

DRAFT

TUCSON AMA SAFE-YIELD TASK FORCE ISSUE OUTLINE 9/1/00

ISSUE: UTILIZATION OF CAP IN THE TUCSON AMA

The CAP allocations available within the Tucson AMA are not currently fully utilized. Although this is likely to be a short-term rather than a long-term issue, opportunities are being lost to maximize use and storage of CAP water while it is readily available and relatively low in cost. This issue paper focuses on the opportunities to use CAP water that have not been fully exploited, which vary based on the source of the water.

BACKGROUND

In 1999, only 55,256 acre-feet of CAP water were utilized in the Tucson AMA, virtually all of it for recharge. The total amount of CAP water available through existing allocations is 215,333 acre-feet, with the potential to increase to 243,533 AF with the addition of the Southern Arizona Water Rights Settlement Act (SAWRSA) Amendments. In addition, the Arizona Water Banking Authority (AWBA) could bring in as much as 30,000 acre-feet per year of excess CAP water for storage (based on use of all the withdrawal fees collected at a cost of \$60 per acre-foot). The AWBA could potentially store more as a component of the interstate-banking program. Another issue is unused CAP currently allocated to private water companies and other entities. There is concern that certain parties with allocations may not be financially able to maintain their CAP contracts, which could lead to reallocation outside of the Tucson AMA. However, the ADWR reallocation policy gives priority to intra-AMA transfers.

There are numerous reasons why the full CAP allocations are not being utilized. Tucson Water's delivery problems in the early 1990's and a restrictive local ordinance (the 1995 Water Consumer Protection Act) have limited utilization of the City of Tucson's 138,920 AF CAP allocation (which is by far the largest in the AMA). The restrictions in the 1995 Water Consumer Protection Act have precluded direct delivery of CAP water to customers in the past. In response, Tucson Water has re-engineered its CAP water delivery systems to incorporate large-scale recharge activities, and has moved forward with large-scale recharge projects (CAVSARP and Pima Mine Road) that will increase its total utilization of CAP in the very near future. In addition, the City has agreed to store water at a groundwater savings facility at BKW farms. In the near term, the City will be storing enough water to offset about 80% of its current groundwater demand (about 87,000 AF). Other opportunities exist to use the remaining 52,000 AF of the City's allocation.

The other sub-contractors, with a combined CAP allocation of 38,100 AF, have unresolved infrastructure and water treatment issues that limit full use of their respective CAP allocations (see the attached Summary of CAP Allocations, Use Status, and Impediments). Other issues include inadequate allocations to meet current demand for some providers, lack of adequate

capacity at recharge facilities, the absence of terminal storage for reliability and policy and regulatory limitations.

Flowing Wells Irrigation District, Green Valley Water Company and Community Water Company are at risk of relinquishing their CAP allocations (7,306 AF), although they would likely be reallocated within the region. The reasons for this include the following: lack of physical access to supplies, ACC limitations on passing the cost of renewable supplies on to customers and getting designations of AWS, and the capital cost of maintaining the subcontracts.

The AWBA has been unable to bank a sizable amount of water in the Tucson AMA, in part because the AWBA does not currently participate actively in development of new recharge projects, and because the current pricing policy for groundwater savings facilities (GSFs) discourages use of this mechanism in the Tucson AMA. There is a substantial disparity between the amount of long-term storage to offset shortages on the Colorado that the AWBA projects the Tucson AMA will need, and the amount that can be stored in existing direct recharge facilities. Until recently, no GSF water has been stored by the AWBA in the Tucson AMA. The current price of \$21 per AF is higher than the groundwater cost for Cortaro Marana Irrigation District, so the District has no financial incentive to store water for the AWBA. The AWBA could store water without recovery to achieve water management goals using the withdrawal fee money, but none of the current recharge facilities are ideally located for such activity.

The Arizona State Land Department (ASLD) has a 14,000 acre-foot allocation associated with certain land holdings that has generally not been utilized. ASLD originally intended to transfer portions of the allocation with land sales and there is an adopted policy on credit sharing that could be more fully utilized (see note D on the attached table). According to ASLD staff, for “Urban Planned Lands” ASLD decides if a CAP allocation will benefit the parcel. For example, a parcel to be used for open space would not typically receive a CAP allocation. ASLD makes a recommendation to the State Selection Board (Governor, Attorney General, and Treasurer) for a decision. To date, 50 AF have been allocated with one parcel, and a few other sales potentially involving CAP allocations are being reviewed.

The Tohono O’odham Nation has CAP allocations (38,800 AF) that are not contingent on finalization of SAWRSA. The availability of these allocations for long-term lease is uncertain.

Several proposed CAP projects in the Tucson area have involved instream or near-stream recharge. Until mitigation measures such as fish barriers have been constructed to protect upstream endangered species on the Santa Cruz, these projects are unlikely to move forward.

Additional considerations such as supply reliability limit the potential for use of CAP water. The Tucson AMA’s position at the end of the CAP canal and the absence of a reliability feature affect the CAP use options available. Municipal direct delivery requires some form of backup supply, but there are other users such as the mines and the Tohono O’odham that are concerned about the number and length of times the canal has already been shut down for maintenance and repair. In addition, CAWCD delivery policy sets agricultural deliveries at a higher priority than recharge, which may affect the total amount of water that can be stored in the Tucson area facilities.

