

ARIZONA WATER BANKING AUTHORITY

WEDNESDAY, JULY 15, 1998

PLEASE PRINT

ARIZONA DEPARTMENT OF WATER RESOURCES


	NAME	REPRESENTING
1	ALAN P. KLEINMAN ✓	BUREAU OF RECLAMATION, NV
2 ✓	HAROLD GOODMAN	CITY OF GLENDALE
3 ✓	ANDREW BURNS	COLORADO RIVER COMMISSION, NV
4 ✓	KURT FRITSCH	COLORADO RIVER COMMISSION, NV
5 ✓	GERALD L. EDWARDS	COLORADO RIVER COMMISSION, NV
6 ✓	LARRY GEARE	CIBOLA VALLEY IRRIGATION DISTRICT
7	V.C. DANOS ✓	AMWUA
8	SHARON B. MEGDAL ✓	MEGECON CONSULTING, PIMA CO. FLD
9 ✓	DAVID M. JOHNSON	BUREAU OF RECLAMATION, PHOENIX
10 ✓	LARRY RUZGERIAN	MWD, SO. CALIF.
11 ✓	BILL PLUMMER	YMIDD
12 ✓	LARRY DOZIER	CAP
13 ✓	JOHN NEWMAN	CAP
14 ✓	JUDY DWORKIN	CITY OF TUCSON (SACKS TIERNEY)
15 ✓	MARK MYERS	METRO WATER - TUCSON
16 ✓	BILL CHASE	CITY OF PHOENIX
17 ✓	DAN SHEIN	HOUSE STAFF
18 ✓	JEFF JOHNSON	SO. NEVADA WATER AUTHORITY
19	JOHN HETRICK ✓	SALT RIVER PROJECT (SRP)
20 ✓	LINDA JAMES	IEDA
21 ✓	DON POPE	YUMA CO. WATER USER'S ASSOC./STUDY COMM.
22 ✓	GREG L. BUSHNER	HYDRO SYSTEMS, INC.
23	CYNTHIA STEFANOVIC ✓	AZ STATE LAND DEPT.
24 ✓	DENNIS KIMBERLIN	PINAL AMA
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1	NAME: <i>FLAN P. Kleinman</i> REPRESENTING: <i>Bureau of Reclamation</i>	BUSINESS ADDRESS: <i>500 DATE ST</i> <i>Boulder City, Nevada</i> <i>89005</i>	ARE YOU ALREADY ON OUR MAILING LIST?	TEL: <i>702-293-8081</i> FAX: E-MAIL:
2	NAME: <i>Harold Goodman</i> REPRESENTING: <i>City of Glendale</i>	BUSINESS ADDRESS: <i>on file</i>	<i>yes</i>	TEL: <i>930-2582</i> FAX: <i>915-2690</i> E-MAIL:
3	NAME: <i>Andrew Bukus</i> REPRESENTING: <i>Colorado River Commission / NV</i>	BUSINESS ADDRESS: <i>on file</i>	<i>YES</i>	TEL: <i>702 486-2673</i> FAX: E-MAIL:
4	NAME: <i>KURT FRITSLT</i> REPRESENTING: <i>Colorado River Comm. / NV</i>	BUSINESS ADDRESS: <i>555 E. Washington</i> <i>Las Vegas, NV 89101</i>	<i>No</i>	TEL: <i>702 486-2670</i> FAX: E-MAIL:
5	NAME: <i>GERALD LITWACK</i> REPRESENTING: <i>ONCE NO</i>	BUSINESS ADDRESS: <i>ON FILE</i>		TEL: FAX: <i>ON FILE</i> E-MAIL:
6	NAME: <i>Larry Gray</i> REPRESENTING: <i>Colorado Valley San Dist</i>	BUSINESS ADDRESS: <i>on file</i>	<i>no</i>	TEL: FAX: <i>on file</i> E-MAIL:
7	NAME: <i>V.C. DANOS</i> REPRESENTING: <i>AMWUA</i>	BUSINESS ADDRESS: <i>ON FILE</i>		TEL: FAX: E-MAIL:

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8	NAME: SHARON B. MEGDAL REPRESENTING: MEGEON CONSULTING PIMA CO. FLD	BUSINESS ADDRESS: ON FILE	ARE YOU ALREADY ON OUR MAILING LIST? Yes	TEL: FAX: ON FILE E-MAIL:
9	NAME: David M. Johnson REPRESENTING: USBR - Phoenix Area Office	BUSINESS ADDRESS: P.O. Box 81169 Phx. AZ 85069-1169		TEL: 216-3834 FAX: 216-4000 E-MAIL: djohnson@IBR 85480. usbr.gov
10	NAME: Larry Ruzgerin REPRESENTING: mwo	BUSINESS ADDRESS: 30 S. Grand Ave. LA CA 90071		TEL: 213 2176082 FAX: E-MAIL:
11	NAME: Bill Plummer REPRESENTING: YMIDD	BUSINESS ADDRESS:		TEL: 922-4645 FAX: E-MAIL:
12	NAME: Larry Dozier REPRESENTING: CAP	BUSINESS ADDRESS		TEL: FAX: E-MAIL:
13	NAME: John Newman REPRESENTING: CAP	BUSINESS ADDRESS		TEL: FAX: E-MAIL:
14	NAME: Judy Dworkin REPRESENTING: City of Tucson	BUSINESS ADDRESS Sacks Tierney 2929 N Central 14th Fl Phx, AZ 85012		TEL: FAX: E-MAIL:

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15	NAME: <i>Mark Myers</i> REPRESENTING: <i>Metro Water-Tucson</i>	BUSINESS ADDRESS <i>on file</i>	ARE YOU ALREADY ON OUR MAILING LIST?	TEL: FAX: E-MAIL:
16	NAME: <i>Bill Chase</i> REPRESENTING: <i>Phoenix</i>	BUSINESS ADDRESS <i>on file</i>		TEL: FAX: E-MAIL:
17	NAME: <i>Dan Shein</i> REPRESENTING: <i>House Staff</i>	BUSINESS ADDRESS <i>1700 West Washington PHX 85007</i>	<i>yes</i>	TEL: <i>542-3146</i> FAX: <i>4511</i> E-MAIL:
18	NAME: <i>Jeff Johnson</i> REPRESENTING: <i>SOWA</i>	BUSINESS ADDRESS	<i>yes</i>	TEL: FAX: E-MAIL:
19	NAME: <i>John Hetrick</i> REPRESENTING: <i>SRP</i>	BUSINESS ADDRESS <i>on file</i>	<i>yes</i>	TEL: FAX: E-MAIL:
20	NAME: <i>LINDA JAMES</i> REPRESENTING: <i>IEDA</i>	BUSINESS ADDRESS <i>c/o R.S. LYNCH 340 E. PALM LN #146 PHX 85004</i>	<i>YES</i>	TEL: <i>254-5908</i> FAX: E-MAIL:
21	NAME: <i>DON POPE</i> REPRESENTING: <i>Yuma County Water Users' Assn & Study Commission</i>	BUSINESS ADDRESS <i>on file</i>	<i>yes</i>	TEL: FAX: <i>on file</i> E-MAIL:

ARIZONA WATER BANKING AUTHORITY

WEDNESDAY, JULY 15, 1998

ARIZONA DEPARTMENT OF WATER RESOURCES

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22	NAME: <i>Greg L. Bushner</i> REPRESENTING: <i>HydroSystems, Inc.</i>	BUSINESS ADDRESS <i>1220 S. Park Lane, Suite 5 Tempe, AZ 85281</i>	ARE YOU ALREADY ON OUR MAILING LIST? <i>No?</i>	TEL: <i>602-517-9050</i> FAX: <i>602-517-9099</i> E-MAIL:
23	NAME: <i>Cynthia Stefanovic</i> REPRESENTING: <i>AZ State Land Dept</i>	BUSINESS ADDRESS <i>1616 W. Adams Phoenix, AZ 85007</i>	<i>Yes</i>	TEL: <i>542-2669</i> FAX: <i>542-4668</i> E-MAIL:
24	NAME: <i>DENNIS KIMBELL M</i> REPRESENTING: <i>ADWR</i>	BUSINESS ADDRESS		TEL: FAX: E-MAIL:
25	NAME: REPRESENTING:	BUSINESS ADDRESS		TEL: FAX: E-MAIL:
26	NAME: REPRESENTING:	BUSINESS ADDRESS		TEL: FAX: E-MAIL:
27	NAME: REPRESENTING:	BUSINESS ADDRESS		TEL: FAX: E-MAIL:
28	NAME: REPRESENTING:	BUSINESS ADDRESS		TEL: FAX: E-MAIL:



Summary of July 15 AWBA Meeting¹

I. Welcome/Opening Remarks

II. Minutes: The Authority approved the minutes from the June 17th Authority meeting.

III. Plan of Operation and Other Staff Activities

Tim Henley, Manager of the Water Banking Authority, discussed operation of the Bank and monthly water deliveries for June. Mr. Henley stated that the irrigation districts are taking more water therefore June's deliveries have increased. The Bank seems to be back on schedule for June.

Mr. Henley announced that Roosevelt Water Conservation District (RWCD) indicated they will not be taking any Bank water this year. This will put the Bank at a loss of 24,000 af from RWCD. Mr. Henley will begin talking with potential partners over the summer to see if there are any opportunities either through the in lieu process or if there are any opportunities at GRUSP.

IV. Correction to 1997 Annual Report

Mr. Henley provided the corrected version of the 1997 Annual Report referring to page 17, Table 1, *Monies Collected, Expended, and Available in Banking Fund*. The table was revised to more accurately reflect the funds expended to acquire the credits developed in 1997. In addition to the revisions made to the expended column, a change was made to reflect not only the funds remaining in the various accounts but also the credits available to the Bank from the CAWCD.

V. Update on the Draft Facilities Plan

Kathy Jacobs, Director of ADWR Tucson AMA, gave a presentation, referring to a memo to the Director of ADWR stating that the Institutional and Policy Advisory Group (IPAG) of the Regional Recharge Plan had hosted two meetings in the last two weeks to provide input on the Draft Facilities Plan. At one meeting it was agreed that the Facilities Plan should be expanded to include substantially more background information and to indicate which of the many AWBA objectives

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

could be met by each of the projects under consideration. Also discussed was the opportunity to have the AWBA extinguish credits to active water management goals and support Indian settlements. It was stated that all recommendations are preliminary.

Copies of the Recharge Project Descriptions chart and letters from the Town of Marana and Tucson Water Department were provided.

John Newman, Assistant General Manager from CAWCD, stated his concerns over the standpoint of the projected capacities at the state demonstration recharge projects that will be operating in Pima County.

