### ARIZONA WATER BANKING AUTHORITY Wednesday, December 21, 2005

No.	NAME (Please print)	Phone No.
1	Tom Buschatzke	GD 261 8532
2	Bob MCai	602 261 8532 248-8482 520-791-2666
3	Dennis Rula	520-791-2666
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### ARIZONA WATER BANKING AUTHORITY Wednesday, December 21, 2005

No.	NAME (Please print)	Phone No.
1	Mark Myors	7520-742-044
2	DeniseForbes	602-440-4884
3	LARRY TAMASHIRO	702-862-3717
4	Paul Lis	602-254-5908
5	Hurry Kyzgerian	2132176082
6	Fred Breedlone	602 926 3171
7	Rich Siegel	6022362277
8	ALAN P. KLEINMAN	707-293-8881
9	Kathi Knox	602 926 3480
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Arizona Water Banking Authority 3550 N. Central Avenue, Phoenix, Arizona 85012 Telephone 602-771-8487 Fax 602-771-8685 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 21, 2005 at 10:00 a.m. at the Arizona Department of Water Resources, 3550 North Central Avenue, Phoenix, Arizona 85012, Upper/Middle Verde conference room on the 2<sup>nd</sup> floor. The meeting is open to the general public. A copy of the agenda for the meeting is posted below.

Dated this 20th day of December, 2005

### FINAL AGENDA

### Arizona Water Banking Authority Commission Meeting

- I. Welcome/Opening Remarks
- II. Approval of Minutes of September 21, 2005 Meeting
- III. Water Banking Staff Activities
  - Deliveries
  - Staffing Update
  - Status of 7-Basin States discussions
  - Indian Firming Study Commission

### IV. Interstate Water Banking

- Update on Interstate Storage
- Nevada Account
- V. Discussion and Approval of 2006 Annual Plan of Operation
  - Overview of public comment
  - Approval of 2006 Annual Plan of Operation
  - Discussion and potential future amendment to the Plan dealing with Groundwater Savings Agreement with Gila River Indian Community
- VI. CY 2006 Water Delivery Budget
  - Overview of budget
  - Adoption of budget

### Page 2

Arizona Water Banking Authority meeting

VII. Call to the Public

### **Future Meeting Dates:**

Wednesday, March 22, 2006 Wednesday, June 21, 2006 Wednesday, September 20, 2006 Wednesday, December 20, 2006

<u>Please Note:</u> The AZ Water Banking Authority has moved! Our new location is 3550 N. Central Avenue, Phoenix, in the Meridian Bank building. Visitor parking is located on the south side of Columbus Ave. (one block north of Osborn Ave), west of Central Avenue. Cost of parking is \$1.00/half hr, maximum \$7.00. There is no ticket validation.

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

Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Nan Flores at (602) 771-8526. Requests should be made as early as possible to allow time to arrange the accommodation.

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

### September 21, 2005 Arizona Department of Water Resources

### Welcome/Opening Remarks

Herb Guenther welcomed the attendees to the meeting. All members of the Authority were present.

### Approval of Minutes of June 22, 2005 AWBA Meeting The Authority approved the minutes of the meeting with a minor change.

### Water Banking Staff Activities

Tim Henley reviewed deliveries.



AUTHORITY MEMBERS Herbert R. Guenther, Chainnan William K. Perry Charles L. Cahoy, Secretary John Mawhinney Maureen R. George

EX OFFICIO MEMBERS The Honorable Jake Flake The Honorable Lucy Mason

John Mawhinney questioned whether Arizona would use the full 2.8 million acre foot (MAF) allocation. Mr. Henley replied that Arizona will not, even if the AWBA uses all of the storage capacity available. Further, the Lower Basin will not use 7.5 MAF as neither California or Nevada are anticipated to utilize their full allocation.

Mr. Henley updated the Authority on the status of the Colorado River shortage workshops currently taking place. He noted that the participants are presently working to identify what level of shortage is manageable and that the next task will be evaluation of shortage sharing. Tom Carr stated that the seven Basin states are developing a position on shortages that will be developed into a proposal and submitted to the Secretary of the Interior.

Mr. Henley also updated the Authority on the activities of the Indian Firming Technical Committee. He noted that the next meeting was scheduled for October and that time he anticipated the discussion would focus on development of the interim report. There was a question regarding the timetable and Sandy Fabritz-Whitney stated that the final report needed to be completed and to the Governor by January 6, 2006.

With respect to other Colorado River issues, Mr. Henley noted that there had been some questions regarding all of the assumptions being used by the seven Basin states when looking at shortages, shortage sharing, reservoir levels etc. Mr. Henley provided handouts detailing all of the assumptions and he discussed them in depth. Mr. Henley noted that Mr. Carr's work on modeling shortages has allowed Arizona to bring information to the group early on. This serves to get this information into the collective thinking before ideas get "established".

Mr. Henley noted that the CAP and the Mohave County Water Authority (MCWA)

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

have entered into an exchange agreement with respect to the on-river M&I firming credits. This exchange agreement was a provision of the agreement for on-river firming between the AWBA and MCWA and now all of the provisions of the agreement have been met. Mr. Mawhinney questioned when MCWA got credits and whether they were repaid. Mr. Henley stated that MCWA gets credits only in time of shortage and that they must be repaid once they are used.

Mr. Henley informed the Authority that all other staff members of the AWBA had accepted new positions, thus he was the sole remaining AWBA staff person. He stated that he was in the process of evaluating staffing needs and would be hiring new staff as needed. The Authority presented resolutions of appreciation to Sandy Fabritz-Whitney, Nan Flores and Gerry Wildeman for their contributions to the success of the AWBA.

### Draft 2006 Annual Plan of Operation

Mr. Henley informed the Authority members of the requirements with respect to the Annual Plan of Operation and noted that only Table 2 was being distributed at this time. In his review of Table 2, Mr. Henley noted that it included only intrastate storage as the interstate storage has last priority, pursuant to statute. Once CAP finalizes water deliveries based on orders, the volume of water available for interstate storage, approximately 209,000 acre-feet. Mr. Henley noted that the intrastate storage proposed in the draft Table 2 will cost approximately \$25 million and includes an agricultural partner cost share for storage at groundwater savings facilities (GSF) of \$30 per acre-foot. Chuck Cahoy questioned whether the \$30 cost share rate limited participation with the GSFs. Mr. Henley replied that this had always been an issue. However, the AWBA water is still less than ag pool water that is priced at \$33 per acre-foot. Mr. Cahoy noted that the AWBA may want to maximize GSF storage if the other Basin states continue with their criticism regarding storage of Colorado River water as the GSF is an actual direct use of the water.

Dennis Rule briefed the Authority on the status of recharge in Tucson, particularly at CAVSARP. Due to recent modifications to the facility, he stated that more storage may be possible at CAVSARP and other proposed Tucson Water recharge facilities. He noted that Tucson Water wanted to make as much excess capacity available as possible and that they advocated storage in these facilities due to ease and convenience of recovery. In response to a question regarding total capacity, Mr. Rule estimated 90,000 acre-feet between CAVSARP and the Southern Avra Valley Recharge Project. Maureen George commented that the issue of recovery is, always has been and will continue to be of importance.

