# ARIZONA WATER BANKING AUTHORITY Wednesday, December 8, 2010

Name (Please print)	Affiliation	Phone No.
1 JASON BARAN	AMWUA	6022488482
2 Ton Maher	SNEWA	762-862-3762
3 GRANT BUMA	CRIT	928 669 1313
4 Joe Singleton	PCWAIA	520-518-1726
5 Larry Dozier	CAP	623-869-2377
oBrian Henning	CAP	427-849-2567
7 Ton Mc CAND	CAP	623-869-2343
8 Gary Given	CAP	627-969-2158
, Don anoss	ADWR	602-771-8411
10 Mike Schlehuber	Greenstone	602-464-9668
11 M. Ke Malano	ć (	602464.9668
12 Soft BOBENONK	ReclAMAT. ON	
13 Gregg Capps	Chandler	480-782-3585
14 Colette Marie	Mesa	480-644-4364
15 KATHI KNOK	Senate Research	602 926 3171
16 AUL ORME	CBDM/MDD/mon	623-465-0445
17 Dennis Rul	CAP	627-869-2667
18 JEFF EHLERS	SRP	602 236-5504
19 Tom Harbore	CAGRD	623 869-2107
20		
21		
22		
23		
24		

## **Arizona Water Banking Authority**

3550 N. Central Avenue, Phoenix, Arizona 85012
Telephone 602-771-8487
Fax 602-771-8686
Web Page: www.azwaterbank.gov

#### **PLEASE POST**

#### **NOTICE OF PUBLIC MEETING**

Pursuant to A.R.S. § 38-431.02, notice is hereby given that there will be a meeting of the Arizona Water Banking Authority Commission on **December 8, 2010 at 10:00 a.m.** at the Arizona Department of Water Resources, 3550 North Central Avenue, Phoenix, Arizona 85012, Upper/Middle Verde conference room on the 2<sup>nd</sup> floor. The meeting is open to the general public. A copy of the agenda for the meeting is posted below.

Dated this 7th day of December, 2010

#### FINAL AGENDA

# **Arizona Water Banking Authority Commission Meeting**

- I. Welcome/Opening Remarks
  - Staffing update
- II. Approval of Minutes
  - September 15, 2010
- III. Water Banking Staff Activities
  - Deliveries
  - Renewal of water storage permits
  - Water supply study activities
  - Update on Amended Agreement to Firm Future Supplies
  - Update on Indian settlements
  - Colorado River Annual Operating Plan update
  - Update on CAWCD v. Brewer
  - Overview of CAWCD staff ADD Water proposal
- IV. Second Amended Agreement for Interstate Water Banking
  - Overview of interstate accounting
  - Presentation by SNWA staff on Nevada Water Resources
  - Discussion and potential approval of the letter agreement between AWBA and SNWA allowing operational adjustments and modifications to the payment schedule

- V. Discussion and Approval of 2011 Annual Plan of Operation
  - Overview of public comment
  - Approval of 2011 Annual Plan of Operation
- VI. Discussion and Approval of CY 2011 Water Delivery Budget
  - Overview of budget
  - Adoption of budget
- VII. Discussion and Potential Approval of the Agreement Between the AWBA and Metropolitan Domestic Water Improvement District (MDWID) Providing for the Storage of Central Arizona Project Water at the Avra Valley Recharge Project
- VIII. Overview and Discussion of Draft Water Storage Facility Inventory
- IX. Call to the Public

# **Future Meeting Dates:**

Wednesday, March 16, 2011 Wednesday, June 15, 2011 Wednesday, September 21, 2011 Wednesday, December 7, 2011

All visitors must use the south elevators; please stop at the 2<sup>nd</sup> floor to sign-in and receive a visitor's badge. Badges are to be displayed at all times. Visitors are also required to sign out and return their badges. Thank you for your assistance.

Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Virginia O'Connell at (602) 771-8491, TDD # (602) 771-8501. Requests should be made as early as possible to allow time to arrange the accommodation.

# ARIZONA WATER BANKING AUTHORITY Draft Minutes<sup>1</sup>

# September 15, 2010 Arizona Department of Water Resources

#### **Welcome/Opening Remarks**

Chairman Herb Guenther welcomed the attendees. All members of the Authority were present except for *ex-officio* members, Senator Steve Pierce and Representative Kirk Adams.

Chairman Guenther sadly announced the passing of Gregg
Houtz and noted his many accomplishments as attorney for the
Department of Water Resources and AWBA. Kim Mitchell read aloud the Resolution of
the AWBA in Remembrance of the Contributions of Gregg Houtz (Resolution). Lisa
Atkins made a motion to adopt the Resolution. Maureen George provided the second
to that motion. The Commission voted unanimously to adopt the Resolution.

Chairman Guenther introduced Ken Slowinski, ADWR Chief Counsel, and noted that he would be representing the AWBA. He also introduced Ajita Athalye, new AWBA staff member responsible for financial reports. Chairman Guenther introduced Kevin Kinsall, formerly of Freeport-MacMoRan, as the new Natural Resources Policy Advisor to Governor Brewer.

## **Approval of Minutes**

The Authority approved the minutes of the June 16, 2010 meeting.

#### **Staff Activities**

Ms. O'Connell reviewed water deliveries for 2010 noting that scheduled deliveries under the current Plan of Operation were on target and near completion. There are no scheduled interstate deliveries scheduled under the current Plan. She also reviewed the recovery schedule for developing Intentionally Created Unused Apportionment (ICUA) for the Metropolitan Water District of Southern California (Metropolitan). CAWCD has scheduled the recovery of 8,159 acre-feet of water for 2010. A little over 1,000 acre-feet of those credits remain to be recovered. Once recovered, the obligation to Metropolitan will be met.

Ms. O'Connell informed Commission members that the AWBA is required to prepare an inventory of water storage facilities at least once every five years. The last inventory was approved in December of 2005. She noted that the inventory is used to determine if sufficient water storage facilities exist in the State to meet the needs of the Bank for the next ten years. Tim Henley added that the inventory is also used to meet the requirements of the Storage and Interstate Release Agreement (SIRA), which limits interstate storage to facilities listed in the storage facility inventory report. Under the



AUTHORITY MEMBERS
Herbert R. Guenther, Chairman
Maureen R. George, Vice-Chairman
Tom Buschatzke, Secretary
John Mawhinney
Lisa A. Atkins

EX OFFICIO MEMBERS
The Honorable Steve Pierce
The Honorable Kirk Adams

<sup>&</sup>lt;sup>1</sup> Please note that these are not formal minutes but a summary of discussion and action of the meeting. Official minutes are prepared prior to the next Authority meeting and are approved at that meeting.

SIRA, the AWBA must first update the facility inventory before additional facilities can be utilized for interstate storage. Tom Buschatzke inquired if the report will include discussion on coordinated use of CAWCD's storage facilities among its partners. Ms. O'Connell responded that it would. Staff plans to confer with CAWCD staff regarding the availability of storage capacity to the AWBA. A draft facility inventory report will be provided at the December 8<sup>th</sup> meeting. John Mawhinney inquired if the report will include an assessment of whether sufficient storage capacity exists or if the report is intended to prompt discussion on the findings. Ms. O'Connell responded that an assessment would be included in the draft report for comment. Mr. Buschatzke suggested that the report be used as a jumping off point for further discussions on the need to integrate storage and recovery for future planning.

Kim Mitchell informed Commission members that the remaining fund transfers associated with House Bill 2001 had been completed as directed by the Commission at the June meeting. On June 23<sup>rd</sup>, \$301,654.60 was transferred from the Nevada Resource subaccount and on July 17<sup>th</sup>, \$392,000 and \$63,800 were transferred from the Phoenix and Tucson AMA withdrawal fee subaccounts, respectively.

Ms. Mitchell briefed Commission members on CAWCD's August recovery planning meeting at the CAP field office in Tucson. CAWCD staff briefed attendees on CAWCD's *Draft Guiding Principles for Recovery of Stored CAP Water*, which outlines basic recovery concepts. CAP customer's had comments concerning the need for recovery to occur from within the area of impact of storage, consideration of the location of storage and recovery with regard to subcontractor service areas (making a hydrologic connection), the mechanisms of recovery, and the associated costs of recovery. Participants also requested that illustrated examples be provided for the proposed recovery methods. AWBA staff is participating in the review process. Maureen George inquired if the discussions included the agreement between the Mohave County Water Authority (MCWA) and CAWCD. Ms Mitchell responded that it hadn't because the meeting focused on recovery planning specific to the Tucson AMA. Dee Fuerst (CAWCD) commented that while individual AMA meetings focused on recovery planning for those areas, the final plan would be comprehensive.

Ms. Mitchell provided an update on water supply activities. She noted that discussion at past AWBA meetings included the potential for acquiring additional supplies for the purpose of meeting contract obligations for interstate banking and meeting Indian firming requirements. The Commission may utilize the services of Tom Carr as needed for this purpose, as he has recently been contracted by ADWR as part of the cost of services provided to the AWBA. Mr. Buschatske requested that staff inform Commission members on any requests to contract someone through cost of services. Ms. George had questions on the timing of the possible acquisition of water and the AWBA's authority for purchasing credits, noting that the Commission would require sufficient time for discussions before seeking legislation if it were necessary. Ms. Mitchell noted that the legal questions previously discussed had been reassigned and were currently under review by ADWR's legal division. Commission members directed staff to schedule a workshop to discuss the AWBA's potential need for additional water supplies in conjunction with the water supply needs of others. The workshop would be scheduled after the legal review of questions has been completed.

Larry Dozier (CAWCD) briefed Commission members on discussions with Pinal AMA agricultural water users and ADWR on providing affordable CAP Agricultural (AG) Pool water rates. Under the Arizona Water Settlements Act, the AG Pool rate was established as the equivalent to CAP's base energy pumping rate, which has been increasing steadily and may continue to increase. To operate as a Groundwater Savings Facility (GSF), operators must first utilize their full Pool allocations, which is considered to be "water that is reasonably available", before receiving in-lieu water from its partners. At the time the policy was established, the Pinal AMA GSFs were concerned that they would not have sufficient pool supplies given their lack of opportunity to partner with more entities. As a result, they were given a larger percentage of the AG Pool. However, because the Pinal AMA GSFs have since been able to establish additional partnerships, a solution for minimizing costs to the Pinal AMA is to reduce the pool allocation from 1.3 acre-feet per acre to 1 acre-foot per acre, which is consistent with the historic distribution for the Phoenix AMA. The difference in AG Pool deliveries could be met with in-lieu water, which is less expensive for the GSF operator. Other entities, such as the Harquahala Valley Irrigation District, have historically taken most of the unused AG Pool. However, the difference in the AG Pool allocation would continue to be offered to AG customers within the Pinal AMA until it is declined. Mr. Dozier pointed out that this solution, while staying within the bounds of the Settlements Act, could also lower expenses to CAP because the AG Pool rate. which is a higher cost to CAWCD, is replaced with the delivery of Excess CAP water, which is provided at a higher rate. This issue will be discussed formally at the CAWCD Board meeting in October.

Perri Benemelis (ADWR) updated Commission members on two major work efforts for the Colorado River Section. The first concerns the negotiation of a voluntary shortage sharing and modified operating agreement with Mexico. Participants in the negotiations have met often over the last two years and are working through many complicated issues. The voluntary agreement is proposed as a "Minute" to the 1944 Treaty governing Mexico's Colorado River apportionment. Negotiations involve the 7-Basin States, Reclamation, the State Department and Mexico's federal government. A voluntary agreement is preferred over a State Department interpretation of the Treatyterm "extraordinary drought" which is used to describe both the Colorado River and Rio Grande, although operating issues for the two rivers are very different. A voluntary agreement would also allow Mexico additional operational flexibility to better manage its water supply during Colorado River shortages. Chairman Guenther noted that the issues are becoming more complex over time, especially with regard to drought and potential shortages. A long-term solution for Mexico could involve developing intentionally created surplus (ICS). Discussions include the potential for Mexico to develop ICS (or an escrow account) on a short-term basis from water deliveries that cannot be made because of earthquake damage to its distribution system. Absent a long-term agreement certain parameters could be used to assist Mexico in its operations.

The second effort involves the Colorado River Basin Supply and Demand Study (Basin Study). Ms. Benemelis clarified that the Basin Study is funded by and includes as Study participants all seven Colorado River Basin States. The Basin Study will analyze demand and supply through 2060 using a downscaled climate model. Phase four of the Study will look at mitigation options including operational changes, conservation,

new infrastructure and augmentation. The preliminary Arizona demand analysis identified approximately 500,000 acre-feet of demand for which a long-term water supply has not yet been identified. The preliminary Arizona projection did not include updated demands for Arizona Indian Tribes. Some Tribes have provided updated demand schedules which will increase the total Arizona demand. Reclamation is meeting individually with Indian Communities throughout the Colorado River Basin to discuss the Study. There will be further modifications as the Study progresses. Ms. Benemelis commented that the Demand Subgroup is currently developing scenarios to examine a range of possible future demands under varied development conditions described as key driving forces. Ms. George asked that the Arizona demand predictions be made available to the Commission.

Mr. Slowinski introduced Fred Breedlove as the attorney who will be representing ADWR on Indian settlements and providing legal advice to the AWBA. Mr. Slowinski provided an update on CAWCD v. Brewer, which challenges the sweeping of AWBA interstate funds by the State. The motions for summary judgement must be filed by both sides in October. The Superior Court will hear oral arguments on the motions on November 19<sup>th</sup>. The judge will have sixty days to issue a decision on whether to grant judgement or require a trial.

### **Amended 2010 Plan of Operation**

Ms. Mitchell informed Commission members that an additional 57,000 acre-feet of water has become available to the AWBA through CAWCD's remarketing process. Additional water is available because of a decrease in on-river demand. Of the 57,000 acre-feet, 38,000 acre-feet is for Arizona uses, scheduled for the Phoenix AMA and 19,000 acre-feet is for interstate purposes: 5,000 acre-feet scheduled for the Phoenix AMA and 14,000 acre-feet scheduled for the Tucson AMA. Ms. Mitchell noted that the interstate deliveries will expend all remaining Nevada Operating funds that had become available as a result of the 2009 reconciliation of interstate costs. She clarified that by using interstate funds in the Tucson AMA in 2010, it allows the AWBA to maximize the use of storage capacity available for intrastate purposes in 2010 and 2011. Storing additional intrastate water in the Tucson AMA in 2010 reduces the funds available in 2011, thus reducing the amount of storage that can be accomplished. Ms. Mitchell reviewed Table 4, which identified an adjusted interstate rate of \$187/acre-foot. The published rate was \$231/acre-foot. Additional expenditures for the Amended 2010 Plan of Operation (Plan) total \$9.4 million: \$5.4 million for intrastate and \$4 million for interstate. The Amended Plan utilizes all available capacity available to the AWBA. Mr. Buschatzke inquired why the interstate rate had decreased. Ms. Mitchell responded that the rate is an estimate based on the previous year's cost. Costs can be narrowed down as the year progresses as it becomes known how the energy markets are performing. Mr. Dozier commented that the interstate rate includes the third category of power, which had been above \$60-\$70 per mwh. The actual rate for 2010 has averaged \$40 per mwh. The adjusted interstate rate estimates the reconciled rate for 2011. Mr. Dozier also noted that the additional 57,000 acre-feet is based on current estimates from the Bureau of Reclamation. He requested that the Commission allow some flexibility in the deliveries since the final amounts could change and because of the planned outage affecting the Tucson AMA in the fall. Mr. Henley noted that these changes would not require a second amendment because the initial Plan already allows for flexibility in operations. Mr. Buschatzke inquired if the interstate water included

Nevada's unused apportionment. Mr. Dozier responded that while the deliveries did not currently include Nevada's unused apportionment, through overall operation of the system, it is possible it could be included in the end.

John Mawhinney made a motion to approve the Amended 2010 Plan jof Operation with flexibility in deliveries. Lisa Atkins provided the second to that motion. The motion carried.

# Discussion of Draft Metropolitan Domestic Water Improvement District Water Storage Agreement at Avra Valley Recharge Project

Mr. Henley commented that the draft water storage agreement was for discussion purposes only. A final draft would be provided at the December meeting. The AWBA has historically stored water at the Avra Valley Recharge Project (AVRP). However, a new agreement is required because the Metropolitan Domestic Water Improvement District (MDWID) is purchasing the facility from CAWCD. The conveyance will be effective the beginning of next year, which would affect the 2011 Plan of Operation. Therefore approval of the agreement would be needed by December. Mr. Henley noted that the agreement is similar to other AWBA water storage agreements. One difference is the timing for developing the water delivery schedule. Storage capacity availability for developing the following year's Plan of Operation would be discussed at the June meeting, so that some commitment could be provided to MDWID. This would allow MDWID the opportunity to seek other partners if the AWBA did not utilize its full capacity. The facility rates include costs for state lease land costs, AG turnout costs, general O&M, and a 3% increase after 2012, which reflects MDWID's own projected costs. Mr. Henley pointed out that the draft agreement did not currently include provisions for recovery. These will be included in the next draft. Mr. Buschatzke inquired if the transfer had already occurred. Mike Block (MDWID) responded that the conveyance is still pending. The public notice period for the conveyance application is September 29<sup>th</sup>. An application has also been prepared for submittal to the State Land Department. The application has been pre-reviewed and will be expedited upon submittal. A transportation agreement with BKW Farms has also been finalized. The purchase of the facility is through the transfer of long-term storage credits to the Central Arizona Groundwater Replenishment District (CAGRD) who will transfer the equivalent in funds to CAWCD. The escrow agent will receive the agreement after ADWR approves the assignment of the long-term storage credits. Chairman Guenther inquired why MDWID wanted to operate its own facility. Mr. Block responded that MDWID had acquired an additional allocation of water as a result of Indian settlements and had concerns regarding access to recharge facilities for storage and subsequent recovery of the water.

#### **Draft 2011 Annual Plan of Operation**

Ms. O'Connell reviewed Tables 2, 4, and 5 of the draft 2011 Annual Plan of Operation (Plan) She noted that water availability is based on CAWCD's policy for distributing excess CAP water. Under the policy, the AWBA shares a pool of 175 kaf with the CAGRD for replenishment reserve and with the Bureau of Reclamation (Bureau) for Indian firming purposes. The CAGRD estimates utilizing approximatley 10,000 acrefeet and the Bureau has indicated they are planning to utilize 3,000 acre-feet, leaving 162,000 acre-feet available for the AWBA, which was the amount utilized to develop the Plan. However, this amount was further reduced by approximately 11,600 acre-feet as

part of CAWCD's proposed payback plan for an inadvertant overrun that occurred in 2009. CAWCD assumed that because the AWBA stores additional water that becomes available at the end of the year, storage of that water would likely have caused the overrun. The reduction to the AWBA is identified in the November and December planned deliveries to the Tonopah Desert Recharge Project (TDRP). Ms. O'Connell commented that if additional water becomes available, it would be stored at TDRP to make up for the decrease in deliveries.

Ms. O'Connell noted that additional storage capacity is available in all three AMAs, however storage is maximized in the Pinal and Tucson AMAs based on funding availability. Proposed deliveries are based on initial discussions with AWBA partners. Deliveries to the Cortaro-Marana GSF are subject to Board approval. Likewise, deliveries to AVRP are subject to execution of the water storage agreement with MDWID. The 2011 Plan also includes the delivery of 1,000 AF to the Southside Replenishment Bank. This is the minimum that must be delivered each year until 15,000 acre-feet have been delivered. The Plan dos not include deliveries for interstate purposes. The total cost of the 2011 Plan is approximatley \$21 million and will accrue an estimated 137,000 acre-feet of long-term storage credits.

Ms. George pointed out that with regard to CAWCD's proposed payback plan for inadvertant overruns, it should be taken into consideration that the AWBA's end of year storage is usually for interstate purposes, however, when the payback occurs in the following years, the reductions affect the AWBA deliveries for Arizona uses. Mr. Dozier noted that CAWCD is making every effort to take its full allocation of water, while still avoiding an overrun. He commented that the AWBA was not operating under its pool allocation in 2009.

Ms. George made a motion to direct staff to schedule and hold public meetings on the Draft 2011 Plan. Mr. Mawhinney provided the second to that motion. The motion carried.

#### **Interstate Water Banking**

Ms. Mitchell noted that Kay Brothers, the Deputy General Manager of Engineering and Operations for the Southern Nevada Water Authority (SNWA), retired in May. Rick Holmes has been hired as her replacement. Ms. Brothers will continue as a consultant for SNWA. CAWCD, ADWR, and AWBA staff met with SNWA staff to provide an overview of each agencies activities and operations. CAWCD also provided a tour of their control center and the Agua Fria Recharge Project. SNWA staff also provided an update on the installation of the third intake at Lake Mead and the problems they have encountered. Mr. Holmes provided a letter to each agency, expressing his of appreciation.

Ms. Mitchell briefed the authority on the third quarter interstate accounting table for 2010. The table includes interstate storage approved under the Amended 2010 Plan. Estimated cumulative credits by the end of 2010 will be over 600,000 acre-feet, which represents 48% of the AWBA's obligation to Nevada.

