



Water Shortage Contingency Plan

RWSA AAC Meeting | April 23, 2025

Purpose

This plan identifies actions to reduce water demand equitability to help ensure all community members stay safe, healthy and resilient during disasters or disruptions to the water supply.



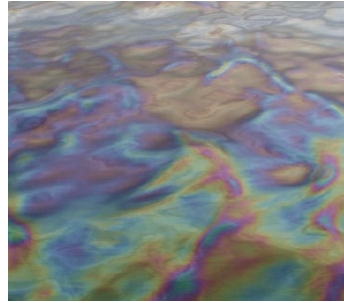
Potential Water Supply Disruptions...



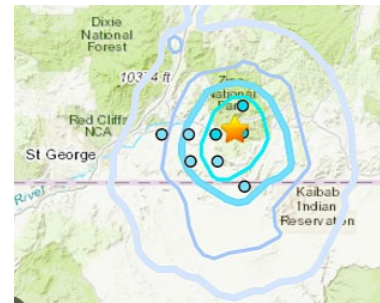
Infrastructure failure



Wildfire



Supply contamination



Earthquake



Drought



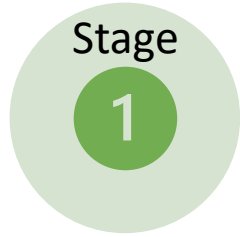


Forecasting Reservoir Levels Under Water Shortage Contingency Plan

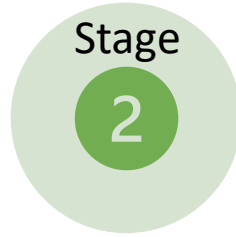
Whit Bundy, WCWCD Engineer



Reduction at Each Stage



10%



20%



