

ARIZONA WATER BANKING AUTHORITY
Wednesday, December 17, 2003

No.	NAME (Please print)	Phone No.
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2	Kerri Morey	
3	JIM PETERSON	520-297-2771
4	Tom Harbour	623-869-2107
5	Dennis Rule	520-791-2666
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7	KEN ALBRIGHT	"
8	Tom Maher	702-862-3702
9	Jim Davenport	702 486-2689
10	mark Myers	520-742-0416
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12	Tom McCann	623-869-2343
13	Alan P. Kleinman	702-293-8081
14	Harry Kuzgancin (MWD)	213 217 6082
15	Dennis Underwood (MWD)	
16	Fuanda Plankton CAA	602-244-2400
17	CINDY SHIMOKUSA	520 770 3800
18	JOHN SCHNEEMAN - ADWR	602-417-2465
19	Tom Carr ADWR	
20	STEVE HARTMAN UICER	775 885-5000
21	Gregg Capps Chandler	480-782-3585
22	Dawn Crockett FWD	520 887-4192
23	Liz Speer SLP	602 236 2277
24	Ruth W. Pitt Scottish	on file

No.	NAME (Please Print)	Phone No.
25	Kathi Knox	926 5480
26	Bria Hendrick	869-2567
27	Marge Halperman	262-5351
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30	Colette Moore	480-644-4364
31	Dennis Underwood	213-217-6528
32	MARVIN COHEN	480-425-2633
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Arizona Water Banking Authority
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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 December 17, 2003 at 9:30 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 16th day of December, 2003

FINAL AGENDA
Arizona Water Banking Authority Commission Meeting

- I. Welcome/Opening Remarks
- II. Approval of Minutes of September 10, 2003 AWBA Meeting
- III. Water Banking Staff Activities
 - Deliveries
 - Update Regarding Indian Farming Committee
 - Ten Year Plan
- IV. Presentation by Southern Nevada Water Authority Regarding Development of Water Resources
- V. Discussion Regarding Issues Identified by AWBA Members
- VI. Discussion and Approval of 2004 Annual Plan of Operation
 - Overview of public comment
 - Approval of 2004 Annual Plan of Operation
- VII. Call to Public

Future Meeting Date:

Wednesday, March 17, 2004

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 Minutes¹

September 10, 2003
Arizona Department of Water Resources



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

All members of the Authority were present. Senator Guenther welcomed attendees and recognized those present from out of state. In attendance from out of state were: Jim Davenport (Colorado River Commission of Nevada), Tom Maher (Southern Nevada Water Authority), Dorothy Palmer (Vidler Water Co.), Harry Ruzgerian (Metropolitan Water District of Southern California), Dale Ensminger (Bureau of Reclamation, Boulder City). Senator Guenther informed the attendees that items discussed in this meeting still had some associated uncertainty due to the outstanding issues regarding the Interim Surplus Guidelines (ISG) and the Quantification Settlement Agreement (QSA).

Approval of Minutes of June 11, 2003 AWBA Meeting

John Mawhinney requested that the minutes be changed with regard to entities present at the meeting. Specifically, he requested that *ex officio* members only be recognized when in attendance. With that change, the Authority approved the minutes from the June 11, 2003 meeting.

Water Banking Staff Activities

Tim Henley reviewed water deliveries and stated that deliveries are approximately as projected. However, he reiterated that the 2003 Annual Plan of Operation included projected delivery of water that could become available to the AWBA. Therefore, as the year goes on, a divergence of actual and projected should not be unanticipated if that water does not become available for AWBA use.

Sandy Fabritz provided an update regarding the Indian Firming Committee. She stated that the committee met for the first time in August and that the meeting was fairly administrative in scope. Meetings will become more technical in nature and it is anticipated that the committee will have recommendations for the Authority in December of 2004. Mr. Mawhinney asked Ms. Fabritz if tribal entities were participating. Ms. Fabritz replied that four tribes were represented at the first meeting and that efforts are being made to keep all the tribal entities informed about the process.

Mr. Henley discussed current funding issues. First, the \$9 million transfer from the AWBA to the general fund has not yet been taken. There should be no major impacts to the 2003 Annual Plan of Operation as a result of this transfer as 4¢ *ad valorem* tax dollars can be utilized in place of the withdrawal fees. However, next year will again be at point in Pinal AMA that the only available funds will be those collected in that year. For the next couple of years, the other two AMA's should have sufficient dollars even absent the withdrawal fees.

Mr. Henley provided the Authority members with a brief review of how the 4¢ *ad valorem* tax dollars are levied and distributed to the AWBA and informed them that the CAWCD voted to retain the tax dollars for OM&R purposes in 2004. The CAWCD then intends to reduce the cost of water to the AWBA. Mr. Henley stated that this should have very little financial impact, however, it could have administrative and operational

¹ Please note that these are not formal minutes but a summary of discussion and action of the meeting. Official minutes are prepared prior to the next Authority meeting and are approved at that meeting.

impacts. This is really only an issue in Pinal County next year because that is the only county wherein new 4¢ tax dollars will be needed; for the other counties existing carryover can be utilized. AWBA staff will need to begin coordinating with CAP staff how this process will work, i.e. how payments will be made, will money be transferred, etc. Maureen George asked if it was known what precipitated this action. George Renner addressed the issue and stated that it was due to concerns on behalf of the CAWCD board in light of the on-going budget crisis that the money could be swept from the AWBA's account by the legislature. The goal of the CAWCD was protection of the money. Chuck Cahoy asked if the money would still be used for M&I firming. Mr. Henley replied that the statutory mandate may not apply since the money wasn't actually transferred to the AWBA but the intention was still to develop credits with 4¢ tax dollars for M&I firming.

Gerry Wildeman reviewed the web updates. It is anticipated that information regarding interstate water banking credits can be added to the AWBA web page in some form in the near future.

Mr. Henley informed the Authority that they will likely be getting ethics seminar information in the near future. Senator Guenther informed the Authority members that there existed the opportunity to take the ethics training remotely. Senator Guenther also took this opportunity to introduce the individuals present and representing the ex officio members. Kathie Knox was representing Representative Jake Flake. Kerri Morey was representing Senator Linda Binder.

Discussion Regarding Letters to SNWA Waiving Three-Year Time Frame for Development of Intentionally Created Unused Apportionment (ICUA) and the Bureau of Reclamation Certifying ICUA

Mr. Henley stated that this has been an on-going agenda item and continues to be one of uncertain future as it is wholly dependent on the outcome of the QSA discussions. Furthermore, Nevada may ultimately not need the ICUA as conservation measures have been introduced and been very successful and the state has received quite a bit of rainfall in the late summer. Or, the amount may be reduced from 10,000 acre-feet to 2,000 or 3,000 acre-feet. For these reasons, this item was not included as an action item at this time. Mr. Henley stated that Nevada is comfortable with action on this item being postponed at the current time. There may be a need for a special meeting in late October or early November to take action on recovering the decreased amount. Nonetheless, undertaking the process to obtain the necessary recovery well permits was beneficial to the AWBA and the CAP. Ms. George questioned whether Nevada had provided an update on their water use status or conservation plan.

Jim Davenport provided commentary regarding Nevada's water use. He stated that Nevada use may be within their 300,000 acre foot allocation, however, they would like the request put into deferral in case the need arises for a couple of thousand acre feet. He informed the Authority that water use has been less than predicted earlier in the year due to the success of the drought plan that was implemented by the pertinent city councils and the late summer rain they've received. There was a question and discussion regarding how the recovery would occur. Gregg Houtz stated that the recovery well permit identified specific wells and the amount of water produced by each. Consequently, that information would be used to determine how much could be recovered and in what time frame. Mr. Renner stated that he has some concerns regarding the relationship between the AWBA and Nevada particularly with changes in population growth estimates and their impact on demand for water. His concern is that new projections are 4 to 5 times higher than projections made when interstate discussions initiated and that Nevada agreed to keep the AWBA informed regarding water use. Mr. Henley stated that there has been no official notification to the AWBA about Nevada water demand projection changes. Mr. Renner stated that he would appreciate seeing updated information because the discussions regarding interstate water banking were based on a set of assumptions and if those assumptions have changed, the Authority needs to be informed of that fact. Mr. Davenport replied that the issue right now is predicting the future demand with any certainty. Senator Guenther requested that an update from Nevada be included on the agenda for the next Authority meeting.

Discussion Regarding the Amended 2003 Annual Plan of Operation

Mr. Henley noted that this agenda item is a corollary to the previous item. If the AWBA creates ICUA in 2003, the 2003 Annual Plan of Operation would require amendment. A draft of the proposed amendment was provided for the Authority to review.

Draft 2004 Annual Plan of Operation

Mr. Henley and Ms. Wildeman provided information regarding the statutory requirement for the Annual Plan of Operation (Plan) and presented a brief review of the current draft of the 2004 Plan. Mr. Henley stated that this year is very similar to last year in that there is much uncertainty surrounding development of the Plan. The AWBA's position is the most uncertain because the AWBA comes last. Mr. Henley stated that it is likely that there may be more than one Plan developed for approval and then the appropriate Plan would be implemented as determined by the changing conditions. One issue contributing to the uncertainty is the request that was made at the last CAWCD board meeting for a supplemental agricultural pool of water. Mr. Renner noted that the request was made of the Board, that it is being deliberated and that it is uncertain what the end result will be with regard to quantity of the pool and what entities will participate in it. Mr. Henley also noted that the QSA and the possible development of ICUA for California are other unknowns that could impact the Plan.

Ms. George asked if staff had evaluated banking water from other sources if the situation arises that there is no CAP water available to the AWBA. Mr. Henley replied that the only other source currently permitted by statute is effluent. Ms. George commented that the AWBA may want to consider legislative changes in this area. Ms. George also stated that she would like to see a discussion regarding recovery included in the Plan, she would like the information regarding firming for on-river communities to remain in the Plan and that it may be beneficial to present the Plan at a public meeting in the on-river area. Mr. Henley replied that staff would work with Ms. George regarding the public meeting and that it could perhaps be done in conjunction with a meeting of the Mohave County Water Authority.

Mr. Henley also informed the Authority that the 10-year plan that should have accompanied the 2002 Annual Report has not yet been completed, again, due to the continuing uncertainty. Mr. Renner suggested that the AWBA communicate to the CAWCD board how uncertainty regarding the supplemental pool is negatively impacting the ability of the AWBA to achieve its goals. Mr. Henley stated that he would work with Larry Dozier to draft such correspondence. Mr. Mawhinney stated that, with regard to the 10-year plan, it was his belief that staff should just prepare it under the existing conditions recognizing that this uncertainty could continue for quite some time.

Interstate Issues

Mr. Henley reviewed the current status of discussions regarding the QSA. He noted that the terms of the deal had changed substantially in the course of recent discussions. October 12 is an important date because it is the end date for the environmental relief being offered by the state. If the deal is not complete by this date, the relief goes away. He also discussed the federal issues regarding the QSA including the 417 process and the various federal agreements that are needed (i.e. NEPA and inadvertent over-run policy). Senator Guenther asked if Harry Ruzgerian had any comments regarding the QSA. Mr. Ruzgerian stated that he did not, however, that things looked optimistic.

Mr. Henley informed the Authority that the AWBA had received two letters requesting development of ICUA in 2004. With regard to Nevada, ICUA may not be needed in 2004 if surpluses under the ISG are reinstated. The request from California is for all of the water stored under the Demonstration program in the early 1990s. This request is more problematic as it is in the neighborhood of 80,000 acre-feet. The opportunities to create 80,000 acre-feet of ICUA in 2004 are currently being examined. Thus far, all of the

options are fairly expensive. Mr. Henley described one option that would not be as expensive and involved the AWBA forbearing some water deliveries for next year. He noted that utilization of such a concept would require inclusion of its elements in the agreements being drafted. Additionally, the details would need to be described and explained in the 2004 Plan. Mr. Cahoy questioned whether the cost for development of ICUA was born by CAWCD. Mr. Henley said that it was. Ms. George noted that this forbearance would require some guarantee of water availability to the AWBA.

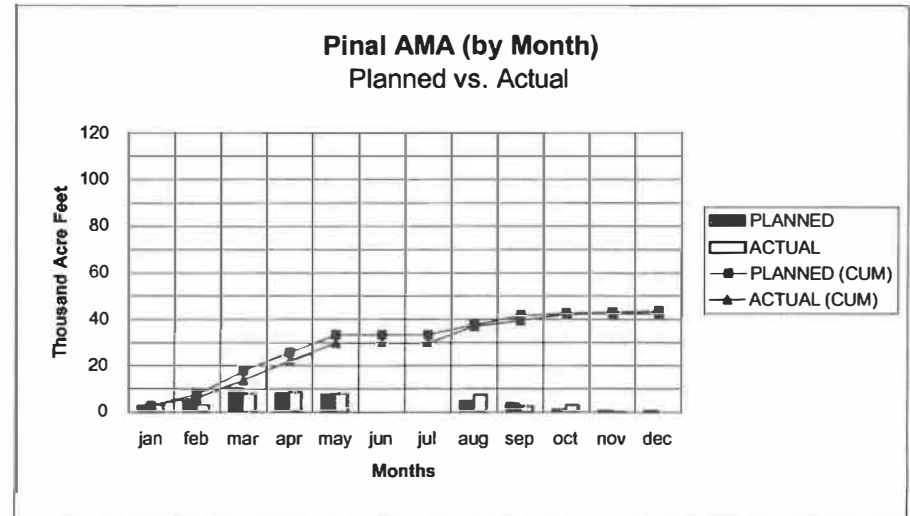
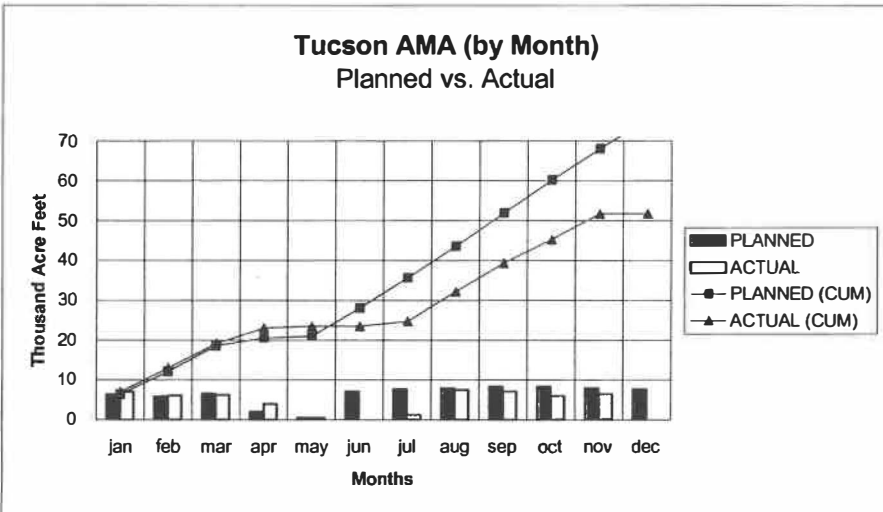
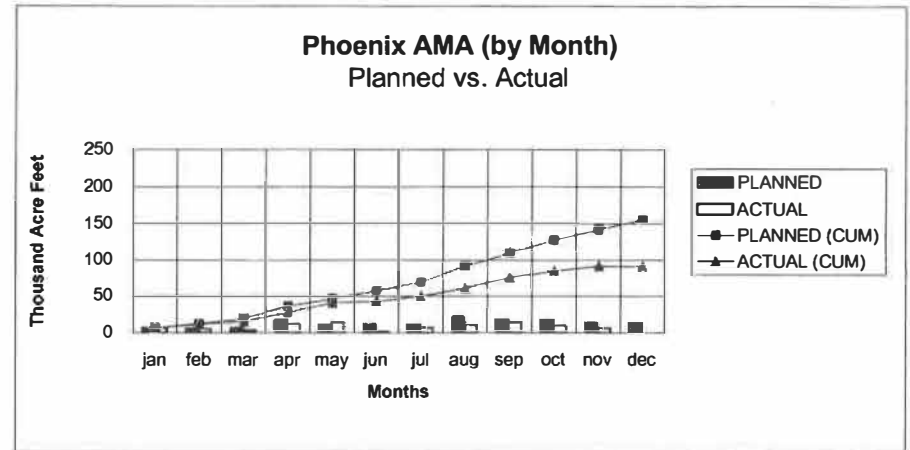
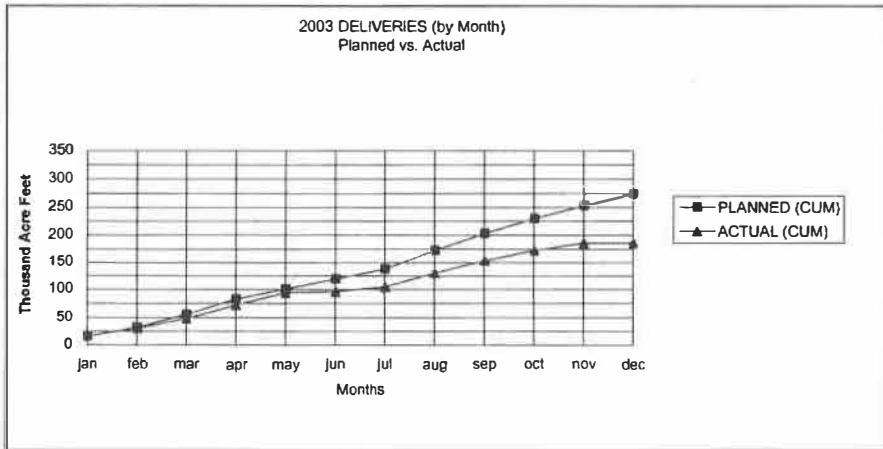
Finally, Mr. Henley noted an \$80 million offer made by Nevada to California in exchange for some considerations regarding water. He concluded by stating that, to the best of his knowledge, the deal had not gone any further.

