



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, May 6, 2009, at 7:00 a.m., in the City Information Technology Building, 481 West Paseo Redondo, First Floor, Pueblo Conference Room, Tucson, Arizona.

1. Call to Order

Members Present:

Sarah Evans, Chair
Bruce Billings, Vice Chair
Jim Barry
James Horvath
Martha Gilliland (Arrived 7:10 a.m.)
Christopher Brooks
Martin M. Fogel
Tina Lee
Vince Vasquez
Evan Canfield (Arrived 7:05 a.m.)
Jeff Biggs, Tucson Water Director

Appointed by:

City Manager
Ward 3
City Manager
City Manager
City Manager
City Manager
Mayor
Ward 1
Ward 4
Ward 6
Ex-Officio Member

Members Absent:

Daniel Sullivan
Thomas Meixner
Sean Sullivan
Amy McCoy
Corina A. Baca
Michael Gritzuk, Pima Co. Regional Water
Reclamation Department Director

City Manager
City Manager
City Manager
Ward 2
Ward 5
Ex-Officio Member

Others Present:

Chris Avery, Tucson Water Interim Deputy Director
Sandy Elder, Tucson Water Interim Deputy Director
Ivey Schmitz, Tucson Water Interim Deputy Director
Belinda Oden, Tucson Water Finance Manager
Ralph Banks, Manager of Engineering and Inspection, University of Arizona Facilities Design and Construction Department.
Asia Philbin, Tucson Water Hydrologist
Karen LaMartina, Senior Management Analyst, Tucson Water Intergovernmental Coordination Unit
Nicole Ewing-Gavin, City Coordinator, Joint City/County Water/Wastewater Oversight Committee

Irene Ogata, Urban Landscape Manager, Urban Planning and Design Department
John Thomas, Tucson Water Management Coordinator
Tiki Lawson, Recording Secretary, City Clerk's Office

2. Announcements

There was an announcement regarding the City co-sponsored 4th Urban Heat Island Workshop on May 14, 2009, to be held at the University of Arizona. Anyone wishing to attend is to RSVP to Irene Ogata, Urban Planning and Design Department.

3. Call to Audience

No one spoke.

4. Approval of Minutes: April 8, 2009

Motion, duly seconded, to approve the Minutes from the CWAC Meeting of April 8, 2009, as presented. Passed by a voice vote of 10 to 0.

5. Director's Report

a. Mayor and Council items

Jeff Biggs, Tucson Water Director, gave a brief update on the recent Mayor and Council activities since the last CWAC meeting:

- On April 14, 2009, an easement was approved for the Utility's forty-eight inch interconnect pipeline between the Central Avra Valley Storage and Recovery Project (CAVSARP) and the Southern Avra Valley Storage and Recovery Project (SAVSARP).
- On April 28, 2009, the Mayor and Council approved the notice of intent to increase water rates and set a public hearing for June 2, 2009. If adopted by the Council, the new rates will take effect on July 6, 2009.
- On April 28, 2009, the Mayor and Council approved a ten-acre lease agreement for a photovoltaic facility at CAVSARP for a one-megawatt (MW) solar plant.
- On May 5, 2009, the Mayor and Council approved renewal of an agreement with the Arizona Water Banking Authority (AWBA) to allow them to store excess Central Arizona Project (CAP) water at CAVSARP and SAVSARP. The amount stored there this year by the Water Bank will include 15,000 acre-feet of the City of Tucson's CAP allocation that was remarketed this year when Tucson Water did not order it for budgetary reasons.
- On May 19, 2009, staff will give a presentation to Mayor and Council on the implementation of Community Conservation Task Force (CCTF)-recommended water efficiency programs, as requested by Council Member Glassman.
- Dates have not been set for upcoming Council items including an effluent interconnect IGA between the City and Pima County, and an IGA for renewal of utility low income assistance for FY 2010.

b. Other

The Utility has continued to focus on the budget and Financial Plan. Despite the current higher than normal temperatures, current water demand has been 113 gallons a day, which is the average.

Belinda Oden, Tucson Water Finance Manager, gave a brief update on the FY 2009 – FY 2014 Financial Plan that was adopted by the Mayor and Council on March 24, 2009. Currently, the Utility has projected a shortfall of approximately \$200,000 relative to the FY 2009 revenue projected in that Plan.

6. Overview of City and University solar activities, with focus on water solar projects (including 1 MW project at CAVSARP)

The presentation began with a short talk by Ralph Banks, Facilities and Design Construction Department, University of Arizona. He discussed the University president's solar initiatives to be implemented which involve adding 500 kilowatts (kW) of photovoltaic panels to the roofs of five University buildings. Mr. Banks focused on the solar installations at the University's Recreation Center. These include a photovoltaic array, a solar thermal array to heat water for the pool, and a solar thermal array to provide hot water for showers and other building needs. Mr. Banks indicated that the rate paid for the energy would escalate at 3% per year, which seemed standard in the industry. Tucson Electric Power (TEP) will get the renewable energy credits because of the rebate being offered.

