

# Water Shortage Management Plan

Presented by

Jake West

Brian Draper

Kathy Macdonald



mesa·az

WATER RESOURCES

# Purpose

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Seeking approval of Council for adoption of the Water Shortage Management Plan.

Sustainability and Transportation Committee approved 3 - 0.

# What is a water shortage?

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*City-wide or localized water supply is reduced to a level that current demand cannot be met.*

- Drought
- Infrastructure failure
- Customer demand
- Regulatory actions
- Outages

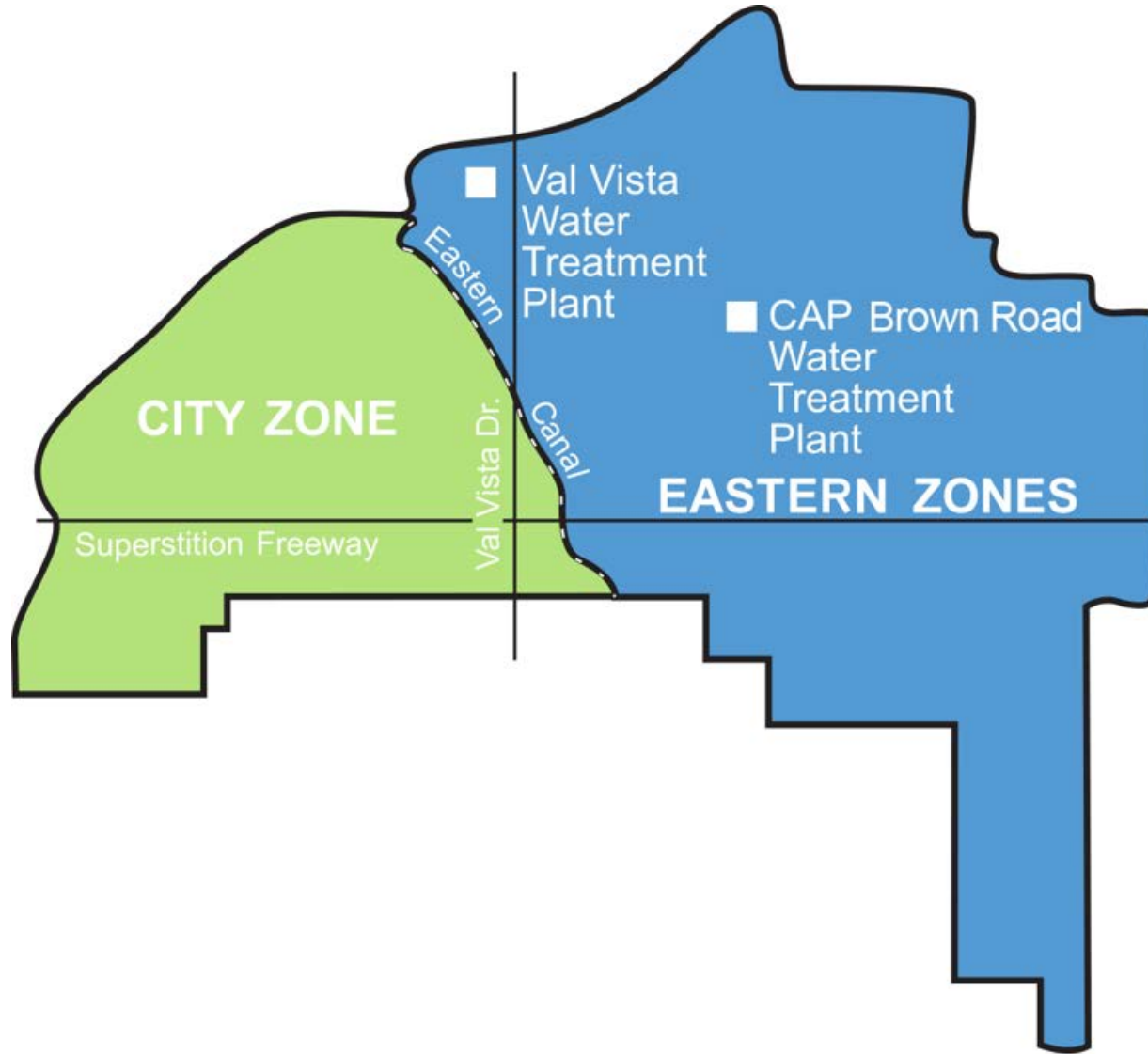


# Goals

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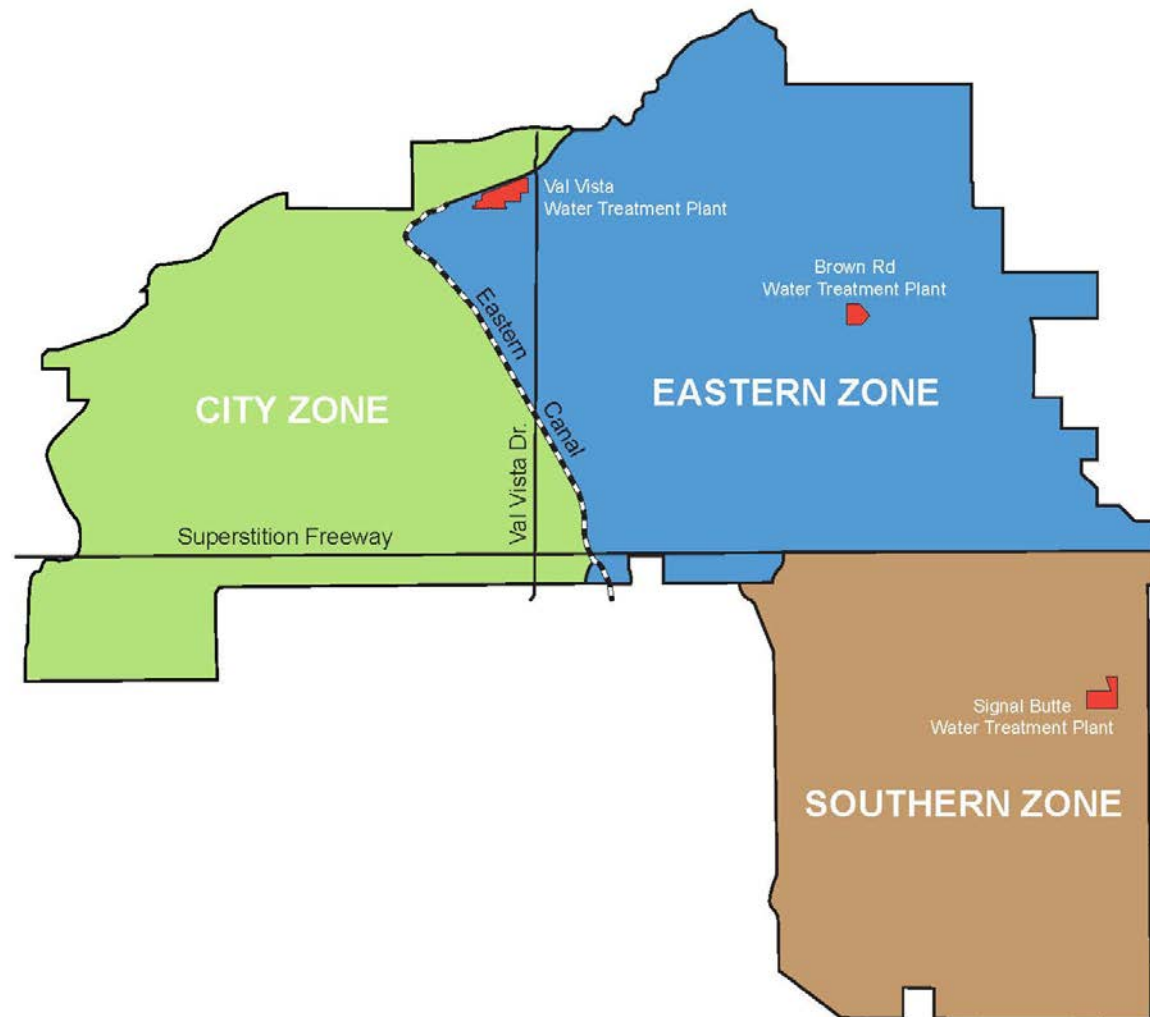
Manage	Manage shortage conditions as they occur
Prevent	Prevent the need to implement drastic demand reduction measures
Plan	Plan for future conditions before they occur

