

Arizona
Department of
Environmental
Quality



Arizona
Department
of Water
Resources



Arizona
Corporation
Commission



Blue Ribbon Panel on Water Sustainability Economic Funding Working Group

Meeting Notes

April 12, 2010

- I. Chair Snider called the meeting to order at 1:00 PM.
Introductions (17 present in person, 4 telephonically) Attendance list attached.
- II. Presentations on various water use/reuse topics (presentations or studies referred to are on the ADWR website, at:
<http://www.azwater.gov/AzDWR/waterManagement/BlueRibbonPanel.htm>
 - a. Other states survey of reclaimed water use: Ed Curley of Pima County discussed the "2006 Survey and National Database of Water Reuse Facilities" a summary report conducted by the National Water Reuse Association. The National Water Reuse Association conducted a survey of reuse programs and facilities nationwide beginning in 2004 and ending 2008. Some points:
 - Twenty out of fifty states responded, including a number of non-Western states.
 - The state ranking for the most reclaimed water use are Texas, Florida, California, and Arizona.
 - National Water Reuse Association is starting to update their database in 2010.

Evan Caulfield of Pima County discussed two technical papers prepared by the City/County Water and Wastewater Study Oversight Committee
Some points from the "Reclaimed Water Technical Paper" (April 2009):

 - Expanding the customer base.
 - Overcoming financial barriers.
 - Improving efficiency.
 - Regulatory barriers, including alternate permitting requirements.

Some points from the "Stormwater Management Technical Paper" (May 2009):

 - Availability for capture and use of recharge should be closer to the source.
 - Best use.
 - b. Reclaimed water uses allowed in Arizona: Wendy LeStarge. Some points:
 - Uses are based on class and general permit requirements.
 - Other uses allowed under individual permit.
 - c. Legal status on gray water use (prohibitions or incentives): Evan Caulfield of Pima County presented a summary of gray water regulations and the state tax credit. ("April 2010 memo on gray water regulations in Arizona" and "Supporting information on local and state gray water and stormwater harvesting". Some points:
 - The Arizona state tax credit (2006 - 2011) covers 25% of installation cost. The tax credit is limited to \$250,000 across the state, for both commercial and residential. Pima County will contact Arizona Department of Revenue to see if there is data on the amount and effectiveness of the tax credit.
 - The gray water regulations are not restrictive on construction or standards.

- d. NRCD and stormwater harvesting: Grant Ward. Due to internal changes at ADWR, NRCD needs additional time to interpret existing data.
- e. Economic feasibility studies: Ed deSteiguer summarized points from the funding chapter of EPA's 2004 "Guidelines for Water Reuse":
 - The guidelines looked at three different modeling approaches for funding: Cost-benefit, cost effectiveness, and financial feasibility.
 - Cost-benefit model must monetize everything, such as environmental damages, costs of decreased water revenues or benefits of delay of avoidance of new water treatment.
 - Funding sources are categorized as external (such as local tax exempt bonds, matching fund grants, or capital contributions with private developer) and internal (such as charge for reclaimed water or property taxes).
 - Reclaimed water prices must recover cost of system and regulate demand of water.
 - Pricing is a localized issue as to economics and politics.
- f. Public and private funding sources related to water infrastructure.

Melanie Ford of WIFA presented "Funding Water and Wastewater Infrastructure Projects", an overview of assistance programs available through WIFA funding, including: drinking water technical assistance, planning and design grants, and design and construction loans.

Robert Wagner presented "Private Sector Financing for Water Infrastructure". Some points:

 - Public-Private Partnerships (PPPs) have not been used much in U.S. since equity was available through the municipal bond market. The U.S. has the largest market for infrastructure but foreign banks have been doing the financing.
 - Characteristics of an ideal PPP project: strong contracts and provision for maintenance; design and engineering are done before a political decision is made; shared risk; the public entity specifies outputs (deliverables and standards).
 - Benefits of PPPs: can fund really large projects or projects that couldn't normally be funded; project cost can be cheaper due to more innovation and tighter controls; leaves open public monies for other things.
- g. Other available incentives (regulatory, financial or other): all members

III. Issues Referred by Other Working Groups

- a. Capital costs of infrastructure and installation for initial system
- b. Ongoing costs, including operation and maintenance, staffing, and capital costs for repair and upgrade
- c. Incentives for using reclaimed water, including higher quality, additional uses, or cost differential compared to other water sources

Discussion touched on many of the issues, but due to time constraints, were not fully discussed.

IV. Discussion on areas to focus (Summary of issues and questions discussed throughout presentations):

- Allow funding options such as General Obligation bonds for reclaimed water services.
- Demonstrate that reclaimed water is a community good by using less groundwater, and should be paid for by tax-based financing.
- Concern on recharging reclaimed water and proximity to drinking water intake.
- What's most efficient use for gray water? Residential irrigation or being treated and used as reclaimed water?
- City of Tucson is requiring that new residences be plumbed for gray water.
- What is optimal price of reclaimed water?

- Should cost-benefit analysis include the benefit of cost avoidance for acquiring more surface water or other water source?
- City of Tucson locked in early entrants to reclaimed water system at lower rate in order to build system.
- Reclaimed and gray water need to be priced competitively with cost of potable water.
- If create artificial pricing through subsidies and credits, will have problems in the future when need funds to rebuild. Pricing has to be sustainable in the future.
- Other public funding options that have some overlap with WIFA include Bureau of Reclamation, U.S. Army Corp of Engineers, U.S. Department of Agriculture.
- Pricing for PPPs has to be set for a reasonable rate of return for the private sector.
- PPPs do not impact a government's bonding.

Recommendations for possible action:

- Recommend that Arizona fully participate in National Water Reuse Association 2010 data update. Arizona previously submitted data but neither ADWR nor ADEQ maintain a comprehensive list of reuse for the state.
- Conduct a study of various local jurisdictions on their pricing, and cost-comparison of direct reuse versus recharge and recovery.
- Develop decision support system for local governments to use in developing an optimal price.
- Recommend statute change so that municipalities larger than 50,000 be allowed to apply to WIFA without a bond election (increasing the population amount set in HB 2159 in 2006).
- Separate mechanism and special consideration for funding small water companies, especially before WIFA.

- V. Next meeting: April 26 1:00 pm in Casa Grande. Today's meeting provided background on uses and issues being considered in the other groups. While waiting for recommendations, the Economic Funding Working Group should consider what information the group needs on funding or incentives.

Other resources distributed and available on the website:

2010 EPA Arid Climates Case Study in Stormwater Harvesting in the West

Cover memo for the December 2009 City/County Water Study Phase II Final Report and Recommendations

December 2009 City/County Water Study Phase II Final Report Recommendations Implementation Matrix

October 2006 Final Report on the Kino Environmental Restoration Project (KERP) – a multi-use restoration project using multiple water sources including stormwater harvesting

Links to resources discussed:

<http://www.tucsonaz.gov/water/reclaimed.htm>

<http://www.azleg.gov/FormatDocument.asp?inDoc=/legtext/47leg/2R/laws/0239.htm>

- VI. Adjourn