

Written Testimony of David S. "Sid" Wilson, Jr., retired General Manager of the Central Arizona Project (CAP) and former Associate General Manager of the Salt River Project (SRP), Phoenix, Arizona. Testimony prepared for consideration by the Little Hoover Commission at a Hearing scheduled for June 25, 2009.

I have been asked by staff of the Little Hoover Commission to provide comments concerning the evolution and status of Arizona water governance (management), CAP's interaction with other agencies for the purpose of water delivery, unique conditions that make Arizona's management "model" appropriate, strengths and weaknesses of that model, and areas which California leaders might consider for improving its own governance/management of the state's water resources. Hopefully, these comments will be responsive to that request and any shortcomings can be addressed during our discussion on June 25th. I had scheduled some travel following my May 22, 2009 retirement and am therefore preparing these comments while traveling. Since, I am drawing on memory, my comments will not include many specific dates, regulations, court decisions, etc. I can provide that detail at a later time if that will be helpful.

Arizona surface water use and management is founded on the water right concept of prior appropriation for beneficial use, ie, first in use is first in right. Beneficial uses were determined to be irrigated agriculture, livestock use, domestic and industrial. Environmental and recreational uses were not considered as beneficial uses under state water right law. That fact, has led to much of the conflict over water use today because essentially all available surface water in the state was appropriated for "beneficial" uses. The use and management of the state's limited surface water has been further complicated by claims of native Americans who were not adequately considered under federal, territorial and state laws.

Initial settlement developed around the availability of surface water supplies which were a significant limiter to growth. As groundwater pumping technology was developed the first pumping of any significance occurred in the Salt River Valley (metropolitan Phoenix and Maricopa County) to dewater the upper reaches of the Salt River aquifer. The aquifer is a very large, deep alluvium which had essentially filled with flows from the Salt, Verde and Gila Rivers over geologic time. The high water table inhibited effective crop development in many areas of the Valley and early settlers were exposed to malaria borne by the mosquitoes that inhabited Valley swamp areas...hard to believe this condition existed as we look at the Valley today. The Valley's growth and water use were initially fueled by the large area of arable lands and later population exploded following WWII as the region's summer was made quite hospitable with the widespread availability of air conditioning. Surface water supplies were inadequate to meet this water demand and pumping became a major supply component. Increased mining of groundwater led to subsidence, water quality degradation and rising costs with the long term prospect of a depleted aquifer incapable of supplying the human infrastructure which developed upon the availability of that supply. In Pima County (City of Tucson) and Pinal County (City of Casa Grande), surface water supplies were very limited to begin with and their development occurred almost exclusively on groundwater...first for agriculture and then for urban growth. All three regions benefited from large, well

watered aquifers which yielded good quality, abundant groundwater...but with a life expectancy directly tied to growth and attendant mining of the resource. Regulation of the groundwater resource was limited to litigation and proof of harm by one party in order to limit pumping by another. This was an expensive, time consuming ineffective way to manage that resource.

These three counties (Maricopa, Pima and Pinal) represent the population, economic and political core of the state. Their dependence on a mined (and therefore exhaustible) resource was not acceptable. This problem was addressed by passage of the 1980 Groundwater Management Act (GMA) which established Critical Groundwater Management Areas with a set of stringent management requirements that ensure long term availability of water supplies to support current and projected uses for domestic, industrial and agricultural uses. Under these requirements there can be no development of new agriculture and in fact as agricultural lands are developed the water remains with the land but is reduced to meet domestic and industrial use standards. For safe yield aquifers such as found in the Pima County and Maricopa active management areas (AMA's), there can be no further growth without a determination that a 100 year supply of water exists for that growth. This is generally accomplished by some combination of conservation, reclamation (wastewater treatment), agricultural land retirement, and importation of supplies from another source basin.

With passage of the GMA and establishment of the Arizona Department of Water Resources the state created the first comprehensive management structure for management of all the State's water resources.

There are many city, town, irrigation districts and private water companies in the state which use and manage water supplies as well as private pumpers and irrigators. However, three agencies are responsible for the use, management and administration of the lion's share of the state water resource.

The Salt River Project (which houses a power district and a water user's association) was created initially by the development of the Salt River Valley Water User's Association which pledged member lands against a federal loan to build the first major Bureau of Reclamation (BOR) project about 1911. The first of its six reservoirs was Roosevelt Dam on the Salt River upstream of a fledgling Phoenix area. SRP supplies much of the water required for metropolitan Phoenix and its service area is limited to the cities in that complex. Its supply source is surface water from the Salt and Verde River systems and Valley groundwater. SRP's supply made initial Phoenix growth possible. SRP is governed by a Board elected every four years. Voting weight is determined by owned acreage and for many years ensured that SRP was governed by agribusiness interests. Their scope of interest and perspective is broader than that today.

The Arizona Department of Water Resources (ADWR) is the successor to the old Arizona Interstate Stream Commission of the 40's, 50's and 60's. The Director is appointed by the state Governor and is then responsible for staffing the organization to carry out its legislative mandates. Among other things the Department is responsible for

water supply monitoring, water studies, planning, water rights administration & enforcement, and administrative and technical support for the Arizona Water Bank. The state then, has placed all surface and groundwater quantity management and regulatory responsibility in one Department...the ADWR. The ADWR has an associated interest in water quality but regulatory responsibility concerning water quality is reserved by the state for the Arizona Department of Environmental Quality (ADEQ). ADWR and ADEQ work closely in matters related to water quality. The ADWR is the lead agency for all intrastate matters of water supply policy related to the Colorado River.