### Status of Nevada's Payment Pursuant to Interstate Agreement

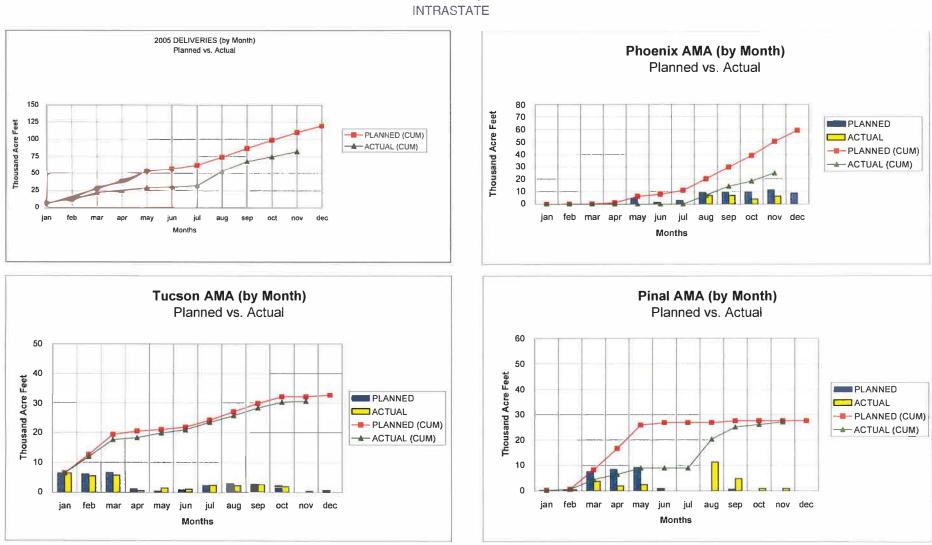
Mr. Henley noted that this issue was discussed at the last AWBA meeting and that staff have been directed to continue discussions with the State Treasurer's Office. He introduced Ming Trang, the portfolio manager that the AWBA would work with. Mr. Trang expressed his willingness to come to the next Authority meeting with a presentation. Mr. Henley requested that the Authority direct him to request the remaining money due from Nevada (\$74 million). Some Authority members

expressed their continuing concern about the ability of the Authority to protect the money from legislative sweep and Mr. Mawhinney suggested that development of policy guidelines regarding use of the money may provide some additional protection. Mr. Cahoy suggested a potential use would be a contribution to the Basin States Legal Fund. The Authority directed Mr. Henley to request the remaining \$74 million from Nevada.

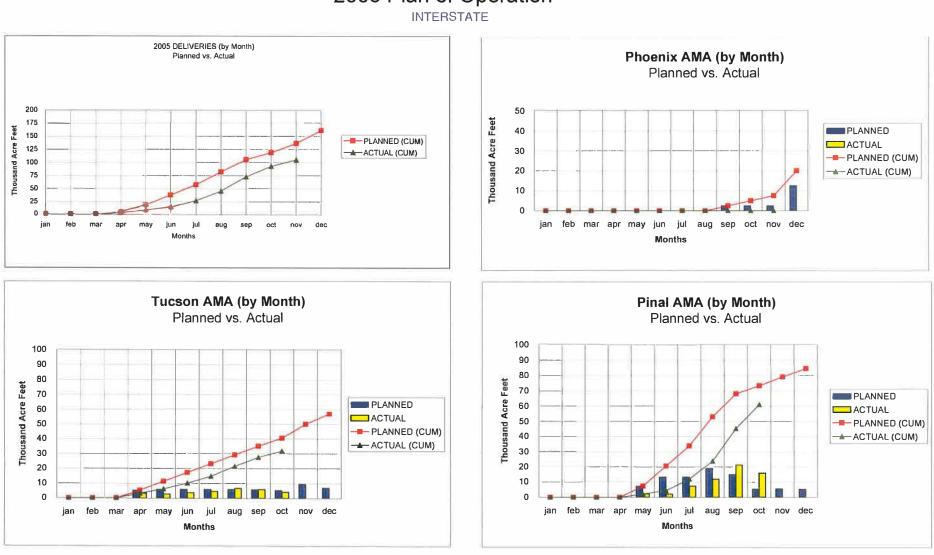
### Call to the Public

There was no additional public comment.

The meeting adjourned at 11:45 A.M.



## 2005 Plan of Operation

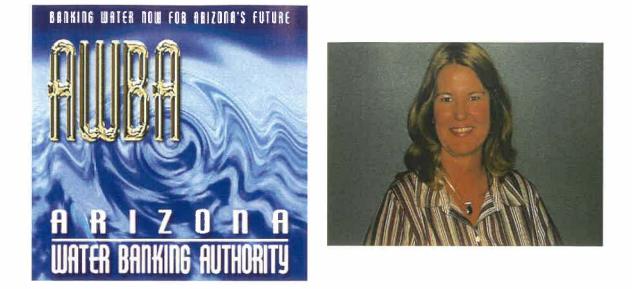


## 2005 Plan of Operation

lual deliveries updated nended Plan of Operation	14-Dec-05 11-Apr-05	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	totai
oenix AMA Intrastate														
	GRUSP	0 0	0 <i>0</i>	0 0	0	0 0	0 0	0 0	0	0 <i>0</i>	0 <i>0</i>	0 0	0	0
	AGUA FRIA	0	0	0	0 1,000	0 1,000	0	0	0	0	0	395 1,500	0 1,500	395 <i>5,000</i>
	HIEROGLYPHIC MTNS	0	0 100	0 100	0	0	0	0	0	0	0 1,767	2,673 2,417	0 2,416	2,673 6,800
	TONOPAH DESERT	0	0	0	0	0 0	0 0	0	0	0 0	0	0	0	0
	CHCID	0	0	0 50	0 50	15 50	44 100	42 75	63 75	90 50	86 <i>83</i>	0	0	340 533
	NMIDD	0	0	0	0	0 4,000	0 1,500	0 3,000	7,079 6,000	6,909 6,500	4,015 <u>6,000</u>	2,957 <u>5,584</u>	0 2,500	20,960 <i>35,084</i>
	QCID	0	0	0	0	4,000 0 0	0 0	0 0	0 2,285	0,500 0 2,000	0,000 0 800	319 <i>960</i>	0	319
	SRP	0	0	0	0	0	0	0	0	0	0	0	1,600 0	7,645 0
	TID	0	0	0	0	0	0 0	0 0 0	800 0 0	800 0 0	800 0 0	800 0 0	800 0 0	4,000 0
Subtotal Total to date <i>Projected total to c</i>	date	0 0 0	0 0 100	0 0 250	0 0 1,300	15 15 6,350	44 59 7,950	42 101 11,025	7,142 7,243 20,185	6,999 14,242 <i>29,535</i>	4,101 18,343 <i>38,985</i>	6,344 24,687 50,246	0 24,687 59,062	24,687 24,687 59,062
Interstate														
	GRUSP	0 0	0 0	0	0	0	0 0	0 0	0	0 <i>2,500</i>	0 2.500	0 2.500	0 2.500	0 10,000
	AGUA FRIA	0	0	0	0	0	0	0	0	0	0	0	0	0
	HIEROGLYPHIC MTNS	0	0	0	0	0	0	0	0	0	0	0	0	0
	TONOPAH DESERT	0	0	0	0	0	0	0	0	0	0	0	0 10,000	0 10,000
	CHCID	0	0	0	0	0	0	0	0	0	0	0	0	0
	NMIDD	0	0	0	0	0	0	0	0	0	0	0	0	0
	QCID	0	0	0	0	0	0	0	0	0	0	0	0	0
	SRP	0	0	0	0	0	0	0	0	0	0	0	0	0
	TID	0	0	0	0 0 0	0	0	0	0	0	0 0 0	0	0 0 0	0
Subtotal Totat to date Projected total to o		0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0	0 0 0	0 0 0 0 0	0 0 0 0	0 0 2,500	0 0 5,000	0 0	0	
i rojetice iolario (	and 1 m	U	0	0	U	U	U	U	U	2,000	5,000	7,500	20,000	20,000
Combined Subtotal		0	0	0	0	15	44	42	7,142	6,999	4,101	6,344	0	24,687
Total to date Projected total to d	date	0	0 100	0 250	0 1,300	15 6,350	59 7,950	101 11,025	7,243 20,185	14,242 32,035	18,343 43,985	24,687 57,746	24,687 <i>79,062</i>	24,687 24,687 <i>79,062</i>