Ms. Mitchell reviewed the Interstate Accounting Report for Fiscal Year 2010, which is submitted to the Joint Legislative Buget Committee by October 1<sup>st</sup> each year. She noted the report had been updated to include information on the letter agreement modifying

the payment schedule under the Second Amended Agreement for Interstate Water Banking. Ms. George requested that staff include a statement that identifies the amount of water that the AWBA could have stored for Arizona users (approx. 200,000 acre-feet) if the Legislature had not swept the \$19.7 million from the Nevada Resource Account.

#### Call to the Public

There were no additional comments. Next meeting scheduled for December 8, 2010.

Consideration of Action to go into Executive Session of the Authority Commission pursuant to A.R.S. § 38-431.03.A.4 to consult with their attorneys and AWBA staff regarding the Authority's position on the Northeastern Arizona Water Rights Settlement Agreement negotiations.

Ms. Atkins made a motion to go into executive session. Ms. George provided the second to that motion. The motion carried. Chairman Guenther stated open session would not reconvene before 1:00 p.m.

#### **Reconvene in Open Session**

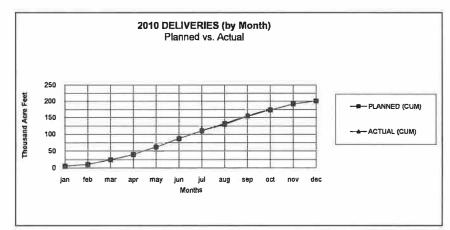
A motion was made to reconvene and adjourn the regular session. The motion carried.

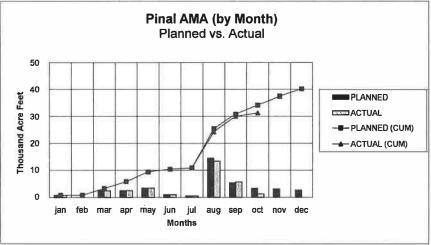
Consideration of Action related to Items Discussed in Executive Session There was no action.

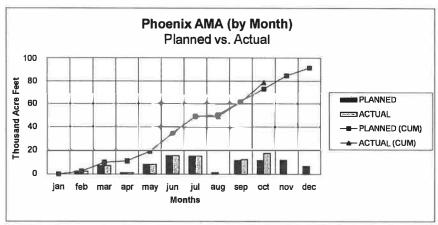
The meeting adjourned at 1:35 p.m.

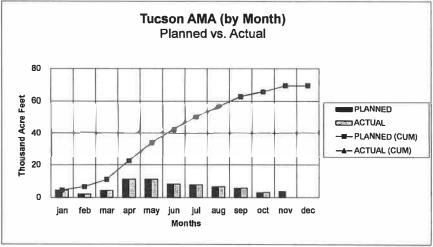
# 2010 Amended Plan of Operation

INTRASTATE



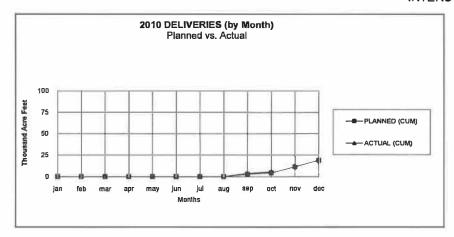


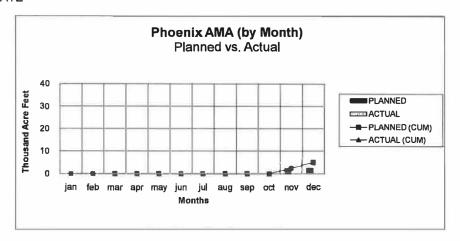


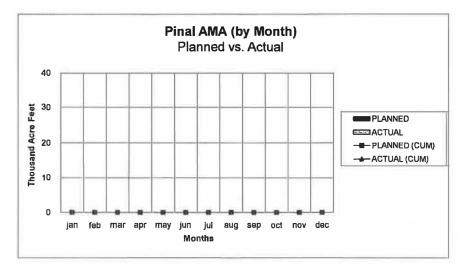


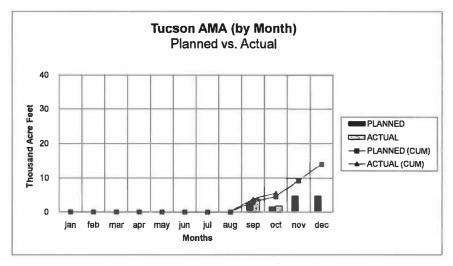
# 2010 Amended Plan of Operation

#### INTERSTATE









Actual deliveries up Amended Plan of O		jan	feb	mar	арг	may	jun	jul	aug	sep	oct	υο <del>λ</del>	dec		tolej
Phoenix AMA Intrasta	ate														
	AGUA FRIA	0	0	0	0 0	0 0	0	0	0	0	0	0	D 0		0
	HIEROGLYPHIC MTNS	0	0	0	0	0	0	0	0	0	1,860	0	0		1,860
	TONOPAH DESERT	<i>0</i> 0	2,583	<i>0</i> 7,113	<i>0</i> 1,137	<i>0</i> <b>8,131</b>	<i>0</i> 15,338	<i>0</i> <b>14,895</b>	<i>0</i> 0	<i>0</i> <b>12,248</b>	<i>0</i> 15,460	2,500 0	2,500 0		5,000 <b>76,905</b>
	QCID	0 0 0	2,583 0 0	7,113 0 0	1,137 0 0	8,131 0 0	15,338 0 0	14.895 0 0	0 0 1.343	9,000 0 2,285	9,000 0 2,285	9,000 0 0	3,148 0 1,142		79,345 0 7,055
Subtota		0	2,583	7,113	1,137	8,131	15,338	14,895	0	12,248	17,320	0	0	-	78,765
Total to Projecte	ed total to date	0 0	2,583 2,583	9,696 7,113	10,833 1,137	18,964 8,131	<b>34,302</b> 15,338	49,197 14.695	49,197 1.343	61,445 11,285	78,76 <b>5</b> 11,285	78,765 11,500	78,765 6,790		<b>78,765</b> 91,400
Intersta	sta														
Illerace	AGUA FRIA	0	0	0	0	0	0	0	D	0	0	0	0		0
	HIEROGLYPHIC MTNS	<i>0</i>	<i>0</i> 0	<i>0</i>	<i>0</i>	<i>0</i>	0	0	<i>0</i>	<i>0</i>	<i>0</i>	0	<i>0</i>		<i>0</i>
		0	0	0	0	0	0	0	0	0	0	0	o		o
	TONOPAH DESERT	0 <i>0</i>	0 0	0 0	0 0	0 0	0	0 0	0 0	0	0	0 2,500	0 2,500		0 5,000
	QCID	0	0	0	0	0	0	0	0	0	0	0	0		0
Subtota		0	0	0	0	0	0	0	0	0	0	0	0		0
Total to Projecte	o date led total to date	0 0	0 <i>0</i>	0 0	<i>0</i>	0 0	0	0 0	0 0	0	0	0 2.500	0 2,500		0 5.000
Combin														_	
Subtota	al	0	2,583	7,113	1,137	8,131	15,338	14,895	0	12,248	17,320	0	0		78,765
Total to	o date led total to date	0 0	2,583 2,583	9,696 7,113	10,833 1,137	18,964 8,131	<b>34,302</b> 15,338	49,197 14,895	49,197 1,343	61,445 11,285	78,765 11,28 <b>5</b>	78,765 14.000	78,765 9.290		78,765 96.400
			2,000			0,	10,000	,	1,540	11,200	77,200	77,000	3.230		00.400
Pinal AMA															
Intrasta	ate CAIDD	0	0	0	0	0	0	0	11,400	0	0	0	0		11,400
	MSIDD	<i>0</i> <b>B00</b>	<i>0</i>	<i>0</i> 2,500	<i>0</i> 2,100	<i>0</i> 3,100	<i>0</i> 1,000	<i>0</i> <b>500</b>	11,400 2,000	0 2,300	0 1,300	<i>0</i>	<i>0</i>		11,400 15,600
	LUDD	800	<i>0</i>	2,500	2,100 500	3,100 364	1,000 0	500 0	2,000 0	2,000	1,400 0	1,000 0	400 0		16,800
	HIDD	0 0	0	0 0	500	364	۵	0	1,136	2,460 2,460	2,000	2.175	2.365		3,324 11.000
	Southside Bank	0	0	0	0	0	0	0	0	1,000 1,000	0	0	0		1,000 1,000
Subtota		800	0	2,500	2,600	3,464	1,000	500	13,400	5,760	1,300	0	0	3(	31,324
Total to	o date ted total to date	800 800	800 <i>0</i>	3,300 2,500	5,900 2,600	9,364 3,464	10,364 1,000	10,864 500	24,264 14,536	30,024 5,460	<b>31,324</b> <i>3,400</i>	<b>31,324</b> <i>3,175</i>	31,324 2.765	0	31,324 40,200
Intersta		0	0	0	0	0	0	0	0	0	0	0	0		0
	MSIDD	0	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	0	0	<i>0</i>	0	0		<i>0</i>
		o	0	0	0	o	0	O	o	0	o	o	0		0
	HIDD	0	0	0	0	0	0	0	0	0	0 0	0 0	0		0 0
Subtota		0	0	0	0	0	0	0	0	0	0	0	0	_	0
Total to Projecto	o date ted total to date	0	0	0	0	0 0	0	0	0	0	0	0	0 0		0
Combin	ined													_	
Subtota	al	800	0	2,500	2,600	3,464	1,000	500	13,400	5,760	1,300	0	0		31,324
Total to Projecte	o date led total to date	800 800	800 <i>o</i>	3,300 2,500	5,900 2.600	<b>9,364</b> 3,464	10,364 1,000	10,864 500	<b>24,264</b> 14,536	<b>30,024</b> 5,460	<b>31,324</b> 3,400	31,324	31,324		31,324
			-	2,000	2.000	5,707	1,000	300	17,350	5,400	3,400	3.175	2.765		40.200

Actual deliveries updated Amended Plan of Operation	06-Dec-10 15-Sep-10	jan	feb	mar	арг	may	jun	jul	aug	sep	oct	nov	dec	total
		1		***************************************	77.	,	1	,		<b>33</b> p		1107	400	totai
Tucson AMA														
Intrastate	AVRA VALLEY	607	428	565	438	500	471	419	349	0	0	0	0	3,777
		607	428	565	438	500	471	419	349	0	0	0	0	3,777
	CAVSARP	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
	SAVSARP	0	0	0	7,043	6,524	3,613	5,244	6,025	5,826	3,156	0	0	37,431
		0	0	0	7.043	6,524	3,613	5,244	6,025	5,700	3,000	3,851	0	41,000
	LOWER SANTA CRUZ	3,957	1,709	3,854	2,920	2,733	3,777	1,484	211	0	0	0	0	20,645
		3,957	1,709	3,854	2,920	2,733	3,777	1,484	211	0	0	0	0	20,645
	CORTARO-MARANA	0	0	0	1,030	1,602	492	715	158	0	0	0	0	3,997
		0	0	0	1,030	1,602	492	715	161	0	0	0	0	4,000
Subtotal	2.===	4,564	2,137	4,419	11,431	11,359	8,353	7,862	6,743	5,826	3,156	0	0	65,850
Total to date		4,564	6,701	11,120	22,551	33,910	42,263	50,125	56,868	62,694	65,850	65,850	65,850	65,850
Projected total to	date	4.564	6,701	11,120	22,551	33,910	42,263	50,125	56,871	62,571	65,571	69,422	69,422	69.422
. , , , , , , , , , , , , , , , , , , ,						,	,	,		,				***************************************
Interstate	AVRA VALLEY	0	0	0	0	0	0	0	0	226	116	0	0	342
		0	0	0	0	0	0	0	0	0	0	500	500	1,000
	CAVSARP	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	2,703	0	2,703
	SAVSARP	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	2,297	2,297
	LOWER SANTA CRUZ	0	0	0	0	0	0	0	0	3,557	1,657	0	0	5,214
		0	0	0	0	0	0	0	0	3,000	1,500	1,500	2,000	8,000
	CORTARO-MARANA	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	_	0	0	0	0	0	0	0	0	3,783	1,773	0	0	5,556
Total to date		0	0	0	0	0	0	0	0	3,783	5,556	5,556	5,556	5,556
Projected total to	date	σ	0	0	0	0	0	0	0	3,000	4,500	9,203	14,000	14,000
Combined														
Subtotal		4,564	2,137	4,419	11,431	11,359	8,353	7,862	6,743	9,609	4,929	0	0	71,406
Total to date		4,564	6,701	11,120	22,551	33,910	42,263	50,125	56,868	66,477	71,406	71,406	71,406	71,406
Projected total to	date	4,564	6,701	11,120	22,551	33,910	42,263	50,125	56,871	65,571	70,071	78,625	83,422	83,422
•		·	•	-		•				•				
TOTAL		5,364	4,720	14,032	15,168	22,954	24,691	23,257	20,143	27,617	23,549	0	0	181,495
Total to date		5,364	10,084	24,116	39,284	62,238	86,929	110,186	130,329	157,946	181,495	181,495	181,495	181,495
Projected total to	o date	5.364	9,284	20,733	26,288	45,505	58,601	65, 520	72.750	82.316	84,756	95,800	95,477	220,022

# CENTRAL ARIZONA PROJECT ANNUAL RECOVERY PLAN & USE

#### Calendar Year 2010

(in acre-feet)

Revised 12/2/10

# **Pinal County Irrigation Districts Recovery Schedule:**

- Si	MSIDD		CAIDD		HIDD		CAGRD EXCHANGE		TOTAL	
MONTH	SCH	Used	SCH	Used	SCH	Used	SCH	Used	SCH	Used
Jan	200	207	0	0	200	200	0	0	400	407
Feb	400	400	0	0	417	0	0	0	817	400
Mar	500	815	500	500	417	109	0	0	1,417	1,424
Apr	400	578	513	513	417	455	V 0	0	1,330	1,546
May	300	0	536	536	617	202	0	0	1,453	738
Jun	200	0	519	519	88	183	. 0	0	807	702
Jul	0 -	0	525	525	(A)	218	- 0	0	525	743
Aug	500	500	409	409	0	211	0	0	909	1,120
Sep	0	0	501	501	0	228	0	0	501	729
Oct	0 31	0	0	0	0 = 2	55	0	0	0	55
Nov	0	0	0	0	0	295	0	0	. 45.25 0	295
Dec	0	0	0	0	0	0	6	0	0	0
Total	2,500	2,500	3,503	3,503	2,156	2,156	0	0	8,159	8,159

<sup>\*</sup> Recovered water will be posted as Ag Settlement Pool water on all monthly delivery reports.

Total MWD credits for recovery ( 5% cut to aquifer + 4,909 af losses) = 80,909 AF

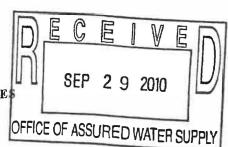
Less 2007 total recovered credits: = 16,804 AF

Less 2008 total recovered credits: = 28,442 AF

Less 2009 total recovered credits: = 27,504 AF

Less 2010 total recovered credits: = 8,159 AF

Remaining credits to be recovered by CAP: = 0 AF



#### ARIZONA DEPARTMENT OF WATER RESOURCE

Water Management Division 3550 North Central Ave, 2<sup>nd</sup> Floor Phoenix, Arizona 85012-2105 Phone (602) 771-8500 Fax (602) 771-8689

APPLICATION FOR WATER
STORAGE PERMIT (A.R.S § 45-831.01)

The initial application fee for a Water Storage Permit is \$2,000. Total fees for this application are based upon an hourly billable rate, which can be found on the ADWR web site @www.azwater.gov. If the costs of reviewing your application exceed \$2,000, you will be invoiced for the difference, up to a maximum total fee of \$65,000. Payment may be made by cash, check,

FOR OFFICE USE ONLY	
Application No.:	
Date Received:	
	_

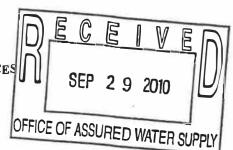
or credit card (if you wish to pay by credit card, please contact the Recharge Program at 602-771-8599). Checks should be made payable to the Arizona Department of Water Resources. In addition to the hourly application fee, the applicant must pay any review-related costs associated with the application and the actual cost of mailing or publishing any legal notice of the application or any notice of a pre-decision administrative hearing on the application. Review-related costs are: (1) costs associated with a pre-decision hearing on the application, such as court reporter services and facility rentals for the hearing, and (2) mileage expenses for a site visit conducted before issuing a decision on the application. Failure to enclose the initial application fee will cause the application to be returned. Fees for a application for a Water Storage Permit are authorized by A.R.S. § 45-871.01 and A.A.C. R12-15-103.

PLEASE SUBMIT ONE ORIGINAL AND ONE COPY OF THE COMPLETED APPLICATION AND ALL SUPPORTING MATERIALS

AP	PPLICATION FOR: (Check one)							
<u> </u>	New Water Storage Permit  No. 73  No. 73  No. 73							
	GENERAL INFORMATION							
1.	Name of Applicant: Arizona Water Banking Athority							
	3550 N. Central Ave., 2nd Fl., Phoenix AZ 85012 Mailing Address City State Zip							
	Contact Person: Kim Mitchell Telephone: 771-8490 Fax: 771-8686							
2.	Name and permit number of storage facility where water storage will occur:							
	Queen Creek Irrigation District GSF 72-534550.0003							
3.	Name of Active Management Area or Irrigation Non-Expansion Area where the facility will be located:  Phoenix Am A  (If the facility is NOT located within an AMA or INA, please indicate "NONE.")							
4.	Name of groundwater basin and subbasin where the facility will be located:							
	East Salt River Valley							
5.	If this water storage permit application is for the storage of CAP water and meets the requirements of A.R.S. §§ 45-831.01(G) or 45-871.01(E) and the applicant will <b>not</b> also be the holder of the storage facility permit, please submit a consent agreement signed by the facility permit holder.							
6.	The maximum annual amount of water that may be stored at the facility:							
	(acre-feet per year)							

#### ARIZONA DEPARTMENT OF WATER RESOURCES

Water Management Division 3550 North Central Ave, 2<sup>nd</sup> Floor Phoenix, Arizona 85012-2105 Phone (602) 771-8500 Fax (602) 771-8689



APPLICATION FOR WATER STORAGE PERMIT (A.R.S § 45-831.01)

APPLICATION FOR: (Check one)

The initial application fee for a Water Storage Permit is \$2,000. Total fees for this application are based upon an hourly billable rate, which can be found on the ADWR web site @www.azwater.gov. If the costs of reviewing your application exceed \$2,000, you will be invoiced for the difference, up to a maximum total fee of \$65,000. Payment may be made by cash, check,

FOR OFFICE USE ONLY

Application No.: \_\_\_\_\_\_

Date Received: \_\_\_\_\_

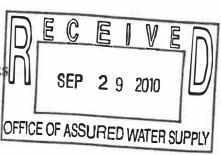
or credit card (if you wish to pay by credit card, please contact the Recharge Program at 602-771-8599). Checks should be made payable to the Arizona Department of Water Resources. In addition to the hourly application fee, the applicant must pay any review-related costs associated with the application and the actual cost of mailing or publishing any legal notice of the application or any notice of a pre-decision administrative hearing on the application. Review-related costs are: (1) costs associated with a pre-decision hearing on the application, such as court reporter services and facility rentals for the hearing, and (2) mileage expenses for a site visit conducted before issuing a decision on the application. Failure to enclose the initial application fee will cause the application to be returned. Fees for a application for a Water Storage Permit are authorized by A.R.S. § 45-871.01 and A.A.C. R12-15-103.

PLEASE SUBMIT ONE ORIGINAL AND ONE COPY OF THE COMPLETED APPLICATION AND ALL SUPPORTING MATERIALS

<u> </u>	No. 73- No. 73- 531382.1000
	GENERAL INFORMATION
1.	Name of Applicant: Arizona Water Banking Authority
	3550 N. Central Ave., 2nd Fl. Phoenix AZ 85012 Mailing Address City State Zip
2.	Contact Person: Kim Mitchell Telephone: 771-8490 Fax: 771-8686  Name and permit number of storage facility where water storage will occur: Central Arizona  Irrigation & Drainage District GSF, 72-531382.0003
3.	Name of Active Management Area or Irrigation Non-Expansion Area where the facility will be located:  Pinal Am A  (If the facility is NOT located within an AMA or INA, please indicate "NONE.")
4.	Name of groundwater basin and subbasin where the facility will be located:
5.	If this water storage permit application is for the storage of CAP water and meets the requirements of A.R.S. §§ 45-831.01(G) or 45-871.01(E) and the applicant will <b>not</b> also be the holder of the storage facility permit, please submit a consent agreement signed by the facility permit holder.
6.	The maximum annual amount of water that may be stored at the facility:

#### ARIZONA DEPARTMENT OF WATER RESOURCE

Water Management Division 3550 North Central Ave, 2<sup>nd</sup> Floor Phoenix, Arizona 85012-2105 Phone (602) 771-8500 Fax (602) 771-8689



APPLICATION FOR WATER STORAGE PERMIT (A.R.S § 45-831.01)

The initial application fee for a Water Storage Permit is \$2,000. Total fees for this application are based upon an hourly billable rate, which can be found on the ADWR web site @www.azwater.gov. If the costs of reviewing your application exceed \$2,000, you will be invoiced for the difference, up to a maximum total fee of \$65,000. Payment may be made by cash, check,

FOR OFFICE USE ONLY	
Application No.:	
Date Received:	

(acre-feet per year)

or credit card (if you wish to pay by credit card, please contact the Recharge Program at 602-771-8599). Checks should be made payable to the Arizona Department of Water Resources. In addition to the hourly application fee, the applicant must pay any review-related costs associated with the application and the actual cost of mailing or publishing any legal notice of the application or any notice of a pre-decision administrative hearing on the application. Review-related costs are: (1) costs associated with a pre-decision hearing on the application, such as court reporter services and facility rentals for the hearing, and (2) mileage expenses for a site visit conducted before issuing a decision on the application. Failure to enclose the initial application fee will cause the application to be returned. Fees for a application for a Water Storage Permit are authorized by A.R.S. § 45-871.01 and A.A.C. R12-15-103.

