



# Oro Valley Water Utility Water Resource Planning

Presented to the Oro Valley Community Academy

Presented by:

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**Town of Oro Valley**



# Presentation Outline

- ▶ 1- Acre/Ft. – 325,851 gallons (1 Acre/Ft. can serve about 3 SFR's for 1 year)
- ▶ Water Utility Mission & Commission
- ▶ Water Utility Yesterday & Today
- ▶ Water Utility Service Area, Assets & Organization
- ▶ Water Resource Utilization by Year
- ▶ Water Resource Conservation
- ▶ Water Shortage Preparedness
- ▶ Colorado River System
- ▶ Lower Basin Drought Contingency Plan
- ▶ OVWU Water Resource Utilization Model (For 2022)
- ▶ OVWU Water Resource Utilization (Past/Present/Future)
- ▶ Water Utility Looking Forward



# Oro Valley Water Utility – The Mission & Commission

## **Mission**

*To maintain and acquire sufficient water resources to ensure the community has an adequate, safe and reliable water supply to sustain the Town's quality of life and support residential and economic development.*

## **Commission**

- ▶ Composed of seven members that serve terms of 3-years.
- ▶ Commissioners are selected to give a balanced representation of residential and commercial/turf interests served by the Utility.
- ▶ Makes recommendations on OVWU items that require Council action. Examples: Water code changes, Water rate changes, etc.
- ▶ Commission meets the second Monday of each month at 5 pm.



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# Oro Valley Water Utility - “Yesterday” & “Today”

## OVWU Yesterday...

- ▶ 1996 - Town purchased 2 water companies
  - ▶ Canada Hills Water Company & Rancho Vistoso Water Company
  - ▶ 9,800 connections serving 26,000 residents
  - ▶ Solely dependent on groundwater as the only source of supply

## OVWU Today...

- ▶ Successfully operated Enterprise fund of the Town for over 27 yrs.
- ▶ Has over 21,000 service connections serving over 47,000 residents
- ▶ Diverse water resource portfolio
  - ▶ Groundwater
  - ▶ CAP water - 2012
  - ▶ Reclaimed water -2005





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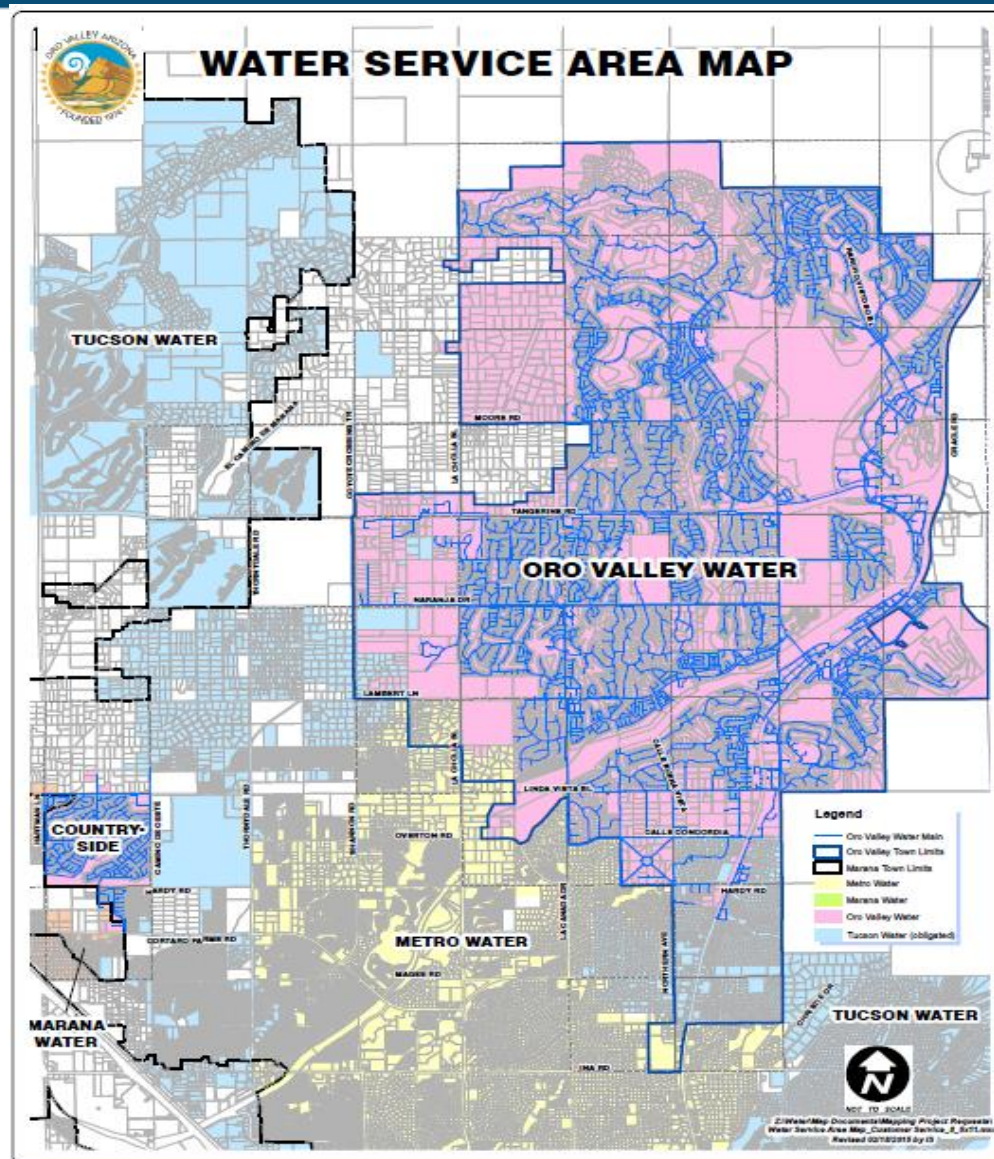
# Oro Valley Water Utility – Service Area & Assets