Call to the Public

There were no questions from the public. The next AWBA meeting is scheduled for Wednesday, December 17, 2003.

The meeting concluded at 11:50 a.m.

2003 Plan of Operation



Actual deliveries updated
Plan of Operation

12-Dec-03
1-Jan-03

	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	total
Phoenix AMA													
GRUSP	0	0	0	188	0	0	1,639	5,659	3,481	3,569	3,535		18,071
	0	0	0	0	0	3,800	3,800	3,800	3,800	3,800	3,800	3,100	25,900
AGUA FRIA	512	0	0	0	1,248	0	2,492	1,442	2,793	14	0		8,501
	1,500	500	500	2,000	2,250	4,250	4,250	4,250	4,000	4,000	4,250	4,250	36,000
CHCID	0	59	0	250	0	60	248	49	188	65	0		919
	50	100	140	100	100	152	125	125	125	100	0	0	1,117
MWD	0	0	0	0	0	0	0	0	2,050	2,550	0		4,600
	0	0	0	0	0	0	0	0	2,050	2,550	0	0	4,600
NMIDD	2,262	1,402	0	0	6,486	0	0	0	3,819	3,449	1,557		18,975
	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	0	0	0	0	0		0
	0	0	0	0	0	0	0	2,091	0	0	0	752	2,843
TID	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
SRP	1,019	1,100	813	1,100	1,100	0	0	1,100	1,100	0	1,100		8,432
	1,100	1,100	1,100	1,100	1,100	0	0	1,100	1,100	1,100	1,100	1,100	11,000
RWCD	0	0	0	7,500	5,000	0	0	0	0	0	0		12,500
	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	0	1,647	2,807	2,267	377	679	460		19,447
	2,000	2,500	2,500	1,500	0	3,000	3,000	3,000	3,000	2,750	2,650	2,500	28,400
Subtotal	6,459	5,101	3,615	12,240	13,834	1,707	7,186	10,517	13,808	10,326	6,652	0	91,445
Total to date	6,459	11,560	15,175	27,415	41,249	42,956	50,142	60,659	74,467	84,793	91,445	91,445	91,445
<i>Projected total to date</i>	<i>6,450</i>	<i>12,450</i>	<i>19,190</i>	<i>36,390</i>	<i>46,340</i>	<i>57,542</i>	<i>68,717</i>	<i>91,083</i>	<i>109,458</i>	<i>127,258</i>	<i>141,558</i>	<i>155,260</i>	<i>155,260</i>
Pinal AMA													
CAIDD	0	0	0	0	0	0	0	5,500	0	0	0		5,500
	0	0	0	0	0	0	0	500	3,000	1,000	500	500	5,500
MSIDD	1,120	1,130	2,320	2,570	2,000	0	0	1,810	0	0	0		10,950
	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	0	0	0	2,437	2,809	117		25,936
	1,700	3,475	8,000	5,300	5,600	0	0	3,000	0	0	0	0	27,075
Subtotal	2,996	2,777	7,877	8,351	7,712	0	0	7,310	2,437	2,809	117	0	42,386
Total to date	2,996	5,773	13,650	22,001	29,713	29,713	29,713	37,023	39,460	42,269	42,386	42,386	42,386
<i>Projected total to date</i>	<i>2,820</i>	<i>7,425</i>	<i>17,745</i>	<i>25,615</i>	<i>33,215</i>	<i>33,215</i>	<i>33,215</i>	<i>37,745</i>	<i>41,525</i>	<i>42,525</i>	<i>43,025</i>	<i>43,525</i>	<i>43,525</i>
Tucson AMA													
Avra Valley	0	0	0	0	0	0	129	658	714	757	705		2,963
	0	0	0	0	0	600	600	600	600	670	600	600	4,270
Clearwater	0	0	0	0	0	0	0	0	0	0	1,210		1,210
	0	0	0	0	0	1,000	1,500	1,500	1,500	1,500	1,500	1,500	10,000
Pima Mine	2,578	2,120	2,212	0	0	0	272	2,022	2,202	2,138	1,523		15,067
	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	3,658	3,977	3,677	0	0	815	3,599	2,858	2,955	2,975		27,860
	3,500	3,500	3,500	1,955	0	2,500	2,500	2,500	2,500	2,500	2,500	2,500	29,955
BKW Farms	694	156	0	0	0	0	0	227	450	0	0		1,527
	200	250	400	0	0	0	0	0	200	100	50	50	1,250
Kai Red Rock	370	45	0	250	500	0	0	959	874	93	1		3,092
	0	0	0	0	500	0	0	250	500	500	250	0	2,000
Subtotal	6,988	5,979	6,189	3,927	500	0	1,216	7,465	7,098	5,943	6,414	0	51,719
Total to date	6,988	12,967	19,156	23,083	23,583	23,583	24,799	32,264	39,362	45,305	51,719	51,719	51,719
<i>Projected total to date</i>	<i>6,300</i>	<i>12,075</i>	<i>18,575</i>	<i>20,530</i>	<i>21,030</i>	<i>28,130</i>	<i>35,730</i>	<i>43,580</i>	<i>51,880</i>	<i>60,150</i>	<i>68,050</i>	<i>75,700</i>	<i>75,700</i>
TOTAL	16,443	13,857	17,681	24,518	22,046	1,707	8,402	25,292	23,343	19,078	13,183	0	185,550
Total to date	16,443	30,300	47,981	72,499	94,545	96,252	104,654	129,946	153,289	172,367	185,550	185,550	371,100
<i>Projected total to date</i>	<i>15,570</i>	<i>31,950</i>	<i>55,510</i>	<i>82,535</i>	<i>100,585</i>	<i>118,887</i>	<i>137,662</i>	<i>172,408</i>	<i>202,863</i>	<i>229,933</i>	<i>252,633</i>	<i>274,485</i>	<i>274,485</i>

From: Maureen George <GeorgeM@ci.lake-havasu-city.az.us>
To: 'Tim Henley' <tjhenley@adwr.state.az.us>
Date: 11/13/03 11:15AM
Subject: December Agenda

Tim, I agree with the need to address the issues raised by John and have no problem with meeting at 9:30. I just got back in the office but I have 2 issues I would also like to see addressed. One is the creation of an account for MCWA and subaccount for various MCWA members to facilitate the transfer and recovery of the credits LHC is purchasing from CAWCD. Two is an agreement between the Bank and MWCA re the credits set aside for use in Mohave and recovery of same. Thanks for your assistance.

Maureen

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CC: 'Tom Griffin' <tpginc@ctaz.com>, 'Mike Brophy' <mbrophy@ryleycarlock.com>

John T Mawhinney
PO Box 35536
Tucson, AZ. 85740
520-742-2674

5 November 2003

Authority Members and Staff

I have a number of issues concerning the Banking Authority and a couple of recommendations that I thought I would share with you. While not complete, it does represent, for me, a source of unease not so much as with what is going on, as ignorance on my part with our activities. Our meeting schedule and format make practical discussion difficult so I thought I'd just fire off this memo to see if any of you share my concerns. If so, we can discuss and resolve them, and if not, perhaps I need to work harder to get informed on these issues. I'll ask Tim to disseminate this from the Authority along with some guidance regarding Open Meeting law restrictions about our communications. It may be that we can only discuss these type of things in an Open Meeting, in which case, I'd like to get them scheduled.

RECOVERY

I think we need an entire meeting on Recovery issues. We need to "process" all of the issues that emerged in the recent recovery discussions and attempt. We should insure the uncontested and unrestricted right to recover our credits either exists or is obtained.

BUDGET

The information that we receive regarding the income and expenditures of the Authority's funds is not as complete and useful as I would like. I believe we should start a monthly income/expense process that covers all of the authority's financial activities.

AUTHORITY/DWR FUNDING

In retrospect, I'm leaning to believe that we made a mistake when we transferred money to the Department to make up state budget shortfalls. Not that it was a mistake to underwrite some activities necessary to the Bank's functioning, but the method in which we accomplished it. We should instead, I believe, have had the Department come to us with specific requests for assistance in specific activities. While not as convenient, for planning purposes, for the Department, it would have given the Bank more control and justification for the financial assistance. Included in the monthly income/expense process mentioned above, I'd like to see the Department provide information on activities funded so far by the Bank and anticipated expenditures using this transfer.

WATER MANAGEMENT OBJECTIVES

While the Authority has done a good job in accumulating credits, some 1.7 maf, to date, I don't think any of them have fallen in the category of "fulfilling water management objectives of this state". I'd like to initiate a process to start emphasizing this area.

NEVADA STORAGE AND RECOVERY COSTS

I understand there was a recommendation made by the Authority Study Commission that proposed we insure that the cost to Inter State customers be no less than charged the average Arizona user. It appears that currently, our agreement with Nevada doesn't conform to that recommendation. If this is true, shouldn't we evaluate future activities with this in mind?

M & I FIRING

It seems to me that this should be one of the Authority's major priorities. Having established firming goals, how do we reach them? How do we accumulate those credits, who owns the credits, how is the determination made to "use" them in case of disruption or shortage, how do we account for the credits. Where are they stored? Can we use Withdrawal Fee monies to firm M& I supplies? Should we be able to?

MISCELLANEOUS PROJECTS

Are there opportunities for the Authority to obtaining more credits from the following projects, and if so, are we pursuing them. Increased pumping of Yuma's waterlogged areas. Operation of the Desalinization Plant. Effluent.

What opportunities exist for the Authority to assist in rural Arizona? Are we pursuing any? If not, why not?

LEGISLATIVE ISSUES

Do we have a process to review the Authorities enabling legislation and process recommended changes?

MEETING SCHEDULE

I think that until we resolve the issues surrounding Recovery; fulfill our "water management objectives" get our financial affairs in better order etc. that a quarterly meeting schedule isn't sufficient to our needs. I'd propose that we plan monthly meetings starting the first quarter of next year to see if it helps. I'd also like to encourage the "usual suspects" that attend each of our meetings to participate more. We've got a lot of information and history available that currently sits on its hands. We should try to fix that.

Department of Water Resources
Water Bank Funding Assistance

At the June 11, 2003, the AWBA approved a budget for fiscal year 2004 that included a \$1.8 million transfer to the Arizona Department of Water Resources (ADWR). This transfer was requested by the Director due to ADWR's budget shortfall and was predicated on the fact that ADWR provides critical services to the AWBA and the AWBA's constituency. At the time of approval it was noted that the transfer would be a one-time event.

ADWR Entity and Funded Activities	FY04 Budgeted Amount (\$)	Amount Expended through October 31, 2003 (\$)
<p>Hydrology - Surface Water and Recharge</p> <ul style="list-style-type: none"> ▶ Technical review of all recharge facility permit applications and establishment of project monitoring requirements. This includes review of groundwater models associated with the permits, determination of hydrologic feasibility and establishment of alert levels. ▶ Ongoing review of annual reports to insure compliance with permit conditions 	180,022	57,979
<p>Hydrology - Modeling</p> <ul style="list-style-type: none"> ▶ Development and maintenance of groundwater models in Phoenix, Tucson and Pinal AMA ▶ Participation with various entities statewide regarding use of the Department's groundwater models 	103,789	33,603
<p>Hydrology - Technical Support and Field Services</p> <ul style="list-style-type: none"> ▶ Collection of groundwater data with emphasis on the Pinal and Phoenix AMAs. This data is often the starting point for further hydrologic studies. In the spring, will begin intensive data collection in the Hassayampa sub-basin to support subsidence monitoring and examine potential impact to the CAP ▶ Provide technical review of well siting applications ▶ Provide modeling oversight ▶ Implementation of a new monitoring system to improve groundwater budgets 	380,476	125,685

<p>in the Phoenix AMA. This monitoring includes new stream gages, water level transducers in wells, crop and subsidence surveys and real time data reporting</p> <ul style="list-style-type: none"> ▶ Provide technical support for water management planning efforts such as the East Valley Water Forum and the Hassayampa sub-basin modeling effort ▶ Provides GIS support to all sections of ADWR in the form of creation of maps and data sets and maintenance of GIS databases ▶ Supports AWBA and outside entity GIS data and information requests. 		
<p>Phoenix AMA</p> <ul style="list-style-type: none"> ▶ Receive, review, process all new and modified GSF facility and water storage permit applications and plans of operation associated with GSF in the AMA ▶ Review of GSF facility and water storage annual reports, determination that operations were in compliance and calculation of long-term storage credit accruals. This includes review of AWBA annual reports associated with the GSFs and calculation of long-term storage credit accruals. ▶ Maintenance and update of AWBA long-term storage sub-accounts, including interstate subaccounts ▶ Receive, review, process all new and modified USF facility and water storage permit applications and plans of operation associated with USF in the AMA ▶ Review of USF facility and water storage annual reports, determination that operations were in compliance and calculation of long-term storage credit accruals. This includes review of AWBA annual reports associated with USFs and calculation of long-term storage credit accruals. ▶ Review/comment on AWBA Annual Plan of Operation and Annual Report ▶ Attend AWBA meetings and provide AMA input on AWBA activities ▶ Review and comment on AWBA proposed policies and procedures ▶ Respond to AWBA data and information requests ▶ Review and process new and modified recovery well applications ▶ Participation with various entities statewide pertaining to identification of water management issues and opportunities, water conservation and augmentation, recharge facility siting, water supply and demand, and recovery opportunities ▶ Developed new policy for participation in GSF program as a result of the new CAP agricultural pool policy 	488,088	166,504
<p>Tucson AMA</p> <ul style="list-style-type: none"> ▶ Receive, review, process all new and modified GSF facility and water storage permit applications and plans of operation associated with GSF in the AMA ▶ Review of GSF facility and water storage annual reports, determination that 	138,755	47,362