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	veries updated Plan of Operation	14-Dec-05 <i>11-Apr-05</i>	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	πον	dec	total
Pinal AMA	A														
	Intrastate	CAIDD	0	0	0	0	0	0	0	5,500	1,000	1,000	1,021	0	8,521
			0	<u>0</u> 0	0	0	8,000	<i>1,000</i> 0	<i>0</i> 0	0 1 750	0	0 0	<u>0</u> 0	0 0	<i>9,000</i> 9,000
		MSIDD	63 <u>63</u>	0	0 1,960	2,000 <i>5,780</i>	2,516 1, <i>197</i>	0	0	1,750 0	2,671 0	0	0	0	9,000
		HIDD	103	482	3,752	0	0	0	0	4,068	1,095	0	0	0	9,500
		<u>-</u>	103	482	5,600	2,625	0	0	0	0	690	0	0	0	9,500
	Subtotal		166	482	3,752	2,000	2,516	0	0	11,318	4,766	1,000	1,021	0 27,021	27,021
	Total to date Projected total t	o date	166 166	648 <u>648</u>	4,400 <i>8,208</i>	6,400 16,613	8,916 <i>25,810</i>	8,916 <i>26,810</i>	8,916 <i>26,810</i>	20,234 <i>26,810</i>	25,000 <i>27,500</i>	26,000 27,500	27,021 <i>27,500</i>	27,500	27,021 <i>27,500</i>
	i iojecieo iolari	U dale	100	040	0,200	10,015	20,010	20,010	20,010	20,010	27,000	27,000	27,000	27,000	27,000
	Interstate	CAIDD	0	0	0	0	0	0	0	6,635	10,539	2,224	0	0	19,398
		MSIDD	0	0	0	0	0	6,000	9,000	11,000	5,500	1,000	1,000	1,500 0	<i>35,000</i> 40,432
		MSIDD	0	0	0	0	2,302 7, <i>343</i>	2,148 <b>7,<i>300</i></b>	7,463 <u>4,300</u>	5,316 <i>8,050</i>	5,715 <i>5,120</i>	10,269 <i>4,420</i>	7,219 <i>4,650</i>	3,880	45,063
		HIDD	0	0	0	0	0	0	0	0,000	5,122	3,200	1,822	0	10,144
			0	0	0	0	0	0	0	0	4,310	0	0	0	4,310
	Subtotal		0	0	0	0	2,302	2,148	7,463	11,951	21,376	15,693	9,041	0	69,974
	Total to date		0	0	0	0	2,302	4,450	11,913	23,864	45,240	60,933	69,974	69,974	69,974
	Projected total I	o date	0	0	0	0	7,343	20,643	33,943	52,993	67,923	73,343	78,993	84,373	84,373
	Combined														· · · · · · · · · · · · · · · · · · ·
	Subtotal		166	482	3,752	2,000	4,818	2,148	7,463	23,269	26,142	16,693	10,062	0	96,995
	Total to date		166	648	4,400	6,400	11,218	13,366	20,829	44,098	70,240	86,933	96,995	96,995	96,995
	Projected total t	o date	166	648	8,208	16,613	33,153	47,453	60,753	79,803	95,423	100,843	106,493	111,873	111,873
Tucson A	MA														
	Intrastate	AVRA VALLEY	402	308	107	0	0	0	195	320	550	518	272	0	2,672
			402	338	338	0	0	338	338	338	300	247	0	650	3,289
		CAVSARP	0	0	500 <i>500</i>	500 <i>500</i>	500 500	500 500	2,000 <u>2,000</u>	2,000 <u>2,000</u>	2,000 <i>2,000</i>	1,000 <i>2,000</i>	0 0	0 0	9,000 <i>10,000</i>
		PIMA MINE	2,185	<mark>0</mark> 1,497	1,289	0	1,052	657	259	2,000	2,000	2,000	0	0	6,939
			2,185	2,040	2,040	674	0	007	0	0	0	0	0	0	6,939
		LOWER SANTA CRUZ	3,847	3,652	3,809	139	0	0	0	0	0	0	0	0	11,447
			3,847	3,800	3,800	0	0	0	0	0	0	0	0	0	11,447
		KAI-RED ROCK	0 0	0 0	0	0 0	0	0 0	0 0	0 <i>500</i>	0 <i>500</i>	420 0	41 0	0 <i>0</i>	461 1,000
	Subtotal		6,434	5,457	5,705	639	1,552	1,157	2,454	2,320	2,550	1,938	313	0	30,519
	Total to date		6,434	11,891	17,596	18,235	19,787	20,944	23,398	25,718	28,268	30,206	30,519	30,519	30,519
	Projected total (	o date	6,434	12,612	19,290	20,464	20,964	21,802	24,140	26,978	29,778	32,025	32,025	32,675	32,675
	Interstate	AVRA VALLEY	0	0	0	0	0	0	0	0 <i>0</i>	0	0 0	0	0 <i>0</i>	0 <i>0</i>
		CAVSARP	<i>0</i> 0	<i>0</i> 0	<i>0</i> 0	0 0	<i>0</i> 0	<i>0</i> 0	0 0	0	0	0	0	0	0
		ONTOAN	0	0	0	0	0	0	0	0	0	0	3,550	1,450	5,000
		PIMA MINE	0	0	0	0	0	0	2,286	2,940	2,495	1,369	798	0	9,888
			0	0	0	1,526	2,200	2,200	2,200	2,200	2,040	1,540	2,039	1,700	17,645
		LOWER SANTA CRUZ	0	0	0	3,430	2,912	3,836	2,393	3,818	3,547	2,942	2,439	0	25,317
		KAI-RED ROCK	<i>0</i> 0	0 0	<i>0</i> 0	<i>3,800</i> 0	<i>3,800</i> 0	<i>3,800</i> 0	<i>3,800</i> 0	<i>3,800</i> 0	<i>3,800</i> 0	<i>3,800</i> 0	0 0	0	26,600 0
		NAPILED NOOK	0	0	0	0	0	0	0	0	0	0	0	0	0
	Subtotal	2	0	0	0	3,430	2,912	3,836	4,679	6,758	6,042	4,311	3,237	0	35,205
	Total to date		0	0	0	3,430	6,342	10,178	14,857	21,615	27,657	31,968	35,205	3,237	35,205
	Projected total	to date	0	0	0	5,326	11,326	17,326	23,326	29,326	35,166	40,506	46,095	49,245	49,245
	Combined														
	Subtotal		6,434	5,457	5,705	4,069	4,464	4,993	7,133	9,078	8,592	6,249	3,550	0	65,724
	Total to date		6,434	11,891	17,596	21,665	26,129	31,122	38,255	47,333	55,925	62,174	65,724	33,756	65,724
	Projected total	to date	6,434	12,612	19,290	25,790	32,290	39,128	47,466	56,304	64,944	72,531	78,120	81,920	81,920
Lat.	TOTAL		0.000	5 000	0.457	0.000	0.007	7	44.000	00.100	14 700	07.010	10.050	~	407.400
	TOTAL Total to date		6,600 6,600	5,939 12,539	9,457 21,996	6,069 28,065	9,297 37,362	7,185 44,547	14,638 59,185	39,489 98,674	41,733 140,407	27,043 167,450	19,956 187,406	0 187,406	187,406 187,406
	Projected total	to date	6,600	13,360	27,748	43,703	71,793	94,531	119,244	156,292	192,402	217,359	242,359	272,855	272,855
			-					-							

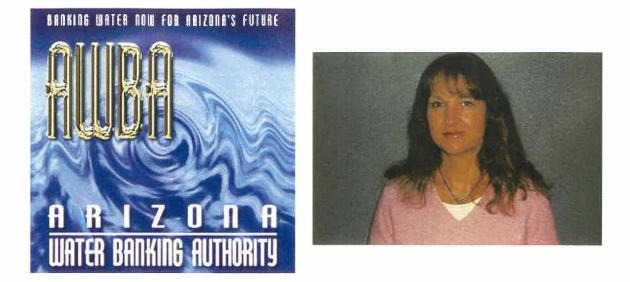


# Kim Mitchell

Kim Mitchell joined the Arizona Water Banking Authority as a Technical Administrator in November 2005 following over 20 years working in the Hydrology Division of the Department of Water Resources. Ms. Mitchell joined the Department staff in 1983 as a water resource specialist assisting in water rights evaluations and annual report design/review for the Phoenix AMA.

As a hydrologist, she has worked in the programs of Recharge, Assured Water Supply, Special Studies, and Instream Flow. Ms. Mitchell developed the initial guidelines for determining hydrologic feasibility, monitoring requirements, and calculating storage accounts of recharge projects. She also provided hydrologic support to the Legal Division on complex applications for surface water rights and has served as technical editor of numerous hydrologic reports. Most recently, Ms. Mitchell has been involved in groundwater basin studies conducting research in groundwater supplies, surface water statistics, storage estimates, water budgets, and impacts of water use on groundwater systems.

Ms. Mitchell was enrolled in the Watershed Hydrology program at the University of Arizona before moving to Indiana where she received her Bachelor of Science degree in Water Resources and Environmental Science from Purdue University.



# Virginia O'Connell

Virginia O'Connell joined the Arizona Water Banking Authority as a Water Resource Specialist in November 2005 following 6 years working in the Phoenix Active Management Area Office (AMA) in the Department of Water Resources.

