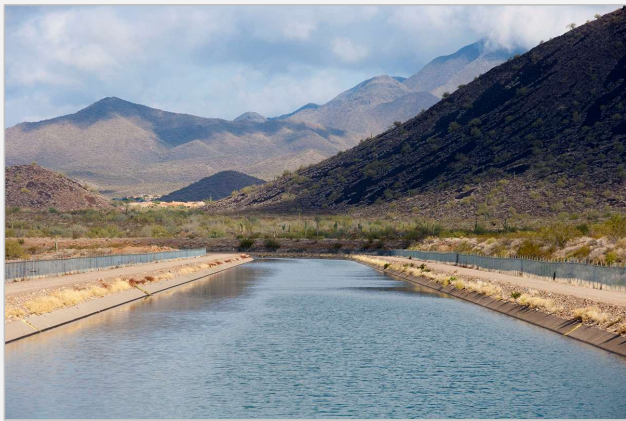


# Scottsdale Water's Approach to Sustainable Water in a Dry Future

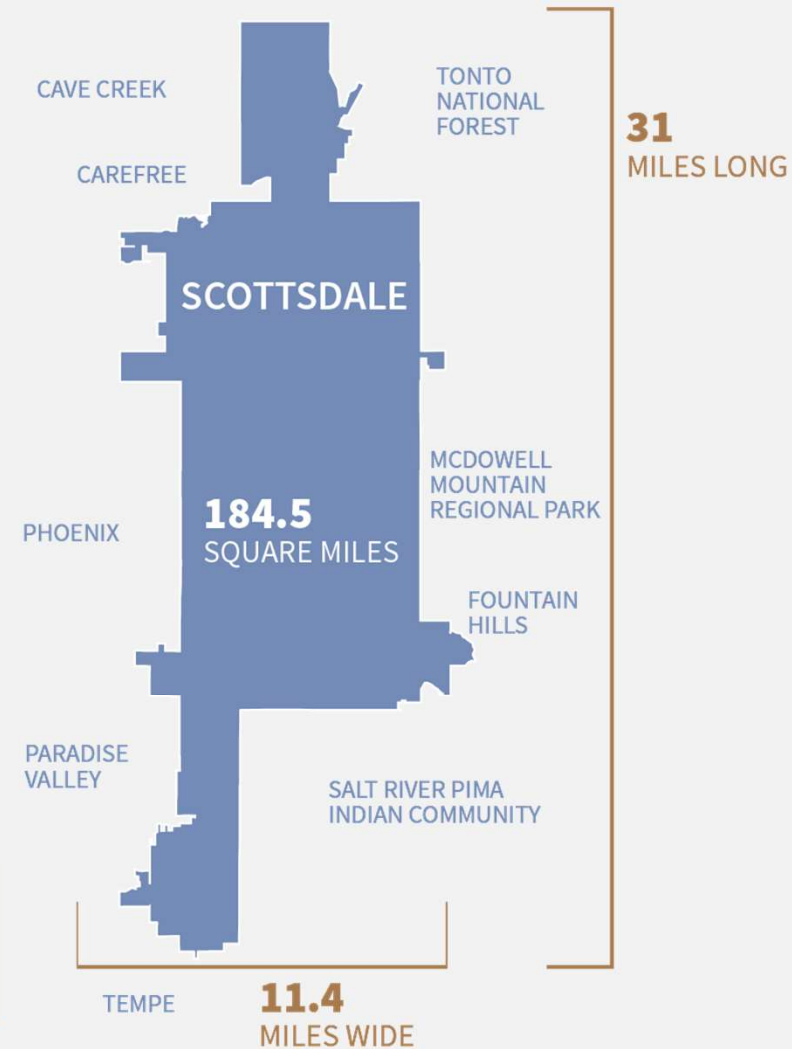


Arizona WaterReuse Symposium 2021  
