



## Water **Reliability**

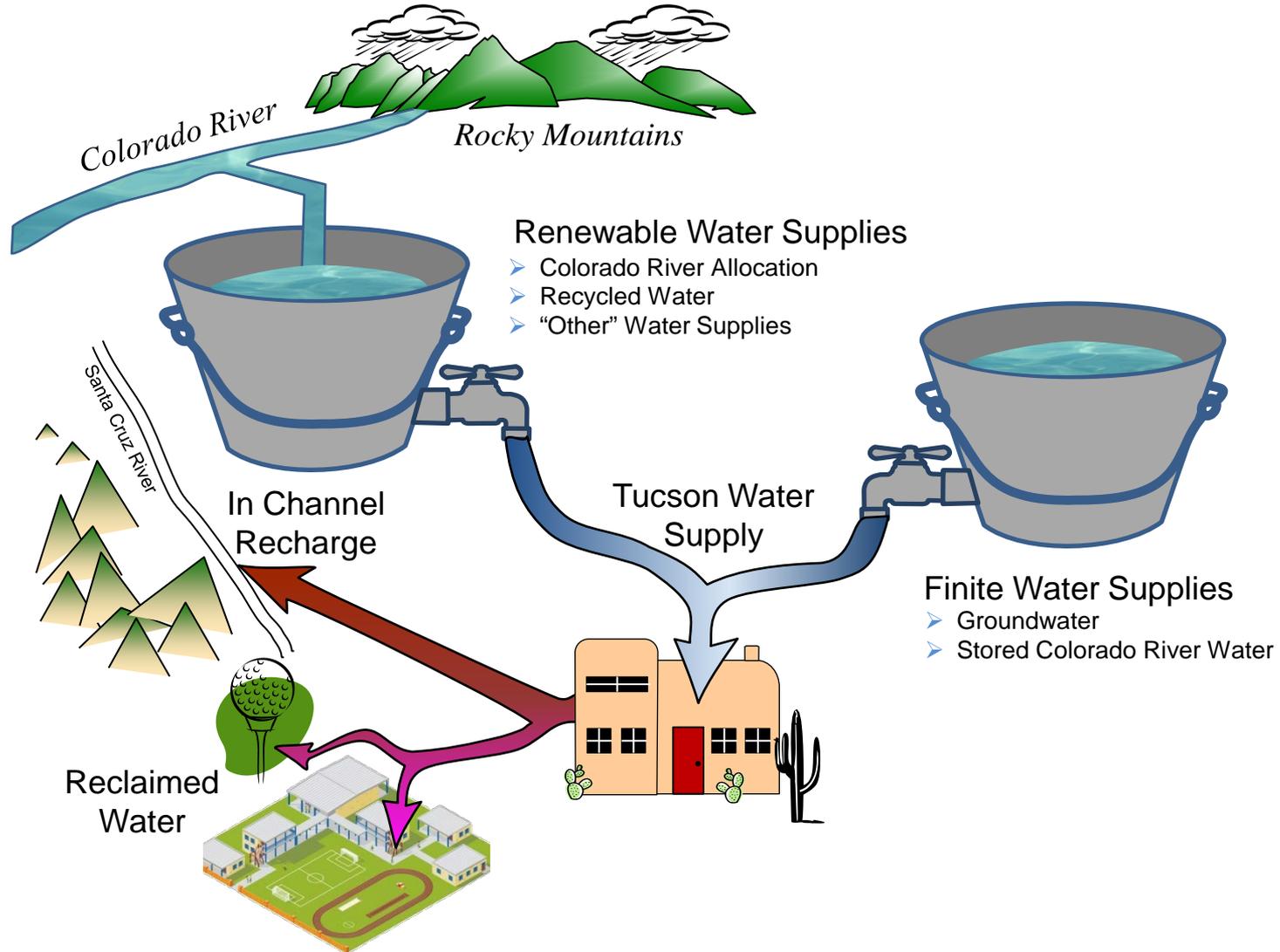
A Series of Investments  
To Ensure Tucson's Water Future