<p>operations were in compliance and calculation of long-term storage credit accruals. This includes review of AWBA annual reports associated with the GSFs and calculation of long-term storage credit accruals.</p> <ul style="list-style-type: none"> ▶ Maintenance and update of AWBA long-term storage sub-accounts ▶ Receive, review, process all new and modified USF facility and water storage permit applications and plans of operation associated with USF in the AMA ▶ Review of USF facility and water storage annual reports, determination that operations were in compliance and calculation of long-term storage credit accruals. This includes review of AWBA annual reports associated with USFs and calculation of long-term storage credit accruals. ▶ Review/comment on AWBA Annual Plan of Operation and Annual Report ▶ Attend AWBA meetings and provide AMA input on AWBA activities ▶ Review and comment on AWBA proposed policies and procedures ▶ Respond to AWBA data and information requests ▶ Review and process new and modified recovery well applications ▶ Participation with various entities statewide pertaining to identification of water management issues and opportunities, water conservation and augmentation, recharge facility siting, water supply and demand, and recovery opportunities ▶ Developed new policy for participation in GSF program as a result of the new CAP agricultural pool policy 		
<p>Pinal AMA</p> <ul style="list-style-type: none"> ▶ Receive, review, process all new and modified GSF facility and water storage permit applications and plans of operation associated with GSF in the AMA ▶ Review of GSF facility and water storage annual reports, determination that operations were in compliance and calculation of long-term storage credit accruals. This includes review of AWBA annual reports associated with the GSFs and calculation of long-term storage credit accruals. ▶ Maintenance and update of AWBA long-term storage sub-accounts, including interstate subaccounts ▶ Receive, review, process all new and modified USF facility and water storage permit applications and plans of operation associated with USF in the AMA ▶ Review of USF facility and water storage annual reports, determination that operations were in compliance and calculation of long-term storage credit accruals. This includes review of AWBA annual reports associated with USFs and calculation of long-term storage credit accruals. ▶ Review/comment on AWBA Annual Plan of Operation and Annual Report ▶ Attend AWBA meetings and provide AMA input on AWBA activities ▶ Review and comment on AWBA proposed policies and procedures 	185,727	62,430

<ul style="list-style-type: none"> ▶ Respond to AWBA data and information requests ▶ Review and process new and modified recovery well applications ▶ Participation with various entities statewide pertaining to identification of water management issues and opportunities, water conservation and augmentation, recharge facility siting, water supply and demand, and recovery opportunities <ul style="list-style-type: none"> ▶ Developed new policy for participation in GSF program as a result of the new CAP agricultural pool policy 		
<p>Water Management Support Section</p> <ul style="list-style-type: none"> ▶ Receive, review and process ownership transfers for surface water and groundwater rights ▶ Maintain public record database and provide customer service and information to the public regarding all water right permits and claims (groundwater, surface water and Adjudication) <ul style="list-style-type: none"> ▶ Receive and process all application and conveyance fees and fees submitted with annual reports ▶ Input data from annual reports and well records into database ▶ Respond to public and departmental requests for information ▶ Maintenance of web site the provides public access to download information or purchase documents, maps, books and merchandise ▶ Storage and archiving departmental records and providing public access as requested ▶ Respond to AWBA data and information requests 	194,173	66,494
<p>Colorado River Management</p> <ul style="list-style-type: none"> ▶ Provide CRSSEZ modeling support and information to the AWBA as requested ▶ Monitor Arizona's Colorado River water usage and provide information to CAP and ADWR regarding water availability <ul style="list-style-type: none"> ▶ Coordinate and consult with the USBR and Colorado River water users with regard to water deliveries ▶ Represent ADWR and the AWBA at various Colorado River water user meetings ▶ Attend AWBA meetings and provide data and information regarding all aspects of Colorado River 	176,725	60,023
<p>Rural Water Studies</p> <ul style="list-style-type: none"> ▶ Respond to AWBA data and information requests and attend AWBA meetings 	31,947	11,055

Arizona Department of Water Resources
Water Banking Fund Analysis
FY04 Fund Activity
For the month ending 11/30/03

Description	2110 General	2111 Phx AMA	2112 Tucson AMA	2113 Pinal AMA	2114 Maricopa Cty	2115 Pima Cty	2116 Pinal Cty	2118 Nevada	2121 Admin	Total
Beginning Balance 7/01/03	8,266.25	7,219,285.30	1,424,766.37	1,041,759.66	20,262,177.75	4,223,057.49	154,215.00	3,752,443.97	2,416,619.73	40,502,591.52
Revenues:										
4200 Intergovernmental Rev	-	-	-	-	-	-	-	-	-	-
4270 Permits	-	-	-	-	-	-	-	-	-	-
4300 Sales & Svc Chrgs	-	19,800.83	5,019.31	5,868.56	-	-	-	-	-	30,688.70
4400 License & Permit Fees	-	-	-	-	1,972,171.83	333,258.93	36,164.52	-	-	2,341,595.28
4500 Fines & Penalties	-	-	-	-	-	-	-	-	-	-
4600 Other Rev	(7.26)	(7,403.71)	(1,784.25)	(583.87)	(17,933.70)	(3,638.42)	(67.93)	396,993.81	33,995.33	399,570.00
4631 Interest Income	-	-	-	-	-	-	-	-	237,541.93	237,541.93
Total Revenues	(7.26)	12,397.12	3,235.06	5,284.69	1,954,238.13	329,620.51	36,096.59	396,993.81	271,537.26	3,009,395.91
Transfers In:										
Total Available:	8,258.99	7,231,682.42	1,428,001.43	1,047,044.35	22,216,415.88	4,552,678.00	190,311.59	4,149,437.78	2,688,156.99	43,511,987.43
Expenditures:										
6000 Personal Services	-	-	-	-	-	-	-	-	715,998.57	715,998.57
6100 ERE	-	-	-	-	-	-	-	-	191,473.78	191,473.78
6200 Prof & Outside Svcs	-	634,324.52	1,081,669.90	879,841.20	(1,962,783.93)	1,067,591.36	124,757.55	4,137,641.00	6,337.50	5,969,379.10
6500 Travel - In-State	-	-	-	-	-	-	-	-	3,455.78	3,455.78
6600 Travel - Out-Of-State	-	-	-	-	-	-	-	-	5,210.16	5,210.16
6800 Aid	-	-	-	-	-	-	-	-	-	-
7000 Other Operating Expenditures	-	-	-	-	-	-	-	-	1,533.50	1,533.50
8400 Capital Equipment	-	-	-	-	-	-	-	-	-	-
8500 Non-Capital Equipment	-	-	-	-	-	-	-	-	-	-
9000 Indirect	-	-	-	-	-	-	-	-	88,250.91	88,250.91
Total Expenditures	-	634,324.52	1,081,669.90	879,841.20	(1,962,783.93)	1,067,591.36	124,757.55	4,137,641.00	1,012,260.20	6,975,301.80
Transfers Out:										
Fund Balance	8,258.99	6,597,357.90	346,331.53	167,203.15	24,179,199.81	3,485,086.64	65,554.04	11,796.78	1,675,896.79	36,536,685.63

Arizona Department of Water Resources
Water Banking Fund Analysis
Inception to Date
For the month ending 11/30/03

Description	2110	2111	2112	2113	2114	2115	2116	2118	2121	Total
	General	Phx AMA	Tucson AMA	Pinal AMA	Maricopa Cty	Pima Cty	Pinal Cty	Nevada	Admin	
Beginning Balance 01/01/96										
Revenues:										
4200-4400 Licnses/Prmt Fees	-	15,232,150.67	3,965,279.60	6,516,530.48	53,858,067.08	11,188,188.41	1,943,664.29	-	-	92,703,880.53
4600/4700 Other Revenue	27,539.29	(233.48)	(328.37)	(541.03)	-	-	-	8,746,945.00	6,099,228.80	14,872,610.21
Total Revenues	27,539.29	15,231,917.19	3,964,951.23	6,515,989.45	53,858,067.08	11,188,188.41	1,943,664.29	8,746,945.00	6,099,228.80	107,576,490.74
Transfers In:	11,081,584.95	-	-	-	797,827.22	300,841.45	-	-	34,685.28	12,214,938.90
Total Available:	11,109,124.24	15,231,917.19	3,964,951.23	6,515,989.45	54,655,894.30	11,489,029.86	1,943,664.29	8,746,945.00	6,133,914.08	119,791,429.64
Expenditures:										
6000 Personal Services	-	-	-	-	-	-	-	-	1,966,085.40	1,966,085.40
6100 ERE	-	-	-	-	-	-	-	-	467,510.64	467,510.64
6200 Prof & Outside Services	11,100,865.25	8,634,559.29	3,618,619.70	6,348,786.30	30,448,740.98	7,997,211.45	1,878,110.25	8,712,148.22	236,511.44	78,975,552.88
6500 Travel - In-State	-	-	-	-	-	-	-	-	74,391.79	74,391.79
6600 Travel - Out-Of-State	-	-	-	-	-	-	-	-	22,360.90	22,360.90
7000 Other Op. Expenditures	-	-	-	-	-	-	-	-	55,403.11	55,403.11
8500 Non-Capital Equipment	-	-	-	-	-	-	-	-	9,881.01	9,881.01
9000 Indirect	-	-	-	-	-	-	-	23,000.00	544,288.05	567,288.05
Total Expenditures	11,100,865.25	8,634,559.29	3,618,619.70	6,348,786.30	30,448,740.98	7,997,211.45	1,878,110.25	8,735,148.22	3,376,432.34	82,138,473.78
Transfers Out:	-	-	-	-	27,953.51	6,731.77	-	-	1,081,584.95	1,116,270.23
Fund Balance	8,258.99	6,597,357.90	346,331.53	167,203.15	24,179,199.81	3,485,086.64	65,554.04	11,796.78	1,675,896.79	36,536,685.63

Arizona Department of Water Resources
Water Banking Fund Analysis
Calendar Year 2003

For the month ending 11/30/03

Description	2110 General	2111 Phx AMA	2112 Tucson AMA	2113 Pinal AMA	2114 Maricopa Cty	2115 Pima Cty	2116 Pinal Cty	2118 Nevada	2121 Admin	Total
Beginning Balance 01/01/03	8,258.99	9,276,062.66	2,855,060.26	379,661.98	18,218,009.11	3,679,593.34	129,814.18	425,492.78	358,563.62	35,330,516.92
Revenues:										
4200 to 4400 Lcnss/Permit Fee:	-	2,783,449.34	610,909.70	1,280,692.94	5,106,602.14	1,229,084.39	195,284.48	-	-	11,206,022.99
4600/4700 Other Revenue	-	(351,291.39)	(98,511.24)	(33,117.27)	(366,380.33)	(147,597.35)	(3,357.68)	3,723,945.00	1,549,369.69	4,273,059.43
Total Revenues	-	2,432,157.95	512,398.46	1,247,575.67	4,740,221.81	1,081,487.04	191,926.80	3,723,945.00	1,549,369.69	15,479,082.42
Transfers In:	-	(242,860.39)	(67,881.09)	(81,163.10)	(459,475.87)	(177,232.88)	(6,671.84)	-	-	(1,035,285.17)
Total Available:	8,258.99	11,465,360.22	3,299,577.63	1,546,074.55	22,498,755.05	4,583,847.50	315,069.14	4,149,437.78	1,907,933.31	49,774,314.17
Expenditures:										
6000 Personal Services	-	-	-	-	-	-	-	-	832,658.38	832,658.38
6100 ERE	-	-	-	-	-	-	-	-	220,472.31	220,472.31
6200 Prof And Outside Service	-	4,868,002.32	2,953,246.10	1,378,871.40	(1,680,444.76)	1,098,760.86	249,515.10	4,137,641.00	12,697.74	13,018,289.76
6500 Travel - In-State	-	-	-	-	-	-	-	-	9,131.98	9,131.98
6600 Travel - Out-Of-State	-	-	-	-	-	-	-	-	7,311.92	7,311.92
7000 Other Op Expenditures	-	-	-	-	-	-	-	-	3,201.81	3,201.81
8500 Non-Capital Equipment	-	-	-	-	-	-	-	-	3,188.47	3,188.47
9000 Indirect	-	-	-	-	-	-	-	-	178,659.08	178,659.08
Total Expenditures	-	4,868,002.32	2,953,246.10	1,378,871.40	(1,680,444.76)	1,098,760.86	249,515.10	4,137,641.00	1,267,321.69	14,272,913.71
Transfers Out:									(1,035,285.17)	(1,035,285.17)
Fund Balance	8,258.99	6,597,357.90	346,331.53	167,203.15	24,179,199.81	3,485,086.64	65,554.04	11,796.78	1,675,896.79	36,536,685.63

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ARIZONA WATER BANKING AUTHORITY
ANNUAL PLAN OF OPERATION
2004



Herbert R. Guenther, Chairman

December 2003

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INTRODUCTION

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

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

The AWBA is required by statute to approve an annual Plan of Operation (Plan) by January 1 of each year. Prior to approval of the final Plan, the AWBA is required to solicit public comment. This is achieved by presenting a draft of the Plan to the Groundwater Users Advisory Councils (GUAC) for the Phoenix, Pinal and Tucson Active Management Areas (AMA) and to the county board of supervisors for counties outside of the AMA's if water storage is proposed there within the Plan. Presentation of the draft Plan must be made at publicly noticed open meetings at which members of the public are permitted to provide comment. The AWBA also accepts public comment in writing up to the time the final draft Plan is presented for approval.

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

2003 PLAN OF OPERATION

In 2003, the AWBA's seventh full year of operation, the AWBA recharged more than 209,000 acre feet of Colorado River water and Arizona's total use of Colorado River water is forecast to be 2.787 million acre feet by the Bureau of Reclamation data dated

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December 9, 2003. However, discussions with the CAP have indicated that they will adjust pumping to bring Arizona's use to 2.8 million acre feet. The AWBA has played a significant role in bringing Arizona to the second year of full utilization of the normal year entitlement (see Figure 1).