- The Avra Valley project has recently been permitted for a 20 year period at a capacity of 11,000 af per year. The only commitment at Avra Valley for CAWCD is a short term commitment to Metro Water District at 2,200 af per year.
- At the rate that the Pima Mine Road facility was recharging, CAWCD would have been exhausting their pilot capacity in 1998. At this time CAWCD has slowed down and will be watching how the project is operating.
- The CAGRDR replenishment needs in Pima County are growing. An agreement commits CAGRDR to provide up to 12,500 af of recharge capacity in the Tucson AMA.
- The Lower Santa Cruz is nearing the final stages of negotiations of an IGA with Pima County Flood Control District. The expected recharge capacity at the site is 30,000 af.

VI. Update of CAP/USBR Settlement Subcommittees

Larry Dozier, Deputy General Manager of CAWCD, stated Phase II of the trial has been delayed until mid October.

Ms. Pearson stated that while in Washington, D.C. with Sid Wilson, they had attended a meeting with representatives from the USBR and David Hayes. At this time there have not been any agreements reached. Senator Kyl and Secretary of the Interior Bruce Babbitt will be meeting to see if there is any room for additional negotiations on some of the points that are in dispute.

Mr. Henley stated that as part of the lawsuit, USBR's Motion to Amend the Counterclaim:

- (2) The Secretary possesses exclusive control over uncontracted water (paragraph 111; Joint Report, p. 37) and
- (3) CAWCD lacks authority to deliver Colorado River Water to/for the benefit of the Arizona Water Banking Authority (paragraphs 118-20; Joint Report, p. 51)

Special Master L. Ray Haire made a recommendation to Judge Carroll that the United States' Motion to Amend its counterclaim be denied as to points 2 and 3. This recommendation does not come into effect until Judge Carroll takes action on the Motion.

VII. Update on Study Commission Activities

The next Water Banking Full Study Commission is scheduled to meet Thursday, July 30 at 10:00 a.m. at the ADWR third floor conference room.

VIII. Update on Interstate Discussions

• **Wellton Mohawk** Ms. Pearson explained that the effort by the California agencies to get an amendment to the bill to clarify from USBR as to what their plans are for utilization of the Yuma Desalter. The initial amendment that was being proposed and circulated also made reference to the return flow credits that Wellton Mohawk receives each year. If the amendment was successful it would have substantially affected the Arizona's utilization of Colorado River water.

• **Salton Sea Issues** In addition to Salton Sea, there are some scoping hearings being held in California. This is not in relations to the Salton Sea Legislation. There are two different bills dealing with the Salton Sea. The House Bill has a \$350 million federal appropriation and a state matching fund component. The Senate Bill does not have reference to the Colorado River. There may be interest to have this bill assigned to the Energy Power and Water Committee.

• **Interstate Banking** Mr. Dishlip stated, that in reference to the Nevada Interstate meetings, the regulations are moving slower than earlier anticipated. They should have already been in the Federal Register the week of July 6. It appears that the goal is to have them in the Register before Congress recesses in August.

There was a meeting on June 23 with representatives from ADWR, AWBA, Southern Nevada Water Authority and the Colorado River Commission in Nevada. The purpose of the meeting was to discuss the implications of the draft regulations with regard to NEPA compliance. Southern Nevada suggested going through the scoping process, holding public meetings in Nevada and Arizona. These meetings would describe what the potential action is and try to frame the environmental studies around the scoping process.

IX. Call to the Public

The next meeting is July 15, 1998.

The meeting was adjourned at 11:10 a.m.

Arizona Water Banking Authority

500 North Third Street, Phoenix, Arizona 85004

Telephone 602-417-2418

Fax 602-417-2401

FINAL AGENDA

Wednesday, July 15, 1998

9:30 a.m.

Arizona Department of Water Resources

Third floor conference room

- I. Welcome / Opening Remarks
- II. Adoption of Minutes of June 17 Meeting
- III. Discussion of the 1998 Annual Plan of Operation and Staff Activities
- IV. Correction to Annual Report
- V. Update on the Draft Facilities Plan
- VI. Update of CAP/USBR Settlement Subcommittees
- VII. Update on Study Commission Activities
- VIII. Update on Interstate Discussions
- IX. Call to the Public
- X. Adjournment

Future Meeting Dates:

Wednesday, August 19, 1998

Wednesday, September 16, 1998

Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting the Arizona Water Banking Authority at (602) 417-2418 or (602) 417-2455 (T.D.D.). Requests should be made as early as possible to allow time to arrange the accommodation.

ARIZONA WATER BANKING AUTHORITY

Draft Minutes

June 17, 1998

Arizona Department of Water Resources



AUTHORITY MEMBERS
Rita P. Pearson, Chairman
Tom Griffin, Vice-Chairman
Bill Chase, Secretary
Grady Gammage, Jr.
Richard S. Walden

EX OFFICIO MEMBERS
Senator Pat Conner
Rep. Gail Griffin

Welcome / Opening Remarks

Chairman Rita Pearson opened the Arizona Water Banking Authority (Bank) meeting. All members of the Authority were present.

Adoption of Minutes of May 20 Meeting

The May 20 meeting minutes were adopted as submitted.

Discussion of the 1998 Annual Plan of Operation and staff activities

Tim Henley discussed water deliveries for the month of May. Approximately 25,200 af of water were recharged. Mr. Henley stated that in-lieu recharge numbers are relatively low because of the rainfall during the Spring. The Bank should "catch up" to projected levels over the summer.

The Bank has begun delivering water at GRUSP, although the delivery is still below the projected amounts.

Two potential new direct recharge facilities may provide opportunities for the Bank in the future. Vidler Water Company is developing a site at MBT Ranch in La Paz County, and Arizona Public Service (APS) is researching possibilities at Bouse Wash. These potential partners for the Bank would need to make presentations to the Authority before any agreements would be entered into.

Kim Kunasek, Technical Administrator for the Bank, explained that the Bank's staff is working on the Facility Plan, which is required by law if the Facilities Inventory concludes that an AMA has insufficient water storage capacity. The staff is currently in the process of gathering data, meeting with the appropriate parties, and putting a preliminary draft together.

A draft of the Facilities Plan should be available for the July Bank meeting. Ms. Pearson suggested that a representative from the Tucson AMA and CAWCD be available at the July meeting for testimony.

Approval of FY 98/99 Budget

Mr. Henley provided an overview of the fiscal Year 1998-99 Water Banking Authority budget. Mr. Henley explained that the Bank would be 'under' the budget stating that various bills for services provided by other entities were much lower than projected. The budget for 1999 should be \$13,963,590.00.

The recharge figures for water are budgeted annually, but the funding is done on a fiscal year. Mr. Henley discussed how the budget compared with the Plan of Operation. He also explained the carryover of funds and how different monies come into the Bank at different times of the fiscal year. At some point in the near future, the Bank will need a larger general fund appropriation from the Legislature. If the cost of water to the Bank increases significantly, recharging water will become too costly, and much smaller amounts of water will be recharged as a result.

Ms. Pearson stated that if it is determined that that amount needs to be increased, the Bank can go to the Legislature to request additional general fund monies.

The Authority adopted the Bank's Budget as presented.

Approval of 1997 Annual Report

Kim Kunasek provided the final version of the 1997 Annual Report and gave a brief overview of the sections contained therein. Arizona law requires the Bank to submit an annual report of the previous calendar year activities by July 1 of each year.

The Authority approved the Annual Report as submitted with any minor or technical changes.

CAP Action on 4¢ tax and 1999 Pricing

Mr. Henley summarized events from the last CAWCD Board meeting. The Board voted to make revenues from the four-cent tax available to the Bank in 1999 and also approved new water pricing. The CAWCD will charge the Bank \$43.00 per acre foot for delivery of excess CAP water in 1999.

The Board voted to make the 4¢ per \$100 of assessed property available to the Bank for its purposes. In the near future, CAWCD will be writing a letter to the State Treasury informing them about the decision, which was in the form of a resolution. The funds will be deposited in the Water Banking's fund for uses that benefit the county where the tax dollars are collected, as provided by law.

Presentation of Upper Santa Cruz CAP Utilization Feasibility Study

Allan Forrest, General Manager of Community Water Company in Green Valley, made a presentation outlining the Upper Santa Cruz CAP Utilization Feasibility Study. Mr. Forrest explained that the purpose of the project is to bring CAP water to the Green Valley/Sahuarita area. He explained that there is diverse water demand in the area, including municipal, agriculture, and mining. The project would help the Tucson AMA meet its groundwater management goals. Mr. Forrest believes that the location of the proposed project is good for recharge within the AMA, and recovery potential is also very good. The CAWCD and the City of Tucson are potential partners. Mr. Forrest explained that indirect recharge is a large component of the plan because of high demand in the agricultural sector.

Ms. Pearson asked about other potential partners. Mr. Forrest stated that at this time the study's participants include the CAWCD and possibly the City of Tucson, and the Bureau of Reclamation (USBR).

Mr. Forrest stated that he would like to continue dialog with the Bank staff keeping them apprised of the results of the feasibility study and explore further the potential participation of the Bank and what the Bank's role could be in the process.

Dennis Rule representing the Tucson Water Company stated that the City of Tucson thinks the study is important. The City has a particular interest because the study area is up-gradient of the city and because it could provide an opportunity to resolve some of the issues associated with SAWARSA and the San Xavier District. Mr. Rule stated that one of the major issues for the nation and the district is pumpage and water levels declining in the region of the San Xavier district and that the study could address those issues.

Update of CAWCD/USBR Settlement Negotiation and Lawsuit

Grady Gammage, Jr., discussed the status of the CAWCD lawsuit against the USBR. He explained that the CAWCD Board intends to proceed "full speed ahead" with litigation. Judge Carroll has set the date for Phase I & II of the trial. Phase I will address the repayment ceiling, and that Phase will commence in early August. Phase II will address with the allocation issues, and that Phase will commence in mid-September. Mr. Gammage stated that the allocation issues may be more important financially than the ceiling issue. CAWCD was satisfied with the order in which the issues will be considered at trial. Mr. Gammage stated that the CAWCD is encouraged by Judge Carroll's decision both with regard to the order of the trial and with regards to the dates that have been set.

Ms. Kunasek updated the Authority on the USBR Motion to Amend the Counterclaim, which, if granted by Judge Carroll, will allow the USBR to claim that the CAWCD is not permitted to sell excess CAP water to the Bank.

Discussion with CAWCD Regarding Recharge Agreements

Mr. Henley stated that the Bank continues to negotiate the terms and format of a contract with the CAWCD for Bank water storage at the Avra Valley Recharge Project. Negotiations are near completion.

