

MAJOR CHALLENGES FOR WATER MANAGEMENT

Key challenges that emerged from presentations made in the WRRRC Conference and the GIOS workshop are:

1. How can we meaningfully incorporate environmental/riparian protection into the water policy discussion? This issue has to be reframed in order to have traction: it is always a side issue and never gets the attention that is required. Many participants in the conference referred to quality of life issues. Quality of life is related to environmental quality, and environmental quality requires protection of water for the environment as well as for people. Specific high quality environments like the San Pedro and the Verde Rivers are seriously threatened and are likely reaching a threshold regarding viability. What are we going to do about it?

2. The issue of climate change was brought up as an issue of concern by multiple participants (particularly in the workshop), but most water managers have not developed a response strategy. We need to identify appropriate response strategies.

3. How can we incorporate adaptive management (e.g. careful monitoring and real-time response to new information) into our recharge/recovery and future of the Central Arizona Groundwater Replenishment District discussion? This is a complicated topic that is integral to the assured water supply program in the active management areas and to facilitating the use of Colorado River water. We don't want to make dramatic changes that upset the parts of the system that are working. Can we identify trends and trajectories in terms of aquifer conditions, changes in water quality, and changes in physical availability for assured water supply before we reach thresholds or break points from which we can't return?

4. How can we redesign the adequacy program for subdivisions outside of active management areas so that it prevents growth where water supplies are inadequate, but frames the program in terms of protecting private property rights? Certainty has economic value. Protecting existing users from new pumpers should be a popular concept – yet there has been so much resistance to further regulation in rural areas that private property rights are actually being damaged. Proper framing is the issue here.

5. How can we facilitate the agricultural to urban water use shift in ways that protect the agricultural economy and the associated agricultural values? If we have a collaborative approach to accessing agricultural rights in dry years, focusing on ensuring that the agricultural economy is protected, it could be financially attractive to agriculture, less threatening, provide more certainty, and avoid last-minute crisis-based decisions during shortages.

6. Related to number 5, how can we avoid all of the competition between municipal entities, CAGR and rural areas in accessing the “next bucket” of water supplies for future growth? We already know there will be major winners and losers in the case

of a competition that is based solely on ability to pay. Can we design a system that avoids the competition and provides for a rational process?

7. How can we connect energy policy with water policy? If desalination is the panacea that many perceive it to be, we need to understand the energy side of the equation as well as the water side. As we move into the future, the nexus between water and energy needs to be better understood, especially if we plan to focus on technological solutions.

8. How can water managers play a more meaningful role in development decisions? As Grady said, there is a need for water managers to participate in land use decisions. Yes, it is ultimately the elected official's responsibility, but they need to know the consequences of their decisions and not make them in a vacuum. It is time for the water managers to speak up about these issues and proactively engage.

9. How can we do a better job with the water quality and water quantity connection? There are now two separate agencies controlling these issues, and it is easy to keep these issues separate in theory, but that is not in the interest of water sustainability.

All of the issues that were recorded throughout the day and a half session will be posted on the GIOS website, and the Arizona Water Institute will review the issues and solutions and add potential projects to our list. This event is part of our ongoing "needs assessment" activity.