

# ARIZONA WATER BANKING AUTHORITY

ANNUAL REPORT  
2005



Submitted

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# **Arizona Water Banking Authority**

## **Annual Report 2005**

**Honorable Janet Napolitano  
Governor of Arizona**

### **Members**

**Herbert R. Guenther  
*Chairman***

**William K. Perry  
*Vice-chairman***

**Charles L. Cahoy  
*Secretary***

**Maureen R. George  
*Member***

**John T. Mawhinney  
*Member***

***Ex officio*  
Senator Jake Flake  
Representative James Weiers**

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## Arizona Water Banking Authority Annual Report Requirement

Arizona Revised Statutes § 45-2426 mandates that the Arizona Water Banking Authority (AWBA) file an annual report with the Governor, President of the Senate and Speaker of the House of Representatives on or before July 1 of each year for the previous calendar year. The report is required to be a full and complete account of the AWBA's transactions and proceedings and must include the following:

1. An accounting of all monies expended from the banking fund.
2. An accounting of all monies in the banking fund remaining available to the AWBA.
3. The amount of water stored by the AWBA.
4. The number of long-term storage credits distributed or extinguished by the AWBA.
5. The purposes for which long-term storage credits were distributed or extinguished by the AWBA.
6. A description of the water banking services and interstate water banking to be undertaken by the AWBA during the following ten year period and a projection of the capacity of the AWBA during that period to undertake those activities in addition to storing Colorado River water brought into the state through the Central Arizona Project (CAP) for all of the following purposes:
  - a. Protecting this state's municipal and industrial (M&I) water users against future water shortages on the Colorado River and disruptions of operation of the CAP.
  - b. Fulfilling the water management objectives of the state.
  - c. Making water available to implement the settlement of water rights claims by Indian communities within Arizona.
7. Any other matter determined by the authority to be relevant to the policy and purposes of the AWBA.

## Update

Calendar year 2005 again began as a year of limits as the AWBA faced significant constraints with respect to availability of funds and water. The 2005 Plan of Operation approved in December of 2004 projected less than 129,000 acre-feet of AWBA storage. However, record precipitation levels early in 2005 led to significant changes in the water demands of many CAP customers resulting in a number of requests for remarketing of scheduled water. As a result of the remarketing requests, CAP informed the AWBA that more than 300,000 acre-feet of additional water would be available to the AWBA for delivery. The AWBA made every attempt to utilize the additional water that was made available, however, capacity constraints at underground storage facilities (USFs) resulted in the AWBA increasing its scheduled deliveries by 84,547 acre-feet. Also, in recognition of the financial constraints associated with intrastate storage in the Tucson and Pinal AMAs, the 2005 Plan was amended to include interstate water banking in an effort to assist CAP in fulfilling the remarketing requests.

With respect to membership, there were three changes to the AWBA Commission in 2005 as shown in Figure 1. George Renner was replaced by William Perry, Senator Binder was replaced by Senator Flake, and Representative Flake was replaced by Representative Weiers<sup>1</sup>. Additionally, there were three changes to the AWBA staff members. Throughout the course of the year, Sandra Fabritz-Whitney, Gerry Wildeman, and Nannette Flores, submitted their resignations for promotional opportunities within the Arizona Department of Water Resources. In November, Kim Mitchell was hired as Technical Administrator and Virginia O'Connell as Water Resource Specialist.

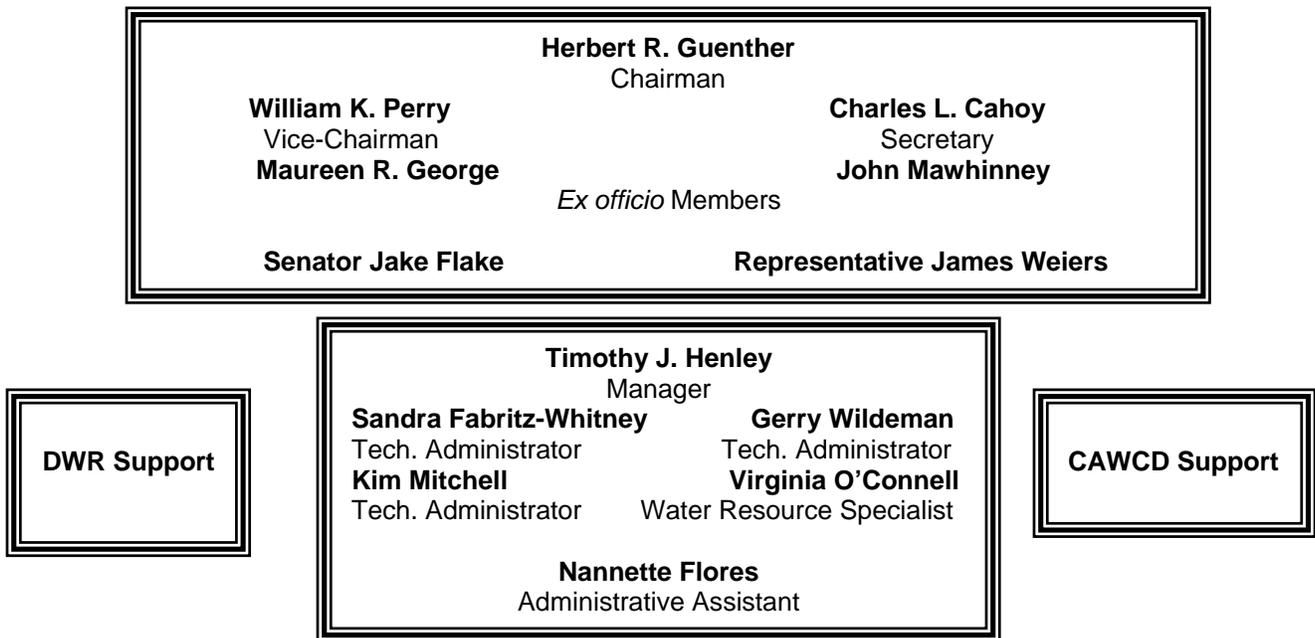


Figure 1. Arizona Water Banking Authority Organizational Chart for 2005

<sup>1</sup> Chairman Herb Guenther announced, at the December 21, 2005 AWBA meeting, the 2006 appointment of Representative Lucy Mason replacing Representative Weiers as *ex officio* member of the Authority.

The Arizona Water Settlements Act (Settlements Act) was signed into law on December 10, 2004. A key element within the Settlements Act is the provision for enacting State legislation creating an Indian Firming Program for the Gila River Indian Community and future Indian water rights settlements. In April of 2005, the Governor signed House Bill 2728 that created the Indian Firming Study Commission (Study Commission). The Study Commission was formed to determine how Arizona would meet its obligation under the Settlements Act. The AWBA participated in the Study Commission meetings held throughout 2005. House Bill 2728 and the Study Commission will be discussed in more detail in the Legislative Activity section of this Report.

In 2005, CAP initiated a process to begin to address the issue of recovery of the credits held by the AWBA for the benefit of the municipal and industrial users. The AWBA's staff participated in that process.

Pursuant to the Amended Agreement for Interstate Water Banking (Amended Agreement), the AWBA continued to store water for the benefit of Nevada. The AWBA was able to store this water because it became available when other CAP users reduced their orders. Storing water for Nevada had two main benefits in 2005; first, it allowed the AWBA to begin to meet its obligations under the amended agreement and second, it provided the opportunity for CAP to re-market previously ordered but unused water for full price. The second benefit also allowed CAP to recover its cost while not having to implement the take or pay provisions in its contracts with the CAP users that reduced their requests. In addition to these benefits, the AWBA was able to offer its groundwater savings facilities (GSF) partners CAP water at a reduced rate. This added incentive encouraged the GSFs to increase their use of CAP water, This was done in recognition of the extreme importance of full utilization of Arizona's Colorado River entitlement. The Amended Agreement is discussed in more detail in the Activities and Projects section of this report.

In 2005, the AWBA delivered for recharge a total of 213,273 acre-feet of water; 92,732 acre-feet for intrastate purposes and 120,541 acre-feet of water on behalf of the SNWA. The quantity of water received by each facility is described in Appendix A and totaled 33,141 acre-feet of water in the Phoenix AMA, 106,044 acre-feet of water in the Pinal AMA, and 74,088 acre-feet in the Tucson AMA.

Total consumptive use of Colorado River water by Arizona for 2005 was approximately 2.33 million acre-feet. Distribution of that quantity was approximately 1.01 million acre-feet for direct uses along the Colorado River and CAP diversions of approximately 1.32 million acre-feet.

For more information about the Arizona Water Banking Authority, consult the AWBA web page at [www.awba.state.az.us](http://www.awba.state.az.us) or contact Tim Henley ([tjhenley@azwater.gov](mailto:tjhenley@azwater.gov)), Kim Mitchell ([krmitchell@azwater.gov](mailto:krmitchell@azwater.gov)) or Virginia O'Connell ([voconnell@azwater.gov](mailto:voconnell@azwater.gov)) or by phone at 602-771-8487.

## Activities and Projects - 2005

### Amended Agreement for Interstate Water Banking

On July 3, 2001, the Agreement for Interstate Water Banking (2001 Agreement) among the AWBA, the SNWA and the CRCN was executed<sup>1</sup>. In the 2001 Agreement, the AWBA agreed to use its “best efforts” to store water in Arizona in an amount sufficient to develop an aggregate total of 1.2 million acre-feet of long-term storage credits. Those credits would then be recovered to develop Intentionally Created Unused Apportionment (ICUA) for Nevada as a temporary supply of water to allow Nevada time to develop other long-term water supplies. The 2001 Agreement contained specific provisions to insure that any water stored for Nevada was water that could not be utilized by water users in Arizona. Nevada would pay the full cost of water delivery and storage in addition to all costs associated with recovery of the long-term storage credits. The 2001 Agreement was negotiated recognizing the surplus provisions of the Interim Surplus Guidelines (ISG).