Ms. O'Connell has worked in the Recharge, Municipal Conservation, and the Assured Water Supply Programs. Prior to joining the AWBA staff, she lead the Phoenix AMA Recharge Program where she was responsible for the accounting of long-term storage credits and overseeing recharge and recovery projects. Ms. O'Connell worked with recharge team members and the Hydrology and Legal Divisions to develop the current recharge application guides, streamline procedures, and develop policies.

She has a B.S. and an M.S. in Environmental Resources from Arizona State University and was a research assistant while pursuing her masters degree.

### **Explanation of Model Run Scenarios**

11/21/05 Work Group mtg. Las Vegas

(Elevation in feet; Volume in million acre-feet)

Powell			<b>Powell Release Strate</b>	gy		Powell			
Elevation	Normal Hybrid Hybrid rev1		Hybrid rev2	Hybrid rev3 E					
3700	Equalize or 8.23	Equalize or 8.23	Equalize or 8.23	Equalize or 8.23	Equalize or 8.23	3700			
602(a)						- 602(a)			
	8.23	8.23; if Mead < 1050, balance contents with a max release of 9.5	8.23; if Mead < 1100, balance contents with a max release of 9.5	8.23; if Mead < 1050, balance contents with a max release of 9.5	8.23; if Mead < 1100, balance contents with a max release of 9.5				
3575				7 40	7.48	3575			
3550				7.48	1.40	3550			
3525		7.48	7.48 			3525			
		balance contents with a min/max release of 7 and 9.5	balance contents with a min/max release of 7 and 9.5	balance contents with a min/max release of 7 and 9.5	balance contents with a min/max release of 7 and 9.5				
3370						3370			
1. 2. 3.	Initial elevation (conte Surplus in accordance	e strategy: Step shortage (40 ent): Powell = 3608.56 (12.6 e with ISG (2007-2016) nent for equalization is acco	0), Mead = 1135.50 (14.92)	)					

### **Explanation of Model Run Scenarios**

11/21/05 Work Group mtg. Las Vegas

(Elevation in feet; Volume in thousand acre-feet)

Mead		Lower Basin	Shortage Strategy		Mead
Elevation	Step Shortage	Step Shortage rev1	Step Shortage rev2	Step Shortage rev3	Elevation
1220	no shortage	no shortage	no shortage	no shortage	1220
1100			]		1100
1100		400	400	400	1100
1075	400	500	400	500	1075
1050				-+	1050
1025	500	600	500	500	1025
	600		600	600	
1000					1000
895					895

4

Arizona Department of Water Resources Indian Firming Study Commission 3550 North Central Avenue Phoenix, Arizona 85012 Telephone (602) 771-8586 Fax (602) 771-8689 Web Page: www.azwater.gov

### PLEASE POST

### NOTICE OF PUBLIC MEETING

Pursuant to A.R.S. § 38-431.02, notice is hereby given that there will be a meeting of the Arizona Department of Water Resources Indian Firming Study Commission on **Tuesday**, **December 20, 2005 at 11:30 a.m. – 1:00 p.m.** at the Arizona Department of Water Resources, 3550 North Central Avenue, Phoenix, Arizona 85012, second floor Conference Room. A copy of the agenda for the meeting is posted below.

### Dated this 15<sup>th</sup> day of December, 2005

### AGENDA

- I. Welcome/Purpose of Meeting
- II. Review of 11-15-2005 Discussion
- III. Final Recommendations
- IV. Final Report
- V. Call to the Public

Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting the Arizona Department of Water Resources at (602) 771-8588. Requests should be made as early as possible to allow time to arrange the accommodation.

The Arizona Department of Water Resources' new office is located on Central Avenue, south of Indian School Road. Visitor parking is located on Columbus Dr., west of Central Avenue. There are no parking validations.

### RECOMMENDATIONS OF THE INDIAN FIRMING STUDY COMMISSION

Recognizing the Arizona Water Banking Authority's (AWBA) existing mission and obligations for firming Central Arizona Project Municipal and Industrial supplies, the Indian Firming Study Commission (Study Commission) has concluded that the AWBA, in cooperation with the Arizona Department of Water Resources (ADWR) and the Central Arizona Water Conservation District (CAWCD), is the most appropriate and best suited entity to fulfill the State's obligations described in Section 105(b) of the Arizona Water Settlements Act. Therefore, the Study Commission recommends that the AWBA be provided with sufficient funding or mechanisms to develop the funding necessary to implement the Indian Firming Program on behalf of the State. Additionally, the Study Commission recommends the AWBA be empowered by the Arizona Legislature to include programs to address this new responsibility within its Annual Plan of Operation and the 10-Year Plan annual Indian Firming requirements.

# A. "Study the options for a water firming program that would satisfy the requirements of section 105(b)(2) of the Arizona water settlements act (P.L. 108-451)".

The Study Commission evaluated a number of options and concluded that the options are more than adequate to meet the requirements of Section 105(b) of the Arizona Water Settlements Act. Based on this conclusion, the Study Commission recommends the Legislature provide the AWBA the flexibility to meet this obligation by authorizing it to use a combination of one or more of the following options:

- Traditional Water Banking (off reservation underground storage of excess water for future recovery and delivery);
- On-Reservation Storage and Recovery;
- Leasing of Non-Indian Agricultural priority or Indian priority Central Arizona Project Water from Indian Tribes;
- Importation of groundwater from authorized groundwater basins;
- Use of long-term storage credits developed by the AWBA prior the Enforceability Date, as defined in the Act.
- Enter into a Memorandum of Understanding with the United States for monetary or in-kind goods or services pursuant to section 306(b) of the Arizona Water Settlements Act; and
- Use of general fund appropriations and withdrawal fees, collected within the Phoenix, Pinal and Tucson Active Management Areas, to store and recover water, lease Indian Central Arizona Project supplies, import groundwater, and deliver water to the Indian Communities for the purposes of satisfying the Section 105(b) State obligation.

B. "Identify appropriate mechanisms for the firming of water under the water firming program, including storage and recovery with specification of authorized entities to recover the water and determination of the financial structure for the recovery, as well as forbearance, and other alternative mechanisms".

The Study Commission recommends that the AWBA use the following mechanisms to meet the State's obligation for Indian Firming:

- 1. Obtain Long Term Storage Credits by:
  - a. Storage of water at permitted underground storage facilities.
  - b. Storage of water at permitted groundwater savings facilities.
- 2. Deliver water to Indian Communities for direct beneficial use in years prior to any shortages, which will be recovered or credited toward satisfaction of the obligation to provide substitute water in years when CAP NIA priority supplies are reduced.
- 3. Lease of Central Arizona Project water, in partnership with other entities, from one or more Indian Tribes to:
  - a. Bear shortages that otherwise would be borne by the Gila River Indian Community or other Tribes who are the beneficiaries of the State Firming Program; or
  - b. Obtain higher priority water to deliver to Indian Communities in times of shortage; or
  - c. Develop Long-Term Storage Credits for the purposes of Indian firming;
- 4. Utilize other sources of water (e.g., effluent) for storage and recovery or for direct delivery to Indian Communities when an adequate volume of excess Central Arizona Project water is not available to the AWBA for Indian firming purposes.
- 5. Utilize imported groundwater from allowable groundwater basins (Butler Valley, Harquahala INA, and McMullen Valley) if:
  - a. Transportation is consistent with current State law; and
  - b. Partnership agreements have been developed with entities who have or will develop the supply infrastructure to utilize imported groundwater; and
  - c. Delivery is for Indian Communities as a substitute supply in times of shortage.
- 6. Contract with the Central Arizona Project for wheeling non-CAP supplies through the Central Arizona Project canal for delivery of stored water, imported groundwater, or other sources of supply to Indian Communities in times of shortage, for purposes of Indian Firming.