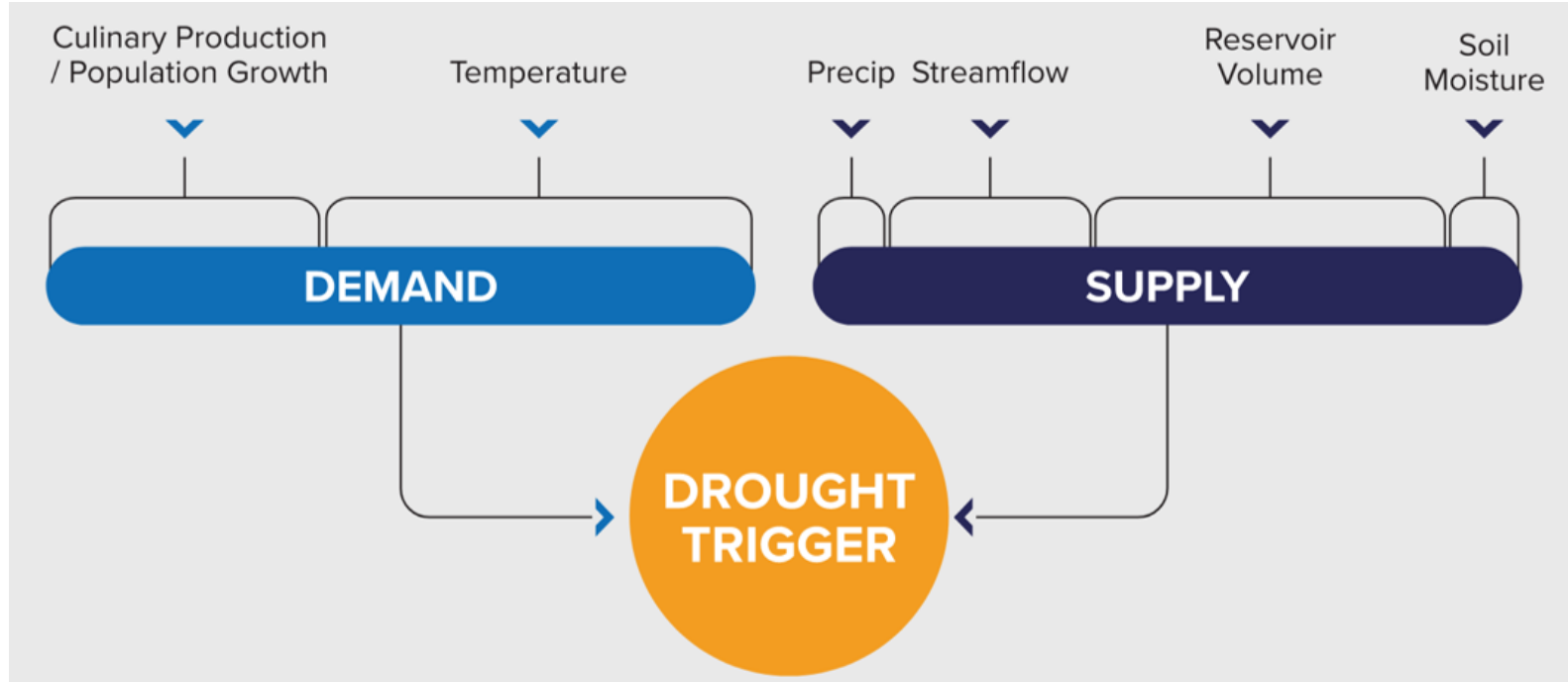
40%



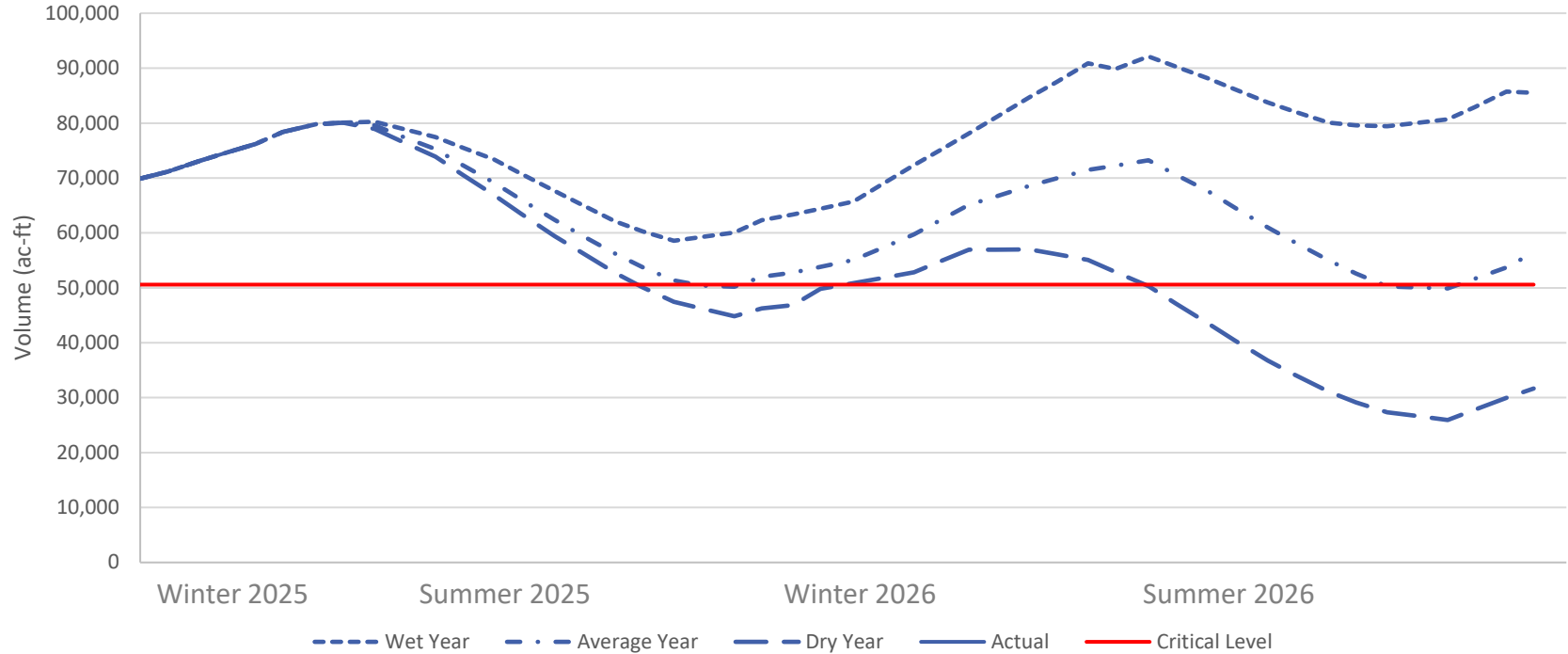
60%



Model Inputs



Quail Creek & Sand Hollow

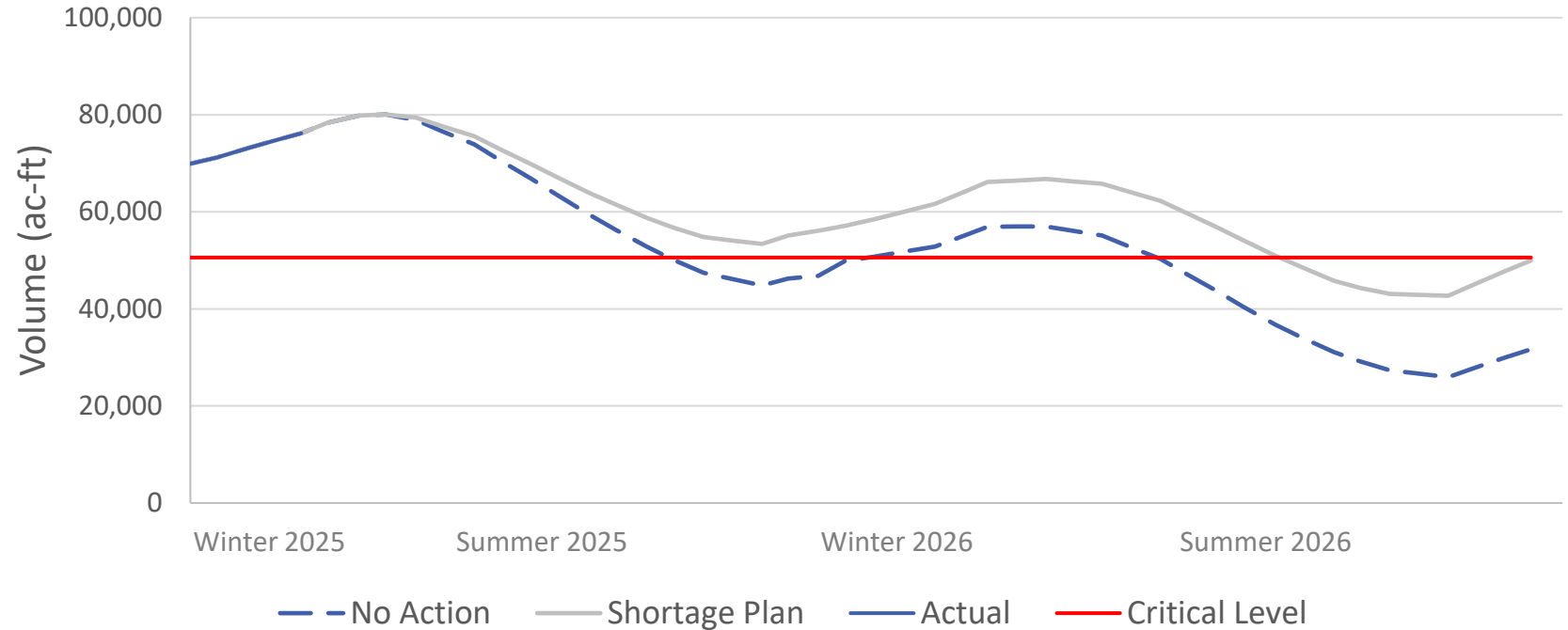


Critical level = less than 1 year supply in storage



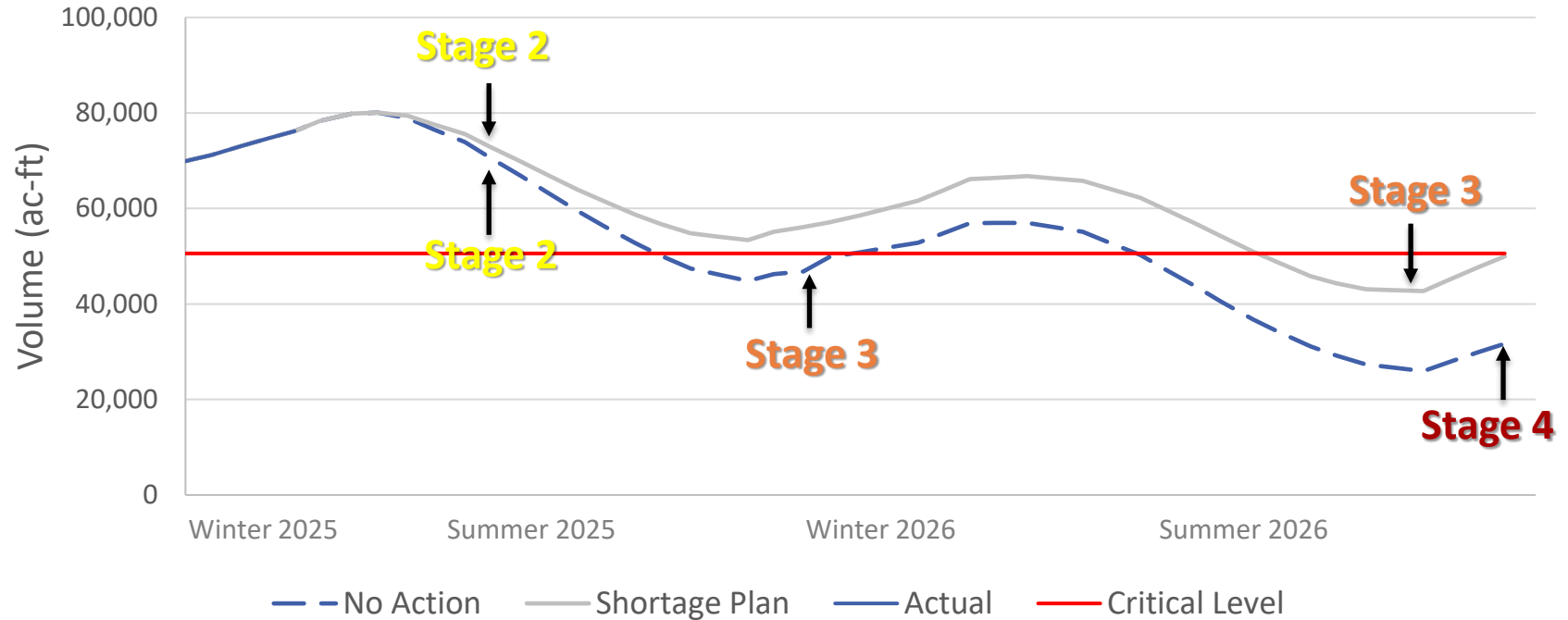
Quail Creek & Sand Hollow

Low Projection



Quail Creek & Sand Hollow