The ISG published on January 25, 2001 by the United States Department of the Interior, control the operation of the Lower Colorado River system through 2016. The ISG provide more liberal surpluses to allow a transition period for California to reduce its reliance on Colorado River water and to implement measures to limit its total uses of Colorado River water in the state to 4.4 million acre-feet. Consequently, at the time the 2001 Agreement was negotiated, Nevada anticipated that its water needs would be met through 2016 by surplus water made available through the ISG. After 2016, Nevada intended to utilize credits stored on its behalf in the Arizona water bank. However, in 2004, surpluses under the ISG were not available because the projected storage content of Lake Mead was below the critical threshold content established in the ISG. Consequently, Nevada began exploring alternative ways to meet their water supply needs and approached Arizona with a proposal to amend the existing agreement in such a manner that Nevada’s water supply could be made more secure in the shorter term. Nevada began negotiations regarding the amendments with AWBA and CAP staff.

In summary, the amendments were as follows: (1) guaranteed Nevada a total of 1.25 million acre-feet of credits; (2) recognized that water other than Colorado River water may be the source of credits; (3) Nevada would pay the full cost of delivery, storage and recovery in addition to an additional sum of money to mitigate the risk of the guarantee; (4) identified a set schedule for recovery of long-term storage credits; and (5) a sufficient supply would be recovered to allow Nevada to use 340,000 acre-feet during a declared shortage on the Colorado River.

A discussion paper was prepared by AWBA staff, widely distributed to the public, and discussed at various meetings throughout the Phoenix and Tucson areas. This discussion paper included pertinent background information, a review of the current agreement and proposed changes, and a description of the benefits to Arizona. The Amended Agreement for Interstate Water Banking (Amended Agreement) was approved by the AWBA Commission on December 9, 2004 and executed on February 3, 2005.

The two most significant provisions of the Amended Agreement are that Arizona has now guaranteed Nevada that a sum total of 1.25 million acre-feet of credits will be developed on their behalf. In exchange for this guarantee, Nevada will pay Arizona \$100 million above the actual cost of water delivery and storage. The initial \$100 million dollar payment was made in two installments in 2005,

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<sup>1</sup> For purposes of this discussion, the SNWA and the CRCN will be collectively referred to as “Nevada”.

the payments were deposited with the Arizona State Treasurer's Office. As stated earlier, the AWBA began storing water pursuant to the Amended Agreement in 2005.

The AWBA sub-account for Nevada had a balance of 237,066 acre-feet of long-term storage credits at the end of 2005. That balance was comprised of 50,000 acre-feet of credits transferred from CAWCD for storage done in the early 1990's under the demonstration project. Additionally, Nevada earned 61,098 acre-feet of credits for storage completed in 2002, 14,162 acre-feet of credits for storage completed in 2004, and 111,806 acre-feet of credits for storage completed in 2005.

Facilities that agreed to accept additional water for interstate storage did not receive interstate water until the quantity of intrastate water agreed upon in the original Plan had been delivered. The additional water stored on behalf of Nevada was stored in storage facilities located in Pinal and Pima Counties. Storage for interstate purposes included 78,544 acre-feet of water stored in three GSFs in Pinal County and 41,997 acre-feet of water stored in three USFs in Pima County.

### Agreement to Firm Future Supplies

Pursuant to statute, the AWBA is required to reserve a reasonable number of long-term storage credits developed with general fund appropriations for the benefit of on-river M&I water users during times of shortage. On January 1, 1998, the AWBA adopted a motion that identified 420,000 acre-feet as the reasonable number of long-term storage credits for on-river M&I firming. On March 20, 2002, the AWBA adopted a resolution that provided priorities of use for the general fund credits and identified on-river M&I firming as the first priority.

The manner in which the general fund credits would be reserved, and then recovered and distributed during a shortage, has long been an issue of concern to the on-river users. The issue once again came to the forefront in light of the significant commitment made to Nevada by the AWBA under the Amended Agreement for Interstate Water Banking. In recognition of the concerns, the AWBA and the Mohave County Water Authority (MCWA) entered into the Agreement to Firm Future Supplies (Agreement to Firm). The Agreement to Firm recognizes that the MCWA can enter into subcontracts with on-river M&I water users having the same priority as the CAP. These are the water users for whom the AWBA must firm M&I supplies. Upon execution of the subcontracts and payment of the appropriate fees, the AWBA would reserve the appropriate quantity of long-term storage credits as described in the Agreement to Firm.

The Agreement to Firm was approved by the AWBA on December 9, 2004 and executed by the parties on February 4, 2005. All entities in Mohave County were contacted by MCWA and offered the option to participate in the Agreement. The deadline for MCWA to include on-river M&I water users under the coverage of the Agreement to Firm was July 15, 2005; subcontract entities included in Exhibit A of the Agreement to Firm include Arizona State Parks, Bullhead City, Lake Havasu City, and Mohave Water Conservation District. Pursuant to the Agreement to Firm, 230,280 acre-feet of the current 396,499 acre-feet of credits in the General Fund Account were transferred to a sub-account in MCWA's name. The remaining credits in the General Fund Account could still be available to firm on-river supplies.

## Amendment to Excess Water Contract

The original Excess Water Contract Between CAWCD and the AWBA (Excess Water Contract) in June, 2002 provided that AWBA make 12 levelized, monthly payments based on the annual AWBA water schedule. The Excess Water Contract was amended by the AWBA in March, 2005 to authorize monthly billing based on actual deliveries in the previous month. More efficient accounting for both AWBA and CAP staff was provided by the Amendment.

## Requests for Creation of Intentionally Created Unused Apportionment

No ICUA was developed in 2005.

## Legislative Activity

### House Bill 2728

On April 18, 2005 Governor Napolitano signed House Bill 2728. Key provisions of the legislation affecting the AWBA include: extending withdrawal fees past 2016 in the Pinal AMA, describing the Southside replenishment obligation, establishing a Southside replenishment bank and identifying the AWBA as the entity responsible for maintaining the Southside replenishment bank, and the creation of a study commission to address firming the supplies and how the obligations will best be met.

The Indian Firming Study Commission (Study Commission), held six meetings throughout the year. Three AWBA (voting) members and one AWBA staff member sat on the 16-member Study Commission. Draft recommendations were completed in December, 2005 with the primary focus on recognizing the AWBA as the entity best suited to fulfill the State's obligations described in Section 105(b) of the Arizona Water Settlements Act. The Study Commission recommended that the AWBA be provided with sufficient funding to implement the Indian Firming Program and be empowered by the Arizona Legislature to include programs to address this new responsibility. The Study Commission's final report was submitted to Governor Napolitano on January 6, 2006. The Arizona Legislature incorporated the Study Commission recommendations in House Bill 2835. The Governor signed House Bill 2835 on April 12, 2006 which amended the AWBA's statutory authority to better meet the State's obligation under the Arizona Water Settlements Act.

## Existing Fund Account Balance Impacts

On May 28, 2004, the Governor signed Senate Bill 1402 that transferred \$2 million from the AWBA Fund for Fiscal Year 2005. This transfer specifically identified that the \$2 million could not come from 4¢ *ad valorem* tax revenues. The transfer actually occurred in 2005 prior to the end of the Fiscal Year 2005.

## Revenue Impacts

In June, 2005, the AWBA requested \$26 million from the Southern Nevada Water Authority (SNWA) as partial prepayment of the \$100 million reserve account as detailed in Section 2.4 of the Amended Agreement for Interstate Water Banking. The \$26 million was received and transferred to the CAP as prepayment for water delivery and storage. Receipt of these funds allowed the Authority to take full advantage of the additional CAP water that was available in 2005. In October, 2005, the remaining \$74 million was requested and invested with the Arizona State Treasurer's Office. The AWBA intends to utilize a significant portion of the reserve account in the next three years because it is

highly likely that excess CAP water will be available for interstate storage. Once SNWA begins making payments to the operating account, the funds borrowed from the reserve account will be repaid with interest.

### Agreement and Facility Permit Activity

The AWBA submitted two water storage permit applications in 2005. A new water storage permit application for the Tonopah Desert Recharge Project facility was permitted in July of 2005. The maximum storage volume for this permit is 150,000 acre-feet per annum for the first 4 years and 87,500 acre-feet per annum for the next 16 years.

A modification of the water storage permit for the Central Avra Valley Storage and Recovery Project (CAVSARP) facility was permitted in December of 2005. The modification increased the maximum storage volume from 60,000 to 80,000 acre-feet per annum.

### 2006 Annual Plan of Operation

Pursuant to the 2006 Plan, the AWBA projects recharge in excess of 347,431 acre-feet. Of this quantity, more than 230,438 acre-feet are projected to be recharged at underground storage facilities (USF) and more than 116,993 acre-feet are projected to be recharged at groundwater savings facilities (GSF). The 2006 Plan of Operation is available on the AWBA website.

### Media Coverage

The AWBA did not receive any direct press coverage during 2005. In addition to the multitude of articles on the seven-basin state discussions and Colorado River shortages, the published articles below were indirectly associated with the AWBA.

“Valley’s CAP Runneth Over: Rains Drive Water Release”, The Arizona Republic, February 18, 2005

“PICO Holdings, Inc. Announces Pact to Sell Property and Water Rights in Arizona”, Wall Street Journal, April 5, 2005

“State Zeal for Water Measures Drying Up”, The Arizona Republic, May 5, 2005

### Web Page

The AWBA has maintained a web page at [www.awba.state.az.us](http://www.awba.state.az.us) since 1997 to provide timely and accurate information regarding the AWBA’s activities to the water community. The web page contains information about the AWBA, AWBA members and staff, the AWBA’s recharge partners, monthly water deliveries, AWBA announcements and scheduled meetings and meeting minutes. It also contains publications and documents that may be downloaded and provides links to other water related web sites. In December, 2005, AWBA staff announced their intention to develop a new AWBA website to improve its organization and ease of use.