# CWAC Conservation Subcommittee

February 13, 2013

Presented by:  
Wally Wilson, Chief Hydrologist  
Tucson Water

# Available Water Supplies



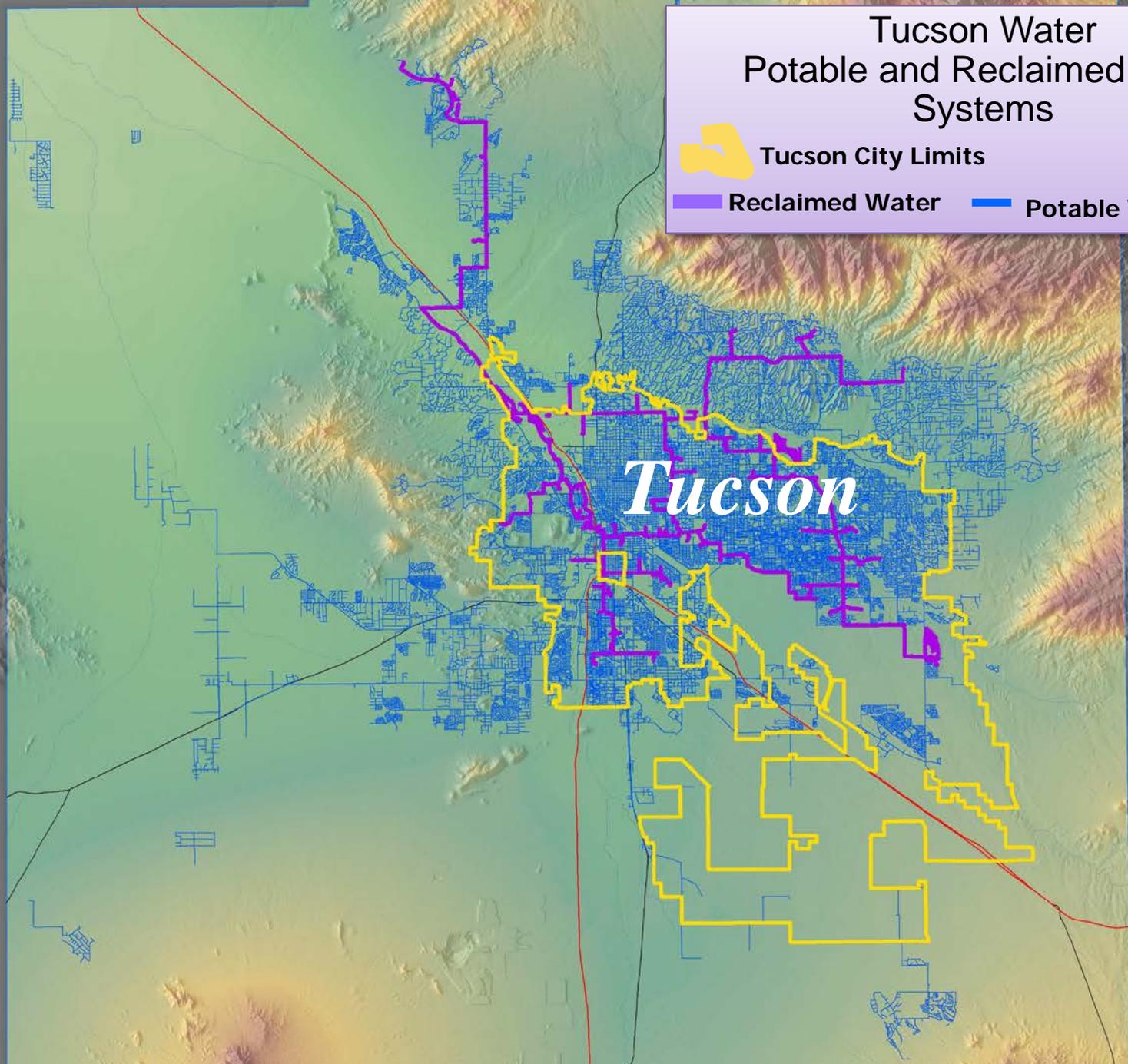
# Tucson Water Potable and Reclaimed Water Systems