There was a brief question and answer period regarding various aspects of this new technology.

Asia Philbin, Tucson Water hydrologist on the Utility's Energy Management Team, continued with the presentation in which she would discuss both photovoltaic and solar thermal electric facilities that use incoming radiation to heat a fluid that turns a turbine to electricity. She provided background on City solar projects including:

- Large, medium and small scale solar technology deployment with examples
- The solar funding framework, including City and State requirements and initiatives, and recent interest from the private sector to participate in partnerships with the City

Ms. Philbin talked about the Solar Feasibility Study for the CAVSARP Photovoltaic System, which considered the following elements:

- Site Assessment
- Solar Exposure
- Site Electric Demand (kW)
- Technology Assessment
- Financials and Potential Partners

The Solar Feasibility Study concluded that CAVSARP was an ideal location for the solar electric plant, and a request for proposals was developed and issued. The solar developer response was encouraging, as the offers were in-line with pricing estimates from the feasibility study. Of seven solar proposals submitted, SunPower Corporation was selected as the provider in September 2008, and contract negotiations were completed in February. SunPower will construct a 1 megawatt solar plant on 10 acres of retired farmland in Avra Valley adjacent to Tucson Water's CAVSARP project.

The Power Purchase Agreement negotiated with SunPower will provide 2.3 million kWh/year or roughly 5% of CAVSARP electric use (enough to pump about 647 million gallons, or 1,985 acre feet of water per year to Tucson) at an initial cost of \$0.159 / kWh, with a 3% per year escalator. The contract has a 20 year term, and SunPower will construct, own, and operate the solar plant.

Tucson Water will sell the Renewable Energy Credits generated at this solar plant for approximately \$0.08 / kWh, which brings the net City cost for the solar power to \$0.079 / kWh, which is nearly equal to the seven cents per kWh now paid for electrical service at CAVSARP. She added there were financial, reliability, security and environmental advantages to this project. At the end of the twenty-year term, the City will have the option of purchasing the solar plant.

Ms. Philbin touched briefly on potential public/private partnerships for large utility-scale projects, and mentioned TEP's 2008 request for renewable energy resource proposals.

In response to Committee Member Canfield's question of whether solar thermal was off the table for Southern Arizona, Ms. Philbin said she did not think this was the case, though there would likely be a size threshold, and that state agencies are concerned with water demand in other parts of the state where multiple future solar thermal projects were proposed.

John Thomas, Tucson Water Management Coordinator, clarified that the CAVSARP project for which the 10 acre lease was obtained was for the one megawatt solar project. The utility-scale proposal involving TEP could involve up to four hundred acres of Avra Valley land and produce 100 megawatts, but it was not known at this time whether this project would go forward.

Sandy Elder, Tucson Water, Interim Deputy Director, added that the Utility was also involved in small scale projects, such as the project at the Hayden Udall Water Treatment Facility

7. Update of annual drought stage assessment (takes into account Colorado River availability, local system availability, and declining customer consumption).

Karen LaMartina, Senior Management Analyst, Tucson Water Intergovernmental Coordination Unit, began her presentation by providing some background on the Utility's Drought Preparedness and Response Plan, which establishes four drought response stages, outlines an action plan for responding to potential drought-related impacts on Tucson Water's system and water supplies, and addresses the issue of emergency supplies. This Plan was developed by staff and adopted by the Mayor and Council in November 2006. In March 2007, the Council adopted an implementation ordinance (No. 10380) providing enforcement authority for the Plan.

Ms. LaMartina said that Tucson Water's Plan does not measure drought. There are other state and national agencies that do that. Instead, the Utility uses information that these agencies provide to determine the potential impacts from drought on the Utility's water resources and water systems. The four drought response stages in the Plan are increasingly severe, and include measures that would be taken to mitigate those impacts and identify emergency supplies.

Ms. LaMartina added that two important components of the Plan are the indicators of changing conditions and the triggers for those indicators that would move the Utility through

the four drought response stages:

- The *regional* indicators in the Plan are severe or sustained drought on the Colorado River and a drought status above normal in the Santa Cruz Watershed where Tucson is located.
- The *local* indicators in the Plan include:
 - Aquifer Storage Index
 - Potable Production Capacity Index (PPCI)
 - Gallons Per Capita Per Day (GPCD)
 - Reclaimed Production Capacity Index (RPCI)

She added that the Colorado River has been in a multi-year drought, but no shortage on the river has been declared. Although the drought is by no means over, it is not as severe as it has been in prior years.

Based on this 2009 assessment, Utility staff recommends continuation of a Stage 1 Drought Response for the Tucson Water service area. A Stage 1 Drought Response was first declared in April 2007 following adoption of the Drought Preparedness and Response Plan.

