



Citizens' Water Advisory Committee
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Citizens' Water Advisory Committee
MINUTES

The regular meeting of the Citizens' Water Advisory Committee was called to order by Sarah Evans, Chair, on Wednesday, June 3, 2009, at 7:05 a.m., in the Tucson Water Building, 310 W. Alameda, 3rd Floor Director's Conference Room, Tucson, Arizona.

1. Call to Order

Members Present:

Sarah Evans, Chair
Bruce Billings, Vice Chair
Jim Barry
Thomas Meixner
Christopher Brooks
Martha Gilliland
Martin M. Fogel
Tina Lee
Amy McCoy
Vince Vasquez

Appointed by:

City Manager
Ward 3
City Manager
City Manager
City Manager
City Manager
Mayor
Ward 1
Ward 2
Ward 4

Members Absent:

Corina A. Baca
Evan Canfield
Jim Horvath
Jeff Biggs, Tucson Water Director
Michael Gritzuk, Pima County Regional Water
Reclamation Department Director

Ward 5
Ward 6
City Manager
Ex-Officio Member
Ex-Officio Member

Others Present:

Chris Avery, Tucson Water Interim Deputy Director
Sandy Elder, Tucson Water Interim Deputy Director
Ralph Marra, Tucson Water Resource Administrator
Chuck Collum, Senior Policy Analyst, Central Arizona Project
Fernando Molina, Tucson Water Conservation Manager
John Thomas, Tucson Water Management Coordinator
Tiki Lawson, Recording Secretary, City Clerk's Office

2. Announcements

There were no announcements.

3. Call to Audience

No one spoke.

4. Approval of Minutes: May 6, 2009

Motion by Chair Evans, duly seconded and passed by a voice vote of 10 to 0, to approve the Minutes from the CWAC Meeting of May 6, 2009, as presented. Passed by a voice vote of 10 to 0.

5. Director's Report

a. Mayor and Council items

In Jeff Biggs' absence, Sandy Elder, Tucson Water Interim Deputy Director, recapped recent Mayor and Council activities. On May 19, 2009, the Utility presented a conservation update to the Mayor and Council that discussed the implementation of the Community Conservation Task Force (CCTF) recommendations and planned conservation programs for the coming year. On June 2, 2009, the Mayor and Council approved the Utility's proposed FY 2010 water rates after a public hearing.

Also on June 2 the Mayor and Council approved the Utility's alternative financing plan, meaning that the Utility can proceed with the sale of water system revenue obligations via a trust structure. The Mayor and Council approved up to \$50 million in this financing, but most likely the Utility will need to sell only \$36 million.

Mr. Elder also said the agreement in which the Pima County Community Action Agency administers the City's low income utility bill assistance program is scheduled for renewal at the June 9 Mayor and Council meeting, and on June 16 the Council is scheduled to approve the "effluent interconnect" agreement with Pima County (Chris Avery gave an overview of this agreement at the May CWAC meeting). In addition, several routine property items will go before the Council at upcoming meetings.

b. Other

Sandy Elder said the electronic file cabinet project for CWAC materials that John Thomas, Tucson Water Management Coordinator, is handling is moving forward. Mr. Thomas reported that a project work order and account number had been assigned by the IT Department, an IT staff person would soon be assigned, and that staff had sent some initial CWAC materials to IT to begin to populate the file cabinet.

Regarding conservation activities, Mr. Elder said the 2009 Beat the Peak program was being offered in a new format. Instead of the typical press conference and radio and TV spots, the program this year is being presented over the Internet. Fernando Molina, Tucson Water Conservation Manager, distributed a handout with this year's Beat the Peak campaign theme. He explained that individuals can now log on to myspace.com and view the Beat the Peak electronic press conference as well as access children's' conservation games, activity book, and water conservation tips. This Internet campaign format has reduced costs this year as all materials are provided online. The website also includes links to previous Beat the Peak campaign PSAs that are fun to watch.

Mr. Molina also mentioned the recent Watersmart Business Awards, in which Tucson Water recognized two local firms – Intuit Inc. and the Colton Company of Williams Center – for their commitment to sustainable practices and water efficiency. He said the awards ceremony was well attended. Mayor Walkup presented the awards, and a representative of the Governor's Office attended.