Brian K. Biesemeyer; Executive Director



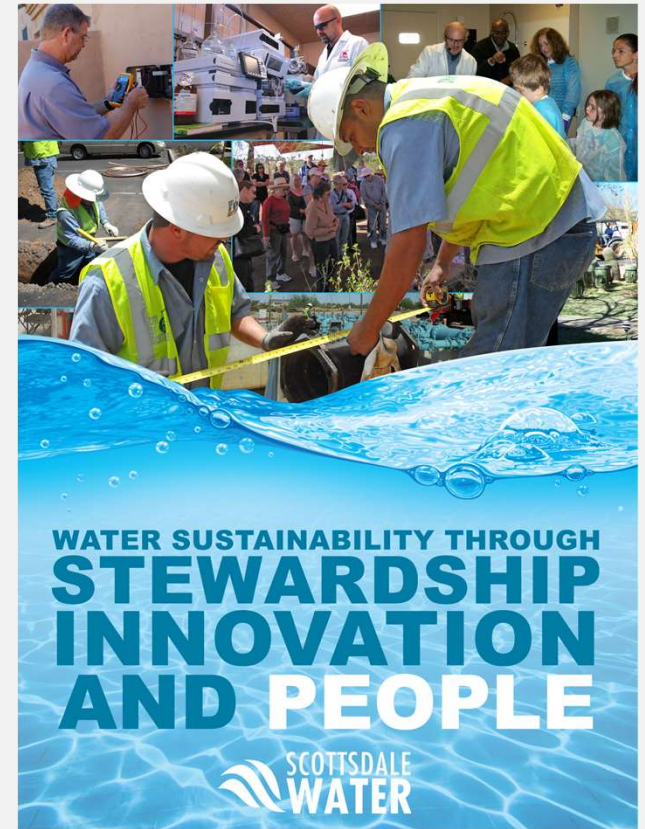
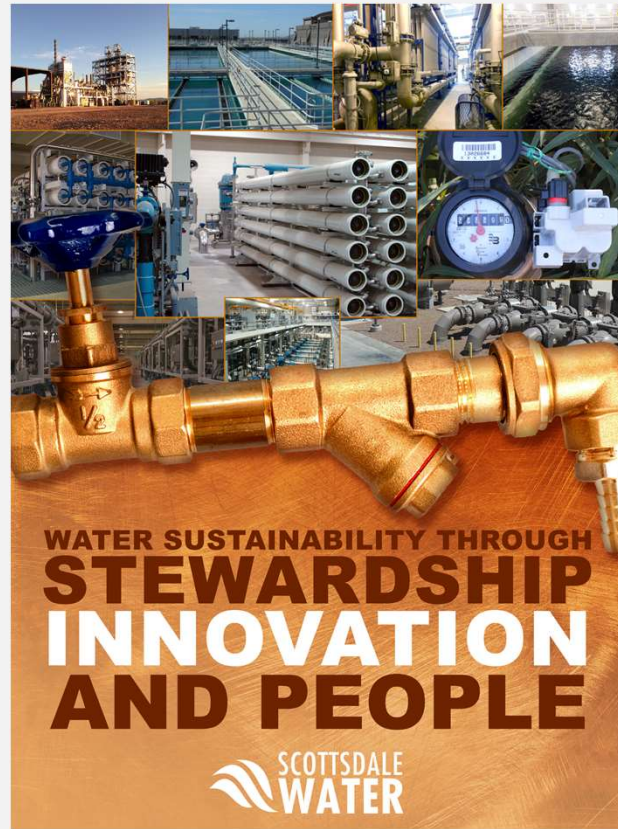
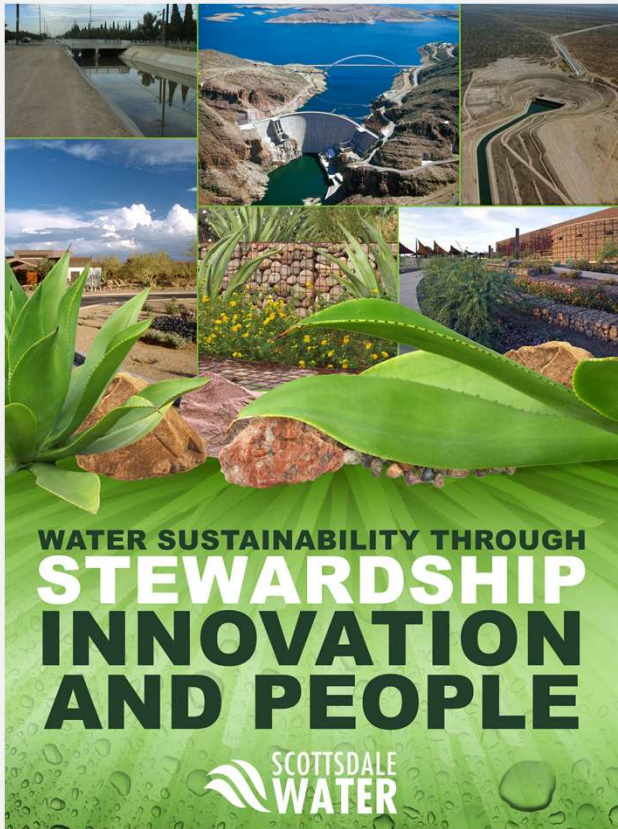
# About Scottsdale