- 7. Transfer long-term storage credits to the Central Arizona Project for recovery and delivery to Indian Communities in times of shortage.
- 8. In cooperation with CAP and in conjunction with overall AWBA-related recovery planning, periodically develop options for recovery of water stored for delivery to Indian Communities in times of shortage.
- 9. In cooperation with Indian Communities, periodically identify recovery options for water stored on tribal lands that meet the State's obligation to deliver water, pursuant to agreements for recovery with Indian Communities in times of shortage.
- 10. Periodically review the estimated Indian Firming Volume to determine progress towards meeting the Indian Firming obligation and to determine appropriate mechanisms for meeting that obligation.
- 11. Only if other mechanisms prove to be insufficient to satisfy the State's obligations, use existing Arizona Water Banking Authority long-term storage credits from the Phoenix, Pinal and Tucson Active Management Areas stored using previously collected withdrawal fees.
- 12. For purposes of satisfying the Indian Firming obligation and to the extent necessary, extend the timeframe for the transfer of withdrawal fees to the Arizona Water Banking Authority, collected in the Phoenix, Pinal and Tucson Active Management Areas.
- 13. As identified through periodic review of the Indian Firming program, create a reserve fund, using withdrawal fees collected in the Phoenix, Pinal, and Tucson Active Management Areas:
  - a. For the future pumping and transportation of groundwater from allowable groundwater basins (Butler Valley, Harquahala INA, and McMullen Valley); and/or
  - b. For the purposes of recovering non-CAP credits and delivery to Indian Communities in times of shortage; and
  - c. Subject to reversion to AMA water management accounts.
- 14. Develop mechanisms, to "assist the Secretary in firming water" for the Southern Arizona Water Rights Settlement Act, not to exceed \$3,000,000, which may include:
  - a. Monetary contributions;
  - b. In-kind goods or services as agreed to by the Secretary and the State;
  - c. Transfer of existing long-term storage credits developed by the Arizona Water Banking Authority using withdrawal fees collected in the Phoenix, Pinal or Tucson Active Management Areas;
  - d. Use of State Demonstration Underground Storage Facilities at the in-state rate.

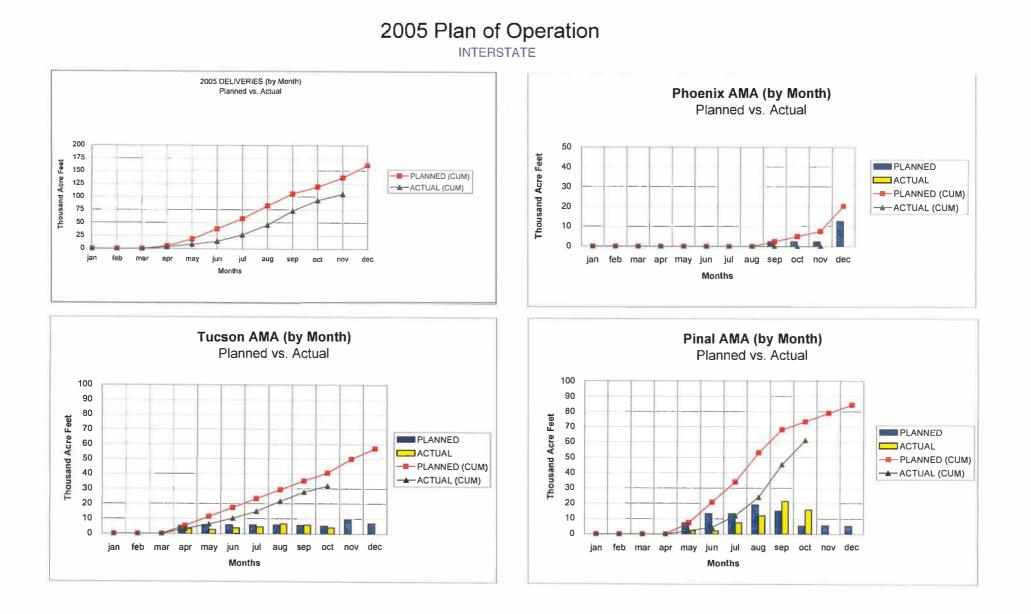
C. "Study the existing powers and duties of the Arizona water banking authority and the general statutory authorities necessary to implement the firming program and to make recommendations regarding appropriate statutory and regulatory provisions that are necessary to fully implement the water firming program".

The Indian Firming Study Commission reviewed the existing powers and duties of the Arizona Water Banking Authority. Based on the recommended options identified in section A, the Indian Firming Study Commission recommends the statutes be amended to authorize the Arizona Water Banking Authority to:

- 1. Act as the agent for the State of Arizona in meeting the State's obligation to deliver water in times of shortage pursuant to the Indian Firming program.
- 2. Store water at permitted recharge facilities for the purposes of Indian Firming.
- 3. Enter into contracts or agreements with the United States and Indian Communities for storage, recovery or direct delivery of water pursuant to the Indian Firming Program.
- 4. Enter into leasing agreements with one or more Indian Community, in partnership with other entities, for non-Indian agricultural priority or Indian priority Central Arizona Project water.
- 5. Enter into contracts for the use of water sources, such as effluent, other than excess Central Arizona Project water.
- 6. Enter into contracts for the use of imported groundwater from allowable groundwater basins (Butler Valley, Harquahala INA, and McMullen Valley) for the purposes of Indian Firming.
- 7. Enter into agreements with the Central Arizona Project delivery of water to Indian Communities.
- 8. Subject to the periodic review of progress towards meeting the State's Indian Firming obligation, allow for the use of existing long-term storage credits developed from withdrawal fees collected from the Phoenix, Pinal, or Tucson Active Management Areas.
- 9. Transfer long-term storage credits to the Central Arizona Project for recovery and subsequent delivery to Indian Communities in times of shortage.
- 10. To the extent necessary for Indian Firming purposes, extend the transfer of withdrawal fees from the Phoenix, Pinal, and Tucson Active Management Area water management accounts past the current expiration date of 2016 Use of Pinal Active Management Area funds will first be used to meet the obligations of the Southside Replenishment Program.

# 11. Subject to periodic review, to develop a reserve fund using or for the purposes of Indian Firming, comprised of:

- a. General fund appropriations;
- b. Withdrawal fees collected from the Phoenix, Pinal, and Tucson Active Management Areas; and
- e. Subject to reversion to AMA water management accounts.



#### INTERSTATE DELIVERIES

Actual deliveries updated Amended Plan of Operation	14-Dec-05 n <u>11-Apr-05</u>	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	total
Phoenix AMA														
	GRUSP	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	2,500	2,500	2,500	2,500	10,000
	AGUA FRIA	0	0	0	0	0	0	0	0	0 0	0 <i>0</i>	0	0	0
	HIEROGLYPHIC MTNS	<u>0</u> 0	0 0	0	0 0	<i>0</i> 0	0 0	<i>0</i> 0	0 0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
	TONOPAH DESERT	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	10,000	10,000
	CHCID	0	0	0	0	0	0	0	0	0	0	0	0	0
	NMIDD	<u>0</u>	0 0	0 0	0 0	<i>0</i> 0	<u>0</u> 0	0 0	0 0	0 0	<i>0</i> 0	<u>0</u> 0	0 0	<i>0</i> 0
	NMIDD	0	0	0	0	0	0	0	0	0	0	0	0	0
	QCID	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
	SRP	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0
	TID	0	0	0	0 0	0	0	0	0 0	0 0	0 0	0	0 <i>0</i>	0
Subtotal	-	0	0	0	0	0	0	0	0	0	0	0	0	0
Total to date		0	0	0	0	0	0	0	0	0	0	0	Ő	0
Projected total to da	ate	0	0	0	0	0	0	0	0	2,500	5,000	7,500	20,000	20,000
Pinal AMA			0		0	0		0	0.005	10 500	0.004	0	0	10.000
	CAIDD	0	0 0	0	0 0	0 <i>0</i>	0 <i>6,000</i>	0 <i>9,000</i>	6,635 11,000	10,539 <i>5,500</i>	2,224 1,000	0 1,000	1,500	19,398 <u>35,000</u>
	MSIDD	0	0	0	0	2,302	2,148	7,463	5,316	5,715	10,269	7,219	0	40,432
	110122	0	0	0	0	7,343	7,300	4,300	8,050	5,120	4,420	4,650	3,880	45,063
	HIDD	0	0	0	0	0	0	0	0	5,122	3,200	1,822	0	10,144
		0	0	0	0	0	0	0	0	4,310	0	0	0	4,310
Subtotal		0	0	0	0	2,302	2,148	7,463	11,951	21,376	15,693	9,041	0	69,974
Total to date Projected total to da		0 0	0 0	0 0	0 0	2,302	4,450	11,913 <i>33,943</i>	23,864	45,240 <i>67,923</i>	60,933 73,343	69,974 <i>78,993</i>	69,974 <i>84,373</i>	69,974 <u>84,373</u>
	110	U	U	0	U	7,343	20,643	33,943	52,993	07,923	73,340	70,993	04,070	04,070
Tucson AMA														
	AVRA VALLEY	0	0	0	0	0	0	0	0	0	0	0	0	0
	041/0455	0	0	0	0	0	0	0	0	0	0	0	0	0
	CAVSARP	0	0	0 0	0 0	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>3,550</i>	0 1,450	0 <i>5,000</i>
	PIMA MINE	0	0	0	0	0	0	2,286	2,940	2,495	1,369	798	0	9,888
		0	0	Ő	1,526	2,200	2,200	2,200	2,200	2,040	1,540	2,039	1,700	17,645
	LOWER SANTA CRUZ	0	0	0	3,430	2,912	3,836	2,393	3,818	3,547	2,942	2,439	0	25,317
		0	0	0	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	34,200
	KAI-RED ROCK	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	-	0	0	0	0 3,430	<u>0</u> 2,912	0 3,836	<u>0</u> 4,679	<u>0</u> 6,758	0 6,042	4,311	<u>0</u> 3,237	0	35,205
Total to date		0	0	0	3,430 3,430	6,342	3,836 10,178	4,679 14,857	21,615	6,042 27,657	4,371 31,968	3,237	3,237	35,205
Projected total to da	ate	0	0	0	5,326	11,326	17,326	23,326	29,326	35,166	40,506	49,895	56,845	56,845
,						,020				,				
TOTAL		0	0	0	3,430	5,214	5,984	12,142	18,709	27,418	20,004	12,278	0	105,179
Total to date		0	0	0	3,430	8,644	14,628	26,770	45,479	72,897	92,901	105,179	105,179	105,179
Projected total to da	ale	0	0	0	5,326	18,669	37,969	57,269	82,319	105,589	118,849	136,388	161,218	161,218