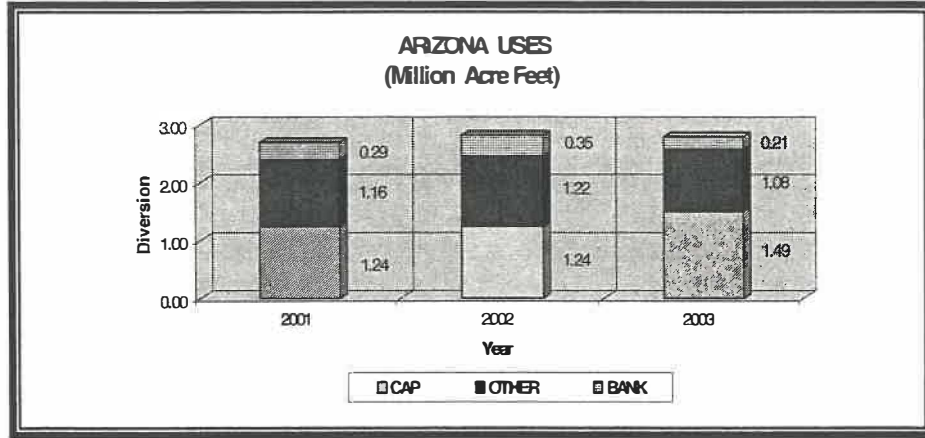


Figure 1

The Bureau of Reclamation forecasts total use of Colorado River water in the Lower Basin to be approximately 7.467 million acre feet in 2003 (see Figure 2). The use of less water than the 7.5 million acre feet provided in the decree in *Arizona v. California* is a result of California and Nevada utilizing less than their full allocations.

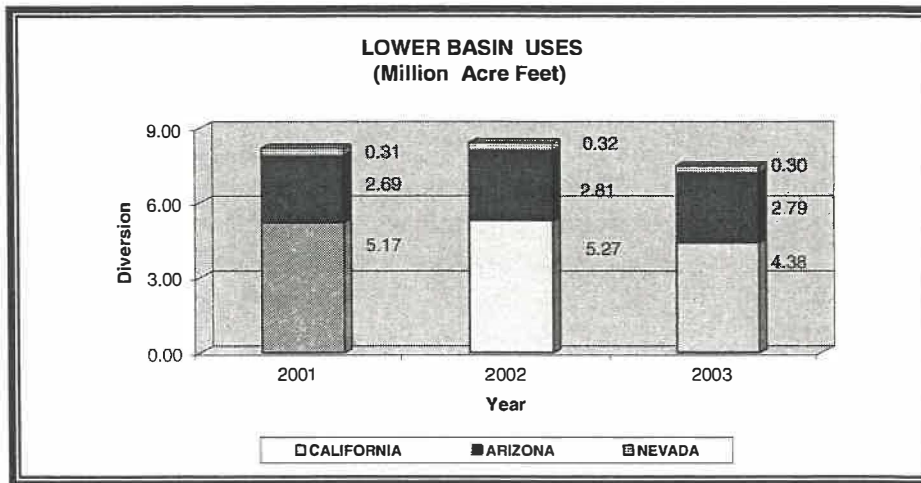


Figure 2

The AWBA recharged water at both USFs and GSFs in 2003. Table 1 lists the AWBA's recharge partners for 2003, the amount of water that can be stored under each AWBA water storage permit, and the amount of water delivered to the facility by the AWBA in 2003. Table 1 values are based on actual deliveries through October with November

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and December's deliveries estimated. The amount of water delivered to a facility is always greater than the amount of long-term storage credits earned by the AWBA because credits are computed by subtracting approximately 3-5% for losses and 5% for a "cut to the aquifer" from the total annual deliveries. Final figures for credits earned generally become available in the middle of the following year after review of the annual reports filed with the ADWR and are reported in the AWBA's Annual Report.

Table 1

AMA	Facility	Type	Permit Capacity	Amount Delivered
Phoenix	Agua Fria (CAP)	USF	100,000 AF	8,594 AF
	GRUSP	USF	200,000 AF	21,536 AF
	Hieroglyphic Mtn. (CAP)	USF	35,000 AF	21,487 AF
	Chandler Hts Citrus ID	GSF	3,000 AF	919 AF
	Maricopa Water District	GSF	18,000 AF	4,600 AF
	New Magma IDD	GSF	54,000 AF	21,918 AF
	Queen Creek ID	GSF	28,000 AF	1,000 AF
	Roosevelt WCD	GSF	100,000 AF	12,500 AF
	SRP	GSF	200,000 AF	9,532 AF
Pinal	CAIDD	GSF	110,000 AF	5,500 AF
	Hohokam ID	GSF	55,000 AF	27,075 AF
	MSIDD	GSF	120,000 AF	10,950 AF
Tucson	Avra Valley (CAP)	USF	11,000 AF	3,758 AF
	CAVSARP	USF	60,000 AF	6,000 AF
	Lower Santa Cruz (CAP)	USF	30,000 AF	31,885 AF
	Pima Mine Road (CAP)	USF	30,000 AF	17,444 AF
	B.K. Wong Farms	GSF	16,615 AF	1,627 AF
	Kai-Red Rock	GSF	11,231 AF	3,091 AF
Total			1,181,846 AF	209,416 AF

While the Plan originally had projected about 60% of the storage at USFs, the actual storage was closer to 53% at USFs and 47% at GSFs. Nonetheless, this was the first year that storage at USFs exceeded storage at GSFs. This was due, in part, to lack of funds limiting the amount of water that could be stored in the Pinal GSFs. However, it is a trend that is expected to continue in the future as more USF capacity is developed and becomes available to the AWBA. Figure 3 shows the acre foot break down between GSFs and USFs for 2003 and a comparison between 2003 and previous years.

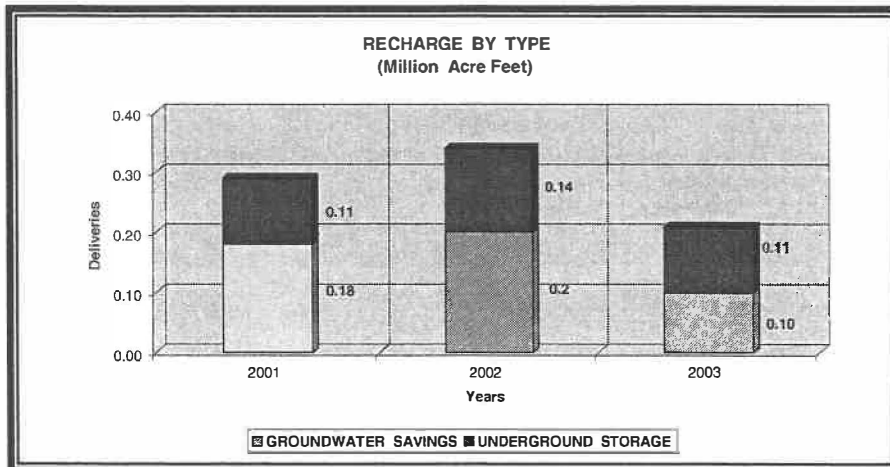


Figure 3

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2004 PLAN OF OPERATION

When developing a Plan of Operation, the AWBA evaluates four critical factors: (1) the amount of unused water available to the AWBA for delivery; (2) the CAP capacity available to the AWBA for the delivery of unused water; (3) the funds available and the costs required to deliver the unused water; and (4) the capacity available for use by the AWBA at the various recharge facilities

I. Water Availability

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

The Bureau of Reclamation published the final draft Annual Operating Plan (AOP) for water year 2004 on November 25, 2003. The 2004 AOP stated that the Partial Domestic Surplus condition is the criterion governing operation of Lake Mead. There continues to be discussion regarding how surpluses will be distributed among the Lower Basin states. Pending the outcome of those discussions, Arizona may have available for use a portion of the surplus. This Plan was developed using only the full 2.8 million acre foot allocation, however, the CAP has indicated that they will be able to divert any additional water that may become available to Arizona. If that water is not utilized by a higher priority user, it could become available for use by the AWBA. It is not anticipated that the quantity would be sufficient to warrant an amendment of the Plan but would be stored pursuant to the existing Plan.

Based on projections dated November 13, 2003, Arizona's on-river use is forecast to be 1.204 million acre feet, leaving 1.60 million acre feet available for diversion by CAP. It should also be noted that because CAP could bear the burden for inadvertent overruns by Arizona, it is possible that their Colorado River diversions may be decreased towards the end of the year if it appears Arizona will exceed its allocation. Conversely, there exists the possibility of increased CAP diversions if on-river uses are less than expected. Nonetheless, the amount of water available to be diverted by the CAP within Arizona's 2.8 million acre foot allocation was a limiting factor in this Plan.

With regard to availability of CAP water, the AWBA purchases water from the category that is termed excess water. Excess water is generally recognized to be all water available for delivery through the CAP, regardless of Secretarial declaration of condition, in excess of the quantities scheduled under long-term contracts and subcontracts. The availability of excess water is determined on an annual basis. Pursuant to current CAP policy, the AWBA has available to it any water not requested by another entity within Arizona and the AWBA shares an equal priority for water for municipal and industrial firming with the Central Arizona Groundwater Replenishment District. For a number of reasons, the amount of CAP water available to the AWBA was a limiting factor in this Plan. First, because the AWBA can only utilize water not requested by another higher

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priority user, the on-going drought has resulted in a decreased amount of water available to the AWBA as others increase their use of CAP water. Additionally, changes in CAP policies that effect the sizes of the various pools can also impact the AWBA. Second, pursuant to customer requests, the CAP is currently developing a draft proposal to allow CAP customers to purchase additional water to meet unforeseen needs. If such a proposal is adopted and subcontractors experience emergencies, there could be less water available to the AWBA than is projected in this Plan. If this occurs, the priority for AWBA deliveries will continue to be deliveries to the GSFs.

With a 1.60 million acre foot diversion, the CAP 2004 Operating Plan accommodates the delivery of approximately 1.646 million acre feet of water. CAP's plan delivers approximately 1.34 million acre feet of water to higher priority users leaving 307,000 acre feet available to the AWBA.

II. CAP System Capacity

Under normal operating conditions during a normal water supply year, CAP diverts approximately 1.6 million acre feet. However, CAP staff believe that 1.8 million acre feet can be safely moved through the system. Nonetheless, there are areas within the system that can become bottlenecks depending on the magnitude of downstream deliveries. In 2004, the CAP identified a bottleneck at the New River siphon in June and July due to the high downstream demand. This bottleneck essentially eliminated AWBA deliveries downstream of the siphon in those two months. Additionally, maintenance activities can also impact water deliveries. The CAP 2004 Operating Plan has a planned maintenance outage of the west canal from October 4 through October 31, 2004. As a result of this outage, there is no storage at the Hieroglyphic Mountains Recharge Project in September and October. Deliveries will be made to the Agua Fria Recharge Project during this time period by backfeeding to the project from Waddell Dam. This factor was somewhat limiting in developing this Plan.

III. Available Funds

In 2004, the AWBA faces a unique situation with regard to available funds. First, due to the legislative sweep of \$9 million from the AWBA which was identified as coming from the groundwater withdrawal fee accounts, the AWBA will only have available for use withdrawal fee revenues collected in March of 2004. This is because the transfer eliminated all carryover in the withdrawal fee accounts. Second, as in 2003, the availability of funds limited storage in Pinal County. This was, again, the result of the unavailability of a state general fund appropriation. It should also be noted that the CAWCD Board resolved to retain the county *ad valorem* property tax in 2004 and not transfer it to the AWBA Fund. The retention of the tax revenues will not directly impact water deliveries in 2004, however, it necessitates a shift in the administrative activities associated with payment for water deliveries in Pinal County. The property tax revenues retained by CAP must be used to offset costs of water delivered in Pinal county because there is no carryover in the Pinal county *ad valorem* account.

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The total amount of revenue available in 2004 is \$44.8 million. This amount includes (1) carryover from previous years, as applicable; (2) transfer of \$9 million from AWBA withdrawal fee accounts to the state treasurer; (3) withdrawal fees projected for March of 2004; and (4) *ad valorem* revenues projected for collection in both November of 2003 and November of 2004. Of that amount, \$36.5 million is available in Maricopa County, and approximately \$6.1 million and \$2.1 million are available in Pima and Pinal County, respectively.

The cost of water to the AWBA increased significantly in 2004, from \$54 an acre foot to \$70 an acre foot. In response to this increase, the AWBA increased the cost share payment for delivery to GSFs from \$21 an acre foot to \$28 an acre foot. At current water delivery costs, facility costs and GSF cost share contributions, the \$36.5 million and \$6.1 million are adequate to fund the Plan in Maricopa and Pima Counties, respectively. As previously stated, the availability of funds limited storage in Pinal County in 2004. For more specific information about the cost of the Plan, please refer to the pricing section.

The AWBA is statutorily mandated to reserve long-term storage credits accrued with general fund appropriation revenues for the benefit of M&I users of Colorado River water outside the CAP service area. By policy, the AWBA identified 420,000 acre feet as the number of credits needed for this on-river firming. In 2002, the AWBA passed a resolution identifying on-river firming as the highest priority of use of credits developed with the general fund appropriation. In 2004, there are no general fund revenues available to the AWBA. The absence of a general fund appropriation means that no on-river firming credits will be developed in 2004. To date, more than 395,000 acre feet of credits have been developed using general fund appropriation revenues.

IV. Available Storage Facility Capacity

AWBA staff conferred with facility operators to discuss their delivery schedules and their continued interest in participating with the AWBA. These discussions confirmed that there was significant interest in partnering with the AWBA and there was substantial permitted recharge capacity but, as in the past, previous commitments to other partners somewhat limited the availability of both the GSFs and the USFs to the AWBA.

As the AWBA had sufficient facility capacity to store all of the CAP water available, storage facility capacity was not a limiting factor in development of the 2004 Plan. However, based on the quantity of water and funding available, the AWBA could not meet all of the requests from its partners.

Table 2 shows the AWBA's 2004 delivery schedule. Line One of this table provides estimates of the CAP's monthly deliveries to its M&I, agricultural, incentive recharge, and Indian customers. These deliveries have a scheduling priority over the AWBA's deliveries. These estimates do not include deliveries to New Waddell Dam.