- Population: 255,310
- Build Out ~ 311,000
- Active water accounts: ~93,000
  - 80,150 Single-family residential
  - 5,000 Multifamily residential
  - 6,000 Commercial, nonresidential
- In 2020 water delivery:
  - 88 million gallons/day (98,300 acre-ft) overall
  - Potable: 66 million gallons/day (74,428 acre-ft)
- 184.5 square miles
- Elevation change 3,727 feet

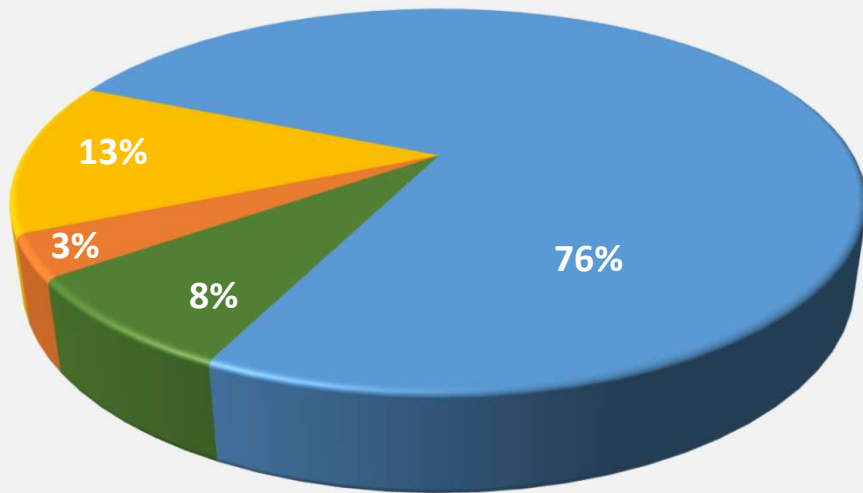








# Scottsdale Water's Vision



# 2020 Water Delivery

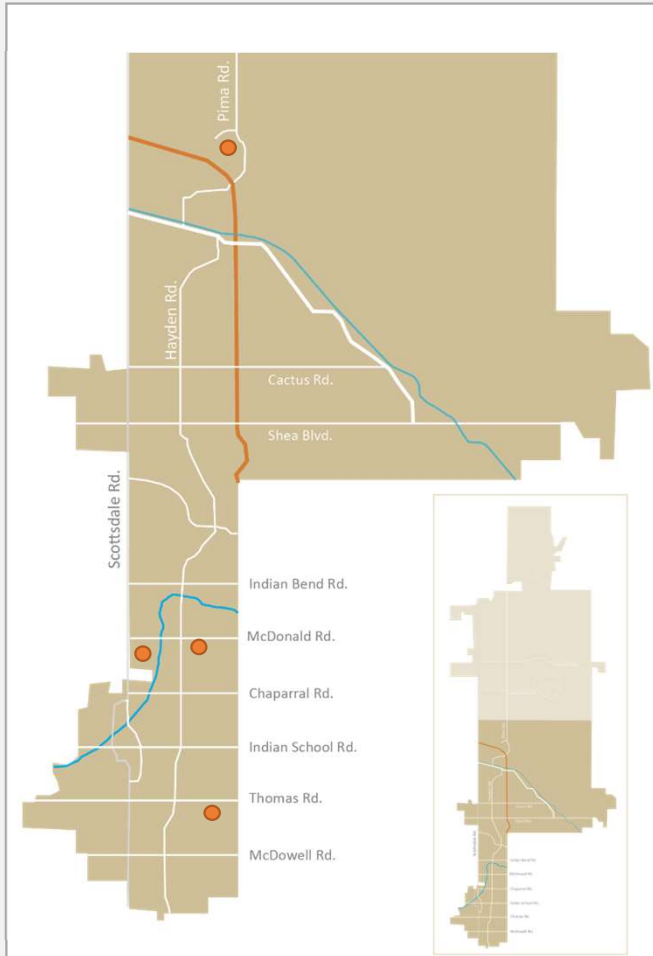


