

SECTION SEVEN

CONCLUSIONS

The water-resource planning environment is in constant flux. In *Water Plan: 2000-2050*, Tucson Water provided recommendations that would allow the Utility to achieve the specified planning goals while retaining maximum flexibility. These are updated below in order to reflect the actions and changes which have occurred since the plan was issued in 2004.

UPDATED RECOMMENDATIONS

Many of the recommendations and conclusions noted in *Water Plan: 2000-2050* have already been implemented while others are currently in process or have been revised to reflect the changing planning environment. The updated recommendations are summarized below.

- 1. Emphasize “Wet” Water Management Strategies:** The community’s sustainable future ultimately depends on maintaining a physical hydrologic link between renewable water sources and the infrastructure needed to convey those waters to customers within the projected service area.
- 2. Utilize Renewable Ground Water:** Tucson Water plans to limit its ground water withdrawals at or below this hydrologically sustainable level in order to ensure the long-term viability of the aquifer within the Utility’s service area.
- 3. Preserve City’s Ground-Water Credits for Longer Term:** The City could extend its AWS designation under any future scenario by depleting its reserve of non-renewable ground-water credits in the near or mid terms. Instead, Tucson Water recommends that these credits be preserved as long as possible to provide planning flexibility for the future. It is more prudent to use these credits as short-term transitional supplies while additional renewable supplies are being acquired and/or developed. This would ensure that the water resources needed to support new growth will be hydrologically sustainable.
- 4. Reassess the Water-Quality Target for Colorado River Water:** Customer preferences are being reassessed through the on-going *Decision H2O* program by linking costs and environmental sustainability issues with potential mineral level targets. The goal is to finalize this aesthetic water-quality management decision in 2008.

5. **Fully Utilize Colorado River Water:** Between CAVSARP, SAVSARP, and the Pima Mine Road Recharge Project, the Utility will have sufficient recharge capacity in place to fully use its Central Arizona Project allocation as early as 2009.
6. **Fully Utilize Effluent for Future Supply:** Tucson Water recommends that the resource-management goal should be to maximize the future use of the City's effluent through additional treatment and recharge in order to augment the aquifer within Tucson Water's service area.
7. **Acquire Additional Water Supplies:** The City of Tucson is already exploring opportunities to acquire potentially available supplies to augment its water-resource portfolio. The availability of additional water resources will become increasingly competitive and costly both locally and statewide. The Utility is encouraged that the Central Arizona Water Conservation District is actively exploring ways to play the leading role in acquiring additional supplies for water interests in its three-county service area.
8. **Manage Water Demand:** Tucson Water is taking a number of actions to further manage demand including expanded conservation programming, reducing lost and unaccounted for water, encouraging the practice of water harvesting, and providing public information programs. Additional demand management efforts have been evaluated and recommended by the Community Conservation Task Force to further reduce per capita potable water use.
9. **Adjust Development Fees to Shift the Cost of Growth to New Customers:** Tucson Water has developed a financial plan that continues to shift the cost burden of growth to new customers as they are added to the system. The Utility recommends that in the future, development fees be adjusted to ensure that existing customers do not inordinately bear the cost of growth.
10. **Continue to Expand Regional Cooperation:** Tucson Water has taken steps to initiate new cooperative efforts and expand existing ones with local providers. These cooperative actions focus on acquiring additional sources of water supply, developing resource credit banking agreements, and exploring potential win-win arrangements to wheel renewable resources within the region.

MORE ON REGIONAL COOPERATION

Over the years, Tucson Water has been an active participant in many formal and informal local groups such as the Southern Arizona Water Users Association (SAWUA) where local water-management issues are discussed. In 2004, Tucson Water began discussions about regional cooperation on water-resource issues with the largest water providers in the area. These discussions resulted in a 2006 proposal from SAWUA for a cooperative water-supply organization.

At approximately the same time, the Central Arizona Water Conservation District (CAWCD) Board developed a strategic plan that included the goal of acquiring additional water resources on the behalf of all water providers within its three-county service area. In effect, CAWCD proposed performing the same functions as envisioned under the SAWUA proposal but on a much larger and far-reaching scale. In addition, Pima County has proposed the establishment of a countywide water-and-wastewater authority which would include all public and private water and wastewater providers located within the county.

As these alternative proposals have been discussed, local water providers have continued to discuss potential cooperative projects related to water supply and management. The discussions have included concepts such as joint projects for delivering renewable water supplies to areas of need, common issues and concerns for coordinated lobbying at the State level, and consideration of water credit transfers to reduce costs to ratepayers and meet water-management goals.

Tucson Water has extensive credit account balances from recharged Colorado River water, recharged effluent, and groundwater credits. Making these “paper water” credits available to other water providers can benefit water ratepayers in the region and Tucson Water can leverage these resources in ways that provide benefits to its own ratepayers. In early 2007, Tucson Water took the discussions a step further and proposed principles and limitations for future credit transfers. The other local water providers agreed that the principles would include the transfer must benefit regional water management goals, must benefit water ratepayers, and must be a win-win for both parties. Tucson Water notified local water providers of the principles and limitations and the available credits for transfer. Two local water providers expressed potential interest and discussions are ongoing.

REASSESSING THE FUTURE

The recommended plan will periodically be reassessed and revised as planning assumptions and circumstances change over time. Within the 50-year planning horizon, new water planning futures will undoubtedly materialize while those currently envisioned may evolve or fade away. Tucson Water will continue to update and improve the planning tools developed to support this planning process. These tools will allow the Utility to update planning projections and to complete comprehensive revisions in an expeditious manner. Future updates and/or comprehensive revisions to this plan may be initiated by the following:

- Specific direction provided by the City of Tucson’s Mayor & Council.
- Significant change in PAG’s updated population projections.
- Marked change in the anticipated size of Tucson Water’s future service area.

- Significant changes in the current or projected availability of water resources.
- Advent of new technologies that could alter costs and/or the technical effectiveness of planning elements.
- Marked changes in the regulatory environment in terms of water-quality and/or water-use requirements.
- Major shifts in the preferences of Tucson Water customers.

Through prudent resource planning, Tucson Water has diversified its portfolio of water resources to include not only ground water but also Colorado River water and reclaimed water. Tucson Water will ensure a sustainable water future within its service area by continuing to reduce the community's reliance on ground water while working toward maximizing the use of its renewable supplies. The Utility is also committed to continue upgrading its water storage and conveyance facilities ensuring a highly reliable and efficient link between its water supply sources and the community's many points of use.

Tucson Water currently has access to sufficient supplies of ground water, Colorado River water, and reclaimed water to extend its AWS designation for decades. Current water demand projections indicate that failure to acquire additional renewable water resources and/or not fully utilizing the balance of the City's effluent entitlement in a timely manner means that Tucson Water would have to deplete its finite paper-water reserve of ground-water credits to satisfy near- and mid-term demands. Conversely, fully utilizing the balance of the City's entitlement of effluent through long-term banking and/or acquiring additional renewable supplies that would be imported into the area would extend the City's AWS designation for many decades. And as shown in the scenario analysis, more effective conservation measures could markedly reduce projected water demand which in turn would extend the City's AWS designation even further.

This is the first update to *Water Plan: 2000-2050*, and there will be others in the years to come. As critical planning assumptions change and as new uncertainties arise, a new comprehensive revision to Tucson Water's long-range plan will be needed to reset the compass. As the present unfolds into the future, the primary necessity is to prepare for change since it is the only certainty. This recognition reinforces the need for continuous resource planning and wise water management.