## Monies Expended from the Banking Fund

Arizona Revised Statutes § 45-2425 mandates the various sources of monies for the Water Banking Fund (Fund) that is administered by the AWBA per the statute. In 2005, the AWBA obtained its funding from the following sources:

1. Fees for groundwater pumping are collected within the Phoenix, Pinal and Tucson AMAs. Fees for water banking purposes are charged at \$2.50 per acre-foot. The fees for groundwater pumping are statutorily available to the AWBA through 2016. Long-term storage credits accrued with these monies must be used to benefit the AMA in which they were collected.
2. The CAWCD is statutorily authorized through 2016 to levy an *ad valorem* property tax in the three-county CAP service area that cannot exceed four cents per \$100 of assessed valuation and is used either for repayment or OM&R costs of the CAP. If the taxes levied are not needed for those purposes, an annual resolution of the CAWCD board can direct them to the Fund. In June of 2005, the CAWCD board resolved that all taxes to be levied for the following tax year would be retained by the CAWCD. Consequently, there were no *ad valorem* tax revenues deposited into the Fund in 2005. Money from this source must be used to benefit the county in which it was collected.

Table 1 shows the money the AWBA received and expended in 2005 by source of funds. Table 2 shows the total money received, expended and remaining through December 2005 by source of funds. Any remaining money is available to be expended in subsequent years; any interest that accrues on this money is available for use.

**Table 1. Monies Collected and Expended in 2005 by Source of Funds**

| Source of Funds                          | Money Collected      | Money Expended           |
|--|----------------------|--------------------------|
| <b>General Fund</b>                      | <b>\$0</b>           | <b>\$0</b>               |
| <b>Interstate Water Banking - Nevada</b> | <b>\$100,000,000</b> | <b>\$25,710,106</b>      |
| <b>4¢ Ad valorem Tax</b>                 |                      |                          |
| Maricopa County                          | \$0                  | \$539,348                |
| Pinal County                             | \$0                  | \$312,438 <sup>1</sup>   |
| Pima County                              | \$0                  | \$2,142,037 <sup>1</sup> |
| Subtotal for <i>Ad valorem</i>           | <b>\$0</b>           | <b>\$2,993,823</b>       |
| <b>Groundwater Withdrawal Fee</b>        |                      |                          |
| Phoenix AMA                              | \$2,581,867          | \$1,178,125              |
| Pinal AMA                                | \$1,190,779          | \$870,062                |
| Tucson AMA                               | \$504,608            | \$570,536                |
| Subtotal for Withdrawal Fees             | <b>\$4,277,254</b>   | <b>\$2,618,723</b>       |
| <b>TOTAL</b>                             | <b>\$104,277,254</b> | <b>\$31,322,652</b>      |

<sup>1</sup> Money expended by CAWCD to offset the AWBA delivery costs.

**Table 2. Monies Collected and Expended through December 2005 and Monies Remaining Available**

| Source of Funds                          | Money Collected           | Money Expended            | Money Available <sup>1</sup> |
|--|---------------------------|---------------------------|------------------------------|
| <b>General Fund</b>                      | <b>\$10,695,000</b>       | <b>\$10,695,000</b>       | <b>\$0</b>                   |
| <b>Interstate Water Banking - Nevada</b> | <b>\$110,233,462</b>      | <b>\$37,356,698</b>       | <b>\$72,876,764</b>          |
| <b>4¢ Ad valorem Tax</b>                 |                           |                           |                              |
| Maricopa County                          | \$77,680,190 <sup>2</sup> | \$40,214,639 <sup>3</sup> | \$37,465,551 <sup>4</sup>    |
| Pinal County                             | \$2,975,007 <sup>2</sup>  | \$2,816,316 <sup>3</sup>  | \$158,691                    |
| Pima County                              | \$15,713,656 <sup>2</sup> | \$15,111,529 <sup>3</sup> | \$589,707                    |
| Subtotal for <i>Ad valorem</i>           | <b>\$96,368,853</b>       | <b>\$58,142,484</b>       | <b>\$38,213,949</b>          |
| <b>Groundwater Withdrawal Fee</b>        |                           |                           |                              |
| Phoenix AMA                              | \$9,155,519 <sup>5</sup>  | \$8,751,777               | \$403,742                    |
| Pinal AMA                                | \$8,926,411               | \$8,651,587               | \$274,824                    |
| Tucson AMA                               | \$5,293,897               | \$5,293,897               | \$0                          |
| Subtotal for Withdrawal Fees             | <b>\$23,375,827</b>       | <b>\$22,697,261</b>       | <b>\$678,566</b>             |
| <b>TOTAL</b>                             | <b>\$240,673,142</b>      | <b>\$128,891,443</b>      | <b>\$111,781,699</b>         |

<sup>1</sup> Money remaining in AWBA Fund or collected by CAWCD.

<sup>2</sup> Includes money collected by CAWCD.

<sup>3</sup> Includes money expended by CAWCD and used to offset the AWBA delivery costs.

<sup>4</sup> \$12.1 million remaining in the Maricopa County *ad valorem* tax fund.

<sup>5</sup> Total money collected was decreased to reflect the \$9 million legislative transfer in FY 2004 and the \$2 million legislative transfer in FY 2005.

## Long-term Storage Credits

The AWBA has established Long-term Storage Accounts with ADWR. The Phoenix AMA account number is 70-441150, the Pinal AMA account number is 70-431135, and the Tucson AMA account number is 70-411150. After receiving the AWBA's annual reports for its water storage and water transfer permits and the annual reports for the recharge facilities, ADWR calculates and issues long-term storage credits to the appropriate accounts. The AWBA receives credit for 95% of the recoverable quantity of stored water. The 5% that is not credited is termed the cut to the aquifer and provides additional groundwater replenishment benefits. This cut to the aquifer is mandated by statute and applies to most storage of water for long-term credit. The recoverable amount of stored water is determined by subtracting facility losses from the quantity of water delivered to the facility. After credits are issued to the account, AWBA staff allocate the credits to the appropriate sub-accounts based on source of funding. The number and distribution of long-term storage credits for 2005 are listed in Table 3. The cumulative totals of long-term storage credits accrued by the AWBA through December 2005 are listed in Table 4.

**Table 3. Number and Location of Long-term Storage Credits Accrued in 2005**

| Location and Funding Source     | Long-term Storage Credits Accrued (AF) |
|---------------------------------|--|
| <b>Phoenix AMA</b>              |  |
| 4¢ <i>Ad valorem</i> Tax        | 7,504                                  |
| Groundwater Withdrawal Fee      | 20,188                                 |
| General Fund                    | 0                                      |
| Interstate - Nevada             | 0                                      |
| <b>AMA Total</b>                | <b>27,692</b>                          |
| <b>Pinal AMA</b>                |  |
| 4¢ <i>Ad valorem</i> Tax        | 4,196                                  |
| Groundwater Withdrawal Fee      | 18,649                                 |
| General Fund                    | 0                                      |
| Interstate - Nevada             | 72,092                                 |
| <b>AMA Total</b>                | <b>94,937</b>                          |
| <b>Tucson AMA</b>               |  |
| 4¢ <i>Ad valorem</i> Tax        | 23,928                                 |
| Groundwater Withdrawal Fee      | 6,318                                  |
| General Fund                    | 0                                      |
| Interstate - Nevada             | 39,714                                 |
| <b>AMA Total</b>                | <b>69,960</b>                          |
| <b>Totals by Funding Source</b> |  |
| 4¢ <i>Ad valorem</i> Tax        | 35,765                                 |
| Groundwater Withdrawal Fee      | 45,018                                 |
| General Fund                    | 0                                      |
| Interstate - Nevada             | 111,806                                |
| <b>TOTAL</b>                    | <b>192,589</b>                         |

**Table 4. Cumulative Total and Location of Long-term Storage Credits  
Accrued through December 2005**

| Location and Funding Source       | Long-term Storage<br>Credits Accrued (AF) |
|-----------------------------------|---|
| <b>Phoenix AMA</b>                |   |
| 4¢ <i>Ad valorem</i> Tax          | 878,916                                   |
| Groundwater Withdrawal Fee        | 151,776                                   |
| General Fund                      | 59,937                                    |
| Interstate Water Banking - Nevada | 0   |
| <b>AMA Total</b>                  | <b>1,090,629</b>                          |
| <b>Pinal AMA</b>                  |   |
| 4¢ <i>Ad valorem</i> Tax          | 94,841                                    |
| Groundwater Withdrawal Fee        | 267,605                                   |
| General Fund                      | 296,814                                   |
| Interstate Water Banking - Nevada | 192,381                                   |
| <b>AMA Total</b>                  | <b>851,641</b>                            |
| <b>Tucson AMA</b>                 |   |
| 4¢ <i>Ad valorem</i> Tax          | 204,846                                   |
| Groundwater Withdrawal Fee        | 71,918                                    |
| General Fund                      | 39,748                                    |
| Interstate Water Banking - Nevada | 44,685                                    |
| <b>AMA Total</b>                  | <b>361,197</b>                            |
| <b>Totals by Source of Funds</b>  |   |
| 4¢ <i>Ad valorem</i> Tax          | 1,178,740                                 |
| Groundwater Withdrawal Fee        | 491,162                                   |
| General Fund                      | 396,499                                   |
| Interstate Water Banking - Nevada | 237,066                                   |
| <b>TOTAL</b>                      | <b>2,303,467</b>                          |

Since inception, the AWBA has focused its efforts on developing long-term storage credits for firming purposes and the AWBA has identified 2,700,000 acre-feet as reasonable to firm the CAP M&I subcontracts over the next 100 years. This would be divided as 58% to Maricopa County, 32% to Pima County and 9% to Pinal County based on a pro-rata distribution to the three counties on the basis of CAP M&I subcontracts. The AWBA has also identified 420,000 acre-feet as reasonable to firm the on-river communities over the next 100 years. In 2002, the AWBA adopted a resolution that identified on-river firming as the highest priority of use for the general fund credits and established priorities for other uses (Indian settlements, etc.). Consequently, all or part of the general fund credits could be utilized to firm on-river M&I users. It should be noted that the AWBA collects reimbursement for the replacement cost of credits used for on-river firming. As those credits are used and replaced, they can be utilized by the AWBA for other authorized purposes. Table 5 illustrates the progress made by the AWBA towards meeting its established goals.