Chuck Cahoy from ADWR legal staff stated that the CAWCD is still exploring whether the state demonstration projects statute provides CAWCD with indemnity from the State and whether that indemnity provides the CAWCD adequate protection.

Mr. Henley stated that CAWCD is currently recharging water for Metropolitan Water District and they are about to reach their capacity and CAWCD is concerned that they will have to shut the facility off. Mr. Henley indicated that the CAWCD is willing to continue to recharge water for the Bank pending finalization of an agreement in the near future.

Update on Study Commission Activities

Herb Dishlip of the ADWR updated the Authority on the Study Commission's activities. He explained that the subcommittee work has been completed. Mr. Dishlip reviewed the schedule of the remaining full Study Commission meetings and the topics to be discussed at those meetings.

The final report is due in November 1998.

Update on Interstate Discussions

Ms. Pearson stated that the seven basin states will meet in July, and hopefully the six basin states will get a more definitive report on the progress of California's so-called "4.4 plan." A letter was sent by the six basin state directors to Secretary Babbitt reiterating their concerns that they did not want to have continued surplus declarations to benefit California and the six basin states believe that California must finalize its plan. The letter also stated the six basin states would not support future surplus declarations unless they serve flood control purposes.

- Interstate Water Banking

Mr. Dishlip stated that the federal regulations governing interstate water banking are not yet complete, but the Bank can expect a requirement to comply with the National Environmental Policy Act (NEPA). There have been discussions with Nevada on what might be involved and what kind of time frames would be involved after the agreement on satisfying the federal requirement for NEPA. The Bank has held discussions with Nevada on the time frame and structure of NEPA compliance.

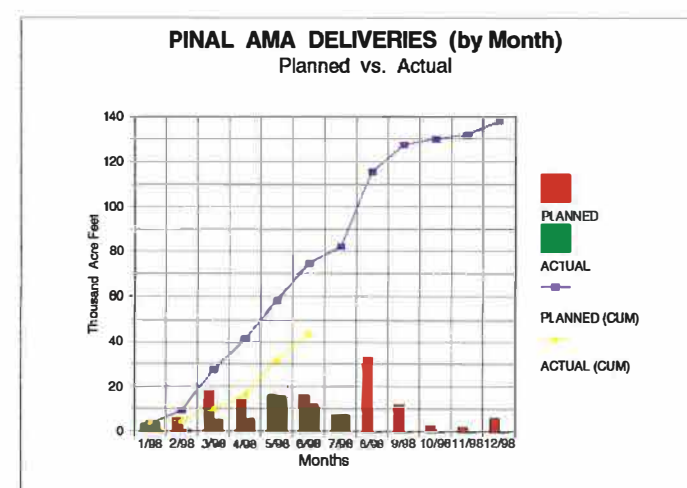
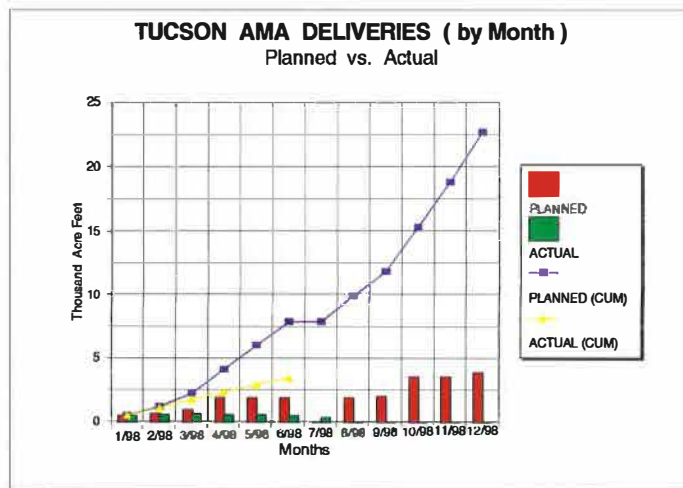
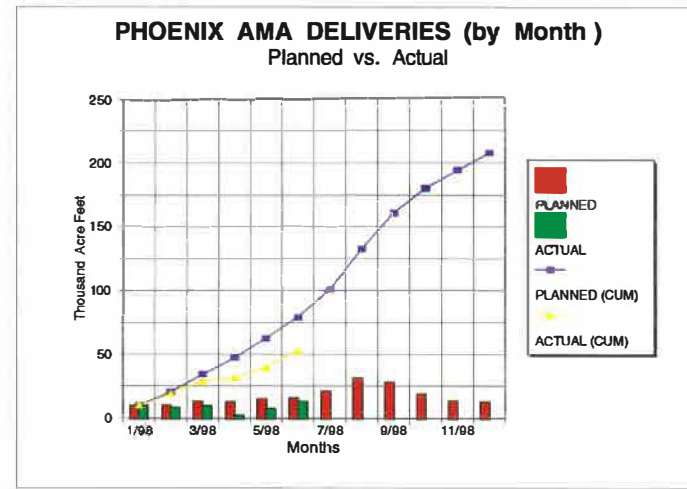
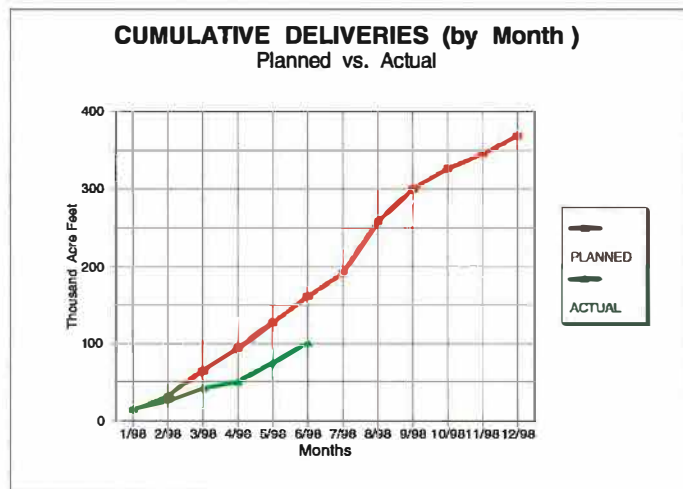
- Sonny Bono Salton Sea Memorial

Mr. Henley updated the Authority on Salton Sea issues. He explained that the most recent amendment to a bill in the U.S. House of Representatives provides that only flood flows will be available to augment water supplies in the Salton Sea. The U.S. Senate is currently considering an amendment that reduces the project to a feasibility study.

Call to the Public

Chairman Pearson adjourned the meeting at 10:55 a.m.

1998 PLAN OF OPERATION



1998 PLAN OF OPERATION BY ENTITY

Actual deliveries updated 13-Jul-98

	jan	feb	mar	apr	may	jun	jul	total	
Phoenix AMA									
GRUSP	8,032	8,551	5,284	0	5,237	5,904	7,200	40,208	GRUSP
RWCD	0	0	0	0	0	0	0	0	RWCD
NMIDD	2,233	286	2,247	0	0	4,959	3,700	13,425	NMIDD
QCID	0	0	0	0	0	0	4,252	4,252	QCID
MWD	0	0	2,373	2,399	2,701	2,604	2,588	12,665	MWD
CHCID	0	0	0	0	22	0	50	72	CHCID
TID	0	0	0	0	0	0	1,000	1,000	
Subtotal	10,265	8,837	9,904	2,399	7,960	13,467	18,790	71,622	
Pinal AMA									
CAIDD	0	0	0	0	0	0	0	0	CAIDD
MSIDD	2,430	0	0	0	8,792	3,221	6,110	20,553	MSIDD
HIDD	1,819	708	5,284	5,905	6,901	9,302	1,600	31,519	HIDD
Subtotal	4,249	708	5,284	5,905	15,693	12,523	7,710	52,072	
Tucson AMA									
Avra Valley	0	0	0	0	0	0	0	0	Avra Valley
CAVSARP	531	579	576	597	600	500	420	3,803	CAVSARP
Pima Mine	0	0	0	0	0	0	0	0	Pima Mine
Lower Santa Cruz	0	0	0	0	0	0	0	0	L. Santa Cruz
Subtotal	531	579	576	597	600	500	420	3,803	
TOTAL	15,045	10,124	15,764	8,901	24,253	26,490	26,920	127,497	

Table 1

Monies Collected, Expended, and Available in Banking Fund

<i>Source & Location</i>	<i>Collected</i>	<i>Expended¹</i>	<i>Available²</i>
General Fund			
Maricopa County	<i>n/a</i>	\$388,466	<i>n/a</i>
Pinal County	<i>n/a</i>	\$2,097,645	<i>n/a</i>
Pima County	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
Sub-Total	\$2,605,000	\$2,486,111	\$209,000
4¢ Ad Valorem Tax			
Maricopa County	\$8,197,000	\$3,432,785	\$3,718,000
Pinal County	\$337,000	\$295,005	\$42,000
Pima County	\$1,654,000	\$172,579	\$587,000
Sub-Total	\$10,188,000	\$3,900,369	\$6,287,631³
Groundwater Pumping Fee³			
Phoenix AMA	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
Pinal AMA	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
Tucson AMA	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
Sub-Total	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
Grand Total	\$13,188,000	\$6,386,480	\$6,496,631

¹ These numbers represent the actual cost of long-term storage credits developed in calendar year 1997.

² Includes funds remaining in the Water Banking Fund plus a credit with the CAWCD. The credit results from the fact that the AWBA's payment to the CAWCD is based upon an estimated annual use and is not adjusted throughout the year. The CAWCD applies any credit to the following year's estimate.

³ No groundwater pumping fees were collected in 1997.

ARIZONA DEPARTMENT OF WATER RESOURCES

Tucson Active Management Area
400 West Congress Street
Suite #518
Tucson, Arizona 85701
Telephone (520) 770-3800
Fax (520) 628-6759



JANE DEE HULL
Governor

RITA P. PEARSON
Director

**TO: RITA PEARSON, CHAIRPERSON
ARIZONA WATER BANKING AUTHORITY**

**FROM: KATHARINE JACOBS, AREA DIRECTOR
TUCSON ACTIVE MANAGEMENT AREA**

RE: DRAFT FACILITIES PLAN

DATE: JULY 15, 1998

The Institutional and Policy Advisory Group of the Regional Recharge Plan hosted two meetings in the last two weeks to provide input on the Draft Facilities Plan. The first meeting, which was held on June 30, had 28 people in attendance. At that meeting, we agreed that the Facilities Plan should be expanded to include substantially more background information and to indicate which of the many AWBA objectives could be met by each of the projects under consideration. Obviously, recovery considerations are of primary importance for the storage that is firming M&I supplies, but this may not be as significant a concern in accomplishing other AWBA objectives.