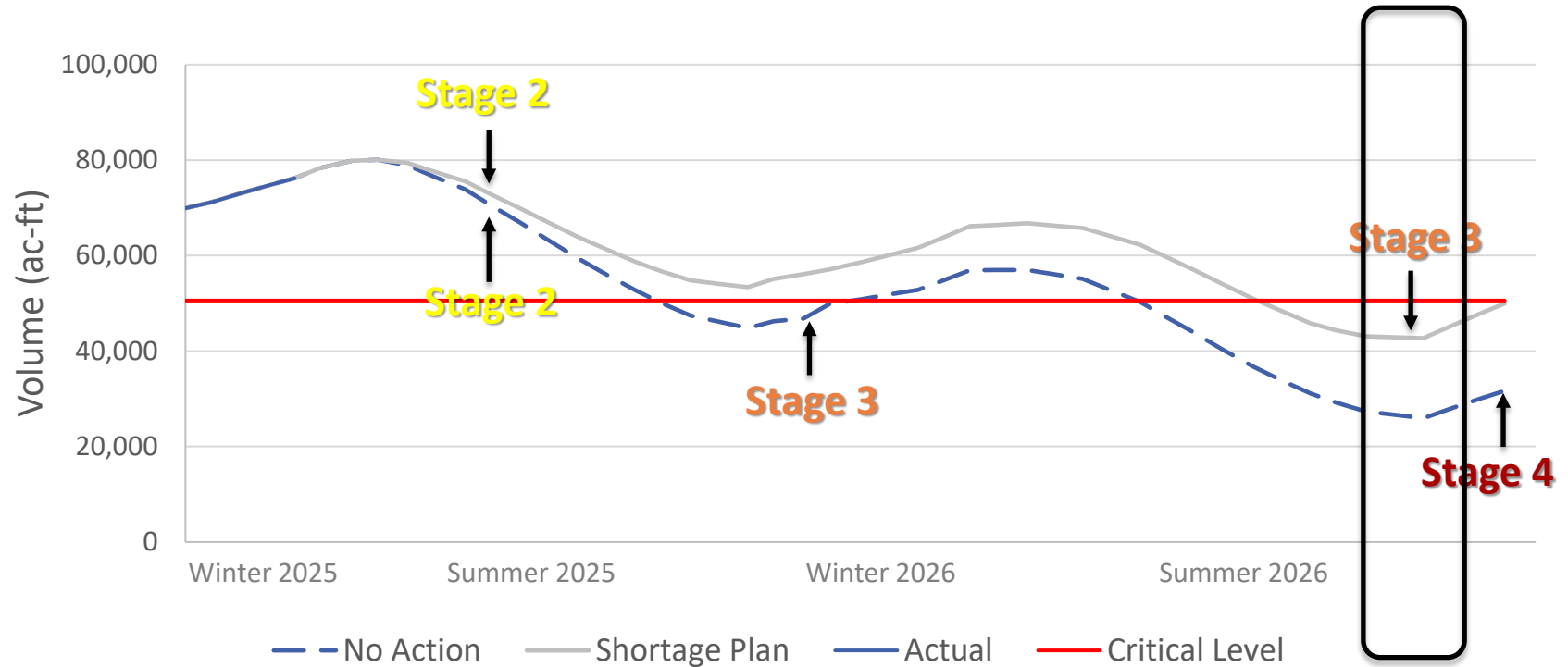
Low Projection



Quail Creek & Sand Hollow

Low Projection

Let's compare

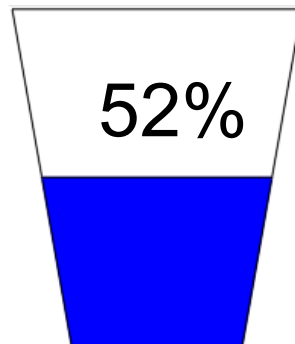


Low Projection

October 2026

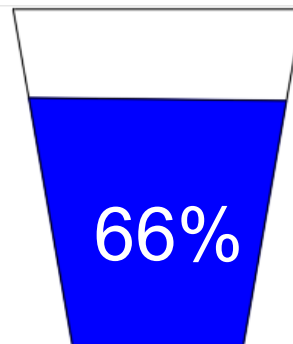
Quail Creek

No Action:



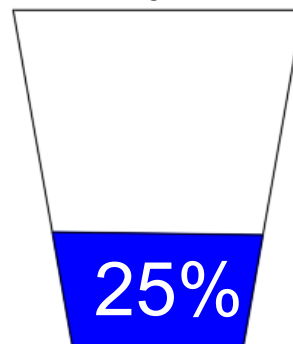
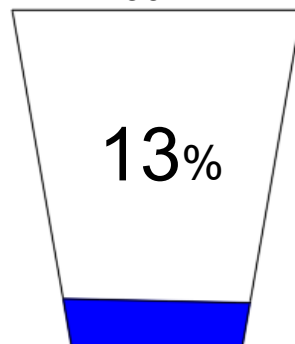
Combined
30%

Shortage Plan:



Combined
43%

Sand Hollow



Low Projection

October 2026

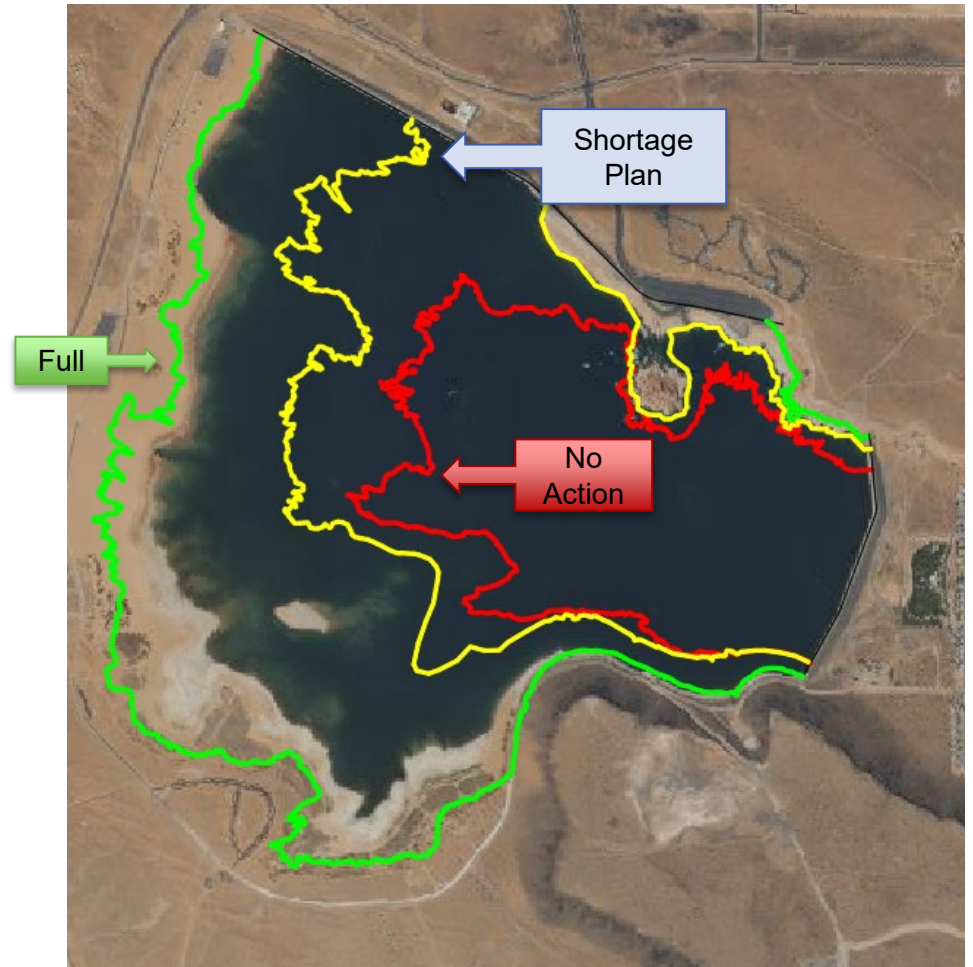




Image © 2025 Airbus

Google Earth



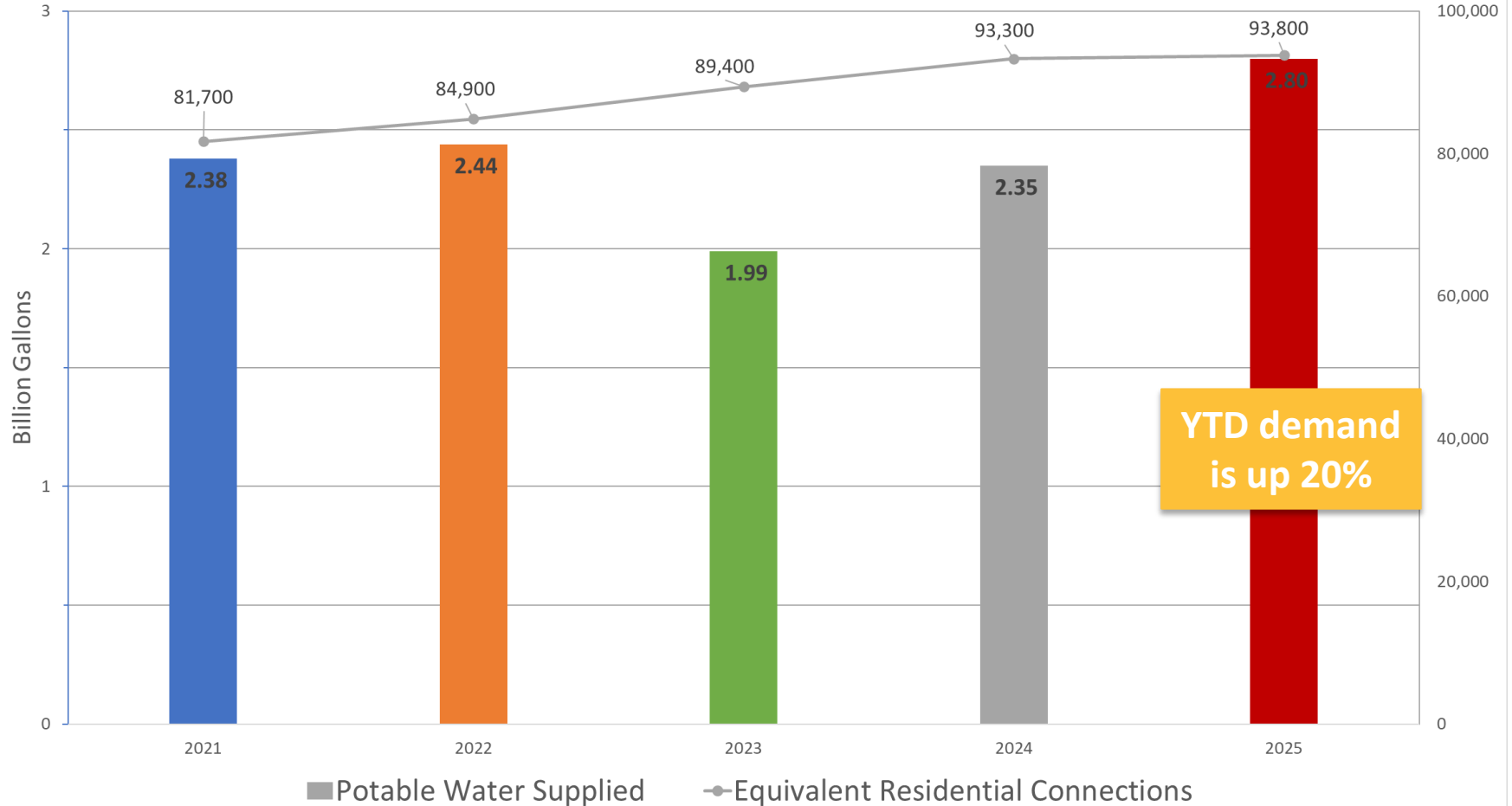


Plan Principles, Measures and Processes

Doug Bennett, WCWCD Conservation Manager

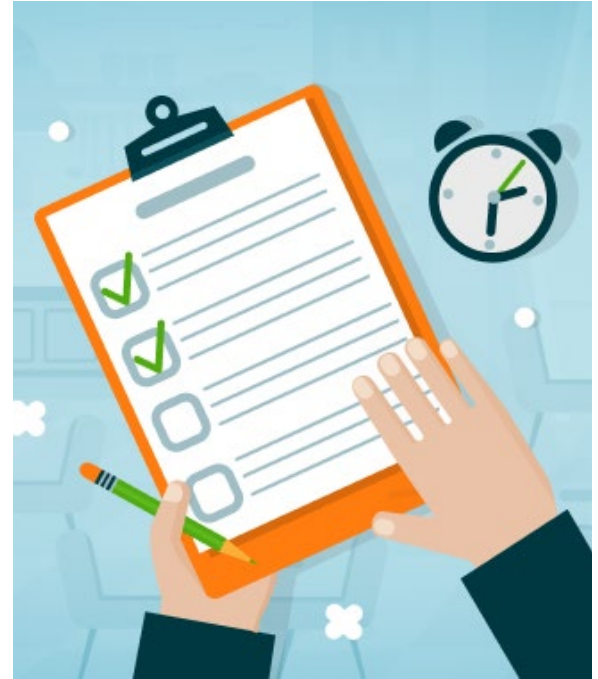


2025 Countywide Water Production January through March



The Planning Process

- Consultant-guided process
- 17-member task force, including representatives from each RWSA partner
- Consensus survey of more than 60 municipal officials



Historical Drought Performance

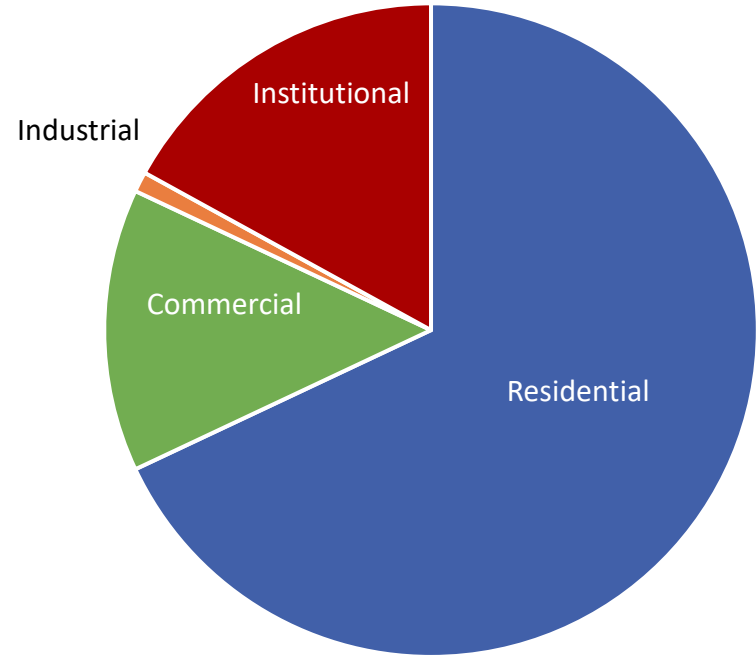
YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	DROUGHT DECLARATION
1993	0	0	0	0	0	0	0	0	0	0	0	1	NO
1994	2	1	1	1	1	1	1	1	1	1	1	2	YES
1995	0	0	0	0	0	0	0	0	0	0	0	0	NO
1996	1	1	1	2	2	3	2	3	0	0	0	0	YES