Tucson City Limits

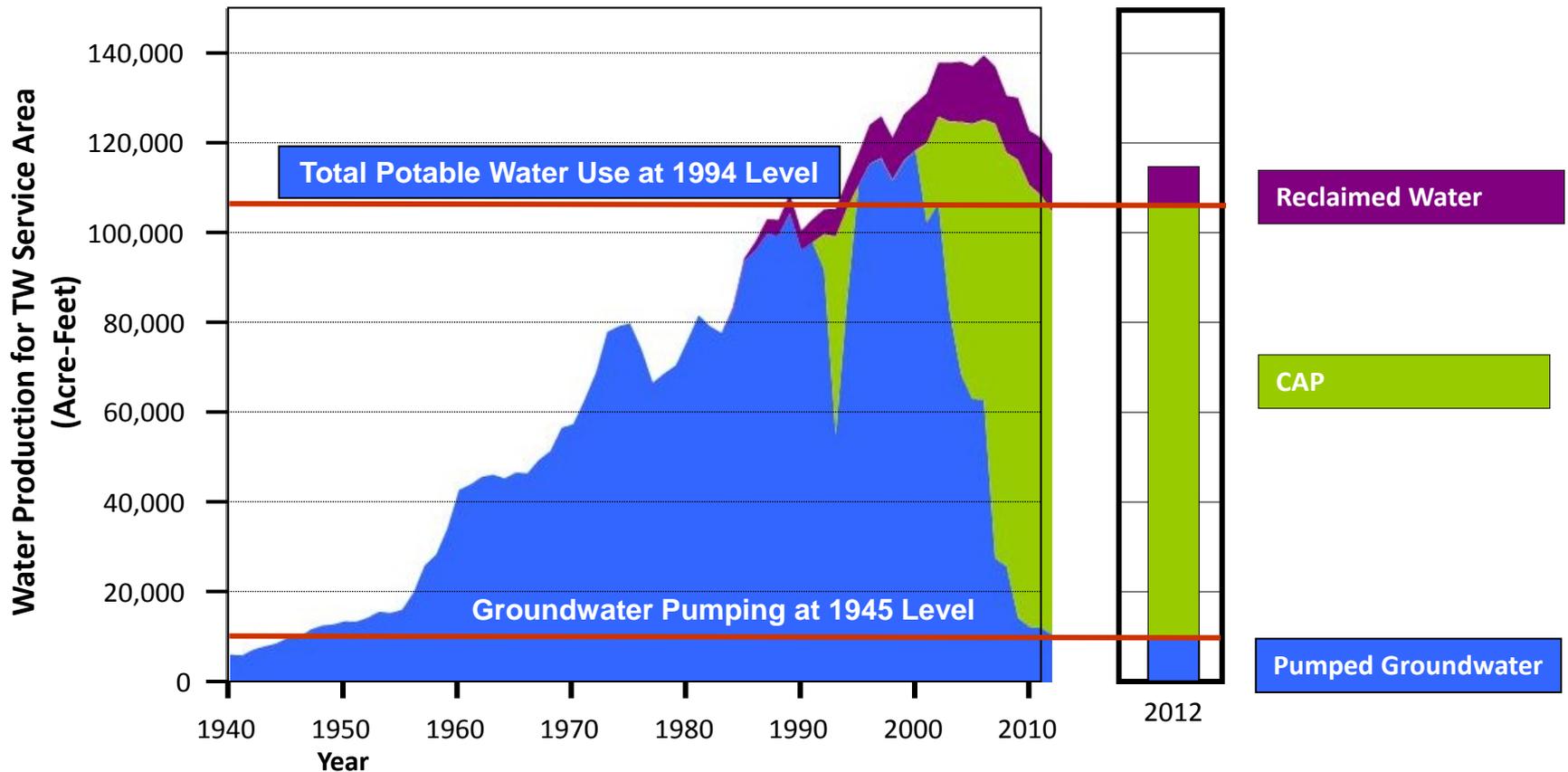
Reclaimed Water

Potable Water Lines



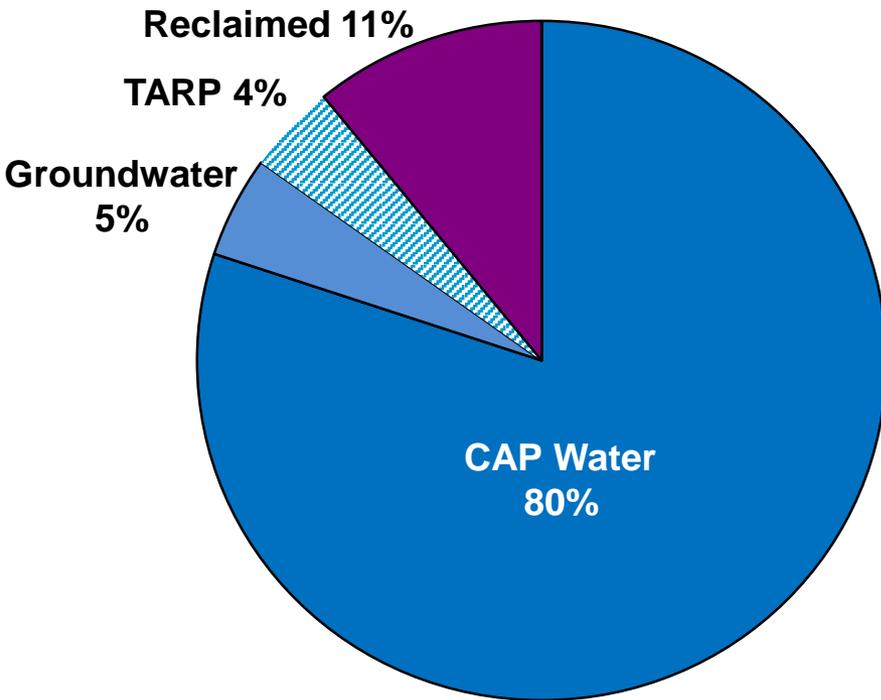