-  CAP (Colorado River Water): 74,400 AF
-  SRP (Salt River Project Water): 12,700 AF
-  Groundwater: 3,500 AF
-  Reclaimed: 7,700 AF

**Total Water Delivered in 2020: 98,300 AF  
(~88 MGD)**

# Scottsdale Water Campus

8787 E. Hualapai Road

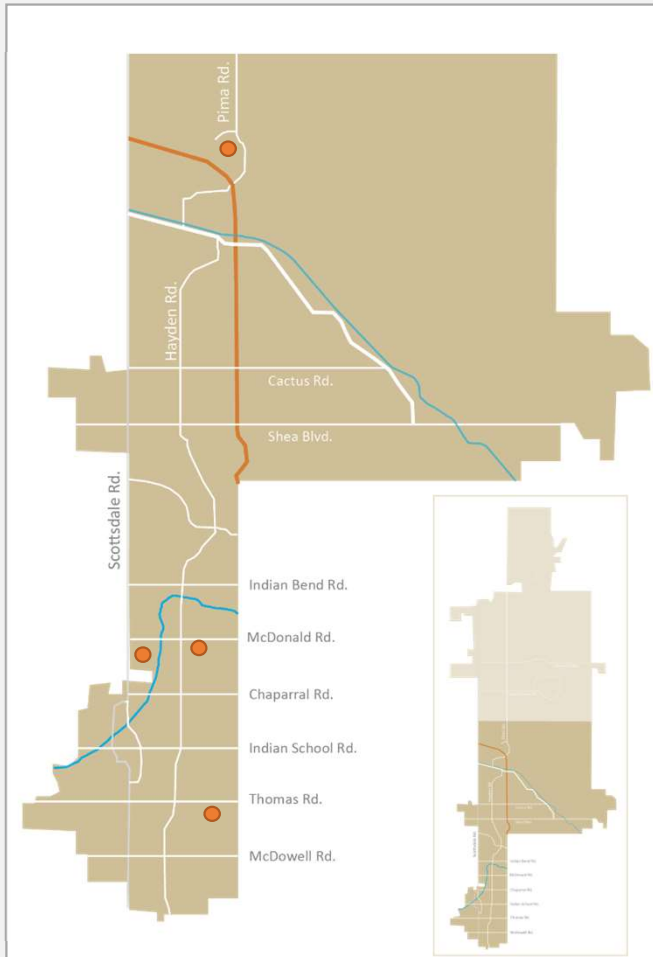


- CAP Water Treatment Plants I and II
  - Conventional treatment
  - online since 1984 and 1998, respectively
- CAP Water Treatment Plant III
  - Ultrafiltration treatment
  - online since 2010
- 70 mgd total capacity
- Treats water from the CAP (Colorado River)