06 WATE	R RECHARGI	NA WATER BANKING AL E BUDGET		\$40,48	8,208
	REVEN	UES AVAILABLE for 2006 R	ECHARGE		
4 cent tax				\$1	4,089,00
	aricopa <sup>1</sup>				4,089,00
	nal <sup>1</sup>			•	\$
Pi	ma <sup>1</sup>				\$
					4 0 20 00
Withdrawal	hoenix AMA <sup>2</sup>				<b>4,020,00</b>
	inal AMA <sup>2</sup>				51,020,00
	ucson AMA <sup>2</sup>				\$500,00
General Fu	nd Appropriation	1			:
Interstate T	OTAL				74,000,0 92,109,0
				•	
	ent tax retained by ed on estimate of	the Central Arizona Water Conserv 2006 collections	vation District		
	D	ELIVERY and RECHARGE R	ATES		
v	/ater Delivery				
		Incentive Rate (Intrastate)		\$82.00	
		Interstate Rate		\$174.00	
D	irect Recharge Fa	acility Rate		Intrastate	Interst
	-	-		<b></b>	
		Avra Valley		\$12.00	\$21.
		Pima Mine Road		\$12.00	\$21.
		Lower Santa Cruz		\$12.00	\$21.
		Hieroglyphic Mountains		\$8.00	\$23
		Agua Fria Recharge Project		\$8.00	\$23.
		Tonopah Desert CAVSARP		\$8.00 \$12.79	\$23. \$12.
C	ost Recovery for	In-lieu Recharge		\$30.00	\$26.
		WATER and RECHARGE CO			
		Water Stored	\$/AF		Tota
		(AF)			
4 cent tax		22.22.4			\$7,481,4
	Maricopa	82,834	\$90.32		\$7,481,4
	Pinal	0	\$0.00		
P	Pima	0	\$0.00		
Withdrawa	al Fee				\$4,020,0
F	Phoenix AMA	27,680	\$90.32		\$2,500,0
F	inal AMA	19,615	\$52.00		\$1,020,0
7	ucson AMA	5,297	\$94.40		\$500,0
Interstate		169,585	\$170.93	\$	28,986,8
Total 2006		305,011		4	40,488,2
		PROJECTED CARRYOVE	FR		
4 cent tax		TROUEDIED OARTON			
	Maricopa		\$6,607,597		
	Pinal		\$0		
	Pima		\$0		
Withdrawa	al Fee				
	Phoenix AMA		\$0		
	Pinal AMA		\$0		
			\$0		
	Tucson AMA		<b>4</b> 0		

	Central Ariz	ona Water Cons	ervation Distric	ct
4 cent ta	ax Available			
	Maricopa <sup>3</sup>		\$42,380,000	
	Pinal <sup>3</sup>		\$530,000	
	Pima <sup>3</sup>		\$6,190,000	
Total 2006			\$49,100,000	
		Water Stored	\$/AF	Total
		(AF)		
4 cent ta	ax Utilized			
	Maricopa	0	\$90.32	\$0
	Pinal	7,885	\$52.00	\$410,000
	Pima	34,535	\$94.40	\$3,260,009
Total 2006		42,420		\$3,670,009

# DRAFT – dated December 19, 2005 ARIZONA WATER BANKING AUTHORITY ANNUAL PLAN OF OPERATION

# 2006



## Herbert R. Guenther, Chairman

December 2005

### 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.

### **2005 PLAN OF OPERATION**

In 2005, the AWBA's ninth full year of operation, the AWBA recharged approximately 209,000 acre feet of Colorado River water and Arizona's total use of Colorado River water is forecast to be 2.49 million acre feet by the Bureau of Reclamation data dated December 1, 2005 (see Figure 1).

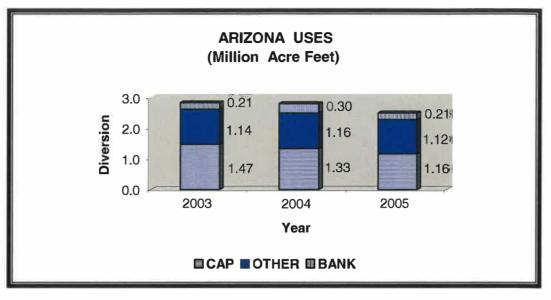


Figure 1

The Bureau of Reclamation forecasts total use of Colorado River water in the Lower Basin to be 7.1 million acre feet in 2005 (see Figure 2).

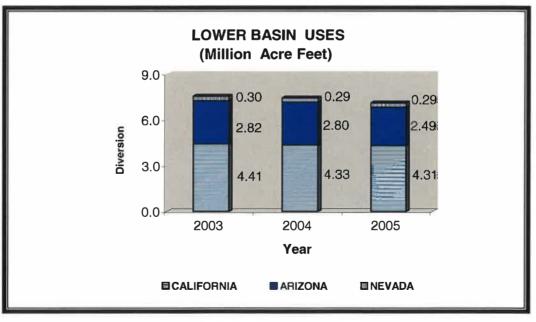


Figure 2

The AWBA recharged water at both USFs and GSFs in 2005. Table 1 lists the AWBA's recharge partners for 2005, 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

### DRAFT - dated December 19, 2005

2005. Table 1 values are based on actual deliveries through November with 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.

AMA	Facility	Туре	Permit Capacity	Amount Delivered
	Agua Fria (CAP)	USF	100,000 AF	1,895
	Hieroglyphic Mtn. (CAP)	USF	35,000 AF	5,089
Phoenix	Chandler Hts Citrus ID	GSF	3,000 AF	340
	New Magma IDD	GSF	54,000 AF	23,460
	Queen Creek ID	GSF	28,000 AF	1,919
	CAIDD	GSF	110,000 AF	9,021
	CAIDD Interstate			20,898
Pinal	Hohokam IDD	GSF	55,000 AF	9,500
Filla	Hohokam Interstate			10,144
	MSIDD	GSF	120,000 AF	9,000
	MSIDD Interstate	nan Kanada I na Kanada I na K		44,312
	Avra Valley (CAP)	USF	11,000 AF	3,322
	CAVSARP	USF	60,000 AF	9,000
	CAVSARP Interstate			1,450
Tucson	Lower Santa Cruz (CAP)	USF	50,000 AF	11,447
Tucson	LSC Interstate			29,117
	Pima Mine Road (CAP)	USF	30,000 AF	6,939
	PMR Interstate			11,588
	Kai-Red Rock	GSF	11,231 AF	461
Total			787,231 AF	208,902 AF

Table	1
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The Plan as originally approved was only scheduled to deliver approximately 115,000 acre feet but as additional water became available due to reduced demand by other CAP users the Plan was amended to include substantial interstate water banking. The 2005 Plan delivered approximately 130,000 acre feet for interstate banking. Most of this water was delivered to AWBA's GSF partners in Pinal County. AWBA funding for Pinal is limited which left significant storage capacity available in the area for interstate. Figure 3 shows the acre foot break down between GSFs and USFs for 2005 and a comparison between 2005 and previous years.