*Tucson*

# Transition to Renewable Supplies



# Water Utilization 2012

**Total Water Production**  
**116,709AF**



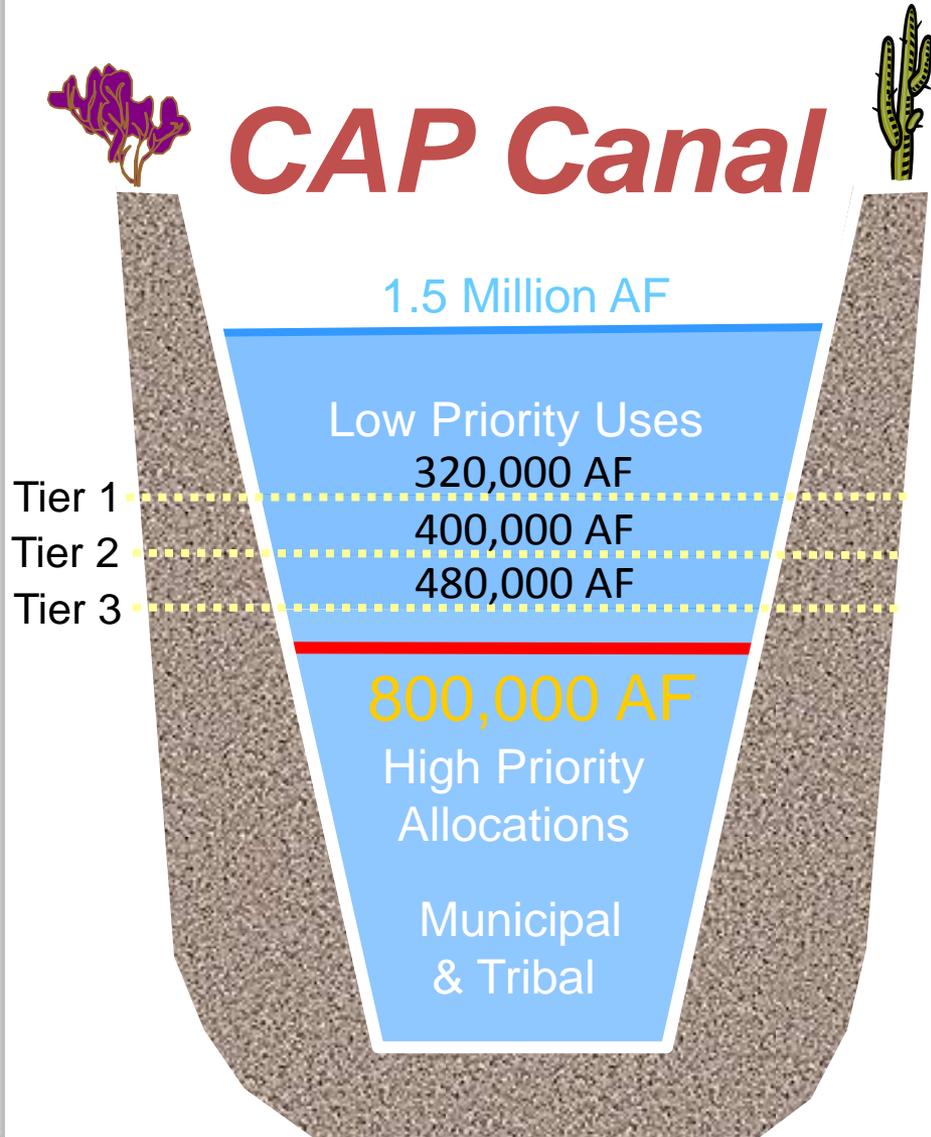
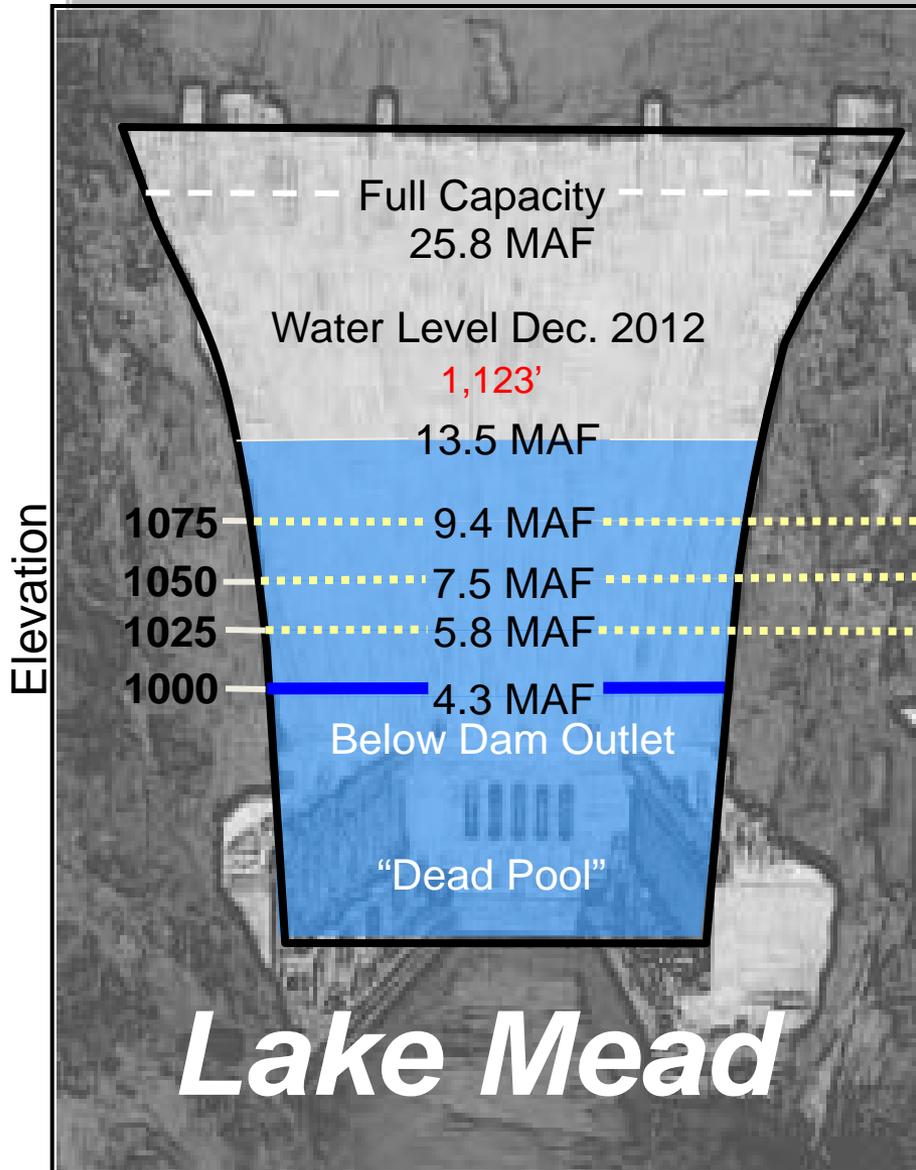
 CAP     Groundwater     TARP     Reclaimed

