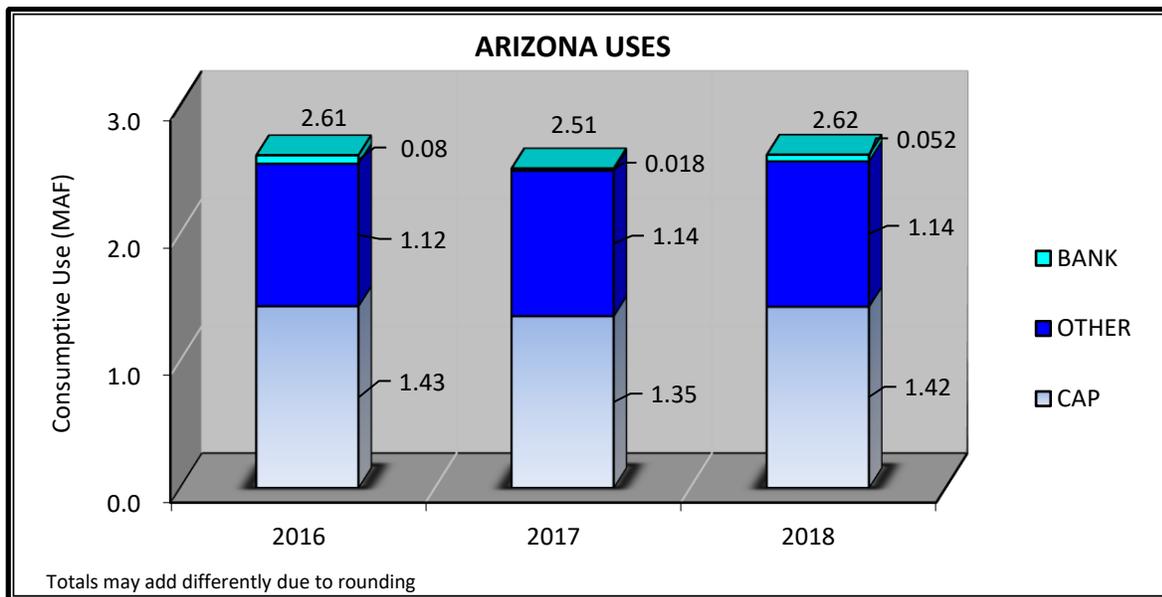


Figure 1. Recent Comparison of Colorado River Water Uses by Arizona

Forecasted use of Colorado River water in 2018 in the Lower Basin is 7.13 MAF (see Figure 2).