## The Oro Valley Water Utility has ...

- ▶ 2 service areas
- ▶ A service area of 33 Sq. miles
- ▶ 18 production wells
- ▶ 26 booster stations
- ▶ 12 reservoirs
- ▶ 385 miles of distribution mains
- ▶ 4 recovered CAP interconnects
- ▶ 2 water systems
  - ▶ Potable & Reclaimed

## The Oro Valley Water Utility is...

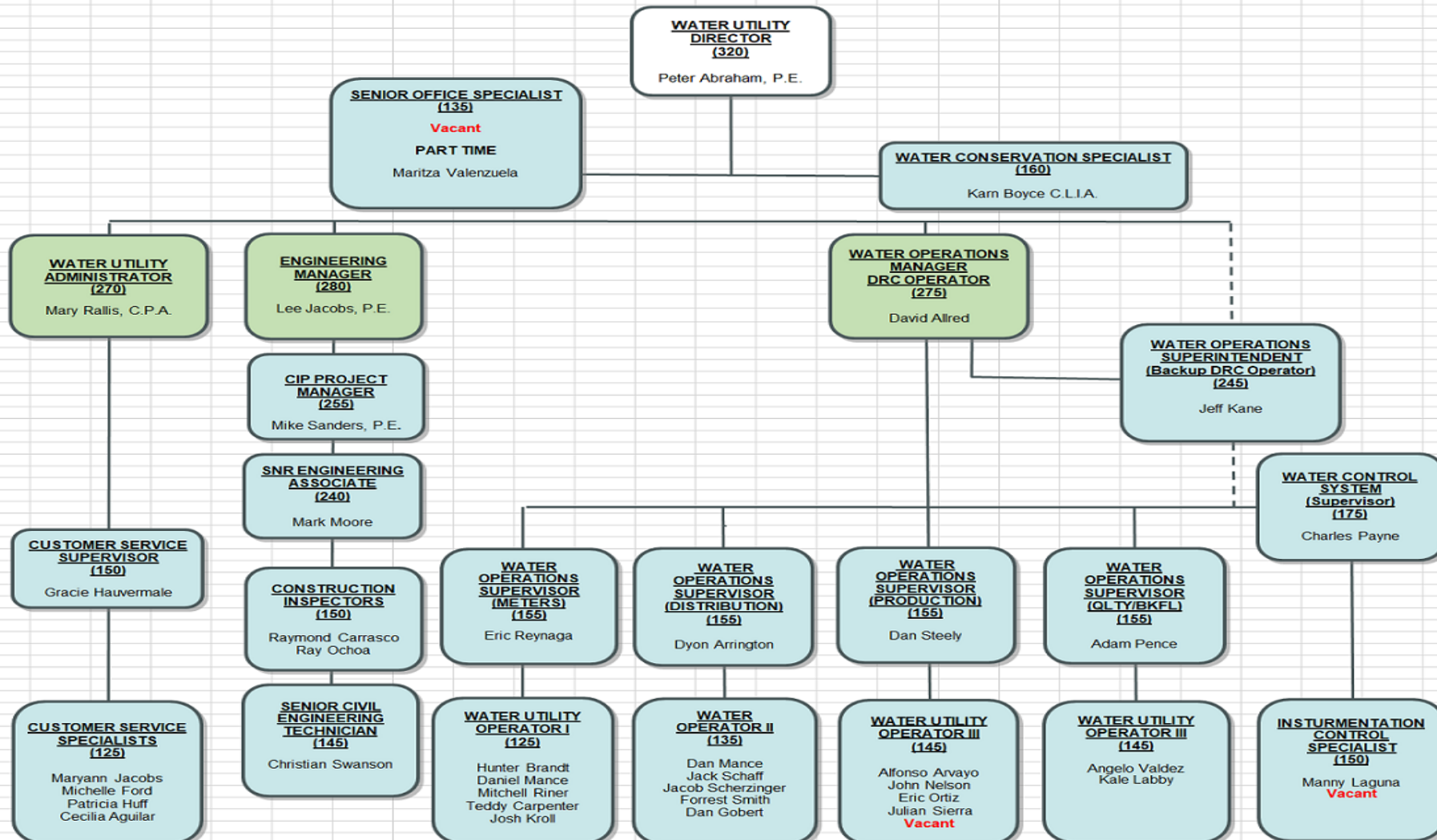
- ▶ 2<sup>nd</sup> largest Municipal Water Service provider in Southern AZ
- ▶ Operated and maintained by a staff of 40 water professionals





