



An Introduction to the Groundwater Management Act

Scott Miller
Director

Active Management Areas
Arizona Department of Water Resources

Groundwater Management Code

To address groundwater depletion in the state's most populous areas, the state legislature created the Groundwater Management Code in 1980 and directed ADWR to implement it. The goal of the Code is:

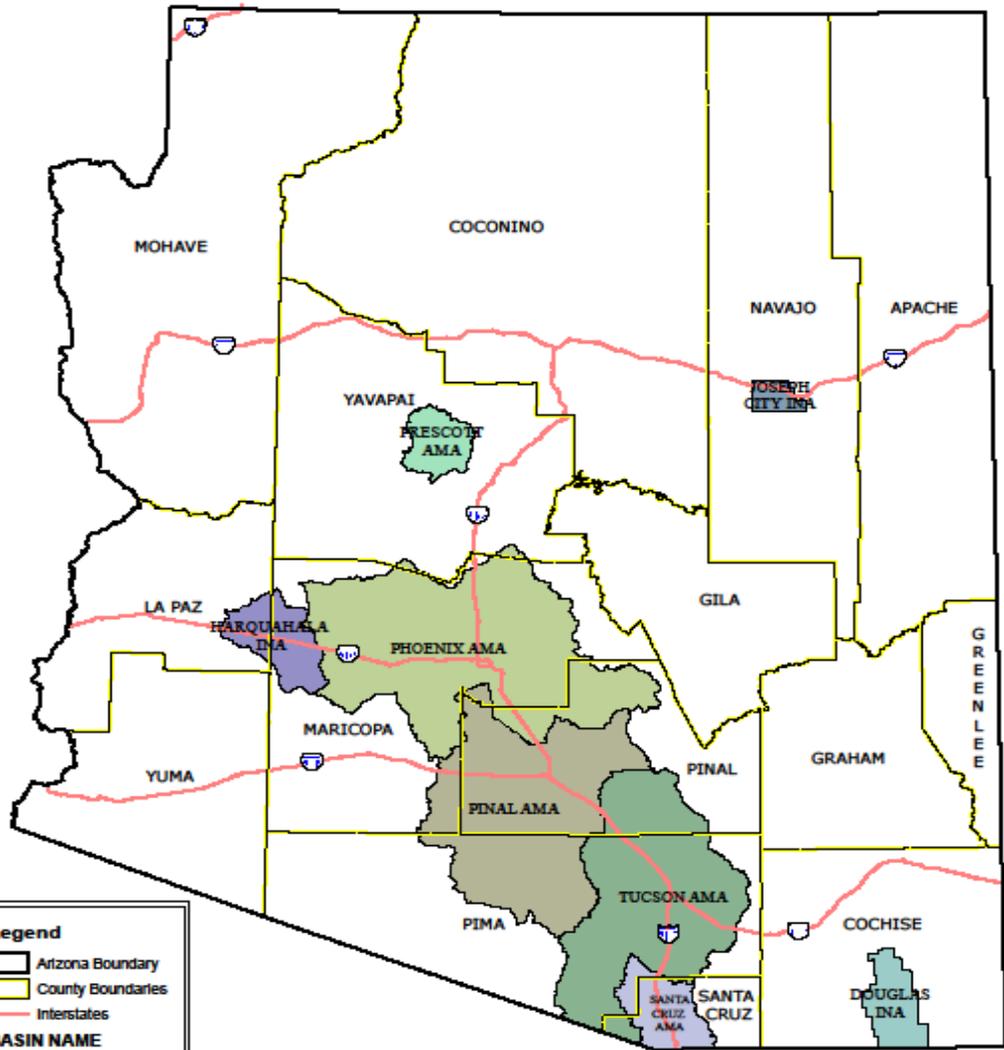
- 1) to control severe groundwater depletion,
- 2) to provide the means for allocating Arizona's limited groundwater resources to most effectively meet the state's changing water needs.