**Table 5. Identified Uses of Long-term Storage Credits Accrued through December 2005 and Percentage of AWBA Goals Achieved**

| <b>Location and Objective</b>         | <b>Goal<br/>(AF of Credits)</b> | <b>LTS Credits<br/>Accrued (AF)</b> | <b>Percent of Goal<br/>Achieved</b> |
|---------------------------------------|---------------------------------|-------------------------------------|-------------------------------------|
| Phoenix M&I Firming <sup>1</sup>      | 1,566,000                       | 880,575                             | 56%                                 |
| Phoenix Groundwater Mgmt <sup>2</sup> |                                 | 152,653                             | N/A                                 |
| Pinal M&I Firming <sup>1</sup>        | 243,000                         | 94,841                              | 39%                                 |
| Pinal Groundwater Mgmt <sup>2</sup>   |                                 | 267,605                             | N/A                                 |
| Tucson M&I Firming <sup>1</sup>       | 864,000                         | 204,846                             | 24%                                 |
| Tucson Groundwater Mgmt <sup>2</sup>  |                                 | 71,918                              |                                     |
| General Fund <sup>3</sup>             |                                 |                                     |                                     |
| On-River M&I Firming <sup>4</sup>     | 420,000                         | 396,499                             | 94% <sup>5</sup>                    |
| Interstate Water Banking - NV         | 1,250,000 <sup>6</sup>          | 237,066                             | 19%                                 |

<sup>1</sup> All three Active Management Areas have stated that withdrawal fees could be utilized in addition to 4¢ *ad valorem* tax revenues for M&I firming if needed to reach firming goals.

<sup>2</sup> Pursuant to House Bill 2835, firming M&I supplies is a water management objective for the use of credits developed by groundwater withdrawal fees.

<sup>3</sup> Specific uses of general fund credits have not been determined by the AWBA.

<sup>4</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.

<sup>5</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>6</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.

The average annual cost for the AWBA to obtain one acre-foot of long-term storage credit is presented in Table 6. Table 6 illustrates that the unit cost per long-term storage credit has increased each year the AWBA has been in operation with the exception of 2001. Increases are typically a function of three primary factors: annual increases in the cost per acre-foot of water delivered, annual increases in the cost of storage facilities and increased percentage of total water stored in USFs.

**Table 6. Average Annual Cost for the AWBA to Obtain a Long-term Storage Credit<sup>1</sup>**

| <b>Year</b> | <b>Credits</b> | <b>Funds Expended</b> | <b>Average Cost</b>  | <b>% Stored in GSF:<br/>% Stored in USF</b> |
|-------------|----------------|-----------------------|----------------------|---|
| 1996        | None           | None                  | \$0                  | 0% : 0%                                     |
| 1997        | 296,987        | \$6,387,000           | \$21.51              | 85% : 15%                                   |
| 1998        | 202,542        | \$7,143,000           | \$35.27              | 68% : 32%                                   |
| 1999        | 232,142        | \$8,733,000           | \$37.61              | 68% : 32%                                   |
| 2000        | 272,123        | \$11,163,000          | \$41.02              | 60% : 40%                                   |
| 2001        | 275,406        | \$10,893,590          | \$39.55              | 62% : 38%                                   |
| 2002        | 262,317        | \$13,700,300          | \$52.23 <sup>2</sup> | 64% : 36%                                   |
| 2003        | 200,168        | \$11,077,666          | \$55.34              | 47% : 53%                                   |
| 2004        | 251,456        | \$17,855,997          | \$71.01 <sup>2</sup> | 41% : 59%                                   |
| 2005        | 80,784         | \$5,612,546           | \$69.48 <sup>2</sup> | 58% : 42%                                   |

<sup>1</sup> The information in this table was obtained from previous Annual Reports. Any differences between the number of credits displayed here and the total cumulative number in Table 4 are due to the on-going nature of the accounting process.

<sup>2</sup> Average cost is for intrastate credits only.

## **Long-term Storage Credits Distributed or Extinguished by the Authority**

The long-term storage credits developed by the AWBA to date have been identified as reserved for four purposes: firming the post-1968 Colorado River municipal and industrial (M&I) entitlements; firming the post-1968 M&I entitlements for entities outside the CAP service area; fulfilling the water management objectives set forth in Chapter 2 of Title 45 (Arizona Revised Statutes); and for interstate water banking purposes pursuant to agreements with Nevada. Credits for firming purposes may be distributed or extinguished when the Colorado River system is deemed to be in a shortage or if there is an operational disruption of the CAP. There were no shortages or unplanned CAP operational problems, therefore, no credits were distributed or extinguished for these purposes in 2005. Credits may be distributed or exchanged for water management purposes upon request of the director of ADWR. There were no requests made for distribution or extinguishment of credits for water management purposes in 2005.

Under the 1999 amendments to the AWBA legislation, the AWBA is authorized to develop credits with monies collected pursuant to water banking services agreements. In 2005, no credits were developed or distributed under such agreements. Additionally, there was no recovery of long-term storage credits for interstate purposes in 2005.

# Ten Year Plan for Calendar Year 2005

## Introduction

Preparation of the ten year plan is statutorily mandated. The ten year plan must include a description of any water banking activities the AWBA intends to undertake in addition to the three primary AWBA functions of firming for M&I supplies, assisting in Indian water rights settlements, and fulfilling state water management objectives. The ten year plan is presented in Table 7. The ten year plan must also provide an analysis of the AWBA's ability to complete those activities. This analysis is provided in Table 8. The ten year plan is not a guarantee of future storage activities and is completed for planning purposes only. In any given year, the AWBA's activities are governed by the annual Plan of Operation.

The ten year plan for the year 2005 analyzes activity for the period 2007-2016 (Table 7) and was derived using the information found in Appendices B through G. AWBA accounting for previous years can be found in the 2005 Annual Report. AWBA staff developed the ten year plan based on the following guiding principles:

1. The intent of the plan is to evaluate if the AWBA can engage in water banking activities beyond the scope of the currently established AWBA role and to what extent.
2. The plan covers a ten year time period beginning with the next calendar year. For example, this ten year plan covers the time period 2007-2016.
3. The plan will be updated annually based on current priorities of the AWBA.
4. The plan is an important tool to be utilized in development of the next year's annual Plan of Operation.

## Ten Year Plan Components

The following factors are recognized to be important elements in developing the model used to generate the ten year plan. Inclusion or exclusion of a specific factor or component of a factor was based on whether the extent of the effect of the factor could be predicted over the planning period, and whether the factor was anticipated to be at issue over the planning period.

### 1. Storage Partners and Storage Capacity

The AWBA has 15 water storage permits for GSFs with a total storage capacity of 699,359 acre-feet per year. Two of these water storage permits are for the Gila River Indian Irrigation and Drainage District (GRIIDD) GSF, which was permitted on June 16, 2006. The GSF is on community lands and is located both in the Phoenix and Pinal AMAs, therefore a separate water storage permit was required for each AMA. This GSF added an additional 56,000 acre-feet per year of storage capacity, however it will only operate through December 30, 2007. Appendix C describes the storage partners, storage permits and capacity available for use by the AWBA. It also identifies the partners that the AWBA included in development of this ten year plan.