A matrix will be included in the Plan which shows the funding sources and their authorized uses, which facilities meet which objectives, and a time line for phase-in of the facilities. The importance of identifying specific opportunities for interstate banking in the Tucson area was also emphasized. Tim Henley shared his calculation that based on the total funding available and an assumed cost of \$60/AF, 32,000 AF of storage would be required per year. Since much of the Tucson funds for the past two years have not yet been spent, there may be a need for a higher amount of capacity. It was noted that the amount of funding available will not be sufficient to support the 750,000 AF of firming capacity that the AWBA Study Commission identified as needed in the Tucson AMA.

We also discussed the opportunity to have the AWBA extinguish credits to achieve water management goals and support Indian settlements. This introduces new issues into the discussion, and could result in consideration of projects that the AWBA has not previously focussed on.

The Regional Recharge Plan indicates that there is a preference to maximize deliveries of CAP into the Tucson AMA in the short term utilizing inexpensive facilities, so long as in the long term water management objectives are a primary siting consideration. This continues to be a guiding principle in the advice provided to the AWBA regarding the facilities plan. For this

reason, we have separated the recommendations into a short-term (1999 - 2003) and a longer term (2004-2008) time frame. Facility status and associated considerations change on a daily basis. It is important that the AWBA maintain maximum flexibility in developing the facilities plan and in making any long-term commitments.

The second meeting, held on July 6, was a subcommittee including Herb Kai, Ron Wong, Sharon Megdal, Dennis Rule, Mark Myers, Alan Forrest, Lois Kulakowski, Tim Henley, Kim Kunasek, Jim Henderson and myself. At this meeting we reviewed each of the 18 facilities in the Regional Recharge Plan from the perspective of each of the potential objectives of the AWBA. The comment section labeled "Opportunity for Water Bank Participation" in the attached chart is a summary of the observations of this group. Tom Harbour of CAWCD reviewed and commented on this information.

The following table contains the recommendations from the group for the next ten years. Although several facilities would be appropriate for use for interstate banking activities and Indian settlements, the subcommittee did not focus specifically on these issues at the meeting.

AWBA STORAGE RECOMMENDATIONS
(Includes facilities that are both existing and proposed)

FACILITY	1999	2000	2001	2002	2003	2004-2008
Avra Valley*	5,000	5,000	5,000	5,000	5,000	5,000
CAVSARP	7,500	7,500	7,500	0	0	0
Pima Mine Road*	7,500	7,500	7,500	15,000	15,000	15,000
Lower Santa Cruz*	0	5,000	12,000	12,000	12,000	12,000
Avra Valley Irrig. Dist.**	8,000	8,000	8,000	8,000	8,000	0
Upper S.C. Phase I**	0	0	0	10,000	10,000	10,000
Current Facility Plan Total	28,000	32,000	40,000	50,000	50,000	42,000
San Xavier Santa Cruz In-channel	0	2,000 for Indian settlement	10,000 for Indian settlement	10,000 for Indian settlement	10,000 for Indian settlement	10,000 for Indian settlement
Canada del Oro**						10,000 for Interstate Banking

Total with Alternative Facilities	28,000	34,000	50,000	60,000	60,000	62,000
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* Denotes state demonstration facility. The amounts shown for the three state demonstration facilities are conservative, because it is not known how much capacity the partners in these facilities will decide to use. It is assumed that any capacity left over after others contract for storage would be available to the AWBA.

**Requires substantial capital investment to develop facility.

If you have any questions about these recommendations, please don't hesitate to call. We appreciate the opportunity to comment on the Draft Facilities Plan.

Project Description	Project Status	Funding (Feasibility or Construction)	Facility or Storage Permit	Opportunity for Water Bank Participation
Lower Santa Cruz Replenishment Project USF. The proposal is to store CAP water in off-channel constructed shallow spreading basins for 20 years. This facility is located south of the Santa Cruz River between Sanders Road and Avra Valley Road. (RRC #1)	Permit application for full project has been found complete and correct and is being drafted. Planned Phase I capacity is 12,000 to 13,000 AF and the design is nearly complete. Full scale design capacity is 30,000 AF per year (AFA). Phase I is fully funded by CAWCD and PCFCD. Expansion to Phase II is not currently being planned. An IGA is being developed that would result in CAWCD operating this site as a State Demonstration Facility.	PCFCD CAWCD Marana ADWR* BOR* Metro*		It is expected that most of the capacity of Phase I basins would be available to the AWBA. This project does not rank as high as others in potential for addressing water management concerns, but is an excellent location for AWBA storage, at least in the near term. Good site from the perspective of long-term storage because water is likely to continue to be available there. Marana wishes to be included in the development of recovery plans and is interested in participating in recovery activities at this site. Facility available for storage in 2000, up to 12,000 acre-feet per year. Bank not competing with anyone at this location. Should be included in the AWBA facilities plan.
Cañada Del Oro Recharge and Recovery Project USF. The proposal is to store CAP water using spreading basins and managed in-channel recharge. This project is one element of the Northwest Tucson Active Management Area Replenishment Program (NWRP). CAP water would be pumped to two recharge areas and for direct use by golf courses. (RRC #2)	This facility is being investigated in on-going feasibility studies, but there is no permit application. Full scale capacity estimated at 30,000 AFA. Alternative pilot testing studies are funded, but construction is not funded.	Oro Valley* Metro* ADWR* BOR* Marana* PCFCD - land		The project involves significant capital investment and there may be opportunities for the AWBA to participate in funding this project. The project rated in the highest grouping for ability to meet water management objectives. This is a long-term project that may have significant potential for interstate banking and firming local M&I supplies. Sponsors are interested in bank participation in the ramp-up years, since the facility is much larger than current demand. Sponsors (Metro and Oro Valley) will be in a position to forebear up to 10,000 AF of CAP allocations, can recover with low costs from existing wells. Could be on line in 2005. Should be considered in the facilities plan as a long-term option.
Avra Valley Recharge Project USF stores CAP water in off-channel constructed shallow spreading basins. This facility is located to the northeast of the Avra Valley Airport, less than one mile south of Tangerine Road and about one mile east of Sanders Road. (RRC #3)	The pilot for this facility for storage of 8,300 AF has been completed. Permit for 11,000 AFA full scale project has been issued. Facility is fully operational. State demonstration facility.	CAWCD Metro BKW Farms	CAWCD - facility, storage AWBA - storage Metro - storage	This project does not rank as high as others in potential for addressing water management concerns, but is an excellent location for AWBA storage, at least in the near term. Although not currently in the Town of Marana, Marana wishes to be included in the development of recovery plans and is interested in participating in recovery activities at this site. Recovery is a key concern. About 5,000 AF could be available to the AWBA on an ongoing basis. Capacity is already being utilized by the AWBA. This facility should be included in the plan.
Pima Mine Road USF stores CAP water in off-channel constructed shallow spreading basins. This facility is located to the north of Pima Mine Road, along the Old Nogales Highway. (RRC #4)	Currently permitted to store 10,000 AF over 2 years in a pilot project. Storage began in early 1998. Full scale capacity is projected to be 30,000 AFA. Full-scale is fully funded. State demonstration facility.	Tucson CAWCD	CAWCD - facility, storage Tucson - storage	This project rated in the second highest grouping for water management objectives. It is useful from the perspective of the SAWRSA settlement, is in a critical overdraft area, is viewed positively by the City of Tucson as a location for drought protection storage. The City may build wellfields in the vicinity in the future to recover water in compliance with the SAWRSA settlement (if one is worked out). Could be used as a site to extinguish credits in support of SAWRSA. CAWCD intends to move forward with expansion of capacity to 30,000 AF by 2000. This facility should be included in the facilities plan.
Central Avra Valley Storage and Recovery Project (CAVSARP) USF stores CAP water in off-channel shallow spreading basins. The facility is located north of Mile Wide Road and a mile west of Sanders Road. The first pilot-scale facility permit for 500AF was issued on August 1, 1996. (RRC #5)	The expanded pilot phase of this facility is operating and is permitted for storage of 10,000 AF over two years. Application for a 15,000 AFA permit is expected before expansion to full scale capacity, projected to be 60,000 AFA. Facility is fully funded, but expansion to the 15,000 AFA project and the full-scale project is dependent on results of pilot studies.	Tucson	Tucson - facility, storage	This project rated in the highest grouping for ability to meet water management objectives, contingent on development of full scale storage and recovery project to offset use of groundwater wells in the Central Wellfield. Any project that substantially reduces pressure on the Central Wellfield ranks high from a water management perspective, and the design of this project also helps with Tucson's physical availability for AWS and long-term reliability storage. The capacity is expected to be expanded to 15,000 AF next year, and to have full 60,000 AF of storage capacity and 100,000 AF of recovery capacity by 2002. 7,500 AF of capacity should be available to the AWBA in the near term. This facility should be in the facilities plan.
South Avra Valley USF. The proposal is to store CAP water using spreading basins north of Snyder Hill Road and south of Garcia Ranch Road on either side of Sandario Road. (RRC #6)	This facility is not being actively investigated. The proposed capacity for this facility is 43,800 AFA.			This facility is not being actively investigated. It is not recommended for inclusion in the facility plan at this time.
San Xavier Arroyos USF stores CAP water by recharging through arroyos to the west of I-10 and the main channel of the Santa Cruz River. (RRC #8)	A short-term pilot was conducted at this facility in summer 1997. Capacity is estimated at 9,000 AFA for the 4 arroyos. The project is partially funded, in that Tucson has supplied treated CAP water and CAWCD prepared blowouts.	SXD* - Water Protection Fund grant funded study CAWCD, Tucson, BOR - prepared blowouts		Potential water management benefit from this project is ranked in the second highest grouping. However, potential capacity is rated in the lowest grouping. An IGA would be required for the State to recognize water stored on the reservation. Potential for participation in SAWRSA settlement. Primary focus would be for riparian enhancement on the reservation, with incidental recharge benefits. Could be excellent site for AWBA to extinguish credits for Indian water rights settlement purposes, should be considered for the facilities plan.
San Xavier Santa Cruz River USF. The proposal is to recharge of CAP water in the main channel of the Santa Cruz River where it crosses Pima Mine Road, extending north to Valencia Road. (RRC #9)	This proposed facility has a possible capacity of 8,500 AFA. The San Xavier District Council has considered and approved this project, but the Tohono O'odham Nation has not formally considered this project or endorsed it. Facility is not funded.	Tucson - paid for outlet structure		Potential water management benefit from this project is ranked in the second highest grouping. However, potential capacity is in question. An IGA would be required for the State to recognize water stored on the reservation. Potential for participation in SAWRSA settlement. If CAP repayment settlement results in the need to firm water for Indian settlements, could potentially have parties pay for project. In-stream component is relatively small capacity in comparison to proposal to place basins on the terrace, which could have the same capacity as Pima Mine Road basins. High probability of working out an agreement with AWBA or others in the next few years, could pilot the in-channel portion soon. Possibility of expanding N of Valencia to incorporate recent City and County proposals. Should be considered for the facilities plan.

