



HISER JOY

The No Flow Show

Water in the Arid West

February 24, 2023

Matt Joy Rocks!

- Matt Joy practices in the areas of environmental, natural resources, water quality and litigation, focusing on water, waste and cleanup issues. He regularly represents clients in manufacturing, heavy industry, mining, and petroleum and natural gas industries. Matt has also assisted governmental entities in establishing permitting programs under the Clean Water Act. For over twenty years, he has advised clients in developing permitting strategies, ranging from routine to novel and complex, and obtaining agency approval of hundreds of Clean Water Act permits, including discharge and “dredge and fill” permits. Matt has extensive experience in defending against and, where appropriate, negotiating settlements in multi-million dollar enforcement and toxic tort cases. In addition, Matt has successfully represented numerous clients throughout the country before state and federal courts and administrative bodies in permit appeals, Superfund cost recovery actions and environmental civil actions. Matt has been a national lecturer for the Government Institute on Stormwater Discharge Regulation, and a visiting instructor for Arizona State University’s College of Engineering and Applied Sciences.



Where Does the Water Come From?

- Snow Pack
- Reservoirs/Surface Waters
 - Arizona “major” rivers – Salt, Gila, Colorado, Little Colorado, Santa Cruz, San Pedro, Verde
 - Nature Conservancy estimates 35% of AZ perennial waters have lost perennial status
- Groundwater



Where Does the Water Come From?

ARIZONA'S WATER SUPPLY



SOURCE: ADWR, 2020

<https://www.arizonawaterfacts.com/water-your-facts>

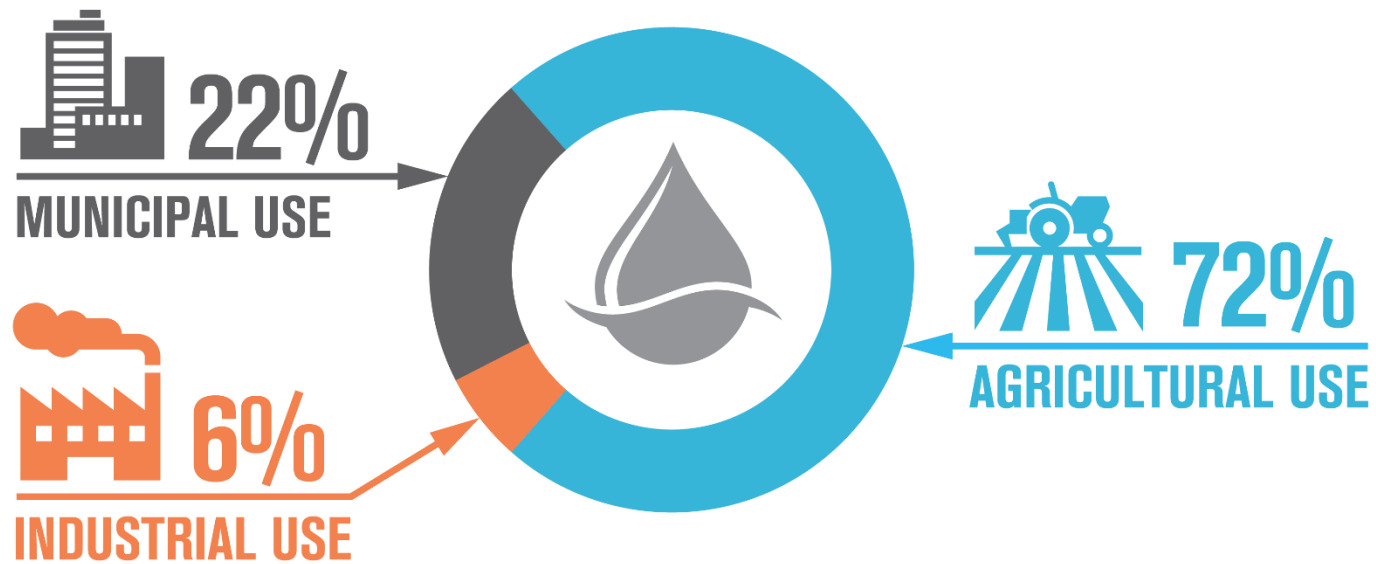


Who Gets to Use the Water?