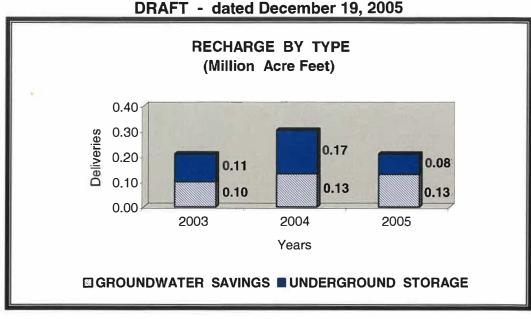


Figure 3

### 2006 PLAN OF OPERATION

For 2006, the AWBA will store approximately 347,431 acre feet of water. This represents 177,846 acre feet for intrastate banking and 169,585 acre feet for interstate banking. Water storage will be occurring in facilities from all three counties.

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. In addition to these critical factors, the AWBA takes into consideration recommendations made by the Groundwater Users Advisory Councils (GUAC)<sup>1</sup> of the three AMAs regarding water management objectives and priorities for storage.

### 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 distributed the Annual Operating Plan (AOP) for water year 2006 to the states by letter dated December 12, 2005. The 2006 AOP stated that the Partial Domestic Surplus condition is the criterion governing operation of Lake Mead. Under a Normal declaration, there is 2.8 million acre feet of water available for use within Arizona. The Bureau of Reclamation does

<sup>&</sup>lt;sup>1</sup> The Tucson GUAC recommended that the AWBA: (1) utilize all available funds and capacity until either was exhausted; and (2) utilize available capacity at CAVSARP, then Pima Mine Road while ensuring at least a proportionate share in the northwest USF and GSF facilities based on magnitude of CAP M&I subcontracts.

### DRAFT - dated December 19, 2005

not anticipate that there will be any unused state apportionment available in 2005. Arizona's on-river use is forecast to be 1.2 million acre feet, leaving 1.6 million acre feet available for diversion by CAP. The amount of water available to be diverted by the CAP within Arizona's 2.8 million acre foot allocation was not a limiting factor in this Plan.

With respect 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 (M&I) firming with the Central Arizona Groundwater Replenishment District. There continues to be a great deal of interest in the excess water by higher priority users. There remained sufficient excess water for AWBA's purposes.

### II. Available Funds

The AWBA has significantly reduced funds available in 2006 in all of the AWBA Fund accounts. The AWBA will only have the withdrawal fees collected in 2006 available for use in this Plan. The CAWCD Board resolved to continue to retain the county *ad valorem* property taxes collected and not transfer those revenues to the AWBA Fund. While the property tax revenues retained by CAP can be used to offset the cost of AWBA water deliveries in the tri-county CAP service area, those funds are not shown in the AWBA fund accounts. The impact of availability of funds in developing the Plan differs by geographic location. Within the Phoenix AMA/Maricopa County, there were adequate revenues to fund the Plan. In the Pinal AMA/Pinal County and in Tucson AMA/Pima County, the availability of funds was a limiting factor in this Plan. However, funds are available from the Nevada agreement to utilize additional capacity in both those areas.

The total amount of revenue available in the AWBA Fund in 2006 is more than \$92.1 million. This amount includes (1) carryover from previous years in the Maricopa County *ad valorem* account; and (2) withdrawal fees projected for March of 2006. Of that amount, \$16.5 million is available in Maricopa County, and approximately \$500,000 and \$1.0 million are available in Pima and Pinal County, respectively. There are additional funds available at CAP in the form of the retained *ad valorem* property tax revenues. Estimated CAP *ad valorem* tax balances at the end of 2005 are: Maricopa County (\$42.4 million); Pima County (\$6.2 million); and Pinal County (\$530,000). In addition to these funds there is approximately \$74 million in the Nevada account.

### III. 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 previously noted, the Tucson AMA provided the AWBA with priorities for USF facilities. To the extent possible, those priorities were met.

For 2006, several partners that had previously stored water for the AWBA opted not to store because they found other partners to utilize their facilities. The two major partners that opted not to store for the AWBA are Salt River Project and New Magma IDD. This did reduce the capacity available to the AWBA for 2006.

### IV. Table 2

Table 2 shows the AWBA's 2006 delivery schedule. Lines one through twenty nine represent the AWBA's 2006 Plan of Operation. This section identifies the AWBA's partners for 2006 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 2006. The capacity available does not always equal the storage permit capacity because the storage facility operators may have agreements with other storage partners. Line thirty lists the total amount of AWBA storage scheduled for the year 2006.

While no recovery is scheduled in 2006, the recovery of long-term storage credits may be necessitated sooner than originally anticipated because of potential requests from California or Nevada to develop Intentionally Created Unused Apportionment. AWBA and CAWCD will work with ADWR and stakeholders to begin the development of a recovery plan in 2006. In addition, a recovery plan will assist the AWBA in determining appropriate locations for water storage.

				iter Del alenda	-	Schedu 200								ļ.	
			January	February	March	April	May	June	July	August	September	October	November	December	Total
PHOENIX AMA															
		GRUSP	0	0	0	0	0	0	0	0	2,500	2,500		element of the second sec	10,000
		GRUSP Interstate	0	0	0	0	0	0	0	0	0	0			
	LL.	HIEROGLYPHIC	0	0	0	0	0	0	0	0	2,115	2,300	1,000	2,300	7,715
	USF	HIEROGLYPHIC Interstate	0	0	0	0	0	0	0	0	0	0			45.000
		AGUA FRIA	0	0	0.809	0 9.808	0	249 10.000	1,690 10.000	2,800	2,800	2,800		2,800	15,939
		Tonopah Desert	<u>1,300</u>	3,710		10.0.077	10,000	10,000	10,000			0		CONTRACTOR OF DESCRIPTION OF THE OWNER OWN	74,627
		Tonopah Interstate	<u> </u>	0	0	0	0	0	0	0	0	10,000	10,000	10,000	30,000 138,281
		CHANDLER HGTS ID	0	0	50	50	50	100	75	75	50	83	0	0	533
	E S	QUEEN CREEK	0	0	0	0	0	0	0	0	0	00			1,700
	Ü	TONOPAH ID	0	0	0	0	0	0	0	0	0	0			0
															2,233
		TOTAL INTRASTATE	1.300	3.710	9.859	9,858	10.050	10,349	11,765	12,875	17.465	7,683	7.000	8.600	110,514
		TOTAL INTERSTATE	0	0	0,000	0	0	0	0	0	0	tetantell . Per Lastantes	a sure sure sure sure sure sure sure sure		30,000
AMA TOTAL			1,300	3,710	9,859	9,858	10,050	10,349	11,765	12.875	17,465	17,683			140,514
PINAL AMA :			1,000	0,710	3,000	3,000	10,000	10,040	11,705	12,010	17,400	17,000	17,000	10,000	140,014
		CAIDD	0	0	0	0	0	0	2,000	2,000	1,500	1,000	1,000	1,500	9,000
		CAIDD interstate	0	0	0	5.000	5.000	5,000	5.000	5,000	0	0			25,000
	щ	НОНОКАМ	0	500	3.600	5,400	0	0	0	0	0	0			9,500
	GSF	HOHOKAM Interstate	50	0	0	750	0	0	2,500	0	4,500	2,700	1,500	2,500	14,500
		MSIDD	410	720	1,560	1,550	1,560	0	0	1,150	1,560	490			9,000
		MSIDD Interstate	1,030	1,440	5,720	3,210	5,300	840	2,080	8,740	7,500	5,240	3,690	2,970	47,760
															114,760
		TOTAL INTRASTATE	410	1,220	5,160	6,950	1,560	0	2,000	3,150	3,060	1,490	1,000	1,500	27,500
		TOTAL INTERSTATE	1,080	1,440	5,720	8,440	10,300	5.000	7.500	13,740	11.790	7.940	This are an a second to second a se	Aver 1 1000 1000 00-02 1000000 10 10	87,260
AMA TOTAL			1,490	2,660	10.880	15,390	11,860	5,000	9,500	16,890	14,850	9,430			114,760
TUCSON AMA:			1,400	2,000	10,000	10,000	11,000	0,000	0,000	10,000	14,000	0,400	0,140	0,400	114,100
		AVRA VALLEY	650	650	650	650	650	150	650	650	650	300	300	650	6,600
		PIMA MINE RD	928	928	1,938	1,938	0	0	0	0	0	0			5,732
		PMR Interstate	the standard		1000	- sideidar	2200	2014	500	2200	2014	1000	2200	2200	14,328
	USF	LOWER SANTA CRUZ	3,299	3,299	902	0	0	0	0	0	0	0	0	0	7,500
	5	LSC Interstate			2,397	3,300	3,800	2,500	3,800	3,800	3,800	2,000	3,800	3,800	32,997
0		CAVSARP	2,000	0	2,000	2,000	2,000	2,000	2,000	2,000	2,000	3,000	1,000	0	20,000
		CAVSARP Interstate	0	0	0	0	0	0	0	0	0	0	2,000	3,000	5,000
															92,157
	GSF	KAI FARMS (Red Rock)	0	0	0	0	0	0	0	0	0	0	0	0	0
															0
		TOTAL INTRASTATE	6,877	4,877	5,490	4,588	2,650	2,150	2,650	2,650	2,650	3,300	1,300	650	39,832
		TOTAL INTERSTATE	0	0	2,397	3,300	6,000	4,514	4,300	6,000	5,814	3,000	8,000	9,000	52,325
AMA TOTAL			6,877	4,877	7,887	7,888	8,650	6,664	6,950	8,650	8,464	6,300	9,300	9,650	92,157
TOTAL INTRASTAT	E		8,587	9,807	20,509	21,396	14 260	12,499	16,415	18,675	23,175				177,846
TOTAL INTERSTAT	Έ		1,080	1,440	8,117	11,740	16,300	9,514	11,800	19,740	17,604	20,940	A 10 M HOLE TO A SHORE SHOWING	23,950	169,585
TOTAL			9.667	11,247	28,626	33,136	30.560	22,013	28,215	38,415	40,779	33,413	31,440	34,700	347,431