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Table 2 ARIZONA WATER BANKING AUTHORITY Water Delivery Schedule Calendar Year 2004 (ACRE-FEET)																	2003 Deliveries (AF)
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total			
1	Estimated CAP Deliveries + Losses : (M&I, Indian, Ag Pool, Incentive Recharge)	52,000	59,000	115,000	147,000	169,000	185,000	186,000	169,000	92,000	63,000	54,000	48,000	1,339,000			
2	Available Excess CAP Capacity for AWBA:	23,000	23,000	31,000	35,500	28,000	12,000	16,000	33,000	29,500	19,500	26,500	30,000	307,000			
AWBA -- Recharge Sites :		Permitted Capacity (AF)	Requested Capacity (AF)														
PHOENIX A M A :																	
3	USF GRUSP	200,000	50,000	4,166	4,166	4,166	4,166	4,166	4,166	4,166	4,166	4,166	4,166	4,174	50,000	21,536	
4	HIEROGLYPHIC MTN.	35,000	25,800	2,700	2,700	2,700	2,700	2,700	2,700	2,200	2,000	0	0	2,700	2,700	25,800	21,487
5	AGUA FRIA	100,000	30,550	2,500	1,500	500	3,750	3,750	3,000	3,000	2,550	2,800	1,700	1,750	3,750	30,550	8,594
6	GSF CHCID	3,000	533	0	0	50	50	50	100	75	75	50	83	0	0	533	919
7	NEW MAGMA	54,000	47,200	2,500	3,000	6,100	6,100	4,000	1,500	1,500	4,500	5,500	5,500	3,500	3,500	47,200	21,918
8	QUEEN CREEK	28,000	8,861	0	0	0	0	0	0	3,501	2,000	800	960	1,600	8,861	1,000	
9	SRP	200,000	8,000	800	800	800	800	800	0	0	800	800	800	800	8,000	9,532	
10	TONOPAH ID	15,000	3,000	0	0	0	0	0	0	0	0	1,000	1,000	1,000	3,000	0	
PINAL A M A :																	
11	GSF CAIDD	110,000	16,700	0	0	0	0	0	5,000	5,000	3,500	1,000	1,000	1,200	16,700	5,500	
12	HOHOKAM	55,000	25,000	2,250	1,700	5,500	6,500	750	0	0	3,300	1,000	1,000	3,000	25,000	27,075	
13	MSIDD	120,000	16,700	0	1,020	2,780	3,040	3,500	0	0	3,400	2,040	610	0	310	16,700	10,950
TUCSON A M A :																	
14	USF AVRA VALLEY	11,000	6,200	650	650	650	650	650	0	0	650	650	350	650	650	6,200	3,758
15	CLEARWATER	60,000	10,000	1,150	1,150	1,150	1,150	1,150	0	0	0	0	3,000	1,250	10,000	6,000	
16	PIMA MINE ROAD	30,000	22,900	2,600	2,600	2,600	2,600	2,600	0	0	2,600	1,600	1,300	2,200	2,200	22,900	17,444
17	LOWER SANTA CRUZ	30,000	32,300	3,600	3,600	3,600	3,600	3,600	0	0	3,200	2,800	1,100	3,600	3,600	32,300	31,885
18	GSF KAI - RED ROCK	11,231	1,000	0	0	250	250	250	250	0	0	0	0	0	1,000	3,091	
19	TOTAL (USF + GSF):		304,744	22,916	22,886	30,846	35,356	27,966	11,716	15,941	32,442	29,206	19,409	26,326	29,734	304,744	209,416 ¹
20	Remaining CAP Capacity:	84	114	154	144	34	284	59	558	294	91	174	266	2,256			

¹ The total includes deliveries to three facilities not included in the 2004 Plan; RWCD received 12,500 AF, BKW Farms received 1,627 AF and MWD received 4,600 AF.

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Line Two shows the operational capacity of the CAP available after it makes its priority deliveries and its deliveries to New Waddell Dam. Although the CAP is capable of delivering approximately 180,000 acre feet per month, the available capacity does not always total that because of unique situations, i.e. the filling of Lake Pleasant in the winter months, deliveries to the western portion of the aqueduct, New Waddell Dam releases to the aqueduct in the summer months and scheduled maintenance and outages. During the fall and winter months, the capacity available to the AWBA is constrained because the CAP is making deliveries to Lake Pleasant. In June and July, capacity is constrained at the New River siphon due to the high volume of downstream demand.

Lines Three through Eighteen represent the AWBA's 2004 Plan of Operation. This section identifies the AWBA's partners for 2004 and the amount of water scheduled to be recharged. The second column in this section identifies the AWBA's water storage permit capacities for each facility based on the facility permits and the amount of that capacity that is available to the AWBA in 2004. The capacity available does not always equal the storage permit capacity because the storage facility operators may have agreements with other storage partners. Line Nineteen lists the total amount of AWBA storage scheduled for the year 2004. Line Twenty lists the CAP capacity remaining after the AWBA's deliveries are scheduled.

No recovery is scheduled in 2004. The AWBA will continue to work with CAWCD to pursue recovery concepts in 2004 and beyond. ~~Pending the outcome of on-going discussions in California, the Metropolitan Water District of Southern California (MWD) has indicated they might request the recovery and delivery of Intentionally Created Unused Apportionment (ICUA) in 2003 based on credits developed under a previous agreement with CAWCD. If MWD actually makes such a request, agreements would need to be developed and executed and this Plan would be amended to accommodate the recovery and creation of ICUA.~~

NEW FACILITIES

The AWBA is not storing at any new facilities under this Plan.

INTERSTATE WATER BANKING

The Plan does not include an interstate water banking component. However, in the event that conditions change and opportunities may present themselves, the Plan may be amended to include interstate water banking as was done in 2002.

PRICING

On June 19, 2003, the CAWCD board adopted final water delivery rates for 2004. The rate for AWBA and other M&I Incentive recharge is \$70 per acre foot. The delivery rate is the pumping energy rate 2 component (\$61 per acre foot) plus 10 percent of the fixed OM&R charge (\$4.60 per acre foot) plus a component to recover lost revenues from federal deliveries (\$4.00 per acre foot). The components of the rate are the same as

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those in the 2001-2003 rates. For 2004, the pumping energy rate 2 was calculated using the average of the actual or forecast above threshold energy rates for the previous three years.

In 2004, the AWBA increased the cost share for the GSF partners to \$28 per acre foot. Table 3 reflects the water delivery rate the CAP will charge the AWBA, the rate the GSF operators will pay for use of the AWBA's water and the various rates the AWBA will be charged to utilize the different USFs.

Table 3

2004 Water and Facility Rates – Intrastate	
CAP's delivery rate to AWBA	\$70 per acre foot
Groundwater Savings Facility operator portion of delivery rate	\$28 per acre foot ¹
Underground Storage Facility rate paid by AWBA	
GRUSP (SRP)	\$18.60 per acre foot
Avra Valley (CAP) ²	\$8.00 per acre foot
CAVSARP (Tucson Water)	\$12.10 per acre foot
Hieroglyphic Mtns. (CAP) ²	\$8.00 per acre foot
Pima Mine Road (CAP) ²	\$11.00 per acre foot
Lower Santa Cruz (CAP/Pima County) ²	\$11.00 per acre foot
Agua Fria Recharge Project (CAP) ²	\$8.00 per acre foot

¹ This rate is paid directly to CAP by the GSF operators and is not available as revenue to the AWBA. The AWBA's rate for delivery of in lieu water is thus reduced to \$42/af.

² See discussion below. This is O&M component only.

The Master Water Storage Agreement executed on July 1, 2002 describes the cost components that can be paid by the AWBA for storage at CAP facilities. On October 2, 2003, the CAWCD adopted a new policy regarding storage facility rates. Pursuant to the policy, the AWBA will pay an O&M component for all water stored; that component is calculated by CAP annually for each AMA based on a rolling ten year average. Additionally, for water stored for other than M&I firming purposes, the AWBA will pay a capital charge component. The capital charge is based on the total projected costs and projected storage of water over the lives of the facilities in the AMA and will not change annually unless there are significant changes in CAWCD's costs for recharge facilities in that AMA. There is no administration cost component in the facility cost because the AWBA pays the CAP administrative costs on an annual basis.

For GRUSP, the cost is comprised of an annual administration component, a component for use of the SRP interconnection facility, a transportation component and a general facility component. The cost was set by agreement dated December 31, 2001 with a 3% annual increase. For CAVSARP, the cost includes an administration

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component, a capital component and an operations and maintenance component. The cost was set by agreement dated March 3, 2003 with a 3% annual increase.

The estimated total cost of the AWBA's 2004 Plan of Operation is slightly more than \$19.6 million which includes the USF use fees and the CAP delivery rate minus the cost recovery from the GSF operator by the CAWCD.

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ACCOUNTING

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

Table 4 provides estimates of the funds available including funds carried over from previous years and an estimate of funds to be collected during the year, the funds to be expended, and the credits that will accrue to those accounts based on the 2004 Plan.

Table 4

2004 PLAN OF OPERATION				
	FUNDING¹		CREDITS²	
	AVAILABLE	EXPENDED	AMOUNT	LOCATION
Withdrawal Fee³				
Phoenix AMA	\$2,700,000	\$2,700,000	58,000	Phoenix AMA
Tucson AMA	\$610,000	\$610,000	7,000	Tucson AMA
Pinal AMA	\$1,404,000	\$1,402,796	35,000	Pinal AMA
Four Cent Tax⁴				
Maricopa County	\$33,922,123	\$8,963,759	98,000	Phoenix AMA
Pima County	\$5,498,040	\$5,225,999	59,000	Tucson AMA
Pinal County	\$700,004	\$700,004	18,000	Pinal AMA
Other				
General Fund	\$0	\$0	0	
		\$0	0 AF	Phoenix AMA
		\$0	0 AF	Tucson AMA
		\$0	0 AF	Pinal AMA
California	(not applicable)			
Nevada	(not applicable)			
TOTAL	\$44,834,167	\$19,602,558⁴	275,000	

¹ Does not include groundwater savings facility partners' payment. The AWBA's partners make payments directly to the CAWCD.

² Estimate based on historical average losses for each facility minus the 5% cut to the aquifer.

³ The withdrawal fees available for 2004 are those projected to be collected for annual reports filed in March 2004. There is no carryover of withdrawal fees into 2004 due to the \$9 million legislative transfer.

⁴ As previously discussed, the CAWCD Board resolved to retain the 4¢ *ad valorem* tax levied in the tri-county area. Therefore, the money collected in tax year 2004 is available to the AWBA to offset some of the costs associated with water purchases. The AWBA Fund has sufficient carryover to fund the 2004 Plan in Pima and Maricopa counties, however, the money retained by CAWCD must be utilized to reduce water costs in Pinal County. Consequently, while the total cost of the Plan is \$19,602,558, this is offset by the \$700,004 projected to be levied in Pinal county so the total debit to the AWBA Fund is \$18,902,554.

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Since inception, the AWBA has primarily utilized only the general fund and county *ad valorem* property tax revenues to purchase and store water based on an early philosophy of emphasizing development of M&I firming credits. The exception was Pinal County which has required expenditure of groundwater withdrawal fees on an annual basis to permit the AWBA to meet the demand for AWBA participation in that county. In 2003, the AWBA proposed fully funding the Plan through expenditure of groundwater withdrawal fees in light of the number of water management issues pending on the horizon, including the potential obligation to provide credits to facilitate Indian water rights settlements. However, the legislative transfer of \$9 million resulted in use of the *ad valorem* tax revenues in addition to withdrawal fees in 2003. In 2004, the AWBA will fund the Plan through expenditure of both groundwater withdrawal fees and *ad valorem* tax revenues.

Table 5 provides an estimate of the funds expended and the credits that will accrue to various accounts based on the AWBA's recharge activities since its inception.

Table 5

CUMULATIVE TOTALS			
1997-2003			
	EXPENDED	AMOUNT	CREDITS¹
			LOCATION
Withdrawal Fee			
Phoenix AMA	\$4,226,496	73,000	Phoenix AMA
Tucson AMA	\$4,014,596	58,000	Tucson AMA
Pinal AMA	\$6,349,837	215,969	Pinal AMA
Four Cent Tax			
Maricopa County	\$32,220,641	762,183 AF	Phoenix AMA
Pima County	\$8,234,724	129,765 AF	Tucson AMA
Pinal County	\$2,120,987	83,884 AF	Pinal AMA
Other			
General Fund	\$10,695,000	395,678 AF	
	\$2,054,489	61,612 AF	Phoenix AMA
	\$2,325,112	39,748 AF	Tucson AMA
	\$6,315,399	294,318 AF	Pinal AMA
California			
Nevada	\$8,642,699	61,000	
TOTAL	\$76,504,980	1,779,479 AF	

¹ Actual credits used for 1997-2002; credits estimated for 2003

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PUBLIC REVIEW AND COMMENT

The AWBA staff held meeting with the GUACs for the Phoenix, Pinal and Tucson AMAs as required by statute. Additionally, the Plan was discussed at a meeting of the Mohave County Water Authority in Lake Havasu City. The Plan was distributed to the public and Table 2 was posted on the web page for public review and comment. No written comments were received from the public.

Phoenix GUAC

In general, the GUAC supported the Plan and had no requests for modification. There was discussion and questions regarding the increased CAP water costs in 2004, the CAWCD decision to retain the 4¢ *ad valorem* tax revenues and potential impacts to the AWBA and the potential for future general fund appropriations.

Pinal GUAC

General discussion regarding the Plan included: GSF partners cost share increased to \$28 per acre foot; the status and definition of CAP's proposed emergency water pool and the AWBA's willingness to take less water to make emergency water available; observation that absent general fund appropriation, Pinal County is limited by annual revenues collected for withdrawal fees and 4¢ *ad valorem* taxes; the potential for interstate recovery in 2004; the status of Indian water rights settlements and the perceived status of the GSF program and whether it will continue in the long term. In general, the Pinal GUAC supported the Plan and requested no changes be made.

Tucson AMA

The Tucson GUAC had no specific comments regarding the Plan. There was general discussion and questions regarding the GSF program, interstate water banking and how recovery of interstate credits would occur. It was noted at the meeting that the Tucson area will be in a situation similar to Pinal county beginning in 2005 because there will be no carryover of funds. Consequently, annual storage will be limited by the annual withdrawal fee and 4¢ *ad valorem* tax revenues unless the AWBA receives a general fund appropriation.

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Ten Year Plan for Calendar Year 2002

Introduction

Preparation of the ten year plan is statutorily mandated. The ten year plan must include a description of any water banking activities the AWBA intends to undertake in addition to the three primary AWBA functions of firming for M&I supplies, assisting in Indian water rights settlements, and fulfilling state water management objectives. The ten year plan 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 for the year 2002 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 in the 2002 Annual Report. AWBA staff developed the ten year plan based on the following guiding principles:

1. The intent of the plan is to evaluate if the AWBA can engage in water banking activities beyond the scope of the currently established AWBA role and to what extent.
2. The plan covers a ten year time period beginning with the next calendar year. For example, this ten year plan covers the time period 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 of Operation.

Ten Year Plan Components

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

1. Storage Partners and Storage Capacity

The AWBA has 13 water storage permits for GSFs with a total storage capacity of 743,359 acre-feet per annum. Appendix C describes the storage partners, storage permits and capacity available for use by the AWBA.

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.

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The AWBA has eight water storage permits for USFs with a total storage capacity of 586,000 acre-feet per annum. The USF permit issued for the Pima Mine Road facility limits total storage for the term of this 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, a maximum of 40,000 acre-feet of capacity per annum was modeled for this planning period at Central Avra Valley Storage and Recovery Project. Expansion of the facility resulted in storage in 2003 and it is likely that increased storage capacity will become 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

This ten year plan does not include a recovery component. Based on current analysis and discussion, recovery for shortage protection is not anticipated within the scope of this ten year plan. Current model runs show that the first year recovery would be necessary is 2017. That year is the first time that actual demand exceeds 1.0 million acre feet. The first year that demand levels might warrant full recovery is 2050, when M&I and Indian demands reach full utilization. However, 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. This year (2003) marked the second year that Arizona will fully utilize its 2.8 million acre-foot allocation. Additionally, the AWBA has focused its activities on meeting the firming goals and has stored almost 1 MAF of credits to meet these goals. 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 AWBA's funding sources are impacted by economic factors.

Central Arizona Groundwater Replenishment District (CAGRDR) Replenishment Reserve

Consistent with the Governor's Water Management Commission (GWMC) recommendation that the CAGRDR develop a 20% replenishment reserve, the CAGRDR was successful in implementing legislation creating it. The statute established equal priority for deliveries of excess water between the replenishment reserve and the AWBA's deliveries for M&I firming purposes. However, the reserve would have a higher priority for excess CAP water than the AWBA's deliveries for other non-firming purposes (i.e. water management). Therefore, a component for the proposed replenishment reserve as well as the advance replenishment was included in the model beginning in 2003.