PLEASE SUBMIT ONE ORIGINAL AND ONE COPY OF THE COMPLETED APPLICATION AND ALL SUPPORTING MATERIALS

ΑP	PPLICATION FOR: (Check one)	
<u>-</u>	New Water Storage Permit  No. 73	No. 73- 531 38 1, 1000
	GENERAL INFORMATION	
l.	Name of Applicant: ACIZONA Water Banking 3550 N. Central Ave. 2nd FL Pr Mailing Address City	Athority
	Contact Person: Kim Mitchell Telephone: 7	11-8490 Fax: 771-8686
2.		Maricopa-Stanfield 72-531381
3.	Name of Active Management Area or Irrigation Non-Expansion Area where	
	(If the facility is NOT located within an AMA or INA, pl	
4.	Name of groundwater basin and subbasin where the facility will be located:	E169
5.	If this water storage permit application is for the storage of CAP water and m 831.01(G) or 45-871.01(E) and the applicant will <b>not</b> also be the holder of the consent agreement signed by the facility permit holder.	
6	The maximum annual amount of water that may be stored at the facility:	120,000

# **EXHIBIT C**

This Exhibit C, made this \_\_\_\_\_ day of \_\_\_\_\_\_, 2010, to be effective under and as part of the Amended Agreement to Firm Future Supplies shall become effective on the date of its execution. This Exhibit C shall terminate with the termination of the Amended Agreement to Firm Future Supplies.

#### RECITALS

- A. Mohave County Water Authority (MCWA) and the Arizona Water Banking Authority (AWBA) entered into the Agreement to Firm Future Supplies on February 4, 2005.
- B. MCWA acquired a portion of the Article 5 Contract previously held by Cibola Irrigation District and converted an Article 5 Contract for 5<sup>th</sup> Priority Colorado River Water to a 4<sup>th</sup> Priority Contract for domestic use.
- C. MCWA wishes to include their newly acquired 4<sup>th</sup> Priority Colorado River water entitlement in the Agreement to Firm Future Supplies.
- D. Prior to the execution of this Exhibit C MCWA must give written notice of its intent to firm the 500 acre-feet or must subcontract with one or more of the parties listed below, and submit evidence to AWBA of said Subcontracts.

#### **EXHIBIT**

Subcontract Entity	LTS Credits Reserved (AF) (as of date based on proportion of 403,830/420,000)	LTS Credits (AF) Maximum Total (based on 420,000 AF)		
Bullhead City	11,992	12,165		
Lake Havasu City	11,992	12,165		
Mohave County Water Authority	1,910	<u>1,938</u>		
Total	25,894	26,268		

In Witness of this Agreem	nent, the Parties	affix their	official signatures	below, ackno	owledging
execution of this Exhibit	C on the	_day of		_, 2010.	

# **Arizona Water Banking Authority**

Attest:		7	
	9 9		
By:	34	By:	
Thomas Buso	chatzke, Secretary	Herbert R. Guenther, Chain	nan
		Mohave County Wate	er Authority
			0
Attest:	· · ·		/ 1/
By: Golm	Juleun.	Do Mong Sh	//···
John Salem.	Secretary	Tom Griffin, Chairman	/

# Executive Summary for ADD Water

# <u>Program Overview – ADD Water</u>

The ADD Water Program is a future water supply acquisition program serving water users in CAWCD's three county service area.

#### Water Supply

**Phasing.** The program envisions six 50,000 acre-foot phases with the first phase beginning in 2015 and a new phase commencing every five years until a total of 300,000 acre-feet has been acquired and developed or until water supplies targeted for ADD Water have been exhausted, whichever comes first.

**Types.** ADD Water plans to target three water supply sources: Colorado River water, imported groundwater and potentially, brackish groundwater. ADD Water will not target ocean desalination.

**Portfolio.** CAWCD will manage the ADD Water supply as a single portfolio that increases in size with each phase. The supply will have a diverse mix of supplies including permanent and non-permanent supplies. The portfolio will contain at least 80% long-term/permanent supplies.

#### Contracts

**Eligibility.** Any municipal, industrial, agricultural or Indian water user within CAWCD's service area is eligible to contract for ADD Water, including the CAGRD. The AWBA and remarketers are not eligible to contract for ADD Water.

**Classes.** There are two classes of ADD Water contracts: long-term contracts and spot-market contracts. Long-term ADD Water contracts are intended to be used by water providers to pledge for assured water supply purposes.

**Transfers.** ADD Water contracts can be assigned or leased on terms defined by the parties, subject to CAWCD approval, to create partnerships that facilitate efficient use of the ADD Water contracts.

Allocation Method. ADD Water available in each phase will be distributed using a market-based allocation process (i.e., an auction) where the price for ADD Water will be increased until demand equals supplies. Any revenues from the auction that are in excess of the costs for that phase will be applied to the next phase.

#### **Finances**

**Pre-Launch Costs.** CAWCD will incur some costs before the start of each ADD Water phase. Funding for these costs may come from several potential sources:

- A revolving fund established using CAWCD's existing, but currently unused taxing authority
- Loans from CAWCD or from third parties
- ADD Water self-funding after the first phase
- Other funding mechanisms (e.g. new ad valorem taxing authority, grants, etc.)

ADD contractors within a phase will repay the associated pre-launch costs.

Water Supply Acquisition Costs. For Phase 1, CAWCD will be unable to finance the cost of water supply acquisition. ADD Water contractors will be required to pay 100% of that cost up-front and seek their own financing. To the extent flexible terms are available to CAWCD, those terms may be offered to contractors. For subsequent phases, CAWCD may be able to establish the creditworthiness needed to provide limited financing options.

Capital Costs for Improvements to CAP Canal Capacity. Infrastructure improvements will be calculated based on the cost of increasing the existing annual canal capacity to 2.1 million acre-feet (estimated at \$100 million) and dividing that cost by the program target of 300,000 acre-feet. This charge would then be levelized over a specific period of time. For example, assuming a total charge of \$333 per acre-foot, if collected over ten years, the charge would be \$33.33 per acre-foot annually.

OM&R Costs. ADD Water contractors will pay two fixed, postage stamp OM&R rates: an OM&R rate specific to ADD Water and the fixed CAP OM&R rate. These rates will be paid for water scheduled whether delivered or not. ADD Water contractors will also pay a postage stamp rate for variable OM&R. Energy costs for ADD Water will be kept separate from energy costs for CAP customers. Replacement for infrastructure associated with ADD Water will be incorporated into a Big "R" component of the ADD Water fixed OM&R rate. Replacement for short-term water supplies and contingency for long-term water supplies will be incorporated into a Big "W" rate component.

#### CAGRD

**Pre-ADD Obligations.** The CAGRD may enter into ADD Water contracts under the same terms and conditions as other eligible parties to satisfy pre-ADD Water replenishment obligations. Pre-ADD obligations include the following:

 Obligations associated with all member lands enrolled prior to the launch date of Phase 1 of ADD Water  Obligations associated with the current and committed demands of member service areas as of the launch date of Phase 1 of ADD Water

**Post-ADD Obligations.** The CAGRD will not be responsible for acquiring water supplies to meet post-ADD obligations. Post-ADD obligations include:

- Obligations associated with any member lands enrolled after the launch date of Phase 1 of ADD Water
- Obligations associated with any member service area enrolled after the launch date of Phase 1 of ADD Water
- Obligations associated with existing member service areas exceeding the member service area's pre-ADD obligations

Members with post-ADD obligations will be required to provide CAGRD a permanent water supply to meet these obligations. That supply may be an ADD Water contract.

# CAP STAFF ADD WATER PROGRAM PROPOSAL

## WATER SUPPLY

#### Phased Approach

- 1. Phase 1 of the ADD Water Program will "launch" in 2015, meaning that CAWCD will begin delivery of ADD Water in 2015.
- 2. A new phase will launch every 5 years—i.e., 2020, 2025, etc.
- 3. In each phase, CAWCD will plan to acquire/develop up to 50,000 acre-feet of new water supplies for the ADD Water Program.
  - a. CAWCD, in consultation with potential ADD Water contractors, will determine the target volume and potentially available supplies for each phase during a "pre-launch" planning process that will evaluate the potential demand for ADD Water at differing price points.
- 4. Phases will continue until the ADD Water Program target volume of 300,000 acre-feet has been acquired/developed or until CAWCD determines that no additional ADD Water supplies are available, whichever occurs first.

## Types of ADD Water Supplies

- 1. Types of water supplies that may be acquired for the ADD Water Program include:
  - a. <u>Colorado River water</u>. CAWCD may acquire rights to Colorado River water held under contract pursuant to §5 of the Boulder Canyon Project Act.
    - Most likely these will be priority 3 or higher water rights—i.e., senior to CAP's Colorado River entitlement.
    - ii. CAWCD may consider priority 4 water rights—equal to CAP priority—on a case-by-case basis.
    - iii. This may entail obtaining rights to water that is currently unused by the existing contract holder.
  - b. <u>Imported Groundwater</u>. CAWCD, directly or in conjunction with other authorized entities, may acquire the groundwater that is available for transport into an initial AMA.

- i. A portion of the groundwater resource would be used to meet long-term ADD Water contract demands.
- ii. The remainder of the groundwater resource could be used as a drought supply or to complement other water supplies.
- c. <u>Brackish groundwater</u>. Desalination of brackish groundwater may be considered on a case-by-case basis for the ADD Water Program if the costs of developing (capital) and producing (OM&R) that supply are comparable to the costs of other ADD Water supplies.
- 2. <u>Ocean Desalination Not Included.</u> At present, the cost of ocean desalination—particularly annual OM&R cost—is far greater than the expected cost of the supplies identified above. Therefore, CAWCD will not develop ocean desalination as a water supply for the initial ADD Water Program.
  - a. If there is still a demand for additional water supplies when no additional water supplies of the type identified above are available, CAWCD will work with stakeholders to develop ocean desalination.
  - b. Ocean desalination would have its own operating rules, financial structure, etc.

## **ADD Water Supply Portfolio**

- Water supplies for the ADD Water Program will be acquired from multiple sources at various times, but CAWCD will manage the water supplies as a single portfolio that increases with each phase.
- 2. ADD Water contracts will be for delivery of water from the overall ADD Water portfolio, not from any specific source.
- 3. At least 80% of the ADD Water portfolio must be comprised of long-term (100-year) or permanent water supplies.
- 4. Up to 20% of the ADD Water portfolio may include non-permanent supplies with a minimum term of 30 years.
  - Non-permanent supplies in the ADD Water portfolio will be renewed and/or replaced as needed.
  - The cost of periodic replacement of ADD Water supplies—non-permanent supplies as well as "permanent" supplies that may become unavailable or unreliable for any reason—will be included in ADD Water rates. (See discussion below.)

The intent is that M&I providers may use contract entitlements based on the ADD
Water portfolio to qualify for Assured Water Supply purposes under existing
ADWR rules.

#### CONTRACTS<sup>1</sup>

#### **Eligibility to Contract for ADD Water**

- 1. Any municipal, industrial, agricultural or Indian water user within CAWCD's three-county service area is eligible to obtain a water service contract for ADD Water.

  Municipal and industrial water user includes the CAGRD and landowners. [Q3, #1]
- 2. CAWCD, acting in its capacity as CAGRD, will have the same privileges, obligations and rights as other ADD Water contractors. [Q3, #1]
- 3. AWBA is not eligible to enter into a long-term water contract for ADD Water. [Q3, #2]
- 4. An entity whose primary business purpose is to purchase or store water for future resale ("remarketer") cannot obtain an ADD Water contract. [Q3, #3]
  - a. This provision does not prevent a group of eligible parties (e.g., landowners) from forming an entity to purchase an ADD Water contract for assignment to the individual parties between phases.

#### **Classes of ADD Water Contracts**

- CAWCD will offer two classes of ADD Water contracts: long-term and spot market.
- 2. <u>Long-term contracts</u> will be for permanent service and are intended to meet assured water supply requirements. [Q4, #1]
- 3. <u>Spot-market contracts</u> will be annual contracts for unscheduled ADD Water. The availability of this type of water will be determined on an annual basis based on delivery schedules submitted by long-term ADD Water contractors. Spot-market water may not be counted for assured water supply purposes. [Q4, #1]
- 4. In lieu of offering short-term or interruptible contracts, CAWCD will encourage and facilitate mutually beneficial arrangements between ADD Water customers. Examples could include:

<sup>&</sup>lt;sup>1</sup> SEC categories covered in this section include: Participation Eligibility (Q3-8); Need Determination (Q9-10); Ownership Interest (Q13-15); and Use of Unscheduled Supply (Q16).

- a. An entity desiring to receive ADD Water only for a defined term may enter into a long-term ADD Water contract, and then assign that contract to another entity when no longer needed.
- b. An entity desiring to receive ADD Water only intermittently—such as during a shortage—may partner with a long-term ADD Water contractor that is willing to have its deliveries interrupted from time to time (e.g., CAGRD).
- c. An ADD Water contractor may lease its contract entitlement to another entity for a defined term.

#### Flexible Arrangements for ADD Water Contracts

#### Assignment s

- 1. "Assignment" means the permanent transfer of an ADD Water Contract entitlement to a third party.
- 2. An ADD Water contractor may assign all or part of its ADD Water contract entitlement to another eligible entity, subject to CAWCD review and approval. [Q6, #1]
- 3. The parties to the assignment will define the financial terms of their agreement.
- 4. CAWCD will impose operational requirements, as necessary and appropriate, on assignments to prevent harm to other CAP or ADD Water contractors e.g., if the assignment would move the point of delivery downstream on the CAP system and thereby impair CAWCD's ability to make other deliveries. [Q6, #2]
- 5. CAWCD will prepare the necessary assignment documents to effectuate the assignment.

#### <u>Leases</u>

- 1. "Lease" means an agreement for the temporary transfer of an ADD Water Contract entitlement to a third party.
- 2. An ADD Water contractor may lease all or part of its ADD Water contract entitlement, subject to CAWCD review and approval.
- 3. The parties to the lease will define the financial terms of their lease agreement.
- Contractual provisions relating to scheduling and payment for ADD Water deliveries and other provisions will be required to be included in the ADD Water Contract lease.

5. CAWCD will impose operational requirements, as necessary and appropriate, on leases to prevent harm to other CAP or ADD Water contractors — e.g., if the lease would move the point of delivery downstream on the CAP system and thereby impair CAWCD's ability to make other deliveries. [Q6, #2]

#### **Market-Based Allocation Method**

- 1. The ADD Water long-term contract entitlement volume available during each phase will be distributed among potential contractors using an auction process. The auction will establish a market-clearing price for each phase—i.e., the price at which demand equals supply.
- Each participant will determine its own need, based on its evaluation of current and future demand, cost, other supply options (including conservation) and its own projections as to the price of contracts in future phases.
- 3. All participants in a phase will pay the same price for ADD Water contracts awarded in that phase.
- 4. Aside from the assignment of an existing ADD Water contract entitlement, the only way to acquire a long-term contract for ADD Water is through the auction process that occurs in connection with the launch of each phase.

#### Floor Price

- CAWCD will establish a "floor price" for each phase of ADD Water. The floor
  price will include the aggregate cost of water acquisition for that phase (but no
  other phase) and other necessary components—e.g., to establish or maintain
  ADD Water reserves, to repay pre-launch costs or to cover other program costs.
- 2. CAWCD will announce the floor price for each phase sufficiently in advance of the auction process to allow potential ADD Water contractors to evaluate their options and prepare their strategy for the auction.

#### **Auction Rules**

- 1. The auction will be conducted in rounds. In each round, potential contractors will submit bids for specific ADD Water contract entitlement volumes at the price specified for that round.
- 2. The specified price for the first round will be the floor price.
- 3. If the demand for ADD Water contract entitlements in a round exceeds the volume available in that phase, a subsequent round will be conducted at a higher specified price.

- 4. The auction will continue until the aggregate contract demand equals the volume available in that phase, establishing a market-clearing price for that phase.
- 5. The auction process may include conditions such as:
  - a. Pre-qualification of bidders.
  - b. Minimum/maximum volumes that may be requested by a single bidder.
  - c. Minimum number of bidders to have a valid auction.
  - d. CAWCD's ability to reject all bids.
  - e. A bidder may not participate in an auction round if it did not participate in the immediately preceding round.
  - f. A bidder may not request a greater contract entitlement volume than it requested in the immediately preceding round.

#### Carryover Revenue

- 1. If the market-clearing price established for a phase exceeds the floor price for that phase, the revenues generated by the difference ("carryover revenue") will be applied to reduce the floor price for the next phase of ADD Water.
  - a. The intent of this mechanism is to discourage speculative activity. Bidding up the price in one phase could make the next phase less expensive.
  - b. This application of carryover revenues will continue through all phases.
- If there is any carryover revenue after the final phase, it will be applied to reduce ongoing program costs for all ADD Water contractors, regardless of when they contracted.

# FINANCES<sup>2</sup>

# **Pre-Launch Costs**

1. CAWCD will have to incur some costs before the start of each phase of the ADD Water Program. Such pre-launch costs could include fees for consultants retained to identify and evaluate water supplies, costs to obtain options to acquire water rights and basic administrative costs. Pre-launch costs do not include the full cost of acquiring water supplies for each phase of ADD Water, which are addressed separately below.

<sup>&</sup>lt;sup>2</sup> SEC categories covered in this section include: Capital Costs – Supply (Q17-18); Capital Costs – Infrastructure (Q19-21); and Operation Maintenance and Repair (OM&R) (Q22-24).

- a. CAWCD will establish an accounting fund to capture ADD Water costs on an ongoing basis beginning January 2012, which coincides with the start of CAWCD's next budget cycle.
- After the ADD Water accounting fund is established, CAWCD may identify and capture pre-2012 expenses that should be charged to the ADD Water Program.
- 2. Phase 1 will be unique due to the fact that there have been no previous phases. Consequently, there may be certain pre-launch costs that will be incurred only in Phase 1. Other types of pre-launch costs may be incurred in multiple phases. Certain financing mechanisms may only be appropriate or available for a single phase, others may be appropriate or available for multiple phases, and still others may only be appropriate or available once the ADD Water Program is operational (i.e., after Phase 1).
- 3. Funding to cover pre-launch costs may be obtained in one or more of the following ways:
  - a. Establish a revolving fund using existing, but currently unused, taxing authority. The revolving fund would be available to pay pre-launch costs for each phase of ADD Water, beginning as early as Phase 1. Each phase would repay the pre-launch costs for that phase by incorporating those costs into the floor price for the auction of the ADD Water contract entitlement for that phase, thereby replenishing the revolving fund for use by the following phase.
    - i. CAWCD has the authority to levy an ad valorem tax of up to 10¢ per \$100 of assessed valuation. That tax may be used for any purpose for which CAWCD is organized. CAWCD is currently levying only 6¢ of that taxing authority.
    - ii. CAWCD could establish an ADD Water working capital fund by temporarily increasing its general ad valorem tax for some period of time.<sup>3</sup>
    - iii. The currently unused taxing authority would only be available for ADD Water if and to the extent it was not needed for CAP purposes. If at any point during the collection period CAWCD determined that the temporary

<sup>&</sup>lt;sup>3</sup> At present valuations, a 1¢ increase in the ad valorem tax rate would generate around \$6 million. A revolving fund could be raised in a number of ways. For example, a revolving fund of \$25 million could be raised by levying a flat 1¢ for 4 years or 2¢ for 2 years, or through a graduated increase (e.g., 0.5¢ for the first year, 1¢ for the second and third years, and 1.5¢ for the fourth year).