6. Future Colorado River Supplies – Implications for Tucson

a) ABCs of the Colorado River

Chris Avery, Tucson Water's Interim Deputy Director, gave a brief presentation about how the Colorado River supplies water to Tucson. He described the River's origination in Wyoming and how river water travels from Lake Havasu to the CAP canal and to the City of Tucson's recharge facilities in Avra Valley (the Central Avra Valley Storage and Recovery Project, CAVSARP, and the Southern Arizona Storage and Recovery Project, SAVSARP) and then is recovered (pumped up) and delivered to Tucson Water customers as a blend with groundwater.

Mr. Avery spoke about the original allocation of Colorado River supplies and described how the river system is essentially two systems, the Upper and Lower Basin Rivers that operate under two entirely different regimes. The Upper Basin States' reservoir is Lake Powell, which stores snow pack over a long duration and delivers it to the Lower Basin States. The Lower Basin States' reservoir is Lake Mead. Both Lakes Powell and Mead have the same amount of storage, about twenty-five million acre-feet each, that allows the U.S. Bureau of Reclamation a three year storage capacity. This large amount of storage provides the recipients of Colorado River water with a supply buffer in the event of future droughts or shortages on the River.

A discussion ensued regarding capacities in Lakes Powell and Mead and allocations for the Upper and Lower Basin States and Mexico.

b) Tucson Water's investment in Colorado River water

Chris Avery spoke on behalf of Belinda Oden, Tucson Water Finance Manager. Tucson Water has committed about a quarter billion dollars in facilities for Colorado River water, which includes about a \$170 million on CAVSARP and SAVSARP facilities and about \$80 million coming on line between now and 2015 for recovery pipelines and other facilities. This total does not include about \$70 million written off for the Hayden/Udall Treatment Plant.

c) Uncertainties about Colorado River water

1) Tucson Water's 2050 Long Range Plan Update

Ralph Marra, Tucson Water's Resource Management Administrator, gave a presentation regarding Colorado River's resources. He stressed that for Tucson Water, what happens in the Rocky Mountains in Colorado, in terms of precipitation and water supply, is more important than what happens in Tucson, as the Colorado River is Tucson's largest source of renewable water resource. He added there are political implications in water supply as well which concerns all the seven basin states involved and their supply by the upper and lower basins. Details about how to operate these two on-river reservoirs at Lakes Mead and Powell during drought

has never been fully addressed until inter-state discussions began in 2005 – the timing of this discussion was instigated by the continuing current drought. As long as these reservoirs were full and there was no shortage, there were no political issues and the matter was never addressed. There had never been detailed guidelines as to how these two reservoirs should be managed in time of shortage. However, as a shortage on the River will become a reality, it had to be discussed.

In 2005, there was a series of inter-state negotiations and meetings with the Secretary of the Interior and the U.S. Bureau of Reclamation. An agreement among the Lower and Upper basin states was worked out that became the “Interim Shortage and Operational Guidelines through 2026”, which was approved by the Secretary of the Interior and went into effect in December 2007. Some of those uncertainties and worries were now addressed, although only until 2026. Some of the highlights of these Guidelines are steps taken to ensure small increments of shortage in the Lower Basin rather than catastrophically large ones to provide water users with greater certainty on both their timing and size, the coordinated operation of Lake Powell and Lake Mead to minimize the size of shortages to the Lower Basin and reduce supply risks to Upper Basin, and the provision for supply augmentation and conservation to increase available supplies and to minimize impacts of future shortages.

These Guidelines make it clear how the shortage would be applied based on water levels in Lake Mead. Lake Powell was used to help regulate levels of Lake Mead. This created problems for the Upper Basin States, because they did not want their water deliveries curtailed. As a result, they wanted Lake Mead’s water levels to remain higher longer as a buffer between them and the water needs of the Lower Basin States. Moreover, Lake Powell still had to guarantee water supply to Lake Mead. These guidelines, however, now make the people in the Upper Basin more secure.

Mr. Marra stated there is focus now on how to augment supply of Colorado River water so that levels in Lake Mead can be maintained longer at a higher level. Various projects were discussed to this effect. The issue of flood control, especially in the Grand Canyon, was raised and slides shown to indicate Lake Mead’s three water level tier shortages. The implications are that CAP customers who have access to lower priority CAP pools, such as the Water Bank, the Central Arizona Groundwater Replenishment District (CAGR) and agriculture users, would all face reductions in their CAP deliveries before municipal and industrial customers, like the City of Tucson, would be cut. If a shortage were to become more severe over time, Tucson could be impacted, but this is not expected for another twenty or so years. Mr. Marra pointed out that there was no imminent crisis, although, many Basin States were playing the crisis game to worry people in order to make things happen.