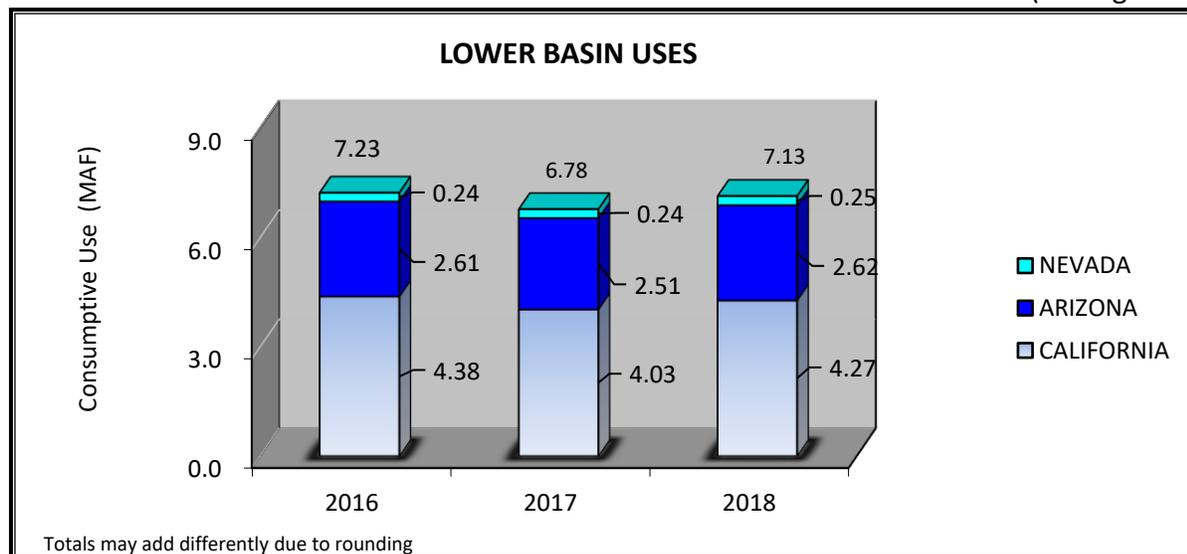


Figure 2. Recent Comparison of Lower Basin Uses of Colorado River Water

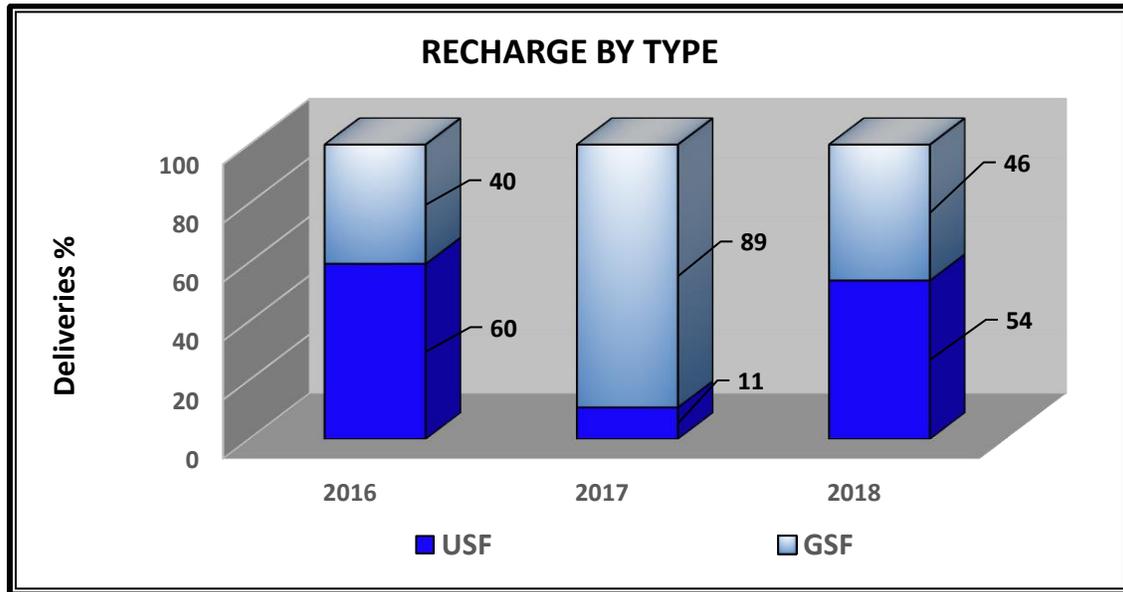
The AWBA stored water at both USFs and GSFs in 2018. Table 1 lists the AWBA's recharge partners for 2018, the amount of water that can be stored under each of the AWBA's water storage permits, and the amount of water delivered to the facility for the AWBA, including interstate deliveries. The amount of water delivered is always greater than the amount of long-term storage credits accrued by the AWBA because credits are computed by subtracting losses (approx. 1 to 3 percent) and 5 percent for a "cut to the aquifer" from the total annual deliveries. Final figures for credits accrued generally become available in the middle of the following year after review of the annual reports filed with the ADWR. These numbers are reported in the AWBA's Annual Report.