1997	0	1	1	0	1	0	0	0	0	0	0	0	NO
1998	0	0	0	0	0	0	0	0	0	0	0	0	NO
1999	0	0	0	0	0	0	0	0	0	1	1	1	YES
2000	1	0	0	0	0	1	1	1	1	0	0	1	YES
2001	0	0	0	0	0	0	0	0	1	1	0	0	NO
2002	1	1	2	2	2	2	2	2	1	1	1	1	YES
2003	1	1	1	1	2	2	2	2	2	2	1	1	YES
2004	2	2	2	2	2	2	2	1	1	0	0	1	YES
2005	0	0	0	0	1	0	1	0	0	0	0	0	NO
2006	0	0	0	0	0	0	0	0	0	0	0	0	NO
2007	1	2	2	2	2	2	2	1	1	1	2	0	YES
2008	1	1	1	1	1	1	1	1	1	1	1	0	YES
2009	0	0	0	0	0	0	0	0	1	0	1	0	NO
2010	0	0	0	0	0	0	0	0	0	0	0	0	NO
2011	0	0	0	0	0	0	0	0	0	0	0	0	NO
2012	0	0	0	0	0	0	0	0	0	0	1	0	NO
2013	1	1	1	1	1	1	0	0	0	0	0	0	YES
2014	1	1	1	1	1	1	1	0	0	1	1	0	YES
2015	0	0	0	1	0	1	0	1	1	0	0	0	NO
2016	0	0	0	0	0	0	0	0	0	0	0	0	NO
2017	0	0	0	0	0	0	1	0	0	0	0	0	NO
2018	0	0	0	1	1	1	1	1	1	0	0	0	YES
2019	0	0	0	0	0	0	0	0	0	0	0	0	NO
2020	0	0	0	0	0	0	0	0	0	0	0	0	NO
2021	1	1	2	1	1	1	1	1	1	0	1	0	YES
2022	1	1	1	1	1	1	1	0	0	0	0	0	YES