Active Management Areas

- Areas where groundwater depletion is most severe are designated as Active Management Areas (AMAs).
- There are five AMAs: Prescott, Phoenix, Pinal, Tucson, and Santa Cruz. These areas are subject to regulation pursuant to the Groundwater Code.
- In the Phoenix, Prescott, Tucson and Santa Cruz AMAs, the primary management goal is safe-yield by the year 2025. Safe-yield is accomplished when no more groundwater is being withdrawn than is being annually replaced.

Irrigation Non-Expansion Areas

- Areas where groundwater depletion is not as severe as AMAs but require further regulation were designated as Irrigation Non-Expansion Areas (INAs)
- Within these areas there can be no new irrigated land
- Owners of large wells are required to meter their water use and file annual reports
- Otherwise, groundwater management in INAs are not highly structured.



Legend

- Arizona Boundary
- County Boundaries
- Interstates

BASIN NAME

- Douglas INA
- Harquahala INA
- Joseph City INA
- Phoenix AMA
- Pinal AMA
- Prescott AMA
- Santa Cruz AMA
- Tucson AMA

**Active Management Areas
and
Irrigation Non-Expansion Areas**



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Types of Groundwater Rights

- Grandfathered Groundwater Rights
- Groundwater Withdrawal Authorities
- Service Area Rights
- Irrigation Authorities

Grandfathered Groundwater Rights

- Grandfathered Rights are groundwater withdrawal rights based on historic pumping (1975-1979)
- **IRRIGATION GRANDFATHERED RIGHTS** – The right to irrigate 2 or more acres with groundwater for agricultural purposes...based on acres historically irrigated.
- **TYPE 1 NON-IRRIGATION GRANDFATHERED RIGHTS** – Converted from an Irrigation GFR, a Type 1 right is the right to pump groundwater for a non-irrigation purpose...generally tied to the irrigation acres and converted at a maximum rate of 3 acre feet per acre.
- **TYPE 2 NON-IRRIGATION GRANDFATHERED RIGHTS** – The right to pump groundwater for a non-irrigation purpose, based on historic pumping for a non-irrigation purpose. This right is not tied to the historic pumping location and the amount of the right is based on the highest volume of pumping during any year of the historic period.

Groundwater Withdrawal Authorities

- Groundwater withdrawal authorities are post 1980 authorities to pump groundwater. Certain criteria must be met to receive them and they are for a prescribed period of time.
- WITHDRAWAL PERMITS
 - Exempt wells.....35gpm or less
 - Hydrologic testing permits...10af or less/up to 1 year
 - Poor quality permits...MCL exceedences
 - Temporary electrical energy generation permits for emergency situations
 - Mineral extraction permits
 - General industrial use permits
 - Drainage and dewatering permits

Service Area Rights

- Irrigation district pumping and delivery to IGFRs
- Untreated water provider pumping and delivery to landscapes
- City/town/private water company pumping and delivery to residents

Management Plans

- The Groundwater Management code of 1980 requires the ADWR to issue management plans at the beginning of each decade until 2020.
- The Plan for the Third Management Period, adopted in December 13, 1999, is the third in a series of five management plans designed to achieve Active Management Area (AMA) management goals.

Other Useful References

Lakes Bill – ARS §§ 45-131, 132, and 133

- With some exceptions, a person shall not use any water for the purpose of filling or refilling all or a portion of a body of water for landscape, scenic, or recreational purposes
- "Body of water" is a body of water that has a surface area greater than 12,320 square feet – ARS § 45-131
- Interim fill permits – ARS § 133

Drilling an Exempt Well

- **Exempt Wells:** Domestic wells with a pumping capacity of less than 35 gallons per minute for non-irrigation uses. Does not require completing a well impact analysis. A.R.S. § 45-454
- **Well Requirements:** A person may construct, replace or deepen a well and the drilling of a well may not begin until all requirements are met. A.R.S. § 45-592.
- Requires persons to file a Notice of Intent (NOI) to drill and obtain a permit prior to drilling a new exempt well or deepening or replacing an existing exempt well. No groundwater rights are required and a licensed well driller must perform the work.