**Table 1. Recharge Facilities and Water Storage Deliveries for 2018**

	Facility	Type	AWBA Permit Capacity (acre-feet)	Delivered* (acre-feet)		
				Intrastate	Interstate	
PHOENIX AMA	Agua Fria	USF	100,000	2,000	2,070	
	Hieroglyphic Mtn.	USF	35,000	7,011	0	
	Superstition Mtns.	USF	25,000	8,687	0	
	New Magma IDD	GSF		0	3,000	
	Queen Creek ID	GSF	28,000	0	3,930	
	Tonopah ID	GSF		1,402	500	
	<i>Intra/Interstate Subtotals</i>				<b>19,100</b>	<b>9,500</b>
	<i>Phoenix AMA Subtotal</i>				<b>28,600</b>	
PINAL AMA	Central Arizona IDD	GSF	110,000	0	0	
	Hohokam IDD	GSF	55,000	2,700	0	
	Maricopa-Stanfield IDD	GSF	120,000	8,400	0	
	<i>Intra/Interstate Subtotals</i>				<b>11,100</b>	<b>0</b>
	<i>Pinal AMA Subtotal</i>				<b>11,100</b>	
TUCSON AMA	Pima Mine Road	USF	30,000	29	1,271	
	Lower Santa Cruz	USF	50,000	6,666	0	
	Cortaro-Marana ID	GSF	20,000	1,000	1,500	
	Kai Farms -Red Rock	GSF	11,231	105	1,229	
	<i>Intra/Interstate Subtotals</i>				<b>7,800</b>	<b>4,000</b>
	<i>Tucson AMA Subtotal</i>				<b>11,800</b>	
<b>TOTAL RECHARGE DELIVERIES</b>				<b>51,500</b>		

\*November and December deliveries estimated

Figure 3 identifies the storage breakdown between GSFs and USFs for 2018, including interstate storage, and provides a comparison between 2018 and the two previous years. All storage capacity available to the AWBA at GSFs was fully utilized. There were no additional supplies made available during the year.



**Figure 3. Recent Comparison of Annual Deliveries to GSFs and USFs**

As a supplement to water storage, the AWBA also accrued 9,000 acre-feet of “firming credits” developed on Gila River Indian Community (GRIC) lands pursuant to its agreements with the GRIC for meeting firming obligations.<sup>1</sup> Additionally, the AWBA purchased a total of 13,100 acre-feet of existing long-term storage credits in the Phoenix AMA. This amount includes 9,500 acre-feet for firming CAP M&I priority supplies and 3,600 acre-feet for water management purposes, which includes use of the credits for firming CAP M&I priority and Indian NIA priority supplies.

Table 2 provides an estimate of funds expended for water storage and credit purchases, including firming credits developed with the GRIC, and the location of those credits.

<sup>1</sup> Agreements include the *IGA between the AWBA and the GRIC* executed June 16, 2015 and the *Agreement between the AWBA and the GRIC for the Development of Firming Credits* executed June 30, 2016.

**Table 2. Cumulative Expenditures and Long-term Storage and Firming Credits 1997-2018<sup>1</sup>**

Funding Source	Phoenix AMA		Pinal AMA		Tucson AMA		Total	
	Funds Expended (\$M)	Credits Accrued (AF)						
<b>Withdrawal Fees</b>	\$ 30.1	383,715	\$ 21.8	434,791	\$ 9.9	108,836	\$ 61.7	927,343
<b>Ad valorem Tax</b>	\$ 128.2	1,505,760	\$ 14.4	223,153	\$ 58.2	480,084	\$ 200.8	2,208,997
<b>General Fund<sup>2</sup></b>	\$ 1.5	42,316	\$ 6.4	306,968	\$ 3.2	54,546	\$ 11.1	403,830
<b>Indian Appropriation</b>	\$ -	-	\$ -	-	\$ 2.6	28,481	\$ 2.6	28,481
<b>Shortage Reparations<sup>3</sup></b>	\$ 1.1	20,642	\$ 1.7	60,507	\$ 5.2	28,340	\$ 8.0	109,489
<b>Pinal Redirect<sup>4</sup></b>		-	\$ -	14,125	\$ -	-	\$ -	14,125
<b>Subtotal</b>	\$ 161.0	1,952,433	\$ 44.3	1,039,544	\$ 79.0	700,287	\$ 284.3	3,692,264
<b>Interstate – Nevada<sup>5</sup></b>	\$ 13.7	59,844	\$ 71.5	440,241	\$ 27.1	113,511	\$ 112.3	613,596
<b>Total</b>	\$ 174.6	2,012,277	\$ 115.8	1,479,785	\$ 106.1	806,642	\$ 396.6	4,305,860

<sup>1</sup>Actual expenditures and credits for 1997-2017; 2018 estimated. Totals may add differently due to rounding.