- Stage 1 conditions would have occurred in nine years (30%)
- Stage 2 conditions would have occurred in five years (17%)
- Stage 3 and 4 conditions would not have been declared



Plan Principles

- Address shortage conditions
- Cities may opt out but will receive reduced deliveries; shortages need to be shared equitably
- All customer sectors contribute



Use by Sector



Plan Principles



SUSTAIN VITAL
SERVICES



PROTECT JOBS



PRESERVE HIGH-VALUE
LANDSCAPE, SUCH AS
TREES



APPLY INCREMENTAL,
ESCALATING
MEASURES



OPTIMIZE POST
SHORTAGE RESILIENCY



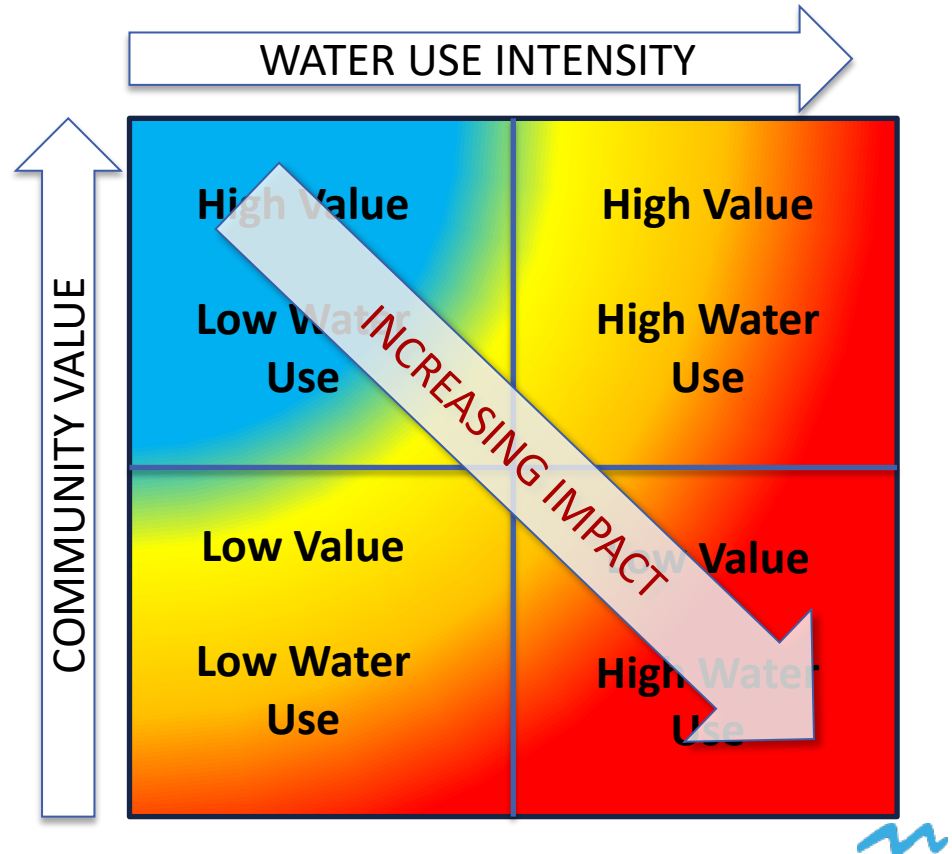
Plan Principles

High value uses with low conservation potential will be most protected

High value uses with high water use contribute through modified operations

Low value uses (including some with low water use) may be prohibited

Low value uses with high water use will be most affected



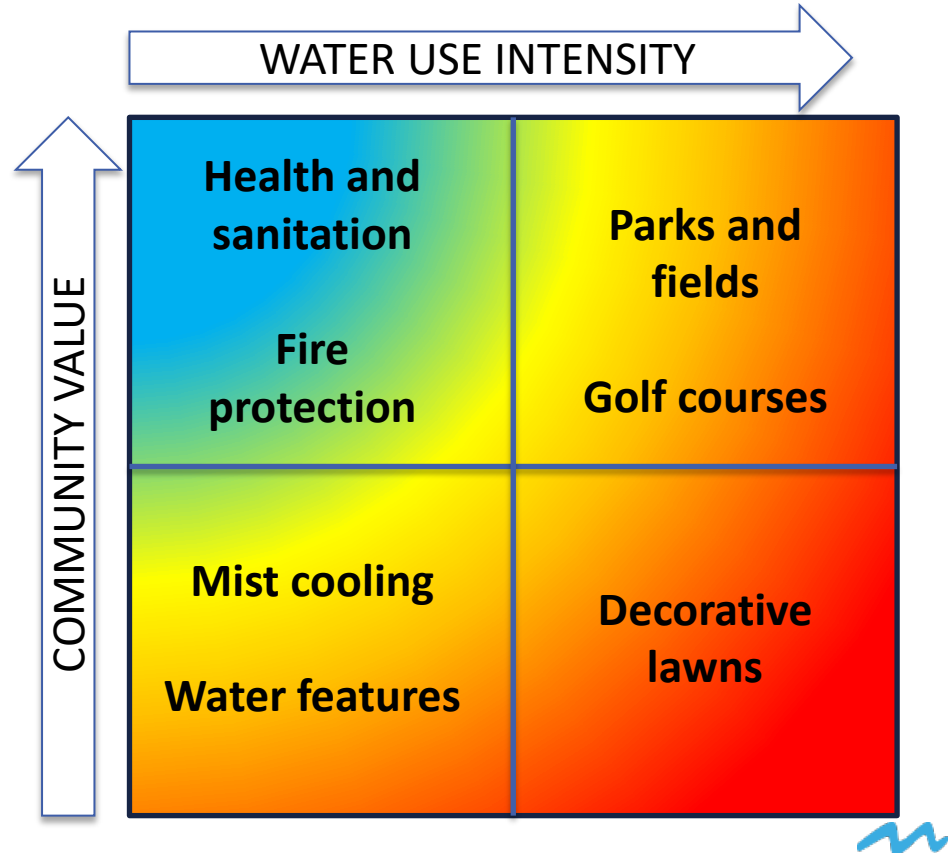
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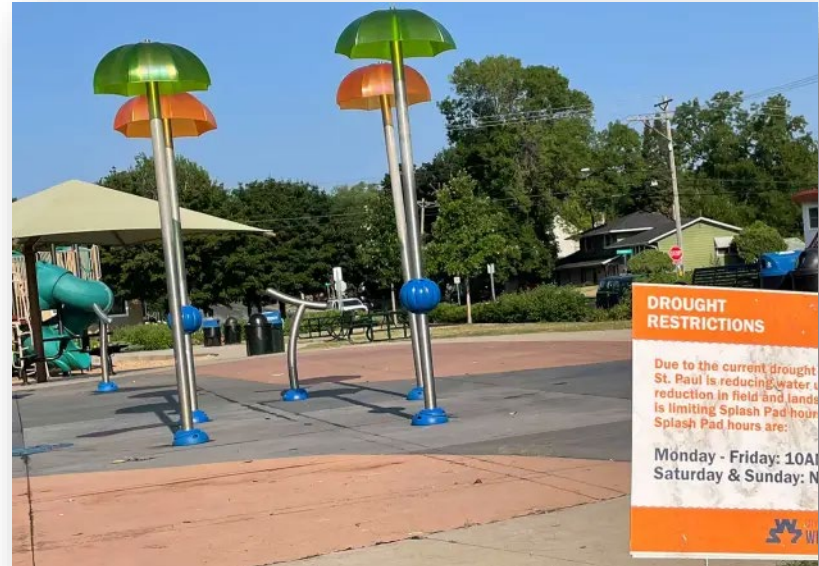
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Incremental Measures

Decrease the amount or frequency of water use without eliminating the function

- Car washing
- Development
- Golf courses
- Water play



Landscapes

Use more than half of the community supply

Lawns are estimated to comprise 75% of all landscape water demand

Type of Landscape	Estimated Annual Water Use	Percent total water supply (2023)
All landscape types	9.4 billion gallons	54 percent
All lawn grass	7.0 billion gallons	40 percent
Functional lawn grass	4.2 billion gallons	24 percent
Ornamental lawn grass	2.8 billion gallons	16 percent
Tree & shrub	2.4 billion gallons	14 percent



Stage 1 Measures – 10% Reduction



LANDSCAPE

Defer lawn planting,
May-August



DEVELOPMENT

Limit SFR pools to 600 SF
