



EPCOR USA

Friends of Daisy Mountain Trails
Anthem Arizona
Arizona Water & Drought: Planning and Preparation

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PROVIDING MORE



EPCOR USA

More than
310,000 service
connections serving
780,000+
people








 **425** Employees

 **78** million gallons of water sold daily

 **163** safety and operational excellence awards

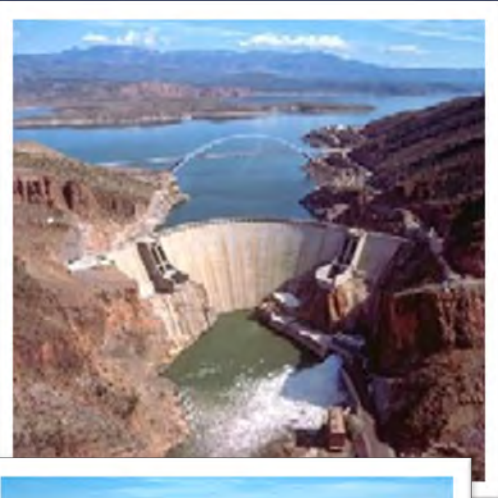
Three states > 18 counties > 42 communities
1 natural gas, 4 wastewater, and 16 water districts

EPCOR OPERATIONS

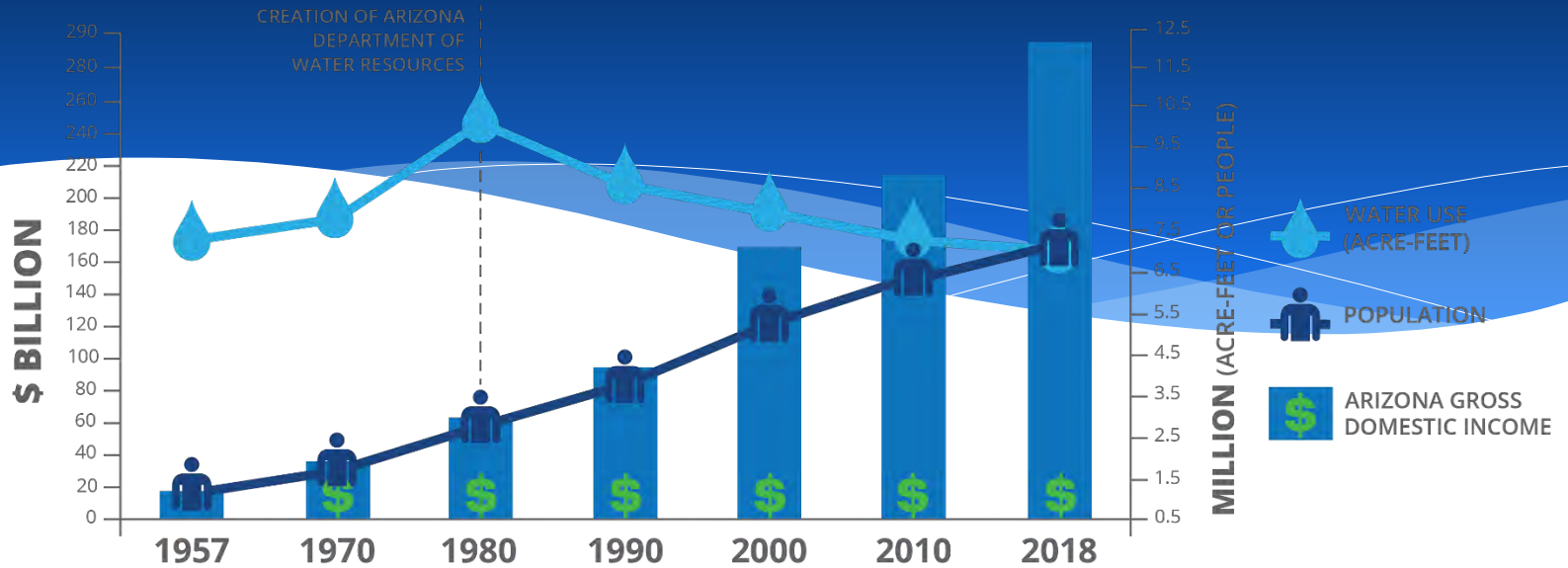
 Water Facilities  Water/Wastewater Facilities  Wastewater Facilities  Water Transmission  Natural Gas

Sources of Water In Arizona

- **Groundwater**
- **Surface Water**
- **Colorado River Water**
 - Main Stem
 - Central Arizona Project
- **Reclaimed Water**