<sup>2</sup>A total of 256,174 acre-feet of credits reserved for the Mohave County Water Authority pursuant to the Amended Agreement to Firm Future Supplies

<sup>3</sup> Monies made available to the AWBA from the Southern Nevada Water Authority to assist Arizona in offsetting impacts from shortages pursuant to the 2008 Arizona-Nevada Shortage-Sharing Agreement.

<sup>4</sup> Credits accrued from water scheduled for the Tucson AMA and redirected to the Pinal AMA for storage at GSFs. Facility operators paid 100% of the water delivery rate.

<sup>5</sup> Includes 50,000 acre-feet of credits transferred from CAWCD pursuant to Amended Agreement for Interstate Banking.

## **2019 PLAN OF OPERATION**

When developing its Plan of Operation (Plan), the AWBA evaluates three critical factors for accruing storage credits: (1) the amount of water and CAP canal capacity available to the AWBA for delivery, (2) the storage capacity available for use by the AWBA at the various recharge facilities, and (3) the funds available to store water or purchase existing credits. The AWBA also assesses the need to distribute credits whether for firming purposes or to make water available for interstate purposes. In addition to these critical factors, the AWBA takes into consideration comments solicited from the public as well as recommendations made by the Groundwater Users Advisory Councils (GUAC) of the three AMAs.

For 2019, there will be no excess CAP water available to CAWCD's Statutory Firming Pool that is shared by the AWBA, CAGR, and Bureau of Reclamation. Therefore, storage is not a component of the AWBA's 2019 Plan. If conditions change during the year, and water becomes available, the AWBA should have storage capacity and funding available to store the water. To continue making progress on meeting its firming goals, the AWBA will instead focus its 2019 Plan on developing credits using alternative methods. Depending on the outcome of the Lower Basin Drought Contingency Plan, the 2019 Plan may need to be amended.

### **Available Funds**

The AWBA will have an estimated \$3.63 million in withdrawal fee revenues available for use in 2019: an estimated \$1.78 million for the Phoenix AMA, \$1.22 million for the Pinal AMA, and \$632,000 for the Tucson AMA. Total available revenues include unspent funds returned to the AWBA from the fiscal year (FY) 2018 legislative reallocation of funds and takes into consideration over \$1.4 million in funds reallocated by the legislature for FY 2019. This amount was deducted proportionally from each AMA withdrawal fee subaccount based on revenues collected resulting in 53 percent for the Phoenix AMA, 37 percent for the Pinal AMA and 10 percent for the Tucson AMA.

As in previous years, the CAWCD Board resolved to retain the water storage property taxes collected in its three-county service area for costs related to operation and maintenance (O&M) and/or for repayment of the Project. Water storage tax revenues retained by CAWCD have been used to offset the cost of AWBA water deliveries and storage at its recharge projects as part of O&M. The AWBA may also request that the CAWCD Board reserve these funds for use by the AWBA to purchase credits. Monies used for this purpose must be deposited to the Arizona Water Banking Fund. Because there are no excess CAP water supplies available to the AWBA in 2019, the AWBA will request that \$3.1 million in Maricopa County funds, \$928,000 in Pinal County funds, and \$3.3 million in Pima County funds be reserved for credit purchases.

## Pricing

Although the 2019 Plan does not include storage of excess CAP water, the AWBA utilizes CAP water rates as factors in pricing credit purchases. In June of 2018, the CAWCD Board approved its final water delivery rate schedule for calendar years 2018/2019. The AWBA 2019 rate for recharge is equivalent to the rate for excess M&I water at \$199 per acre-foot, a decrease of \$6 per acre-foot from the previous year.

Table 3 reflects the water delivery rate charged by CAWCD for AWBA recharge deliveries, the cost share GSF operators pay for AWBA storage, and the rates the AWBA pays to utilize different USFs. There is no administrative cost component in the facility cost because the AWBA pays the CAWCD and any Salt River Project (SRP) administrative costs on an annual basis.