**Table 7. Ten Year Plan**

| <b>ARIZONA WATER BANKING AUTHORITY – 10 YEAR PLAN</b><br><b>2007 – 2016</b><br>(Acre-feet) |                          |                          |         |                                    |         |              |         |                   |         |                |         |                    |                    |                      |           |
|--|--------------------------|--------------------------|---------|------------------------------------|---------|--------------|---------|-------------------|---------|----------------|---------|--------------------|--------------------|----------------------|-----------|
| YEAR   | (a)                      | (b)                      |         | (c)                                |         | (d)          |         | (e)               |         | (f)            |         | (g)                | (h)                | (i)                  | (j)       |
|  | CAP Water Avail for AWBA | CAP M&I Firming (4¢ tax) |         | Water Management (Withdrawal Fees) |         | General Fund |         | Indian Settlement |         | Loaned Credits |         | Storage for Others | Interstate Banking |                      |           |
|  |                          | Delivered                | Credits | Delivered                          | Credits | Delivered    | Credits | Delivered         | Credits | Delivered      | Credits |                    | Water Avail.       | AWBA Capacity Avail. | Credits   |
| Pre-Plan <sup>0</sup>  | n/a                      | 1,332,312                |         | 571,945                            |         | 396,499      |         |                   |         |                |         |                    |                    |                      | 423,019   |
| 2007   | 621,749                  | 249,825                  | 229,839 | 62,333                             | 57,347  | 0            | 0       | 0                 | 0       | 0              | 0       |                    | 309,591            | 257,352              | 136,428   |
| 2008   | 634,365                  | 256,359                  | 235,850 | 103,536                            | 95,253  | 0            | 0       | 0                 | 0       | 0              | 0       |                    | 274,470            | 221,710              | 134,405   |
| 2009   | 613,364                  | 235,381                  | 216,551 | 119,217                            | 109,680 | 0            | 0       | 0                 | 0       | 0              | 0       |                    | 258,765            | 226,495              | 128,950   |
| 2010   | 544,735                  | 246,895                  | 227,143 | 116,804                            | 107,460 | 0            | 0       | 0                 | 0       | 0              | 0       |                    | 181,036            | 208,898              | 135,539   |
| 2011   | 513,688                  | 142,939                  | 131,504 | 109,500                            | 100,740 | 0            | 0       | 0                 | 0       | 0              | 0       |                    | 261,248            | 326,863              | 131,775   |
| 2012   | 509,982                  | 295,236                  | 271,617 | 102,817                            | 94,592  | 0            | 0       | 0                 | 0       | 0              | 0       |                    | 111,929            | 184,593              | 105,213   |
| 2013   | 471,855                  | 232,298                  | 213,714 | 97,379                             | 89,589  | 0            | 0       | 0                 | 0       | 0              | 0       |                    | 142,178            | 238,429              | 54,671    |
| 2014   | 443,673                  | 279,893                  | 257,501 | 92,354                             | 84,966  | 0            | 0       | 0                 | 0       | 0              | 0       |                    | 71,426             | 199,518              | 0         |
| 2015   | 434,421                  | 221,050                  | 203,366 | 87,690                             | 80,675  | 0            | 0       | 0                 | 0       | 0              | 0       |                    | 125,682            | 261,434              | 0         |
| 2016   | 422,292                  | 182,182                  | 167,607 | 83,353                             | 76,685  | 0            | 0       | 0                 | 0       | 0              | 0       |                    | 156,758            | 305,580              | 0         |
| <b>TOTAL</b>   |                          | 3,487,004                |         | 1,468,932                          |         | 396,499      |         |                   |         |                |         |                    |                    |                      | 1,250,000 |

**FOOTNOTES:**  
 (a) See Appendix B.  
 (b) See Appendix D.  
 (c) See Appendix E. Includes 97,520 AF credits accrued in 2006 and 2007 pursuant to storage at the proposed GRIIDD GSF, which could be used to meet the State's Indian firming obligations.  
 (d) See Appendix F.  
 (e) No Indian settlement requirements included in this ten year plan.  
 (f) Currently no requests for loaned credits.  
 (g) Currently the AWBA is not providing banking services for others.  
 (h) Available CAP Supplies minus AWBA intrastate delivery requirements.  
 (i) See Appendix G.  
 (j) Cumulative totals for 1997-2006; 2005 actual credits and 2006 credits estimated based on projected deliveries.

**Table 8. AWBA Percentage of Goals Achieved through 2016**

| <b>Location and Objective</b>         | <b>Goal<br/>(AF of Credits)</b> | <b>LTS Credits Accrued<br/>(AF)<sup>1</sup></b> | <b>Percent of Goal<br/>Achieved</b> |
|---------------------------------------|---------------------------------|---|-------------------------------------|
| Phoenix M&I Firming                   | 1,566,000                       | 2,629,158 <sup>2</sup>                          | 168%                                |
| Phoenix Groundwater Mgmt <sup>3</sup> |                                 | 733,689   | N/A                                 |
| Pinal M&I Firming                     | 243,000                         | 234,456   | 96%                                 |
| Pinal Groundwater Mgmt <sup>3</sup>   |                                 | 571,665   | N/A                                 |
| Tucson M&I Firming                    | 864,000                         | 623,390   | 72%                                 |
| Tucson Groundwater Mgmt <sup>3</sup>  |                                 | 163,577   | N/A                                 |
| General Fund <sup>4</sup>             |                                 |   |                                     |
| On-River M&I Firming <sup>5</sup>     | 420,000                         | 396,499   | 94% <sup>6</sup>                    |
| Interstate Water Banking - NV         | 1,250,000 <sup>7</sup>          | 1,250,000 <sup>8</sup>                          | 100%                                |

<sup>1</sup>Cumulative totals for 1997-2006; actual credits through 2005 and 2006 credits estimated based on projected deliveries.

<sup>2</sup>The M&I firming goal will be met in 2010.

<sup>3</sup>Pursuant to House Bill 2835, firming M&I supplies is a water management objective for the use of credits developed by groundwater withdrawal fees. If withdrawal fees are utilized for M&I firming, the Pinal firming goal will be met. With full utilization of withdrawal fees in the Tucson AMA, the percent of goal achieved through 2016 is 91%.

<sup>4</sup>Specific uses of general fund credits have not been determined by the AWBA.

<sup>5</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>6</sup>This percentage reflects full utilization of general fund credits and could change as other objectives are identified by the AWBA.

<sup>7</sup>Pursuant to the Amended Agreement for Interstate Water Banking, the AWBA has committed to store this quantity of water on behalf of the Southern Nevada Water Authority.

<sup>8</sup>The goal will be met in 2013.

All of the facility permits associated with the GSFs will expire within this ten year plan. In most instances, the AWBA's water storage permits expire simultaneously with the partners' facility permits. Consequently, any difficulty on the part of the partners or the AWBA to obtain new permits could affect the ability of the AWBA to maintain adequate storage capacity to fulfill water banking activities. Discussions with ADWR recharge staff have indicated that there have been some changes in the process for obtaining a GSF facility permit. The rapid rate of urbanization in the AMAs has resulted in ADWR issuing GSF permits with a five year term rather than the usual ten year term, unless the applicant can provide evidence that development will not change their ability to store water. An increase in development may reduce the acreage available for irrigation, thus reducing the amount of water available for storage at the GSF. Other operational procedures currently associated with the renewal of a GSF facility permit can also make the process more difficult. Furthermore, all of the agreements for water storage expire within this ten year planning period. Impacts of this nature cannot be predicted and, although they are recognized, were not included in development of this ten year plan.

The AWBA currently has ten water storage permits for USFs with a total storage capacity of 781,000 acre-feet per year until 2009 and 718,500 acre-feet per year for the remainder of the planning period (recharge at the Tonopah Desert Recharge Project is reduced from 150,000 acre-feet per year to 87,500 acre-feet per year after 2009). The GRUSP permit is the only facility permit that expires within this planning period.

As previously described in the GSF discussion, any difficulty in obtaining new permits could impact the capacity available to the AWBA. As the process of obtaining a new USF permit can be more complex and extensive than obtaining a new GSF permit, the possibility of impact is greater. However, impacts of this nature cannot be predicted and are not included in the analysis of this ten year plan.

## 2. Recovery

This ten year plan includes a recovery component for interstate purposes pursuant to the Amended Agreement for Interstate Water Banking (Amended Agreement). The Amended Agreement authorized Nevada to request development of intentionally created unused apportionment (ICUA), if needed, as follows: in 2007 and 2008, an amount not exceeding 20,000 acre-feet; in 2009 and 2010, an amount not exceeding 30,000 acre-feet; and in subsequent years, an amount not exceeding 40,000 acre-feet. This ten year plan does not include development of ICUA for California.

This ten year plan does not include a recovery component for M&I firming or Indian settlements because shortages on the Colorado River are not anticipated within the scope of this ten year plan. As a result of the on-going drought and public concern regarding reservoir levels, the CAP ran dry year scenario models of the Colorado River system. Those model runs identified a potential for shortage in 2011. However, in light of the precipitation received in the winter of 2004, that date has likely moved to 2012 or 2013. Nonetheless, based on projected CAP M&I demand levels, there will be no shortages to CAP M&I users within the scope of this ten year plan, even with the dry year hydrology used by CAP in modeling. Recovery for Indian firming purposes is also not anticipated in the scope of this ten year plan due to demand levels. It should be noted, however, that if a shortage is declared during the ten year period it may impact on-river M&I users. They may be required to recover long-term storage credits to insure firm supplies. In preparation of such an event, the AWBA, pursuant to its Agreement to Firm with the Mohave County Water Authority (MCWA) dated February 4, 2005, assigned 230,280 acre-feet of long-term storage credits previously developed by the AWBA through general fund expenditures to the AWBA's Mohave County Water Authority sub-account. Credits from this sub-account would be used for on-river firming if necessary. The AWBA is participating with CAP and ADWR in development of a general recovery plan as discussed earlier in the Update section of this Annual Report.

## 3. Water management objectives

The early activities of the AWBA were focused on achieving the goal of full utilization of Arizona's Colorado River allocation and Arizona met this goal from 2002 until 2004. Another primary objective of the AWBA was meeting the M&I firming goals and the AWBA has stored almost 1.2 MAF of credits for that purpose.

## *Central Arizona Groundwater Replenishment District (CAGRD) Replenishment Reserve*

Pursuant to statute, the CAGRD must develop a 20% replenishment reserve. The CAGRD replenishment reserve shares co-equal priority for excess water with AWBA M&I firming. However, the reserve has a higher priority for excess CAP water than the AWBA's deliveries for other non-firming purposes (i.e. water management). Therefore, a component for the proposed replenishment reserve as well as the advance replenishment was included in the model for this ten year plan.

## *The CAP Water Forecast Group*

The group is composed of CAP, CAGRD, ADWR and AWBA staff and was formed to facilitate consistency and understanding between the entities with regard to assumptions used for short- and long-term Colorado River water supply and demand forecasts. Portions of this ten year plan were developed using projections obtained from the forecast group.

## *AWBA General Fund Appropriation*

The AWBA again received no general fund appropriation in 2005. To date, the AWBA has primarily utilized the money to augment the revenues generated in Pinal County to develop credits to be used to firm on-river uses. It is recognized that the economic factors resulting in the loss of the AWBA's general fund appropriation will exist for some time. Therefore, the ten year plan was developed with no general fund appropriation.