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Table 6. Ten Year Plan

ARIZONA WATER BANKING AUTHORITY – 10 YEAR PLAN																
2004 – 2013																
(Acre-feet)																
YEAR	(a) CAP Water Avail for AWBA	(b)		(c)		(d)		(e)		(f)		(g)	(h)	(i)	(j)	
		CAP M&I Firming (4¢ Tax)		Water Management (Withdrawal Fees)		General Fund		Indian Settlement		Loaned Credits		Storage for Others	Interstate Banking			
		Delivered	Credits	Delivered	Credits	Delivered	Credits	Delivered	Credits	Delivered	Credits		Water Available	AWBA Capacity Avail.	Credits Earned	
Pre-Plan ^(k)	n/a	1,064,438	975,833	378,295	346,969	429,800	395,677									61,000
2004	343,426	197,930	182,241	95,719	87,443	0	0						49,777	55,336	46,790	
2005	417,809	237,189	216,958	91,268	83,327	0	0						89,352	120,625	83,990	
2006	543,834	205,762	187,525	89,487	81,648		38,699						222,944	100,322	94,303	
2007	521,863	199,031	181,629	86,523	79,022		40,443						209,283	93,723	88,100	
2008	497,971	191,149	174,552	80,541	73,588		38,782						200,641	97,737	91,873	
2009	464,483	183,597	167,783	75,160	68,702		37,416						181,216	100,842	94,792	
2010	380,262	173,152	158,384	68,028	62,151		36,013						115,638	115,810	108,699	
2011	343,849	165,298	151,326	62,375	57,015		34,706						93,736	129,101	88,112	
2012	312,966	155,714	142,729	57,173	52,290		33,488						78,587	138,351	73,872	
2013	288,433	150,727	138,262	54,118	49,507		32,294						62,992	138,291	59,213	
TOTAL			2,677,222		1,041,662		687,518									890,744

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
 (k) Cumulative totals for 1997-2003; 2003 credits estimated based on projected deliveries

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The CAP Water Forecast Group

The group is composed of CAP, CAGR, 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.

NEED TO ADD DISCUSSION RE: \$9 MILLION TRANSFER TO LEGISLATURE

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 CAGR 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, possibly as early as 2004. In the summer of 2003, the AWBA established the Indian Firming Technical Committee to review firming volumes, water supply availability, potential funding sources and mechanisms for firming these supplies. However, this issue was not considered in this ten year plan pending finalization of the Technical Committee process.

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

DRAFT

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.

The CAP has been active in the evaluation of locations for additional storage facilities in the past year. In January 2002, the CAP initiated a regional siting feasibility study for the East Salt River Valley. It is anticipated that the first phase of the study will be completed by June 2002. The CAP is also currently conducting a Western Arizona Recharge Capacity Feasibility Study. It is anticipated that a potential recharge facility location will be identified in the summer of 2002 with initiation of water storage early in 2004. The AWBA recognizes that these two processes will likely result in additional storage facility capacity, however, uncertainty regarding the magnitude of projects precluded inclusion of this additional capacity in the current ten year plan.

The SRP has applied to ADWR for a recharge facility permit for a project located in the west valley near the confluence of the Agua Fria River and New River. The project has a planned initial capacity of 30,000 acre-feet increasing to a maximum of 100,000 acre-feet. Storage at this facility was not included in this ten year plan because of uncertainty regarding development of an agreement between AWBA and SRP, cost of storage and availability of capacity to the AWBA.

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

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.

DRAFT

Appendices

Appendix A.
**Colorado River Water Deliveries for Water Banking Purposes for Calendar Year 200~~7~~² by
Partner and Active Management Area**

Phoenix Active Management Area

Partner	Quantity of Water (Acre-feet)
Granite Reef Underground Storage Project	63,576
New Magma Irrigation and Drainage District	44,835
Queen Creek Irrigation District	9,280
Agua Fria	3,621
Salt River Project	14,935
Chandler Heights Citrus Irrigation District	545

Pinal Active Management Area

Partner	Quantity of Water (Acre-feet)
Central Arizona Irrigation and Drainage District	11,016
Maricopa-Stanfield Irrigation and Drainage District	47,755
Hohokam Irrigation and Drainage District	54,928

Tucson Active Management Area

Partner	Quantity of Water (Acre-feet)
Avra Valley	6,311
Pima Mine Road	13,174
Kai – Red Rock	1,110
Lower Santa Cruz	23,727

APPENDIX B
CAP DELIVERY SCHEDULE
(Acre-feet)

Year	CAP Demands				Average Year Supply ⁽⁵⁾	Available for AWBA ⁽⁶⁾
	M&I ⁽¹⁾	Indian ⁽²⁾	Ag ⁽³⁾	Total ⁽⁴⁾		
2004	398,209	146,800	400,000	1,181,574	1,525,000	343,426
2005	415,391	99,800	400,000	1,107,191	1,525,000	417,809
2006	463,866	102,300	400,000	981,166	1,525,000	543,834
2007	485,837	102,300	400,000	1,003,137	1,525,000	521,863
2008	505,229	106,800	400,000	1,027,029	1,525,000	497,971
2009	523,717	121,800	400,000	1,060,517	1,525,000	464,483
2010	587,410	142,328	400,000	1,144,738	1,525,000	380,262
2011	604,223	161,928	400,000	1,181,151	1,525,000	343,849
2012	617,641	179,393	400,000	1,212,034	1,525,000	312,966
2013	617,074	204,493	400,000	1,236,567	1,525,000	288,433

- (1) Includes M&I, CAGR D, CAGR D replenishment reserve, Indian M&I lease and M&I incentive water
- (2) From settlement discussions
- (3) Based on current agricultural pool policy
- (4) Includes secondary excess uses of 236,555 AF in 2004, 192,00 AF in 2005 and 15,000 AF per annum 2006 through 2013
- (5) Based on average year delivery of 1,600,000 AF per year minus losses
- (6) Average year supply minus CAP demands; AWBA last priority for intrastate use

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

AMA and Facility Type	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)
PHOENIX – GSF⁽²⁾					
New Magma IDD	12/2007	54,000	45,000	2003	21,918
Queen Creek ID	12/2004	28,000	15,000	2003	1,000
Salt River Project	12/2005	200,000	20,000	2003	9,532
PHOENIX – USF					
GRUSP	12/2010	200,000	50,000	2003	21,536
Agua Fria Recharge Project	05/2019	100,000	100,000	2003	8,594
Hieroglyphic Mtns.	12/2021	35,000	20,000	2003	21,487
PINAL – GSF					
Central Arizona IDD	12/2007	110,000	15,000	2003	5,500
Hohokam IDD	12/2007	55,000	50,000	2003	27,075
Maricopa-Stanfield IDD	12/2004	120,000	50,000	2003	10,950
TUCSON – GSF					
Kai – Red Rock	12/2006	11,231	3,000	2003	3,091
TUCSON – USF					
Avra Valley	03/2018	11,000	6,000	2003	3,758
CAVSARP	07/2021	60,000	40,000 ⁽⁴⁾	2003	6,000
Lower Santa Cruz	09/2019	50,000	20,000	2003	31,885
Pima Mine Road	09/2020	30,000	7,000	2003	17,444
Other Facilities Currently or Anticipated to be Available to the AWBA					
Vidler – USF	09/2020	100,000	80,000	⁽³⁾	0
West Maricopa Combine - USF	05/31/2021	25,000		⁽³⁾	0
SRP New River – USF ⁽⁵⁾					

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, BKW Farms (16KAF), Kai-Avra (12KAD) and the Tonopah (15KAF) 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)

	Year	Groundwater Savings			Underground Storage			
		Capacity Available ⁴	Capacity Used	Credits Earned	Capacity Available ⁴	Capacity Used	Credits Earned	
PHOENIX AMA²	Pre-plan ³			428,647			333,535	
	2004	67,594	17,574	15,817	106,350	106,350	95,715	
	2005	73,486	19,106	17,196	153,062	153,062	137,756	
	2006	68,762	17,878	16,090	141,427	141,427	127,284	
	2007	62,585	16,272	14,645	132,960	132,960	119,664	
	2008	57,341	14,909	13,418	126,347	126,347	113,712	
	2009	52,431	13,632	12,269	119,746	119,746	107,771	
	2010	47,101	12,246	11,022	110,750	110,750	99,675	
	2011	41,802	10,868	9,782	104,225	104,225	93,802	
	2012	38,762	9,597	8,638	100,328	95,541	85,987	
	2013	37,369	8,910	8,019	99,214	90,980	81,882	
	Total			555,543			1,396,783	
	PINAL AMA²	Pre-plan ³			83,884			
		2004	58,400	8,408	7,736	-	-	-
2005		115,000	10,350	9,522	-	-	-	
2006		115,000	11,207	10,311	-	-	-	
2007		115,000	12,168	11,194	-	-	-	
2008		115,000	11,890	10,939	-	-	-	
2009		115,000	11,706	10,770	-	-	-	
2010		115,000	11,533	10,611	-	-	-	
2011		115,000	11,370	10,461	-	-	-	
2012		115,000	11,216	10,319	-	-	-	
2013		115,000	11,071	10,185	-	-	-	
Total				185,932				
TUCSON AMA²		Pre-plan ³			3,464			126,302
		2004	5,241	0	0	71,400	65,597	62,973
	2005	4,216	0	0	63,318	54,671	52,484	
	2006	4,352	0	0	67,410	35,249	33,839	
	2007	4,485	0	0	67,501	37,631	36,126	
	2008	4,615	0	0	67,589	38,003	36,483	
	2009	4,743	0	0	67,676	38,513	36,973	
	2010	4,868	0	0	77,761	38,622	37,077	
	2011	4,990	0	0	87,845	38,834	37,281	
	2012	5,000	0	0	87,926	39,360	37,785	
	2013	5,000	0	0	81,051	39,767	38,176	
	Total			3,464			535,499	

Footnotes:

- (1) Developing M&I firming credits has the first priority for water and storage capacity.
- (2) M&I firming targets are Phoenix AMA-1.5 MAF, Tucson AMA-810 KAF, and Pinal AMA 230 KAF
- (3) Cumulative totals for 1997-2003; 2003 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	Groundwater Savings			Underground Storage		
		Capacity Available ³	Capacity Used	Credits Earned	Capacity Available ³	Capacity Used	Credits Earned
PHOENIX AMA	Pre-plan ²			35,916			37,084
	2004	50,020	50,020	45,018	0	0	0
	2005	54,380	52,193	46,973	0	0	0
	2006	50,884	50,884	45,795	0	0	0
	2007	46,313	46,313	41,681	0	0	0
	2008	42,433	42,433	38,189	0	0	0
	2009	38,799	38,799	34,919	0	0	0
	2010	34,855	34,855	31,369	0	0	0
	2011	30,933	30,933	27,840	0	0	0
	2012	29,165	27,315	24,584	4,787	0	0
	2013	28,460	25,358	22,822	8,234	0	0
	Total			395,106			37,084
	PINAL AMA	Pre-plan ²			215,969		
2004		49,992	36,157	33,264	-	-	-
2005		104,650	28,958	26,642	-	-	-
2006		103,793	30,174	27,760	-	-	-
2007		102,832	31,521	28,999	-	-	-
2008		103,110	29,635	27,264	-	-	-
2009		103,294	28,070	25,824	-	-	-
2010		103,467	26,603	24,475	-	-	-
2011		103,630	25,228	23,209	-	-	-
2012		103,784	23,935	22,021	-	-	-
2013		103,929	23,137	21,286	-	-	-
Total				476,713			0
TUCSON AMA		Pre-plan ²			4,289		
	2004	5,241	5,241	5,031	5,803	4,302	4,130
	2005	4,216	4,216	4,047	8,648	5,901	5,665
	2006	4,352	0	0	32,161	8,429	8,092
	2007	4,485	0	0	29,870	8,689	8,342
	2008	4,615	0	0	29,586	8,473	8,134
	2009	4,743	0	0	29,163	8,291	7,959
	2010	4,868	0	0	39,140	6,570	6,307
	2011	4,990	0	0	49,010	6,214	5,966
	2012	5,000	0	0	48,567	5,922	5,686
	2013	5,000	0	0	41,284	5,624	5,399
	Total			13,367			119,391

(1) Withdrawal fees are used to develop credits for AMA water management goals after the 4¢ tax is utilized.

(2) Cumulative totals for 1997-2003; 2003 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)

	Year	Groundwater Savings			Underground Storage		
		Capacity Available	Capacity Used	Credits Earned	Capacity Available	Capacity Used	Credits Earned
PHOENIX AMA	Pre-plan ³			40,161			21,451
	2004	0	0	0	0	0	0
	2005	2,187	0	0	0	0	0
	2006	0	0	0	0	0	0
	2007	0	0	0	0	0	0
	2008	0	0	0	0	0	0
	2009	0	0	0	0	0	0
	2010	0	0	0	0	0	0
	2011	0	0	0	0	0	0
	2012	1,849	0	0	4,787	0	0
	2013	3,102	0	0	8,234	0	0
	Total			40,161			21,451
	PINAL AMA	Pre-plan ³			294,318		
2004		13,835	0	0	-	-	-
2005		75,692	0	0	-	-	-
2006		73,619	25,641	23,590	-	-	-
2007		71,312	27,027	24,865	-	-	-
2008		73,475	25,641	23,590	-	-	-
2009		75,224	24,510	22,549	-	-	-
2010		76,863	23,444	21,569	-	-	-
2011		78,402	22,440	20,645	-	-	-
2012		79,848	21,491	19,772	-	-	-
2013		80,792	20,595	18,947	-	-	-
Total				469,845			
TUCSON AMA		Pre-plan ³			2,009		
	2004	0	0	0	1,501	0	0
	2005	0	0	0	2,746	0	0
	2006	4,352	4,352	4,178	23,732	11,387	10,932
	2007	4,485	4,485	4,305	21,181	11,742	11,273
	2008	4,615	4,615	4,430	21,113	11,210	10,762
	2009	4,743	4,743	4,553	20,872	10,744	10,314
	2010	4,868	4,868	4,673	32,570	10,178	9,771
	2011	4,990	4,990	4,791	42,796	9,657	9,271
	2012	5,000	5,000	4,800	42,644	9,287	8,916
	2013	5,000	5,000	4,800	35,660	8,903	8,547
	Total			38,539			117,524

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 420 KAF.
- (3) Cumulative totals for 1997-2003; 2003 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⁾	Remaining Supply⁽⁴⁾	Interstate Credits⁽⁵⁾
Pre-plan				61,000
2004	49,777	55,336		46,790
2005	89,352	120,625		83,990
2006	222,944	100,322		94,303
2007	209,283	93,723		88,100
2008	200,641	97,737		91,873
2009	181,216	100,842		94,792
2010	115,638	115,810		108,699
2011	93,736	129,101		88,112
2012	78,587	138,351		73,872
2013	62,992	138,291		59,213
Total				890,744

(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 at USFs and GSFs in the Phoenix, Pinal, and Tucson AMAs as well as capacity available from other storage facilities permitted by the AWBA outside of the AMAs. Additional capacity may be available at individual facilities based on the utilization by individual water storage permit holders

(4) Remaining supplies after subtracting the water delivered and stored by individual subcontractors, contractors, and the AWBA for intrastate water banking and interstate water banking.