**Table 3. 2019 Water and Facility Rates**

<b>Recharge Rates</b>	<b>Cost per Acre-foot</b>
CAWCD delivery rate for AWBA	\$199.00
Groundwater Savings Facility operator cost share rate <sup>1</sup>	
Phoenix and Pinal AMAs	\$34.00
Tucson AMA	\$16.00
Underground Storage Facility rate paid by AWBA	
CAWCD – Phoenix Facilities	\$13.00
CAWCD – Tucson Facilities	\$15.00
Clearwater Facility (CAVSARP/SAVSARP)	\$18.11

<sup>1</sup> This rate is paid directly to CAP by the GSF operators, effectively reducing the AWBA's water delivery rate for in lieu water.

## Purchase of Long-Term Storage Credits

The AWBA's governing statutes were amended in 2014 to allow the AWBA to purchase long-term storage credits after all available excess CAP water supplies have been scheduled for storage, thus providing the AWBA with additional flexibility in meeting its responsibilities. When purchasing credits, the AWBA may use all funding sources authorized for AWBA use, however, the use of *ad valorem* tax funds for this purpose is subject to approval by the CAWCD Board. Additionally, in developing its Plan for the following year, the AWBA must confer with the ADWR and CAWCD on the potential purchase of credits, particularly if CAWCD is anticipated to be the AWBA's recovery agent for those credits.

Because there is no excess CAP water available to the AWBA in 2019, the AWBA proposes to purchase credits to continue making progress on its firming goals. Consequently, the AWBA will request that the CAWCD Board reserve \$7.33 million in water storage tax funds to purchase an estimated 32,600 acre-feet of credits: \$3.1 million using Maricopa County funds (13,700 acre-feet), \$ 928,000 using Pinal County funds (4,700 acre-feet) and \$3.3 million using Pima County funds (14,200 acre-feet). Additionally, the AWBA proposes to purchase credits using withdrawal fees collected in all three AMAs totaling \$3.63 million for approximately 20,700 acre-feet of credits: \$1.78 million for the Phoenix AMA (7,900 acre-feet), \$1.22 million for the Pinal AMA (6,100 Acre-feet) and \$632,000 for the Tucson AMA (2,700 acre-feet). In addition to cost, careful consideration will also be given to the location of the credits that are available for sale.

### **Assignment of Credits by the Tohono O’odham Nation**

Pursuant to A.R.S. § 45-841.01, the Tohono O’odham Nation (Nation) must offer the AWBA ten percent of any credits determined accruable by ADWR from storage at the Mission Mine Complex at a price per acre-foot that is equal to the AWBA’s delivery and storage costs at the time of sale. If the Nation offers the AWBA credits in 2019, the AWBA will evaluate the offer to determine if it is reasonable to purchase those credits. There is a restriction that the credits may not be recovered within five miles of the exterior boundary of the reservation.

### **Arizona Water Settlements Act Requirements**

The Plan does not specifically identify water storage for meeting other future State firming obligations under the Settlements Act; however, it does focus on the AWBA’s firming responsibilities to the Gila River Indian Community (GRIC).

CAP supplies will not be shorted in 2019 and no long-term system outages are anticipated that would reduce deliveries to CAP customers. Therefore, the AWBA has no obligation to firm Non-Indian Agricultural (NIA) Priority CAP water supplies in 2019.

The Arizona Water Settlements Act (AWSA) recognizes three categories where the state has firming responsibilities. The first two obligations relate to firming of NIA Priority CAP water for the GRIC and other Arizona Indian tribes in times of shortage for a 100-year period; the third obligation pertains to assisting the Secretary of the Interior (Secretary) in carrying out the obligations of the Southern Arizona Water Rights Settlement Act (SAWRSA).

1. GRIC - The AWBA must ensure that up to 15,000 acre-feet per year of NIA Priority CAP water be made available to the GRIC during shortages. To date, 105,390 acre-feet of withdrawal fee credits accrued from water previously stored at the Gila River Indian Irrigation and Drainage District GSF have been dedicated specifically for meeting this obligation. Additionally, 44,000 acre-feet of similar “firming credits” have been developed on GRIC lands since 2015 as described in the AWBA’s agreements with the

Community for meeting firming obligations. If needed, existing withdrawal fee credits, including long-term storage credits accrued under this plan, could also be used for this purpose.

