ARIZONA WATER BANKING AUTHORITY Wednesday, June 11, 2003

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34	mark Frank - Apwe	
35	Senator Quenther	
36	John Mawhinney	
37	Church Caheey	
38	Manuen George	
39	Breize Renner	
40	Sim Dowenport Snus	
41	Janet Monarco Sriwa	
42	Tom Harbours CAP	
43		
44		=

Proposal for AWBA Technical Advisory Committee on Indian Firming

AWBA

Statutory Objectives

- M&I Firming
- Water Management
- Assist in Settlement of Indian Water Rights
- ♦ Interstate Banking for CA. & NV.

Recommendation Form Committee to Identify Options to Assist the State in Meeting Objectives of the GRIC Settlement

- Current statutory authority to form temporary Committees to provide AWBA advice on issues identified by AWBA which may consist of members of the public, the AWBA, and AWBA staff
- Current statutory objective to store water to implement the settlement of water right claims by Indian Communities
- Current funding sources that are statutorily identified for this purpose
- Current institutional mechanisms in place to facilitate storage

Recommendation for Technical Committee

- Proposed Structure/Composition of Committee
 - Inclusive Committee Structure

- State

- M&I Users

- United States

- NGOs

- Tribal

- CAWCD

- IDs/Ag Users

Recommendation for Technical Committee

- Committee Objectives
 - Identify Firming Volume
 - -Identify Funding Sources
 - Identify Water Supply
 - Identify Options

- July: <u>Initial Meeting</u>
 - Identify Structure of Committee (Need for Workgroups???)
 - Review Objectives
 - Review Current Statutory Authorities
 - Review Schedule

- July: <u>Develop Assumptions for</u>
 <u>Operation Model</u>
 - Identify Firming Volume

-Includes Review of M&I Firming Goals w/new Assumptions

Staff Assistance from ADWR & CAWCD

- July Oct: <u>Review Water Supply</u>
 <u>Availability</u>
 - CAP
 - Review Projections for on-River & CAP utilization
 - Review AWBA Projections
 - -Effluent
 - -Review Projected
 - Utilization
 - -Other

- Staff Assistance from ADWR/CAWCD
- Assistance from M&IUsers/Ag Users/Indian Users

- Aug Oct: <u>Review Funding Availability</u>
 - Review Current Sources & Projected Utilization
 - Identify Other Options
 - Identify Appropriate Sources

Sep - Nov: <u>Identify Options for</u>
 <u>Meeting Requirements</u>

(Southside Replenishment Bank/GRIC/Other)

- HOW
 - -Infrastructure
 - -Facilities
- COST
- Statutory Needs

- Staff Assistance from:
 - CAWCD/ADWR/IDs
- Assistance from:
 - M&I Users
 - Tribes

Oct - Nov: <u>Develop Ranking Criteria to</u>
 <u>Establish Recommendations</u>

Nov – Dec: <u>Develop Recommendations</u>

Recommendation for Technical Committee

Factors Affecting Timing

♦ Federal Legislation

- State Legislation
 - Necessary for Components of Settlement
 - Budget Cycle

Arizona Water Banking Authority

500 North Third Street, Phoenix, Arizona 85004 Telephone 602-417-2418 Fax 602-417-2401 Web Page: www.awba.state.az.us

PLEASE POST

NOTICE OF PUBLIC MEETING

Pursuant to A.R.S. § 38-431.02, notice is hereby given that there will be a meeting of the Arizona Water Banking Authority Commission on June 11, 2003 at 10:00 a.m. at the Arizona Department of Water Resources, 500 North Third Street, Phoenix, Arizona 85004, third floor conference room. The meeting is open to the general public. A copy of the agenda for the meeting is posted below.

Dated this 10th day of June, 2003

FINAL AGENDA

Arizona Water Banking Authority Commission Meeting

- I. Welcome/Opening Remarks
- II. Approval of Minutes of May 7, 2003 AWBA Meeting and May 30, 2003 Indian Firming Workshop
- III. Water Banking Staff Activities
 - Deliveries
 - Interstate discussions with California
 - Recharge and recovery planning
- IV. Discussion Regarding Development of ICUA for Nevada in 2003
 - Potential action to direct staff to take necessary steps for development of ICUA and amend 2003 Annual Plan of Operation
- V. 2002 Annual Report and Ten Year Plan
 - Overview of 2002 Annual Report
 - Overview of Ten Year Plan
 - Adoption of 2002 Annual Report and Ten Year Plan
- VI. FY 2004 Operating Budget
 - Overview of 2004 Operating Budget
 - Adoption of 2004 Operating Budget
- VII. Discussion Regarding Indian Firming Workshop
 - Potential action on staff recommendations regarding future AWBA activities
- VIII. Call to the Public

Future Meeting Date:

Wednesday, September 17, 2003

Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Nan Flores at (602) 417-2418. Requests should be made as early as possible to allow time to arrange the accommodation.

ARIZONA WATER BANKING AUTHORITY Draft Minutes

May 7, 2003
Arizona Department of Water Resources

BANKING PUTAT BOUS PUTAT BOUS PHORE PROPERTY B

AUTHORITY MEMBERS
Herbert R. Guenther, Chairman
George R. Renner, Vice-Chairman
Charles L. Cahoy, Secretary
Maureen R. George
John Mawhinney

EX OFFICIO MEMBERS Representative Jake Flake Senator Linda Binder

Welcome/Opening Remarks

Introduction of Authority Members and Remarks by Authority Members

Herb Guenther, chairman of the Authority, introduced the members. There are three new members (Chuck Cahoy, Maureen George and John Mawhinney) and one continuing member (CAWCD Board President George Renner). Mr. Guenther also noted that, by statute, the *ex officio* members were Speaker of the House of Representatives Jake Flake and President of the Senate.

Remarks by Authority Members

The new Authority members made brief introductory statements.

Election of Commission Officers

It was moved that Chuck Cahoy serve as the Secretary-Treasurer of the Authority and George Renner serve as vice chairman. The Authority unanimously approved the motion.

Approval of Minutes

Mr. Renner, as the only Authority member present at the December 18, 2002 meeting, stated that the minutes appeared to be accurate. Mr. Cahoy stated that he attended the meeting in the staff role and he agreed with Mr. Renner that they appeared accurate. The Authority approved the minutes from the December 18, 2002 meeting.

Water Banking Staff Activities

Tim Henley, manager of the Authority, informed the Authority that water deliveries through March are right on schedule and should stay on track for the next couple of months. However, the 2003 Annual Plan included delivery of water that may not become available to the AWBA. Consequently, there may be some divergence between planned and actual deliveries as the year progresses. He also noted that AWBA and CAP staff have been discussing deliveries and are trying to deliver additional AWBA water early in the year to insure maximum annual storage for the AWBA. In the event that the timing or quantity of deliveries is a significant alteration of the 2003 Annual Plan, it will be brought to the Authority for amendment.

Mr. Henley also discussed the request from the Phoenix and Pinal GUAC for development of a regional recharge and recovery plan. He stated that recovery planning is an issue that everyone focuses on and he informed the Authority that in coming months staff will be developing a process to guide decisions regarding recharge facilities on the basis of both recharge and recovery and in terms of both firming and water management objectives. The goal is not development of a recovery plan because the actual recovery agent will develop that in the future. Mr. Renner

questioned what process would be used, i.e. workshops, meetings, etc. Mr. Henley replied that the process is still being evaluated but the original focus will be on the Pinal AMA. Mr. Renner stated that since CAP is a likely recovery agent, he would offer CAP staff assistance and would like to insure that CAP staff are fully involved in the process. Mr. Henley replied that AWBA staff have already met with CAP staff and that the other entity that needs to be involved is ADWR because they are the entity that identifies the water management objectives. Mr. Henley noted that the two main players really are CAP and ADWR and the AWBA is merely the facilitator. Mr. Mawhinney stated that it appeared to him that the AWBA has been struggling with this issue for some time; however, it is actually past the planning stage and into reality. Mr. Henley concurred and noted that it is likely that the 2003 Annual Plan will be amended at the June meeting to include development of ICUA for Nevada. He agreed that the picture has changed with increased competition for water and the need for recovery. Mr. Mawhinney then asked about recovery for California. Mr. Henley explained that the AWBA had received a request from Nevada for 10,000 acre feet of ICUA from water stored in Pinal County under CAP's demo project. CAP has been working with the irrigation districts and believe about 10,000 acre feet will be available for recovery. California has made a similar request of CAP, however, the necessary agreements are not yet in place to authorize development of ICUA. Staff is currently working on developing the four-party agreement that would authorize development of ICUA for California. With regard to annual limits to development of ICUA, Mr. Henley stated that there should be no problem in 2004 because California will likely request 80,000 acre feet and Nevada will only need 10,000 acre feet so the total will be under the statutorily mandated 100,000 acre foot limit. Ms. George asked about payment for AWBA staff time in developing the California agreement. Mr. Henley replied that he would look at that issue further. Ms. George also stated that she doesn't want the focus to be only on the short-term issues and that she feels that the end users should be included in the planning process.

Mr. Guenther requested that Mr. Henley introduce staff at this time. Mr. Henley introduced the AWBA staff and identified other individuals that work closely with them.

Mr. Henley updated the Authority on the timeline associated with the 2002 Annual Report and informed them that a draft should be available in a couple of weeks.

Mr. Henley stated that there continues to be some uncertainty regarding the QSA. Because of this, he believes that a dialogue needs to be initiated with Nevada to evaluate potential options in case the QSA is not executed. Mr. Renner noted that this was a concern when the interstate agreements were executed in December and that Nevada had agreed to keep the AWBA informed of the current status of their water plan. Kay Brothers, Deputy General Manager of Engineering/Operations for the Southern Nevada Water Authority, informed the Authority that an amended water plan would be presented to their board in June and would be available to the AWBA at that time. She also discussed some components of the amended plan.

Larry Dozier, Deputy General Manager of Operations, Planning and Engineering at CAP commented on recovering the credits stored on behalf of California and Nevada. He stated that the current situation was not anticipated but that CAP is evaluating alternatives to deal with it. Mr. Henley briefly discussed the Omnibus Reconciliation Bill (ORB) and the fiscal impact to the

AWBA. He also introduced the idea of the AWBA providing a financial bridge to ADWR to maintain services essential to the AWBA through expenditure of the withdrawal fees. He stated that the concept would be more fully discussed in a ssociation with the budget at the June meeting. Mr. Guenther added that staff will get the budget information to the Authority as soon as possible and reiterated that the bridge in 2004 will assist with maintaining ADWR staffing levels. Mr. Mawhinney asked about the legislature taking AWBA carryover funds and the impact to function of the AWBA. Mr. Henley responded that the original discussion had included a sweep of \$9 million from the AWBA; however, it did not end up being that much. The actual ORB amount identified \$1.15 million as the money that could be utilized by ADWR.

Discussion and Approval of the Agreement for Storage at the Central Avra Valley Storage and Recovery Project (CAVSARP)

Gerry Wildeman briefly discussed the agreement for storage at CAVSARP. Ms. George asked why the agreement was only for storage and not recovery and Mr. Henley explained that the Authority will not be the recovering entity, thus recovery is not included in the storage agreements. However, he noted that recovery at this facility will be relatively simple because it operates as an annual recharge and recovery facility in addition to being a long-term storage facility. The Authority approved the storage facility agreement.

Discussion Regarding Indian Firming Workshop

Sandy Fabritz provided a brief overview of the State's obligation for firming non-Indian Agricultural (NIA) priority water that has been reallocated to the Gila River Indian Community and for other Indian water right settlements in the Arizona Water Settlement Act, currently in Congress, to municipal and industrial (M&I) priority. Ms. Fabritz also noted that the United States has a similar obligation for the Southern Arizona Water Right Settlement Act (SAWRSA). Ms. Fabritz stated that the State has an additional obligation to develop a Southside Replenishment Bank under the Gila River Indian Community Water Settlement. Ms. Fabritz stated that the Director of ADWR has requested that the Authority develop draft alternatives and recommendations for meeting the State's Firming Requirements included in the Settlement, including firming 15,000 acre feet of NIA water to M&I Priority for the Gila River Indian Community, firming 8,724 acre feet of NIA water to M&I priority for future Indian water right settlements, and developing the Southside Replenishment Bank of 15,000 acre feet for the Gila River Indian Community.

Ms. Fabritz stated that staff are requesting authorization to hold a workshop to provide information necessary to the Authority to determine if the Authority should facilitate and participate in this process. Mr. Mawhinney had questions regarding the priority of the firmed water and whether any other entity existed in the state that could help fulfill the obligation. Ms. Fabritz stated that the AWBA is the entity that most closely matches the authorities needed for Indian firming, however, there would still be the necessity for legislative changes. Mr. Henley noted that early discussions have focused on the Authority and that it is believed that the workshop is needed to determine if this is an appropriate role for the AWBA. Mr. Renner had a question about funding sources. Ms. Fabritz replied that funding is one of the issues that will be addressed in the workshop/technical

group process. Mr. Henley stated that the workshop would be treated like any other Authority meeting with regard to public notice and access; however, specific entities (including tribal entities) would be purposely invited. The Authority members concurred that a workshop should be held and Friday, May 30, 2003 was selected as the date of the workshop.