# Oro Valley Water Utility – The Organization

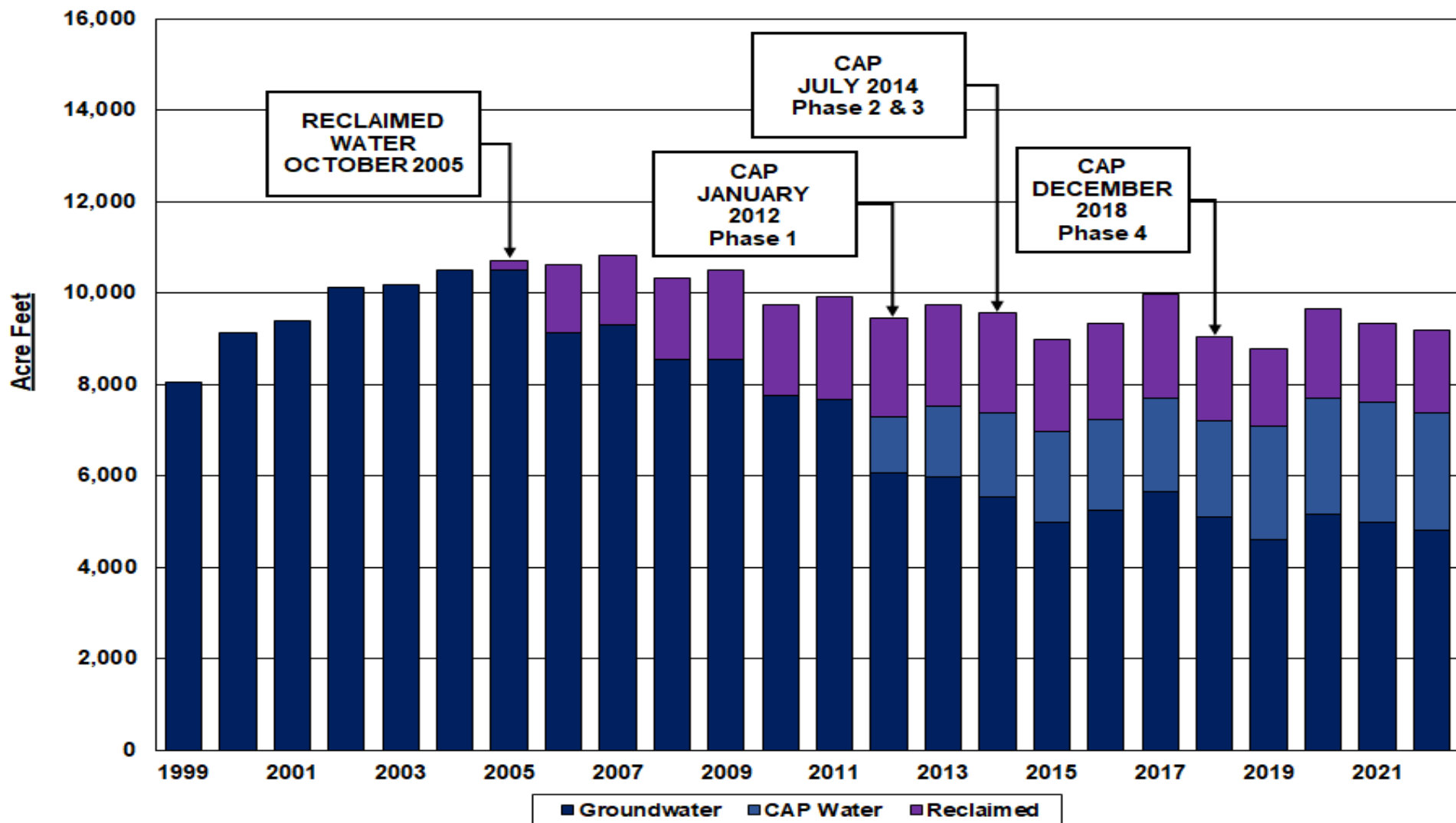
## ORO VALLEY WATER UTILITY 2023 Organizational Chart