* denotes funding for feasibility study

Project Description	Project Status	Funding (Feasibility or Construction)	Facility or Storage Permit	Opportunity for Water Bank Participation
Pantano, Tanque Verde & Rillito USF. The proposal is to recharge of CAP water in Pantano, Tanque Verde & Rillito stream channels using the City of Tucson's reclaimed water system for distribution. (RRC #10)	This facility is not being actively investigated. The proposed capacity is 17,000 AFA.			This facility is not being actively investigated in the form originally evaluated by the RRC. However, a stream segment of this project on the Rillito has been included in a pilot project being pursued by the City of Tucson. Ability of the AWBA to participate is unknown at this time. It is not recommended for inclusion in the plan at this time.
Brawley Wash at Three Points USF. The proposal is to recharge of CAP water using spreading basins located 1.5 miles southwest of Robles Junction in floodplain east of Brawley Wash. (RRC #11)	This facility is not being actively investigated. The proposed capacity is 40,000 AFA.			This facility is not being actively investigated. It is not recommended for inclusion in the facility plan at this time.
Cortaro Marana Irrigation District (CMID) GSF receives CAP water in lieu of pumping groundwater. This facility is roughly located from Tangerine Road north to the Pima/Pinal county border and southwest of I-10 to one mile west of Trico Road. (RRC #12)	This facility is currently operating and a permit to expand from 10,000 AFA to 20,000 AFA has been issued. Facility is fully funded.	CMID CAWCD Tucson	CMID - facility CAWCD - storage Spanish Trail WC - storage Comm WC of Green Valley - storage Tucson - storage	Unless current AWBA water pricing policy is changed, this is not a likely candidate for long-term AWBA storage. Contribution of this site to groundwater management objectives is not as high as others. CMID is ideally located for pumping back into canal, although it is within the Town limits of Marana (see LSC). Existing low energy costs make the AWBA price for in-lieu unattractive. Not a likely AWBA facility, could be considered as an alternate in the future.
BKW Farms GSF receives CAP water in-lieu of pumping groundwater. This facility is roughly located south of the Santa Cruz River to Emigh Road between Trico Road and Silverbell Road. (RRC #13)	The facility is currently operating and is permitted to store 8,800 AFA. Application for expansion to 16,614 AFA has been submitted and found incomplete and incorrect. Facility is fully funded.	BKW Tucson (ADWR Augmentation Grant) for conveyance	CAWCD - facility, storage Metro - storage Tucson - storage Comm WC of Green Valley - storage	Unless current AWBA water pricing policy is changed, this is not a likely candidate for long-term AWBA storage. Contribution of this site to groundwater management objectives is not as high as others. It is located in the Town of Marana (see LSC). Tucson Water has contract to use full capacity. Not a likely AWBA facility, could be considered as an alternate in the future.
Avra Valley Irrigation District (AVID) GSF receives CAP water in-lieu of using groundwater between Trico and Sanders Roads, on either side of Avra Valley Road west of the Santa Cruz River. (RRC #14)	Facility is permitted to store 12,513 AFA and is fully funded except for a conveyance ditch.	Herb Kai	Herb Kai - facility Metro - storage	This could be a candidate for near term AWBA storage if financing can be worked out. Contribution of this site to groundwater management objectives is not as high as others, although it is in an area which has experienced overdraft. It is located outside of Marana, would require new infrastructure to get the water to the farms, and additional infrastructure for recovery. Because of recovery issues, it is not a good long-term site for farming. About 8,000 AF of demand is part of Kai farming operation. It is permitted and would take less than a year to be on line. Total cost for new ditches for delivery to the farms is about \$800,000. Should be considered in the facilities plan.
Upper Santa Cruz (Phase I) GSF and USF. The proposal is to recharge CAP water in lieu of pumping groundwater at the FICO-Sahuarita farm located east of the CAP terminus at Pima Mine Road, as well as to directly recharge CAP water in the Santa Cruz River channel south of Pima Mine Road. (RRC #15)	This proposed project has a possible capacity of 20,000 AFA at the FICO-Sahuarita GSF and 10,000 AFA in the in-channel component. This project is currently under investigation through ADWR contract. Regional interests are participating in investigations through a technical advisory committee. Project is not funded.	ADWR*		The project ranks in the second highest grouping for water management benefits, with potential to positively impact groundwater declines, the SAWRSA settlement and possibly serve other users to the south. Subject of recent USCWUG feasibility study funded by DWR, performed by Malcolm Pirnie. Likely to take 3+ years to put together the project, no site-specific work has been done on the in-stream recharge component. ESA limitations could be serious for the recharge component of the project. Total cost estimated by MP ranges from \$48 to \$190 per acre-foot depending on the delivery scenario. Minimum estimated construction cost is \$23 million. Should be included in the facilities plan.
ASARCO GSF. The proposal is to deliver CAP water to the ASARCO water recycling pond at Pima Mine Road in-lieu of pumping groundwater. (RRC #16)	This project to store 10,000 AFA is currently under investigation through an ADWR contract. Facility is not funded.	ADWR*		Due to economic considerations (high pumping costs, etc.), this is not a likely candidate for AWBA storage. Volume currently being considered is 5,000 acre-feet. Could be a component of the SAWRSA settlement. Not recommended for inclusion in the facilities plan at this time.
Kai Farms at Picacho GSF receives CAP water in lieu of pumping groundwater. This facility is located in Pinal County, east of the Town of Red Rock, south of Neuman Peak to Park Link Road and between I-10 and Pecan Road. (RRC #17)	This facility is operating and is permitted to store 11,231 AFA. Facility is fully funded.	Herb Kai	Metro - storage CAWCD - storage Spanish Trail WC - storage Oro Valley - storage Green Valley - storage Tucson - storage	Unless current AWBA water pricing policy is changed, this is not a likely candidate for long-term AWBA storage. Contribution of this site to groundwater management objectives is low. Existing facility has lowest costs for recovery of any GSF due to location near canal, presence of existing wells, high groundwater quality and low energy costs. Could be flexible about AWBA use of the facility. However, facility is very near northern border of AMA, is only feasible in the long-term if recovery to the canal is desirable. State lease land, any problems with long-term recovery? Recommended for inclusion in the facilities plan as an alternate for future consideration.
Pascua Yaqui USF. The proposal is to store CAP water west of the CAP canal in the western portion of the Pascua Yaqui Reservation using spreading basins. (RRC #18)	The proposed capacity of this facility is 10,000 AFA. Facility is not funded.			There is some potential for AWBA participation in this facility, however this project is still purely conceptual at this time. Not recommended for inclusion in the facilities plan.
BKW at Mile Wide GSF. The proposal is to store CAP water in-lieu of groundwater west of the CAP canal between Ft. Lowell and Mile Wide Roads.	The proposed capacity of this facility is 627.2 AFA. An application has been received and is currently incomplete and incorrect. Facility is fully funded.	BKW		Unless current AWBA water pricing policy is changed, this is not a likely candidate for long-term AWBA storage. Because of proximity to CAVSARP, higher than other GSF's from a water management perspective. Existing facility, small volume. City has a contract for the capacity at this facility. Not recommended for inclusion in the facilities plan.

* denotes funding for feasibility study



TOWN OF MARANA/CORTARO-MARANA
IRRIGATION DISTRICT TRUST



July 9, 1998

Ms. Katharine Jacobs
Area Director
Tucson Active Management Area
Arizona Department of Water Resources
400 West Congress Street, Suite #518
Tucson, Arizona 85701

Re: Comments on Draft Facilities Plan.

Dear Ms. Jacobs:

Kathy

We are writing in hopes that we may alleviate what we perceive as some misconceptions involving the Town of Marana's and the Cortaro-Marana Irrigation District's position regarding the Lower Santa Cruz Replenishment Project (LSCRCP). We are in receipt of your draft of comments on potential storage sites for the Arizona Water Banking Authority (AWBA) and find there may be some incongruity between the comments and our true position.

To clarify one point, the Town Council has never considered charging fees and limiting recovery at the LSCRCP. We are aware that staff and consultants working with the Town may have indicated the possibility of future charges. However, the assertion that the Town has taken a formal position is simply false. From our positions, we can see no movement in the community to create any hindrance or obstruction that would provide a disincentive for storage at this site. In fact, we firmly believe that in working together we may be able to provide some of the most cost-effective venues for storage as well as eventual recovery.

We do not believe that there are "recovery issues" that exist in Marana that do not exist in any other location. Perhaps it can be said that the Marana area has been involved in more active discussions about eventual recovery than other communities. Simply put, our primary interest in recovery projects is to ensure that there is no adverse hydrological impact to the area water supply. The Town expects within the next 30 to 60 days to enter into an Intergovernmental Agreement with Pima County and the Central Arizona Water Conservation District to construct the facility. Language is being proposed that will secure the community's involvement during recovery activities, which again, is the salient issue to our area and addresses our main concern.

We acknowledge that the issue of charging fees in the future may be impossible to implement from a legal standpoint. From a practical standpoint we have every intention to posture ourselves in a very competitive position to participate in recovery activities. This is made possible by the proximity of our wells and the potential availability of lower cost energy supplies.

Thank you again for releasing the draft comments. It certainly has provided us with an opportunity to clarify our intentions. We were even able to discuss the matter at the Town of Marana's Water User's Advisory Committee that is comprised of Councilmembers and members of the public. They concurred with the representations we are making to you and fully support the project and our involvement.

Please let us know how we may assist you in further clarifying our position if necessary. We would be very disappointed if some misperceptions were perpetuated that may deter from the attractiveness of utilization of the LSCR by the AWBA and respectfully ask that the language in the draft comments on potential storage sites be altered to more accurately reflect our position and remove any comments referencing the Town Council considering charging fees. We would be happy to meet with you or any interested party to discuss this matter in person or provide any additional information that may be required.