Arizona's Colorado River entitlement is 2.8 MAF/YR under normal river conditions. Of that amount 1.5MAF/YR is administered and managed by CAP on behalf of entitlement holders (agriculture, urban and Indians). I should mention that the trust responsibility for native Americans belongs to the Department of Interior (DOI) which is responsible for developing water supply infrastructure on the reservations and for the administration of Indian water rights. However, it is CAP's management of the delivery system, ie, maintenance, betterments, operation and administration that ensures timely, reliable delivery of Indian water orders.

The CAP aqueduct which runs roughly 336 miles from just downstream of the confluence of the Bill Williams and Colorado Rivers southeasterly to its terminus in Tucson is the largest River in the State of Arizona. It has made possible the delivery of water supplies into the central part of the state that meet the requirements of the GMA and ensures the long term future of water in the state's most densely populated area...the three county CAP service area. Passage of the 1980 GMA and the need for CAP to effectively implement the Act ensured sustained federal commitment to funding of CAP. The cost for CAP was approximately 4 billion dollars with costs borne by its beneficiaries...the state and the federal government. In some respects, the CAP is equivalent to California's Metropolitan Water District (MWD). In other respects its impact on the success of Arizona's water management strategies may be greater. The CAP was designed to divert Arizona's 1.5maf entitlement for the central part of the state. In fact, today CAP can deliver 1.8maf each year by careful management of the system. This allows the aqueduct to be used to transport as much as 300,00af of additional water that may be (and historically has been) available at the CAP diversion point which is located downstream of the MWD diversion point. With a modest investment in structural improvements the system can be modified to carry as much as 2maf/yr or more. Because of the CAP infrastructure a plethora of other management capabilities have been realized. In addition to direct diversion of Arizona's CAP entitlement and any excess supplies available on the river; we have developed significant direct and in-direct recharge capability, the Central Arizona Groundwater Replenishment District, the Arizona Water Banking Authority, water banking for both the states of Nevada and California, water exchanges and ultimately transportation of additional water supplies developed from on-river water right acquisitions, groundwater from remote aquifers, desalted brackish or seawater, and other conserved or augmented supplies.

The CAP was created by the state legislature as a three county special use district in 1971 to be the administrative entity and interface on behalf of the three county service area

with the federal government. Over the years it's responsibilities and mission grew to that of a full service water utility with associated power interests. It is not a state or federal agency. It is governed by a 15 member board elected (five each at two year intervals) during general elections to six year terms. The composition is determined by population (10 from Maricopa County, 4 from Pima County and 1 from Pinal County). Qualifications for election are similar to those of any other elected office. In other words, a candidate does not have to be a "water expert" although through service on the Board all members become quite knowledgeable regarding the state's water resources, it's use and management.

The CAP vision is: The CAP will be a collaborative, innovative leader in the management and delivery of water to central Arizona. It will enhance the state's economy and quality of life and ensure sustainable growth for current and future populations of Arizonans. The CAP mission statement re-enforces that vision: CAP is the steward of central Arizona's Colorado River water entitlement and a collaborative leader in Arizona's water community. I believe that my brief testimony substantiates the collaborative and innovative leadership that CAP has brought to "the table" with programs and projects that not only benefit state interests but have had major impacts on the beneficial working relationships and problem solving that have been required through out the Colorado River basin as a result of drought and increased competition for limited water supplies. We have maintained a strong working partnership with ADWR in state water management/ water policy matters and have also maintained good communications and relationships with our customers, peers, regulatory agencies and other interested parties within the state of Arizona and across state boundaries.

The state model works because it is well grounded in state and federal law: recognizes the challenges associated with a water limited semi-arid environment: continues to build on a visionary foundation laid be our early water, business, community and legislative leaders: is comprehensive; and provides openness through public forums. I am concerned that this model is being compromised by political agendas and expediency over thoughtful fact finding and deliberation, and budget limitations that severely impact the ADWR and other agencies...state, federal and local governmental/private entities...which are struggling with the impacts of the economic crisis. I am also concerned with the work of both the ADWR and ADEQ which often receive opposing direction on matters which affect the ability for the agencies to provide solidarity on critical issues and move forward with solutions that best meet the state's water needs in an effective way. Finally, the state has benefited from great leadership by state elected officials with regard to critical water matters. Today, legislator knowledge and effective leadership has eroded. We simply don't have the level of knowledge and related leadership that we enjoyed in the past. I suspect this is the result of significant water prosperity over a long period of time (in other words, in spite of political rhetoric we have become complacent), a significant rise in partisan politics, and term limits for legislators.

I believe that ultimately our future success will depend upon effective political leadership at the local, state and federal level; collaborative working relationships that involve all

affected parties; problem solving instead of legal defenses and litigation; and a common focus on long term sustainability...and I don't believe that we are anywhere near the limit of our ability in this sustainability regard.