Discussion Regarding Mohave County Water Authority (MCWA) Shortage Sharing Policy Mr. Henley reviewed how earlier discussion had focused on a process in which the MCWA would accept all shortages for on-river users and then obtain water from recovered long-term storage credits through an exchange agreement with CAP. Ms. George stated that the outline submitted by MCWA was merely a starting point for further discussions regarding this issue.

Metropolitan Water District (MWD) of Southern California Presentation

Dennis Underwood, vice president for Colorado River resources at MWD, presented background information on water availability and water rights within southern California. He also discussed the various components of their water resources portfolio and some of the environmental concerns related to them. Lastly, he reviewed the provisions of the revised QSA, the current status of the QSA, the conditions precedent that MWD requires and the potential role of interstate water banking. A copy of the Power Point presentation was included in the public handouts.

There was an extensive question and answer period following the presentation. Questions focused on California's alternatives if the QSA fails, the importance of the QSA to MWD and their intentions regarding the QSA. Mr. Underwood stated that the QSA is important to MWD because, with respect to meeting water needs, the process achieves what other processes could achieve but provides many additional benefits. MWD believes that the QSA is one of the pieces needed to meet water needs but will require the conditions precedent be met because MWD will be making large fiscal investments early on in the process and that protection is needed.

Call to the Public

There were no questions from the public. Mr. Mawhinney stated that he would like to be updated on the status of discussions regarding the Yuma Desalting Plant and the Cienega de Santa Clara. There was also discussion about changing the date of the next Authority meeting due to a schedule conflict with Ms. George.

The meeting adjourned at 1:18 p.m.

ARIZONA WATER BANKING AUTHORITY Draft Minutes AWBA Indian Firming Workshop

May 30, 2003
Arizona Department of Water Resources

Welcome /Purpose

George Renner welcomed the Authority members and the public to the workshop.

EX OFFICIO MEMBERS Representative Jake Flake



AUTHORITY MEMBERS
Herbert R. Guenther, Chairman
George R. Renner, Vice-Chairman
Charles L. Cahoy, Secretary
Maureen R. George
John Mawhinney

Overview of Arizona Indian Water Rights Settlement Act¹

Herb Dishlip, Herb Dishlip Consulting, discussed the history of the relevant Indian water rights settlements and stated that the concept of firming is located in Section 105 of the Arizona Water Settlement Act. He noted that the Act has been negotiated but has not yet been signed. Mr. Dishlip defined firming, identified the state and federal firming obligations and described their origins and discussed the concept of firming Indian water such that it is delivered "in the same manner" as M&I water. (Power Point Presentation available)

Mr. Dishlip stated that about a year ago, it was discovered there was a difference in opinion between the state and federal parties regarding how the firming formula would be applied. The ramifications of this difference in opinion are apparent when there is a shortage to NIA from the CAP or could be apparent in non-shortage years if Arizona's on-river use is greater than 1.3 million acre feet. Mr. Dishlip presented some examples of how the state and federal interpretations would yield different firming requirements under different conditions. These examples are included in the written info that is available on the web page.

Mr. Dishlip noted that it could be that none of this even matters and this is the issue to be laid on the table with the AWBA. The questions are: (1) should the AWBA give consideration to being a party to helping the state achieve it's firming obligation; and (2) will the state or federal perspective be used to identify the firming obligation. He stated that this firming differs from the M&I firming because the entire amount must be firmed, not just 20% of the supply.

Mr. Renner asked Mr. Dishlip if there had been any discussion about the priority of firming for the AWBA and firming for Indian settlements. Mr. Dishlip replied that the only perceived priority was that interstate water banking would come last and that the only commitment the state had made was that they would find water for the Indian settlements during shortages.

Randy Chandler, of the Phoenix Office of the Bureau of Reclamation, spoke briefly about the level of the federal firming obligation and identified some potential options that may be utilized in the future to meet the obligation. Mr. Chandler stated that the United States has not identified a course of action and does not know how its obligation will be fulfilled.

Marvin Cohen, attorney for Sacks Tierney, discussed the Southside Replenishment Program that is a part of the Gila River Indian Community Settlement. He noted that the Gila's were concerned with increased groundwater pumping at the boundaries of the reservation and then

¹ The Power Point presentations utilized by the speakers and additional supporting documentation can be accessed on the AWBA web page at www.awba.state.az.us. Those sections of the workshop with Power Point presentations are identified in this summary.

provided a historical overview of the process that developed the replenishment program. The parameters of the program are included in the GRIC settlement agreement and will require state legislation to implement, however, it was decided by the parties to not incorporate a bill into the agreement in order to permit maximum flexibility. To date, legislation has not been adopted. In his Power Point presentation, Mr. Cohen identified the protection zones and the criteria associated with them and various options for replenishment. Mr. Cohen was asked if there was flexibility within the program to permit delivery/use of non-CAP water for the replenishment bank. Mr. Cohen replied that he did not believe the water source was limited to CAP water. There was a question regarding possible funding sources for the replenishment bank. Mr. Cohen stated that one possibility was the fees currently associated with conservation and augmentation and that the current view was that the entire county would bear the burden, not just entities within the protection zones. (Power Point presentation available)

Shortage Sharing Agreement

Mr. Dishlip discussed the concept of how shortages would be shared by the various users of CAP water. He explained that this idea had been in existence for a long time due to the junior status of the CAP on the Colorado River. Furthermore, the Secretary of the Interior identified that M&I and federal users of the CAP would have co-equal priority and this established the need for a decision on how that co-equal status would be maintained. There were many, many discussions and iterations of shortage sharing strategies and the GRIC settlement ultimately established fixed volumes for NIA and parameters for M&I and Indian shortage criteria that included elimination of steps and creation of a formula. He noted that the formulas can be found in the various tribal agreements. The end result was that the use of formulas removes ambiguity and the possibility of harm due to changes in allocations. He informed the audience that the parties are at a point where the state and federal parties are in agreement and the M&I subcontractors understand how the process works. The next steps are adoption of procedures and amendment of subcontracts.

Mr. Dishlip was asked if the criteria apply to subcontracting entities that are not party to settlement agreements. He responded that all subcontracting entities have the option to change their subcontracts to include settlement parameters, if they so desire.

Water Supply Availability

Tom Carr, Office of Colorado River Management at ADWR, provided information on the Law of the River and the operational parameters and computer model utilized by the Bureau of Reclamation. In his Power Point presentation, he identified the model assumptions that impact the determination of a firming number and described the various levels of Lake Mead under both the normal operating criteria and the Interim Surplus Guidelines. Lastly, he presented the range of scenarios developed by ADWR for firming levels needed and compared the best and worst case scenarios. ADWR's scenarios showed a total firming number between 439,000 and 963,000 acre feet. (Power Point presentation available)

There were no questions of Mr. Carr from the Authority or the audience.

Sandy Fabritz presented information regarding the current commitments for water and graphically illustrated how those commitments would utilize the portion of Arizona's allocation available to the CAP. (Power Point presentation available)

Funding Availability Options

Ms. Fabritz summarized the funding sources currently available to the AWBA and identified the limitations and funding levels associated with them. Utilizing Mr. Carr's firming scenarios previously discussed, the level of funds necessary to achieve those numbers (for the entire state obligation) ranged from \$14.9 to \$64.5 million. (Power Point presentation available)

Potential Options for AWBA Participation

Ms. Fabritz presented a series of options for both non-AWBA and AWBA participation. The non-AWBA options included payment in lieu of damages and various demand reduction activities while the AWBA options included various permutations of recharge and recovery both within and without reservation boundaries, leases and exchanges and recovery of already existing credits. (Power Point presentation available)

Recommended Next Steps and AWBA Action

Ms. Fabritz provided a summary of the known parameters and identified the potential role that the AWBA could play. She stated that it was staff's recommendation that a Technical Advisory Committee (TAC) be formed to develop potential alternative approaches for the Authority to review in order to make a recommendation to the director of ADWR. (Power Point presentation available)

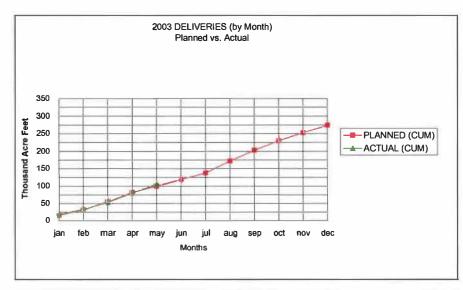
Tim Henley, manager of the AWBA stated that the Authority needs to determine what role the AWBA should play, if any. Bearing in mind that the settlement is fairly new and the likely time frame is a year or so from now, there is an obligation identified in the bill and no discussion of what entity will meet that need. He believes that the AWBA could play a role, however, it is unclear exactly what that would entail. Mr. Renner stated that he would like staff to bring this issue before the Authority at the June meeting for more formal action and that he sees an even longer time frame because of uncertainty regarding how the bill will move. John Mawhinney concurred with the idea of a slow process and noted that some issues could be answered ahead of time, regardless of what the ultimate role of the AWBA would be. Some of the unknowns identified by Ms. Fabritz would be applicable to other AWBA functions. Herb Guenther stated that it was funding sources that gave him some pause. It was his feeling that the Indian obligation was a statewide obligation and the financial burden should not be borne solely by the tri-county CAP service area. Mr. Guenther stated that he would like staff to bring recommendations to the June Authority meeting to include what the TAC would look like, who would be on it, etc. Maureen George stated that she agreed that staff should investigate parameters with more general applicability, such as the firming number, regardless of the status of the settlement.

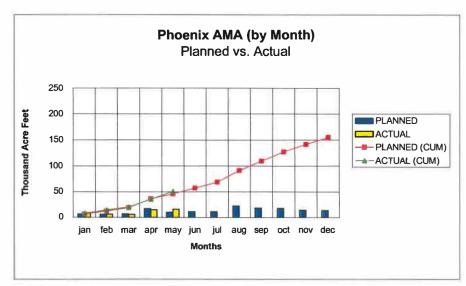
Call to the Public

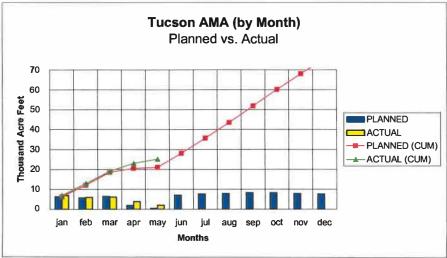
There was no additional public comment.

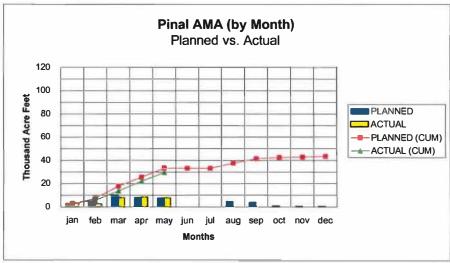
The meeting concluded at 12:35 p.m.