# Mesa Service Area

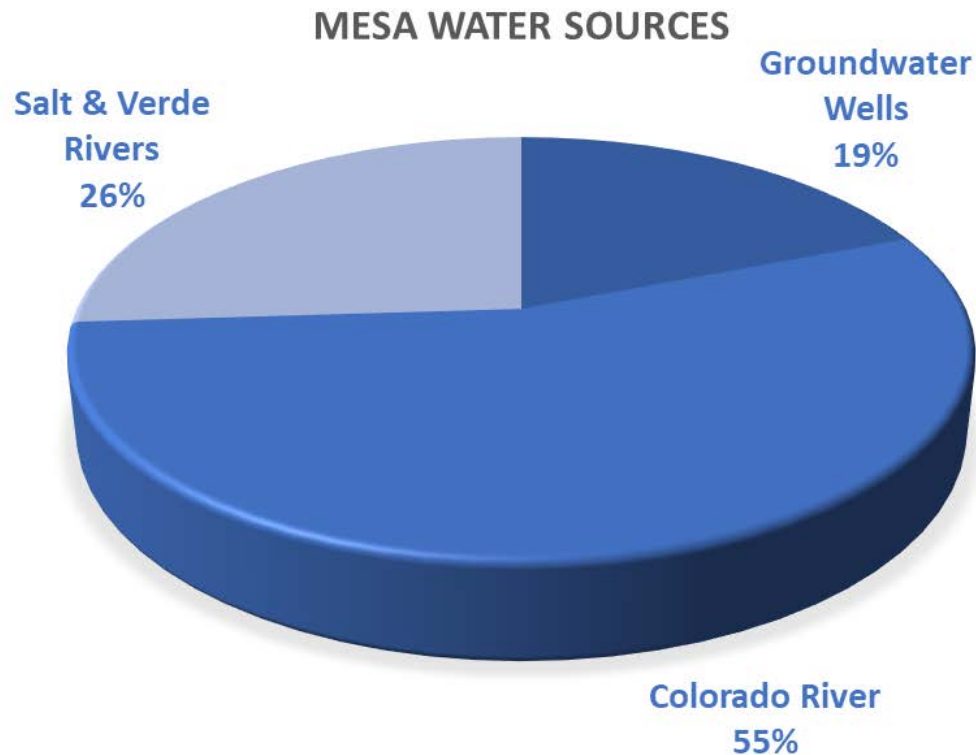


- Mesa is divided into two zones separated by the Eastern Canal: City and Eastern zones
- City Zone: Salt/Verde River water delivered through SRP (treated at Val Vista WTP)
- Eastern Zone: Colorado River water delivered through CAP (treated at Brown Road WTP)
- City and Eastern wells provide water throughout Mesa

# Revised Mesa Service Area



- June 2018 Signal Butte Water Treatment Plant will deliver treated water into the distribution system
- Southern Zone: Colorado River water delivered through CAP



# Water Supply

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- Two sources: surface and groundwater
- Abundant groundwater credits and allowances – nearly 1 million acre-feet
- Groundwater is used during peak demand and emergencies
- The Assured Water Supply Program: framework for designating Mesa's 100-year supply for current and future demands