# OVWU Water Resources Utilization by Year

**Water Resources use by type - Annual Comparisons**





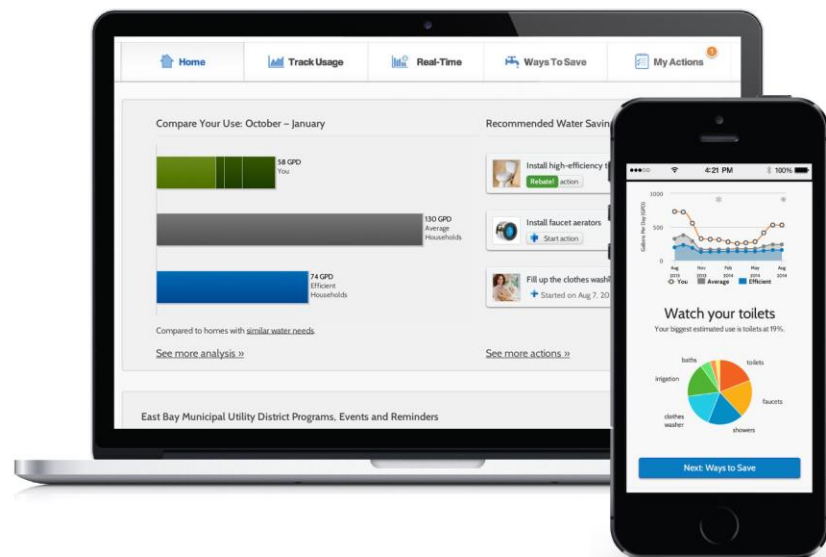
# Water Resource Conservation



- ▶ Conservation tools
  - ▶ 1-full time water conservation specialist (outreach, education, water audits)
  - ▶ AMI metering system
  - ▶ Tiered commodity rate structure – “Conservation Pricing”
  - ▶ Utility partnership with “WaterSmart”

## ▶ “WaterSmart”

- ▶ Customer self-service web portal
- ▶ Track your daily water use
- ▶ Compare your household water use to similar utility customers.
- ▶ Set personal water alarms
- ▶ Receive notifications when consumption exceeds user alarm thresholds







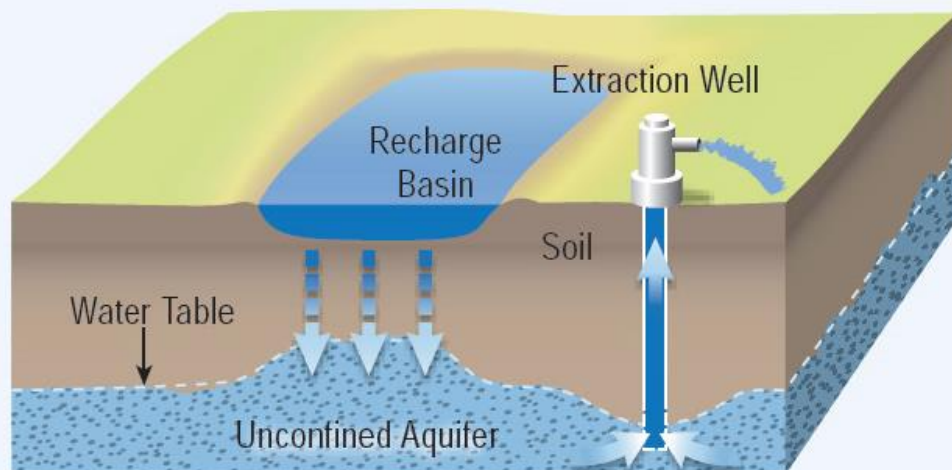
## Water Shortage Preparedness – Recharge, Recovery & Storage