# Effects of Climate Change



**Scripps Inst. gives 50-50 odds  
Lake Mead will dry up by 2021**

# Seven Basin State Tiered Shortage Sharing Agreement



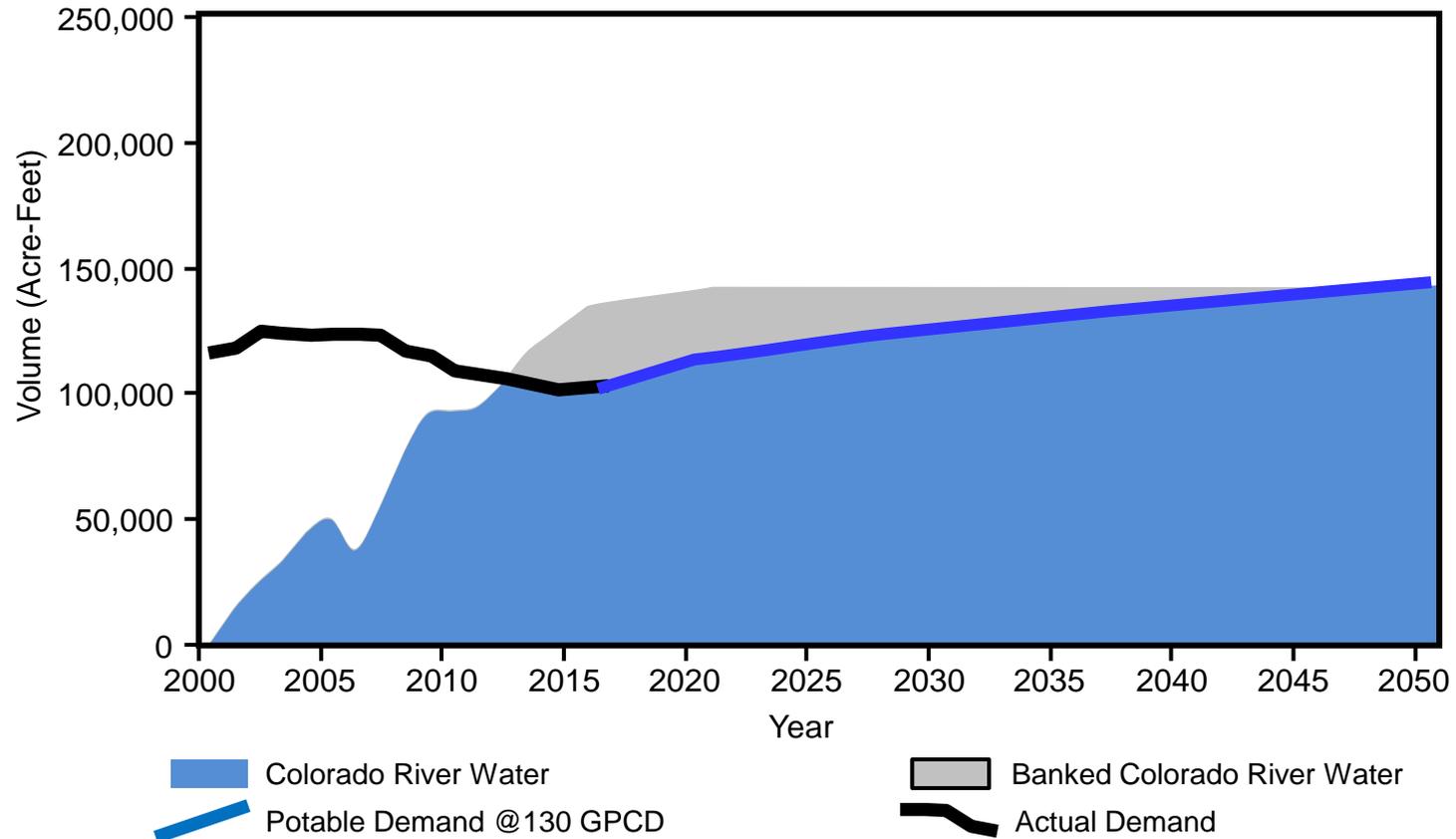
# Colorado River Supply and Demand Report