Mr. Marra then discussed the City’s Clearwater Recharge & Recovery Facilities in Avra Valley. He noted the recharge and recovery process has many advantages:

- insulates Utility from operational outages on CAP
- Buffers water-quality changes in CAP water which occur over time
- Improves water quality through Soil Aquifer Treatment
- Can recover CAP water or pump groundwater
- Allows for the gradual introduction of CAP water
- Provides long-term storage for Water Bank firming
- Increases supply reliability in times of drought/shortage

He added that current projections strongly suggest that the future climate in the Southwest will likely be drier and warmer, which will likely increase the vulnerability of some of our water resources to shortage and which may also cause changes in seasonal local water demand. In response, the Central Arizona Project developed the ADD (Acquire, Develop, and Deliver) Water project. A major effort is going on in the Phoenix area where the many stakeholders are being drawn together. The discussions currently center on how this water would be shared amongst the many interested parties and how it might be paid for. A discussion followed regarding doomsday scenarios, assured water supplies and California's contribution to shortages.

2) Joint Water/Wastewater Study Phase 1 report

Committee Member Barry said the City/County Water and Wastewater Study and Oversight Committee agrees that the Utility is in good shape for the time being. The Committee, however, felt the future looms and uncertainty was there. New water supplies would be needed anywhere from 2020 - 2040, which was not that far away. It was also determined that the Tucson AMA's CAP allocation of about 215,000 AF/year could serve close to 1.1 million people, which means there is room to grow. The issues of population growth and urban form were important issues that could impact the future as well. In addition, CAP water is the major part of Tucson Water's portfolio. The Study Committee concluded it was important to acknowledge the uncertainties. Things were okay for the time being but there should not be a fifteen- or twenty-year wait to start addressing the uncertainties.

3) Discussion of recent Scripps Institution Report and Southwest Hydrology article, "Reconciling Projections of Colorado River Streamflow"

Committee Member Meixner gave a presentation discussing the implications for Tucson Water of climate change as well as Colorado River uncertainty. He said there is a possibility that Tucson may not receive its full allocation and there would be a shortage of some duration. He pointed out the key thing to remember about shortages was the implication of severity for cities in the Upper Basin as opposed to the Lower Basin. The best estimate is currently 14.7 million AF of water in the Colorado River which he said was good news, as this number has increased from the 1960's and 1970's. However, climate change will likely cause a decline from this value, but how much of a decline is still a matter of debate, with figures ranging from ten to fifty percent.

Mr. Meixner said the Scripps Report stated if the amount of water in the Colorado River declined, total demands on the River could not be met, which he noted was something that was already known to all the water managers in the Colorado River Basin. He said what was interesting was how this shortage would be managed. He stated it would come down to the Upper Basin versus the Lower Basin states. The question was, how would Tucson Water need to respond in order to protect its customers from the threat of a shortage? He discussed the consequences of too little water in the Colorado, among them being, that Lower Basin shortages would be disproportionately born by Arizona, as the Upper Basin would be hit first. He stressed this would cause conflict and thus Tucson Water needed a good political and legal position to make the best argument that it should not be "hit". An analysis of water conflicts around the world generally indicates that conflicts over water have led to cooperative solutions. It is understood that water is so fundamental to living

that cooperation generally follows. A conversation regarding the Central Utah Project ensued.

Mr. Meixner concluded that it was likely the Utility would not receive its full 144,000 acre-foot CAP allocation over the next thirty years. The construction of the Avra Valley Recharge facilities gave the City the ability to store Colorado River water potentially for decades, and provides a water "bank account" for deposit and a buffer against external insult. He said the water "savings account" in Avra Valley and the Central Well Field has been reduced over the last sixty years. He stated this account could no longer be overdrawn although more water could be put in rather than taken out for later use. He stressed that future strategies must include acceptance of full Colorado delivery as soon as possible, to fully couple Avra Valley systems to the City, fully utilize effluent for non-potable uses and significantly conserve more water than is currently being done.

4) CAP and Climate Change

Chuck Collum, CAP Senior Policy Analyst, gave a presentation on confronting climate change. Mr. Collum talked about the recent droughts on the Colorado River and how the situation has improved. However, he warned that there might need to be a reset of what is considered "normal." In this context, CAP priorities have been to manage, conserve, and augment the Colorado River system. In the guidelines for managing the Colorado River, the Secretary of the Interior has been gently encouraging the Upper and Lower Basin states to work cooperatively.