2003 Plan of Operation









Actual deliveries updated Plan of Operation	09-Jun-03 1-Jan-03	jan	feb	mar	apr	тау	jun	jul	aug	sep	oct	nov	dec	total
Phoenix AMA														
	GRUSP	0	0	0	188 <i>0</i>	1,642 0	3.800	3.800	3,800	3.800	3.800	3.800	3.100	1,830 25,900
	AGUA FRIA	2,523	1,040	2,252	2,816	1,569	,	,	,	•	,	,	•	10,200
	OLIOID	1,500	500	500	2,000	2,250 0	4,250	4,250	4,250	4,000	4,000	4,250	4,250	36,000
	CHCID	0 <i>50</i>	59 100	0 140	250 100	100	152	125	125	125	100	0	0	309 1,117
	MWD	0	0	0	0	0								0
	NMIDD	0 2,262	0 1,402	0	<i>0</i> 0	6,486	0	0	0	2,050	2,550	0	0	<i>4,600</i> 10,150
	טטוואוא	1,800	1,800	0	7,500	4,000	0	0	5,500	4,300	3,500	2,500	2,000	32,900
	QCID	0	0	0	0	0								0
	TID	<i>0</i> 0	<i>0</i> 0	<i>0</i> 0	<i>0</i> 0	<i>0</i> 0	0	0	2,091	0	0	0	752	2,843 0
	IID	0	0	0	0	0	0	0	0	0	0	0	0	0
	SRP	1,019	1,100	813	1,100	1,100			4.400		4 400	4.400	4.400	5,132
	RWCD	1,100 0	1,100 0	1,100 0	1,100 7,500	1,100 5,000	0	0	1,100	1,100	1,100	1,100	1,100	<i>11,000</i> 12,500
	RWCD	0	0	2,500	5,000	2,500	0	0	2,500	0	0	0	0	12,500
	HIEROGLYPHIC	2,666	2,540	2,802	3,202 1,500	0	3.000	3,000	3,000	3,000	2,750	2,650	2,500	11,210 28, <i>400</i>
Subtotal		2,000 8,470	2,500 6,141	2,500 5,867	15,056	15,797	3,000	3,000	3,000	3,000	2,730	2,630	2,300	51,331
Total to date		8,470	14,611	20,478	35,534	51,331	51,331	51,331	51,331	51,331	51,331	51,331	51,331	51,331
Projected total t	o date	6,450	12,450	19,190	36,390	46,340	57,542	68,717	91,083	109,458	127,258	141,558	155,260	155,260
Pinal AMA														
	CAIDD	0	0	0	0	0								0
	MSIDD	0 1,120	0 1,130	<i>0</i> 2,320	<i>0</i> 2,570	2,000	0	0	500	3,000	1,000	500	500	5,500 9,140
	WISIDD	1,120	1,130	2,320	2,570	2,000	0	0	1,030	780	0	0	0	10,950
	HIDD	1,876	1,647	5,557	5,781	5,712			2 222		0	•	•	20,573
Subtotal	-	1,700 2,996	3,475 2,777	8,000 7,877	5,300 8,351	5,600 7,712	0	0	3,000	0	0	0	0	27,075 29,713
Total to date		2,996	5,773	13,650	22,001	29,713	29,713	29,713	29,713	29,713	29,713	29,713	29,713	29,713
Projected total	to date	2,820	7,425	17,745	25,615	33,215	33,215	33,215	37,745	41,525	42,525	43,025	43,525	43,525
Tucson AMA														
T UCSOTT AIVIA	Avra Valley	0	0	0	0	0								0
		0	0	0	0	0	600	600	600	600	670	600	600	4,270
	Clearwater	0	0	0	0	0	1,000	1,500	1,500	1,500	1,500	1,500	1,500	0 10,000
	Pima Mine	2,578	2,120	2,212	0	0		7,000	.,	1,000				6,910
		2,600	2,025	2,600	0	0	3,000	3,000	3,000	3,000	3,000	3,000	3,000	28,225
	Lower Santa Cruz	3,346 3,500	3,658 3,500	3,977 3,500	3,677 1,955	1,569 <i>0</i>	2,500	2,500	2,500	2,500	2,500	2,500	2,500	16,227 29,955
	BKW Farms	694	156	0	0	0	2,000	2,000	2,000	2,000	2,000	2,000	2,000	850
		200	250	400	0	0	0	0	0	200	100	50	50	1,250
	Kai Red Rock	370	45 <i>0</i>	0	250 0	500 500	0	0	250	500	500	250	0	1,165 2,000
Subtotal	7 =	6,988	5,979	6,189	3,927	2,069	0	0	0	0	0	0	0	25,152
Total to date		6,988	12,967	19,156	23,083	25,152	25,152	25,152	25,152	25,152	25,152	25,152	25,152	25,152
Projected total	to date	6,300	12,075	18,575	20,530	21,030	28,130	35,730	43,580	51,880	60,150	68,050	75,700	75,700
TOTAL		18,454	14,897	19,933	27,334	25,578	0	0	0	0	0	0	0	106,196
Total to date		18,454	33,351	53,284	80,618	106,196	106,196	106,196	106,196	106,196	106,196	106,196	106,196	212,392
Projected total	to date	15,570	31,950	55,510	82,535	100,585	118,887	137,662	172,408	202,863	229,933	252,633	274,485	274,485



Executive Office

May 13, 2003

Mr. Timothy J. Henley Manager Arizona Water Banking Authority 500 North Third Street Phoenix, AZ 85004

Dear Mr. Henley:

Recovery of Interstate Underground Storage Credits (IUS Credits) Assigned to Metropolitan Under 1992 CAWCD/MWD Agreement For A Demonstration Project On Underground Storage of Colorado River Water

By way of this letter, The Metropolitan Water District of Southern California (Metropolitan) submits this preliminary request to recover in 2004 the total remaining balance of the IUS Credits that were created under the 1992 agreement for a demonstration project on underground storage of Colorado River water.

With Colorado River system storage at 59 percent of capacity and the April through July 2003 estimate of unregulated inflow into Lake Powell forecasted at 57 percent of normal, it is most likely, even with the Colorado River Interim Surplus Guidelines in place, that there would only be a partial surplus condition declared. We anticipate at this time a need for these stored water credits next year.

In the upcoming months, Metropolitan will revisit this request in light of developments that may occur on the Quantification Settlement Agreement.

Very truly yours

Dennis B. Underwood

Vice President

HMR:jes

o:\admin wrm\shared\corres\AWBA_051203_MWD Preliminary Request for Demo Water in 2004.doc

Mr. Timothy J. Henley Page 2 May 13, 2003

cc: Ms. Gale A. Norton
Secretary of the Interior
United States Department of the Interior
1849 C Street, NW
Washington, D.C. 20240

Mr. Larry Dozier Central Arizona Water Conservation District P.O. Box 43020 Phoenix, AZ 85080-3020

Mr. Robert W. Johnson Regional Director Lower Colorado Region U.S. Bureau of Reclamation P.O. Box 61470 Boulder City, NV 89006-1470

Ms. Patricia Mulroy General Manager Southern Nevada Water Authority 1001 South Valley View Boulevard Las Vegas, NV 89153

Mr. Chuck Hauser General Counsel Southern Nevada Water Authority 1001 South Valley View Boulevard Las Vegas, NV 89153

Mr. Gerald R. Zimmerman Executive Director Colorado River Board of California 770 Fairmont Avenue, Suite 100 Glendale, CA 91203-1035



CENTRAL ARIZONA PROJECT

P.O. Box 43020 • Phoenix, Arizona 85080-3020 • 23636 North Seventh Street (85024) (623) 869-2333 • www.cap-az.com

May 28, 2003

Mr. Grant Ward
General Manager
Maricopa-Stanfield Irrigation and
Drainage District
41630 W. Louis Johnson Dr.
Maricopa, AZ 85239

Mr. Ron McEachern General Manager Central Arizona Irrigation and Drainage District P.O. Box 605 Eloy, AZ 85231

Subject: Recovery of Interstate Storage Credits in CY 2003

Dear Messrs. Ward and McEachern:

Although efforts continue to reach resolution on a QSA among the California entities, a final settlement has not been reached. The Department of Interior has elected to suspend the Interim Surplus Guidelines for Colorado River diversions and consequently forcing California and Nevada to secure supplemental water supplies for CY2003 and possibly for 2004.

As you know, California and Nevada have accrued underground storage credits in the Pinal AMA based on the 1992 Demonstration Project on Underground Storage of Colorado River water. On an acre-foot basis, MWD (California) has over 89,000 Interstate storage credits and SNWA (Nevada) has 50,000 credits.

Both States were interested in some amount of recovery in 2003. Initially, California had submitted a request for consideration of the full recoverable amount of 80,900 acre-feet (af) in credits, while Nevada submitted a request for 10,000 af.

Nevada has all the necessary agreements in place for both recovery and storage through the current interstate storage process with the AWBA. Those agreements basically require a three-year notice process before beginning recovery. California does not have the necessary agreements in place with the AWBA. Indications are that both MSIDD and CAIDD have limited groundwater recovery capacity this year, and based on the recovery limits and the fact that the necessary agreements are not in place, California will not pursue any recovery in 2003, but may do so in 2004. Nevada has officially sent a letter to the Arizona Water Bank requesting the development of 10,000 af of intentionally created unused apportionment (ICUA) in 2003, and that timing requirements for a planned recovery be waived.

We appreciate the cooperation which we have received from you and your staff in beginning to develop a recovery plan. The following items need to be confirmed and pursued:

1) Recovery Schedule:

Month	MSIDD	CAIDD
July	1,000 af	
August	1,000 af	1,000 af
September	1,000 af	1,000 af
October	1,000 af	1,000 af
November	1,000 af	500 af
December	1,000 af	500 af
Total	6,000 af	4,000 af

The recovered 10,000 af in the above schedule would not be delivered to the turnouts and CAP would forbear the equivalent volume on the Colorado River for Nevada's diversion. The 10,000 credits would be subtracted from Nevada's interstate storage account.

The billing and accounting process would not change since the recovered water would remain as part of the CAP supply and marketed as part of your pool 1 or pool 2 water, even though not physically delivered through the CAP system.

If you can potentially recover more water than indicated in the above schedule, please provide us that amount, as due to the uncertainty of their actual annual water needs, Nevada may be interested in additional recovery.

2) Recovery Costs:

It is CAP's intent and obligation to make you whole on all recovery costs. This includes energy costs and any additional expenses related to operation and maintenance of pump equipment. Our power marketing agreements with SRP have provisions that would allow CAP to provide the pumping energy if appropriate power delivery schedules can be arranged. If there are other infrastructure or mobilization costs specific to the recovery plan, please advise us of the necessary cost. Please confirm the schedule in item (1) and submit to us an estimated recovery cost to be incorporated in a draft version of a recovery agreement.

3) Recovery Agreement:

CAP staff will develop a draft recovery agreement for review and negotiation. The document would need to be finalized and signed by all necessary parties by July 2003 if possible or prior to beginning of the recovery process.

4) Recovery Well Permits:

After discussion with ADWR and AWBA it would be more efficient if each Irrigation District would apply for and secure recovery well permits with ADWR. Please contact Sandy Fabritz

Messrs. Ward and McEachern May 28, 2003 Page 2

(AWBA) at 602-417-2418 for any assistance on this matter. We recommend submitting applications posthaste since the review period could take up to 60 days, and the permits would need to be finalized before beginning recovery.

5) Planned Recovery for CY2004:

As previously mentioned, if the QSA among the California entities does not get resolved, the interim surplus would not get reinstated and MWD will most likely submit a request for creation of 80,000 af of ICUA for California in 2004. This will be a substantial recovery effort, and once again require collaboration and coordination between CAP, AWBA, and the three Irrigation Districts in the Pinal AMA. It is important for each District to plan ahead and ensure that sufficient groundwater pumping capacity is operational.

We certainly appreciate your efforts and cooperation on this matter. Even though projected recovery needs for Arizona's benefit are significant years away, the stored Interstate water does benefit Arizona's aquifers, and this effort also provides some validation and assurance that recharge and recovery programs can work and do work successfully.

Sincerely,

Larry R. Dozier

Deputy General Manager

TK/jlm

G:\data\gm\dozier\gencorresp\2003 Recovery Memo1.doc

cc:

Sandy Frabritz, AWBA
Tim Henley, AWBA
Jack Long, Hohokam IDD
Brian Henning, CAWCD
Tom McCann, CAWCD



Southern Nevada May 29, 2003 Water Authority Administrative Office 1001 S. Valley View Blvd. Las Vegas, Nevada 89153 Telephone: (702) 258-3939 Fax: (702) 258-3268

Project Office 1900 E. Flamingo, Ste. 170 Las Vegas, Nevada 89119 Telephone: (702) 862-3400 Fax: (702) 862-3470

Southern Nevada Water System 243 Lakeshore Road Boulder City, NV 89005 Telephone: (702) 564-7697 Fax: (702) 564-7222

Mr. Tim Henley Manager Arizona Water Banking Authority 500 North Third Street Phoenix, AZ 85004

Dear Mr. Henley:

SUBJECT:

PRELIMINARY REQUEST FOR DEVELOPMENT OF INTENTIONALLY CREATED UNUSED APPORTIONMENT

Pursuant to Article 3.1.2 of the Agreement for Interstate Water Banking (Banking Agreement) the Southern Nevada Water Authority (SNWA) is submitting this preliminary request for the development of up to 20,000 acre-feet of Intentionally Created Unused Apportionment (ICUA) in 2004. Article 3.1.2 of the Banking Agreement also requests SNWA provide Arizona Water Banking Authority (AWBA) with estimates of ICUA expected in the two succeeding years, 2005 and 2006. SNWA requests discussions regarding the creation of ICUA during 2005 and 2006 occur at a later date, after the impacts of its Drought Plan and water supply conditions on the Colorado River are more apparent.

The SNWA also requests the AWBA waive the advance notice requirement stated in Article 3.1.1 to accommodate this preliminary request for ICUA during 2004. SNWA recognizes the development of ICUA during 2004 was not previously anticipated by AWBA, and appreciates consideration of this preliminary request and the associated request for wavier of the advance notice requirement for 2004. Because of the implementation of the SNWA Drought Plan, to the extent possible, SNWA prefers the development of the ICUA occur in the later months of 2004 to better meet actual demands.

Thank you for your consideration of this request. If you have any questions, please contact Ken Albright at 702-862-3775.