## USBOR - 2012

	Time Period	Baseline	Portfolio A	Portfolio B	Portfolio C	Portfolio D
Upper Basin Shortage (exceeds 25% of requested)	2012-2026	4%	3%	3%	3%	3%
	2027-2040	5%	3%	3%	3%	3%
	2041-2060	7%	2%	2%	3%	3%
Lake Mead Pool Elevation < 1000 feet (below 1000 feet in any one month)	2012-2026	4%	4%	4%	4%	4%
	2027-2040	13%	7%	7%	8%	8%
	2041-2060	19%	3%	3%	5%	6%
Lower Basin Shortage (exceeds 1 maf over any two year window)	2012-2026	7%	5%	5%	5%	5%
	2027-2040	37%	22%	19%	23%	23%
	2041-2060	51%	10%	10%	13%	14%
Lower Basin Shortage (exceeds 1.5 maf over any five year window)	2012-2026	10%	9%	9%	9%	9%
	2027-2040	43%	35%	30%	36%	36%
	2041-2060	59%	23%	23%	26%	28%
Remaining Demand Above Lower Division States' Basic Apportionment (exceeds moving threshold in any one year)	2012-2026	0%	0%	0%	0%	0%
	2027-2040	40%	2%	1%	1%	2%
	2041-2060	93%	5%	5%	7%	5%
		0% 50% 100%	0% 50% 100%	0% 50% 100%	0% 50% 100%	0% 50% 100%
		Percent Years Vulnerable				

4% Probability of Lake Mead  
Below 1000' Elevation Before 2026  
13% Before 2040  
19% After 2041