2. Other Indian Tribes - The AWBA is also required to firm up to 8,724 acre-feet per year of CAP NIA priority water for other Indian Settlements. The White Mountain Apache Tribe has entered into an agreement that will require the AWBA to firm 3,750 acre-feet per year of the 8,724 acre-feet once the agreement becomes enforceable. The AWBA has not dedicated credits specifically to this obligation. However, as with the AWBA's obligation to the GRIC, existing withdrawal fee credits could be made available for this purpose.
3. Federal Assistance - The AWBA has completed the State obligation to contribute \$3 million in cash or in-kind services to assist the Secretary in meeting the Federal obligation to the Tohono O'odham Nation. This obligation was met by accruing an equivalent amount of credits that will be distributed to the Secretary during shortages.

### **Southside Replenishment Bank**

In addition to the firming requirements of the Settlements Act, the AWBA was required to deliver 15,000 acre-feet of water to the GRIC to establish the Southside Replenishment Bank. The Replenishment Bank can be used to fulfill the obligations created under the Settlements Act for protection of the Reservation from off-reservation groundwater pumping. This obligation was satisfied in 2015. The AWBA has not had to meet a replenishment obligation or utilize the Replenishment Bank. Therefore, water deliveries for replenishment purposes have not been included in the 2019 Plan.

### **Interstate Water Banking**

The AWBA, Southern Nevada Water Authority (SNWA), and Colorado River Commission of Nevada (CRCN) executed a Third Amended and Restated Agreement for Interstate Banking on May 20, 2013. The amended agreement allows for storage to be determined annually by the parties and may include Nevada's unused apportionment. Storage is paid for by SNWA on a pay-as-you-go basis. There is no interstate storage planned for 2019. Additionally, SNWA has not requested the development of intentionally created unused apportionment for 2019.

### **Accounting**

The AWBA's enabling legislation required the development of an accounting system that allows the tracking of all credits accrued by the AWBA and the funding sources from which they were developed. ADWR maintains the accounting of the credits, the AWBA accounts for the expenditure of the funds utilized from the Water Banking Fund, and

CAWCD accounts for the expenditure of the *ad valorem* tax monies and reports that expenditure to the AWBA.

The estimated cost of the 2019 Plan is \$10.96 million and is anticipated to develop 49,300 acre-feet of credits. Table 4 provides estimates of the funds available to the AWBA, the funds to be utilized, the entity that holds the funds, and the credits estimated to accrue to those accounts based on the 2019 Plan.

**Table 4. Funding for 2019 Annual Plan of Operation**

Funding Source	Estimated Funds Available		Estimated Funds Utilized		Estimated Credits (AF)	
	AWBA	CAWCD <sup>1</sup>	AWBA	CAWCD	Water Storage	Developed Credits
<b>Withdrawal Fees<sup>1</sup></b>						
Phoenix AMA	\$1,783,000	-	\$1,783,000	-	0	7,900
Pinal AMA	\$1,216,000	-	\$1,216,000	-	0	6,100
Tucson AMA	\$632,000	-	\$632,000	-	0	2,700
<b>Four Cent Tax<sup>2</sup></b>						
Phoenix AMA	\$0	\$3,100,000	\$0	\$3,100,000	0	13,700
Pinal AMA	\$0	\$928,000	\$0	\$928,000	0	4,700
Tucson AMA	\$0	\$3,300,000	\$0	\$3,300,000	0	14,200
	<b>Total Funds Available</b>		<b>Total Funds Expended</b>		<b>Total Credits</b>	
	\$10,959,000		\$10,959,000		0	49,300

<sup>1</sup> Phoenix and Pinal AMA withdrawal fees could potentially be made available to support the Lower Basin Drought Contingency Plan.

<sup>2</sup> Availability of funds is subject to reservation by the CAWCD Board of Directors.