# Chaparral Water Treatment Plant

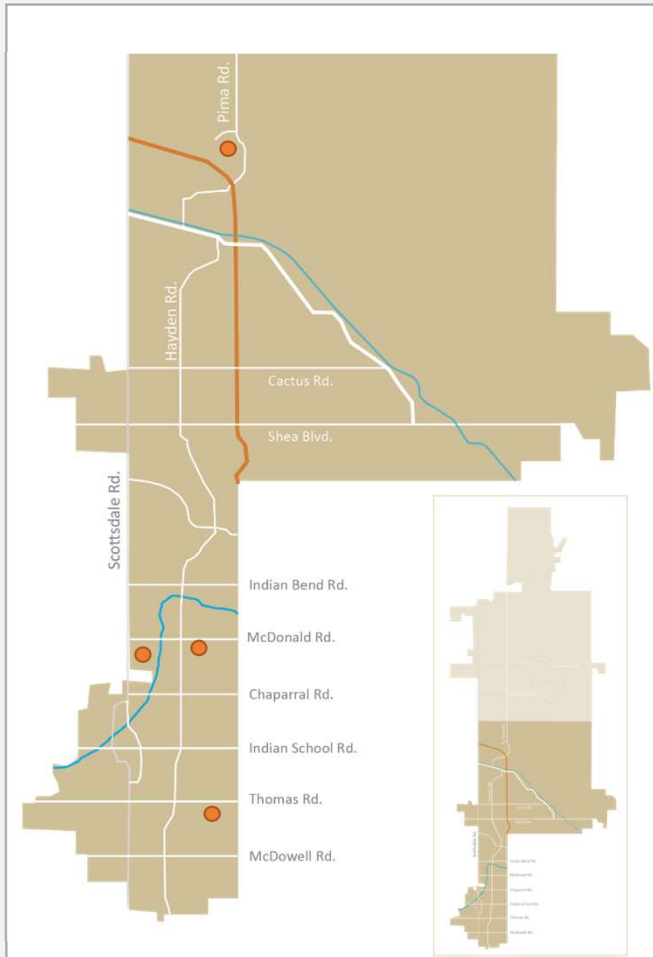
8111 E. McDonald Drive



- 27 mgd capacity potable water
- Ultrafiltration membranes, GAC treatment
- Largest potable water membrane facility in Arizona
- Treats water from Salt and Verde rivers (SRP)
- Online since 2006