# Potable Water Use Projection to 2050



The population data was provided to TW by United States Census Bureau

# Colorado River Supply and Demand Report USBOR - 2012

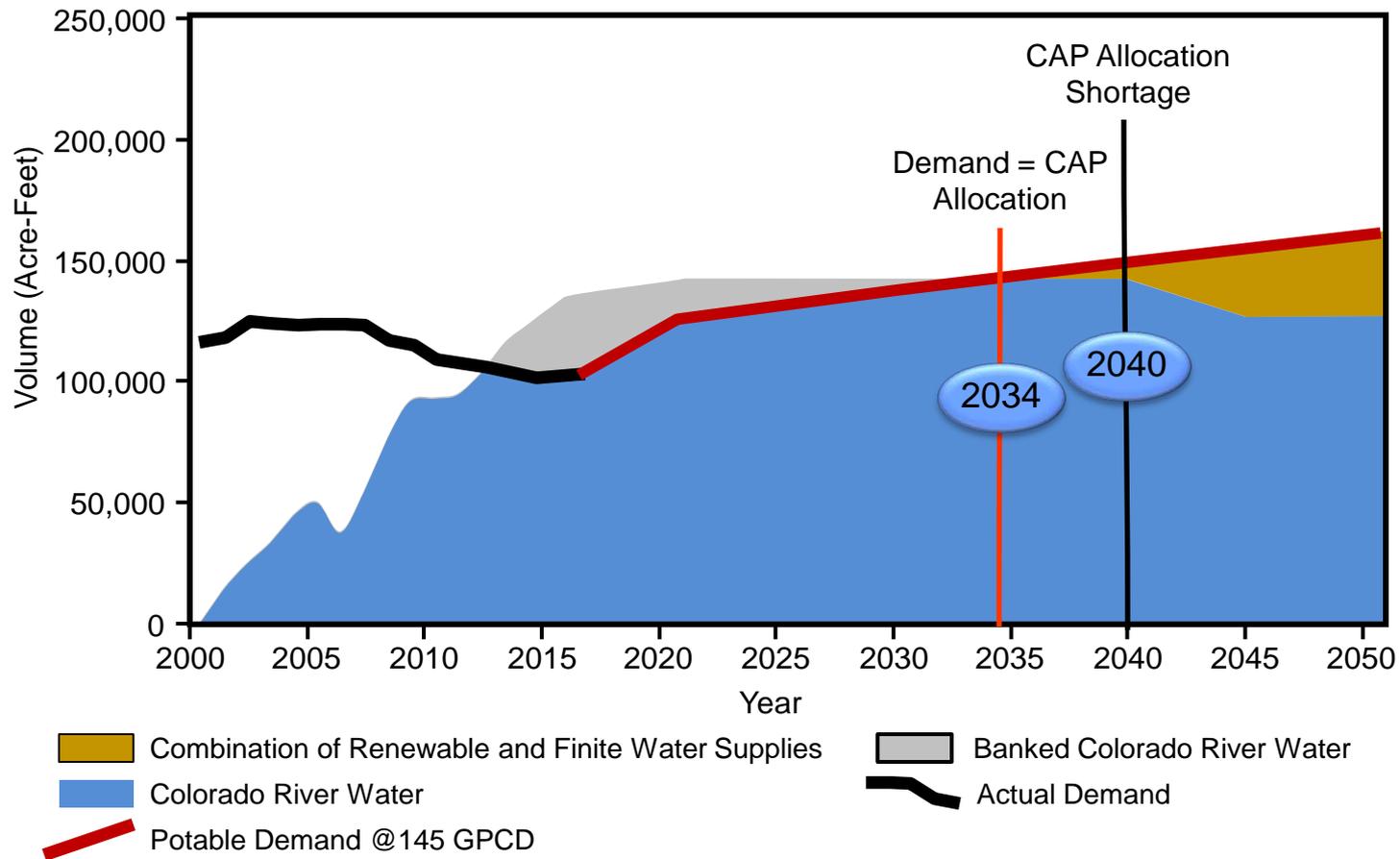
**51% Probability of Shortage >1 Maf in any two years after 2040**

**59% Probability of Shortage >1.5 Maf in any 5 years after 2040**

	Time Period	Baseline	Portfolio A	Portfolio B	Portfolio C	Portfolio D
	2012-2026	4%	3%	3%	3%	3%
	2027-2040	5%	3%	3%	3%	3%
	2041-2060	7%	2%	2%	3%	3%
	2012-2026	0%	0%	0%	0%	0%
	2027-2040	3%	1%	2%	1%	2%
	2041-2060	6%	1%	2%	1%	3%
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	2027-2040	40%	2%	1%	1%	2%
	2041-2060	93%	5%	5%	7%	5%
		0% 50% 100%	0% 50% 100%	0% 50% 100%	0% 50% 100%	0% 50% 100%
		Percent Years Vulnerable				



# Potable Water Use Projection to 2050 with Shortage



The population data was provided to TW by United States Census Bureau



Water **Reliability**

# QUESTIONS?

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