SOLUTIONS CONSIDERED

The following ideas have been considered. Additional ideas may be added to this list.

- The State Land Department adopted policy on annual credit sharing for its 14,000 acre-foot allotment could be explored by entities with inadequate allocations.
- The State Land Department could be encouraged to transfer CAP allocations with land sales as originally planned.
- Encourage the AWBA to store more water in the Tucson AMA. The AWBA could be encouraged to store more water if: 1) in-lieu (Groundwater Storage Facility) pricing arrangements were made so that Tucson AMA entities could afford to participate; 2) general fund money was used to increase the funding available, since Tucson does not generate enough property tax money to cover the reliability needs for the region; 3) withdrawal fee money was used to recharge water without recovery for water management benefit; and 4) more Underground Storage Facilities and Groundwater Savings Facilities were developed.
- Provide opportunities for Flowing Wells Irrigation District, Green Valley Water Company and Community Water Company to utilize their CAP allocations.
- Continue to work for public acceptance of direct delivery of treated CAP water.
- Developing CAP delivery reliability for all Tucson AMA users should be a high priority goal for the State of Arizona.

PRELIMINARY RECOMMENDATIONS

- The State Land Department should be encouraged to develop a definitive policy on transferring CAP allocations with land sales.
- The AWBA should be encouraged to implement a plan to increase its water storage in the Tucson AMA. Such a plan could include: 1) a change in the Groundwater Savings Facility pricing policy so that more Tucson AMA entities could afford to participate (less than \$21 per AF); 2) use of General Fund money (as is proposed in the 2000 budget) to increase the funding available for storing water and for participation in storage project development; 3) withdrawal fee money used to recharge water without recovery for water management benefit, if appropriate locations can be identified; and 4) more active participation by the AWBA in development of storage projects that may require new infrastructure.
- The ACC should be encouraged to allow pass-through of capital holding costs for CAP and GRD replenishment fees to private water company customers
- Developing CAP delivery reliability for all Tucson AMA users should be a high priority goal for the State of Arizona.

OBSERVATIONS

The existing CAP allocations (prior to SAWRSA amendments) to the Tohono O'odham are not currently being fully used and some portion may be available for lease on an annual basis. However, with excess CAP water available, there may be little incentive for year-to-year leases of the Nation's CAP water. See attached table.

Summary of CAP Allocations, Use, Status, and Impediments¹

August 17, 2000

Entity	Date Sub-Contract Signed	Annual Allocation (acre-feet)	Recommended Additional Allocation² (acre-feet)	1999 CAP Recharge (acre-feet)	Impediments to CAP Use
Municipal and Industrial Subcontractors²					
City of Tucson*	2/01/85	138,920	8,206	14,984	E, F
Arizona State Land Department	11/25/86	14,000		0	A, B, D, H, I
Metropolitan Domestic Water Improvement District*	5/08/98	8,858	4,602	4,220	A, B
Flowing Wells Irrigation District	6/19/85	4,354		0	A, B, G
Spanish Trail Water Company*	11/16/90	3,037		12,598	A, B, J
Green Valley Water Company*	6/18/85	1,900		0	A, B, G
Town of Oro Valley*	1/18/97	2,294	3,557	2,000	A, B, C
Midvale Farms	3/08/85	1,500		0	A, B, K
Community Water Company of Green Valley*	5/17/85	1,337	1,521	0	A, B, C, G
Vail Water Company (formerly Del Lago W.C.)	12/27/84	786	1,071	0	A, B
Town of Marana	1/21/85	47		47	A, B, C
Avra Water Cooperative		0	808	0	A, B, C
Subtotal:		177,033	19,765	33,849	
Indian Subcontracts					
Tohono O'odham - San Xavier		27,000		0	Demand is currently limited
Tohono O'odham - Schuk Toak		10,800		0	Planned use is for irrigated Agriculture
Pascua Yaqui		500		0	Demand is currently limited
Subtotal:		38,300		0	
AZ Water Bank				21,395	
CAWCD				12	
Total:		215,333³		55,256	

A = No conveyance structure(s) in place for delivery/use
B = Water treatment needed for direct potable use
C = Insufficient allocation to meet current demand
D = Per ASLD policy, CAP allocations must be tied to land development. Interim agreements to use the ASLD allocation are possible.
E = Infrastructure/facilities not available for full scale recharge
F = Water Consumer Protection Act
G = No designation of AWS, no perceived need for using renewable supplies
H = Transfer of CAP requires Committee approval (including director of SLD and Governor)
I = Interested in credit sharing on annual basis
J = Change in Pima County Golf Course ordinance may affect continued interest in groundwater savings credits
K = Allocation may be transferred to City of Tucson, which is serving the area

¹ Agricultural and copper mining water users declined CAP water subcontracts in the Tucson AMA. Non-Indian agricultural CAP water use has been limited to groundwater savings facilities (GSF). All CAP water “use” in the Tucson AMA since 1995 has been storage in groundwater recharge projects.

² On December 2, 1999 ADWR recommended to the Secretary of the Interior CAP additional allocations to Tucson AMA municipal providers.

³ SAWRSA amendments may add 28,200 acre-feet of CAP to the Tohono O’odham allocation.

* Indicates participation in CAP recharge project.