# NIBW Granular Activated Carbon Treatment Facility

5985 N. Cattletrack Road

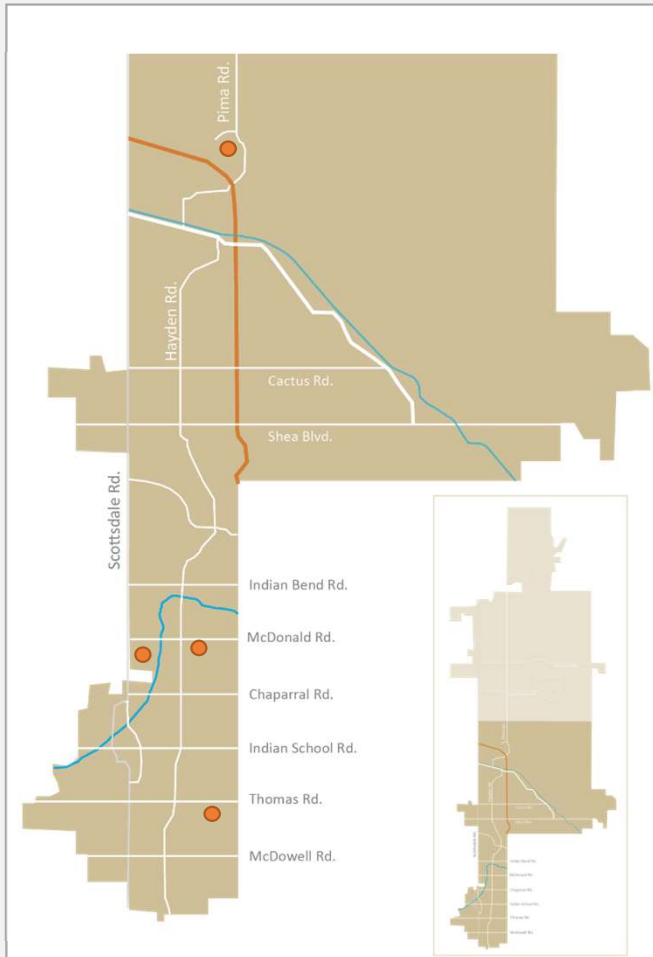


- Treats water from the NIBW Superfund with GAC.
- Online since 2012
- Owned by Motorola Solutions, operated by Scottsdale Water
- Public art, “The Wave,” installed 2015



# Central Groundwater Treatment Facility

8650 E. Thomas Road



- Treats NIBW Superfund groundwater through air stripping.
- Owned and operated by Scottsdale Water
- Online since 1995



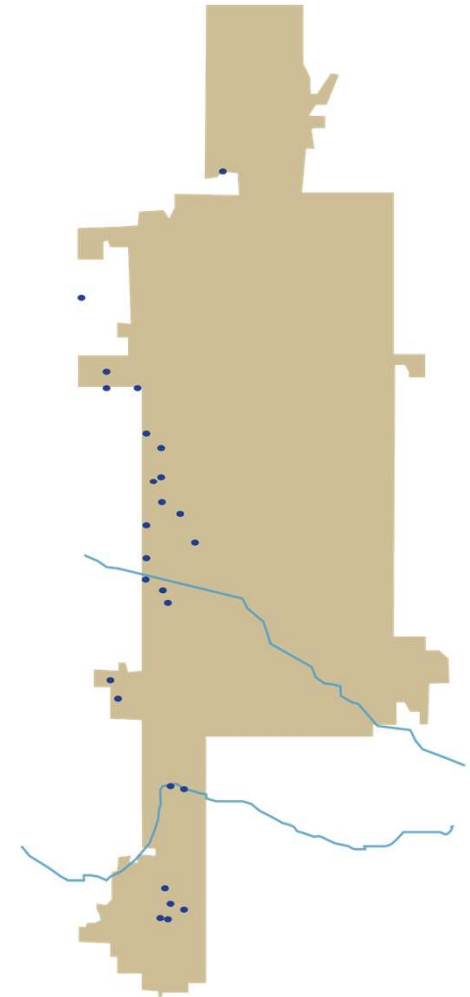
# Groundwater Supply

## Potable Wells Total: 23

- Off-Project (Non SRP Land): 18
  - Production Capacity: 44.55 mgd
- On-Project (On SRP Land): 5
  - Production Capacity: 23.73 mgd