- “Prior Appropriation” – Surface Water
 - First person to claim a “beneficial use” of water has a senior right to it
 - Beneficial use includes: domestic, irrigation, stock watering, power, recreation, wildlife or mining (ARS 45-151(A))
 - Arizona specifically allows storage of water to effect the beneficial use (ARS 45-151(B))
- Groundwater Management Act (ARS 45-401 *et seq.*)



Who is Using the Water?



SOURCE: ADWR, 2020

<https://www.arizonawaterfacts.com/water-your-facts>



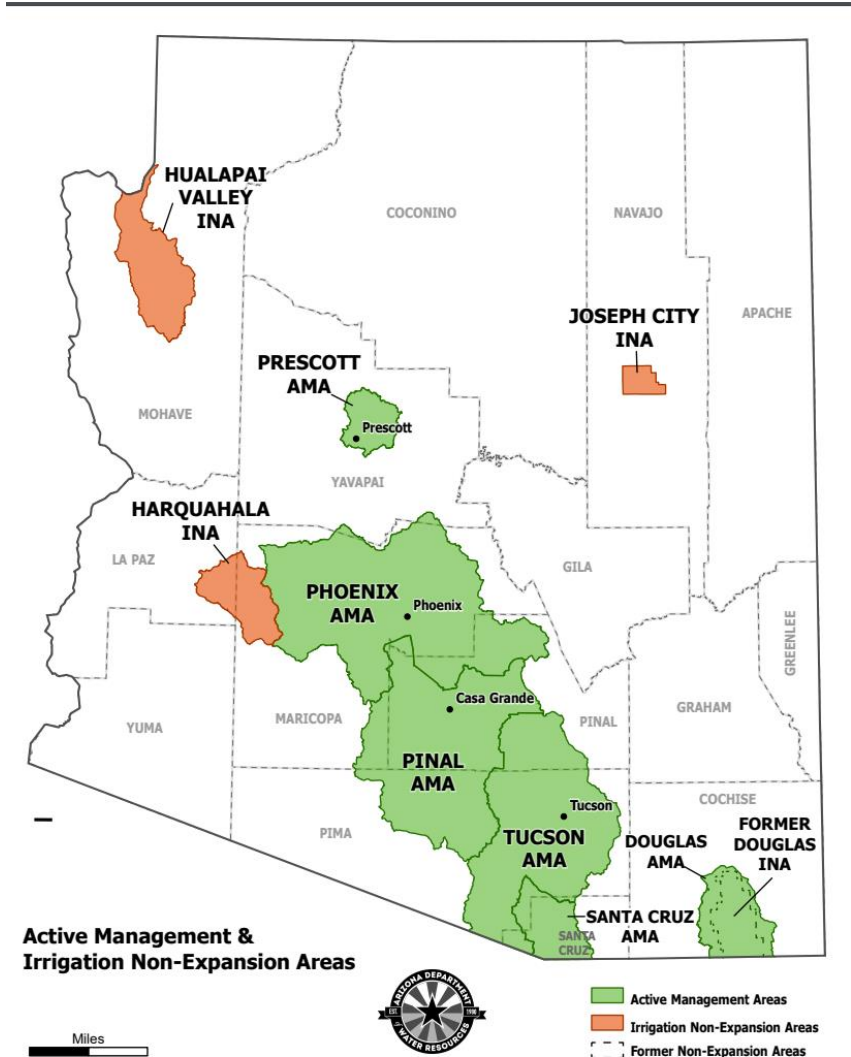
1980 Arizona Groundwater Code

- Groundwater Management Act (ARS 45-401 *et seq.*)
- Six Key Provisions
 - Groundwater rights and permits *in AMAs* (ARS 45-451 & 45-511)
 - Prohibits irrigation of new agricultural lands within AMAs (ARS 45-452)
 - Active Management Areas (ARS 45-411)
 - Developers must demonstrate 100-year assured water supply (ARS 45-576)
 - Measure water withdrawn from all large wells (ARS 45-604)
 - Water use and reporting
- Regulatory nitty gritty is set forth at AAC R12-15-701 *et seq.*



1980 Arizona Groundwater Code

- Implemented Active Management Areas
 - Each area defines its goals
 - Phoenix, Prescott & Tucson
 - Net out = net in
 - Pinal
 - Preserve economy for as long as possible



100-Year Assured Supply

- If in an AMA, must demonstrate
 - Water of sufficient quantity (AAC R12-15-717) and quality (AAC R12-15-719) to sustain development for 100 years
 - Use is consistent with proposed AMA Plan (AAC R12-15-704.F & 721)
 - Water provider has financial capability to construct water delivery & treatment (AAC R12-15-704.F & 721)
 - Or build within existing city or town or be served by a “designated” provider (*see* AAC R12-15-703.A)
- Outside AMAs
- Groundwater Replenishment District (outside of area where groundwater is taken)



Colorado River Compact

- Seven State Deal
 - Originally agreed to in 1922, changed numerous times since then
 - Colorado (3.86M ac-ft), Wyoming (1.04M ac-ft), Utah (1.71M ac-ft), New Mexico (0.84M ac-ft), Nevada
 - Arizona (3.5M ac-ft), California (4.4M ac-ft), Nevada
 - Mexico gets 1.5M acre-feet



Colorado River Compact