### 4. Modifications within CAP with regard to pricing and pool allocation

In May 2000, the CAWCD Board adopted a policy for marketing the non-Indian agriculture (NIA) pool of excess water. This policy established a NIA pool of 400,000 acre-feet from 2004-2016. The pool will decline to 300,000 acre-feet from 2017-2023 and to 225,000 acre-feet from 2024-2030. This use will be the highest priority use for excess water. It is recognized that this is a factor that could impact the AWBA's ability to participate in recharge at groundwater savings facilities, however, it is difficult to predict an effect.

The CAWCD Board continues to discuss the marketing of excess water for other users including the CAGRD replenishment and replenishment reserve, incentive recharge programs, other M&I uses and the AWBA. These discussions have centered on the recognition that policies were developed to insure full utilization of CAP and Arizona's Colorado River allocation and included subsidized water rates to encourage CAP use.

### 5. Participation in Indian settlements

One objective of the AWBA is assisting with the settlement of water rights claims by Indian communities within Arizona. The state of Arizona has a 100-year firming obligation under the Arizona Water Settlements Act (Settlements Act) P.L. 108-451 that was executed on December 10, 2004. In addition, pursuant to House Bill 2728 executed on April 18, 2005, the AWBA has statutorily mandated responsibilities for the Southside Replenishment obligation. The Indian Firming Study Commission (Study Commission), created by the Arizona legislature to evaluate the potential alternatives for meeting these obligations, concluded that the AWBA, in cooperation with ADWR and the Central Arizona Water Conservation District (CAWCD) is

the most appropriate entity to fulfill the State's firming obligations. House Bill 2835, which included the Study Commission's recommendations, was signed by Governor Napolitano on April 12, 2006. This ten year plan does not include an Indian Settlement component because the method to be used to meet the State's firming obligation has not yet been determined. However, the AWBA has plans to deliver water to the GRIIDD GSF once permitted. Deliveries to the GRIIDD GSF would also require an amendment to the 2006 Annual Plan of Operation (Plan). Long-term storage credits accrued by the Authority at this facility would allow the State to meet a portion of its firming obligations under P.L.108-451, Sec.105 (a). If the enforceability provisions of PL108-451 are not met, the AWBA will retain full rights to the long-term storage credits developed.

6. New recharge facilities and/or expanded capacities at existing facilities

The AWBA completed a revised inventory of existing storage facilities in the state as required by A.R.S. § 45-2452, which was approved by the Authority on March 22, 2006. The revised inventory will be utilized in developing future ten year plans.

In January of 2006, CAP began operating the Tonopah Desert Recharge Facility located in western portion of the Phoenix AMA. This facility has significantly increased the AWBA's storage capacity in this AMA and is demonstrating to be an optimal site for recharge. Another new facility is the Salt River Project (SRP) facility located in the west Salt River Valley near the confluence of the Agua Fria River and the New River. The project has an initial capacity of 30,000 acre-feet per year increasing to a maximum of 75,000 acre-feet per year. However, storage at this facility was not included in this ten year plan because of uncertainty regarding development of an agreement between AWBA and SRP, cost of storage, and availability of capacity to the AWBA.

There are currently two storage facility permit applications pending with ADWR; the CAWCD Superstition Mountains Recharge project located in the east Salt River Valley, which has a proposed annual volume of 56,500 acre-feet, and the Tucson Water Southern Avra Valley Recharge Project (SAVSARP), which has a proposed annual storage volume of 50,000 acre-feet. Operations at SAVSARP are anticipated to begin either by the end of year 2007 or the beginning of 2008. Neither facility has been included in this ten year plan.

7. Interstate banking

The ten year plan includes an interstate water banking component for Nevada, but does not include California.

### Conclusion

The ten year plan is intended to serve as a guide to assist the AWBA in the development of the Annual Plan of Operation (Plan). The AWBA is required to develop a Plan for activities to be undertaken the following calendar year. As part of the Annual Report, the ten year plan is reviewed and updated annually. Therefore, it is possible that the ten year plan may change significantly depending on the goals set by the AWBA.

# Appendices

**APPENDIX A**  
**Colorado River Water Deliveries for Water Banking Purposes**  
**for Calendar Year 2005 by Partner and Active Management Area**

| AMA                | Partner   | Quantity of Water<br>(Acre-Feet) |
|--------------------|---|----------------------------------|
| <b>PHOENIX AMA</b> | Agua Fria Recharge Project                          | 2,045                            |
|                    | Chandler Heights Citrus Irrigation District         | 340                              |
|                    | Hieroglyphic Mountains Recharge Project             | 5,650                            |
|                    | New Magma Irrigation and Drainage District          | 23,863                           |
|                    | Queen Creek Irrigation District                     | 1,243                            |
| <b>PINAL AMA</b>   | Central Arizona Irrigation and Drainage District    | 30,328 <sup>1</sup>              |
|                    | Hohokam Irrigation and Drainage District            | 21,610 <sup>1</sup>              |
|                    | Maricopa-Stanfield Irrigation and Drainage District | 54,106 <sup>1</sup>              |
| <b>TUCSON AMA</b>  | Avra Valley Recharge Project                        | 3,244                            |
|                    | Central Avra Valley Storage and Recovery Project    | 10,080 <sup>1</sup>              |
|                    | Kai-Red Rock  | 461                              |
|                    | Lower Santa Cruz Recharge Project                   | 40,805 <sup>1</sup>              |
|                    | Pima Mine Road Recharge Project                     | 19,498 <sup>1</sup>              |

<sup>1</sup>Includes both intrastate and interstate deliveries

**APPENDIX B**  
**CAP DELIVERY SCHEDULE**  
(Acre-feet)

| Year | CAP Demands      |                     |                 |                    | Average Year Supply <sup>5</sup> | Available for AWBA <sup>6</sup> |
|------|------------------|---------------------|-----------------|--------------------|----------------------------------|---------------------------------|
|      | M&I <sup>1</sup> | Indian <sup>2</sup> | Ag <sup>3</sup> | Total <sup>4</sup> |                                  |                                 |
| 2007 | 385,951          | 102,300             | 400,000         | 903,251            | 1,525,000                        | 621,749                         |
| 2008 | 368,835          | 106,800             | 400,000         | 890,635            | 1,525,000                        | 634,365                         |
| 2009 | 374,836          | 121,800             | 400,000         | 911,636            | 1,525,000                        | 613,364                         |
| 2010 | 422,937          | 142,328             | 400,000         | 980,265            | 1,525,000                        | 544,735                         |
| 2011 | 434,384          | 161,928             | 400,000         | 1,011,312          | 1,525,000                        | 513,688                         |
| 2012 | 420,625          | 179,393             | 400,000         | 1,015,018          | 1,525,000                        | 509,982                         |
| 2013 | 433,652          | 204,493             | 400,000         | 1,053,145          | 1,525,000                        | 471,855                         |
| 2014 | 461,834          | 204,493             | 400,000         | 1,081,327          | 1,525,000                        | 443,673                         |
| 2015 | 471,086          | 204,493             | 400,000         | 1,090,579          | 1,525,000                        | 434,421                         |
| 2016 | 483,215          | 204,493             | 400,000         | 1,102,708          | 1,525,000                        | 422,292                         |

- (1) Includes M&I, CAGR, CAGR replenishment reserve, Indian M&I lease and M&I incentive water.
- (2) From settlement discussions.
- (3) Based on current agricultural pool policy, includes 32,537 for Harquahala.
- (4) Includes secondary excess uses of 15,000 AF per annum 2007 through 2016.
- (5) Based on average year delivery of 1,600,000 AF per year minus losses.
- (6) Average year supply minus CAP demands; AWBA last priority for intrastate use.

**APPENDIX C  
STORAGE FACILITIES AVAILABLE TO THE AWBA<sup>1</sup>  
(as used in the 10 year plan)**

| AMA and Facility Type  | Facility Permit Expiration | Facility Permitted Capacity (AF) | Capacity Available to AWBA <sup>2</sup> (AF) | Year Water Last Stored | Volume of Water Last Stored (AF) |
|--|----------------------------|----------------------------------|--|------------------------|----------------------------------|
| <b>PHOENIX – GSF<sup>3</sup></b>   |                            |                                  |  |                        |                                  |
| New Magma IDD  | 12/2007                    | 54,000                           | 45,000                                       | 2005                   | 23,863                           |
| Queen Creek ID   | 12/2010                    | 28,000                           | 3,000  | 2005                   | 1,243                            |
| Salt River Project   | 06/2011                    | 100,000                          | 20,000                                       | 2004                   | 8,000                            |
| <b>PHOENIX – USF</b>   |                            |                                  |  |                        |                                  |
| GRUSP  | 12/2010                    | 200,000                          | 50,000                                       | 2004                   | 56,500                           |
| Agua Fria Recharge Project   | 05/2019                    | 100,000                          | 40,000                                       | 2005                   | 2,045                            |
| Hieroglyphic Mtns.   | 12/2021                    | 35,000                           | 26,000                                       | 2005                   | 5,650                            |
| Tonopah Desert RP  | 09/2025                    | 100,000 <sup>4</sup>             | 80,000                                       | <sup>5</sup>           |                                  |
| <b>PINAL – GSF</b>   |                            |                                  |  |                        |                                  |
| Central Arizona IDD  | 12/2007                    | 110,000                          | 15,000                                       | 2005                   | 30,328                           |
| Hohokam IDD  | 12/2006                    | 55,000                           | 50,000                                       | 2005                   | 21,610                           |
| Maricopa-Stanfield IDD   | 12/2009                    | 120,000                          | 50,000                                       | 2005                   | 54,106                           |
| <b>TUCSON – GSF<sup>3</sup></b>  |                            |                                  |  |                        |                                  |
| Kai – Red Rock   | 12/2006                    | 11,231                           | 3,000  | 2005                   | 461                              |
| <b>TUCSON – USF</b>  |                            |                                  |  |                        |                                  |
| Avra Valley  | 03/2018                    | 11,000                           | 7,000  | 2005                   | 3,244                            |
| CAVSARP  | 10/2025                    | 80,000                           | 40,000                                       | 2005                   | 10,080                           |
| Lower Santa Cruz   | 09/2019                    | 50,000                           | 40,000                                       | 2005                   | 40,805                           |
| Pima Mine Road   | 09/2020                    | 30,000                           | 28,000                                       | 2005                   | 19,498                           |
| <b>Other Facilities Currently or Anticipated to be Available to the AWBA</b> |                            |                                  |  |                        |                                  |
| Vidler-USF   | 09/2020                    | 100,000                          | 80,000                                       | <sup>5</sup>           | 0                                |
| West Maricopa Combine - USF  | 05/2021                    | 25,000                           |  | <sup>5</sup>           | 0                                |
| Superstition Mtn.-USF <sup>6</sup>   |                            | 80,000                           | 40,000                                       |                        | n/a                              |
| NAUSP  | 12/2025                    | 70,000 <sup>7</sup>              |  | <sup>5</sup>           | n/a                              |
| SAVSARP <sup>6</sup>   |                            | 50,000                           | 25,000                                       |                        | n/a                              |
| GRIIDD   | 12/2007                    | 56,000                           | 56,000                                       | <sup>5</sup>           | n/a                              |