Sincerely,

General Manage

PM:TM:vw

Larry Dozier, Deputy General Manager - Central Arizona Water Conservation District

Robert Johnson, Regional Director – United States Bureau of Reclamation
Jim Davenport, Chief Water Division – Colorado River Commission of Nevada
Kay Brothers, Deputy General Manager – SNWA Engineering/Operations

Kenneth A. Albright, P.E., Director – SNWA Resources

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ARIZONA WATER BANKING AUTHORITY

ANNUAL REPORT 2002



Submitted

July 1, 2002

Arizona Water Banking Authority

Annual Report 2002

Honorable Janet Napolitano Governor of Arizona

Members

Herbert R. Guenther Chairman

George R. Renner *Vice-chairman*

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Maureen R. George *Member*

John Mawhinney *Member*

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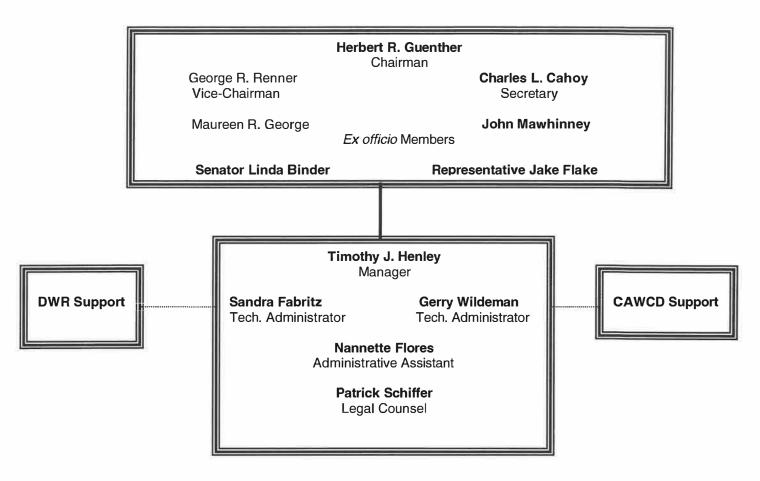
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Arizona Water Banking Authority Annual Report Requirement

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 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.

Organizational Chart¹



¹ This Annual Report documents the activities of the AWBA through the end of December 2002 but is approved in June 2003. New Authority members were appointed in 2003 and are reflected in this organizational chart.

Update

Calendar year 2002 was a year of many firsts with regard to water, not only for the AWBA, but also for the state of Arizona. In 2002, storage by the AWBA assisted Arizona in fully utilizing the state's 2.8 million acre foot Colorado River allocation for the first time. In fact, the Central Arizona Project (CAP) operations required careful monitoring throughout the last quarter of 2002 to insure that Arizona did not exceed their allocated volume. Additionally, 2002 was the first year that the AWBA stored interstate water. In June, the AWBA amended the 2002 Annual Plan of Operation to include 40,000 acre feet of storage at groundwater savings facilities in Pinal County on behalf of Nevada. This interstate water storage was done pursuant to a letter agreement between the AWBA and the Southern Nevada Water Authority because, at that time, all three of the agreements needed for interstate water banking had not yet been executed. However, the final two agreements were ultimately executed on December 18, 2002². Execution of the three agreements established the parameters for a long-term interstate water banking relationship between the AWBA and Nevada. The AWBA and California met and discussed interstate water banking, but no formal negotiation with the state of California occurred.

The AWBA experienced a change in leadership in December 2002 with the appointment of Herbert R. Guenther as Director of the Arizona Department of Water Resources (ADWR) by Governor Janet Napolitano. Pursuant to statute, the Director of ADWR serves as the chair of the AWBA. Mr. Guenther replaced former Director, Joseph C. Smith, an appointee of former Governor Jane Dee Hull. Immediately prior to his appointment, Mr. Guenther served as a state senator (D-Tacna). He also served as a state representative from 1986 through 1993 and is recognized as an expert in the field of water resources management. Additional change in AWBA membership is anticipated in 2003 as the terms of the three members appointed by the governor expired in July of 2002. Pursuant to AWBA legislation, the appointed members are permitted to continue serving after expiration of their terms until new members are appointed. Consequently, the members served throughout 2002.

In 2002, the AWBA continued its quarterly meeting schedule with special meetings or workshops scheduled as needed. In addition to the regularly scheduled meetings, there was a special meeting called on May 29, 2002 to solicit public input on the ten year plan component of the 2001 Annual Report . On August 21, 2002, a workshop on interstate water banking was convened at the request of the Authority members. The purposes of the workshop were (1) to provide the Authority and the public with information regarding the environmental process that had been completed by the U.S. Bureau of Reclamation in conjunction with interstate water banking and (2) to receive additional information from Nevada regarding their long-term water plan and the role that interstate water banking plays within it. There were no meetings of the Recovery Subcommittee held in 2002.

The issue of firming the on-river municipal and industrial (M&I) uses continued to be at the forefront in 2002 and culminated on March 20 with adoption of Resolution 2002-1. This resolution recognized that previous Authority action identified 420,000 acre feet as a reasonable number of credits for on-river firming and established the following: (1) the first priority of credits accrued with general fund appropriation shall be the development and reservation of a reasonable number of credits for the benefit of on-river M&I users; (2) the second priority shall be to aid in Indian water rights settlements; (3) the third priority shall be firming for CAP M&I users; (4) the fourth priority shall be to fulfill water

² A more detailed discussion of interstate water banking activities can be found in the Activities and Projects section.

management objectives; (5) the AWBA shall consider these priorities before distributing credits for any lower priority uses; and (6) staff shall conduct their planning to effectuate these priorities.

The AWBA coordinates with current and potential recharge entities in the process of development of the Annual Plan of Operation (Plan) for the following year. In 2002, this process marked another first for the AWBA because, for the first time since inception, the amount of excess water available to the AWBA in 2003 was limited. In the past, AWBA storage has been limited by facility capacity, not water availability. The limitation was primarily a result of increased water requests from other entities, including the Salt River Project and the Gila River India Community, due to the on-going drought conditions. Additionally, because of the overall magnitude of water orders, there were operational constraints limiting CAP deliveries in June and July. Consequently, development of the 2003 Plan was a process that required extensive cooperation and coordination between AWBA and Central Arizona Water Conservation District (CAWCD) staff and the facility operators. Pursuant to the 2003 Plan, the AWBA anticipates recharging almost 275,00 acre feet of water. However, if water supplies in that quantity are ultimately not available to the AWBA, storage at underground storage facilities will be curtailed to permit storage at groundwater savings facilities.

In yet another first, 2003 Plan deliveries were funded mainly utilizing the withdrawal fee monies that have been collected in the Active Management Areas (AMA). The majority of the long-term storage credits accrued to date had been developed with general fund money and 4¢ ad valorem tax revenues and were earmarked for firming of M&I supplies in case of operational outage or shortage. Long-term storage credits developed with withdrawal fees are credits that can be used to meet water management objectives or firm Indian water rights pursuant to settlement agreements. For the 2003 Plan, the entities scheduled for delivery are SRP's GRUSP and groundwater savings facilities, CAWCD's Agua Fria, Avra Valley, Hieroglyphic Mountains, Pima Mine Road and Lower Santa Cruz facilities, Chandler Heights Citrus Irrigation District, Maricopa Water District, New Magma Irrigation District, Queen Creek Irrigation District, Roosevelt Water Conservation District, Central Arizona Irrigation and Drainage District, Hohokam Irrigation and Drainage District, Maricopa Stanfield Irrigation and Drainage District, the BKW groundwater savings facility, the Central Avra Valley Storage and Recovery Project and the Herb Kai Red Rock Facility.

The AWBA recharged more than 345,000 acre-feet of CAP water in 2002 (see Appendix A). Of this, more than 137,000 acre-feet were stored in the Phoenix Active Management Area (AMA), 151,000 acre-feet were stored in the Pinal AMA and almost 57,000 acre-feet were stored in the Tucson AMA. Total consumptive use of Colorado River water by Arizona for 2002 was approximately 2.81 million acre-feet. Distribution of that quantity was: approximately 1.23 million acre-feet for direct uses along the Colorado River and CAP diversions of approximately 1.58 million acre-feet. Of the CAP diversions, AWBA use was slightly more than 345,000 acre-feet.

For more information about the Arizona Water Banking Authority, consult the AWBA web page at http://www.awba.state.az.us or contact Tim Henley (tjhenley@adwr.stat.az.us), Sandy Fabritz (safabritz@adwr.state.az.us) or Gerry Wildeman (glwildeman@adwr.state.az.us) or by phone at 602-417-2418.

Activities and Projects - 2002

Governor's Water Management Commission Legislation-Status

The recommendations of the Governor's Water Management Commission were compiled into a comprehensive legislative package contained in Senate Bill 1344 and 1355 and House Bill 2582 and 2653. The bills were submitted to the House and Senate in February of 2002. However, in March, sponsors of the legislation opted to withdraw the bills from consideration. In light of the legislature's focus on the state's budget problems, it was believed that there was inadequate time to fully review the recommended changes to the 1980 Groundwater Code. At the time the legislation was withdrawn, the sponsors of the bills stated that it was their intention to re-introduce the legislation early in 2003.

Interstate Water Banking

Agreements

The AWBA continued negotiating the final two agreements needed to store water on Nevada's behalf and create unused apportionment for their benefit pursuant to federal rule. The Storage and Interstate Release Agreement (SIRA) is an agreement between the AWBA, the United States Bureau of Reclamation (USBR), the Southern Nevada Water Authority (SNWA)³ and the Colorado River Commission of Nevada (CRCN)⁴. The SIRA is the agreement that mandates the manner in which the Secretary of the Interior will monitor and account for the storage and recovery of water pursuant to an interstate water agreement. Due to a federal entity being a signatory to the SIRA, an Environmental Assessment (EA) was required as mandated by the National Environmental Protection Act. The EA was completed and a Finding of No Significant Impact was signed on June 19, 2002. As of the September 18, 2002 AWBA meeting, all other parties to the SIRA, except the AWBA, had approved the agreement. At that meeting, a decision was made to approve the SIRA but not to execute it until such time as the Agreement for the Development of Intentionally Created Unused Apportionment (ADICUA) was approved. Approval of the SIRA in this manner provided the other parties assurances regarding the AWBA's commitment to the process but provided the AWBA protection in the event the ADICUA could not be completed.

The ADICUA was the final agreement to be negotiated and is the agreement between the AWBA and the Central Arizona Water Conservation District (CAWCD) that facilitates development of ICUA using the CAP system. The ADICUA is the agreement that enables the AWBA to create ICUA by exchanging long-term storage credits for water that CAP had anticipated delivering thus reducing Arizona's Colorado River uses. Absent the ADICUA, the AWBA could store water for an interstate entity but could not complete the "pay back" portion. Therefore, execution of the ADICUA was needed to enable the AWBA to meet the provisions of the SIRA. The ADICUA was approved by the CAWCD on December 5, 2002 and by the AWBA on December 18, 2002. The SIRA was also signed by the AWBA on the same date.

³ A political subdivision of the State of Nevada created to manage water resources for the Las Vegas Valley.

⁴ An agency of the State of Nevada with a mission, in part, to acquire, manage and protect all of Nevada's water and hydropower resources from the Colorado River for southern Nevada.

Interstate Water Storage-2002

The original 2002 Annual Plan of Operation projected 97,330 acre feet of deliveries to three irrigation districts in Pinal County. This level of deliveries required expenditure of almost \$1.5 million of general fund appropriations in addition to full utilization of the 4¢ ad valorem tax and withdrawal fee revenues generated in the area. Due to the budget dilemma in the state, the legislature withheld \$1 million of the anticipated \$2 million general fund appropriation from fiscal year 2002. The \$1 million would have been distributed to the AWBA in January and April of 2002. Without the \$1 million, the AWBA was unable to meet their planned deliveries to Pinal County. The AWBA, recognizing that interstate storage could be a solution, directed staff to initiate discussion with Nevada regarding the possibility of interstate storage in Pinal County. Consequently, at the June 19 meeting, the AWBA amended the 2002 Plan to include 40,000 acre feet of storage on behalf of Nevada. The total amount of water actually delivered was 66,595 acre feet.

State Budget Shortfall and Impacts to the AWBA

Since inception, the AWBA has received an annual \$2 million general fund appropriation from the state legislature. The general fund money is used to develop credits that can be used for firming Colorado River supplies, to meet water management objectives and to help meet the state's obligations under Indian water rights settlements. Due to statutory restrictions regarding use of the other sources of funds, the AWBA has the most flexibility when using long-term storage credits developed with general fund money.