- *Arizona v. California*
 - 283 U.S. 423 (1931) – determined AZ allocation
 - 292 U.S. 341 (1934) – determined compact was constitutional
 - 298 U.S. 558 (1936)
 - 373 U.S. 546 (1963) – allocation of each state's water
 - 376 U.S. 340 (1964) – adjusted allocation
 - 383 U.S. 268 (1966) – adjusted allocation
 - 439 U.S. 419 (1979) – adjusted allocation
 - 460 U.S. 605 (1983) – adjudicated rights of Tribes
 - 466 U.S. 144 (1984) – adjusted allocation
 - 531 U.S. 1 (2000) – adjusted allocation



Colorado River Compact

- Assumes 7.5M ac-ft are available
 - CA 50%, AZ 46%, NV 4% (on lower basin)
 - If more water is available, split by same ratio
 - If less, DOI will allocate based on various formulae
 - Remember *Arizona v. California*?



Water Recycling

- Arizona has allowed recycling of water for certain uses
 - Particular use depends on quality of reclaimed water
 - Turbidity, fecal coliform
 - AAC R18-11-303 to R18-11-309, R18-11-Table A
 - Residential use of “gray water”?
 - General permit up to certain amount and under certain conditions
 - AAC R18-9-D701

Table A. Minimum Reclaimed Water Quality Requirements for Direct Reuse

Type of Direct Reuse	Minimum Class of Reclaimed Water Required
Irrigation of food crops	A
Recreational impoundments	A
Residential landscape irrigation	A
Schoolground landscape irrigation	A
Open access landscape irrigation	A
Toilet and urinal flushing	A
Fire protection systems	A
Spray irrigation of an orchard or vineyard	A
Commercial closed loop air conditioning systems	A
Vehicle and equipment washing (does not include self-service vehicle washes)	A
Snowmaking	A
Surface irrigation of an orchard or vineyard	B
Golf course irrigation	B
Restricted access landscape irrigation	B
Landscape impoundment	B
Dust control	B
Soil compaction and similar construction activities	B
Pasture for milking animals	B
Livestock watering (dairy animals)	B
Concrete and cement mixing	B
Materials washing and sieving	B
Street cleaning	B
Pasture for non-dairy animals	C
Livestock watering (non-dairy animals)	C
Irrigation of sod farms	C
Irrigation of fiber, seed, forage, and similar crops	C
Silviculture	C



