Water Laws and Regulations in Arizona

Rita Maguire, Esq.

Arizona Runs on Water February 1, 2018

Photo credit 2.23.15: John Fleck | inkstain.net

Where does Arizona's water come from?

(3%)

***** Colorado River (38%)

- * Other surface water (18%)(Salt, Verde, Gila)
- ★ Groundwater (41%)
- ***** Reclaimed Water

Why are surface water & groundwater managed differently in Arizona?

- At the time of statehood, most of the state's surface water had been appropriated
 - Competing demands for the state's scarce surface water flows led to the adoption of the legal doctrine known as "Prior Appropriation"
- Appropriable water is defined in Arizona by A.R.S.
 § 45-141(A), as follows:
 - The waters of all sources, flowing in streams, canyons, ravines or other natural channels, or in definite underground channels, whether perennial or intermittent, flood, waste or surplus water, and lakes, ponds and springs on the surface"

Why are surface water & groundwater managed differently in Arizona?

***** <u>Southwest Cotton</u> definition of "subflow" is

 "[t]hose waters which slowly find their way through the sand and gravel constituting the bed of the stream, or the lands under or immediately adjacent to the stream, and are themselves a part of the surface stream."

Why are surface water & groundwater managed differently in Arizona?

* Saturated Floodplain Holocene Alluvium

- All wells located within the "subflow" zone are deemed to be pumping appropriable water, unless the well owner can show certain special circumstances that prove otherwise.
- All wells outside the "subflow" zone are deemed to be pumping non-appropriable percolating groundwater unless the "cone of depression" caused by the pumping of a well has extended to a point where it reaches the adjacent "subflow" zone.
- In this event, the portion of the water being taken from the "subflow" zone is appropriable water subject to the doctrine of prior appropriation.

AZ Groundwater Management Regimes

- Assured Water Supply
- Irrigation Nonexpansion Areas
- Mandatory Adequacy Areas



Current AZ Water Regulation Programs

★ Inside AMAs

- Assured Water Supply Rules
- Conservation programs
- ★ Outside AMAs
 - Irrigation Non-expansion Areas
 - Mandatory water adequacy program
 - Water adequacy program
- * Across Arizona
 - Well-drilling & well-spacing rules
 - Surface water rights adjudication



Assured & Adequate Water Supply Programs

The <u>Assured Water Supply Program</u> (AWS) established in 1980 (Rules adopted in 1995) functions to protect and preserve limited groundwater supplies within Arizona's five Active Management Areas (AMAs).

- Applies to subdivisions inside AMAs
- Plats <u>cannot</u> be locally approved without demonstrating a 100-year AWS to ADWR.

To prove an AWS, a water provider must show:

 Physical, legal, and financial capability to provide a quality water supply, and consistency with the management plan

Active Management Areas (AMAs)

***** AMAs comprise

- 80% of population
- 75% of water consumption
- 13% of land
- * 4 of the 5 AMAs have a mandated goal of safe yield by 2025
- All new irrigation banned in AMAs & INAs after 1980



The 1980 Groundwater Management Act

- ★ Established the Arizona Department of Water Resources (ADWR)
- Authorized ADWR to map all of the state's groundwater basins
- Active Management Areas (AMAs) are established access to groundwater is limited & quantified
- * By 2025, "Safe Yield" of the groundwater basins in the state's AMAs except Pinal

ADWR Regulation Inside the AMAs

*** 1980 – Groundwater Management Act passed.**

- * 1986 Underground recharge and recovery program established. Approx. 100 recharge sites in the AMAs.
- * 1994 CAGRD allows urban growth in the Phoenix, Pinal and Tucson AMAs <u>without</u> CAP subcontracts.
- * 1995 AWS Rules ensure 100-yr. sustainable urban development in the AMAs.
- * 1995 AWBA stores excess CAP supplies underground.

Adequate Water Supply Program *Outside* the AMAs

Outside the AMAs, the <u>Adequate Water Supply Program</u> was established in 1973. While not as protective as the Assured Water Supply Program, it acts as a consumer advisory program, ensuring that potential real estate buyers are informed about any water supply limitations on the subdivision.

- Applies to subdivisions outside AMAs
- Plats <u>can be</u> approved if the determination is inadequate, however the inadequate water supply must be disclosed to the *first* buyer.

Mandatory Adequacy Program adopted in 2007.

 If adopted by a city, town, or county, the AZ Department of Real Estate cannot approve a Public Report without an adequate water supply determination.

Mandatory Water Adequacy Program

- 1. 2007 State legislature passed SB 1575 which gave cities, towns, and counties the authority to require a 100-year water adequacy determination from ADWR <u>before</u> a proposed subdivision could be recorded by local zoning authority.
- 2. Where has it been adopted?
 - Cochise and Yuma counties *
 - Patagonia and Clarkdale
 - * When a county adopts the mandatory adequacy program, it applies to all subdivisions within the boundary of the county, including within the boundaries of all cities and towns within the county.
- **3.** What does it take to prove an adequate water supply?
 - Written commitment of service from a "Designated" municipal water provider
 - Or, a hydrologic study proving a 100-year water supply for the subdivision

Irrigation Non-Expansion Areas

★ The 1980 GMA established 2 INA's (Joseph City and Douglas), the Harquahala INA was established in 1981.

 INAs carry restrictions on bringing in new irrigated acreage & all owners of irrigation groundwater withdrawal authorities must report their water use to ADWR if the water was used during the calendar year.

Subsequent Irrigation Non-Expansion Area

★ The San Simone Sub-Basin (Safford Basin)

- Petition filed to create new INA. Director's decision that the sub-basin did <u>not</u> qualify became effective 10/9/15.
- GW model used to project GW changes in response to 100 years pumping at current rates of withdrawal.
- No evidence presented that irrigation will be economically infeasible in the next 100 years.

***** The Willcox Basin

 Data and recent modelling indicate that significant declines in regional groundwater levels continue to occur.

Issues on the Horizon

- Colorado River basin management: Impacts of growth and climate change on the supply
 - Drought Contingency Plan & AZ Implementation Plan
- Groundwater challenges in the Pinal, Phoenix, and Prescott AMAs
 - Will we hold the line on "Safe Yield" in the AMAs?
- ***** Infrastructure needs in rural Arizona
- * Where does the next bucket of water come from?