Sincerely,

Town of Marana/Cortaro-Marana Irrigation District Trust

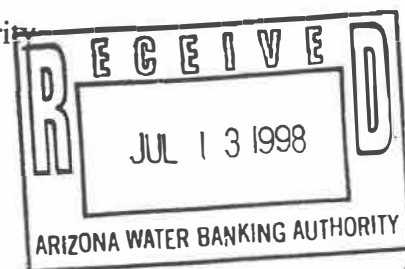


Michael C. Hein
Town Manager, Town of Marana



Robert Condit
Manager, Cortaro-Marana
Irrigation District

cc: Mayor and Council, Town of Marana
Board of Directors, Cortaro-Marana Irrigation District
Town of Marana Water User's Advisory Council
Chuck Huckelberry, Pima County Administrator
Brad DeSpain, Town of Marana Utility Director
Sharon Megdal, Ph. D., MegEcon Consulting
John Newman, Assistant General Manager, CAWCD
Tom Harbour, Engineer/Hydrologist, CAWCD
Tim Henley, General Manager, Arizona Water Banking Authority
Julia Fonseca, Pima County Flood Control District





Tucson Water Department

July 15, 1998

Rita P. Pearson, Chairman
Arizona Water Banking Authority
500 North Third Street
Phoenix, AZ 85004

Dear Ms. Pearson:

I am unable to attend today's meeting of the Arizona Water Banking Authority during which the Draft Facilities Plan for the Tucson Active Management Area will be discussed. However, I offer the following comments on behalf of the City of Tucson regarding the City's facilities included in the Draft Plan and, in particular, the City's interest in continued participation in joint recharge ventures with the Water Bank.

As you are aware, the current inadequacy of recharge capacity in the Tucson region has prevented the Water Bank from fully meeting its objectives within the Tucson Active Management Area. The City of Tucson participated with others in the region in the development of an interim plan for Water Bank recharge in the Tucson region and agreed to make available to the Bank capacity in City recharge projects. In accordance with this plan, the design capacity of the City's Central Avra Valley Storage and Recovery Project pilot was expanded and capacity was made available to the Water Bank during 1997 and 1998. In addition, the Water Bank has utilized the State Demonstration Project capacity in the Pima Mine Road facility jointly developed by the City and the Central Arizona Project.

Along with numerous other local parties, Tucson also has worked over the past two years to address the long-term requirements of the Water Bank by assisting in the planning and development of additional facilities. The report being presented at today's meeting presents recommendations by the Institutional and Policy Advisory Group of the Regional Recharge Plan for a ten-year facility plan for Water Bank activities in the Tucson region. The parties participating in the development of this report recognize that the ten-year facility plan may be

modified from year to year as new facilities become available to meet the objectives of the Water Bank.

In evaluating future collaboration with the Water Bank in developing recharge projects, the City of Tucson remains interested in facilitating all Water Bank objectives: firming M&I CAP allocations; assisting in water management objectives; facilitating Indian water settlements; and interstate banking. As the largest M&I CAP subcontractor in the state, the City has a strong interest in firming of M&I supplies, particularly in regard to future recovery of stored water. The Pima Mine Road project presents an opportunity to store water, which will become part of Tucson's CAP allocation during shortage years, in a location suited for recovery by City wells. The City's CAVSARP project also may provide opportunities for storage of firming water, even within the constraints of the project's operation as a put-and-take facility. By minimizing the costs of recovery through City facilities, collaboration between the City and the Water Bank could lead to lower costs for all CAP subcontractors during recovery operations.

The City's interest in the water management objectives of the Water Bank is closely tied to the Bank's role in facilitating Indian water settlements. Negotiations toward final amendments to the 1982 Southern Arizona Water Rights Settlement Act are at a critical stage, and several potential recharge projects have been proposed in the context of these negotiations. Tribal officials have expressed strong interest in Water Bank participation in recharge projects on or adjacent to both the San Xavier and the Schuk Toak Districts. The City of Tucson is in a position to play a lead role in planning and developing these projects and also may be a participant with the Water Bank in recharge activities at these sites.

City of Tucson recharge projects also may facilitate interstate banking activities. The City's ability to recover this water through existing or planned wellfields provides an opportunity for cost-effective and reliable recovery, which is critical in the context of interstate banking.

A final consideration in evaluating potential collaboration with the Water Bank is the City of Tucson's need to develop recharge capacity for its CAP allocation. The City has embarked on an aggressive program to increase beneficial use of its allocation through recharge, both for annual storage and recovery and for long-term storage. Therefore, Water Bank participation in City projects must be based, in the long term, on expansion of recharge capacity beyond the needs of the City itself.

I appreciate the opportunity to offer these comments on behalf of the City of Tucson.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Rule', with a long horizontal line extending to the right.

Dennis A. Rule
Administrator

c: Luis G. Gutierrez, City Manager
John Nachbar, Deputy City Manager
Katharine Jacobs, Director, Tucson Active Management Area

Arizona Water Banking Authority

Facility Plan

Tucson Active Management Area



June 30, 1998

Proposed Plan
Tucson Active Management Area

I. Introduction

In March 1997, the Arizona Water Banking Authority (“AWBA”) developed a Storage Facility Inventory (“Inventory”) of all existing storage facilities and determined which facilities and capacities are available to the AWBA over a ten-year period. *See* Arizona Revised Statutes (A.R.S.) § 45-2452(D). The Inventory did not determine which facilities the AWBA will use.

The Inventory examined the three Active Management Areas (AMAs) and the remaining regions of the State. Each of the AMAs was examined for existing storage facilities that are physically capable of storing CAP water. That capacity was then compared to estimated AWBA storage needs for each area. The AWBA assumed that reevaluations of the storage facility inventory would be necessary more frequently than the statutory minimum of every five years, particularly in the early years of the AWBA’s operation.

The Inventory concluded that additional storage facilities are necessary to meet the needs of the AWBA for the next ten years in the Tucson AMA. Based on this determination, the AWBA is required by statute to develop a plan (the Facility Plan) for additional storage facilities that specifies the type, location, date needed, and capacity of storage facilities necessary to meet the AWBA’s needs. A.R.S. § 45-2453(A).

II. Institutional and Financial Considerations

A. *The Regional Recharge Plan*

After the AWBA's March 1997 Facilities Inventory concluded that the Tucson AMA had insufficient recharge capacity, the Tucson AMA Institutional and Policy Advisory Group (IPAG) completed a Regional Recharge Plan (Plan) in November 1997 and presented its findings to the AWBA. The Regional Recharge Plan outlined recharge demand, potential project participants, circumstances that will affect water demand, sources of recharge water, site assessment and capacity analysis, and categorized recharge projects by feasibility, capacity, and groundwater management goals. The Plan also contained models showing varying demand scenarios. The Plan did not contain specific recommendations to the AWBA but provided an overview of some of the benefits and drawbacks of recharging water in certain facilities (existing and planned) in different areas of the AMA.

In January 1998, the AWBA staff developed a proposed amendment to the Inventory that explained that the Authority would review the Tucson Regional Recharge Plan for guidance and would develop a Plan for additional facilities in the Tucson AMA based upon the process set forth in A.R.S. section 45-2453. The AWBA approved the amendment, which set forth the following approximate time line for completion of the Tucson AMA Facility Plan:

<u>February 1998:</u>	Initiate discussions with ADWR
<u>March 1998:</u>	Initiate discussions with CAWCD
<u>June 1998:</u>	Draft Facility Plan available
<u>August 1998:</u>	Facility Plan ready for Authority approval

As of June 1998, the IPAG has made further changes to the Regional Recharge Plan, and the AWBA has incorporated the most current information to prepare an accurate consensus-based Facility Plan.

B. *Financial Considerations*

The AWBA's enabling legislation established a Water Banking Authority Study Commission (Study Commission) to examine potential future opportunities for the AWBA. The Study Commission broke out into subcommittees to consider particular issues. The Planning and Modeling subcommittee examined growth, water supplies, and potential shortages to the various water users in Arizona. The subcommittee created Colorado River water models in order to estimate the quantities of water necessary to "firm" water supplies for drought years in the Phoenix and Tucson AMAs.

The subcommittee concluded that the AWBA would need to recharge approximately 750,000 af of water for the Tucson AMA in order to develop sufficient long-term storage credits so that the Tucson AMA could use those credits in drought years for an additional water supply. The subcommittee concluded that recharge for both Phoenix and Tucson should take place over the next ten to twelve years because as Arizona's population increases, the amount excess CAP water that the AWBA purchases and recharges for the AMAs will decrease to almost none.

In addition to determining where to recharge water for maximum benefit to the AMA and to fulfill the state's groundwater management objectives, the AWBA must also take into consideration the limited funding and the cost to recharge water in the Tucson AMA. The AWBA's funding comes from three sources at this time: Groundwater pumping fees of \$2.50 per acre foot (must be used to benefit the AMA of origin), an *ad valorem* tax of 4¢ per \$100 of assessed property value (must be used to benefit the county of origin), and a general fund appropriation (may be used to assist communities along the Colorado River, to help the State meet its water management objectives, or as a component of an Indian water rights settlement). Groundwater pumping fees were not collected in 1997, and no credits were developed from those fees in 1997.

Tables 1-3 show the amount of funding available, the cost to recharge in the Tucson AMA, and the annual capacity capability based on funding restraints.

Table 1

Available Arizona Water Banking Authority Funds	
Four-Cent Tax	\$1.2 million
Withdrawal Fees	.7 million
Total	\$1.9 million

Table 2

Average Cost of Recharge in Tucson Area	
CAP Delivery Rate	\$45 per acre foot
Average Direct Recharge Facility Rate	\$15 per acre foot
Total	\$60 per acre foot

Table 3

Annual Capacity Capability	
Funds Available	\$1.9 million
Average Cost of Recharge in Tucson AMA	\$60 per acre foot
Total in acre feet	32,000 acre feet annually

1. *Proposition 200*

The Tucson AMA presents some unique issues for the AWBA. In 1995, Tucson citizens approved Proposition 200, the Water Consumer Protection Act, which limits the ways in which the City of Tucson's CAP allocation can be used. The proposition prohibits delivery of CAP water to potable water customers unless the CAP water is treated to the same quality as Avra Valley groundwater (i.e., the same levels of water "hardness", salinity, and dissolved organic material). Achieving this mandate requires advanced treatment such as a reverse osmosis process. If such a technique will be applied on a massive scale, extensive engineering studies and pilot plant operation would be required.

While advanced treatment studies are being conducted, the City of Tucson is pursuing a recharge strategy that would allow it to comply with the provisions of Proposition 200 and meet its various water supply goals. This strategy would replace pumpage from the City's Central Well field with water recovered from the Central Avra Valley Storage and Recovery Project (CAVSARP), a large direct recharge facility. Additionally, over the past year, two other direct recharge facilities have gone on-line: the Avra Valley Recharge Project (AVRP) and the Pima Mine Road facility (PMR).