- ▶ CAP Recharge and recovery
  - ▶ CAP water delivered to nearby recharge basins
  - ▶ CAP water percolates through soil & recharges groundwater
  - ▶ Recovery wells pump recharged groundwater to service areas
  - ▶ Recharged groundwater not pumped accumulates in the form of LTSC

### ▶ Storage

- ▶ For over a decade the OVWU has recharged groundwater in nearby aquifer storage facilities
- ▶ OVWU has always recovered less water than stored annually
- ▶ OVWU has accrued years of LTSC





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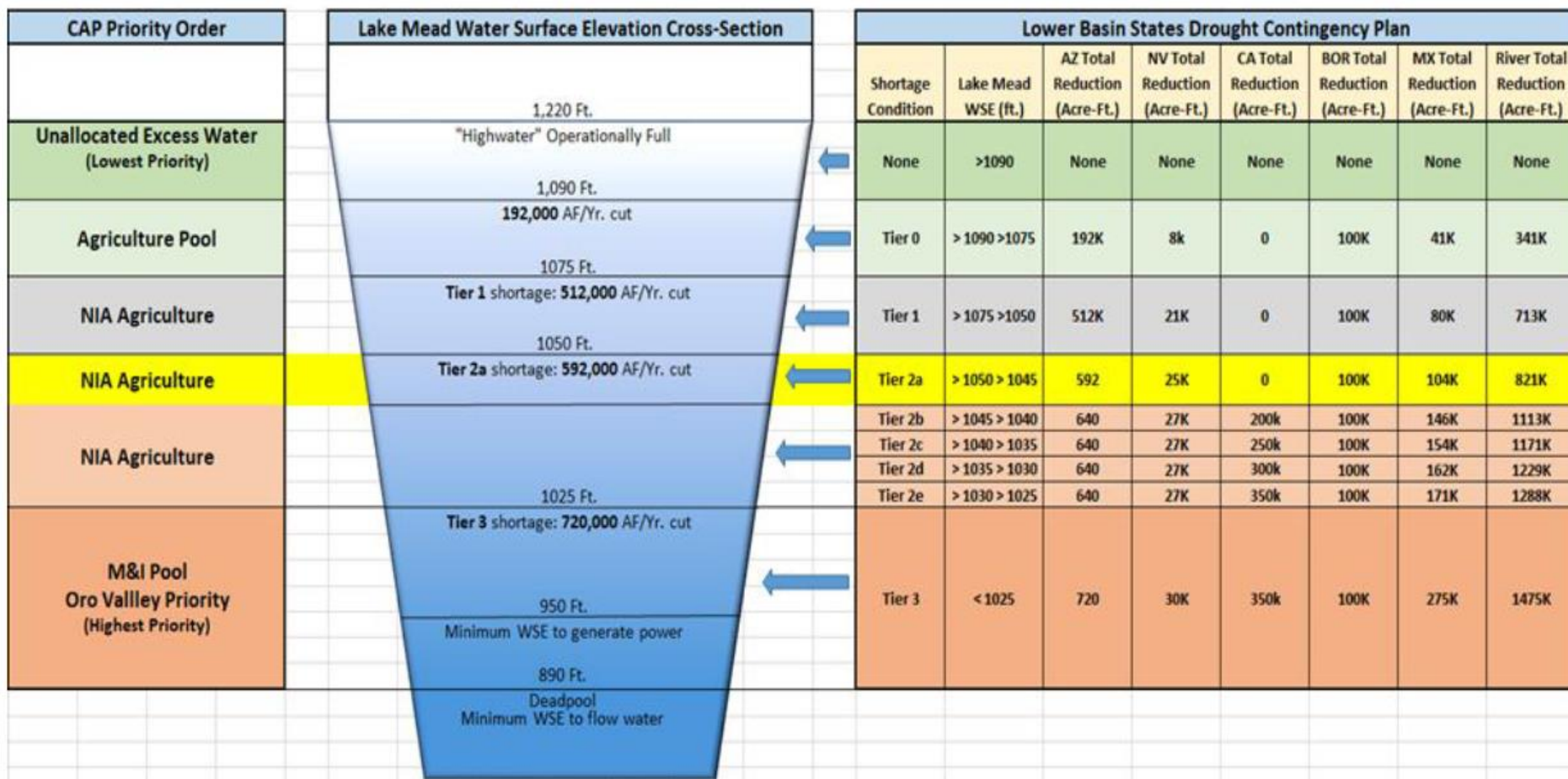
# Colorado River System