- ad valorem tax revenues were needed for CAP purposes, then those revenues would immediately be available for CAP.
- b. <u>Borrowing</u>. CAWCD could borrow funds to cover pre-launch costs. Borrowing will necessarily entail added cost. Borrowing would not create a revolving fund, so each phase of the ADD Water Program would have to obtain its own separate financing. Any amounts borrowed to finance the pre-launch costs for a particular phase would be repaid by incorporating those costs into the floor price for the auction of the ADD Water contract entitlement for that phase.
  - i. <u>Loan from CAWCD reserves.</u> CAWCD reserves could be used for this purpose only if and to the extent that actual reserves exceed CAWCD's reserve target. The ADD Water Program would repay the loan to CAWCD reserves, with interest. Self-financing from CAWCD reserves likely represents the least-cost borrowing alternative.
  - ii. Loan from a third-party. These are funding sources that should be readily obtainable, but are likely to be more expensive than financing by CAWCD.
    - Loan from a potential ADD Water contractor. Potential contractors could purchase an ADD Water voucher from CAWCD. Vouchers would accrue interest at a specified rate and could be redeemed only to pay costs associated with an ADD Water contract, including costs due at the time of contracting or annual delivery costs.
    - Secured conventional loan from a commercial lender. Loan security could take the form of contracts for water options, backed up by CAGRD assets if the ADD Water Program is not implemented.
    - 3. <u>Loan from private investor.</u> Terms and requirements cannot be predicted at this point.
- c. <u>ADD Water Self-Funding.</u> After the launch of Phase 1, the ADD Water Program may have its own reserve accounts (e.g., Carryover Revenue, Working Capital, Big R, etc.) that may be available temporarily for purposes of

<sup>&</sup>lt;sup>4</sup> We acknowledge that this financing option is somewhat contrary to the Summary of Emerging Consensus, which states (Q17, #11) that "CAWCD will not lend or otherwise use funds from its current reserve accounts to finance the acquisition of ADD water supplies." As described here, only those CAWCD reserves that are in excess of the established reserve target would be available for loan to the ADD Water Program. Thus, we believe this option is consistent with the SEC statement (Q17, #8) that "[f]unding mechanisms used may not adversely impact costs to CAP contractors and subcontractors." It should also be noted that CAWCD reserves would be used only once—for pre-program costs—and would not be used to finance the actual acquisition of water supplies for ADD Water.

funding pre-launch costs (i.e., until the launch of the next phase, at which time they would be repaid from ADD Water contract entitlement auction proceeds). The cost of such self-funding would be the interest earnings that would be foregone.

- d. Other funding mechanisms. Numerous other funding mechanisms have been identified. Some would require additional legislative action. Others would involve complicated negotiations with third parties. Identified alternatives are listed here, but CAWCD does not propose to pursue any of these at this time.
  - i. New ad valorem taxing authority.
  - ii. Grants.
  - iii. State or federal appropriations.
  - iv. Unique business arrangements, such as with a power generator that might agree to contribute funds in exchange for a purchase power agreement with the ADD Water Program.

### **Water Supply Acquisition Costs**

#### Phase 1

- 1. The cost of acquiring water supplies and associated infrastructure for Phase 1 of the ADD Water Program will be substantial. CAWCD cannot demonstrate the creditworthiness or security that would be required to obtain sufficient financing without pledging existing CAP reserves, revenue streams and taxing authorities for the ADD Water Program. Therefore, it is not realistic at this time for CAWCD to finance the cost of water supply acquisition for Phase 1 on behalf of ADD Water contractors.
- 2. For Phase 1, ADD Water contractors will be required to provide 100% of the water acquisition charge at the time of contracting. ADD Water contractors will be responsible for arranging their own financing as needed.
- 3. If CAWCD is able to negotiate flexible payment terms with those selling water supplies to the ADD Water Program for Phase 1, CAWCD may be able to offer some payment flexibility to ADD Water contractors.

#### Subsequent Phases

 For subsequent phases, CAWCD may be able to offer ADD Water contractors more financial flexibility. Such flexibility may come from any of the following sources (or others):

- a. Financing mechanisms that may become available to CAWCD once the ADD Water Program has established an operating history.
- b. Flexible payment terms CAWCD may be able to negotiate with those selling water supplies to the ADD Water Program.
- c. A revolving fund established for that purpose. Initial funding to establish the revolving fund could come from a single infusion or a committed revenue stream, such as a new or re-designated tax.
- 2. In all cases, the amount CAWCD receives each year from ADD Water contractors must equal or exceed the amount that CAWCD must pay for water supply acquisition in that year.

## Capital Costs for Improvements to CAP Canal Capacity

- 1. An infrastructure improvement capital charge will be computed based on the cost of increasing annual CAP canal capacity to 2.1 million acre-feet divided by 300,000 acre-feet (the target size of the ADD Water Program).
- 2. Currently the cost of canal improvements is estimated at around \$100M, but that estimate will be updated before implementation of the ADD Water Program.
- 3. The capital charge will be levelized over the phases and paid over a specified period of time for each phase (e.g., \$333/acre-foot, paid over 10 years).

#### **OM&R** Costs

#### Fixed OM&R

- 1. ADD water contractors will pay two fixed, postage stamp OM&R rates: [Q22, #1]
  - a. A fixed OM&R rate designed to cover OM&R costs tied to clearly separable and identifiable ADD water assets.
  - b. A share of the existing CAP fixed OM&R rate. Any fixed OM&R costs that are not based on clearly separable and identifiable ADD Water assets will be incorporated into the existing CAP fixed OM&R rate and paid by both existing CAP customers and ADD Water contractors.
- 2. ADD Water contractors will be required to pay fixed OM&R costs (both ADD-specific and CAP) for water scheduled for delivery whether taken or not. The contractor would be relieved of this obligation only to the extent that CAP, or the contractor, is able to find another customer for any unused water. [Q22, #2]

3. The annual reconciliation for ADD Water contractors will involve no additional billing or refunds. CAP will develop and incorporate an acceptable annual rate stabilization mechanism. This will not change in any way the annual reconciliations performed under existing CAP contracts. [Q22, #3]

#### Variable OM&R (Energy)

- 1. Energy costs for existing CAP customers and ADD Water contractors will be kept completely separate. ADD Water contractors will pay a pumping energy rate designed to cover the energy costs for ADD Water. [Q23, #1]
- 2. Power supplies used to deliver ADD water will be pooled and ADD Water contractors would pay a single postage stamp rate for energy, but the rate could be "hedged" or protected against disproportionate increases in the cost of those power supplies in relation to overall operation and maintenance costs. How the rate would be "hedged" against disproportionate increases in energy costs will require additional work by stakeholders in the future. [Q23, #2]

#### ADD Water Replacement Costs

- 1. Costs associated with replacing infrastructure will be incorporated into a "Big R" component of fixed OM&R. [Q24, #1]
- Costs associated with replacing short-term supplies or addressing contingencies for long-term supplies will be incorporated into a "Big W" delivery rate component.

#### Other Rate Components

- 1. ADD Water delivery rates may also include, but are not limited to, the following components as appropriate:
  - a. <u>Peak capacity surcharge</u>. This charge would be designed to discourage extensive use of CAP delivery capacity during the peak delivery periods.
  - b. <u>Conservation charge.</u> If there is consensus for such a program, CAWCD could collect funds through a conservation charge and then make those funds available to ADD Water contractors to promote local efforts that reduce demand for ADD Water, thereby potentially reducing the volume of new/replacement supplies that must be acquired and lowering cost to all ADD Water contractors.

#### Reserves

1. CAWCD may establish and maintain ADD Water reserve funds (similar to existing CAP reserves) by including additional rate components, as necessary, for working capital needs, environmental, and other costs. [Q24, #2]

#### CAGRD AND THE ADD WATER PROGRAM

#### Pre-ADD CAGRD Obligations

- 1. Pre-ADD obligations are those replenishment obligations associated with:
  - All Member Lands enrolled as of the launch date of Phase 1 of the ADD Water Program.
  - b. The current and committed demands of Member Service Areas as of the launch date for Phase 1 of the ADD Water Program.
- 2. CAGRD will remain responsible for acquiring water supplies to meet its pre-ADD obligations.
- 3. CAGRD may obtain water for pre-ADD obligations by contracting for ADD Water.
  - a. CAGRD will participate in the auction process on the same terms and conditions as other potential ADD Water contractors.
- 4. CAGRD may acquire non-ADD Water supplies to satisfy pre-ADD obligations. Such supplies may include, but are not limited to:
  - Effluent or other water supplies that will not be transported through the CAP.
  - b. Project water supplies—e.g., leases of CAP Indian priority water.
  - c. Non-Project water supplies that do not otherwise meet the requirements for inclusion in the ADD Water supply portfolio. These supplies may rely on the CAGRD interim set-aside.

#### Post-ADD CAGRD Obligations

- 1. Post-ADD obligations are those replenishment obligations associated with:
  - a. All Member Lands that enroll in the CAGRD after the launch date of the ADD Water Program,
  - b. All Member Service Areas that enroll<sup>5</sup> in the CAGRD after the launch date of the ADD Water Program.

<sup>&</sup>lt;sup>5</sup> If a water provider that serves pre-ADD member lands enrolls its service area as a member service area after the launch date for Phase 1 of the ADD Water Program, then the replenishment obligations associated with the pre-ADD subdivisions will continue to be considered pre-ADD obligations.

- c. New growth within Member Service Areas that enrolled prior to the launch date of the ADD Water Program (i.e., all obligations exceeding the Member Service Area's pre-ADD obligations).
- 2. CAGRD will not be responsible for acquiring water supplies to meet post-ADD obligations.
- 3. Member Lands and Member Service Areas will be required to provide CAGRD a permanent water supply to meet their post-ADD obligations.
  - a. Provision of this supply is a condition of enrollment for Members that join CAGRD after the launch date of the ADD Water Program.
  - b. Member Service Areas that enrolled prior to the launch date of the ADD Water Program must provide the supply prior to incurring post-ADD obligations.
  - c. The water supply must be acceptable to CAGRD and sufficient to meet CAGRD's perpetual replenishment obligations for the enrolling entity at full build out.
  - d. Enrolling entities may satisfy this requirement by contracting for ADD Water.
  - e. The enrolling entity must assign the ADD water contract or other acceptable water supply to CAGRD upon enrollment.
  - f. Water supplies provided to CAGRD by members will become part of the overall CAGRD water supply portfolio and may be used to satisfy both pre- and post-ADD replenishment obligations.
  - g. This requirement will be effective for all enrollment under future CAGRD plans of operation.
  - h. Post- and pre-ADD CAGRD members will pay the same rates for the same CAGRD services, although there may be discrete rate components—e.g., water rights and infrastructure—that apply to one group but not the other.

### CAP STAFF JUST WATER PROGRAM PROPOSAL

### **WATER SUPPLY**

- 1. In conjunction with each phase of ADD Water, CAWCD will also acquire water supplies for the Just Water Program.
- 2. The target volume for Just Water acquisitions will be 8,333 acre-feet for each phase, up to a total of 50,000 AF.
- 3. Just Water supplies will be available for delivery from the Colorado River.

### **WATER RIGHTS**

- CAWCD will assign the water rights it acquires for the Just Water Program to the Arizona Department of Water Resources (or other appropriate regional or statewide entity) upon payment to CAWCD of its costs in acquiring those water rights.
- ADWR (or other appropriate regional or statewide entity) will hold Just Water rights in trust until contracted to individual entities outside CAWCD's threecounty service area.

### **FINANCES**

If ADWR (or other appropriate regional or statewide entity) does not pay or provide for payment to CAWCD for Just Water supplies within a reasonable time period following CAWCD's acquisition of those supplies, then CAWCD may, in its sole discretion:

- 1. Allow options for water rights to expire.
- 2. Exercise options for water rights and make that water a part of the next ADD Water phase, selling the water under ADD Water spot market contracts in the meantime.
- 3. Sell the water rights to CAGRD.
- 4. Other disposition.

### WATER ALLOCATION

- 1. ADWR (or other appropriate regional or statewide entity) will determine how to distribute/allocate available Just Water supplies.
- 2. ADWR (or other appropriate regional or statewide entity) will determine how Just Water supplies are paid for.

Long-term Storage Credits Accrued on Behalf of Nevada

	Year	Credits <sup>1</sup>	Cumulative	Percent of Goal		Cost	Received fro	m SNWA <sup>2</sup>		Funds Av	railable
	数語書語文	Earned	Credits	Achieved	C	of Storage	Subacco	unts		Subacc	ounts
				(1,250,000 AF)			Resource	Operating		Resource	Operating <sup>2</sup>
	2002	61,098	61,098	5%	\$	8,617,393	\$ 5,000,000		\$	2	
	2003	50,000	111,098	9%	\$	-	\$ 3,723,945		\$	106,552 <sup>3</sup>	
	2004	14,162	125,260	10%	\$	2,899,647	\$ 1,330,000		\$	=	
- CO	2005	111,805	237,065	19%	\$	25,723,366	\$ 100,000,000			72,813,539 <sup>4</sup>	
Actual	2006	175,569	412,634	33%	\$	35,386,306	\$ -		\$ 3	<sup>5</sup> 87,640,089	
4	2007	114,886	527,520	42%	\$	21,853,906	\$ -		\$ 1	15,786,183	
	2008	0	527,520	42%	\$	_	\$ _		\$ 1	15,786,183	
	subtotal		and and a substitute of the state of the sta		\$	94,480,618	\$ 110,053,945			and the contract of the contra	
	2009	55,252	582,772	47%	\$	10,781,853	\$ $(8,564,916)^6$	\$12,685,000	\$	5,518,096	\$ 4,104,396
	2010						4				
	1 <sup>st</sup> Quarter	0	582,772	47%	\$	-	\$ (684,700) <sup>8</sup>		\$	4,833,396 <sup>7</sup>	\$ 4,110,765
fed	2 <sup>nd</sup> Quarter	0	582,772	47%	\$	· <del>-</del>	\$ (4,531,741) <sup>9</sup>		\$	301,655	\$ 4,112,525
Estimated	3 <sup>rd</sup> Quarter	3,480	586,252	47%	\$	798,213	\$ (301,655) <sup>10</sup>		\$	- -	\$ 3,316,869
ŭ	4 <sup>th</sup> Quarter	14,000	600,252	48%	\$	3,205,787	\$	\$	\$		\$ 112,319
	Total				\$	109,266,471		\$12,685,000	\$		\$ 112,319

<sup>&</sup>lt;sup>1</sup>2003 credits transferred from CAWCD pursuant to Amended Agreement for Interstate Water Banking.

<sup>&</sup>lt;sup>2</sup> Includes expenditure of \$3,617,393 from monies collected in 2003 as part of the 2002 reconciliation.

<sup>&</sup>lt;sup>3</sup> Includes expenditure of \$1,463,095 from monies collected in 2005 as part of the 2004 reconciliation.

<sup>&</sup>lt;sup>4</sup> Includes expenditure of \$212,857 in interest on monies disbursed to CAWCD.

<sup>&</sup>lt;sup>5</sup> Pursuant to S.B.1001 (signed 1/09), \$12.7 million was transferred from the Arizona Water Banking Fund: \$8.57 million of the total reduction was transferred from the NV Resource Acct.

<sup>&</sup>lt;sup>6</sup> Includes expenditure of \$500,886 in interest that had accrued on monies previously disbursed to CAWCD.

<sup>&</sup>lt;sup>7</sup> Includes interest accrued

<sup>&</sup>lt;sup>8</sup> Funds transferred pursuant to an amendment to S.B. 1001 (signed 12/09)

<sup>&</sup>lt;sup>9</sup> Funds transferred pursuant to H.B. 2001

<sup>&</sup>lt;sup>10</sup> Funds available from 2009 reconciliation made available to the Arizona Water Banking Fund from CAWCD on April 27, 2010

### **Arizona Water Banking Authority**

3550 N. Central Avenue, Phoenix, Arizona 85012 Telephone 602-771-8487 Fax 602-771-8686

December ##, 2010

Ms. Patricia Mulroy General Manager Southern Nevada Water Authority 1001 South Valley View Blvd. Las Vegas, NV 89153 BANKING PER 1996 \* 1996

AUTHORITY MEMBERS
Herbert R. Guenther, Chairman
Maureen R. George, Vice Chairman
Tom Buschatzke, Secretary
Lisa A. Attons
John Mawhinney

EX OFFICIO MEMBERS Honorable Steve Pierce Honorable Kirk Adams

RE: Second Amended Agreement for Interstate Water Banking

Dear Ms. Mulroy:

The Agreement for Interstate Water Banking originally signed in July of 2001 has been amended twice. The latest amendment, executed April 1, 2009 ("Second Amended Agreement"), includes Subarticle 5.2, which allows the flexibility to modify certain subarticles of the Second Amended Agreement, including the payment schedules, to accommodate changing circumstances. For the last two years, SNWA and AWBA have agreed that the likelihood of AWBA storing water for the benefit of SNWA was minimal and agreed to modify the Operating Account payment schedule. Recognizing that the hydrologic conditions in the Colorado River Basin have not improved and that reservoir elevations will continue to decline in the immediate term, AWBA believes that it is appropriate to evaluate the storage of water for the benefit of SNWA over the next several years in the context of these hydrologic conditions and other changed circumstances.

Current projections by the Bureau of Reclamation indicate a strong probability that the elevation of Lake Mead will continue to decline over at least the next two years. Under the Interim Operating Guidelines, the Secretary of the Interior will declare a first-level shortage when Lake Mead's elevation drops below 1075 feet. If a shortage is declared, both Nevada and Arizona's normal-year water supplies will be reduced. In addition to the reduced supplies due to shortages, Nevada is at risk of further reductions if Lake Mead's elevation drops below 1050 feet (the elevation that impairs the operational capability of SNWA intake facilities). SNWA is currently constructing a lower intake to alleviate this problem.

To address these conditions, parties within Nevada, California and Arizona are working together to more effectively manage available Colorado River water. These measures have included requests to the Bureau of Reclamation to leave unused water in Lake Mead to minimize the mutual risk of shortage during the next several years and the joint funding of the pilot run of the Yuma Desalting Plant and the construction of the Brock Reservoir to allow water that was previously delivered to Mexico in excess of the amount it is entitled to receive under the 1944 Treaty to be retained in Lake Mead for the benefit of the entire system.

Given the dire condition of Lake Mead, the ongoing efforts of many parties in the lower basin to preserve water within Lake Mead to the extent possible, and the need for SNWA to focus its financial resources on the completion of a lower intake in Lake Mead, AWBA believes it is prudent at this juncture for it to forego storing additional water for SNWA through the end of calendar year 2014 and for SNWA to forego requiring the development of ICUA during this period in order to reduce the amount of water that would be delivered from Lake Mead. AWBA believes that these operational adjustments to the Second Amended Agreement will provide greater certainty for AWBA as it develops its Annual Plan of Operation and Ten-year Plan during this period and will allow the parties to the Second Amended Agreement to reevaluate the overall goals of the banking arrangement between Nevada and Arizona and determine whether any amendments or other modifications to that arrangement are appropriate.

Additionally, in order to accommodate these operational adjustments to the Second Amended Agreement, and unless otherwise agreed to by AWBA and SNWA, AWBA proposes that the payment dates specified in Subarticle 2.4.1.2 be extended by six years. This means that SNWA's obligation under Subarticle 2.4.1.2 to make ten payments of \$23 million each by January 10 of each year would resume in 2015 and end in 2024. SNWA would be credited for payments made under Subarticle 2.4.1.2 prior to 2015.

Please indicate your acceptance of the operational adjustments to the Second Amended Agreement and the modification of the payment schedule specified in Subarticle 2.4.1.2 described above by signing below and providing a duplicate copy of this letter agreement for our files. When signed by SNWA's General Manager, this letter agreement will supersed the previous letter agreements dated April 2, 2009, December 17, 2009, and June 15, 2000. Thank you.

Sincerely

Herbert R. Guenther Chairman, AWBA

By signing below I agree to the operational adjustments outlined above and to the modification of the payment schedule specified in Subarticle 2.4.1.2 of the Second Amended Agreement.

Patricia Mulroy
General Manager, SNWA

cc: Ms. Lorri Gray-Lee, USBR
Mr. John Entsminger, SNWA
Mr. William Rinne, SNWA
Mr. George Caan, CRCN
AWBA Commission Members
Ms. Kim Mitchell, AWBA
Mr. David Modeer, CAWCD
Mr. Larry Dozier, CAWCD
Mr. Chris Harris, CRBC

### Draft 2011 Plan of Operation

Proposed replacement for Interstate section of report if AWBA/SNWA Letter Agreement is approved at AWBA 12/8 meeting.

[Three changes: replace interstate paragraph, change Table 5 interstate funding and associated footnote]

The 2011 Plan does not include an interstate water banking component for the State of Nevada. The AWBA and SNWA executed a letter agreement, December 2010, which suspends certain provisions of Second Amended Agreement for Interstate Water Banking (Second Amended Agreement). Pursuant to the letter agreement, AWBA agreed to forego storing additional water for SNWA through the end of calendar year 2014 and SNWA has agreed to forego requiring the development of ICUA during this period in order to reduce the amount of water that would be delivered from Lake Mead. Recent requests to the Bureau of Reclamation to leave unused water in Lake Mead will minimize the mutual risk of shortage to Arizona and Nevada during the next several years. In order to accommodate these operational adjustments, and unless otherwise agreed to by the AWBA and SNWA, payment dates specified in Subarticle 2.4.1.2 of the Second Amended Agreement will be extended by six years.

### Table 5.

Change funding available to zero (Operating).

Footnote: Pursuant to a letter agreement between AWBA and SNWA dated December \_\_\_\_, 2010, storage of water on behalf of SNWA and annual payments to the Operating account have been suspended through 2014.