Mr. Collum noted that shortage declarations for the Lower Basin States are based on the elevation of Lake Mead above sea level, with the three tiers ranging from 1075 feet down to 1025 feet. The current elevation for Lake Mead is approximately 1098 feet, and without equalization with Lake Powell, there is a loss of about 12 feet per year. Mr. Collum stated that the worst case scenario for a first tier shortage would be in 2012, but a more likely estimate is 2016, with CAP shortages affecting users in order from lowest to highest priority. The impact of shortage on CAP would be:

- 435,000 AF shortage would only impact recharge
- If CAP normal year supply ~ 1.5 MAF, then 440,000 AF shortage will not impact municipal and industrial or Indian priority users

Mr. Collum said the bottom line was that CAP municipal & industrial and Indian priority users would likely see no shortage for twenty to thirty years. He added that saving water that would otherwise be lost from the Colorado River system reduces the risk of shortage to CAP. Strategies to increase the available water supply include the Yuma Desalting Plant, the Drop 2 Reservoir, vegetation management, augmentation plans, desalination and weather modification.

In conclusion, Mr. Collum stressed that CAP is working with partners and collaborating with climate experts to better understand the impact of climate change on water supplies, and is utilizing methods such as managing and maximizing water banking, supporting conservation and reuse programs, desalination and groundwater development to forestall shortages.

7. Conservation – Education Subcommittee Report

- a) Recommendations for FY 2010 Community Conservation Task Force (CCTF) Projects
- b) Process to obtain Mayor and Council approval for FY 2010 CCTF Projects

Fernando Molina, Tucson Water Conservation Manager, distributed two handouts, the first listing four motions relating to the Fiscal Year 2010 water efficiency programs recommended by the CCTF. The second handout contained a summary table of FY 2010 project proposals. He added that the Conservation and Education Subcommittee met on May 27, 2009 and was able to recommend a number of the water efficiency programs for approval by CWAC today.

He spoke regarding each of the motions, with input by fellow Subcommittee Member Vasquez on the subject of the cost-effectiveness of the proposals. Mr. Molina asked that CWAC consider the following:

1. Approve the six water efficiency programs (numbered 1, 2,3,6,8, and 11 on the handout) that were discussed and approved for FY 2010 by the Conservation and Education Subcommittee on May 27, 2009.
2. Authorize the Conservation Education Subcommittee to finalize FY 2010 program recommendations for the five programs listed as “Discussion Ongoing” in the attachment (numbered 4,5,7,9 and 10) and forward with other FY 2010 recommendations approved by CWAC to the Mayor and Council for Council approval as soon as possible.
3. Authorize the Conservation and Education Subcommittee, on behalf of CWAC, to monitor implementation and performance of the FY 2010 water efficiency programs and to recommend mid-year program adjustments as appropriate to the Director of Tucson Water.

Any mid-year program funding adjustments recommended by the Conservation Education Subcommittee would be “zero-sum” adjustments that would move existing CCTF budget capacity from one approved conservation program to another, or to new CCTF programs to implement them earlier than originally scheduled, and would not involve any adjustments to Tucson Water conservation staffing.

4. Request the Conservation Education Subcommittee, in conjunction with staff, to report twice per year to the Mayor and Council on the status of CCTF water efficiency programs and any mid-year adjustments. The first report would be timed in late winter when the Conservation Fund Financial Plan for the coming fiscal year is recommended to the Mayor and Council. The second report would be provided near the end of the fiscal year to describe the CCTF programs recommended for implementation the following fiscal year.

Committee Member Barry moved, duly seconded, and passed by a voice vote of 10-0, to approve motions 1-4 related to the water efficiency programs as recommended by the CCTF and approved by the Conservation Education Subcommittee.

8. Other Subcommittee Reports

Committee Member Barry gave a brief update on the new Technical/Planning & Policy Subcommittee, of which he is Chair. He said CWAC members who had committed to this new Subcommittee were Vice Chair Billings and Committee Members Meixner, McCoy, Lee and Brooks.

9. Future Agenda Items

Chris Avery said in September, CWAC should schedule a dialogue on the current discussions between City staff and the Town of Marana regarding valuing the portion of the Tucson Water distribution system within the Town. Marana is interested in acquiring it for fair market value. Mr. Avery said CWAC needed to have a discussion to proceed with this before presentation to Mayor and Council.

10. Call to Audience

No one spoke.

Chair Evans announced that the next CWAC meeting would be Wednesday, September 2, 2009.

11. Adjournment: 9:00 a.m.