### **Distribution or Extinguishment of AWBA Credits**

Recovery of AWBA long-term storage credits for firming or for the development of Intentionally Created Unused Apportionment is not anticipated in 2019, therefore the 2019 Plan does not include the distribution or extinguishment of AWBA credits.

In preparation for the distribution and recovery of AWBA credits in future years, staff representatives for ADWR, CAWCD and the AWBA, in cooperation with stakeholders, continue to make progress on the steps necessary for an implementable recovery plan. A stakeholder group, called the Recovery Planning Advisory Group (RPAG) convened in January of 2018 to assist staff in this process. Discussions remain ongoing.

## **Achievement of Goals and Obligations**

Table 5 identifies the progress expected to be made on the AWBA's goals and obligations through 2019. Proposed credit purchases for 2019 were not included in the totals due to the uncertainty in the acquisition of those credits. However, if anticipated credit purchases are completed, it would result in an additional 1% toward achievement of the CAP M&I firming goals.

**Table 5. Projected Percent of Goals and Obligations Achieved through 2019**

Location and Objective	Funding Source	Estimated Goal	Non-Credit Goal Achieved	Credits <sup>1</sup> Accrued (AF)	Goal Achieved
<b>CAP M&amp;I Firming</b>					
Phoenix AMA	Water Storage Tax (4¢ <i>Ad valorem</i> ) collected by County	1,566,000 AF		1,505,760	96%
Pinal AMA		243,000 AF		223,153	92%
Tucson AMA		864,000 AF		480,084	56%
<b>On-River M&amp;I Firming<sup>2</sup></b>	General Fund	420,000 AF		403,830	96%
<b>Indian Settlement Obligations:</b>					
GRIC Firming <sup>3</sup> <i>up to 15 KAF/year</i>	General Fund Withdrawal Fees	350,000 AF <sup>4</sup>		149,390 0 149,390	43%
Future Settlements - <i>up to 8.7 KAF/year</i>	General Fund Withdrawal Fees	200,000 AF <sup>4</sup>		0	N/A
Federal Assistance (SAWRSA)- <i>\$3 million</i>	General Fund Tucson W/Fees Cost of Services <sup>5</sup>		\$3,000,000 \$2,338,171 \$630,490 \$31,339	34,102 28,481 5,621 <i>n/a</i>	100%
Southside Repl. Bank - <i>15 KAF direct delivery</i>	General Fund Pinal W/Fees			15,000 1,342 13,658	100%
<b>Groundwater Management<sup>6</sup></b>					
Phoenix AMA	Withdrawal Fees collected by AMA			251,402	N/A
Pinal AMA				417,714	N/A
Tucson AMA				103,215	N/A
<b>Other:</b>					
Interstate Banking - SNWA	Agreement with Nevada			613,596	N/A
Shortage Reparations	Agreement with Nevada	\$8,000,000	\$8,000,000	109,489	N/A
Pinal Redirect Credits <sup>7</sup>	N/A			14,125	N/A

<sup>1</sup> Actual credits through 2017; estimated credits for 2018.

<sup>2</sup> By resolution passed in 2002, the AWBA established on-River firming as the highest priority of use for credits accrued through expenditure of general fund appropriations. Pursuant to the Agreement to Firm dated February 4, 2005, a total of 230,280 acre-feet of credits were transferred to the AWBA long-term storage subaccount for MCWA in 2005. An additional 25,894 acre-feet of credits have been reserved under Exhibit C of the Amended Agreement to Firm, dated December 8, 2010, for a total of 256,174 acre-feet.

<sup>3</sup> Credits accrued and reserved for firming pursuant to the Agreement between the AWBA and the Gila River Indian Irrigation and Drainage District of the Gila River Indian Community for storage of Central Arizona Project Water at a GSF, executed June 16, 2006. Credits include 88,313 AF accrued in the Phoenix AMA and 17,077 AF accrued in the Pinal AMA. Also includes 44,000 AF of firming credits developed in accordance with the IGA between the AWBA and the Community.

<sup>4</sup> Based on estimates from the Indian Firming Study Commission Report dated January 6, 2006.

<sup>5</sup> Expenditures include \$14,883 and \$16,456 deducted for payment of cost of services for FY08 and FY09, respectively.