The Stage 1 Drought Response measures include increased community awareness and promotion of water use efficiency. In addition, voluntary self-audit programs for commercial, multi-family and industrial users can be implemented. The Utility continues to coordinate its public messages to the community in conjunction with County and State agencies. The entire Plan, as well as this latest drought stage update report, are posted on the Tucson Water web site. A question and answer period ensued regarding various drought issues.

Ms. LaMartina pointed out that by statute, a drought plan has to be updated at least once every five years. In addition, she said that all water providers are required to submit plans that can simply be water plans and not necessarily drought plans. These plans must be on file with the Arizona Department of Water Resources. There are currently no sanctions for those providers that do not have plans in place.

8. Pending “Effluent Interconnect Agreement” (between Ina Road and Roger Road facilities) with Pima County

Chris Avery, Tucson Water Interim Deputy Director, gave a short update on an “Effluent Interconnect” Intergovernmental Agreement (IGA) with Pima County that will be placed on a Consent Agenda for Mayor and Council adoption later in May. The Agreement is a culmination of discussions with Pima County over the last year aimed at facilitating the development and/or redevelopment of Pima County wastewater reclamation facilities at Roger Road and Ina Road, in coordination with continued operation of the City’s existing reclaimed water facilities at Roger Road.

The agreement, which has already been adopted by the Pima County Board of Supervisors, provides for an exchange of easements and property between the City and County in order to construct new pipelines connecting the Roger Road and Ina Road Reclamation Facilities: a new County pipeline will transfer wastewater from Roger Road to Ina Road, and a parallel return City pipeline will convey effluent or reclaimed water from Ina Road to the City’s Reclaimed treatment and distribution facilities at Roger Road. In this way, the City can continue to use its reclaimed facilities at Roger Road rather than building a new and expensive reclaimed facility at either Ina Road or Roger Road.

The easement and/or property exchange will work as follows: the City will return to the County about eight acres of land at Ina Road that the Water Utility had reserved there for a future City reclaimed facility. In exchange, the City will receive from the County about eight acres worth of pipeline easements between Ina and Roger Roads. The agreement also gives Pima County pipeline easements on City land adjacent to I-10, which benefits Pima County as the alternative would require going through a lengthy state land acquisition process to obtain pipeline easements on state property.

The City and Pima County are also agreeing to cooperate on new Tucson Water recharge basins and other reclaimed facilities to be constructed at Roger Road, as well as the new County Water Reclamation Campus to be built at Roger Road. By the City and County working together in a coordinated and cooperative way, the City will save money in the long term and Pima County can proceed with its construction schedule without being delayed by the state land acquisition process.

Discussion followed regarding various aspects of this Agreement.

9. Update: City-County Water / Wastewater Study Committee

Nicole Ewing-Gavin, City Coordinator, Joint City/County Water/Wastewater Oversight Committee, stated the Phase I Report presented to Pima County Board of Supervisors and Mayor and Council was recently completed. She said those bodies endorsed the Report and asked the Committee to continue with Phase II. Comments tended to focus on the continuing need to be inclusive and reach out to other jurisdictions and utilities. The Report can be found on the Committee's web site but a copy will be made available to CWAC members, hopefully at the next CWAC meeting.

Ms. Ewing-Gavin said the Committee was now holding four-hour long monthly meetings. The focus of Phase II will be to answer a specific set of questions laid out in the scope, on how the City and County can come to agreement on specific issues. The first sets of issues to be looked at are drought, reclaimed water and water conservation, followed by storm water harvesting and riparian protection. Upcoming topics at future meetings will be land use planning and how it relates to water use and growth and urban form. The Phase II schedule will be completed by October 2009 at which point the Committee would then submit its final Phase II Report.

10. Subcommittee Reports: Reactivation of CWAC's Technical / Planning & Policy Subcommittee

Chair Evans discussed the reconstitution of the Technical / Planning & Policy Subcommittee and the Scope of Interest for the Subcommittee. Committee Member Barry agreed to Chair this Subcommittee, with Committee Member Billings committing as a member as well. Additional members will be sought out in due course. Chair Evans said this Subcommittee will focus on long range planning issues involving Tucson Water and other larger regional issues.

Committee Member Barry said there were two reasons this was important: the context for Tucson Water is changing and he thought a committee with expertise could help the Utility in bringing an outside perspective to staff and in bringing up methods to continually bring these issues back to CWAC members.

Committee Member Canfield said there would be a Conservation & Education Subcommittee meeting next week after it had previously been cancelled by Tucson Water staff. Among the topics to be discussed will be CCTF project updates.

Committee Member Barry spoke about the procedures for meeting cancellations,

Committee Member Horvath, Finance Subcommittee Chair praised the Utility staff for doing a great job in averting a major crisis regarding the budget.

11. Future Agenda Items

Chair Evans spoke about future presentations and speakers. There was discussion about the public obtaining past and present CWAC power point presentations and having CWAC historical minutes and agendas made available online. John Thomas said he would liaise with the IT Department to see what could be arranged.

12. Call to Audience

No one spoke.

13. Adjournment – 8.55 a.m.