**Footnotes:**

- (1) As additional facilities are developed, they will be included in future plans. However, it should be recognized that availability of water and funding will likely be the limiting factors in future plans.
- (2) This does not reflect the actual “permitted” volume for these facilities; instead for the purposes of this plan, staff relied on average historical storage volumes and potential for future storage. Storage capacity at the proposed GRIIDD GSF is 37.52 KAF for Phoenix and 18.48KAF for Pinal.
- (3) The AWBA holds water storage permits at Chandler Heights Citrus ID (3KAF), Maricopa Water District (18KAF), Roosevelt Water Conservation District (100KAF), BKW Farms (16KAF), Kai-Avra (12KAD) and the Tonopah (15KAF) GSFs. These were not considered significant uses in this 10 year outlook.
- (4) Facility is permitted for 150KAF for the first 4 years and 87.5KAF for the next 16 years; the 100KAF listed is a weighted average.
- (5) No deliveries to date.
- (6) Not yet permitted.
- (7) Facility is permitted for 30KAF first 2 years, 50KAF years 3-5, and 75KAF years 6-20; 70KAF listed is a weighted average.

**APPENDIX D**  
**Credits Developed for M&I Firming Utilizing the 4¢ Tax <sup>1</sup>**  
(Acre-feet)

| PHOENIX AMA <sup>2</sup> | Year                  | Groundwater Savings             |               |                | Underground Storage             |               |                |
|--------------------------|-----------------------|---------------------------------|---------------|----------------|---------------------------------|---------------|----------------|
|                          |                       | Capacity Available <sup>4</sup> | Capacity Used | Credits Earned | Capacity Available <sup>4</sup> | Capacity Used | Credits Earned |
|                          | Pre-plan <sup>3</sup> |                                 |               |                | 475,178                         |               |                |
| 2007                     | 50,120                | 0                               | 0             | 253,216        | 184,848                         | 170,060       |                |
| 2008                     | 12,012                | 12,012                          | 11,051        | 256,000        | 192,000                         | 176,640       |                |
| 2009                     | 1,890                 | 1,890                           | 1,739         | 256,000        | 174,080                         | 160,154       |                |
| 2010                     | 1,303                 | 1,303                           | 1,199         | 238,915        | 186,353                         | 171,445       |                |
| 2011                     | 4,500                 | 4,500                           | 4,140         | 237,632        | 80,795                          | 74,331        |                |
| 2012                     | 8,420                 | 8,420                           | 7,746         | 240,217        | 230,608                         | 212,160       |                |
| 2013                     | 10,544                | 10,544                          | 9,701         | 238,524        | 166,966                         | 153,609       |                |
| 2014                     | 12,416                | 9,810                           | 9,025         | 234,845        | 216,589                         | 199,262       |                |
| 2015                     | 13,279                | 6,467                           | 5,949         | 235,502        | 162,353                         | 149,365       |                |
| 2016                     | 16,795                | 8,812                           | 8,107         | 235,502        | 122,352                         | 112,564       |                |
| Total                    |                       |                                 | 533,835       |                |                                 |               | 2,095,323      |

| PINAL AMA <sup>2</sup> | Year                  | Groundwater Savings             |               |                | Underground Storage             |               |                |
|------------------------|-----------------------|---------------------------------|---------------|----------------|---------------------------------|---------------|----------------|
|                        |                       | Capacity Available <sup>4</sup> | Capacity Used | Credits Earned | Capacity Available <sup>4</sup> | Capacity Used | Credits Earned |
|                        | Pre-plan <sup>3</sup> |                                 |               |                | 104,048                         |               |                |
| 2007                   | 115,880               | 10,680                          | 9,826         | -              | -                               | -             |                |
| 2008                   | 81,978                | 13,869                          | 12,759        | -              | -                               | -             |                |
| 2009                   | 76,825                | 16,342                          | 15,035        | -              | -                               | -             |                |
| 2010                   | 77,175                | 16,505                          | 15,185        | -              | -                               | -             |                |
| 2011                   | 79,680                | 15,712                          | 14,455        | -              | -                               | -             |                |
| 2012                   | 81,966                | 14,982                          | 13,783        | -              | -                               | -             |                |
| 2013                   | 83,493                | 14,308                          | 13,163        | -              | -                               | -             |                |
| 2014                   | 84,908                | 13,684                          | 12,589        | -              | -                               | -             |                |
| 2015                   | 86,224                | 13,104                          | 12,055        | -              | -                               | -             |                |
| 2016                   | 87,451                | 12,564                          | 11,558        | -              | -                               | -             |                |
| Total                  |                       |                                 | 234,456       |                |                                 |               |                |

| TUCSON AMA <sup>2</sup> | Year                  | Groundwater Savings             |               |                | Underground Storage             |               |                |
|-------------------------|-----------------------|---------------------------------|---------------|----------------|---------------------------------|---------------|----------------|
|                         |                       | Capacity Available <sup>4</sup> | Capacity Used | Credits Earned | Capacity Available <sup>4</sup> | Capacity Used | Credits Earned |
|                         | Pre-plan <sup>3</sup> |                                 |               |                | 3,664                           |               |                |
| 2007                    | 0                     | 0                               | 0             | 87,960         | 54,297                          | 49,953        |                |
| 2008                    | 0                     | 0                               | 0             | 88,078         | 38,478                          | 35,400        |                |
| 2009                    | 0                     | 0                               | 0             | 87,161         | 43,069                          | 39,623        |                |
| 2010                    | 0                     | 0                               | 0             | 98,400         | 42,733                          | 39,314        |                |
| 2011                    | 0                     | 0                               | 0             | 107,990        | 41,932                          | 38,578        |                |
| 2012                    | 0                     | 0                               | 0             | 109,226        | 41,226                          | 37,928        |                |
| 2013                    | 0                     | 0                               | 0             | 98,166         | 40,479                          | 37,241        |                |
| 2014                    | 0                     | 0                               | 0             | 107,242        | 39,811                          | 36,626        |                |
| 2015                    | 0                     | 0                               | 0             | 107,478        | 39,126                          | 35,996        |                |
| 2016                    | 0                     | 0                               | 0             | 108,014        | 38,454                          | 35,378        |                |
| Total                   |                       |                                 | 3,664         |                |                                 |               | 619,726        |

Footnotes:

- (1) Development of M&I firming credits followed utilization of groundwater withdrawal fees.
- (2) M&I firming targets are Phoenix AMA-1.566 MAF, Tucson AMA-864 KAF, and Pinal AMA 243 KAF.
- (3) Cumulative totals for 1997-2006; 2006 credits estimated based on projected deliveries.
- (4) The capacity available is based on the capacity remaining at the USFs and GSFs after all higher priority demands have been met.

**APPENDIX E**  
**Credits Developed for Meeting AMA Water Management Goals**  
**Utilizing Withdrawal Fees <sup>1</sup>**  
(Acre-feet)