- ▶ Colorado River system is 1,450 miles long, Rocky Mountains to Gulf of California
- ▶ Provides water to seven US states & Mexico
- ▶ **Upper Basin States:** Colorado, New Mexico, Utah and Wyoming
- ▶ **Lower Basin States:** Arizona, California and Nevada
- ▶ 7.5 MAF/year for each
- ▶ Lower Basin Colorado River Allocations
  - ▶ California: 4.4 MAF/Yr.
  - ▶ Arizona: 2.8 MAF/Yr. (1.6 MAF/Yr. CAP)
  - ▶ Nevada: 0.3 MAF/Yr.
- ▶ Supplies water for 40 million people
- ▶ Annual delivery volumes to lower basin States determined by water surface elevations of Lake Mead
- ▶ In the midst of a 24-year drought





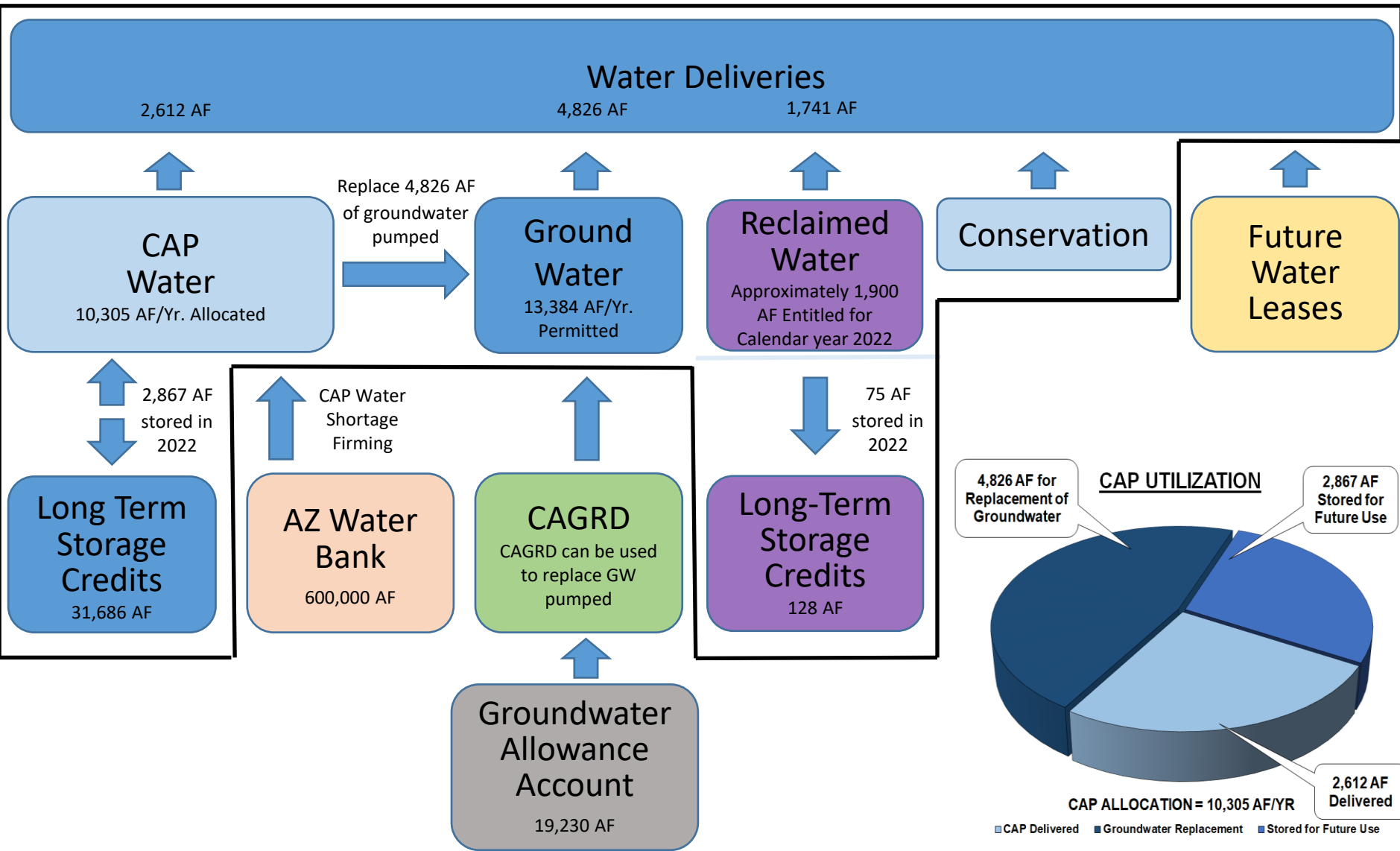
# Lower Basin Drought Contingency Plan



- ▶ CAP priority system that governs CAP water deliveries in times of shortage
- ▶ OVWU CAP water allocation is part of the M&I Pool



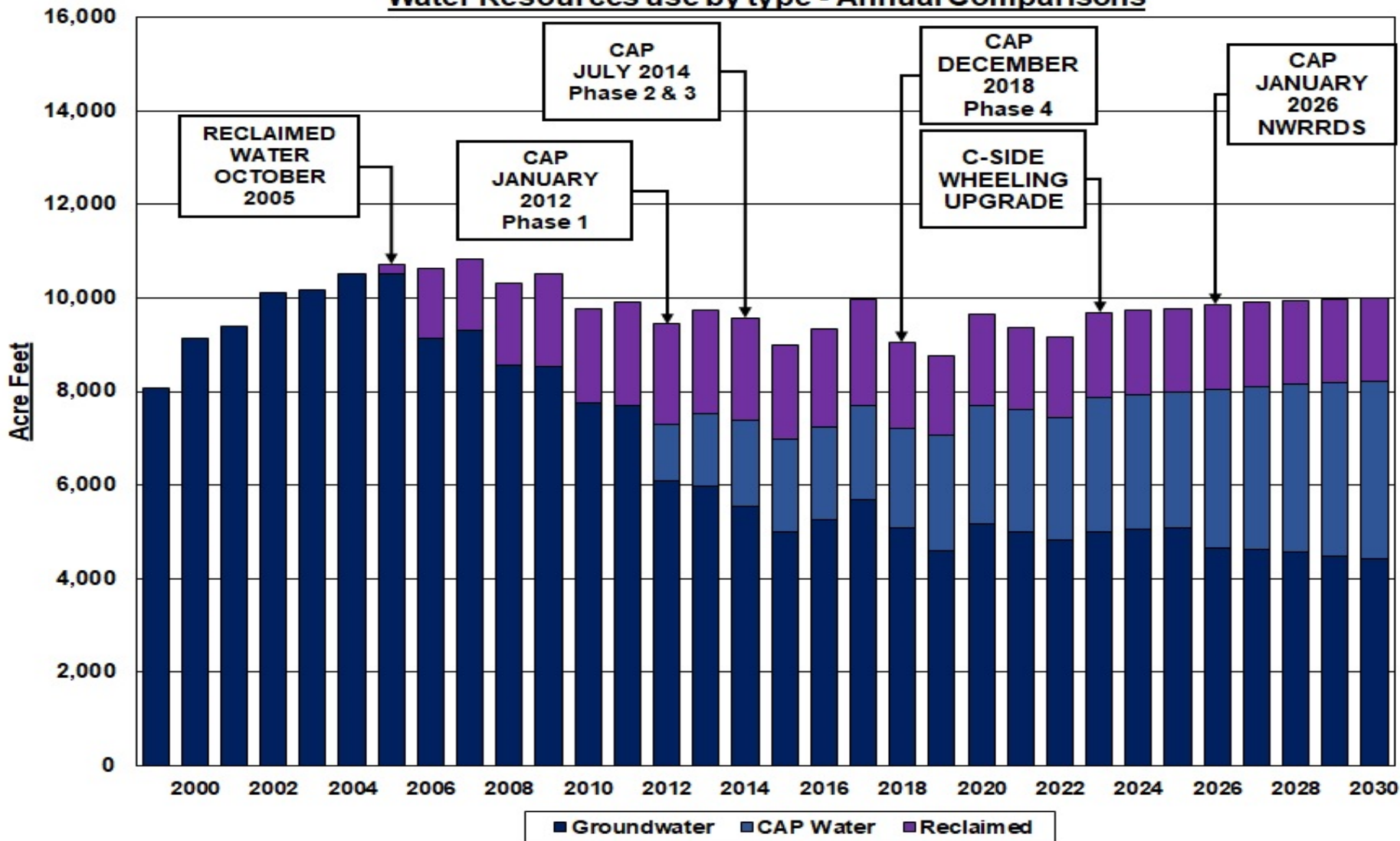
# OVWU Water Resource Utilization Model (2022 Data)