<sup>6</sup> Withdrawal fees could be utilized in addition to 4¢ ad valorem tax revenues for M&I firming if needed to reach firming goals and for Indian settlement obligations in the absence of general fund appropriations.

<sup>7</sup> Credits accrued from water provided to Pinal AMA GSFs at full cost to the GSF operators.

## **PUBLIC REVIEW AND COMMENT**

AWBA staff presented the 2019 Plan to the public in conjunction with the Groundwater Users Advisory Councils (GUAC) meetings for the Phoenix, Pinal and Tucson AMAs as required by statute. The Plan was also distributed to the public for review and comment.

The GUACs in all three AMAs supported the Plan as presented and commended the accomplishments of the AWBA to date. In the Phoenix AMA there were questions regarding the continued use of withdrawal fee revenues in the absence of excess CAP water supplies, particularly for storage at GSFs. Staff indicated that the AWBA anticipated using these funds to continue to make progress on its Indian settlement obligations using alternative methods including credit purchases. In the Tucson AMA, there were questions on why the progress on the CAP M&I firming goal was behind the other AMAs. Staff clarified that it was due to the size of the M&I subcontract entitlements relative to the amount of water storage property tax revenues collected in Pima County.

The Arizona Municipal Water Users Association (AMWUA) also provided comments by letter dated November 30, 2018 (attached). The comments are related to the recovery of AWBA credits, specifically taking into consideration the cost of recovery when purchasing credits and the use of the water storage tax levied by CAWCD for recovery infrastructure.



November 30, 2018

Virginia O'Connell, Manager  
Arizona Water Banking Authority  
1110 N. Central Avenue, Ste. 310  
Phoenix, AZ 85007

Dear Ms. O'Connell,

The Arizona Municipal Water Users Association (AMWUA) respectfully submits the following comments in response to the Arizona Water Banking Authority's (AWBA) request for comments on its draft AWBA 2019 Plan of Operation:

1. On page 7 under the heading "2019 Plan of Operation," AWBA staff defines three critical factors used to evaluate and develop the plan. None of these three factors considers the eventual recovery of credits to be acquired through storage or purchase. Recent cost estimates produced by CAWCD consultants for directly recovering water stored in the Hassayampa sub-basin have highlighted the importance of considering the cost of recovery when making credit acquisition decisions.

AWBA should expand its criteria in the 2019 plan to include consideration for eventual recovery of credits it will earn or purchase going forward. Recovery considerations should include the costs to physically recover water from the same sub-basin where it was stored.

2. On page 13 under the heading "Distribution or Extinguishment of AWBA Credits," AWBA staff writes about preparing for future recovery through the RPAG process. While new recovery infrastructure might not be necessary in the immediate future, significant expenditures will eventually be required to recover and treat water previously stored by AWBA; in the Hassayampa sub-basin, for example. It is prudent that AWBA and CAWCD begin financial planning for these infrastructure projects. Prior to 1996, CAWCD's Water Storage Tax was authorized for use on recovery infrastructure. CAWCD legal staff has determined that recovery infrastructure is no longer an authorized use of the Water Storage Tax. Acknowledging this current legal barrier, the authorization for the Water Storage Tax is set to decrease and eventually expire in 2030 (Arizona Laws 2015, Ch. 224, § 1-2). This means there is a finite amount of tax revenue left to be collected. Unfortunately, the existing legal barrier has resulted in plans and decisions regarding the use of finite Water Storage Tax revenues being made without consideration for recovery costs.

**Arizona Municipal Water Users Association**

AWBA should include explicit consideration for the potential use of Water Storage Tax revenues for recovery infrastructure. AMWUA believes it is important for the water community and legislators to consider this possibility given AWBA has spent nearly \$300 million to put water into the bank but the financial means to get it back out have not been identified. The Plan of Operation is a good place to make the possibility of such a logical use of Water Storage Tax funds known.

My staff and I are happy to provide any additional explanation or clarification if necessary.

We appreciate your consideration of these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Warren Tenney". The signature is fluid and cursive, with a long horizontal stroke extending from the end.

Warren Tenney  
Executive Director