There is overlap between the fiscal year (FY), upon which the state budget operates, and the calendar year (CY), upon which the AWBA operates. Consequently CY 2002 included activity that occurred in the last half of FY 2002 and the first half of FY 2003. In FY 2002, two events took place that impacted the AWBA. First, \$1 million of the proposed FY 2002 \$2 million general fund appropriation was withheld by the legislature in light of the state's current budget shortfall. The loss of this \$1 million primarily impacted the Pinal AMA, as described above. Second, the legislature swept \$1 million from the AWBA's administrative account. This account is comprised of the interest earned on the other account balances and is used to pay for the AWBA's operating expenses such as salaries, supplies, overhead, technical assistance, travel, etc.

The second half of CY 2002 coincided with the first half of FY 2003. The FY 2003 state general fund budget was approved and then subject to much scrutiny, evaluation and discussion by the legislature due to the ever-increasing predicted budget shortfall. At the end of CY 2002, there had been no changes to the approved budget although there had been discussions of actions that could negatively impact the AWBA. Discussions focused on transferring AWBA funds to ADWR to assist with maintaining vital operations of the department and sweeping money from the AWBA to assist the legislature in meeting the budget shortfall. ⁵

the FY 2003 ORB.

⁵ There was no action taken on the FY 2003 budget through December 31, 2002. On March 28, 2003, Governor Napolitano signed the FY 2003 Omnibus Reconciliation Bill (ORB) that authorized the ADWR to expend up to \$1,115,900 from the AWBA accounts for ADWR's operating expenses incurred in FY 2003. No money was swept by the legislature in

2003 Plan of Operation

The AWBA plans to recharge more than 274,000 acre feet of water in calendar year 2003. Of this quantity, almost 163,00 acre feet are projected to be recharged at underground storage facilities (USF) and almost 112,000 acre feet are projected to be recharged at groundwater savings facilities (GSF). This is the first Plan to project higher deliveries to USF than GSF. The 2003 Plan also includes: (1) 1,250 acre feet of storage at the BK Wong GSF marking the first storage at the facility and storage at the second GSF in Pima County; (2) 12, 500 acre feet of storage at the Roosevelt Water Conservation District; the AWBA has not partnered with RWCD since 1997; and (3) re-initiation of storage at the Central Avra Valley Storage and Recovery Project in the amount of 10,000 acre feet. The Annual Plan of Operation is available on the AWBA web page.

Media Coverage

The AWBA received very limited press coverage during 2002 with the majority of articles being published in association with the amendment to the 2002 Annual Plan of Operation that was done to authorize storage at groundwater savings facilities in Pinal County on behalf of Nevada. There were no articles published in association with execution of the final two interstate water banking agreements.

"Arizona, Nevada discussing water sharing plan", Arizona Republic, April 11, 2002

"Arizona and Nevada about to tap water-sharing plan", U.S. Water News, May 2002

"Deal to store water good for Pinal County", Arizona Republic, June 19, 2002

"Arizona: Water sharing", the Bond Buyer, June 25, 2002

Agreement and Facility Permit Activity

The AWBA executed new agreements with eleven of the GSF between September 4 and November 27, 2002. The new GSF agreements are between the AWBA and the facility operators, have a term ending December 31, 2011 and include a component for recovery. The AWBA also executed a new inter-governmental agreement (IGA) with the ADWR and the CAWCD. This agreement describes the cooperative activities between the agencies and the process for provision of, and payment for, administrative, technical and legal support. The IGA was executed on July 1, 2002. Also on that date, the AWBA executed a Master Water Storage Agreement (MWSA) and an Excess Water Contract (EWC) with the CAWCD. The single MWSA replaced the individual storage facility agreements and the EWC provides for the delivery of excess CAP water to the AWBA.

The AWBA submitted three water storage permit applications in 2002. The Hieroglyphic Mountains application was permitted for 35,000 acre feet in March, 2002. The West Maricopa Combine #2 application was permitted for 25,000 acre feet in October, 2002. The BK Wong application was submitted in September 2002 but not permitted until January 2003 for 16,614 acre feet.

AWBA Newsletter

The AWBA continued to distribute the quarterly newsletter to provide the public with periodic updates on water deliveries and other AWBA related water management issues. The 2002 issues were published in February, May and August and can be accessed on the AWBA web page. AWBA staff encourages individuals to submit items of interest for inclusion in the newsletter.

Web Page

The AWBA has maintained a web page (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, the AWBA newsletter, 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. The AWBA staff continue to review and update the web page to insure that it contains accurate information that can be accessed in an efficient manner.

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 2002, the AWBA obtained its funding from the following sources⁶:

- 1. Fees for groundwater pumping are collected within the Phoenix, Pinal and Tucson AMAs. Fees are calculated two different ways because there exists a gradual increase in fees for entities not associated with irrigation districts within the Pinal AMA. In the Phoenix AMA, Tucson AMA and most areas of the Pinal AMA, fees for water banking purposes are charged at \$2.50 per acre-foot. Fees for entities in Pinal County who are not associated with an irrigation district were charged at \$0.75 per acre-foot in 1997 with planned increases of \$0.25 per acre-foot annually until the \$2.50 per acre-foot amount is reached. Therefore, the fee charged for these entities was \$2.00 per acre-foot in 2002. 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 2002, the CAWCD board resolved that all taxes to be levied would be deposited in the Fund. The Fund receives this money in two payments that are roughly concurrent with the due dates for property taxes; funds are typically received in December and May. 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 2002 by source of funds. Table 2 shows the total money received, expended and remaining in the Fund through December 2002 by source of funds. The money listed as "Available" is money that is either remaining in the Fund or money that has been prepaid to CAWCD. Any money that remains in the Fund is available to be expended in subsequent years; any interest that accrues on this money is credited to the Fund and is available for use.

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⁶ For a discussion regarding the general fund appropriation, please see "State Budget Shortfall and Impacts to the AWBA" in the Activities and Projects section of this report.

Table 1. Monies Collected and Expended in 2002 by Source of Funds

Source of Funds	Money Collected	Money Expended
General Fund	\$0	\$862,218 ¹
Interstate Water Banking - Nevada	\$8,642,699	\$8,642,699
4¢ Ad valorem Tax		
Maricopa County	\$9,781,000	\$4,485,700
Pinal County	\$340,000	\$340,000
Pima County	\$2,197,000	\$3,731,500 ¹
Subtotal for Ad Valorem	\$12,318,000	\$8,557,200
Groundwater Withdrawal Fee		
Phoenix AMA	\$2,786,000	\$2,600,000
Pinal AMA	\$1,031,000	\$1,680,900 ¹
Tucson AMA	\$649,000	\$0
Subtotal for Withdrawal Fees	\$4,466,000	\$4,280,900
TOTAL ²	\$25,426,699	\$22,343,017

Table 2. Monies Collected and Expended through December 2002 and Monies **Remaining Available to the Authority**

Source of Funds	Money Collected	Money Expended	Money Available
General Fund	\$10,695,000	\$10,695,000	\$0
Interstate Water Banking - Nevada	\$8,642,699	\$8,642,699	\$0
4¢ Ad valorem Tax			
Maricopa County	\$48,751,465	\$28,581,860	\$20,169,605
Pinal County	\$1,751,000	\$1,750,991	\$9
Pima County	\$9,959,104	\$8,077,174	\$1,881,930
Subtotal for Ad Valorem	\$60,461,569	\$38,410,025	\$22,051,544
Groundwater Withdrawal Fee			
Phoenix AMA	\$12,448,701	\$2,600,000	\$9,848,701
Pinal AMA	\$5,235,838	\$5,283,508	-\$47,670
Tucson AMA	\$3,354,370	\$0	\$3,354,370
Subtotal for Withdrawal Fees	\$21,038,909	\$7,883,508	\$13,155,401
TOTAL	\$100,838,177	\$65,631,232	\$35,206,945

¹ Includes carryover from previous years ² Total includes money collected and expended for interstate water banking. Fees paid for interstate water banking are directly passed through to CAP.

Long-term Storage Credits

The AWBA has established Long-term Storage Accounts with ADWR. The Phoenix AMA account number is 70-441150, the Tucson AMA account number is 70-411150 and the Pinal AMA account number is 70-431135. After receiving the AWBA's annual reports for it's 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 almost all storage of water for long-term credit, with some exceptions. 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 2002 are listed in Table 3. Cumulative totals of long-term storage credits through December 2002 are listed in Table 4. The average annual cost for the AWBA to obtain an acre-foot of long-term storage credit is presented in Table 5.

Table 3. Number and Location of Long-term Storage Credits Accrued in 2002

Location and Funding Source	Long-term Storage
Phoenix AMA	Credits Accrued (AF)
4¢ Ad valorem Tax	78,000
Groundwater Withdrawal Fee	45,000
General Fund AMA Total	1 23,000
Pinal AMA	
4¢ Ad valorem Tax	9,000
Groundwater Withdrawal Fee	46,000
General Fund Interstate Water Banking - Nevada	23,000 111,000 ¹
AMA Total	189,000
Tucson AMA	
4¢ Ad valorem Tax	54,000
Groundwater Withdrawal Fee	0
General Fund AMA Total	0 54,000
AWA Total	54,000
Totals by Funding Source	
4¢ Ad valorem Tax	141,000
Groundwater Withdrawal Fee	91,000
General Fund Interstate Water Banking - Nevada	23,000 61,000
interstate water Danking - Nevada	01,000
TOTAL	366,000 ¹

¹Includes 50,000 acre feet of long-term storage credits transferred in 2002 to the AWBA from the CAWCD on hebalf of Nevada

Table 4. Cumulative Total and Location of Long-term Storage Credits Accrued through December 2002

Location and Funding Source	Long-term Storage		
Phoenix AMA	Credits Accrued (AF)		
4¢ Ad valorem Tax	699,183		
Groundwater Withdrawal Fee General Fund	45,000 61,612		
AMA Total	805,795		
Pinal AMA			
4¢ Ad valorem Tax	73,884		
Groundwater Withdrawal Fee General Fund	186,969 294,318		
Interstate Water Banking - Nevada	111,000 ¹		
AMA Total	666,171		
Tucson AMA			
4¢ Ad valorem Tax	127,765		
Groundwater Withdrawal Fee General Fund	0 39,748		
AMA Total	167,513		
Totals by Source of Funds			
4¢ Ad valorem Tax	900,832		
Groundwater Withdrawal Fee General Fund	231,969 395,678		
Interstate Water Banking - Nevada	111,000 ¹		
TOTAL	1,700,479 ¹		

¹Includes 50,000 acre feet of long-term storage credits transferred in 2002 to the AWBA from the CAWCD on behalf of Nevada

Table 5 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. In 2002, there was a significant increase in the unit cost to develop a long-term storage credit. 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. In 2002, there was an increase of \$10 per acre foot of AWBA water delivered. Additionally, there was an increase in the cost of storage at the Agua Fria USF. Overall, AWBA storage at USFs is increasing, however, there was a slight reversal in 2002 due to the high demand for storage at GSFs and lower than projected storage at USFs. The Agua Fria and GRUSP stored less than projected and the Hieroplyphic Mountains USF did not become operational in 2002 as anticipated. It is anticipated that the increasing trend in cost of developing credits will continue in the future as more USFs become operational and water delivery and facility costs increase.

Table 5. Average Annual Cost for the AWBA to Obtain a Long-term Storage Credit¹

Year	Credits	Funds Expended	Average Cost	% Stored in GSF:% Stored in USF
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	272,122	\$11,163,000	\$41.02	60% : 40%
2001	269,687	\$10,893,590	\$40.39	62% : 38%
2002	255,000	\$13,700,300	\$53.73 ²	64% : 36%

¹ 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.
² 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 2002. 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 2002. 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 2002, no credits were developed or distributed under such agreements. Interstate credits may be recovered and exchanged at the request of Nevada. In 2002, Nevada did not request such recovery and exchange.

Ten Year Plan

Introduction

The ten year plan is a statutorily mandated component of the Annual Report. 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 must also provide an analysis of the AWBA's ability to complete those activities. 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.

The ten year plan in the 2002 Annual Report analyzes activity for the period 2004-2013 (Table 6) and was derived using the information found in Appendices B through G. AWBA accounting for previous years can be found earlier in this annual report (see Tables 2 and 4). 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 2004-2013.
- 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.

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 12 water storage permits for GSFs with a total storage capacity of 726,700 acre-feet per annum. The AWBA does not anticipate utilizing the Roosevelt Water Conservation District or the Maricopa Water District within this planning period.

All of the permits associated with GSFs expire within this ten year plan. The AWBA's 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 is typically no difficulty in obtaining new permits for GSF facilities. Nonetheless, impacts of this nature cannot be predicted and are not included in this ten year plan.

The AWBA has eight water storage permits for USFs with a total storage capacity of 566,000 acre-feet per annum. The USF permit issued for the Pima Mine Road facility limits total

storage under the permit to 500,000 acre-feet with the ability to request an amendment to 600,000 acre-feet. This storage quantity limitation will not be a factor within this ten year plan. Additionally, between 40,000 and 60,000 acre-feet of capacity per annum was modeled for this planning period at the Central Avra Valley Storage and Recovery Project per discussions with Tucson Water. Although there has not been storage at the facility in recent years, planned expansion of the facility will likely make storage capacity available to the AWBA. The GRUSP permit is the only permit that expires within this planning period.