|                    | Year                  | Groundwater Savings             |               |                | Underground Storage             |               |                |
|--------------------|-----------------------|---------------------------------|---------------|----------------|---------------------------------|---------------|----------------|
|                    |                       | Capacity Available <sup>3</sup> | Capacity Used | Credits Earned | Capacity Available <sup>3</sup> | Capacity Used | Credits Earned |
| <b>PHOENIX AMA</b> | Pre-plan <sup>2</sup> |                                 |               | 113,093        |                                 |               | 96,751         |
|                    | 2007                  | 85,520                          | 35,400        | 32,568         | 253,708                         | 0             | 0              |
|                    | 2008                  | 72,000                          | 59,988        | 55,189         | 256,000                         | 0             | 0              |
|                    | 2009                  | 71,429                          | 69,538        | 63,975         | 256,000                         | 0             | 0              |
|                    | 2010                  | 70,393                          | 69,090        | 63,563         | 238,915                         | 0             | 0              |
|                    | 2011                  | 69,196                          | 64,696        | 59,520         | 237,632                         | 0             | 0              |
|                    | 2012                  | 69,100                          | 60,680        | 55,826         | 240,217                         | 0             | 0              |
|                    | 2013                  | 67,686                          | 57,141        | 52,570         | 238,524                         | 0             | 0              |
|                    | 2014                  | 66,300                          | 53,884        | 49,574         | 234,845                         | 0             | 0              |
|                    | 2015                  | 64,158                          | 50,879        | 46,809         | 235,502                         | 0             | 0              |
|                    | 2016                  | 64,894                          | 48,099        | 44,251         | 235,502                         | 0             | 0              |
|                    | Total                 |                                 |               | 636,938        |                                 |               | 96,751         |
|                    | <b>PINAL AMA</b>      | Pre-plan <sup>2</sup>           |               |                | 283,797                         |               |                |
| 2007               |                       | 133,480                         | 17,600        | 16,192         | -                               | -             | -              |
| 2008               |                       | 115,000                         | 33,022        | 30,380         | -                               | -             | -              |
| 2009               |                       | 115,000                         | 38,175        | 35,121         | -                               | -             | -              |
| 2010               |                       | 115,000                         | 37,825        | 34,799         | -                               | -             | -              |
| 2011               |                       | 115,000                         | 35,320        | 32,494         | -                               | -             | -              |
| 2012               |                       | 115,000                         | 33,034        | 30,391         | -                               | -             | -              |
| 2013               |                       | 115,000                         | 31,507        | 28,987         | -                               | -             | -              |
| 2014               |                       | 115,000                         | 30,092        | 27,685         | -                               | -             | -              |
| 2015               |                       | 115,000                         | 28,776        | 26,474         | -                               | -             | -              |
| 2016               |                       | 115,000                         | 27,549        | 25,345         | -                               | -             | -              |
| Total              |                       |                                 |               | 571,665        |                                 |               | 0              |
| <b>TUCSON AMA</b>  |                       | Pre-plan <sup>2</sup>           |               |                | 5,237                           |               |                |
|                    | 2007                  | 5,000                           | 5,000         | 4,600          | 92,294                          | 4,333         | 3,987          |
|                    | 2008                  | 5,000                           | 5,000         | 4,600          | 93,604                          | 5,526         | 5,084          |
|                    | 2009                  | 5,000                           | 5,000         | 4,600          | 63,665                          | 6,504         | 5,984          |
|                    | 2010                  | 5,000                           | 5,000         | 4,600          | 103,289                         | 4,889         | 4,498          |
|                    | 2011                  | 5,000                           | 5,000         | 4,600          | 112,474                         | 4,484         | 4,126          |
|                    | 2012                  | 5,000                           | 5,000         | 4,600          | 113,329                         | 4,103         | 3,775          |
|                    | 2013                  | 5,000                           | 5,000         | 4,600          | 101,897                         | 3,731         | 3,432          |
|                    | 2014                  | 5,000                           | 5,000         | 4,600          | 110,620                         | 3,379         | 3,108          |
|                    | 2015                  | 5,000                           | 5,000         | 4,600          | 110,513                         | 3,035         | 2,792          |
|                    | 2016                  | 5,000                           | 5,000         | 4,600          | 110,719                         | 2,705         | 2,487          |
|                    | Total                 |                                 |               | 51,237         |                                 |               | 112,340        |

(1) Expenditure of withdrawal fees was given the highest priority.  
(2) Cumulative totals for 1997-2006; 2006 credits estimated based on projected deliveries.  
(3) The capacity available is based on the capacity remaining at the USFs and GSFs after all higher priority demands have been met.

**APPENDIX F**  
**Credits Developed Utilizing Annual General Fund Appropriations<sup>1,2</sup>**  
(Acre-feet)

|                    | Year                  | Groundwater Savings   |               |                | Underground Storage |               |                |
|--------------------|-----------------------|-----------------------|---------------|----------------|---------------------|---------------|----------------|
|                    |                       | Capacity Available    | Capacity Used | Credits Earned | Capacity Available  | Capacity Used | Credits Earned |
| <b>PHOENIX AMA</b> | Pre-plan <sup>3</sup> |                       |               | 37,964         |                     |               | 21,973         |
|                    | 2007                  | 0                     | 0             | 0              | 68,368              | 0             | 0              |
|                    | 2008                  | 0                     | 0             | 0              | 64,000              | 0             | 0              |
|                    | 2009                  | 0                     | 0             | 0              | 81,920              | 0             | 0              |
|                    | 2010                  | 0                     | 0             | 0              | 52,561              | 0             | 0              |
|                    | 2011                  | 0                     | 0             | 0              | 156,837             | 0             | 0              |
|                    | 2012                  | 0                     | 0             | 0              | 9,609               | 0             | 0              |
|                    | 2013                  | 0                     | 0             | 0              | 71,557              | 0             | 0              |
|                    | 2014                  | 2,606                 | 0             | 0              | 18,256              | 0             | 0              |
|                    | 2015                  | 6,813                 | 0             | 0              | 73,148              | 0             | 0              |
|                    | 2016                  | 7,983                 | 0             | 0              | 113,150             | 0             | 0              |
|                    | Total                 |                       |               | 37,964         |                     |               | 21,973         |
|                    | <b>PINAL AMA</b>      | Pre-plan <sup>3</sup> |               |                | 296,814             |               |                |
| 2007               |                       | 78,403                | 0             | 0              | -                   | -             | -              |
| 2008               |                       | 68,110                | 0             | 0              | -                   | -             | -              |
| 2009               |                       | 60,483                | 0             | 0              | -                   | -             | -              |
| 2010               |                       | 60,670                | 0             | 0              | -                   | -             | -              |
| 2011               |                       | 63,968                | 0             | 0              | -                   | -             | -              |
| 2012               |                       | 66,984                | 0             | 0              | -                   | -             | -              |
| 2013               |                       | 69,185                | 0             | 0              | -                   | -             | -              |
| 2014               |                       | 71,224                | 0             | 0              | -                   | -             | -              |
| 2015               |                       | 73,120                | 0             | 0              | -                   | -             | -              |
| 2016               |                       | 74,887                | 0             | 0              | -                   | -             | -              |
| Total              |                       |                       |               | 296,814        |                     |               |                |
| <b>TUCSON AMA</b>  |                       | Pre-plan <sup>3</sup> |               |                | 2,306               |               |                |
|                    | 2007                  | 0                     | 0             | 0              | 33,664              | 0             | 0              |
|                    | 2008                  | 0                     | 0             | 0              | 49,600              | 0             | 0              |
|                    | 2009                  | 0                     | 0             | 0              | 44,092              | 0             | 0              |
|                    | 2010                  | 0                     | 0             | 0              | 55,667              | 0             | 0              |
|                    | 2011                  | 0                     | 0             | 0              | 66,058              | 0             | 0              |
|                    | 2012                  | 0                     | 0             | 0              | 68,000              | 0             | 0              |
|                    | 2013                  | 0                     | 0             | 0              | 57,687              | 0             | 0              |
|                    | 2014                  | 0                     | 0             | 0              | 67,432              | 0             | 0              |
|                    | 2015                  | 0                     | 0             | 0              | 68,352              | 0             | 0              |
|                    | 2016                  | 0                     | 0             | 0              | 69,560              | 0             | 0              |
|                    | Total                 |                       |               | 2,306          |                     |               | 37,442         |

Footnotes:

- (1) The ten year plan does not include a component for General Fund appropriations.
- (2) The on-river M&I firming target is 420 KAF.
- (3) Cumulative totals for 1997-2006; 2006 credits estimated based on projected deliveries.

**APPENDIX G**  
**Potential Credits Developed for Interstate Water Banking<sup>1</sup>**  
(Acre-feet)

| Year                  | Available CAP Supplies <sup>2</sup> | Available AWBA Capacity <sup>3</sup> | Remaining Supply <sup>4</sup> | Interstate Credits <sup>5</sup> |
|-----------------------|-------------------------------------|--------------------------------------|-------------------------------|---------------------------------|
| Pre-plan <sup>6</sup> |                                     |                                      |                               | 423,019                         |
| 2007                  | 305,591                             | 257,352                              | 160,977                       | 136,428                         |
| 2008                  | 274,470                             | 221,710                              | 132,001                       | 134,405                         |
| 2009                  | 258,765                             | 226,495                              | 122,079                       | 128,950                         |
| 2010                  | 181,036                             | 208,898                              | 37,365                        | 135,539                         |
| 2011                  | 261,248                             | 326,863                              | 121,567                       | 131,775                         |
| 2012                  | 111,929                             | 184,593                              | 403                           | 105,213                         |
| 2013                  | 142,178                             | 238,429                              | 84,226                        | 54,671                          |
| 2014                  | 71,426                              | 199,518                              | 71,426                        | 0                               |
| 2015                  | 125,682                             | 261,434                              | 125,682                       | 0                               |
| 2016                  | 156,758                             | 305,580                              | 156,758                       | 0                               |
| <b>Total</b>          |                                     |                                      |                               | <b>1,250,000</b>                |

Footnotes:

- (1) The AWBA has an obligation to have 1,250,000 acre-feet of credits for the SNWA.
- (2) Water available for Interstate Banking is calculated by subtracting the water delivered and stored by individual subcontractors, contractors, and the AWBA for intrastate water banking from the Total Available Supply (see Appendix B).
- (3) Reflects the unused capacity available to the AWBA at USFs and GSFs in the Phoenix, Pinal, and Tucson AMAs as well as capacity available from other storage facilities permitted by the AWBA outside of the AMAs. Additional capacity may be available at individual facilities based on the utilization by individual water storage permit holders.
- (4) Remaining supplies after subtracting the water delivered and stored by individual subcontractors, contractors, and the AWBA for intrastate water banking and water delivered for interstate water banking.
- (5) Based on the Available Supplies or the Available AWBA Capacity, whichever is less, resulting stored water multiplied by an average 6% cut and loss factor.
- (6) Cumulative totals for 1997-2006; 2006 credits estimated based on projected deliveries.