The AWBA is recharging as much water as possible at those three sites, and as other sites become available, the AWBA will recharge CAP water there to the extent that it is practicable, cost-efficient, and meets the Tucson AMA's groundwater management goals.

III. Facility Plan Development

By law, the AWBA must go through a specific process prior to developing its Facility Plan. The AWBA has completed several of these requirements but must complete them all prior to approving a final plan. In accordance with A.R.S. § 45-2453, the AWBA must do all of the following:

- 1) consider the amount of additional storage capacity needed to meet the AWBA's needs;
- 2) consult with ADWR with respect to where water storage would most contribute to meeting the water management objectives;
- 3) consider the advice of CAWCD regarding the feasibility of delivering and storing CAP water at any proposed storage facility;
- 4) seek the advice of the ADEQ regarding any potential adverse impacts from a proposed storage facility;
- 5) consider the potential costs to the AWBA of facilitating construction or development of a proposed storage facility and cost-effectiveness of any proposed storage facility;
- 6) ask the [Central Arizona Water Conservation District] whether it or other entities would be willing to construct, maintain, and operate any proposed storage facility;
- 7) consider the way in which water stored at a proposed storage facility could be used by the Authority to achieve policy goals; and
- 8) consider any other relevant factors.

IV. Available Facilities

After consulting with the CAWCD and the Tucson IPAG and reviewing its available funding, the AWBA determined potential water recharge locations, estimated the capacity for water storage in the Tucson AMA, considered the goals that would be achieved by recharge at certain sites, and calculated the available funding to achieve the maximum recharge. The AWBA then relied in large part on the Regional Recharge Plan for estimated current and potential future recharge opportunities in the Tucson AMA. **Table 4** contains a project-by-project analysis of water storage facilities, and **Table 5** ranks the facilities recommended in this Plan by AWBA goals. **Table 6** (location in section V) uses the information in **tables 4** and **5** and shows the ten year AWBA storage recommendations.

Table 4

Ten Year AWBA Storage Recommendations <i>in acre feet</i>						
Facility	1999	2000	2001	2002	2003	2004-2008
Avra Valley Recharge Project ¹	5,000	5,000	5,000	5,000	5,000	5,000
CAVSARP	7,500	7,500	7,500	15,000 ²	15,000 ²	15,000 ²
Pima Mine Road ¹	7,500	7,500	7,500	15,000	15,000	15,000
Lower Santa Cruz ¹	0	5,000	12,000	12,000	12,000	12,000
Avra Valley Irrigation District ³	8,000	8,000	8,000	8,000	8,000	0
Upper Santa Cruz Phase 1 ³	0	0	0	10,000	10,000	10,000
Current Facility Plan Total	28,000	32,000	40,000	65,000	65,000	57,000
Recommended Quantities for Interstate and Indian Settlement Recharge						
San Xavier/Santa Cruz In-channel <i>Indian Settlement Purposes Only</i>	0	2,000	10,000	10,000	10,000	10,000
Cañada del Oro ³ <i>Interstate Banking Only</i>	0	0	0	0	0	10,000

¹ Denotes state demonstration facility. The amounts shown for the three state demonstration facilities are conservative because it is unknown how much capacity the partners in these facilities will decide to use. It is assumed that any capacity remaining after others contract for storage would be available to the AWBA.

² This figure assumes CAVSARP's expansion to a 60,000 acre foot facility.

³ Requires substantial capital investment to develop the facility.

Table 5

Project-by-Project Analysis of Water Storage Facilities		
Project/Description	Facility or Storage Permit Holder	Opportunity for Water Bank Participation <i>ranked as poor, fair, good, very good, and excellent</i>
<p>Lower Santa Cruz Replenishment Project Underground Storage Facility (USF) Proposed to store CAP water in off-channel constructed shallow spreading basins for 20 years. Located south of the Santa Cruz River between Sanders Road and Avra Valley Road.</p>		<p>Most of the Phase I basin capacity would be available to the AWBA.⁴ This project does not rank as high as others in potential for addressing water management concerns but is an excellent location for AWBA storage, at least in the near term. It is a good site for long-term storage because water is likely to continue to be available there. The cost for recovery must be identified prior to storage commitments. The facility is available for storage in 2000 up to 12,000 af a year. The AWBA is not competing with other entities at this location.</p>
<p>Cañada del Oro Recharge and Recovery Project USF proposes to store CAP water using spreading basins and managed in-channel recharge. Project is one element of a Northwest Tucson AMA Replenishment Program. CAP water would be pumped to two recharge areas and for direct use by golf courses.</p>		<p>This project involves significant capital investment and there may be opportunities for the AWBA to participate in funding this project. The project rated in the highest grouping for ability to meet water management objectives. This is a long-term project that may have significant potential for interstate banking. Sponsors are interested in bank participation in the ramp-up years because the facility is much larger than current demand. Sponsors Metropolitan Water District (Metro) and the Town of Oro Valley will be able to forebear up to 10,000 af of CAP allocations and can recover with low costs from existing wells. This project could be on-line in 2005. It is a good long-term option, but it is more expensive than the Upper Santa Cruz (FICO) option.</p>

⁴ One of the most critical factors in the AWBA’s decision to store water at a particular facility is the long-term ability to recover the water that the AWBA has delivered. There have been some concerns about recovery issues in the Marana area, which would affect a number of the storage facilities contained in this table. Some interested parties suggested that the Marana Town Council was considering charging fees and limiting recovery in the area, and as a consequence, the Tucson AMA was reluctant to suggest storing water for drought protection there until the issue could be resolved. A letter dated July 9, 1998 from the Town of Marana/Cortaro-Marana Irrigation District Trust vehemently denied this, stating

[T]he Town Council has never considered charging fees and limiting recovery at the LSCR. We are aware that staff and consultants working with the Town may have indicated the possibility of future changes. However, the assertion that the Town has taken a formal position is simply false. From our positions, we can see no movement in the community to create any hindrance or obstruction that would provide a disincentive for storage at this site. . . .

We do not believe that there are “recovery issues” that exist in Marana that do not exist in any other location. . . . Simply put, our primary interest in recovery projects is to ensure that there is no adverse hydrological impact to the area water supply.

Project-by-Project Analysis of Water Storage Facilities

<p>Avra Valley Recharge Project USF stores water in off-channel constructed shallow spreading basins. This facility is located to the northeast of the Avra Valley Airport, less than one mile south of Tangerine Road and about one mile east of Sanders Road.</p>	<p>CAWCD (facility, storage) AWBA (storage) Metro (storage)</p>	<p>This project does not rank as high as others in potential for addressing water management concerns but is an excellent location for AWBA storage, at least in the near term. Although not currently in the Town of Marana, this may change. Recovery is a key concern. About 5,000 af could be available on an ongoing basis. Capacity is already being utilized by the AWBA.</p>
<p>Pima Mine Road USF stores CAP water in off-channel constructed shallow spreading basins. Located to the north of Pima Mine Road along the Old Nogales Highway.</p>	<p>CAWCD (facility, storage) City of Tucson (storage)</p>	<p>This project rated in the second highest grouping for water management objectives. It is useful from the perspective of the SAWRSA settlement, is in a critical overdraft area, and is viewed positively by the City of Tucson as a location for drought protection shortage. The City of Tucson may build well fields in the vicinity in the future to recover water in compliance with the SAWRSA settlement (if one is worked out). The CAWCD intends to move forward with an expansion of capacity to 30,000 af by 2000.</p>
<p>Central Avra Valley Storage and Recovery Project (CAVSARP) USF stores CAP water in off-channel shallow spreading basins. Located north of Mile Wide Road and one mile west of Sanders Road. First pilot-scale facility permit for 500 af was issued on August 1, 1996.</p>	<p>City of Tucson (facility, storage)</p>	<p>This project rates in the highest grouping for ability to meet water management objectives, contingent on development of full-scale storage and recovery project to offset use of groundwater wells in the Central Well field. Any project that substantially reduces pressure on the Central Well field ranks high from a water management perspective, and the design of this project also helps with Tucson's physical availability for Assured Water Supply and long-term reliability storage. The capacity is expected to be expanded to 15,000 af next year, and the facility should have the full 60,000 af of storage capacity and 100,000 af of recovery capacity by 2002. 7,500 af of capacity should be available to the AWBA in the near term.</p>
<p>South Avra Valley USF proposes to store CAP water using spreading basins north of Snyder Hill Road and south of Garcia Ranch Road on either side of Sandario Road.</p>		<p>This facility is not being actively investigated.</p>
<p>San Xavier Arroyos USF stores CAP water by recharging through arroyos to the west of Interstate 10 and the main channel of the Santa Cruz River.</p>		<p>Potential water management benefit from this project is ranked in the second highest grouping. However, potential capacity is rated in the lowest grouping. An intergovernmental agreement (IGA) would be required for the Arizona to recognize water stored on the Reservation. Potential for participation in the SAWRSA settlement. Primary focus would be for riparian enhancement on the reservation with incidental recharge benefits. Could be an excellent site for the AWBA to extinguish credits for Indian water rights settlement purposes.</p>