# OVWU Water Resources Utilization (Past/Present/Future)

## Water Resources use by type - Annual Comparisons





# OVWU Water Resource Utilization (Past/Present/Future)

Town of Oro Valley

YEAR	ACTUAL GROUNDWATER PRODUCTION (Acre-Ft)	PROJECTED GROUNDWATER PRODUCTION (Acre-Ft)	ACTUAL CAP PRODUCTION (Acre-Ft)	PROJECTED CAP PRODUCTION (Acre-Ft)	ACTUAL POTABLE DEMAND (Acre-Ft)	PROJECTED TOTAL POTABLE DEMAND (Acre-Ft)	ACTUAL RECLAIMED PRODUCTION (Acre-Ft)	PROJECTED RECLAIMED PRODUCTION (Acre-Ft)	ACTUAL TOTAL PRODUCTION (Acre-Ft)	PROJECTED TOTAL PRODUCTION (Acre-Ft)	ACTUAL CONNECTIONS	PROJECTED CONNECTIONS	ACTUAL BUILDOUT CONNECTIONS	PROJECTED BUILDOUT CONNECTIONS
1997	6601		-		6601		-		6601					
1998	6312		-		6312		-		6312					
1999	8059		-		8059		-		8059					
2000	9125		-		9125		-		9125					
2001	9462		-		9462		-		9462					
2002	10125		-		10125		-		10125					
2003	10284		-		10284		0		10284					
2004	10501		-		10501		0		10501					
2005	10519		-		10519		184		10703					
2006	9146		-		9146		1,497		10643					
2007	9291		-		9291		1,537		10828					
2008	8625		-		8625		1,764		10389					
2009	8595		-		8595		1,969		10564					
2010	7680		-		7680		1,957		9637					
2011	7671		-		7671		2,227		9898					
2012	6161		1337		7498		2,115		9613					
2013	6024		1594		7618		2,324		9942					
2014	5612		1858		7470		2,298		9768				4,131	4,131
2015	5000		2074		7074		2,111		9185		155	268	3,976	3,863
2016	5241		2000		7241		2,194		9435		232	250	3,744	3,613
2017	5573	5,321	2094	2,000	7666	7,321	2,321	2,300	9987	9,621	340	250	3,404	3,363
2018	5213	5,320	2098	2,100	7310	7,420	1,932	2,300	9243	9,720	331	309	3,073	3,054
2019	4596	4,936	2579	2,580	7175	7,516	1,740	2,300	8,915	9,816	264	301	2,809	2,753
2020	5176	5,084	2616	2,580	7792	7,664	2,033	2,300	9,825	9,964	273	461	2,536	2,292
2021	4997	5,201	2606	2,580	7603	7,781	1,751	2,300	9,354	10,081	505	367	2,031	1,925
2022	4826	5,295	2612	2,580	7438	7,875	1,741	2,300	9,179	10,175	148	293	1,883	1,632
2023		5,332		2,580		7,912		2,300		10,212		116		1,516
2024		5,050		2,900		7,950		2,300		10,250		119		1,397
2025		5,094		2,900		7,994		2,300		10,294		138		1,259
2026		4,657		3,400		8,057		2,300		10,357		197		1,062
2027		4,625		3,500		8,125		2,300		10,425		210		852
2028		4,567		3,600		8,167		2,300		10,467		133		719
2029		4,494		3,700		8,194		2,300		10,494		84		635
2030		4,426		3,800		8,226		2,300		10,526		100		535

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# Water Utility Looking Forward

- ▶ With the support of the Community and Town Leadership the Water Utility will...
  - ▶ Continue it's 27-year tradition of successfully managing, growing and firming its water resource portfolio
  - ▶ Continue to work with water professionals and law-makers to reach consensus on sound water policies, regulations and management strategies
  - ▶ Continue to responsibly implement incremental rate adjustments as necessary to match the pace of increasing water resource costs
  - ▶ Continue to meet the water resource needs of the community





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# QUESTIONS