Well Information Changes

- All Wells in the State of Arizona are required to be registered with the ADWR.
- When ownership changes a Change of Ownership must be filed.
- ADWR's Wells 55 database is not a legal mechanism to determine well ownership. It simply tracks ownership.
- ADWR's well data is only as good as the information provided from the owners.
- ADWR does not regulate shared well agreements.
- ADWR has an online tool to find well registry owner information, associated water rights, and pumping data.

Well Spacing Rules

- A.R.S. § 45-598 (A) states that the director shall adopt rules governing the location of new wells and replacement wells in new locations in active management areas to prevent unreasonably increasing damage to surrounding land or other water users from the concentration of wells.
- A well that pumps more than 35 gpm must have a withdrawal authority and is subject to the well spacing rules.

Well Spacing Rules

- R12-15-1302 states the director shall determine that the withdrawals from the proposed well or wells will cause unreasonably increasing damage to surrounding land or other water users from the concentration of wells if the director determines that the probable impact of the withdrawals from the proposed well or wells on any well of record in existence as of the date of receipt of the application will exceed 10 feet of additional drawdown after the first five years of operation of the proposed well or wells.

Well Spacing Rules - Replacement Wells in the Same Location

- The proposed well will be located no greater than 660 feet from the original well, and the location of the original well can be determined at the time the notice of intention to drill the proposed well is filed;
- The proposed well will not annually withdraw an amount of water in excess of the maximum annual capacity of the original well.

Assured and Adequate Water Supply Program

- The Assured Water Supply Program established in 1980 (Rules adopted in 1995) functions to protect and preserve limited groundwater supplies within Arizona's five Active Management Areas (AMAs).
 - Subdivisions inside AMA's.
 - Plats cannot be approved without demonstrating a 100-year AWS
- Outside the AMAs the Adequate Water Supply Program, established in 1973, while not as protective as the Assured Water Supply Program, acts as a consumer advisory program, ensuring that potential real estate buyers are informed about any water supply limitations.
 - Subdivisions outside AMA's.
 - Plats can be approved if the determination is inadequate, however the inadequate water supply must be disclosed to the first buyer.

Assured Water Supply Program

- 1) Physical availability of water for 100 years.
 - The depth-to-water cannot exceed 1,000 feet after 100 years of pumping for the subdivision served by a water provider
- 2) Legal availability of water for 100 years.
- 3) Continuous availability of water for 100 years.
- 4) Financial capability to construct any necessary water storage, treatment and delivery system
- 5) Sufficient quality of water supply
- 6) Consistency with the Management Plan
- 7) Consistency with the Management Goal

Extinguishment of Grandfathered Rights

- The Director shall establish an assured water supply credit for the extinguishment of a grandfathered groundwater right - AAC R12-15-705.L
- Only Irrigation Grandfathered Rights, Type-1, and Type-2 can be extinguished
- Extinguishment credits are for AWS credits and can only to be pledged to certificates or designations
- Once extinguished, the right is terminated

Recharge and Recovery Program

- **Recharge** is a means of storing excess water supplies so that they may be used in the future. Artificial recharge is an increasingly important tool in the management of Arizona's water supplies, particularly in meeting the goals of the 1980 Groundwater Management Code.
- In 1986 the Arizona Legislature established the Underground Water Storage and Recovery program to allow persons with surplus supplies of water to store that water underground and recover it at a later time for the storer's use.

Important Articles in Title 45

Chapter 2

- Article 5. Grandfathered Groundwater Rights in Active Management Areas
- Article 6. Groundwater Rights and Uses within Service Areas
- Article 7. Groundwater Withdrawal Permits
- Article 9. Management
- Article 10. Wells

Water Resource Issues in the AMAs

- Residual (Allowable) Groundwater Pumping and Management Goals
- Access to Renewable Water Supplies
- Statutory differences between groundwater and non-groundwater sources and conjunctive use
- Environmental Protection
- Critical Area Management
- Salinity

Questions????

Scott Miller

Arizona Department of Water Resources

3550 N. Central Avenue, 2nd Floor

Phoenix, Arizona 85012

(602) 771-8604

jsmiller@azwater.gov

www.azwater.gov