(5) Based on the Available Supplies or the Available AWBA Capacity, whichever is less, resulting stored water multiplied by an average 6% cut and loss factor.

Presentation on Nevada Water Resources

Arizona Water Banking Authority
December 17, 2003

Water Resource Plan Purpose

- Show projected water demands and how the Authority intends to meet those demands
 - Demand projections
 - Current water resources
 - Future resources
- Review annually, revise as needed

2004 Water Resource Plan

- Shows demand range
- Demand projections
- Current water resources
- Future resources
- Resource development scenarios



* The 2004 Proposed Water Resource Plan will be presented to the SNWA Board on December 18, 2003.

Southern Nevada Water Resources

- Groundwater
- Colorado River water
- Water conservation
- Reclaimed/reuse of highly treated effluent

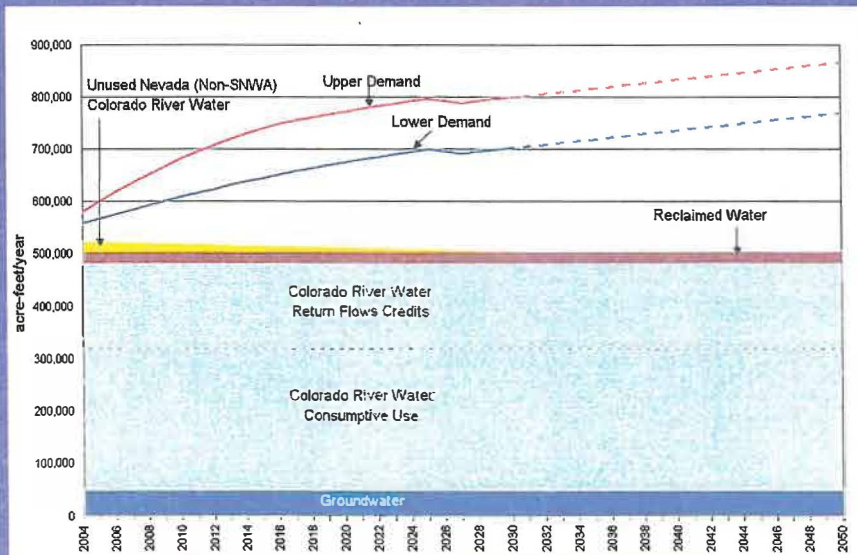


Lead Time Water Resources vs. Facilities

Influenced by:

- Various Federal Agencies
- Other State Agencies and Entities
- Weather/Hydrology

2004 Summary of Water Demands and Current Water Resources



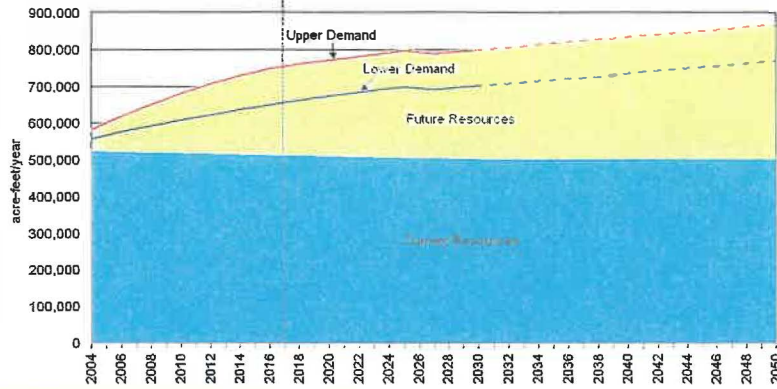
* The 2004 Proposed Water Resource Plan will be presented to the SNWA Board on December 18, 2003.

2004 Summary Water Demands and Water Resources

Future Resources

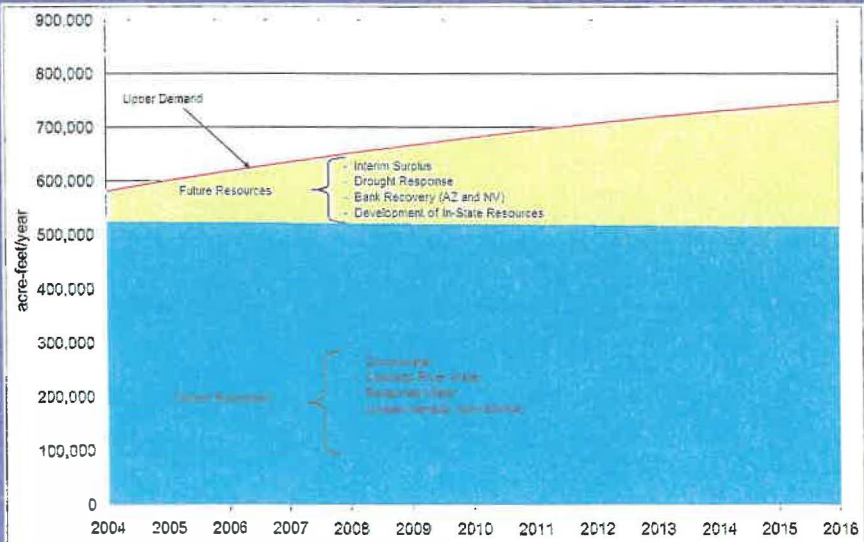
- 2004 - 2016 - Interim Surplus
- Drought Response
- Bank Recovery (Arizona & Nevada)
- In-State Resources

- 2017 to 2050 - Bank Recovery (Arizona & Nevada)
- In-State Resources
- Transfers and Exchanges



* The 2004 Proposed Water Resource Plan will be presented to the SNWA Board on December 18, 2003.

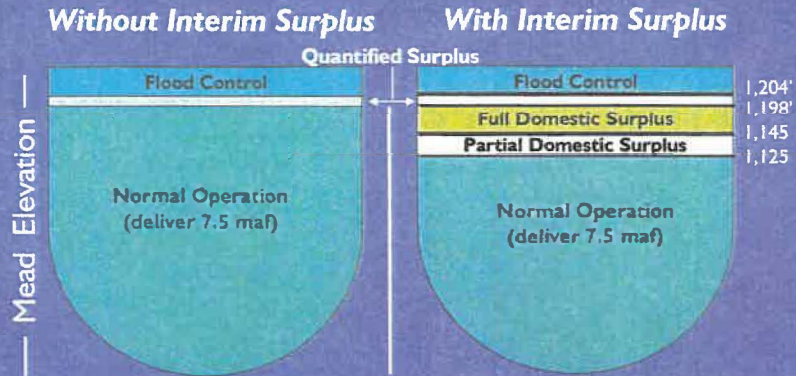
2004 Water Demands and Water Resources to 2016



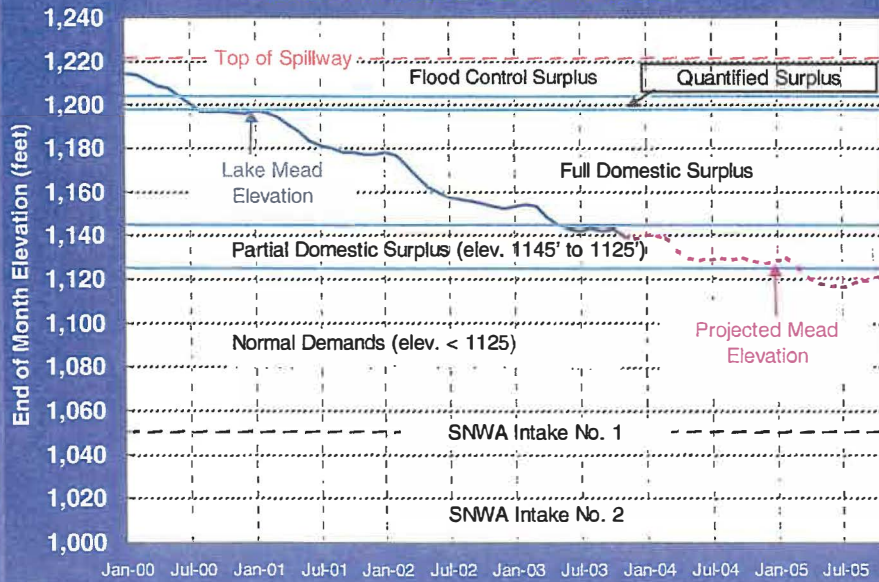
* The 2004 Proposed Water Resource Plan will be presented to the SNWA Board on December 18, 2003.

Interim Surplus Guidelines

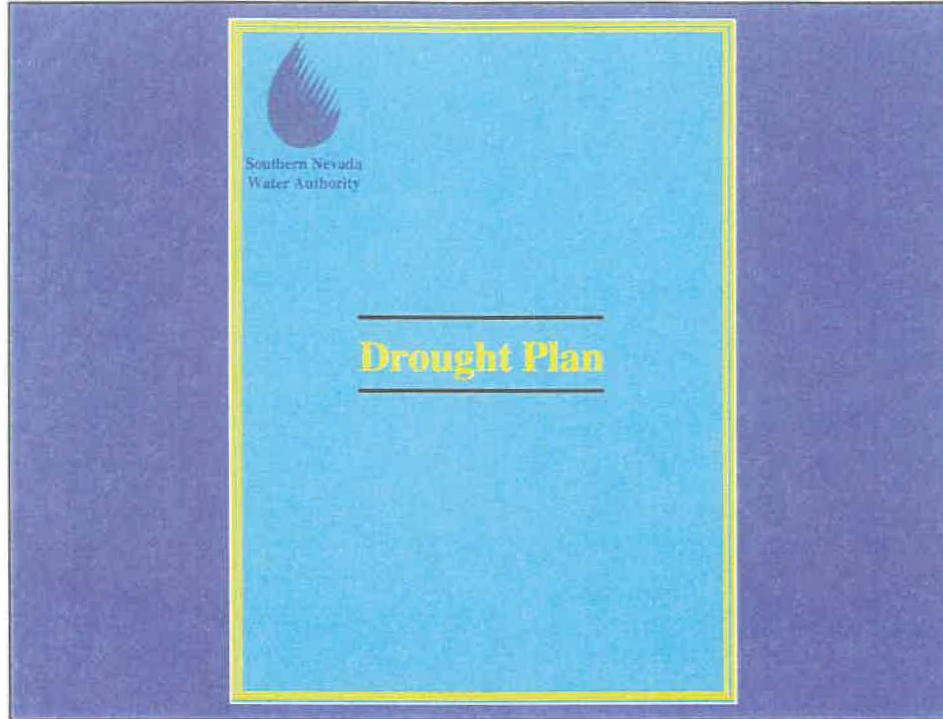
Lake Mead Elevation vs. Reservoir Operating Levels



Historical and Forecast Lake Mead Elevation



Source: Bureau of Reclamation, December 2003.



SNWA Drought Plan

- Drought planning process launched in summer 2002
- SNWA Drought Plan adopted January 2003
 - Plan outlines specific measures for Drought Watch and Drought Alert stages
- SNWA Board directed the formation of the Drought Citizens Advisory Committee (CAC) in January 2003
- Drought CAC asked to develop Drought Emergency measures and provide input on Drought Watch and Drought Alert stages

SNWA Drought Plan

Three stage plan

- Drought Watch
- Drought Alert
- Drought Emergency

Drought Plan Key Elements

Major Demand Reduction Tools

- Restricted seasonal watering schedules
- Temporary landscape development restrictions
- Golf course water budget
- Conservation plans/goals for parks, schools, and government facilities
- Increased water rates

Drought Plan Stages

Currently in

Drought Watch

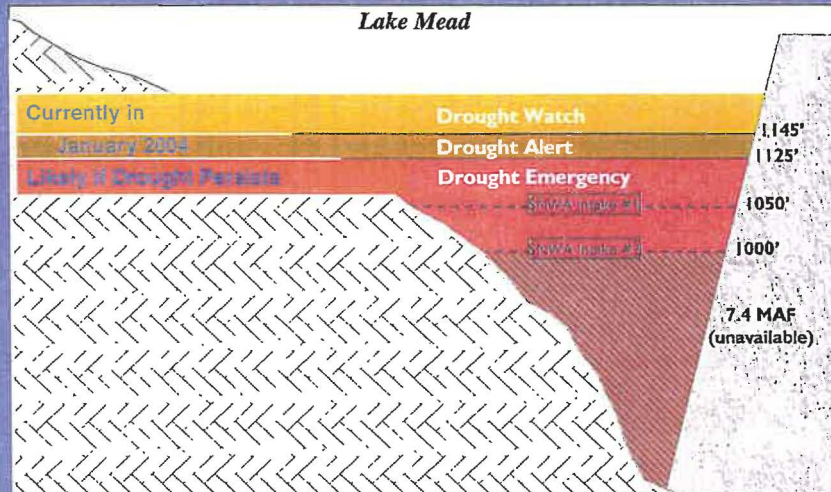
January 2004

Drought Alert

Drought Emergency

Drought Plan Stages

Lake Mead

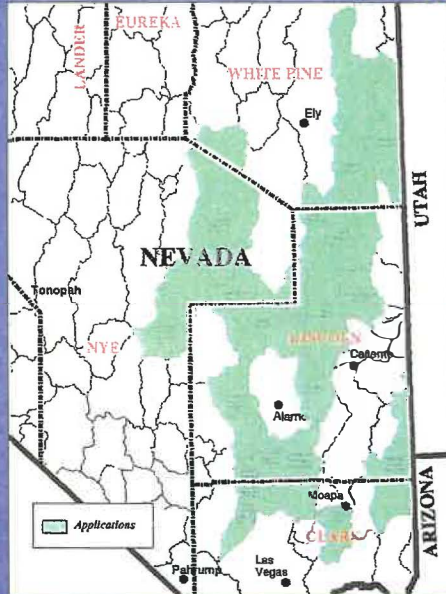


Drought Plan Stages

Drought Stage	Drought Response
No Drought	The community is subject to normal conservation measures, including restrictions for water waste and time-of-day uses, water waste enforcement and fees. Water waste is defined as allowing water to flow or spray off of the parcel for which the water was provided.
Drought Watch	The community is subject to landscape watering restrictions; golf course watering budgets; vehicle, surface, building and equipment washing restrictions; more restrictive landscape development codes for new residential and commercial developments; ornamental water feature, fountain and mist system restrictions; and increased water waste enforcement/fees – among other measures.
Drought Alert	The community is subject to more stringent measures than those in Drought Watch, including more restrictive landscape watering requirements; vehicle, surface, building and equipment washing restrictions; landscape development codes; and water feature, fountain and mist system limitations – among other measures. In addition, water waste enforcement/fees are higher than in Drought Watch.
Drought Emergency	<i>Recommended measures are currently under review for planned adoption in 2004.</i>