### DRAFT - dated December 19, 2005

### **NEW FACILITIES**

The Tonopah Desert Recharge facility will be used for the first time in the 2006 Plan.

### INTERSTATE WATER BANKING

The 2006 Plan includes an interstate water banking component. AWBA will store approximately 169,000 AF pursuant to the amended Interstate Water Banking agreement. This storage will occur at both USFs and GSFs in Pinal and Pima Counties.

### PRICING

In June 2005, the CAWCD board adopted final water delivery rates for 2006. The rate for AWBA and other M&I Incentive recharge is \$82 per acre foot. The delivery rate is the pumping energy rate 2 component (\$72 per acre foot) plus 10 percent of the fixed OM&R charge (\$4.90 per acre foot) plus a component to recover lost revenues from federal deliveries (\$6.00 per acre foot). For 2006, 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 2006, the AWBA maintained the cost share for the GSF partners to \$30 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.

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.

The rate established for interstate banking is \$174 per acre foot, plus facility costs and facility capital costs.

CAP's delivery rate to AWBA	\$82 per acre foot			
Groundwater Savings Facility operator portion of delivery rate	\$30 per acre foot <sup>1</sup>			
Interstate rate	\$174 per acre foot			
Underground Storage Facility rate paid by AWBA				
Avra Valley (CAP) <sup>3</sup>	\$12.00 per acre foot			
CAVSARP (Tucson Water)	\$12.90 per acre foot			
Hieroglyphic Mtns. (CAP) <sup>2</sup>	\$8.00 per acre foot			
Pima Mine Road (CAP) <sup>3</sup>	\$12.00 per acre foot			
Lower Santa Cruz (CAP/Pima County) <sup>3</sup>	\$12.00 per acre foot			
Agua Fria Recharge Project (CAP) <sup>2</sup>	\$8.00 per acre foot			

### Table 3. 2006 Water and Facility Rates for Intrastate Banking

<sup>1</sup> 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 \$43/af. <sup>2</sup> Additional capital charge of \$15 per acre foot for interstate water

<sup>3</sup> Additional capital charge of \$9 per acre foot for interstate water

For CAVSARP, the cost includes an administration 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 2006 Plan of Operation is approximately \$43.4 million which includes the USF use fees and the CAP delivery rate minus the cost recovery from the GSF operator by the CAWCD. Approximately \$15.2 million of the total is for intrastate storage and approximately \$28.2 million is for interstate storage.

### 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 to be utilized by the AWBA including any funds carried over from previous years and an estimate of funds to be collected during the year, the funds to be utilized and the entity that holds the funds, and the credits that will accrue to those accounts based on the 2006 Plan.

	Funds Available (\$)		Funds Utilized (\$)		Credits (AF)
	AWBA	CAP	AWBA	CAP	
Withdrawal Fees	2. -		1	1	
Phoenix AMA	\$2,500,000	-	\$2,500,000	\$0	26,000
Tucson AMA	\$500,000	-	\$500,000	\$0	5,000
Pinal AMA	\$1,020,000	-	\$1,020,000	\$0	18,000
Four Cent Tax					
Maricopa County	\$14,089,000	\$42,380,000	\$7,481,000	\$0	77,000
Pima County	\$0	\$6,190,000	\$0	\$3,260,000	33,000
Pinal County	\$0	\$530,000	\$0	\$410,000	7,000
Other				F	
General Fund	\$0	-	\$0	-	
Phoenix AMA	\$0	-	\$0	-	0
Tucson AMA	\$0	-	\$0	-	0
Pinal AMA	\$0	-	\$0	-	0
Interstate Banking					
Nevada	74,000,000		28,987,000		158,000
California	(not ap	plicable)			
	Total Fund	s Available	Total Funds	Expended	Credits
	\$141,2	09,000	\$44,158,000		324,000

### Table 4. Funding for 2006 Annual Plan of Operation

The 2006 Plan was developed expending all available withdrawal fees and requires utilization of some of the CAP funds, as well.

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

	FUNDS	CREDITS 1	
	EXPENDED	AMOUNT	LOCATION
Withdrawal Fee		_	
Phoenix AMA	\$9,259,241	161,574 AF <sup>2</sup>	Phoenix AMA
Tucson AMA	\$5,333,361	73,238 AF <sup>2</sup>	Tucson AMA
Pinal AMA	\$8,881,525	272,956 AF <sup>2</sup>	Pinal AMA
Four Cent Tax			
Maricopa County	\$39,675,291	871,408 AF	Phoenix AMA
Pima County	\$14,993,273	208,271 AF	Tucson AMA
Pinal County	\$2,587,281	92,645 AF	Pinal AMA
Other			
General Fund	\$10,695,000	396,499 AF	
	\$2,042,572	59,937 AF	Phoenix AMA
	\$6,977,540	39,748 AF	Tucson AMA
	\$1,674,888	296,814 AF	Pinal AMA
California			
Nevada	\$29,022,197	234,260 AF	
TOTAL	\$120,447,169	2,310,851 AF	

### Table 5. Cumulative Totals of Long-term Storage Credits 1997-2005

<sup>1</sup> Actual credits used for 1997-2004; credits estimated for 2005

<sup>2</sup> 230,280 AF of credits reserved pursuant to contract dated February 4, 2005 with Mohave County Water Authority

### PUBLIC REVIEW AND COMMENT

The AWBA staff held meetings with the GUACs for the Phoenix, Pinal and Tucson AMAs as required by statute. The Plan was distributed to the public and Table 2 was posted on the AWBA web page for public review and comment.

In general, the GUAC supported the Plan and had no requests for changes to it. At the Phoenix GUAC meeting, Mr. Buschatzke, representing the City of Phoenix, stated that the Bank has done a good job balancing the intrastate and interstate needs in this Plan. Mr. Cleveland, GUAC chair, asked if it made sense to maximize capacity in Pinal using an inter-AMA exchange of funding. He encouraged that this idea be investigated further.