As previously described in the GSF discussion, any difficulty in obtaining new permits could effect 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. Again, impacts of this nature cannot be predicted and are not included in the analysis of this ten year plan.

2. Recovery

Although not previously anticipated, due to events in California related to the Interim Surplus Guidelines, both Nevada and California are requesting recovery of long-term storage credits created by CAWCD as part of a demonstration project in the early 1990's. Recovery schemes are being developed in cooperation with CAWCD and are only anticipated early in the period of this ten year plan. Additionally, in recognition of the CAP subcontractors' need for long-range infrastructure planning, it is anticipated that the AWBA and CAWCD will initiate a planning process to develop a general recovery strategy and recovery principles early in this time period.

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. However, 2002 marked the first year that Arizona fully utilized its 2.8 million acre-foot allocation. Consequently, the evaluation of water management activities will become more complex as the available excess CAP water and storage facility capacity becomes limited, new storage facilities are sited and developed and AWBA's funding sources are impacted by economic factors.

Central Arizona Groundwater Replenishment District (CAGRD) Replenishment Reserve

In 2003, the legislation necessary to establish the replenishment reserve was introduced and passed. The legislation included a provision that established equal priority for deliveries of excess water between the replenishment reserve nd the AWBA's deliveries for M&I firming purposes. The reserve would have a higher priority for excess CAP water than the AWBA's deliveries for other non-firming purposed, i.e. water management. Therefore, a component for the proposed replenishment reserve as well as the advance replenishment was included in the model beginning in 2004.

Table 6. Ten Year Plan

ARIZONA WATER BANKING AUTHORITY – 10 YEAR PLAN 2004 – 2013

(Acre-feet)

													T T	r	
	(a)	(b)	(c)	(d)	(e)	(f)	_	(g)	(h)	(i)	(j)
YEAR	CAP Water Avail for AWBA		I Firming Tax)	Manag	ater gement wal Fees)	Gener	al Fund	Indi Settle		Loaned	Credits	Storage for Others	Inter	state Banl	king
		Delivered	Credits	Delivered	Credits	Delivered	Credits	Delivered	Credits	Delivered	Credits		Water Available	AWBA Capacity Avail.	Credits Earned
Pre- Plan ^(k)	n/a	1,080,801	987,639	388,742	364,969	419,441	386,872								111,000
2004	626,858	292,713	275,151	25,724	24,180	0	0						308,421	40,000	37,600
2005	600,902	252,579	237,424	43,661	41,041	0	0						304,662	121,537	114,245
2006	557,134	237,892	223,618	38,179	35,889	51,282	48,205						229,781	143,766	135,140
2007	520,163	225,322	211,803	39,597	37,221	54,054	50,811						201,190	96,083	90,318
2008	482,771	213,604	200,788	37,560	35,306	51,282	48,205						180,325	89,048	83,705
2009	447,283	202,368	190,226	35,858	33,706	49,020	46,078						160,037	92,963	87,385
2010	364,590	188,327	177,027	32,812	30,844	46,889	44,076						96,562	95,912	90,157
2011	319,777	176,793	166,186	31,167	29,297	44,880	42,187						66,937	110,078	62,921
2012	281,359	170,155	159,946	29,565	27,791	42,983	40,404						38,656	122,731	36,337
2013	272,037	167,955	157,878	28,568	26,853	41,189	38,718						34,325	123,492	32,265
TOTAL			2,987,686		687,097		745,556								881,073

FOOTNOTES:

- (a) See Appendix B
- (b) See Appendix D
- (c) See Appendix E
- (d) See Appendix F
- (e) Currently no Indian settlement requirements identified for the AWBA
- (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) Additional capacity may be needed to fully accommodate the opportunity for interstate banking
- (j) See Appendix G. The Agreement for Interstate Water Banking executed 2001, SIRA and ADICUA executed 2002
- (k) Cumulative totals for 1997-2003; 2003 credits estimated based on projected deliveries

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 this group.

AWBA General Fund Appropriation

Since inception, the AWBA has received an annual general fund appropriation of \$2 million. 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 through calendar year 2005. The model included a \$2 million general fund appropriation for the period 2006-2012.

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, as the policy has not yet initiated it is difficult to predict an effect. Therefore, only the 400,000 acre-foot pool concept was utilized in this ten year plan.

The CAWCD Board has also discussed 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. Because policy addressing the other uses has not yet been adopted, the ten year plan was developed absent a prioritizing component with the exception of AWBA water deliveries being met last.

5. Participation in Indian settlements

One objective of the AWBA is assisting with the settlement of water rights claims by Indian communities within Arizona. Settlements dealing with the CAP repayment and reallocation would require the State to firm some NIA priority water for Indian settlements. In order to achieve this, it is anticipated that the state will rely on the AWBA at some time within this ten year planning horizon. However, this issue was not considered in this ten year plan pending finalization of the assumptions.

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

The AWBA is currently in the process of completing a revised inventory of existing storage facilities in the state as required by A.R.S. § 45-2452. The revised inventory will be utilized in developing future ten year plans.

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Storage at the Hieroglyphic Mountains Recharge Project (HMRP) was included in this ten year plan. The HMRP is a 35,000 acre-foot USF being developed by the CAP in the west Salt River Valley. The first water storage occurred at this facility early in 2003.

7. Interstate banking

The AWBA continues to evaluate the opportunities for interstate water banking and to develop the last two agreements necessary to initiate the process. The ten year plan includes an interstate water banking component for Nevada but does not include California. However, model runs have identified that within the plan period there is water available after the intrastate needs have been met and Nevada has received an annual amount.

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 2002 by Partner and Active Management Area

Phoenix Active Management Area

Partner	Quantity of Water (Acre-feet)

Granite Reef Underground Storage Project	43,365
New Magma Irrigation and Drainage District	47,200
Queen Creek Irrigation District	8,234
Agua Fria	26,830
Salt River Project	11,189
Chandler Heights Citrus Irrigation District	959

Pinal Active Management Area

Partner Quantity of Water (Acre-feet)

Central Arizona Irrigation and Drainage District	41,929
Maricopa-Stanfield Irrigation and Drainage District	53,710
Hohokam Irrigation and Drainage District	55,755

Tucson Active Management Area

Partner Quantity of Water (Acre-feet)

Avra Valley	6,805
Pima Mine Road	22,307
Kai – Red Rock	1,722
Lower Santa Cruz	25,884

APPENDIX B CAP DELIVERY SCHEDULE

(Acre-feet)

Year		CAP D	emands	6	Average Year	Available for
	M&I ⁽¹⁾	Indian (2)	Ag ⁽³⁾	Total	Supply (4)	AWBA (5)
2004	300,658	82,000	515,484	898,142	1,525,000	626,858
2005	326,613	94,000	503,484	924,098	1,525,000	600,902
2006	370,173	104,000	493,693	967,866	1,525,000	557,134
2007	397,471	119,000	488,365	1,004,837	1,525,000	520,163
2008	420,881	137,000	484,348	1,042,229	1,525,000	482,771
2009	442,400	154,000	481,317	1,077,717	1,525,000	447,283
2010	508,382	173,000	479,029	1,160,410	1,525,000	364,590
2011	526,921	201,000	477,302	1,205,223	1,525,000	319,777
2012	541,642	226,000	476,000	1,243,641	1,525,000	281,359
2013	542,055	246,000	464,909	1,252,963	1,525,000	272,037

- (1) Includes M&I, CAGRD, Indian M&I lease and M&I incentive water
- (2) From settlement discussions
- (3) From agricultural pool discussions; includes all non-AWBA GSF storage
- (4) Based on average year delivery of 1,600,000 AF per year minus losses
- (5) Average year supply minus CAP demands; AWBA last priority for intrastate use

APPENDIX C STORAGE FACILITIES AVAILABLE TO THE AWBA (as used in the 10 year plan)

Facility Permit Expiration	Facility Permitted Capacity (Acre-feet)	Capacity Available to AWBA ⁽¹⁾ (Acre-feet)	Year Water Last Stored	Volume of Water Last Stored (Acre-feet)						
12/2007	54,000	45,000	2002	47,200						
12/2004	28,000	15,000	2002	8,234						
12/2005	200,000	20,000	2002	11,189						
PH	OENIX - USF									
12/2010	200,000	50,000	2002	43,365						
05/2019	100,000	100,000	2002	26,830						
12/2021	35,000	20,000	(3)	0						
PI	INAL – GSF									
12/2007	110,000	15,000	2002	41,929						
12/2007	55,000	50,000	2002	55,755						
12/2004			2002	53,710						
TUC										
04/2008	12,513	5,000	• •	0						
12/2006		3,000	2002	1,722						
	CSON - USF									
	11,000			6,805						
				10,532						
				25,584						
				22,307						
				A						
		80,000		0						
05/31/2021	25,000		(3)	0						
	Permit Expiration PHO 12/2007 12/2004 12/2005 PHO 12/2010 05/2019 12/2021 PI 12/2007 12/2007 12/2004 TUC 04/2008 12/2006 TU 03/2018 07/2021 09/2019 09/2020	Permit Expiration	Permit Expiration	Pacility Permitted Capacity (Acre-feet) Capacity (Acre-feet) (Acre-feet) Capacity (Acre-feet) (Acre-feet) Capacity (Acre-feet) Capacity (Acre-feet) Capacity (Acre-feet) Capacity Capaci						

Footnotes:

- (1) 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.
- (2) The AWBA holds water storage permits at Chandler Heights Citrus ID (3KAF), Maricopa Water District (18KAF), Roosevelt Water Conservation District, Tonopah ID (15KAF) and the BK Wong (16.6KAF) GSFs. These were not considered significant uses in this 10 year outlook.
- (3) No deliveries to date.
- (4) 20,000 acre-feet of additional capacity anticipated being available beginning in 2003.
- (5) Not yet permitted.

APPENDIX D Credits Developed for M&I Firming Utilizing the 4¢ Tax (1)

(Acre-feet)

	We		7,				
		Groun	dwater Sa	vings	Under	ground Sto	orage
	Year	Capacity	Capacity	Credits	Capacity	Capacity	Credits
	B	Available ⁴	Used	Earned	Available ⁴	Üsed	Earned
Α.	Pre-plan ³			466,015			330,168
PHOENIX AMA ²	2004	74,195	74,195	69,743	157,622	157,622	148,165
	2005	73,486	73,486	69,077	153,062	153,062	143,878
	2006	68,762	68,762	64,636	141,427	141,427	132,941
	2007	62,585	62,585	58,830	132,960	132,960	124,982
	2008	57,341	57,341	53,901	126,347	126,347	118,766
<u> </u>	2009	52,431	52,431	49,285	119,746	119,746	112,561
풉	2010	47,101	47,101	44,275	110,750	110,750	104,105
_	2011	41,802	41,802	39,294	104,225	104,225	97,971
	2012	38,762	38,762	36,436	100,328	100,328	94,308
	2013	37,369	37,369	35,127	99,214	99,214	93,261
	Total			986,619			1,501,106
		Groun	dwater Sav		Under	ground Sto	
		Capacity	Capacity	Credits	Capacity	Capacity	Credits
	Year	Available ⁴	Used	Earned	Available ⁴	Used	Earned
		7114114116	0000		Available	Obcu	Lamea
ο.	Pre-plan ³ 2004	100.400	5,000	79,884			
<u>`ĕ</u>	2004	108,466	5,282	4,965	-	-	-
		107,430	6,565	6,171	-	-	<u> </u>
1	2006	106,416 105,421	7,178 7,869	6,747	<u> </u>	-	-
PINAL AMA ²	2007	103,421	7,764	7,397 7,298	-	-	<u> </u>
_ Z	2009	103,492	7,704	7,255			-
	2010	103,492	7,718	7,255		-	<u> </u>
	2010	101,639	7,643	7,217			
	2012	100,740	7,613	7,154	_		
	2013	99,859	7,513	7,132		_	
	Total	55,005	7,007	148,406			
	Total	Group	dwater Sav		Under	ground Sto	rage
		Capacity	Capacity	Credits		_	Credits
	Year	Available ⁴			Capacity Available⁴	Capacity	
		Available	Used	Earned	Available	Used	Earned
AMA ²	Pre-plan ³	4.070	0	3,610	FF 04.4	FF 014	107,962
X	2004	4,078	0	0	55,614	55,614	52,277
 	2005	4,216	0	0	61,811	19,465	18,297
ll .	2006	4,352	0	0	62,480	20,525	19,293
TUCSON	2007	4,485	0	0	62,571	21,909	20,594
8	2008	4,615	0	0	62,659	22,152	20,823
, P	2009	4,743	0	0	62,746	22,473	21,125
_ <u>-</u>	2010	4,868	0	0	72,831	22,797	21,430
2	2011	4,990	0	0	82,915	23,124	21,737
	2012	5,000	0	0	81,365	23,453	22,046
	2013 Total	5,000	0		76,226	23,784	22,357
II	Total			3,610			347,941