Project-by-Project Analysis of Water Storage Facilities

<p>San Xavier Santa Cruz River USF proposes to recharge CAP water in the main channel of the Santa Cruz River where it crosses Pima Mine Road, extending north to Valencia Road.</p>		<p>Potential water management benefit from this project is ranked in the second highest grouping. However, potential capacity is in question. An IGA would be required for Arizona to recognize water stored on the Reservation. Potential for participation in the SAWRSA settlement. If CAP repayment settlement results in the need to firm water for Indian settlements, could potentially have parties pay for project. In-stream component is relatively small capacity in comparison to proposal to place basins on the terrace, which could have the same capacity as Pima Mine Road basins. High probability of working out an agreement with the AWBA or others in the next few years, could pilot the in-channel portion soon. Possibility of expanding north of Valencia to incorporate recent City of Tucson and Pima County proposals.</p>
<p>Pantano, Tanque Verde & Rillito USF proposes recharge of CAP water in Pantano, Tanque Verde, and Rillito stream channels using the City of Tucson's reclaimed water system for distribution.</p>		<p>This facility is not being actively investigated in the form originally evaluated by the Regional Recharge Committee. However, a stream segment of this project on the Rillito has been included in a pilot project being pursued by the City of Tucson. Ability of the AWBA to participate is unknown at this time.</p>
<p>Brawley Wash at Three Points USF proposes recharge of CAP water using spreading basins located 1.5 miles southwest of Robles Junction in floodplain east of Brawley Wash.</p>		<p>This facility is not being actively investigated.</p>
<p>Cortaro Marana Irrigation District (CMID) Groundwater Savings Facility (GSF) receives CAP water in lieu of pumping groundwater. This facility is roughly located from Tangerine Road north to the Pima/Pinal county border and southwest of Interstate 10 to one mile west of Trico Road.</p>	<p>CMID (facility) CAWCD (storage) Spanish Trail Water Co. (storage) Community Water Co. of Green Valley (storage) City of Tucson (storage)</p>	<p>Unless current AWBA water pricing policy is changed, this is not a likely candidate for long-term AWBA storage. Contribution of this site to groundwater management objectives is not as high as others. CMID is ideally located for pumping water back into the canal, although it is within the Town Limits of Marana.⁴ Existing low energy costs make the AWBA price for in-lieu water unattractive. Not a likely AWBA facility, but could be considered an alternate in the future.</p>
<p>BKW Farms GSF receives CAP water in lieu of pumping groundwater. Roughly located south of the Santa Cruz River to Emigh Road between Trico Road and Silverbell Road.</p>	<p>CAWCD (facility, storage) Metro (storage) City of Tucson (storage) Community Water Co. of Green Valley (storage)</p>	<p>Unless current AWBA water pricing policy is changed, this is not a likely candidate for long-term AWBA storage. Contribution of this site to groundwater management objectives is not as high as others. It is located in the town of Marana.⁴ Tucson Water has contracted to use the full capacity. It is not a likely AWBA facility, but could be considered as an alternate in the future.</p>

Project-by-Project Analysis of Water Storage Facilities

<p>Avra Valley Irrigation District (AVID) GSF receives CAP water in lieu of using groundwater between Trico and Sanders Roads on either side of Avra Valley Road west of the Santa Cruz River.</p>	<p>Herb Kai (facility) Metropolitan Water District (storage)</p>	<p>This could be a candidate for near term AWBA storage if financing can be worked out. Contribution of this site to groundwater management objectives is not as high as others, although it is in an area which has experienced overdraft. It is located outside of Marana, would require new infrastructure get the water to the farms, and additional infrastructure for recovery. Because of potential recovery issues, it is not a good long-term site for firming.⁴ About 8,000 af of demand is part of the Kai farming operation. It is permitted and would take less than one year to go on-line. Total cost for new ditches for delivery to the farms is about \$800,000.</p>
<p>Upper Santa Cruz Phase 1 (FICO) Sahuarita GSF proposes recharging CAP water in lieu of pumping groundwater at the FICO-Sahuarita farm located west of the CAP terminus at Pima Mine Road with in-channel recharge during the winter.</p>		<p>This project ranks in the second highest grouping for water management benefits with potential to positively impact groundwater declines, the SAWRSA settlement, and possibly serve other users to the south. It is the subject of recent USCWUG feasibility study funded by the ADWR, completed by Malcolm Pirnie. Likely to take three or more years to put together the project, as no site-specific work has been done on the in stream recharge component. Total cost estimated by Malcolm Pirnie ranges from \$48 to \$190 per acre foot depending on the delivery scenario. Minimum construction cost is \$23 million.</p>
<p>ASARCO GSF proposes delivery of CAP water to the ASARCO water recycling pond at Pima Mine Road in-lieu of pumping groundwater.</p>		<p>Due to economic considerations (high pumping costs, etc.), this is not a likely candidate for AWBA storage. Volume currently being considered is 5,000 acre feet. Could be a component of the SAWRSA settlement.</p>
<p>KAI Farms at Picacho GSF receives CAP water in lieu of pumping groundwater. This facility is located in Pinal County east of the Town of Red Rock, south of Neuman Peak to Park Link Road, and between the Interstate 10 and Pecan Road.</p>	<p>Metro (storage) CAWCD (storage) Spanish Trail Water Co. (storage) Town of Oro Valley (storage) Town of Green Valley (storage) City of Tucson (storage)</p>	<p>Unless current AWBA water pricing policy is changed, this is not a likely candidate for long-term AWBA storage. Contribution of this site to groundwater management objectives is low. Existing facility has lowest costs for recovery of any GSF due to location near canal, presence of existing wells, high groundwater quality, and low energy costs. Could be flexible about AWBA use of facility. However, facility is very near northern border of AMA, is only feasible in the long-term if recovery to the canal is desirable. State lease land could bring potential recovery problems long-term. Recommended for inclusion in the plan as an alternate for future consideration.</p>
<p>Pascua Yaqui USF proposes to store CAP water west of the CAP canal alignment in the western portion of the Pascua Yaqui Reservation using spreading basins.</p>		<p>There is some potential for AWBA participation in this facility, but this project is purely conceptual at this time.</p>
<p>BKW Farms at Mile Wide GSF proposes to store CAP water in lieu of groundwater west of the CAP canal between Fort Lowell and Mile Wide Roads.</p>		<p>Unless current AWBA water pricing policy is changed, this is not a likely candidate for long-term AWBA storage. Because of its proximity to CAVSARP, this facility ranks higher than other GSFs from a water management perspective. Existing facility with small volume. The City of Tucson has a contract for the capacity at this facility.</p>

Table 5

Facility Ranking by AWBA Goals								
		● Very Good	◐ Good	◑ Fair	○ Not useful			
	AVRP	CAVSARP	PMR	LSC	AVID	USC/FICO Phase I	San Xavier SC In-Channel	Cañada del Oro
Goal								
Long-Term Firming of Municipal and Industrial (M&I) Supplies	◐	●	◐	◐ ¹	○	?	◑	●
Short-Term Firming of M&I	●	●	◐	●	◐ ²	○ ³	◑	○
Groundwater Management	◑	● ⁴	◐	◑	◑	◐	◐	●
Indian Settlements	unknown	○	● ⁵	○	unknown	● ⁴	◐ ⁴	unknown
Interstate Storage	unknown	○	○	○	unknown	unknown	unknown	◐

¹No water should be stored here until serious questions about the ability to recover water are resolved. As of July 1998, the Town of Marana (where the site is located) is considering charging fees and limiting recovery.

²Contingent upon favorable financing arrangement. This site would require new infrastructure to get the water to the farms plus additional infrastructure for recovery. Also locate

³Likely to take at least three years to put the project together. No site-specific work has been done on the in-stream recharge component.

⁴Contingent upon development of full scale storage and recovery project to offset use of groundwater wells in the Central Well field (expected to have capacity of 60,000 af by 2002).

⁵This project is considered especially useful from the perspective of the SAWRSA settlement.

V. Recommendation for Facility Plan

Table 6

Ten Year AWBA Storage Recommendations <i>in acre feet</i>						
Facility	1999	2000	2001	2002	2003	2004-2008
Avra Valley Recharge Project ¹	5,000	5,000	5,000	5,000	5,000	5,000
CAVSARP	7,500	7,500	7,500	15,000 ²	15,000 ²	15,000 ²
Pima Mine Road ¹	7,500	7,500	7,500	15,000	15,000	15,000
Lower Santa Cruz ¹	0	5,000	12,000	12,000	12,000	12,000
Avra Valley Irrigation District ³	8,000	8,000	8,000	8,000	8,000	0
Upper Santa Cruz Phase 1 ³	0	0	0	10,000	10,000	10,000
Current Facility Plan Total	28,000	32,000	40,000	65,000	65,000	57,000
Recommended Quantities for Interstate and Indian Settlement Recharge						
San Xavier/Santa Cruz In-channel <i>Indian Settlement Purposes Only</i>	0	2,000	10,000	10,000	10,000	10,000
Cañada del Oro ³ <i>Interstate Banking Only</i>	0	0	0	0	0	10,000

¹ Denotes state demonstration facility. The amounts shown for the three state demonstration facilities are conservative because it is unknown how much capacity the partners in these facilities will decide to use. It is assumed that any capacity remaining after others contract for storage would be available to the AWBA.

² This figure assumes CAVSARP's expansion to a 60,000 acre foot facility.

³ Requires substantial capital investment to develop the facility.

**Excerpt from the Special Master’s Report and Recommended Orders Concerning
Counterclaimant’s [USBR’s] Motion to Amend Counterclaim**

Please note: This Report and Recommendation is not
final until entered as an Order by the presiding judge,
the Hon. Earl H. Carroll.

L. Ray Haire was appointed Special Master in this consolidated action by order of United States District Judge Earl H. Carroll for the purpose of considering all dispositive, discovery related and other pretrial motions. The following constitutes the Special Master’s Report and Recommended Orders concerning the Counterclaimant/Defendant United States’ Motion to Amend Counterclaim. . . .

. . . .

In its memorandum in support of its motion, the United States requests permission to amend its counterclaim to address thirteen points, listed by the United States as follows:

. . . .

- (2) The Secretary possesses exclusive control over uncontracted water (paragraph 111; Joint Report, p. 37);

- (3) CAWCD lacks authority to deliver Colorado River Water to/for the benefit of the Arizona Water Banking Authority (paragraphs 118-20; Joint Report, p. 51);

. . . .

The United States admits that this is a new issue, but states that the “issue is new only because the AWBA is new.” The United States points out that the AWBA was created in 1996, and that CAWCD did not begin deliveries until 1997

In the Joint Report filed with the court in April, the United States took the position that delivery of water to the AWBA was not authorized by the provisions of art. 8.7(e) of the 1988 Contract

CAWCD urges that other parties to CAWCD’s contract for delivery of water to the AWBA (AWBA and the Arizona Department of Water Resources) are not parties to this litigation, would be interested and seek to intervene if this litigation were expanded to include this issue, resulting in additional delay.

Finally, CAWCD notes that until the United States’ current attack, the Secretary had praised the State of Arizona and looked to the AWBA as a model to be followed elsewhere in the West. It is CAWCD’s position that the litigation of this issue would not only affect Arizona but

also other states with interests in Colorado River water, and most importantly, no discovery directed to the AWBA issue has been undertaken in this litigation.

When all these circumstances are considered, the Special Master disagrees with the United States' statement that "a new lawsuit over this matter would waste time and resources where it can be resolved expeditiously herein." As noted by CAWCD, this issue is a much larger issue than that involved in the issues implicated in the excess water contract aspects of the litigation, important not only to CAWCD and the State of Arizona, but also to the other Colorado River states. Considering these circumstances, the Special Master concludes that the United States' motion to amend its counterclaim so as to include the AWBA issue should be denied as being unduly prejudicial to CAWCD. . . .

In summary, the Special Master recommends that the United States' Motion to Amend its counterclaim:

...

- (b) Be denied as to points 2 and 3[.]