ARIZONA'S WATER MANAGEMENT SUCCESS



Source: ADWR, 2020

TOTAL WATER USE (IN MILLIONS ACRE/FEET)

1957 7.1 MAF
 2018 7 MAF

-1% CHANGE FROM 1957-2018

POPULATION (IN MILLIONS)

1957 1.1
 2018 7.1

545% CHANGE FROM 1957-2018

GROSS DOMESTIC INCOME (IN BILLIONS)

1957 \$ 13.4
 2018 \$ 287.9

2,049% CHANGE FROM 1957-2018

Groundwater Management Act (1980)

- **Created Arizona Department of Water Resources**
- **Goals of the Groundwater Management Act:**
 - Control severe groundwater depletion
 - Provide the means for allocating Arizona's limited groundwater resources to most effectively meet the state's changing water needs
 - Augment Arizona's groundwater supplies through development of additional water supplies
 - Preserve groundwater for use in drought

Water management in AMA's

- Assured Water Supply
 - 100-year renewable water supply
 - Required before subdivision lots can be sold
 - Anthem developed 100-year Certificates AWS
- Recharge & Recovery
- Arizona Water Banking Authority



Underground Storage and Recovery



- Allows the storage and later recovery of renewable supplies - 1986
 - Additional drought insurance
 - Total of over 3-trillion gallons stored
 - Enough to serve City of Phoenix for 30 years
 - CAP water
 - Reclaim Water
 - Annual storage/recovery surface water

Arizona Water Banking Authority



- AWBA separate entity within ADWR
 - Actual storage of water supplies; not a rights trading program
 - Created in 1996
 - Use state general funds & withdrawal fees
 - Provide backup supplies for drought
 - Provide backup supplies for tribal settlements
 - Provides inter-state banking (Nevada)
 - 4.4 MAF stored (3.8 AZ, .6 MAF NV)

CAP Priorities

- Colorado River Priorities; CAP P-4; Ak Chin P-1
- Within the CAP system different water allocations have different priorities
 - Highest: M&I pool
 - EPCOR about 30 KAF M&I CAP
 - 7,900 af/yr Ak Chin P-1 (higher priority than CAP M&I)
 - Non-Indian AG pool
 - AG pool
 - Excess pool



EPCOR Conservation Program

- Self audit kits
- Interior low flow retrofit kits
- Landscaping watering guide
- Desert landscaping low water use plant guide
- Leak detection assistance
- New enhanced billing; self notification
- Community garden & demonstration garden programs
- Anthem – conservation classes @ schools & community center

Lower Basin Drought Contingency Plan

- LBDCP goal is to protect water levels in Lake Mead
 - AZ & NV agree to take early cuts
 - CA agree to take cuts
 - Conservation programs to “store” in Mead for later recovery (ICS)
 - Conservation programs for system conservation (water left in system)
 - AZ: in state mitigation for lower priority users
 - Provide higher priority CAP to AG (Pinal AMA)
 - Provide higher priority CAP to NIA
 - State, Federal, & NGO funding for ICS & system conservation
 - Federal funding for AG infrastructure

EPCOR Specific Drought Planning

- Maximize use of reclaim water (storage & recovery)
- Maximize use of M&I CAP
- Assisting Water Bank and recovery
- Continued conservation programs
- Partner with other entities for leases and exchanges
- Up-grading of well infrastructure for recovery or GW use
- CAP storage as drought backup

EPCOR Anthem

By The Numbers

- 7,900 acre-feet Ak Chin (CAP) P-1
- 5,473 Ak Chin/CAP used in 2021
 - 3,474 acre-feet potable
 - 1,999 acre-feet landscaping
- 1,765 acre-feet effluent generated in 2021
 - 1,377 acre-feet effluent directly used landscaping
 - 388 acre-feet effluent stored
- 9-mile pipeline from CAP to SWTP
 - 7 MGD treatment capacity
 - 4.2 MGD storage capacity
- 3 MGD treatment capacity WWTP – storage under park
- 12,580 acre feet stored emergency/drought backup
 - 2,586 effluent
 - 9,994 Ak Chin/CAP
 - 3 wells



Questions?

EPCOR Contacts for Obtaining Audit, Retrofit, Watering & Planting Guides, Xeriscape Guide and more information:

- Order Your FREE Conservation Kit
- Email: conservation@epcor.com
- Call: [1-800-383-0834](tel:1-800-383-0834)
- Please include the following:
- Name
- Address
- Phone number
- EPCOR account number