ARIZONA	WATER BANKING	ALITHO	DITV	7
2011 WATER RECHARGE I		AUTHO	_	35,000
PEVENUES	AVAILABLE for 20	10 DEL IV	/EDIES	
4 cent tax <sup>1</sup>	AVAILABLE 101 20	IO DELIV	EKIES	N/A
Withdrawal Fee				\$3,235,000
Phoenix AM				\$1,600,000
Pinal AMA <sup>2</sup>				\$1,200,000
Tucson AM/	A <sup>2</sup>			\$435,000
General Fund Appropriation	on			\$0
Interstate				\$0
TOTAL				\$3,235,000
1 4-cent tax retained by the Central Ari	zona Water Conservation	n District to	offset costs.	
Projected based on 2010 collections				
DELIV	ERY and RECHARGI	RATES		
Water Delivery				
	ate (Intrastate)		\$137	
Interstate R	•		\$167	
Replenishm	ent Bank Rate		\$122	
Direct Recharge Facility R			<u>Intrastate</u>	<u>Interstate</u>
Avra Valley			\$15	\$15
Pima Mine F			\$15	\$24
Lower Santa	\$15 ***	\$24		
Hieroglyphio		\$8 \$8	\$23 \$23	
Tonopah De	echarge Project esert		\$6 \$8	\$23
<sup>3</sup> Assumes conveyance of facility to MD	OWID.			
Cost Recovery for In-lieu Rech	arge: (Phoenix & Pi (Tucson)	nal)	\$33 \$15	\$26
WATE	ER and RECHARGE	COSTS		
	Water Delivered	\$/AF		Total
4 cent tax	(AF)			N/A
7 00111 11111				
Withdrawal Fee				\$3,235,000
Phoenix AMA	11,373	\$141		\$1,600,000
Pinal AMA	10,365	\$104		\$1,078,000
Direct delivery <sup>4</sup>	1,000	\$122		\$122,000
Tucson AMA	1,953	\$150		\$293,640
Credits <sup>5</sup>	930	\$152		\$141,360
Interstate	0	NA		\$0
Total 2011	25,622			\$3,235,000
Direct deliveries to the GRIC for Sout Estimated credits available for purcha			Nation deli-	rice
	OJECTED CARRYO		Haudi UtilVE	1100.
Withdrawal Fees	OJEO I ED GARRIO	▼ <b>仁</b> [ \		
Phoenix AM	Α			\$0
Pinal AMA				\$0
Tucson AMA	A			\$0
Interstate				\$0

Central A	rizona Water Co	nservation Distr	ict
4 cent tax Availab	le		
Maricopa <sup>6</sup>		\$120,870,000	
Pinal <sup>6</sup>		\$795,000	
Pima <sup>6</sup>		\$7,440,000	
Total 2011		\$129,105,000	
	Water Stored (AF)	\$/AF	Total
4 cent tax Utilized			
Maricopa	55,632	\$141	\$7,826,000
Pinal	7,635	\$104	\$794,000
Pima	49,483	\$150	\$7,440,000
Total 2011	112,749		\$16,060,000

## ARIZONA WATER BANKING AUTHORITY

# STORAGE FACILITY INVENTORY



**UPDATED** 

December 2010

**Draft Version** 

### Introduction

Pursuant to A.R.S. §45-2452(A), the Arizona Water Banking Authority (AWBA) was required to develop a Storage Facility Inventory of all existing storage facilities in Arizona, prior to March 1, 1997. The purpose of the Inventory was "...to determine whether storage facilities exist in this state to meet the water storage needs of the authority for the following ten years" (A.R.S. §45-2452(D)). Pursuant to A.R.S. §45-2452(F), the AWBA is required to update the Inventory at least once every five years. The initial Inventory, approved in 1997, has been update twice; in 2002 and 2005. This update, in addition to providing a compilation of facilities available to the AWBA, also complies with the Storage and Interstate Release Agreement, which requires the inclusion of new facilities in the Inventory prior to utilizing those facilities for the storage of interstate water.

It is important to note that the primary purpose of the Inventory is to identify storage capacity available to the AWBA to meet its objectives. The inclusion of a facility in the Inventory does not equate to a commitment by the AWBA to utilize any specific facility in the future. The AWBA will continue to determine annually which facilities will be used through the development of an Annual Plan of Operation. Conversely, not including a facility in the Inventory does not preclude the AWBA from utilizing that facility in a future Annual Plan of Operation.

### **Existing Facilities**

The tables included in this Inventory list all existing storage facilities in the Phoenix, Pinal, and Tucson Active Management Areas (AMAs), as well as the remainder of the state. Tables 4A-4H [to be inserted] have been divided by AMA and further by type of storage facility underground storage facility (USF) or groundwater savings facility (GSF). Those facilities capable of receiving and storing CAP water are listed separately from those permitted for effluent or other non-groundwater supplies.

Currently, the AWBA does not hold permits for the storage of effluent. However, if shortages to the availability of CAP water supplies are anticipated, the AWBA may seek effluent supplies and storage facilities in order to meet its objectives.

The tables also include the following information for each existing storage facility: 1) the location of the facility 2) the type of facility and facility permit number; 3) the facility permit

holder; 4) a brief description of the facility; 5) the total annual permitted volume for each facility; 6) the holders and permit numbers of the water storage permits for each facility; 7) the annual storage volume of each water storage permit for the facility<sup>a</sup>; and 8) water management and hydrology comments provided by ADWR. In addition to existing storage facilities, facilities that have a pending application with ADWR for a facility permit are identified in the tables for each region. A map identifying the facility locations has also been included for each area.

### **Phoenix Active Management Area**

There are currently 53 permitted storage facilities located in the Phoenix AMA. Of these facilities, 44 are USFs permitted for storage of approximately 734,000 acre-feet per year of CAP water and 240,900 acre-feet per year of effluent or other surface water supplies. The remaining 9 are GSFs permitted for storage of approximately 345,000 acre-feet per year of CAP water and approximately 31,000 acre-feet per year of effluent. In addition to the AWBA's agreements to store, most of the facilities in the Phoenix AMA have agreements with other partners. This Inventory recognizes that because the AWBA is the last to reservefacility capacity, much of that capacity may already be utilized and not available to the AWBA.

As of the date of this Inventory, the AWBA holds water storage permits in the Phoenix AMA for three USFs and five GSFs, totaling 410,000 acre-feet per year. In addition, the AWBA will be submitting an application to ADWR for a water storage permit for CAWCD's Superstition Mountain Recharge Project (SMRP) located in the southeastern portion of the AMA. Phase 1 of the facility, permitted to store 25,000 acre-feet/year, is currently under construction and is anticipated to be operational by June 2011. When fully completed, the storage volume for the facility will be 56,500 acre-feet/year. Table 1a identifies the cumulative long-term storage credits (credits) accrued by the AWBA at storage facilities for which the AWBA holds or has held water storage permits, the permitted volumes associated with the water storage permits held by the AWBA (as of 2010), the potential capacity available for the AWBA based on historic use, and it also provides the amount of water the AWBA delivered to the facilities over the last four years and its planned deliver in 2011. The total credits held by the AWBA in the Phoenix AMA

<sup>&</sup>lt;sup>a</sup> To provide maximum flexibility for water storage, ADWR may issue water storage permits for a facility that exceeds in total volume the permitted annual facility storage volume; however, total storage at a facility during the year may never exceed the permitted annual facility storage volume.

Draft AWBA-Storage Facility Inventory Update

through 2009 are 1,514,313 acre-feet and includes 46,287 acre-feet of credits for interstate banking.

**Table 1a:** AWBA Credits Accrued through 2009 and Potential Storage Capacity Available for Future Use

		LTS Credits	AWBA Water	Potential Capacity									
Facilities		Accrued Through 2009  (AF)	Storage Permit Volume (AF)	Available to AWBA	2007 (AF)	2008 (AF)	2009 (AF)	2010 (AF)	Planned 2011 (AF)				
	GRUSP	399,967	expired	n/a	_	_	-	-					
	AFRP	72,864	100,000	10,000	4177	2,313	0	1998					
USF	HMRP	62,963	35,000	10,000	7,693	1,264	0	5002	(				
5	TDRP	279,230	150,000	100,000	117,004	38,465	23,781	84,345	59,950				
	SMRP	n/a	n/a	15,000	-	_	-						
	WMC	0	25,000	5,000	-	-	-	-					
	CHCID	4,518	3,000	0	-	_	-	_	Ti Ti				
	MWD	47,172	expired	n/a	-	-	-	_	1				
	NMIDD	328,351	54,000	0_	-				17				
GSF	QCID	92,664	28,000	10,000	7,522	6,397	3,622	1,000	7,055				
Ö	SRP	77,327	expired	n/a	-	-	-	4	9				
	RWCD	58,575	expired	n/a	-	-	-	-	3				
	ΠD	2,368	15,000	0	-	-	-	-					
	GRIIDD	88,313	expired	n/a	13,822	31,326	35,288	-	- 3				
	Totals	1,514,313	410,000	150,000	150,218	79,765	62,691	92,345	67,005				

N/A = The AWBA does not hold a Water Storage Permit or current Water Storage Agreement.

Table 1b identifies the amount of water the AWBA could deliver for storage based on storage capacity utilized by the AWBA at each facility over the last four years, proposed deliveries for 2011, and anticipated future storage capacity. Estimates for available water supplies are based on the AWBA's Ten-Year Plan for 2011-2020.

**Table 1b**: Potential AWBA Water Deliveries based on Available Water Supplies and Funding Sources through 2020 (without Federal water use estimates)

	Proposed AWBA Water Deliveries												
FACILITY -	2012	2013	2014	2015	2016	2017	2018	2019	2020				
	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)				
AFRP	1,590	2,040	2,320	2,340	2,150	2,580	2,550	2,550	2,550				
HMRP	2,650	3,400	3,870	3,900	3,590	4,290	4,250	4,250	4,250				
TDRP	45,070	57,740	65,750	66,330	61,060	72,970	72,170	72,670	72,670				
SMRP	4,240	5,430	6,190	6,240	5,750	6,870	6,790	6,790	6,790				
QCID	2,650	3,400	3,870	3,900	3,590	4,290	4,250	3,750	3,750				
TOTAL	56,200	72,010	82,000	82,710	76,140	91,000	90,010	90,010	90,010				

Table 1c recognizes a reduction in water supplies available to the AWBA of 15,000 acre-feet due to the Bureau of Reclamation storing water for Indian firming purposes. This reduction primarily affect storage in the Phoenix AMA since storage by the AWBA in the Pinal and Tucson AMAs will already be limited by the amount of funds collected in those areas.

**Table 1c:** Potential AWBA Water Deliveries based on Available Water Supplies and Funding Sources through 2020 (with Federal water use estimates)

	Proposed AWBA Water Deliveries												
FACILITY	2012 (AF)	2013 (AF)	<b>2014</b> (AF)	<b>2015</b> (AF)	<b>2016</b> (AF)	<b>2017</b> (AF)	<b>2018</b> (AF)	<b>2019</b> (AF)	<b>2020</b> (AF)				
AFRP	1,170	1,610	1,900	1,920	1,730	2,150	2,120	2,120	2,120				
HMRP	1,940	2,690	3,160	3,190	2,880	3,580	3,540	3,540	3,540				
TDRP	33,040	45,710	53,730	54,310	49,030	60,940	60,140	60,640	60,640				
SMRP	3,110	4,300	5,060	5,110	4,610	5,740	5,660	5,660	5,660				
QCID	1,940	2,690	3,160	3,190	2,880	3,580	3,540	3,040	3,040				
TOTAL	41,200	57,000	67,010	67,720	61,130	75,990	75,000	75,000	75,000				

### **Pinal Active Management Area**

There are currently ten permitted storage facilities in the Pinal AMA, seven of which are USFs, only permitted for storing effluent, and three are GSFs permitted to store CAP water. The total permitted capacity for facilities capable of receiving and storing CAP water is 285,000 acrefeet per year.

The AWBA holds water storage permits in the Pinal AMA for all three of the permited GFSs, totaling 285,000 acre-feet per year. For the prior Inventories, the AWBA was the primary

storing partner in the Pinal AMA, however, the Pinal AMA facility operators have now entered into agreements with several other partners for storage at their facilities. This Inventory recognizes that much of the capacity historically available for the AWBA may not be available in the future due to these changing circumstances. Table 2a identifies the cumulative credits accrued by the AWBA at storage facilities for which the AWBA currently holds water storage permits, the permitted volumes associated with the water storage permits held by the AWBA (as of 2010), the potential capacity available for the AWBA based on anticipated availability, and the amount of water the AWBA delivered to the facilities over the last four years and its planned deliver in 2011. The total credits held by the AWBA in the Pinal AMA through 2009 are 1,267,988 acre-feet and includes 439,851 acre-feet of credits for interstate banking.

**Table 2a:** AWBA Credits Accrued through 2009 and Potential Storage Capacity Available for Future Use

		AWBA Water		Potential Capacity	AWBA Water Deliveries						
Facilities		LTS Credits Accrued Through 2009	Storage Permit Volume	Available to AWBA	2007	2008	2009	2010	Planned 2011		
		(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)		
	CAIDD	294,503	110,000	80,000	57,360	37,852	25,663	13,400	7,50		
GSF	HIDD	426,610	55,000	20,000	42,500	18,525	-	8,500	3,000		
Ö	MSIDD	529,797	120,000	90,000	83,090	41,864	40,931	16,800	7,50		
GRIIDD		17,077	expired	n/a	6,807	5,000	-	_			
	Totals	1,267,988	285,000	190,000	189,757	103,241	66,594	38,700	18,000		

Table 2b identifies the amount of water the AWBA could deliver for storage based on storage capacity utilized by the AWBA over the last four years at each facility and proposed deliveries for 2011. Estimates for available water supplies are based on the AWBA's Ten-Year Plan for 2011-2020.

**Table 2b:** Potential AWBA Water Deliveries based on Available Water Supplies and Funding Sources through 2020

FACILITY	Proposed AWBA Water Deliveries
	경기를 받고 있다. 그렇게 하는데 이 가게 하면 하면 하는데 하는데 하는데 하는데 이 모든데 내려가 되었다.

	<b>2012</b> (AF)	<b>2013</b> (AF)	<b>2014</b> (AF)	2015 (AF)	<b>2016</b> (AF)	2017 (AF)	2018 (AF)	<b>2019</b> (AF)	<b>2020</b> (AF)
CAIDD	9,500	8,720	7,050	7,190	7,550	4,070	4,100	4,130	4,160
HIDD	4,750	4,360	3,520	3,590	3,780	2,040	2,050	2,060	2,080
MSIDD	12,670	11,630	9,390	9,580	10,070	5,430	5,470	5,500	5,540
TOTAL	26,920	24,710	19,960	20,360	90,513	11,540	11,620	11,690	11,780

### **Tucson Active Management Area**

There are currently 17 permitted storage facilities located in the Tucson AMA. Of these facilities, 12 are USFs permitted for storage of approximately 250,000 acre-feet per year of CAP water and 71,283 acre-feet per year of effluent or other surface water supplies. The remaining five are GSFs permitted for storage of approximately 70,473 acre-feet per year of CAP water.

In the Tucson AMA, the AWBA holds water storage permits for five of the USFs and four of the GFSs totaling 296,547 acre-feet per year. In addition, the AWBA will be submitting an application to ADWR for a water storage permit for the Farmers Investment Company (FICO) GSF, which is permitted to store 22,000 acre-feet/year. Construction of Phase 1 of the facility is anticipated to begin the first quarter of 2011. Phase 1 is permitted to store 11,000 acre-feet/year and is anticipated to be operational by 2012.

As was the case in the Phoenix AMA, most of the facility operators in the Tucson AMA have agreements with other partners or utilize the facilities themselves. Because of this fact, this Inventory recognizes that much of that capacity may already be utilized and not available for the AWBA. Table 3a identifies the cumulative credits accrued by the AWBA at storage facilities for which the AWBA currently holds water storage permits, the permitted volumes associated with the water storage permits held by the AWBA (as of 2010), the potential capacity available for the AWBA based on historic use, and it also provides the amount of water the AWBA delivered to the facilities over the last four years and its planned deliver in 2011. The total credits held by the AWBA in the Tucson AMA through 2009 are 537,401 acre-feet and includes 96,634 acre-feet for interstate banking.

**Table 3a:** AWBA Credits Accrued through 2009 and Potential Storage Capacity Available for Future Use

	Credits		Potential	
Facilities	Accrued	AWBA	Capacity	AWBA Water Deliveries
	Through	Water	Available to	

		2009	Storage Permit Volume	AWBA	2007	2008	2009	2010	Planned 2011
		(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)
	AVRP	54,629	11,000	2,000	6,823	5,443	3,571	4,777	1,636
	CAVSARP	90,007	100,000	10,000	14500	7,675	11599	2703	0
USF	PMRRP	126,451	30,000	5,000	6	0	4085	0	0
_	LSCRP	249,086	50,000	30,000	23,586	20,866	10,084	28,645	11,300
	SAVŠARP	4,224	60,000	20,000	_		4,525	28,645	36,000
	CMID	0	20,000	5,000	-	_		4,000	9=
GSF	Kai Farms-Red Rock	11,554	11,231	3,000	-	<u>.</u>	1,893	_	2,500
ő	BKW Farms	1,451	14,316	1,500	-	_	-	<u>-</u>	
	FICO	n/a	n/a	10,000			-		íŝ
	Totals	537,401	296,547	86,500	44,915	33,984	35,757	81,125	51,436

N/A = Facility not completed or the AWBA did not hold a Water Storage Permit or current Water Storage Agreement for the Facilityr

Table 3b identifies the amount of water the AWBA could deliver for storage based on storage capacity utilized by the AWBA over the last four years at each facility, proposed deliveries for 2011, and anticipated future storage capacity. Estimates for available water supplies are based on the AWBA's Ten-Year Plan for 2011-2020.

**Table 3b:** Potential AWBA Water Deliveries based on Available Water Supplies and Funding Sources through 2020

	Proposed AWBA Water Deliveries											
FACILITY	2012	2013	2014	2015	2016	2017	2018	2019	2020			
	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)	(AF)			
AVRP	1,480	840	640	660	700	140	90	80	80			
CAVSARP	4,920	2,790	2,140	2,190	2,330	480	290	270	270			
PMRRP	980	560	430	440	470	100	60	50	50			
LSCRP	29,500	16,750	12,830	13,170	13,980	2,870	1,760	1,630	1,600			
SAVSARP	19,670	11,160	8,550	8,780	9,320	1,910	1,170	1,090	1,070			
CMID	1,480	840	640	660	700	140	90	80	80			
Kai Farms-Red Rock	1,480	840	640	660	700	140	90	80	80			
FICO	0	2,790	2,140	2,190	2,330	480	290	270	270			
TOTAL	59,510	36,570	28,010	28,750	30,530	6,260	3,840	3,550	3,500			

### **Outside AMAs**

<sup>(</sup>a) CAVSARP is permitted for 100,000 af/yr for 20 years, the total in storage cannot exceed 1.2MAF. Likewise the Lower Santa Cruz Recharge Project is permitted for 50,000 AF/Yr, but total storage cannot exceed 500,000 AF.

Draft AWBA-Storage Facility Inventory Update

The AWBA currently does not utilize or anticipate utilizing any facilities outside the AMA. There are currently four USFs and one GSF permitted outside of the AMAs capable of receiving CAP water. There is also currently one facility outside the AMAs that is permitted to receive and store effluent. A description of these facilities is available in the Tables 4G and 4H

[Tables 4A -4H to be inserted along with USF and GSF maps].

### **Potential Projects**

The purpose of this section is to briefly describe, based on available information, any projects that are being proposed that have yet to file for a facility permit with ADWR. Although the AWBA can store effluent in the event CAP water supplies are not available, the focus of this discussion will be on potential facilities that may be available to store CAP water. The following facilities may be important in allowing the AWBA to meet its objectives in the future.

Phoenix AMA

Pinal AMA

Tucson AMA

**Conclusion** 

# ARIZONA WATER BANKING AUTHORITY ANNUAL PLAN OF OPERATION 2011



Herbert R. Guenther, Chairman

December 2010

### The Arizona Water Banking Authority

### **Summary**

The Arizona Water Banking Authority (AWBA; Water Bank) was created in 1996 to store the unused portion of Arizona's annual allocation of the Colorado River. Until the AWBA was created, Arizona had not used its full 2.8 million acre-foot share of Colorado River water. Leaving a portion of Arizona's water in the Colorado River was a lost opportunity; the AWBA has seized this opportunity to further secure dependable water supplies necessary to ensure the state's long-term prosperity.

The Water Bank stores unused Arizona Colorado River water to meet future needs for:

- Firming (to secure) adequate water supply to municipal and industrial users in the Central Arizona Project service area and along the Colorado River in times of shortages;
- Meeting the management plan objectives of the Arizona Groundwater Code;
- Meeting the State's obligation pursuant to Indian Water Rights Settlements;
- Assisting the Colorado River fourth priority municipal and industrial users in developing credits that could be used to increase their future supplies for firming; and
- Assisting Nevada and California through interstate water banking.