Water Recycling

- What about recycling water for drinking water?
 - Safe Drinking Water Act
 - Establishes criteria for safe drinking water (MCLs)
 - Organics, inorganics, disinfectant residuals, etc. (arsenic, lead, nitrate, turbidity)
 - 40 CFR Part 141
 - Arizona is working on allowing entities to provide recycled water for potable uses
 - Only for facilities subject to the SDWA



Local Impacts

- Rio Verde
 - East of 136th Street & Dynamite
 - Water was trucked into homes from a City of Scottsdale standpipe
 - Cost of approximately \$300 for 5,000 gallons
- Scottsdale gets its water from CAP (65-70%), SRP (15-20%) & Groundwater (5-10%)
 - Impacts to Lake Meade have greatest impact on CoS supply



Local Impacts

- Why did Scottsdale shut off the tap?
 - Drought Management Plan (2021)
 - Scottsdale is required to comply with the AMA 100-year assured water supply
 - Hence, it estimates demand based on population and growth
 - Plan tied to Lake Mead Levels and SRP Water Shortage



Local Impacts

TABLE 5 - CAP WATER SHORTAGE TIERS & SCOTTSDALE'S CORRESPONDING SHORTAGE STAGES

CAP Water Shortage Tiers	TIER ZERO	TIER 1	TIER 2A	TIER 2B	TIER 3	PROTECT LEVEL
Lake Mead Elevation (in feet)	1,090	1,075	1,050	1,045	1,025	<1,025
Corresponding City Water Shortage Stage	Stage Zero Shortage Preparation	Stage 1 Minimum Shortage	Stage 1 Minimum Shortage	Stage 2 Moderate Shortage	Stage 3 Severe Shortage	Stage 4 Critical Shortage
Potential City Water Supply Reduction (MGD) ³	0	2.0	3.0	6.5	13.5	24
Potential City Water Supply Reduction (AF/year)	0	2,300	3,400	7,300	15,200	26,900



Local Impacts

TABLE 6 - SRP WATER SHORTAGE AND SCOTTSDALE'S CORRESPONDING SHORTAGE STAGES

City Water Shortage Stage	Stage Zero Shortage Preparation	Stage 1 Minimum Shortage	Stage 2 Moderate Shortage	Stage 3 Severe Shortage	Stage 4 Critical Shortage
Potential City Water Supply Reduction (MGD)	0	6.0	11	16.3*	N/A
Potential City Water Supply Reduction (AF/year)	0	6,700	12,300	18,300	N/A

*maximum SRP surface and groundwater supply available based on a 3 AF/acre maximum multiplier



Local Impacts

- Stage 0
 - User notification
- Stage 1
 - Commercial/Residential fill station is shut down
 - Water hauling stopped
- Stage 2
 - Water use restrictions on customers
 - Shortage surcharge
- Stage 3
 - Further water use restrictions (some mandatory)
- Stage 4
 - Mandatory water use restrictions



Waters of the United States

- Revised Definition (88 Fed. Reg. 3004 (January 18, 2023))
 - Continues to use both “relatively permanent” and “significant nexus” standards
 - Retains pre-2015 rule and broadens it at the edges
 - *Sackett* case may result in significant changes to rule
 - EPA/Corps Position: “significant nexus” test applies
 - Sackett Position: Is the wetland “bound up” with a water and is that water subject to jurisdiction?
 - Justices did not seem to buy Sackett’s test
 - Arguments on both sides were tailored just to wetlands in question
 - *Rule becomes effective March 20, 2023*
 - *Sackett decision expected “first half” of this year*

