

Tucson Pima Water Study
PO Box 2344
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February 18, 2009

TUCSON AUDUBON COMMENTS ON
DRAFT OF THE WATER INFRASTRUCTURE, SUPPLY
AND PLANNING STUDY PHASE ONE REPORT

CHAPTER 3: SUSTAINABLE WATER FUTURE

Document should emphasize that finding new sources of water should not be the first priority. Logically, the first priority is conserving water. Chapter 3, page 8 paragraph 2 states that “expanding existing [demand reduction] programs and implementing new, more aggressive conservation measures will require additional investment and community support.” We would point out that finding sources of water takes additional investment and community support... and water. Finding new ways to conserve water only takes additional investment and community support.

Chapter 3, page 2. Regarding CAP water as a renewable supply is a perilous assumption. Climate change models indicate a decreased flow, earlier peak flow, and decreased soil moisture levels in the Colorado River watershed. Climate change will also result in decreased supply through increased losses from evaporation and evapo-transpiration. Climate change will also result in increased demands for water. Because of influences on both supply and demand sides, we should plan for decreased supply to our region.

CAP supply already causes decimation of ecosystems in the lower Colorado River basin, indicating that even current levels of extraction are unsustainable. See also comment below Chapter 3, page 11, bullet point 5.

“Membership in the CAGR D allows growth in some areas based on the expectation that it will find the water supplies needed for replenishment rather than a guarantee based on water supplies under contract for the full 100 years.” This does not appear to constitute planning, and would seem to need addressing.

Chapter 3, page 5, paragraph 3 says that “How close or far away we are from achieving a balance between groundwater withdrawals and natural and artificial recharge depends primarily on the water use of the agricultural and industrial sectors.” We see no explanation of why that is, and recommend including such an explanation.

Chapter 3, page 8, paragraph 4 states that “demand management is assumed to be a ten percent reduction in potable demand by 2030.” Does this refer to a ten percent per capita reduction? While it is important to look at the ten percent figure generated by the Community Conservation Task Force and the Utility’s Water Loss Control Program, the implication here is that reductions beyond ten percent are not realistic. However, we understand that over the last several years per capita



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declines in demand have been higher than predicted by water managers. The potential for conservation is, logically, greater than ten percent. It is important for the report to consider the potential for reductions in per capita potable water use beyond ten percent, so as not to create the appearance that reductions of a greater magnitude are outside the realm of the possible. Indeed, this report itself notes on page 32 that there has been a 17 percent drop in water use in single and multi-family accounts between 2997 and 2007. We suggest looking at the results of scenarios involving reductions of twenty-five to fifty percent. These should be examined not only in the light of total available water, as in the scenarios spreadsheet and the projected water demand graphs, but should be presented in the context of the environmental issues surrounding potable water extraction covered in section 3.1.3.

Chapter 3, page 11, bullet point 5 concludes that we should fully utilize our allocation of Colorado River water. It should be noted here, or in the following section on the environmental need for water, that use of Colorado River water is not without an ecological cost. In part, Tucson has exported, rather than solved, some its water-related ecological problems to the Colorado River ecological system. Only about 1/10th of one percent of Colorado River water now reaches the Colorado River delta, once one of the most extensive and productive freshwater estuaries in the world. The biological productivity of the delta has been estimated to be only five percent of what it was historically. These points should be used to reinforce the importance of conservation in section 3.1.3.

Chapter 3, p12. This is the one mention of water harvesting in this chapter. Water harvesting can make significant contributions to both supply and demand in the required direction.

Chapter 3, page 14, table 1 needs to be set in context. There are other restoration projects along the Santa Cruz River, including ones run by Tucson Audubon. Does table one only list projects implemented by the county and city; only projects within the AMA?

This report rightly expresses concerns about inadequate protections for high groundwater-dependent riparian areas, such as in eastern Tucson. It reviews steps taken so far to increase protection, but it should recommend that the city and county continue to explore increased protections.

One such avenue would be the development of environmental jurisprudence (<http://www.celdf.org/>) which promotes the idea that people are only one part of a wider community of beings and that the welfare of each member of that community is dependent on the welfare of the earth as a whole.

Chapter 3, page 17, last paragraph characterizes the effluent-dependent portion of the Santa Cruz River as a “healthy riparian ecosystem.” In fact, it is a relatively narrow riparian corridor deeply recessed in an incised river bed. While this habitat it is important, to call it “healthy” may be overstating its quality. The report itself suggests this in the last sentence on the page, which notes that there will be important benefits not only to the aquatic ecosystem but the riparian ecosystem when scheduled wastewater upgrades increase effluent quality. We suggest removing the word healthy, or calling it “relatively healthy.”

In addition, no mention is made of the possibility of allowing groundwater aquifers to recover to the extent that surface flows could be restored in some areas where they have been lost. This is a logical possibility, and should be assessed. Indeed, we would promote that as an environmental priority for our region.

P. 17 also states "However, the area farther downstream along lower Sabino Creek is in stress. The water table is still very low although the ability to reduce the stress is limited." The report should explain why options to reduce stress are limited.

Sincerely

A handwritten signature in black ink, appearing to read "Paul Green". The signature is stylized with a large, looping initial "P" and a smaller "G".

Dr Paul Green
Executive Director

A handwritten signature in black ink, appearing to read "Kendall Kroesen". The signature is written in a cursive style with a long, sweeping horizontal line at the end.

Kendall Kroesen
Restoration Program Manager