Each year, the AWBA pays the delivery and storage costs to bring Colorado River water into Central and Southern Arizona through the Central Arizona Project canal. The water is stored underground in existing aquifers (direct recharge) or is used by irrigation districts in lieu of pumping groundwater (indirect or in lieu recharge). For each acre-foot stored, the AWBA accrues credit that can be redeemed in the future when Arizona's communities, Indian Tribes or neighboring states need this backup water supply.

The money that funds the AWBA and, specifically, water storage for the benefit of Arizona (intrastate storage) comes from three sources that are either from existing revenue sources or from fees charged to those benefiting directly from the stored water. Restrictions on the ways these monies can be used depend on the source of the monies, which currently include:

- Fees for groundwater pumping currently collected within the Phoenix, Pinal and Tucson Active Management Areas (AMA). These monies can only be used to benefit the AMA in which the fees are collected. Included as a benefit to the AMA are both municipal and industrial firming and Indian firming.
- A four cent ad valorem property tax collected in the three county CAP service area. These monies can only be used to benefit the county in which the tax is levied.
- A general fund appropriation received at the discretion of the Legislature.

Another source of funding is used for water storage to aid Nevada (interstate storage) and is received pursuant to an Agreement for Interstate Water Banking.

In 2011, the Water Bank will store approximately 136,400 acre-feet for intrastate storage at a cost of approximately \$19 million. There is no interstate storage planned for 2011. Furthermore, the AWBA will deliver an additional 1,000 acre-feet of water for the Southside Replenishment Bank at a cost of \$122,000.

To date, the AWBA has delivered for storage approximately 3.7 million acre-feet of water at a cost of \$271 million; 3.2 million acre-feet for intrastate storage at a cost of \$162 million and 594,000 acre-feet for interstate storage at a cost of \$109 million. A total of 2,000 acre-feet has been delivered for Southside Replenishment purposes at a cost of \$226,000.

### INTRODUCTION

The Arizona Water Banking Authority (AWBA) was created to store Arizona's unused Colorado River water entitlement in western, central and southern Arizona to develop long-term storage credits to: (1) firm existing water supplies for municipal and industrial users (M&I) along the Colorado River and Central Arizona Project (CAP) M&I users during Colorado River shortages or CAP service interruptions; (2) help meet the water management objectives of the Groundwater Code; and (3) meet the State's obligations in the settlement of Indian water rights claims. Changes in the AWBA's enabling legislation in 1999 authorized the AWBA to participate in other water banking activities, however, no new water banking activities are included in this annual Plan of Operation.

The AWBA's storage of water is accomplished through the Underground Water Storage, Savings and Replenishment Act enacted by the Arizona legislature in 1994 and administered by the Arizona Department of Water Resources (ADWR). Through this program, the AWBA stores renewable water that currently has no immediate direct use in either underground storage (USF) or groundwater savings (GSF) facilities. A USF is a facility that allows water to physically be added to an aquifer. A GSF is a facility where the water is used in place of groundwater, creating a groundwater savings. The program mandates the accounting of the water stored and the development of long-term storage (LTS) credits. The LTS credits developed will then be utilized by the AWBA when future conditions warrant. The use of LTS credits for the three objectives listed is dependent on the source of funds utilized to develop them.

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. A draft of the Plan was presented to the Groundwater Users Advisory Councils (GUAC) for the Phoenix, Pinal and Tucson Active Management Areas (AMA). Presentation of the draft Plan must be made at publicly-noticed open meetings at which members of the public are permitted to provide comment. 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.

### 2010 PLAN OF OPERATION

In 2010, the AWBA recharged and directly delivered approximately 214,470 acre-feet of Colorado River water. Arizona is forecast to use its full entitlement of 2.8 MAF, which includes the remaining balance of 8,159 acre-feet of ICUA developed for and diverted by California. CAWCD recovered and utilized credits previously stored for the benefit of California allowing the creation of ICUA (see Figure 1).

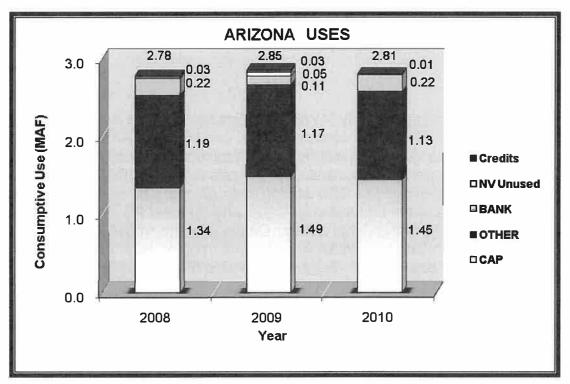


Figure 1. Recent Comparison of Colorado River Water Uses by Arizona

Forecasted direct use of Colorado River water in the Lower Basin is 7.41 MAF in 2010 (see Figure 2). California and Nevada also created Intentionally Created Surplus in 2010 for use in future years.

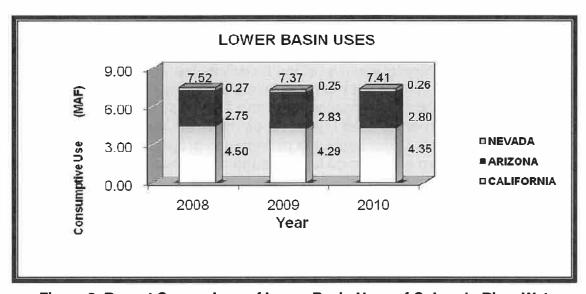


Figure 2. Recent Comparison of Lower Basin Uses of Colorado River Water

The AWBA recharged water at both USFs and GSFs in 2010. Table 1a lists the AWBA's recharge partners for 2010, the amount of water that can be stored under each AWBA water storage permit, and the amount of water delivered to the facility by the AWBA in 2010. Values are based on actual deliveries through October with November and December deliveries estimated. The amount of water delivered to a facility is always greater than the amount of long-term storage credits earned by the AWBA because credits are computed by subtracting approximately 3% for losses and 5% for a "cut to the aquifer" from the total annual deliveries. Final figures for credits earned generally become available in the middle of the following year after review of the annual reports filed with the ADWR and are reported in the AWBA's Annual Report.

 Table 1a. Recharge Partners and Water Deliveries for 2010

AMA	Facility	Туре	Permit Capacity	Delivered (acre-feet)			
			(acre-feet)	Intrastate	Interstate		
	Tonopah Desert	USF	150,000	79,345	5,000		
¥	Hieroglyphic Mtn.	USF	35,000	5002	0		
¥	Agua Fria	USF	100,000	1998	0		
EN	Queen Creek ID	GSF	28,000	1,000	0		
PHOENIX AMA	Intrastate/Interstate AM	A Subto	tal	87,345	5,000		
_	Phoenix AMA Subtotal			92,345			
	Central Arizona IDD	GSF	110,000	13,400	0		
MA	Hohokam IDD	GSF	55,000	8,500	0		
A	Maricopa-Stanfield IDD	GSF	120,000	16,800	0		
PINAL AMA	Intrastate/Interstate AMA	38,700	0				
П	Pinal AMA Subtotal	38,700					
	Avra Valley	USF	11,000	3,777	1,000		
a	Lower Santa Cruz	USF	50,000	20,645	8,000		
N N	CAVSARP	USF	100,000	0	5,000		
Z	SAVSARP	USF	60,000	41,000	0		
SO	Cortaro-Marana ID	GSF	20,000	4,000	0		
TUCSON AMA	Intrastate/Interstate AMA	trastate/Interstate AMA Subtotal					
	Tucson AMA Subtotal	83,	422				
TOTAL	. INTRASTATE & INTERST	195,467	19,000				
TOTAL RECHARGE DELIVERIES				214,467			

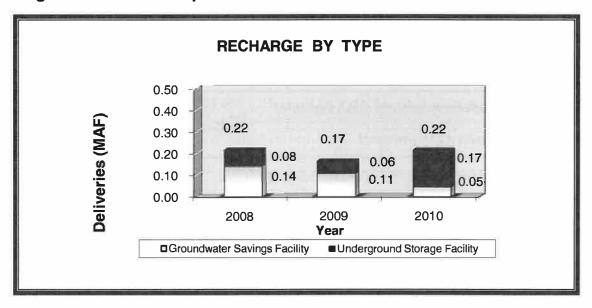
In addition to recharge deliveries, the AWBA also delivered water to meet the requirements of the Gila River Indian Community Water Settlement Program (Settlement Program). In 2009, the AWBA entered into an intergovernmental agreement (IGA) with the Gila River Indian Community that identifies the procedure for delivering water for meeting a replenishment obligation and/or for establishing the Southside Replenishment Bank identified in the Settlement Program. While these deliveries do not accrue long-term storage credits that may be recovered in the future, the Replenishment Bank receives a replenishment credit for each acre-foot of water delivered. Table 1b identifies the amount of water the AWBA delivered for replenishment purposes. A replenishment obligation was not incurred in 2009.

**Table 1b. Replenishment Deliveries** 

Southside Replenishment Activities	2010 Deliveries (acre-feet)	Cumulative Deliveries (acre-feet)		
Replenishment Obligations	0	0		
Replenishment Bank	1,000	2,000		
TOTAL DIRECT DELIVERIES	1,000	2,000		

This was the first year the AWBA participated in CAWCD's new five-year policy for distributing Excess CAP water. The initial Plan of Operation (Plan) for 2010 proposed to deliver 153,600 acre-feet of water and did not include deliveries for interstate storage. The Plan was amended in September of 2010 to include an additional 57,000 acre-feet of water made available through CAWCD's remarketing process and to recognize interstate deliveries. By the end of the year, the AWBA delivered for storage an estimated 214,470 acre-feet of water: 195,470 acre-feet for intrastate banking and 19,000 acre-feet for interstate banking. Figure 3 shows the acre-foot breakdown between GSFs and USFs for 2010 and a comparison between 2010 and previous years.

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



### **2011 PLAN OF OPERATION**

For 2011, the AWBA will store 137,441 acre-feet of intrastate water. Water storage will be occurring in facilities in all three counties. The AWBA is not planning any interstate storage. The AWBA will also deliver 1,000 acre-feet of water for the Southside Replenishment Bank.

When developing a Plan of Operation, the AWBA evaluates four critical factors: (1) the amount of water available to the AWBA for delivery; (2) the CAP capacity available to the AWBA for the delivery of water; (3) the funds available and the costs required to deliver the water; and (4) the capacity available for use by the AWBA at the various recharge facilities. In addition to these critical factors, the AWBA takes into consideration recommendations made by the Groundwater Users Advisory Councils (GUAC) of the three AMAs regarding water management objectives and priorities for storage.

### Water Availability

The factor of water availability consists of two parts: (1) the amount of water available on the Colorado River for diversion by the CAP within Arizona's allocation; and (2) the amount of CAP water available to the AWBA for delivery under the existing pool structure.

The Bureau of Reclamation (Bureau) distributed the Draft Annual Operating Plan (AOP) for water year 2011 to the states in September of 2010. The AOP stated that the Intentionally Created Surplus (ICS) Surplus Condition is the criterion that will govern the release of water for the states in the Lower Basin during calendar year 2011. Because Arizona has not created ICS, the State will operate under normal conditions, which allows 2.8 MAF of water available for use within Arizona. Arizona's on-river use is forecast to be 1.2 MAF, leaving approximately 1.6 MAF available for diversion by CAP.

With respect to availability of CAP water, the AWBA purchases water from the category that is termed excess water. Excess water is all water available for delivery through the CAP in excess of the quantities scheduled under long-term contracts and subcontracts. The availability of excess water is determined on an annual basis. The AWBA may order any excess water not requested by another entity within the CAP service area. The AWBA shares an equal priority for water for municipal and industrial (M&I) firming with the Central Arizona Groundwater Replenishment District for replenishment reserve purposes.

The CAWCD Board of Directors (Board), in anticipation of increased excess water orders, had directed its staff to develop a comprehensive strategy for distributing excess CAP water among competing demands. In July of 2009, the Board adopted a five-year policy for the distribution of excess water beginning in 2010. Under this policy, CAWCD created four pools in addition to the agricultural pool previously established. One of these pools identifies a volume of 175,000 acre-feet to be shared between the AWBA, the CAGRD for

replenishment reserve purposes, and the Bureau for Indian firming. The AWBA may use this water for any authorized purpose.

Subtracting the projected uses for the CAGRD replenishment reserve (10,900 acre-feet) and the Bureau (15,000 acre-feet), leaves a remaining balance of 149,100 acre-feet for the AWBA that includes 11,659 acre-feet of payback for an Inadvertent Overrun of Colorado River water in 2009. CAWCD's overrun payback plan assumes overruns can be attributed to end-of-year water that becomes available to the AWBA from unused apportionment or customer turnback water. Accordingly, the amount of water available to the AWBA for storage in 2011 is 137,441 acre-feet.

### II. CAP System Capacity

Under normal operating conditions, CAP can divert approximately 1.6 million acre-feet. Although the CAP is capable of delivering approximately 180,000 acre-feet per month, the available capacity does not always total that because of unique situations, i.e. the filling of Lake Pleasant in the winter months, deliveries to the western portion of the aqueduct, New Waddell Dam releases to the aqueduct in the summer months and scheduled maintenance and outages. The amount of water available to be diverted by the CAP within Arizona's 2.8 million acre-foot allocation was not a limiting factor in this Plan.

### III. Available Funds

The AWBA will have withdrawal fees collected in 2011 available for use in this Plan for intrastate storage. Total withdrawal fees are estimated at \$3.24 million; of that amount, \$1.6 million is available for the Phoenix AMA, and approximately \$1.2 million and \$435,000 are available for the Pinal and Tucson AMAs, respectively.

As in previous years, the CAWCD Board resolved to continue to retain the county *ad valorem* property taxes collected and not transfer those revenues to the AWBA Fund. Property tax revenues retained by CAWCD can be used to offset the cost of AWBA water deliveries in the tri-county CAWCD service area. The estimated *ad valorem* tax balances available for 2011, including carryover, are: Maricopa County (\$121 million), Pinal County (\$795,000), and Pima County (\$7.4 million).

While funding was not a limiting factor in developing the Plan for the Phoenix AMA, funding did limit the amount of water available for storage in the Pinal and Tucson areas. The ability to purchase water for storage in the Tucson AMA was further reduced as a result of legislative transfers in 2010. The amount of funds collected in both the Pinal and Tucson AMAs is expected to be a limiting factor in these areas in the future.

### IV. Available Storage Facility Capacity

AWBA staff conferred with facility operators to discuss their delivery schedules and their continued interest in participating with the AWBA. These discussions confirmed that there was significant interest from facility operators in all three AMAs in partnering with the AWBA. If additional supplies become available, the AWBA still has sufficient capacity to meet its anticipated needs.

The Water Delivery Schedule (Table 2) identifies the AWBA's partners for 2011 and the amount of water scheduled to be recharged. The second column in this section identifies the AWBA's water storage permit capacities for each facility based on the facility permits. The capacity available as shown does not always equate to the storage permit capacity because the storage facility operators may have agreements with other storage partners. In addition to recharge deliveries, Table 2 also identifies the amount of water scheduled for meeting the AWBA's Southside Replenishment obligations.

### **NEW FACILITIES**

Presently, there are no new storage facilities identified in the AWBA 2011 Plan. CAWCD's Superstition Mountains Recharge Project (SMRP) is currently under construction and is anticipated to be operational by May/June 2011 (Phase 1). When fully completed, the proposed storage volume for the facility will be 56,500 acrefeet/year. Phase 1 of the project proposes to store an estimated 25,000 acre-feet/year.

The AWBA intends to obtain a water storage permit for the SMRP facility in 2011 and when utilized would provide additional storage capacity to the AWBA in the Phoenix AMA.

	The last of the last open		The last	F 39		Table 2	2	2583	7 1	100		045	2.1	1	
1000			Prelin	minary \		The second second		e (Acre-	Feet)						Fig. 19
	- 7 - 7 ·	15 - 1 - 1 - 1 - 1 - 1 - 1	THE LA	of Aura	Calen	dar Yea	r 2011	Partie All	Julius.	DELES.	15	200	RELIAN	1 13	
Δ,	WBA-Recharge Sites	Permitted Capacity (AF)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
PHOENIX AN		(/"/	061	165	IVICI	750	IVICY	Quit	Qui	Aug	Оср	OCI	1407	Dec	TOTAL
ITIOLINA	West Maricopa Combine	25,000	0	0	0	0	0	0	0	0	0	0	0	0	0
ш.	HIEROGLYPHIC	35,000	0	0	0	0	0	0	0	0	0	0	0	0	0
USF	AGUA FRIA	100,000	0	0	0	0	0	0	0	0	0	0	0	0	0
	TONOPAH DESERT <sup>1</sup>	150,000	0	0	0	1,600	9,000	9,000	9,000	9,000	9,000	9,000	4,350	0	59,950
	-			The state of the s											59,950
	RWCD	105,000	0	0	0	0	0	0	0	0	0	0	0	0	0
GSF	NEW MAGMA	54,000	0	0	0	0	0	0	0	0	0	0	0	0	0
Ö	QUEEN CREEK	28,000	0	0	0	0	0	0	0	1,343	2,285	1,142	1,143	1,142	7,055
	TONOPAH ID	15,000	0	0	0	0	0	0	0	0	0	0	0	0	0
		ļ													7,055
	INTRASTATE		0	0	0	1,600	9,000	9,000	9,000	10,343	11,285	10,142	5,493	1,142	67,005
PINAL AMA :															
ш.	CAIDD	110,000	0	0	0	1,500	1,500	1,500	1,500	1,500	0	0	. 0	0	7,500
GSF	HOHOKAM	55,000	0	0	500	0	0	0	0	0	750	750	750	250	3,000
	MSIDD	120,000	508	636	1,589	1,335	1,335	636	318	318	572	0	0	254	7,500
															18,000
AMA TOTAL	. INTRASTATE		508	636	2,089	2,835	2,835	2,136	1,818	1,818	1,322	750	750	504	18,000
TUCSON AN	ΛA:														
	AVRA VALLEY	11,000	0	0	0	0	0	0	0	0	236	0	700	700	1,636
ш.	PIMA MINE RD	30,000	0	0	0	0	0	0	0	0	0	0	0	0	0
USF	LOWER SANTA CRUZ	50,000	0	0	0	1,000	2,000	2,000	2,000	2,000	2,000	300	0	0	11,300
_	CAVSARP	100,000	0	0	0	0	0	0	0	0	0	0	0	0	0
	SAVSARP	60,000	0	0	0	0	4,000	5,000	5,000	5,000	5,000	5,000	3,000	4,000	36,000
	CODTABO MADAMA ID	00,000	0			0	0								48,936
RSP	CORTARO-MARAINA ID KAI FARMS (Red Rock)	20,000	U	0	0	0	500	500	0 500	500	500	0	0	0	0
	RAI FANIVIS (Neu Nock)	11,201		0	0		300	500	500	500	500				2,500 2,500
		+													
AMA TOTAL	. INTRASTATE		0	0	0	1,000	6,500	7,500	7,500	7,500	7,736	5,300	3,700	4,700	51,436
TOTAL INTR	RASTATE	+ +	508	636	2,089	5,435	18,335	18,636	18,318	19,661	20,343	16,192	9,943	6,346	136,441
TOTAL INTE	RSTATE		0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL REC		1	508	636	2,089	5,435	18,335	18,636	18,318	19,661	20,343	16,192	9,943	6,346	136,441
DIRECT DEL	_IVERY (Non-Storage):					-	<u> </u>						-		-,
	Southside Replenishment E	Bank	1,000	0	0	0	0	0	0	0	0	0	0	0	1,000
	Southside Replenishment C		0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL DIRECT		1,000	0	0	0	0	0	0	0	0	0	0	0	1,000
TOTAL DELI	IVERIES		1,508	636	2,089	5,435	18,335	18,636	18,318	19.661	20.343	16,192	9,943	6,346	137,441
TOTAL DELL	I T LI IILO		1,300	030	2,009	5,435	10,333	10,030	10,310	19,001	20,343	10,192	9,943	0,340	137,441

<sup>&</sup>lt;sup>1</sup> Deliveries for November and December have been reduced by 11,659 acre-feet as pay back for an Inadvertent Overrun of Colorado River water in 2009.

### **INDIAN SETTLEMENTS**

The Plan does not specifically identify storage to meet the State's firming obligations under the Arizona Water Settlements Act (Settlements Act), however it does incorporate replenishment deliveries required under the Gila River Indian Community (GRIC) Settlement Program.

### Indian Firming

The Settlements Act recognizes three categories where the State has firming responsibilities. The first two obligations pertain to firming of water for the GRIC and other Arizona tribes in times of shortage for a 100-year period; the third obligation pertains to providing assistance to the Secretary of the Interior (Secretary) in carrying out obligations of the Southern Arizona Water Rights Settlement Act.