- Developing M&I firming credits has the first priority for water and storage capacity.
 M&I firming targets are Phoenix AMA-1.5 MAF, Tucson AMA-810 KAF, and Pinal AMA 230 KAF
 Cumulative totals for 1997-2002; 2002 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 (1)

(Acre-feet)

Year Capacity Available Capacity Available Capacity Available Capacity Cap	PHOENIX AMA	Pre-plan ² 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 Total Year	Capacity Available ³ 0 0 0 0 0 0 0 0 0 Capacity Capacity	Capacity Used 0 0 0 0 0 0 0 0 0 0 0 0 ndwater Sa	Credits Earned 59,640 0 0 0 0 0 0 0 0 0 0 0 0	Capacity Available ³ 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Capacity Used 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Credits Earned 29,800 0 0 0 0 0 0 0 0 29,800
VAVIDADE Pre-plan	PHOENIX AMA	Pre-plan ² 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 Total Year	Available ³ 0 0 0 0 0 0 0 0 0 0 Capacity	0 0 0 0 0 0 0 0 0 0	Earned 59,640 0 0 0 0 0 0 0 0 0 0 0 0 59,640	Available ³ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Used 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Earned 29,800 0 0 0 0 0 0 0 0 0 0 29,800
Pre-plan ²	PHOENIX AMA	2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 Total	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	59,640 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	29,800 0 0 0 0 0 0 0 0 0 0 29,800
VALUE Capacity C	PHOENIX AMA	2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 Total	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 29,800
Variable		2005 2006 2007 2008 2009 2010 2011 2012 2013 Total	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 29,800
Variable		2006 2007 2008 2009 2010 2011 2012 2013 Total	0 0 0 0 0 0 0 0 Grou Capacity	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 59,640	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 29,800
Variable		2007 2008 2009 2010 2011 2012 2013 Total	0 0 0 0 0 0 0 0 Grou Capacity	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 59,640	0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 29,800
Variable		2008 2009 2010 2011 2012 2013 Total	0 0 0 0 0 0 0 Grou	0 0 0 0 0 0	0 0 0 0 0 0 0 0 59,640	0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0 0 29,800
Variable		2009 2010 2011 2012 2013 Total	0 0 0 0 0 Grou Capacity	0 0 0 0 0 0	0 0 0 0 0 0 59,640	0 0 0 0	0 0 0 0 0	0 0 0 0 0 0 29,800
Variable		2010 2011 2012 2013 Total	0 0 0 0 Grou Capacity	0 0 0 0 0 ndwater Sa	0 0 0 0 59,640	0 0 0 0	0 0 0 0	0 0 0 0 29,800
Variable		2011 2012 2013 Total	0 0 0 Grou Capacity	0 0 0 ndwater Sa	0 0 0 59,640	0 0 0	0 0	0 0 0 29,800
Vear Capacity Capacity Capacity Capacity Capacity Capacity Available Vear Capacity Capa		2012 2013 Total Year	0 0 Grou Capacity	0 0 ndwater Sa	0 0 59,640	0	0 0	0 0 29,800
Pre-plan		2013 Total Year	Groui Capacity	0 ndwater Sa	0 59,640	0	0	0 29,800
Pre-plan		Total Year	Grous Capacity	ndwater Sa	0 59,640			0 29,800
Total Groundwater Savings Capacity C		Total Year	Capacity			linda		29,800
Vear Capacity Available Capacity Available Capacity Available Capacity		Year	Capacity			Unde	raround Sta	
Vear Capacity Available Capacity Credits Earned Available Capacity Used Earned Available Capacity Used Earned Capacity Used Capacity Used Capacity Capacity Used Capacity Capa			Capacity			Ulluc	ı uı vurlu əld	rage
Available Used Earned Available Used Earned				L Canacity	Credits			
Pre-plan ²			Available					
Total Capacity Capacity Capacity Available Capacity Available Capacity Available Capacity	F	Pre-plan ²			243,969			
Total Capacity Available			103,183	21,646		-	-	_
Pre-plan ² Superior Superi						-	-	
Pre-plan ² Superior Superi	4						-	
Pre-plan ² Superior Superi	ا ب							_
Pre-plan ² Superior Superi	≰					_	_	_
Pre-plan ² Superior Superi							_	
Pre-plan		i					_	
Pre-plan ² Superior Superi						_	_	
Total 19,343 18,183 - - - - Total 462,681 0 0						_		
Total 462,681 0						-	- 1	
Year Groundwater Savings Underground Storage Pre-plan² Capacity Available³ Capacity Credits Capacity Available³ Capacity Used Earned 2004 4,078 4,078 3,053 30,947 2005 4,216 4,216 3,963 42,346 14,282 13,425 2006 4,352 4,352 4,091 41,956 7,599 7,143 2007 4,485 4,485 4,216 40,662 7,866 7,413 2008 4,615 4,615 4,338 40,507 7,514 7,063 2009 4,743 4,743 4,458 40,273 7,188 6,757 2010 4,868 4,868 4,576 50,034 5,422 5,097 2011 4,990 4,990 4,691 59,791 4,969 4,670 2012 5,000 5,000 4,700 57,912 4,588 4,313			92,213	13,343		-	-	-
Year Capacity Available ³ Used Earned Available ³ Used Earned Pre-plan ² 2004 4,078 4,078 3,833 0 0 0 0 2005 4,216 4,216 3,963 42,346 14,282 13,425 2006 4,352 4,352 4,091 41,956 7,599 7,143 2007 4,485 4,485 4,216 40,662 7,866 7,413 2008 4,615 4,615 4,338 40,507 7,514 7,063 2009 4,743 4,743 4,458 40,273 7,188 6,757 2010 4,868 4,868 4,868 4,576 50,034 5,422 5,097 2011 4,990 4,990 4,691 59,791 4,969 4,670 2012 5,000 5,000 4,700 57,912 4,588 4,313		Total	Grou	adwater Sa		Undo	raround Sto	
Available ³ Used Earned Available ³ Used Earned Pre-plan ² 2004 4,078 4,078 3,833 0 0 0 2005 4,216 4,216 3,963 42,346 14,282 13,425 2006 4,352 4,352 4,091 41,956 7,599 7,143 2007 4,485 4,485 4,216 40,662 7,866 7,413 2008 4,615 4,615 4,338 40,507 7,514 7,063 2009 4,743 4,743 4,458 40,273 7,188 6,757 2010 4,868 4,868 4,576 50,034 5,422 5,097 2011 4,990 4,990 4,691 59,791 4,969 4,670 2012 5,000 5,000 4,700 57,912 4,588 4,313		Voor						
Pre-plan ² 2004 4,078 4,078 3,053 0 0 0 0 0 2005 4,216 4,216 3,963 42,346 14,282 13,425 2006 4,352 4,352 4,091 41,956 7,599 7,143 2007 4,485 4,485 4,216 40,662 7,866 7,413 2008 4,615 4,615 4,615 4,338 40,507 7,514 7,063 2009 4,743 4,743 4,743 4,458 40,273 7,188 6,757 2010 4,868 4,868 4,868 4,576 50,034 5,422 5,097 2011 4,990 4,990 4,691 59,791 4,969 4,670 2012 5,000 5,000 4,700 57,912 4,588 4,313		rear				Capacity		
2004 4,078 4,078 3,833 0 0 0 2005 4,216 4,216 3,963 42,346 14,282 13,425 2006 4,352 4,352 4,091 41,956 7,599 7,143 2007 4,485 4,485 4,216 40,662 7,866 7,413 2008 4,615 4,615 4,338 40,507 7,514 7,063 2009 4,743 4,743 4,458 40,273 7,188 6,757 2010 4,868 4,868 4,576 50,034 5,422 5,097 2011 4,990 4,990 4,691 59,791 4,969 4,670 2012 5,000 5,000 4,700 57,912 4,588 4,313	<u> </u>	5 1 2	Available	Usea		Available	Usea	
2006 4,352 4,352 4,091 41,956 7,599 7,143 2007 4,485 4,485 4,216 40,662 7,866 7,413 2008 4,615 4,615 4,338 40,507 7,514 7,063 2009 4,743 4,743 4,458 40,273 7,188 6,757 2010 4,868 4,868 4,576 50,034 5,422 5,097 2011 4,990 4,990 4,691 59,791 4,969 4,670 2012 5,000 5,000 4,700 57,912 4,588 4,313	l ≰ ⊢ˈ		4.070	4.070				
2006 4,352 4,352 4,091 41,956 7,599 7,143 2007 4,485 4,485 4,216 40,662 7,866 7,413 2008 4,615 4,615 4,338 40,507 7,514 7,063 2009 4,743 4,743 4,458 40,273 7,188 6,757 2010 4,868 4,868 4,576 50,034 5,422 5,097 2011 4,990 4,990 4,691 59,791 4,969 4,670 2012 5,000 5,000 4,700 57,912 4,588 4,313	2 –							
2007 4,485 4,485 4,216 40,662 7,866 7,413 2008 4,615 4,615 4,338 40,507 7,514 7,063 2009 4,743 4,743 4,458 40,273 7,188 6,757 2010 4,868 4,868 4,576 50,034 5,422 5,097 2011 4,990 4,990 4,691 59,791 4,969 4,670 2012 5,000 5,000 4,700 57,912 4,588 4,313								
2011 4,990 4,691 59,791 4,969 4,670 2012 5,000 5,000 4,700 57,912 4,588 4,313								
2011 4,990 4,691 59,791 4,969 4,670 2012 5,000 5,000 4,700 57,912 4,588 4,313) S							
2011 4,990 4,691 59,791 4,969 4,670 2012 5,000 5,000 4,700 57,912 4,588 4,313								
2011 4,990 4,691 59,791 4,969 4,670 2012 5,000 5,000 4,700 57,912 4,588 4,313	2 -							
2012 5,000 5,000 4,700 57,912 4,588 4,313								
2013 5,000 5,000 4,700 52,441 4,224 3.971		2013	5,000	5,000	4,700	52,441	4,224	3,971
Total 46,619 90,799								

- (1) Withdrawal fees are used to develop credits for AMA water management goals after the 4¢ tax is utilized.
- (2) Cumulative totals for 1997-2002; 2002 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 and water is stored using the 4¢ tax as illustrated in Appendix D.

APPENDIX F Credits Developed Utilizing Annual General Fund Appropriations^(1,2) (Acre-feet)

		Grou	ndwater Sav	rings	Unde	erground S	torage
	Year	Capacity Available	Capacity Used	Credits Earned	Capacity Available	Capacity Used	Credits Earned
	Pre-plan ³			36,063			25,550
PHOENIX AMA	2004	0	0	0	0	0	0
{	2005	0	0	0	0	0	0
l ×	2006	0	0	0	0	0	0
	2007	0	0	0	0	0	0
🖫	2008	0	0	0	0	0	0
우	2009	0	0	0	0	0	0
<u> </u>	2010	0	0	0	0	0	0
	2011	0	0	0	0	0	0
	2012	0	0	0	0	0	0
	2013	0	0	0	0	0	0
	Total			36,063			25,550
		Grou	ndwater Sav	ings	Unde	erground S	
	Year	Capacity Available	Capacity Used	Credits Earned	Capacity Available	Capacity Used	Credits Earned
	Pre-plan ³		0000	271,318	7 17 00.0		
	2004	81,537	0	0	-	_	
₹	2004	75,702	0	0		_	_
{	2006	73,008	51,282	48,205	_	_	
	2007	70,326	54,054	50,811	_	_	_
PINAL AMA	2008	71,252	51,282	48,205	_	-	-
5	2009	71,846	49,020	46,078	_	-	
_	2010	72,356	46,889	44,076	-	-	_
	2011	72,788	44,880	42,187	-	-	-
	2012	73,151	42,983	40,404	-	_	
	2013	72,929	41,189	38,718	-	_	
	Total			630,002			
		Grou	ndwater Sav		Unde	erground S	torage
	Year	Capacity Available	Capacity Used	Credits Earned	Capacity Available	Capacity Used	Credits Earned
	Pre-plan ³	7 17 0111 010 10	0000	1,745		0000	52,196
ַ ַ	2004	0	0	0	0	0	0
AMA	2005	0	0	0	28,064	0	0
	2006	0	0	0	34,357	0	0
5	2007	0	0	0	32,776	0	0
, i	2008	0	0	0	32,993	0	0
TUCSON	2009	0	0	0	33,085	0	0
	2010	0	0	0	44,611	0	0
	2011	0	0	0	54,822	0	0
	2012	0	0	0	53,324	0	0
	2013	0	0	0	48,217	0	0
	Total			1,745			52,196

Footnotes:

- (1) General Fund appropriations are used to supplement the 4¢ tax and withdrawal fees in AMAs where funding is a constraint.