Refuse new connections for
non-essential facilities
>9MGY (top 1 percent user)



OTHER

Strengthen enforcement of
existing water use codes
Stage 1 golf water budget
(90%)
Stage 1 rate structure (as
determined by agencies)



Stage 2 Measures – 20% Reduction



LANDSCAPE

Drip irrigated plant installs only

Ornamental lawn irrigation
prohibited

Fountain & mist system
operation prohibited

Water Efficient Landscapes
Program increase



DEVELOPMENT

Community pools only

Lawn planting suspended on
permitted projects,
prohibited for new permits

Defer new connections for non-
essential facilities >3MGY (top
5%)



OTHER

Car washing 1x per week
maximum

Stage 2 golf water budget
(80%)

Stage 2 rate structure (as
determined by agencies)



Stage 3 Measures – 40% Reduction



LANDSCAPE

Outdoor irrigation by hose or drip system 1x per week

Lawn conversion to drip irrigated plants allowed



DEVELOPMENT

Defer all new connections except critical facilities & low water use projects



OTHER

Evaporation barriers required on pools. Make up water only

Splash pads and water park operations suspended

Car washing 1x/month maximum

Stage 3 golf water budget (60%)

Stage 3 rate structure (as determined by agencies)



Stage 4 Measures – 60% Reduction



LANDSCAPE

All outdoor irrigation prohibited



DEVELOPMENT

Continue Stage 3 strategies
All non-essential facilities prohibited



OTHER

Use limited to:

- Human health
- Sanitation
- Fire protection



Not Impacted Stages 1-3



Impacted in Stage 2



Process Steps

AAC recommendation to WCWCD Board



Adoption of plan by WCWCD Board



Adoption of regional plan by municipalities



Development of municipal policy and code



Recommendation

Move to recommend adoption of the Water Shortage Contingency Plan by the WCWCD Board