- 1. GRIC The AWBA must ensure that up to 15,000 acre-feet per year of CAP NIA priority water be made available to the GRIC. The AWBA did not receive a general fund appropriation to meet this obligation. Although withdrawal fees may be utilized for Indian firming after appropriated funds are expended, the 2011 Plan does not identify the expenditure of withdrawal fees specifically for this purpose. Credits accrued through the use of withdrawal fees could be used to meet this obligation if necessary.
- 2. Other Tribes The AWBA is also required to firm up to 8,724 acre-feet per year of CAP NIA priority water for future Indian Settlements. Settlements for other Indian Tribes have not been enacted at this time, thus the 2011 Plan does not include a component for this obligation.
- 3. Federal Assistance The State is required to contribute \$3 million in cash or inkind services to assist the Secretary in meeting the Federal obligation to the Tohono O'odham Nation. The Secretary and the AWBA agreed to develop long-term storage credits (credits), which will later be transferred to the Federal government. The AWBA completed this obligation in 2009.

The Arizona Legislature provided an initial appropriation of \$13.5 million in October, 2006 to assist the AWBA in meeting the State's obligation under the Settlements Act. In July, 2008, \$12.4 million remaining from the initial Indian firming appropriation was swept by the legislature out of the Arizona Water Banking (AWB) Fund.

### GRIC Water Settlement Program

In addition to the firming requirements of the Settlements Act, the AWBA, acting as agent for the State, is required to deliver 15,000 acre-feet of water to the GRIC for the purpose of establishing the Southside Replenishment Bank. The AWBA must deliver a minimum of 1,000 acre-feet per year to establish this Bank. The Southside Replenishment Bank will fulfill the obligations created under the Settlements Act for protection of the Reservation from off-reservation groundwater pumping. The 2011 Plan includes 1,000 acre-feet of direct deliveries to the GRIC for this purpose, creating a cumulative total of 3,000 acre-feet toward meeting this obligation.

### Assignment of Long-term Storage Credits Pursuant to A.R.S.§ 45-841.01

Pursuant to A.R.S. § 45-841.01, an Indian community may accrue credits to further the implementation of Indian water rights settlements. One criterion for accruing credits is that ten percent of the credits be offered to the AWBA at a price per acre-foot that is equal to the AWBA's delivery and storage costs at the time of sale. The Tohono O'dham Nation (Nation) stored water at the Mission Mine Complex in 2008. In 2009, the Nation assigned 234 acre-feet of credits to the AWBA from the credits accrued from its 2008 storage at a cost of \$22,698. It is anticipated the Nation will offer to assign an estimated 768 acre-feet of credits from its 2009 storage. For 2011, an estimated 930 acre-feet of credits may be available to the AWBA based on the Nation's 2010 storage activities. While these credits may be used for M&I firming or for water management purposes, there is a restriction that the credits not be recovered within five miles of the exterior boundary of the reservation.

### INTERSTATE WATER BANKING

The 2011 Plan does not include an interstate water banking component for the State of Nevada. Because of the reduced water supplies available to the Water Bank in 2011, it is important to complete intrastate water banking with the funds available to the AWBA before interstate water is offered. However, if excess water becomes available later in the year after all storage for intrastate purposes has been maximized, the AWBA could store for interstate banking to ensure that Arizona's full entitlement is diverted from the Colorado River.

From 2009 to the present, Legislative transfers from the AWBA Nevada Resource subaccount total \$19.65 million.

### RECOVERY

In 2010, CAWCD recovered the remaining 8,159 acre-feet of long-term storage credits (credits) held on behalf of Metropolitan Water District of Southern California (Metropolitan), therefore, no additional recovery is planned for 2011. These credits were recovered pursuant to the Amended Letter Agreement for the Creation of Intentionally Created Unused Apportionment (ICUA) with Credits Created Under the 1992 Demonstration Agreement between CAWCD and Metropolitan.

Based on the 1992 Demonstration Agreement (amended in 1994), CAWCD stored 89,000 acre-feet of water in Pinal County in the early 1990s, resulting in 80,909 acrefeet of credits that could be recovered for the benefit of Metropolitan. CAWCD agreed to recover and use these credits which, have been held in CAWCD's long-term storage account, in lieu of diverting a like amount of its Colorado River apportionment. The AWBA was party to the agreement because it is the only entity in Arizona that can request the Secretary release ICUA to California and Nevada. CAWCD began recovering water on behalf of Metropolitan in 2007 and completed that recovery in 2010.

In addition to the efforts of completing credit recovery for Metropolitan, CAWCD staff continued to conduct its recovery planning in 2010. To assist in planning for credit recovery and water delivery, staff has been compiling and analyzing information such as: subcontractors' operating systems, location of stored credits in relation to service areas, and recovery well locations. Evaluation continued on potential sites for development of large-scale regional recovery facilities, as well as potential partnerships among water providers.

CAWCD staff has held numerous recovery meetings in Maricopa, Pinal and Pima Counties. In response to these discussions, staff has developed draft Guiding Principles for *Recovery of Stored CAP Water for M&I Subcontractors*, which capture basic concepts of recovery and acknowledge customers' concerns (can be found on www.cap-az.com). These principles have been shared with subcontractors and will be incorporated into a draft recovery plan scheduled for completion by CAWCD in March 2011.

### **PRICING**

In June 2010, the CAWCD Board approved its water delivery rate schedule for calendar years 2011/2012. The Board concluded that because of the recent demand for excess CAP water, the incentive recharge rate was no longer necessary and would therefore not be offered. Thus the AWBA rate for recharge is now equivalent to the rate for excess M&I water at \$137 per acre-foot.

This is the second year that the AWBA will have a different cost share structure between AMAs for its GSF partners. Historically, there has been little interest in GSF partnerships with the AWBA in the Tucson AMA because groundwater pumping costs in that AMA have been much lower than the cost share. Because funding in the Tucson AMA is not sufficient for meeting the M&I firming goal and since storage at GSFs is less expensive than underground storage facilities (USFs), accruing more credits per dollar spent, the AWBA Commission directed staff in 2009 to pursue GSF opportunities in the Tucson AMA. Based on data submitted by the Tucson GSF operators, which included a range of groundwater pumping costs and cost shares paid by other partners, it was determined that a reasonable cost share for 2010 was \$15 per acre-foot. The cost share for 2011 will remain the same at \$15 per acre-foot.

Groundwater pumping costs in the Phoenix and Pinal AMAs vary depending on energy sources used and the location of wells, i.e. depth to water. The AWBA maintained the cost share for the GSF partners at \$33 per acre-foot for the Phoenix and Pinal AMAs, which is comparable to the average groundwater pumping costs in these areas.

Table 4 reflects the water delivery rate CAWCD will charge the AWBA, the cost share GSF operators pay, and the rates the AWBA pays to utilize different USFs for M&I firming. For other than M&I firming purposes, the AWBA also pays a capital charge component. There is no administrative cost component in the facility cost because the AWBA pays the CAWCD administrative costs on an annual basis. The rate established for interstate banking is \$167 per acre-foot, plus facility costs and facility capital costs.

Table 4. 2011 Water and Facility Rates

CAWCD delivery rate to AWBA for water storage	\$137 per acre-foot				
Interstate rate	\$167 per acre-foot				
Groundwater Savings Facility operator cost share rate <sup>1</sup>					
Intrastate					
Phoenix and Pinal AMAs	\$33 per acre-foot				
Tucson AMA	\$15 per acre-foot				
Interstate	\$26 per acre-foot				
Underground Storage Facility rate paid by AWBA					
Agua Fria Recharge Project <sup>2</sup>	\$8 per acre-foot				
Hieroglyphic Mtn. Recharge Project <sup>2</sup>	\$8 per acre-foot				
Tonopah Desert Recharge Project <sup>2</sup>	\$8 per acre-foot				
West Maricopa Combine	\$25 per acre-foot				
Avra Valley Recharge Project	\$15 per acre-foot				
Lower Santa Cruz Recharge Project 3	\$15 per acre-foot				
Pima Mine Road Recharge Project <sup>3</sup>	\$15 per acre-foot				
Clearwater Facility (CAVSARP/SAVSARP)	\$14.73 per acre-foot				
CAWCD rate to AWBA for Southside Replenishment Bank deliveries \$122 per acre-foot					

This rate is paid directly to CAP by the GSF operators and is not available as revenue to the AWBA. The AWBA's rate for delivery of in lieu water is thus reduced to \$104/af for intrastate deliveries to the Phoenix and Pinal AMAs, \$122/af to the Tucson AMA, and \$141/af for interstate deliveries.

### **ACCOUNTING**

The AWBA's enabling legislation required the development of an accounting system that allows the tracking of all long-term storage credits accrued by the AWBA and the funding sources from which they were developed. The ADWR has established accounts that track both credits and funds.

The estimated total cost of the AWBA's 2011 Plan of Operation is approximately \$19 million. Table 5 provides estimates of the funds available to be utilized by the AWBA, an estimate of funds to be collected during the year, the funds to be utilized, the entity that holds the funds, and the credits that will accrue to those accounts based on the 2011 Plan.

<sup>&</sup>lt;sup>2</sup> Additional capital charge of \$15 per acre-foot for interstate storage.

<sup>&</sup>lt;sup>3</sup> Additional capital charge of \$9 per acre-foot for interstate storage.

Table 5. Funding for 2011 Annual Plan of Operation

	Funds Available (\$)		Funds U	tilized (\$)	Credits (AF)
	AWBA	CAWCD	AWBA	CAWCD	
Withdrawal Fees					
Phoenix AMA	\$1,600,000	-	\$1,600,000	-	10,460
Pinal AMA <sup>1</sup>	\$1,200,000	-	\$1,200,000	-	9,540
Tucson AMA <sup>2</sup>	\$435,000	-	\$435,000	-	1,800
Four Cent Tax					
Phoenix AMA	\$0	\$120,870,000	\$0	\$7,826,000	51,180
Pinal AMA	\$0	\$795,000	\$0	\$794,000	7,020
Tucson AMA <sup>3</sup>	\$0	\$7,440,000	\$0	\$7,440,000	45,520
Other					
General	\$0				
Phoenix AMA		-	\$0	-	0
Pinal AMA		-	\$0	-	0
Tucson AMA		-	\$0	-	0
Gifts, Grants, Donations					
Shortage Reparations (NV):	\$0				
Phoenix AMA		-	\$0		0
Pinal AMA			\$0		0
Tucson AMA		-	\$0		0
Interstate Banking- Nevada					
Operating <sup>4</sup>	\$33,315,000		\$	0	
	Total Fun	ds Available	Total Funds	Credits	
	\$165.	655,000	\$19.29	95,000	125,520

<sup>&</sup>lt;sup>1</sup> Includes expenditure for 1,000 acre-feet of direct deliveries for establishing the Southside Replenishment Bank under the Gila River Indian Water Settlement Program.

The 2011 Plan was developed expending all available withdrawal fees in the three AMAs. The Plan also shows CAWCD utilizing a portion of the four-cent tax collected in Maricopa County and all of the four-cent tax collected in Pinal and Pima Counties to offset water costs to the AWBA.

<sup>&</sup>lt;sup>2</sup> Includes expenditure of \$141,360 for the assignment of an estimated 930 acre-feet of credits to the AWBA from the Tohono O'odham Nation pursuant to §45-841.01.

Includes CAWCD's capital charge recovery for costs of construction of state demonstration projects when facilities are used for interstate purposes and by entities that do not pay the 4¢ ad valorem tax. Revenue through 2010 is estimated to be \$2,026,952.

The amount of funding that will be available from the Southern Nevada Water Authority if water becomes available for interstate storage. Pursuant to a letter agreement between SNWA and AWBA dated June 15, 2010, annual payments of \$23 million for calendar years 2011 and 2012 have been deferred.

Table 6 provides an estimate of the AWBA funds expended and the credits that have accrued to the various accounts based on the AWBA's recharge activities since inception.

**Table 6. Cumulative Totals of Long-term Storage Credits 1997-2010** 

	FUNDS	CRE	CREDITS 1			
	EXPENDED	AMOUNT (AF)	LOCATION			
Withdrawal Fee						
Phoenix AMA	\$15,766,819	268,883	Phoenix AMA			
Pinal AMA <sup>2</sup>	\$13,450,567	373,876	Pinal AMA			
Tucson AMA <sup>3</sup>	\$7,174,237	92,845	Tucson AMA			
Four Cent Tax						
Maricopa County	\$72,358,259	1,217,416	Phoenix AMA			
Pinal County	\$7,720,465	172,849	Pinal AMA			
Pima County	\$30,749,750	328,486	Tucson AMA			
Other						
General Fund⁴	\$11,100,865	403,830				
	\$1,522,115	42,316	Phoenix AMA			
	\$6,394,964	306,968	Pinal AMA			
	\$3,183,786	54,546	Tucson AMA			
Indian Firming	\$2,338,171	28,436				
Appropriation	\$0	0	Phoenix AMA			
	<i>\$0</i>	0	Pinal AMA			
	\$2,338,171	28,436	Tucson AMA			
Shortage Reparations	\$2,999,742	82,283				
	\$1,099,339	20,642	Phoenix AMA			
	\$1,708,580	60,436	Pinal AMA			
	\$191,823	1,205	Tucson AMA			
Interstate						
Nevada <sup>5</sup>	\$109,217,972	600,252				
	\$10,053,945	50,887	Phoenix AMA			
	\$86,589,032	439,851	Pinal AMA			
3885	\$12,574,995	109,514	Tucson AMA			
TOTAL	\$272,876,847	3,569,200				

<sup>&</sup>lt;sup>1</sup> Actual credits used for 1997-2009; credits estimated for 2010.

<sup>&</sup>lt;sup>2</sup> Includes expenditure of \$226,000 for Southside Replenishment Bank deliveries.

<sup>&</sup>lt;sup>3</sup> Includes estimated expenditures of \$136,362 for the assignment of 1,002 acre-feet of credits to the AWBA from the Tohono O'odham Nation pursuant to §45-841.01.

<sup>&</sup>lt;sup>4</sup> 256,174 AF of credits reserved pursuant to contract dated March 17, 2010 with Mohave County Water Authority.

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

Table 7 identifies the progress made on the AWBA's goals and obligations in 2011.

Table 7. Projected Percent of Goals and Obligations Achieved through 2011

Location and Objective	Funding Source	Goal	Obligation	Non-Credit Goal/Oblig. Achieved	Credits Accrued (AF)	Percent Goal/Oblig. Achieved
Phoenix AMA						
M&I Firming	Ad valorem tax	1,566,000 AF			1,268,596	81%
Groundwater Mgmt <sup>1</sup>	Withdrawal Fees				279,343	99%
Pinal AMA						
M&I Firming	Ad valorem tax	243,000 AF			179,869	74%
Groundwater Mgmt <sup>1</sup>	Withdrawal Fees				383,416	232%
Tucson AMA						
M&I Firming	Ad valorem tax	864,000 AF			374,006	43%
Groundwater Mgmt <sup>1,2</sup>	Withdrawal Fees				90,766	54%
On-River M&I Firming <sup>3</sup>	General Fund	420,000 AF			403,830	96% <sup>4</sup>
Indian Settlements:						
GRIC Firming	Withdrawal Fees	350,000 AF <sup>5</sup>	up to 15,000 AF/YR		0	0%
Future Settlements	Withdrawal Fees	200,000 AF <sup>5</sup>	up to 8,724 AF/YR		0	N/A
Federal Assistance			\$3,000,000	\$3,000,000	39,723	100%
Tucson AMA	Appropriation			\$2,338,171	34,102	
	Withdrawal Fees			\$630,490	5,621	
	Cost of Services <sup>6</sup>			\$31,339	n/a	
Southside Repl. Bank	Withdrawal Fees		15,000 AF Direct Delivery		3,000	20%
Interstate Water Banking - NV	Contract with Nevada		1,250,000 AF <sup>7</sup>		600,252	48%
Shortage Reparations- Nevada	Gifts, Grants, Donations	\$8,000,000		\$2,999,748	82,283	37%

<sup>&</sup>lt;sup>1</sup> Withdrawal fees could be utilized in addition to 4¢ ad valorem tax revenues for M&I firming if needed to reach firming goals.

<sup>&</sup>lt;sup>2</sup> Includes credits acquired from the Tohono O'odham Nation pursuant to §45-841.

<sup>&</sup>lt;sup>3</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 AWBA Agreement to Firm with the Mohave County Water Authority (MCWA) dated February 4, 2005, a total of 230,280 acre-feet of credits were transferred to the AWBA long-term-storage sub-account for the MCWA in 2005.

<sup>&</sup>lt;sup>4</sup> This percentage reflects full utilization of general fund credits accrued to date and would change as other objectives are identified by the AWBA.

<sup>&</sup>lt;sup>5</sup> Based on estimates from the Indian Firming Study Commission Report dated January 6, 2006.

<sup>&</sup>lt;sup>6</sup> Include \$14,883 and \$16,456 deducted for payment of cost of services for FY08 and FY09, respectively.

<sup>&</sup>lt;sup>7</sup> Pursuant to the Amended Agreement for Interstate Water Banking, the AWBA has committed to have this number of long-term storage credits within the Nevada sub-account.

### **PUBLIC REVIEW AND COMMENT**

The AWBA staff held meetings with the GUACs for the Phoenix, Pinal and Tucson AMAs as required by statute. The Plan was distributed to the public and was posted on the AWBA web page for public review and comment.

In general, the GUACs supported the Plan and had no requests for changes to it. Questions received focused on clarification of the Southside Replenishment Bank, different cost-share pricing for GSFs, and explanation of the interstate delivery rate.

# AGREEMENT BETWEEN THE ARIZONA WATER BANKING AUTHORITY AND THE METROPOLITAN DOMESTIC WATER IMPROVEMENT DISTRICT PROVIDING FOR THE STORAGE OF CENTRAL ARIZONA PROJECT WATER AT THE AVRA VALLEY RECHARGE PROJECT

1.	Preamble
	The Parties to this Agreement made and entered into this day of
	, 2010, are the ARIZONA WATER BANKING AUTHORITY (the
	"Authority"), and the METROPOLITAN DOMESTIC WATER IMPROVEMENT
	DISTRICT, ("District").
2	Explanatory Recitals

### Explanatory Recitals

WITNESSETH, THAT:

- 2.1. WHEREAS, the Colorado River Basin Project Act of 1968 (82 Stat. 885) provides, among other things, that for the purposes of furnishing irrigation and municipal and industrial water supplies to water deficient areas of Arizona and western New Mexico through direct diversion or exchange of water, control of floods, conservation and development of fish and wildlife resources, enhancement of recreation opportunities, and for other purposes, the Secretary shall construct, operate, and maintain the Central Arizona Project, hereinafter referred to as "CAP"; and
- 2.2. WHEREAS, the Arizona Legislature has declared that it is the public policy of the State of Arizona to use the CAP to deliver Colorado River water that would otherwise be unused in Arizona for purposes specified in A.R.S. § 45-2401; and
- 2.3. WHEREAS, the Arizona Legislature has created the Authority to implement this policy and has specifically authorized the Authority, in A.R.S. § 45-2423(B)(7), to execute agreements with the Central Arizona Water Conservation District ("CAWCD") to obtain water for storage at permitted facilities; and

- 2.4. WHEREAS, CAWCD and the Authority, have entered into an agreement for the delivery of excess CAP water dated July 14, 2005 (Excess Water Contract) providing for the purchase and delivery of Excess Water to the Authority for water storage; and
- 2.5. WHEREAS, the District has entered into a Purchase Agreement dated February 4, 2010 with CAWCD for the purchase of the Avra Valley Recharge Project (the "AVRP Purchase Agreement"); and
- 2.6. WHEREAS, the District will be the successor-in-interest to the CAWCD in its present capacity as lessee of the real property within which the AVRP is located, which property is owned by the Arizona State Land Department ("ASLD"); and
- 2.7. WHEREAS, the District has agreed to store Authority Water on behalf of the Authority at the Avra Valley Recharge Project if it is acquired by the District. NOW, THEREFORE, in consideration of the mutual and dependent covenants herein contained, it is agreed as follows:

### 3. Definitions

- 3.1. "Authority Water" shall mean Excess Water made available by CAWCD to the Authority for Water Storage, which water would not otherwise have been used within Arizona.
- 3.2. "Avra Valley Recharge Project" or "AVRP" shall mean the Underground Storage Facility operated by the District pursuant to Underground Storage Facility Permit, No. 71-564896.0003, and any amendments thereafter, located in Section 3, Township 12 South, Range 11 East, GSRB&M.
- 3.3. "AVRP Turnout" shall mean the point on the BKW Water Delivery System at which Authority Water is diverted from the BKW Water Delivery System to the AVRP basins for the Authority and measured at the weir(s) represented on the attached Appendix A.
- 3.4. "BKW Water Delivery System" shall mean BKW's canal system, including canals, pump stations, gates and measuring devices, which diverts CAP water from the CAP canal at milepost 295.6 on the CAP canal.

- 3.5. "Excess Water" shall mean CAP water which, in any year, is available for delivery and has not been scheduled for delivery pursuant to a contract with the United States or a subcontract with the United States and CAWCD providing CAP Water service for a period of 50 years or more.
- 3.6. "Party or Parties" shall mean either one or, in the plural, both of the parties to this Agreement.
- 3.7. Terms defined in A.R.S. § 45-802.01 shall have the meanings ascribed to them therein. The first letters of such terms are also capitalized herein.

## 4. Scope of Services

The services the District shall provide are limited to: (i) the District taking delivery of Authority Water at the AVRP Turnout; and (ii) storage of Authority Water by the District at AVRP for the benefit of the Authority.