**Total Production Capacity:**  
68.28 mgd (or 76,483 AF)

Active Groundwater Wells



# Water Reclamation Facilities

## Water Campus

- Water Reclamation Plant – 20 mgd
- Advanced Water Treatment Plant – 20 mgd



## Gainey Ranch WRP – 2 mgd

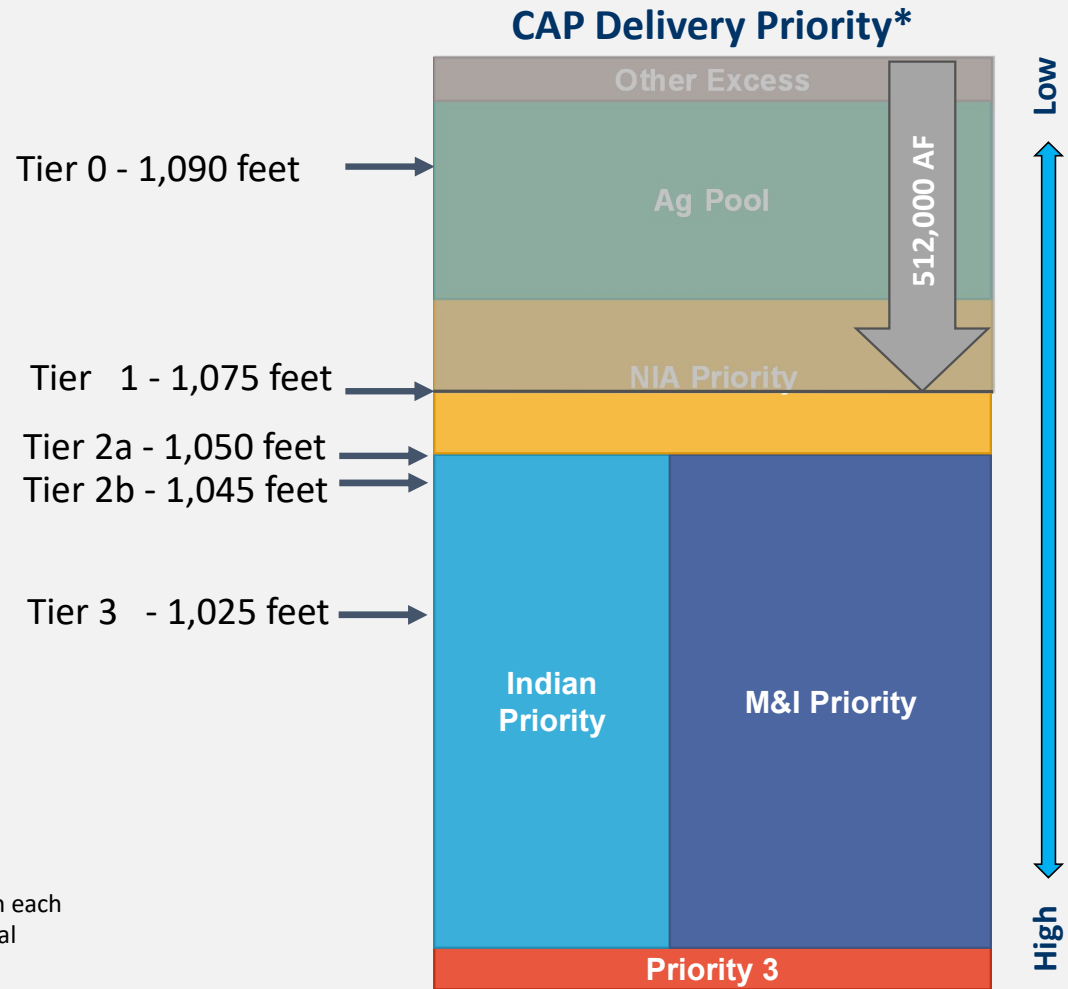


# Impacts to CAP Water

- CAP shortage based on priority stack
- Scottsdale CAP Allocation:

Priority	AF	% of supply
NIA	3,306	4%
M&I / Indian	77,870	96%
P3	95	0.1%
<b>Total</b>	<b>81,271</b>	<b>100%</b>

\*Shortage reductions are based on water right priority and total volumes ordered in each priority pool. Tier representations are approximations and are for purposes of visual graphic reductions.





# CAP Water Shortage Tiers and 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)	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
Approximate percent reduction to Scottsdale's CAP Supply	0	3%	4%	9%	18%	33%

# Scottsdale's Response

## All that we normally do plus:

- Activate our Drought Management Plan
  - Expanded conservation and messaging
  - Citywide Drought Team
- Increasing our ASR well capacity with 4 new wells
- Expanding our recycled water recharge and irrigation systems where feasible
- Expanding our AMI meter network
- WaterSmart portal



# Questions?