# Shortage Planning and Preparation

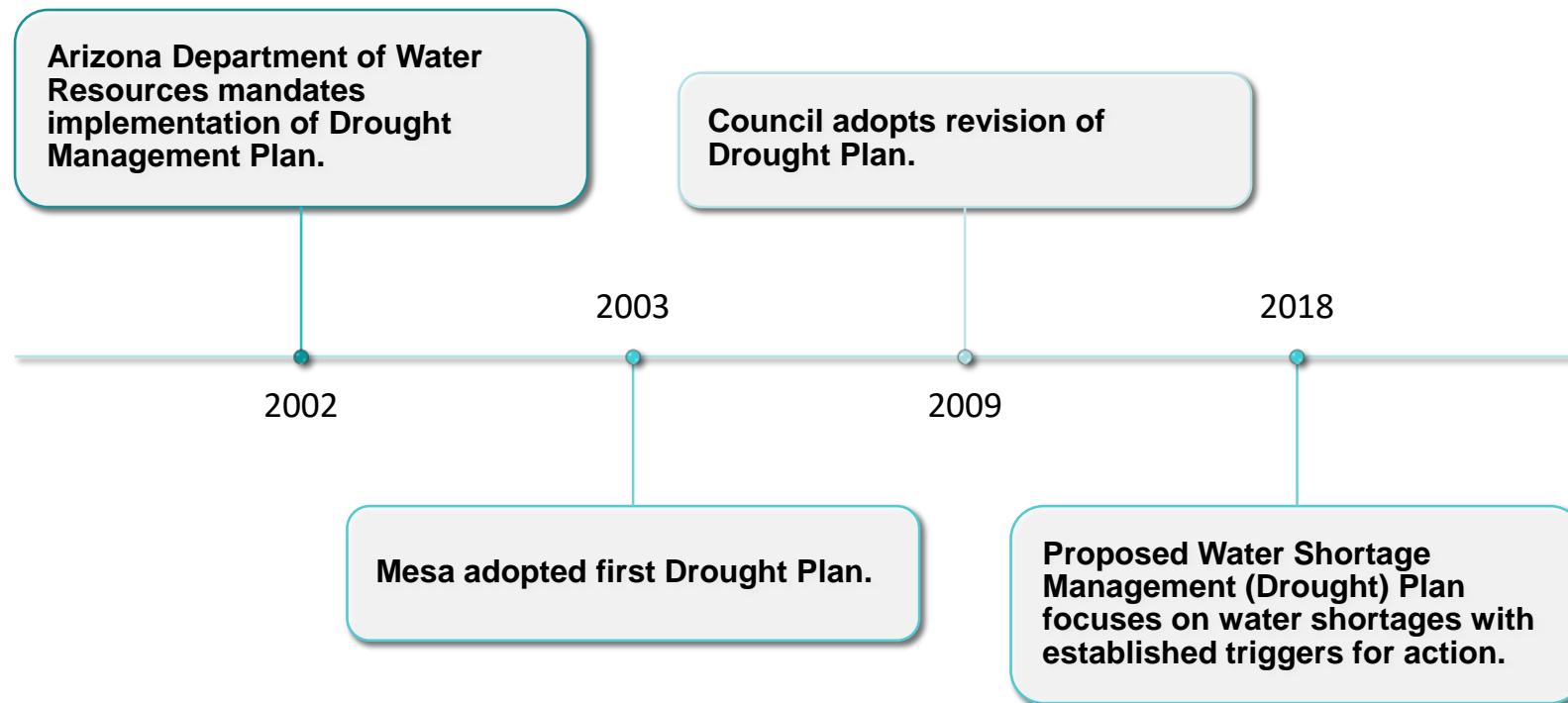
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Securing and managing	Securing, banking and managing a variety of different water sources
Maintaining	Maintaining water treatment capacity needed to meet customer demand
Promoting and encouraging	Promoting and encouraging voluntary water conservation since 1982



# State Requirement

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# The Plan

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Evaluation of shortage conditions based on current and forecasted water supply and demand, as well as the economic impact to the City.

2

Cross-Departmental team

3

Four stages based on increasing severity with recommended conservation measures.

# Stage One – Water Watch

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- Increase awareness of actual reductions in water supplies several months in advance.
- Surface water shortage that will affect the City of Mesa is predicted or occurs.
- Mesa is capable of meeting demand through remaining supplies.
- Water demand management strategies may include: internal water reductions, increased community education.



# Stage Two – Water Alert

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- **SRP deliveries of Stored & Developed water are cut to less than or equal to 50% of supplies and/or CAP Subcontract & Lease water is cut to less than or equal to 80% of water supply.**
- **Mesa is capable of meeting demand through remaining supplies.**
- **Voluntary water demand management strategies may be implemented for all water customers.**
- **Goal of 5% reduction in water demand.**



# Stage Three – Water Warning

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- **SRP deliveries of Stored & Developed water are cut to less than 33% and/or CAP Subcontract & Lease water is cut to less than or equal to 60% of water used in the most recent non-drought year.**
- **Mesa is capable of meeting demand through remaining supplies.**
- **Mandatory water demand management strategies may be implemented for all water customers.**
- **Goal of 10% reduction in water demand.**





# Stage Four – Water Emergency

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- **Water supply deliveries are insufficient to meet demand.**
- **Mandatory water demand management strategies are implemented for all water customers to ensure basic water needs for residents and businesses will be met.**
- **Goal of 20% reduction in water demand.**



# Questions?

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