#### 5. Term

- 5.1. This agreement is effective upon the purchase of the AVRP by the District.
- 5.2. This Agreement shall terminate on December 31, 2015 unless, prior to that date, the Parties have agreed to an extension hereof, or unless it is sooner terminated or canceled in accordance with Subsections 11.4 or Sections 14, 17, 23, 30 and 31 hereof.

#### 6. Authorized Representatives

Within thirty (30) days after execution of this Agreement, each Party shall designate in writing to the other Party an authorized representative (AR) and an alternate to administer, on behalf of the designating Party, the provisions of Section 8. Written notice of a change of an AR or alternate shall be provided within thirty (30) days of such change. The alternate shall act only in the absence of the ARs. Neither the ARs nor the alternates shall have authority to amend this Agreement. Agreements of the ARs or alternates pursuant to this Agreement shall be in writing, signed by them and be binding upon the Parties.

## 7. Conditions Relating to Storage

The storage of water under this Agreement is conditioned on the following:

- 7.1. All storage of Authority Water shall comply with Arizona water law and with federal law applicable to the CAP.
- 7.2. Authority Water made available pursuant to this Agreement shall be stored by the District only at AVRP. The District shall be responsible for all expenses and administrative requirements, including filing annual reports with the Arizona Department of Water Resources ("ADWR"), associated with maintaining the AVRP Underground Storge Facility ("USF") Permit, No. 71-564896.0003. The District's storage of Authority Water at AVRP shall at all times comply with USF Permit, No. 71-564896.0003, and any amendments thereafter. If USF Permit, No. 71-564896.0003 is canceled or expires for any reason, the Authority shall discontinue deliveries of Authority Water to that facility.
- 7.3. The Authority has been issued a water storage permit from ADWR for AVRP, permit number 73-564896.0200, authorizing the Authority to store water at the AVRP. The Authority shall be responsible for all fees, annual reports, and compliance requirements associated with its water storage permit.

## 8. <u>Procedure for Scheduling Authority Water</u>

- 8.1. On or before June 15 of each year, the District, after discussions with the Authority, shall notify the Authority in writing of the amount of annual capacity available to the Authority at AVRP during the following calendar year.
- 8.2. On or before July 1 of each year, the Authority shall notify in writing the District of the amount of capacity identified in Subsection 8.1 that the Authority anticipates utilizing at AVRP during the following calendar year. If the Authority does not notify the District by such date of Authority's interest in storing at the AVRP, the Authority shall be deemed to have waived its right to receive annual capacity and the District may thereafter contract with third parties to store at AVRP.
- 8.3. On or before September 1 of each year, for the capacity identified in Subsection 8.2 above, the District and the Authority shall meet and confer on

- the amount of monthly capacity which the District will reserve for the Authority at AVRP during the following calendar year. Upon written agreement, the District shall submit to CAWCD the proposed schedule. The total annual capacity shall be the sum from each month's capacity and shall not exceed capacity identified by the Authority in Subsection 8.2.
- 8.4. Upon final agreement by the District, the Authority, and CAWCD, the schedule shall constitute the maximum amount of Authority Water that may be delivered for storage at AVRP during each month of that calendar year, subject to modification pursuant to Subsection 8.6.
- 8.5. The Authority may request an increase or decrease to its monthly schedule during a calendar year in accordance with this Subsection. The District shall accept the Authority's timely request to decrease its schedule, and shall revise the schedule to reflect the decrease. The Authority shall not request an increase in the monthly schedule that results in the delivery of an amount greater than the excess capacity available to the Authority at the AVRP. The District shall review the Authority's timely request to increase its schedule, and the District shall make any necessary adjustment to that request. The District shall notify the Authority in writing of the District's action concerning the Authority's request to increase its schedule within 10 days of receipt of such request. Unless otherwise agreed by the Parties, the Authority shall submit proposed modifications to its schedule to the District not less than 15 days before the desired change is to become effective. The schedule shall be revised to reflect changes made pursuant to this subsection.
- 8.6. The Authority shall authorize the District to order Authority Water for delivery to the AVRP Turnout directly from CAWCD in accordance with CAWCD's water ordering procedures and limits to be established by the ARs. Authority Water ordered by the District shall not exceed the amounts provided for in subsection 8.5 and the Authority's approved Plan of Operation.

## 9. AVRP Operations

- 9.1. The District as the operator of AVRP shall have the sole discretion in determining whether a curtailment or stoppage of water flows to AVRP is made necessary by circumstances existing at any time, and shall assume no liability to the Authority for such curtailment or stoppage.
- 9.2. The District shall retain sole responsibility and authority for decisions, relating to the AVRP operating and maintenance practices, including maintenance scheduling and the selection of periods when maintenance will be done.
- 9.3. Whenever practicable, the District shall inform the Authority ninety (90) days in advance of any planned maintenance or other operational matter which may substantially affect AVRP or the rights of the Authority and of any actions to be taken by the District related thereto.

## 10. AVRP Rates

- 10.1. The water storage fee for any water stored by the District on behalf of the Authority in 2011 and 2012 is \$15.00 for each acre-foot of water delivered to the AVRP Turnout
- 10.2. For each subsequent year, the rate specified in Subsection 10.1 shall increase by 3%.
- 10.3. If mutually agreed to by both Parties, the water storage fee may otherwise be adjusted in response to changing storage conditions, unforeseen operational cost changes at AVRP, or any other relevant regional factors or influences which would justify such fee adjustment.

#### 11. Billing and Payment

11.1. Bills for water storage at AVRP shall be submitted by the District to the Authority on or before the thirtieth (30th) day of each month (or if such day is not a business day, on the next succeeding business day) immediately following the month during which the Authority has incurred charges for such services. Such bills may include adjustments or corrections to bills previously submitted by the District to the Authority.

- 11.2. Payment by the Authority to the District shall be made in good funds on or before the thirtieth (30th) day following the billing date. Bills that are not paid by this date shall be delinquent and thereafter accrue an interest charge at the rate of interest charged on District invoices. This rate is currently 6% per annum, but is subject to change based upon review by the District Board of Directors.
- 11.3. In the event any portion of any bill is disputed, the disputed amount shall be paid when due, but may be accompanied by a written statement indicating the basis for any dispute. If the dispute is found to be valid, the Authority shall be refunded any overpayment plus interest, accrued at the rate set forth in Subsection 11.2, prorated by days from the date payment was credited to the Authority to the date the refund check is mailed.
- 11.4. In the event any delinquent amount is not paid by the Authority within thirty (30) days after receipt by the Authority of written notice from the District of the delinquency, the District shall have the right, without liability of any kind, to refuse to store Authority Water so long as the said amount remains unpaid, and may terminate this Agreement. Nothing herein shall limit the rights of the District to use any other available legal remedy to effect collection of said amounts.

## 12. AVRP Water Measurement and Accounting

- 12.1. The District will maintain daily water accounting of Authority Water stored at AVRP. Such water accounting shall be retained by the District for at least three (3) years and be made available for the Authority's inspection upon request.
- 12.2. The District shall prepare a monthly water accounting report based on the daily water accounting provided under Subsection 12.1. Such water accounting report may be combined with other reports provided by the District to the Authority, if any, and shall include Authority Water delivered to the AVRP Turnout and Authority Water stored at AVRP during the applicable

month.

- 12.3. The District shall base its accounting for water delivered on one or more of the following as determined by the District:
  - 12.3.1. actual measurements;
  - 12.3.2. methods required by Underground Storage Facility Permit No. 71-564896.0003 and any amendments thereafter; and/or
  - 12.3.3. generally accepted accounting and engineering practices.
- 12.4. The District shall determine evaporation losses representative of the conditions at or near the AVRP using the method indicated in Underground Storage Facility Permit No. 71-564896.0003 and any amendments thereafter, or using actual measurement, when available. Any other losses in the AVRP shall be calculated using generally accepted engineering practices.

## 13. AVRP Water Losses

Water delivered to AVRP for storage but which exits the facility, other than by infiltration and evaporation, will be calculated using generally accepted engineering practices and water-level readings from the gauges in the basins. Such water losses shall be apportioned by the District among the Authority and other entities storing water at AVRP based on the amount of water delivered at the AVRP Turnout for each entity during the period the loss occurred.

## 14. Destruction/Reconstruction of the AVRP

In the event of destruction of all or part of the AVRP, the District may repair or reconstruct the AVRP, but the District shall not be obligated to do so. If the District elects not to repair or reconstruct the AVRP, the Authority or the District may terminate this Agreement. Notice of such termination shall be in writing and shall be effective ten (10) days after receipt of notice. Provided, however, the Authority shall remain obligated to pay the District any amounts owing for water storage services provided under this Agreement before the date of termination.

## 15. Authorizations and Approvals

The Authority shall be responsible for obtaining, at its own expense, any additional permits, authorizations and approvals required for the Authority's performance under this Agreement. The Authority shall keep the District informed of its applications for such permits and authorizations and provide copies to the District within fifteen (15) days after receipt and renewal. The District will share information with the Authority to assist the Authority in its permit application. The Authority shall also be responsible for timely filing any annual reports or other documents necessary to maintain its right to store water at the AVRP and shall provide copies to the District within fifteen (15) days after submittal.

## 16. Liability

- 16.1. Each party shall assume liability for its own negligence and any damages that result from that negligent action or inaction.
- 16.2. The obligations set forth in this section shall survive expiration or termination of this Agreement and remain in full force and effect.

## 17. Default

In the event of a default by a Party, within thirty (30) days following written notice of such default by a non-defaulting Party, the defaulting Party shall remedy such default either by advancing the necessary funds and/or rendering the necessary performance. Such notice shall specify the existence and nature of the default. If such default is not remedied within the time specified, the non-defaulting Party may terminate this Agreement effective 24 hours following written notice, without prejudice to its rights and remedies established pursuant to this Agreement.

# 18. Interruptions or Curtailments in Delivery

Storage of Authority Water shall be in accordance with Authority requests as set forth in Section 8 of this Agreement, and shall be subject to availability of Authority Water at the AVRP Turnout.

## 19. Recovery of Stored Water

The Parties agree that the Authority may designate a third party agent ("Designated

Recovery Agent") to exercise the right to recover the Authority's long-term storage credits accrued from water stored under this Agreement. The "Designated Recovery Agent" shall be CAWCD, a political subdivision of the State of Arizona, and/or a municipal corporation formed under the laws of the State of Arizona. The Authority shall, in accordance with Section 15 of this Agreement, notify the District of the appointment of a Designated Recovery Agent pursuant to this Section 19.

- 19.2. The District agrees to cooperate with the Designated Recovery Agent in facilitating the recovery of long-term storage credits accrued by the Authority from the storage of water at the AVRP when credits are recovered at that location. Nothing herin shall prevent the Designated Recovery Agent from recovering the long-term storage credits outside of AVRP.
- 19.3. The District agrees not to register any objection with ADWR to an application for a recovery well permit filed by the Designated Recovery Agent seeking to recover long-term storage credits accrued from water stored at the AVRP by the Authority so long as the long-term storage credits are to be recovered at the AVRP.
- 19.4. Upon the distribution of Long-Term Storage Credits by the Authority to a Designated Recovery Agent, the Designated Recovery Agent may recover the Long-Term Storage Credits within AVRP boundaries upon written notification to the District, provided that it shall have been permitted to do so by the ASLD.
- 19.5. The Designated Recovery Agent shall not recover long-term storage credits within the AVRP's boundaries that were not accrued by the Authority at the AVRP, unless the District and ASLD agree in writing to allow the Designated Recovery Agent to recover other long-term storage credits.
- 19.6. To recover long-term storage credits pursuant to this Section 19, the District shall allow the Designated Recovery Agent to recover the Authority's long-termstorage credits using the District's wells, if any, provided that recovery from any wells within AVRP boundaries must be authorized by ASLD. Such

- use shall be subject to the District's operational control of the wells and shall be made only when, in the discretion of the District, there is sufficient well capacity and water transportation facilities available to recover the long-term storage credits without disrupting delivery of water to the District's customers; however, such discretion shall not be unreasonably exercised so as to defeat the intent of this Section 19.
- 19.7. If insufficient well capacity is available within the AVRP's boundaries to meet a recovery request, and provided that the Designated Recovery Agent has received the requisite written authorization of ASLD, the Designated Recovery Agent may install, own, operate and maintain new wells and related facilities within AVRP's boundaries or, at the Designated Recovery Agent's request, the District may, under a separate agreement, install, own, operate and maintain new wells and related facilities, provided that the Designated Recovery Agent pays the District in advance all construction costs associated with such new wells and facilities. All of the fixed and variable operating costs of such facilities attributable to the recovery of longterm storage credits shall be the sole responsibility of the Designated Recovery Agent. Nothing herein requires the District to construct facilities that, in their judgment, would interfere with the operation of existing wells within the District's water delivery system. The Designated Recovery Agent shall reimburse the District the cost of obtaining all permits required to drill new recovery wells identified by the Designated Recovery Agent for purposes of this Agreement.
- 19.8. The Designated Recovery Agent shall be responsible for obtaining and maintaining recovery well permits and shall pay all permit fees associated with recovery of long-term storage credits at the AVRP.
- 19.9. The Designated Recovery Agent shall reimburse the District for all reasonable costs incurred by the District in the recovery of long-term storage credits from District wells in accordance with this Section 19. These costs may include, but are not limited to wheeling services, scheduling costs,

incremental increased cost of power, and incremental increased cost of operation, maintenance, and replacement of wells and/or pumps. Prior to any recovery under this Section 19, the Designated Recovery Agent and the District shall agree upon the costs for which the Designated Recovery Agent shall be responsible. The Designated Recovery Agent and the District may agree that the Designated Recovery Agent will provide power to operate the wells to offset part of the agreed upon costs.

- 19.10. The District does not warrant the quality of water produced from recovery wells and is under no obligation to construct or furnish water treatment facilities to maintain or improve the quality of such water. The Designated Recovery Agent waives its right to make a claim against the District because of changes in water quality caused by underground storage or the mixing of recovered water with other water.
- 19.11. It is the express intention of the Parties that the Designated Recovery Agent be a third party beneficiary of the obligations and duties of the provisions of this Section 19, and that the third party beneficiary shall be considered a "Party" only for the purposes of this Section 19. The rights of the third party beneficiary under this Section 19 shall vest immediately upon notification of the District by the Authority of the designation of a Designated Recovery Agent in accordance with this Section 19. The Parties agree that the terms of this Section 19 shall not, in any way, limit the rights or privileges of the Authority under this Agreement.
- 19.12. The obligations set forth in this Section 19 shall survive the expiration or termination of this Agreement and remain in full force and effect until all Authority Water stored at the Authority has been recovered.

#### 20. Uncontrollable Forces

Neither Party shall be considered to be in default in the performance of any of its obligations hereunder when a failure of performance shall be due to uncontrollable forces. The term "uncontrollable forces" shall mean any cause beyond the control

of the Party unable to perform such obligation, including, but not limited to, failure of or threat of failure of facilities, flood, earthquake, storm, fire, lightning and other natural catastrophes, epidemic, war, riot, civil disturbance or disobedience, strike, labor dispute, labor or material shortage, sabotage, restraint by court order or public authority, and action or non-action by, or failure to obtain the necessary authorizations or approvals from, any governmental agency or authority, which by exercise of due diligence such Party could not reasonably have been expected to avoid and which by exercise of due diligence it shall be unable to overcome. Nothing contained herein shall be construed to require either Party to settle any strike or labor dispute in which it is involved.

## 21. Resolution of Disputes

- 21.1. A Party having a dispute under this Agreement that cannot be resolved by the Parties may submit the dispute to arbitration. Arbitration shall be subject to the following provisions:
  - 21.1.1. Arbitration shall be binding only upon the consent of the Parties.
  - 21.1.2. A Party wishing to submit a dispute to arbitration shall provide thirty (30) days written notice to the other Party of its intent to pursue arbitration and shall name one arbitrator at that time. Within fifteen (15) days of receiving this notice, the other Party to the dispute shall name one arbitrator and give written notice to the other Party of its selection. The two selected arbitrators shall, within five (5) days of selection of the second arbitrator, jointly select a third arbitrator.
  - 21.1.3. Within thirty (30) days from the selection of the third arbitrator, the arbitrators shall hold a hearing. Within thirty (30) days from the conclusion of the hearing the arbitrators shall render a decision on the dispute.
  - 21.1.4. Arbitration shall be subject to the Arizona Arbitration Act, Arizona Revised Statutes, Title 12, Chapter 9, Article 1. In the event of a conflict between this Agreement and the Act, the provisions of this

#### Agreement shall prevail.

21.2. A Party that is dissatisfied with the results of non-binding arbitration may pursue any other legal or equitable remedy not expressly provided for in this Section 21 and available to resolve the dispute.

## 22. Action Pending Resolution of Disputes

Pending the resolution of a dispute pursuant to Section 21, each Party shall proceed, to the extent legally permissible, in a manner consistent with this Agreement, and shall make payments required in accordance with the applicable provisions of this Agreement. Amounts paid by a Party pursuant to this Section 22 during the pendency of such dispute shall be subject to refund and adjustment upon a final resolution of any dispute involving an amount due. Upon such final resolution, the owed amounts shall be remitted with interest in accordance with the remittance procedures/arrangements contained in Section 11.

#### 23. Termination of Agreement

This Agreement may be terminated under the following circumstances:

- 23.1. If the Excess Water Contract between the Authority and CAWCD is terminated, the Authority may terminate this Agreement, which termination shall be effective fifteen (15) days after mailing written notice of termination to the District; or
- 23.2. Upon 180 days written notice by either Party; or
- 23.4 In the manner otherwise expressly provided herein.

#### 24. Compliance with Laws

The District and the Authority, in carrying out this Agreement, each shall comply with all applicable laws and regulations of the United States and the State of Arizona, and each shall obtain all required permits or licenses from the appropriate federal, state, and local authorities applicable to its operations or as otherwise provided in this Agreement.

## 25. Books, Records, and Reports

The District shall establish and maintain accounts and other books and records pertaining to administration of the terms and conditions of this Agreement. Reports shall be furnished to the Authority as provided in Section 12. Subject to applicable federal and state laws and regulations, each Party to this Agreement shall have the right, upon five (5) business day's prior written notice, during office hours and where such books and records are maintained to examine and make copies of the other Party's books and records relating to matters covered by this Agreement.

## 26. Notices

Any notice, demand, or request authorized or required by this Agreement shall be in writing and shall be deemed to have been duly given if mailed, first class postage prepaid, or delivered by commercial courier whose practice it is to obtain a receipt upon delivery, to the Parties at the following addresses:

#### If to the Authority:

Manager Arizona Water Banking Authority 3550 N. Central Avenue Phoenix, Arizona 85012

#### If to the District:

General Manager Metropolitan Domestic Water Improvement District 6265 North LaCanada Drive PO Box 36870 Tucson, AZ 85740

The designation of the address or addressee for the giving of notice may be changed by notice given as provided in this Section 26.

## 27. Assignments Limited -- Successors and Assigns Obligated

The provisions of this Agreement shall apply to and bind the successors and assigns of the Parties hereto, but no assignment or transfer of this Agreement or

#### DRAFΓ 12-1-10

any interest therein shall be valid unless and until approved in writing by the non-assigning Party.

## 28. No Third Party Beneficiaries

This Agreement is solely for the benefit of the Parties, and does not create nor shall it be construed to create rights in any third party unless expressly provided herein. No third party may enforce the terms and conditions of this Agreement.

## 29. Waiver

The waiver by either Party of any breach of any term, covenant or condition herein contained shall not be deemed a waiver of any other term, covenant or condition, or any subsequent breach of the same or any other term, covenant or condition herein contained.

## 30. Cancellation

This Agreement is subject to cancellation in accordance with the provisions of A.R.S. § 38-511.

## 31. Consistency With Other Agreements

This Agreement is intended to be consistent with the Excess Water Contract between the Authority and CAWCD. Upon agreement by the Parties, this Agreement may be amended or supplemented to conform to an amended or supplemented Excess Water Contract; provided, if the Parties cannot agree within 90 days after written notice from either Party to the other Party to amend or supplement this Agreement pursuant to this Section, either Party may terminate this Agreement.

#### 32. Entire Agreement

The terms, covenants and conditions of this Agreement constitute the entire agreement between the Parties relative to the storage of Authority Water for the Authority by the District at the AVRP, and no understandings or obligations not herein expressly set forth shall be binding upon them. This Agreement may not be modified or amended in any manner unless in writing and signed by the Parties.

## DRAFT 12-1-10

# 33. Equal Opportunity and Non-Discrimination

The parties shall comply with Chapter 9, Title 41, Arizona Revised Statutes, Arizona Executive Orders 75-5 and 2009-9 and any other federal or state laws relating to equal opportunity and non-discrimination, including the Americans with Disabilities Act.

# DRAFT 12-1-10

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement effective the day and year first above-written.

	ARIZONA WATER BANKING AUTHORITY
Attest:Secretary	By:Chairman
	METROPOLITAN DOMESTIC WATER IMPROVEMENT DISTRICT
Attest:	By:
Clerk of the Board	Chairman