 (2) The on-river M&I firming target is 410 KAF.
- (3) Cumulative totals for 1997-2002; 2002 credits estimated based on projected deliveries.

APPENDIX G Potential Credits Developed for Interstate Water Banking⁽¹⁾ (Acre-feet)

Year	Available CAP Supplies ⁽²⁾	Available AWBA Capacity ⁽³⁾	Water Supplies Available for Interstate ⁽⁴⁾	Interstate Credits ⁽⁵⁾
Pre-plan				111,000
2004	308,421	40,000	200,000	37,600
2005	304,662	121,537	200,000	114,245
2006	229,781	143,766	200,000	135,140
2007	201,190	96,083	200,000	90,318
2008	180,325	89,048	180,325	83,705
2009	160,037	92,963	160,037	87,385
2010	96,562	95,912	96,562	90,157
2011	66,937	110,078	66,937	62,921
2012	38,656	122,731	38,656	36,337
2013	34,325	123,492	34,325	32,265
Total				881,068

- (1) Interstate Banking is the last priority of the AWBA.
- (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 (after intrastate storage is maximized) at USFs and GSFs in the Phoenix, Pinal, and Tucson AMAs as well as capacity available from other storage facilities outside of the AMAs for which the AWBA holds water storage permits. Additional capacity may be available at individual facilities based on the utilization by individual water storage permit holders
- (4) Water supply available for interstate water banking not to exceed 200,000 acre feet.
- (5) Calculated based on the Supplies Available for Interstate or the Available AWBA Capacity, whichever is less; quantity of water is multiplied by an average 6% cut and loss factor.

SACKS TIERNEY PA LAWYERS

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June 11, 2003

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Arizona Water Banking Authority 500 North Third Street Phoenix, Arizona 85004

Annual Report 2002, Ten Year Plan Re:

The City of Tucson appreciates this opportunity to comment on the draft ten year plan contained in the 2002 Annual Report. We have conferred with Sandy Fabritz regarding the numbers in some of the appendices and are pleased that she will be bringing the numbers up to date.

The ten year plan does not specify the particular storage facilities as which the Authority will store particular amounts of water. As you know, about 80% of the firming water that is stored in the Tucson AMA is to firm the City of Tucson's CAP allocation. Water that is stored in CAVSARP and in Pima Mine Road can be recovered by Tucson when needed. Tucson requests that 80% of the water for CAP firming in the Tucson AMA be stored at CAVSARP and Pima Mine Road. With regard to the storage facilities northwest of Tucson, we would urge the Authority to give early priority to the establishment of recovery agreements so that you can be assured that water stored by the Authority in these facilities will be recoverable when needed.

The Tucson AMA goal for credits to firm M&I CAP allocations in shortage years is 810 KAF, the Phoenix AMA goal is 1.5 MAF. In this ten year plan, the Phoenix AMA reaches its goal; the Tucson AMA will not come close. We propose that the Authority support actions needed for the Tucson AMA to reach its goal. First, we recommend that the recharge credits acquired with withdrawal fees be applied to CAP firming. It does not appear that the revenues from the 4 cent ad valorem tax and withdrawal fees will be sufficient to acquire the full 810 KAF needed. Consequently we propose that after the storage goals for the River cities have been met, 50% of future general fund appropriations be devoted to assisting the Authority in reaching the Tucson AMA firming target.

Arizona Water Banking Authority June 11, 2003 Page 2

As the final ten year plan for the 2002 Annual Report is being completed, we would be pleased to be of assistance in any way we can be.

Sincerely,

SACKS TIERNEY P.A.

Marvin S. Cohen

Attorneys for the City of Tucson

Attachment 2003-1

ARIZONA WATER BANKING AUTHORITY

(FY 2003 - July 2002 thru June 2003)		Actual
FY 2003 ADMINISTRATIVE BUDGET	\$563,312	\$480,455
FY 2003 WATER RECHARGE BUDGET	\$19,009,500	\$20,794,133
TOTAL FY 2003 AUTHORITY BUDGET	\$19,572,812	\$21,274,588
TOTAL EXPECTED REVENUES	\$15,370,000	\$25,426,699
CARRYOVER / (DEFICIT) from PREVIOUS YEARS	\$32,571,395	\$32,571,395
TOTAL REVENUES AVAILABLE	\$47,941,395	\$57,998,094
FY 2003 CARRYOVER / (DEFICIT)	\$28,368,583	\$36,723,506

Attachment 2004-1

ARIZONA WATER BANKING AUTHORITY

(FY 2004 - July 2003 thru June 20043)

FY 2004 CARRYOVER / (DEFICIT)	\$31,821,526
TOTAL REVENUES AVAILABLE	\$53,513,506
CARRYOVER/(DEFICIT) from PREVIOUS YEARS	\$36,723,506
TOTAL EXPECTED REVENUES	\$16,790,000
TOTAL FY 2004 AUTHORITY BUDGET	\$21,691,980
FY 2004 WATER RECHARGE BUDGET	\$19,296,102
ADWR BUDGET SUPPORT ¹	\$1,830,300
FY 2004 ADMINISTRATIVE BUDGET	\$565,578

¹ As a one time line item the AWBA is providing funding support to ADWR to insure water management functions performed by ADWR and beneficial to the AWBA and its partners are not curtailed due to ADWR budget limitations.

ARIZONA WATER BANKING AUTHORITY

FY 2004 ADMINISTRATIVE BUDGET

\$565,578

STAFFING

STAFFING		
	Total FTE	Cost
Department of Water Resources Cost of Services		\$464,558
'		•
Personnel Services	4.5	\$230,553
Water Bank Manager		, 200,000
2 Water Bank Technical Administrators		
Administrative Assistant		
Attorney		
Auoney		
Employee Related Expenditures (at 24.22% of Per	connol Services)	\$55,840
Employee helated Experiationes (at 24.22 % of Feb	soffiler Services)	φυυ,040
Indirect Cost (at 62.21% of Personnel Service & El	DE)	\$178,165
indirect Cost (at 02.21 % of Fersonner Service & Li	nL)	φ1/0,100
Central Arizona Project Cost of Services		\$10,000
Gential Anzona i Toject Gost of Gentices		φ10,000
Personnel Services & ERE		\$10,000
Water System Engineer		Ψ10,000
Customer Service Coordinator		
Hydrologist		
Administrative Support		
Outstand of the co		A474
Subtotal Staffing		\$474,558

OTHER COSTS

Professional & Outside Services	(continuing effort on Indian Issues)	\$60,000
Travel		\$23,950
Instate Travel		\$14,950
Out of State Travel		\$9,000
Other Operating Expenses		\$6,070
Standard per employee	4.5 \$5	500 \$2,250
Miscellaneous		\$3,820
Equipment		\$1,000
		\$1,000
Subtotal Other Costs		\$91,020

Attachment 2004-3

ARIZONA WATER BANKING AUTHORITY

TRAVEL

TRAVEL					
		Meetings	\$/Meeting	Cost	
INSTATE TRAVEL					
Authority Members					
	Attorney	5	\$0	\$0	
	Maureen George	5	\$230	\$1,150	
	Herb Guenther	5	\$0	\$0	
	John Mawhinney	5	\$200	\$1,000	
	George Renner	5	\$0	\$0	
Subtotal			-	00.450	
Authority Staff				\$2,150	
Authority Staff	Manager	5	\$0	\$0	
	Wanagei	4		\$1,600	
			\$400	ψ1,000	
	Technical Administrators	10	\$0	\$0	
		16		\$2,400	
			•	¥=,	
	Admin Assistant	5	\$0	\$0	
	Other Support	2	\$400	\$800	
			-		
Subtotal				\$4,800	
Motor Pool				\$8,000	
Instate Total				\$14,950	
OUT OF STATE TRAVEL					
Authority Members	No out of state	travel is anticipat	ed for Authority Me	mbers	
Authority Staff					
	Manager	4		\$2,000	
	Y	3		\$3,000	
	Technical Administrators	2	•	\$1,000	
Total Out of Chats	Other Support	4	\$7 50	\$3,000	
Total Out of State				\$9,000	
Total Travel				\$23,950	

Attachment 2004-3 continued

OTHER OPERATING COSTS

		Cost
Miscellaneous		
	Postage	\$1,820
	Special copying	\$500
	Other	\$1,000
	Permits	\$500
		\$3,820
Other Operating Cost		\$3,820

EQUIPMENT

	Units	Unit Cost	Cost	
			\$1,000	
Subtotal		_	\$1,000	
Total Equipment			\$1,000	

FY 2004 WATER RECHARGE BUDGET

\$19,296,102

COST ASSUMPTIONS

CAP	(Energy Rate 2 plus \$5.00 towards Fixed O&M)	\$62.00	
Direct Recharge	(Cost for using direct recharge facilities)		
	GRUSP	\$18.31	
	Avra Valley	\$24.70	
	Pima Mine Road	\$13.00	
	Lower Santa Cruz	\$12.90	
	Hieroglyphic Mountains	\$14.33	
	Aqua Fria Recharge Project	\$9.84	
	Clearwater	\$11.71	
Cost Recovery for In-lie	eu Recharge		
	(cost recovery from in-lieu partners)	\$21	

WATER PURCHASES and RECHARGE (July 2003 thru June 2004)

	Amount (acre feet)	Cost / acre foot	Total
CAP Delivery Cost			\$16,474,611
Direct Deliveries	201,500	\$59.85	\$12,059,87
In-Lieu Deliveries	108,995	\$40.50	\$4,414,73
Direct Facility Use Charge			\$2,821,491
GRUSP	49,900	\$18.31	\$913,66
Avra Valley	4,270	\$24.70	\$105,46
Pima Mine Road	28,225	\$13.00	\$367,03
Lower Santa Cruz	29,955	\$12.90	\$386,50
Hieroglyphic Mountains	29,900	\$14.33	\$428,34
Aqua Fria Recharge Project	39,250	\$9.84	\$386,25
Clearwater	20,000	\$11.71	\$234,20
Total FY 2003	310,495		\$19,296,102

REVENUES AVAILABLE for FY 2004 RECHARGE

\$16,790,000

4 cent tax	(Estimated based on 2003 tax year)	\$12,320,000
Maricopa		\$9,780,000
Pinal		\$340,000
Pima		\$2,200,000
Withdrawal Fee	(Estimated for 2002 pumping)	\$4,470,000
Phoenix AMA		\$2,790,000
Pinal AMA		\$1,030,000
Tucson AMA		\$650,000
General Fund Appropr	riation	\$0

Attachment FY2004- suplemental

	ADWR	%	AWBA
Hydrology Surface Water & Recharge Modeling Technical Support Field Services Basic Data GIS	\$2,105,600	32.5	\$683,400
Water Management Phoenix AMA Tucson AMA Pinal AMA Management Support	\$2,012,700	46.9	\$943,000
State-wide Planning C. R. Management Rual Water Studies	\$760,400	26.8	\$203,900
Total	\$4,878,700	37.5	\$1,830,300

Attachment 2005-1

ARIZONA WATER BANKING AUTHORITY

(FY 2005 - July 2004 thru June 2005)

FY 2005 ADMINISTRATIVE BUDGET	\$580,020
FY 2005 WATER RECHARGE BUDGET	\$20,950,000
TOTAL FY 2004 AUTHORITY BUDGET	\$21,530,020
TOTAL EXPECTED REVENUES	\$16,900,000
CARRYOVER / (DEFICIT) from PREVIOUS YEARS	\$31,821,526
TOTAL REVENUES AVAILABLE	\$48,721,526
FY 2005 CARRYOVER / (DEFICIT)	\$27,191,506

PROPOSED SCHEDULE

JULY:

Initial Meeting

- ID Structure for Committee (need for Workgroups???)
- Review Objectives
- Review Current Statutory Authority
- Review Schedule

JULY:

Develop Assumptions for Operation Model

• Identify Firming Volumes

JULY - OCT:

Review Water Supply Availability

- CAP
- o Review Projections for Excess Availability
- Review Projections for Excess Utilization
- Identify Proposal for Utilization of Excess CAP water for this Purpose
- Effluent
 - Review Projections for Excess Availability
 - o Review Projections for Excess Utilization
 - Identify Proposal for Utilization of Excess Effluent water for this Purpose
- Others??
 - GW Transfers
 - Review Potential for Utilization
 - Identify Proposal for Utilization Other Supplies for this Purpose

AUG - OCT:

Review Funding Availability

- Review Current Sources and Projected Utilization
- Identify Other Options for Funding
- Identify Appropriate Sources

SEPT - NOV:

<u>Identify Options for Meeting Requirements</u> (SSRB/GRIC/Others)

- How
 - o Infrastructure
 - Facilities
- Cost
- Statutory Needs

OCT - NOV:

Develop Ranking Criteria to Establish Recommendation(s)

NOV - DEC:

Develop Recommendation(s)