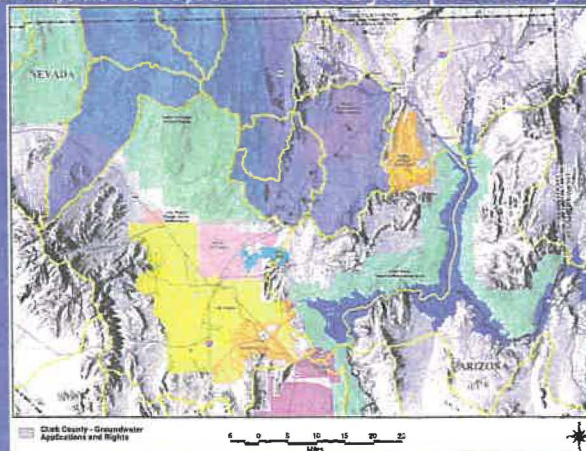
Nevada In-State Resources

Groundwater Outside Las Vegas Valley



Groundwater Outside Las Vegas Valley

- Coyote Spring – 2002 permitted $7,500 + 1,500 = 9,000$ acre-feet
- Garnet and Hidden – 2001 permitted 2,200 acre-feet
- Estimated 25,000 to 40,000 acre-feet/year potentially available



Nevada Water Rights

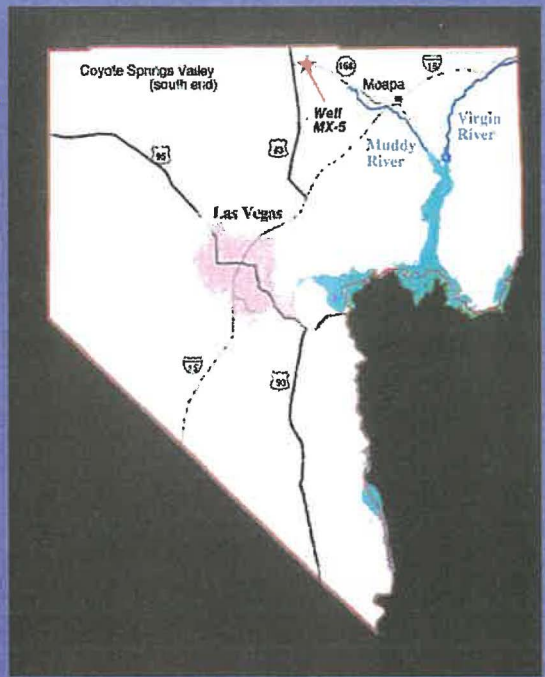
- Nevada water rights are a public resource permitted by the Nevada State Engineer
- Permits are obtained by application
- Permitted amounts may not exceed the perennial yield or safe yield of the basin

Coyote Spring Groundwater

- \$30 million for 9,000 acre-feet of water rights, land, and the MX-5 well
- 8 monitor wells drilled a cost of \$1.6 million in 2003
- Environmental compliance document to be completed for first phase rights of way at a cost of \$170,000
- Test pumping: engineering design not to exceed \$1.9 million, well equipping \$1.2 million, and transmission system \$29.1 million
- Consulting expenditures approximately \$775,000

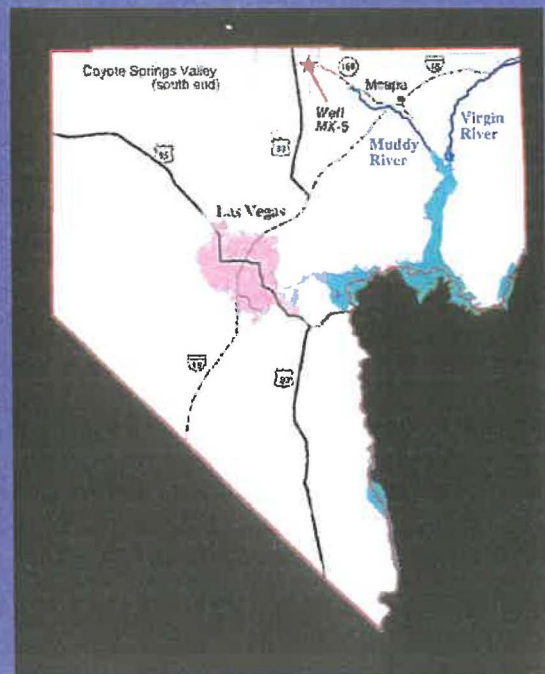
Muddy River

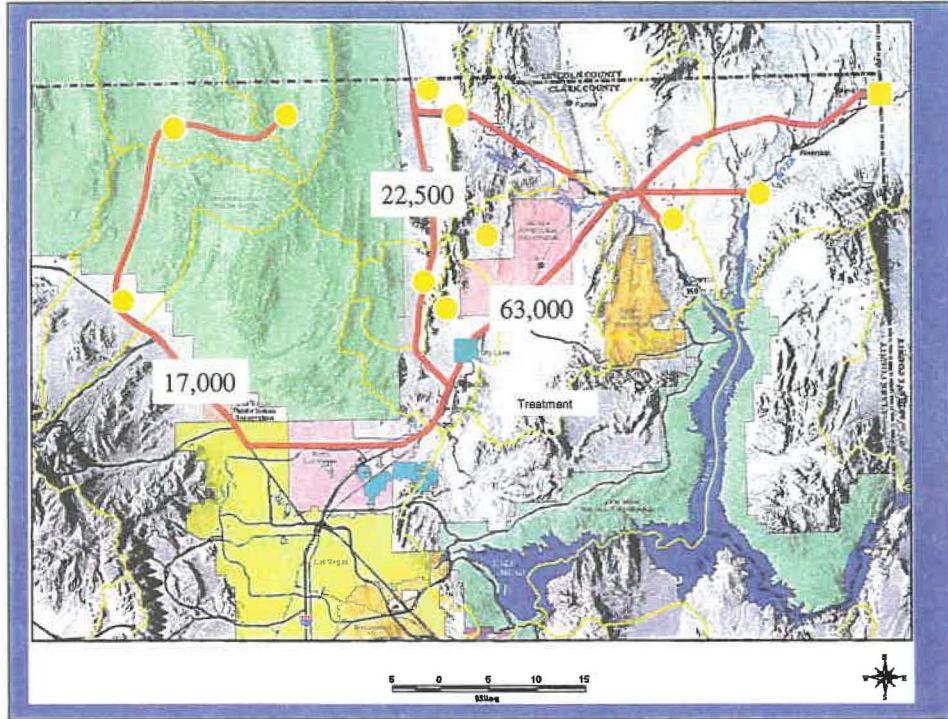
- Expended \$21 million to acquire water rights
- Acquiring rights to ~8,000 acre-feet/year
- Conducting environmental activities



Virgin River

- Permit granted by State Engineer for 113,000 acre-feet/year
- Environmental expenditures of about \$1,500,000 since 1994



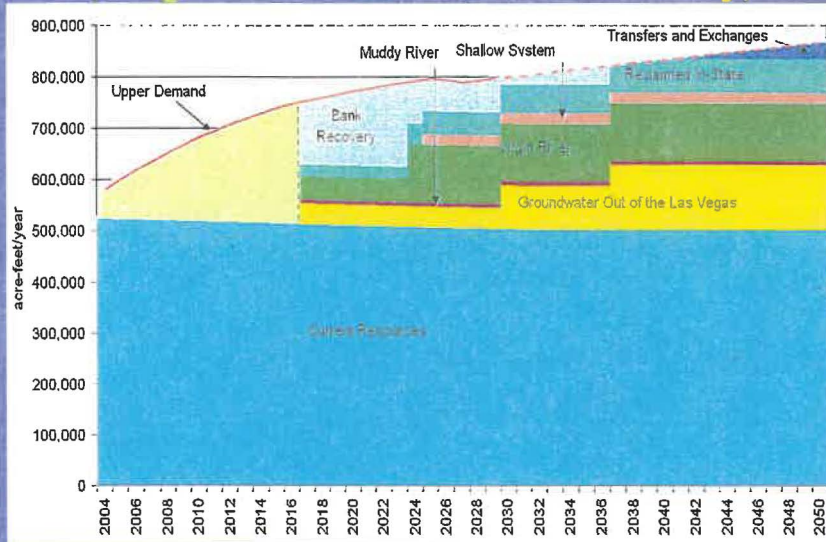


Nevada In-State Resources

Resource	Volume (acre-feet)	Spent or Committed (millions of \$'s)	Potential Future Cost (millions of \$'s) *
Coyote Spring	22,500	\$65	\$164.6
Tikaboo Three Lakes	17,000	\$0.1	\$213.1
Muddy River	20,000	\$21	\$665.6
Virgin River	43,000 (up to 113,00)	\$1.5	
Total	102,500 (up to 172,500)	\$87.6	\$1,043.3

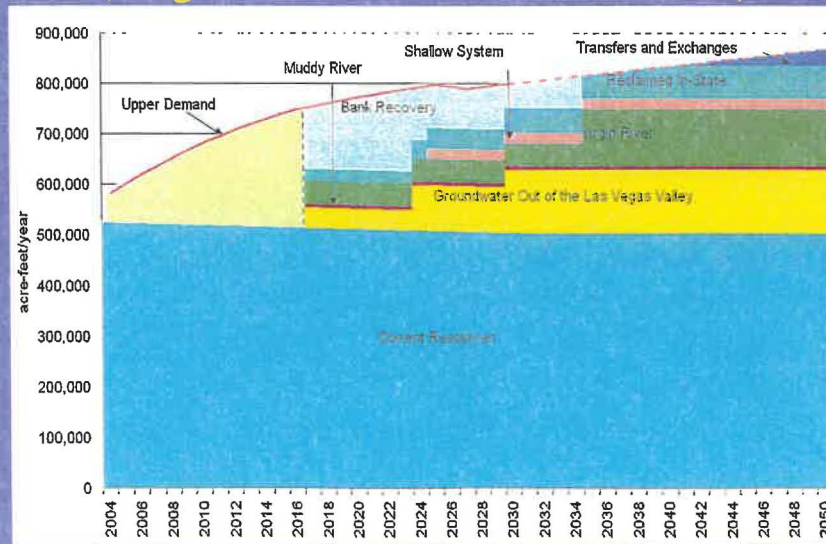
* Source: Northern Resource System Water Resource Development, Final Concept Plan (Boyle, July 2003).

Water Demand and Water Resources 2017 – 2050 (Virgin River to 113,000 AF – Early)



* The 2004 Proposed Water Resource Plan will be presented to the SNWA Board on December 18, 2003.

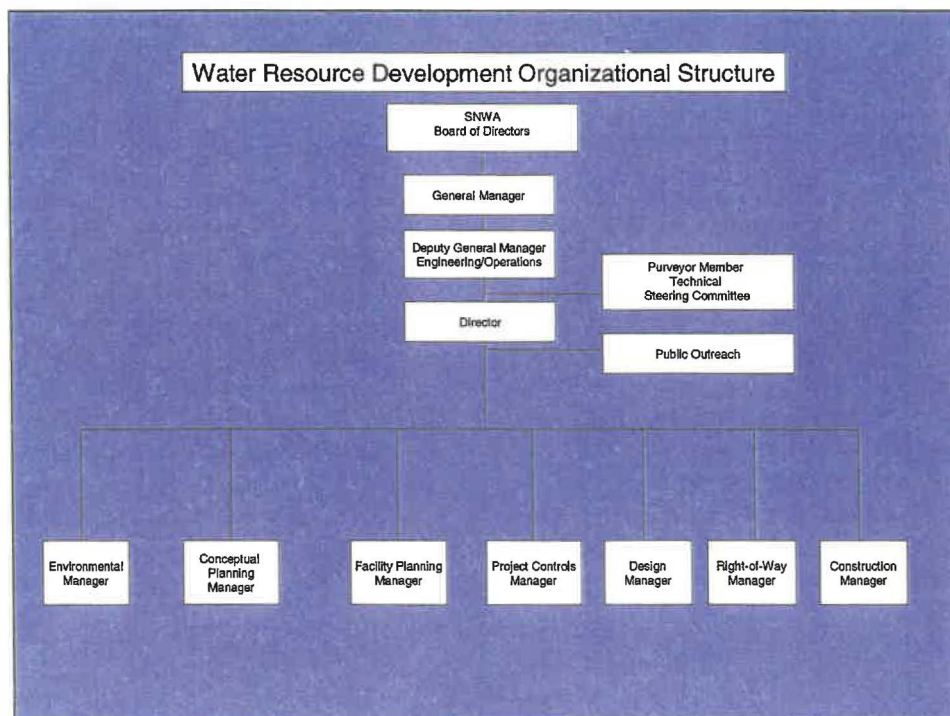
Water Demand and Water Resources 2017 – 2050 (Virgin River to 113,000 AF – Late)

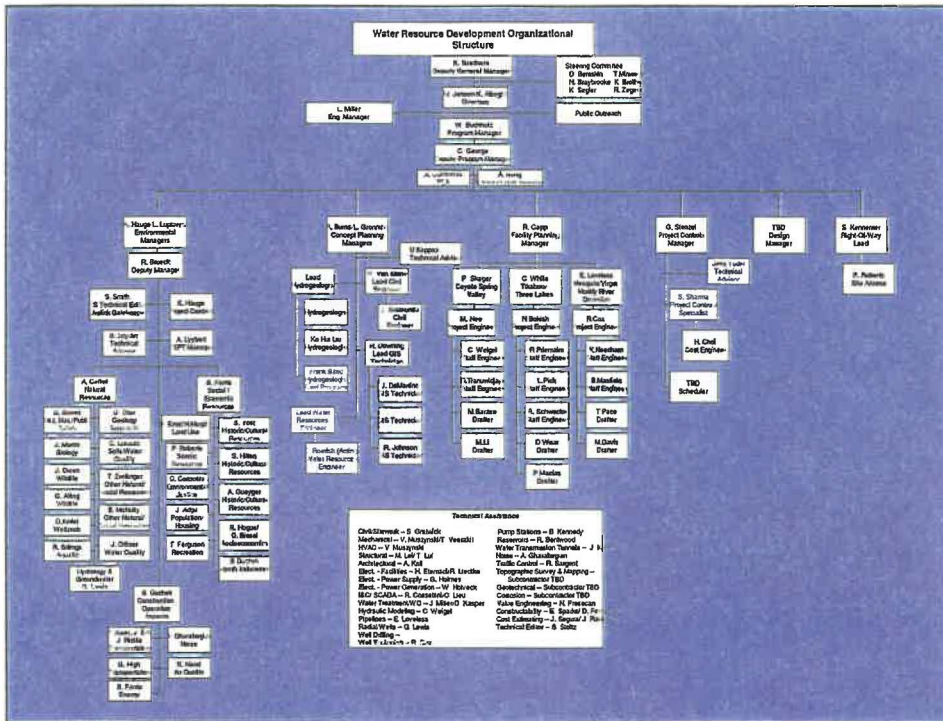


* The 2004 Proposed Water Resource Plan will be presented to the SNWA Board on December 18, 2003.

Nevada In-State Resources Groundwater and Surface Water

- Program management, \$8 million for services of Parsons Infrastructure and Technology Group
- Summer 2004
 - Timeline for environmental and facility planning
 - Initial cost estimates





Southern Nevada Groundwater Bank

Infrastructure \$20-30 million

- Began in 1987
- About 260,000 af stored for future use, including about 25,000 af in 2003
- Treated resource cost over \$50 million

Summary

- Interstate banking is an important interim resource bridge for Southern Nevada
- Project team for preparation of EIS is in place
- Initial cost estimates for groundwater and surface water projects to be completed summer 2004
- Early 2004 hearings for Three Lakes North and South and Tikaboo valleys
- Hearings on other existing applications to be set in 2004
- EIS process to begin in 2004