



HI-DESERT
WATER
DISTRICT





MI-DESERT

Save. Give.
Reuse. Recycle.

WATER DISTRICT



The background of the image is a wide-angle photograph of a desert landscape. In the foreground, there are several Joshua trees and other desert shrubs. Beyond them, a range of mountains stretches across the horizon under a sky filled with large, billowing clouds.

HDWD Context



About HDWD



WHEN

- Formed in **1962**



WHY

- To provide drinking water to the growing town of **Yucca Valley, CA**



LOCATION

- Service area spans **57 mi.²** in **San Bernardino County**, including the town of Yucca Valley and unincorporated parts of the county



CLIMATE

- Arid, with **<5 inches of rain per year** (mostly in winter)

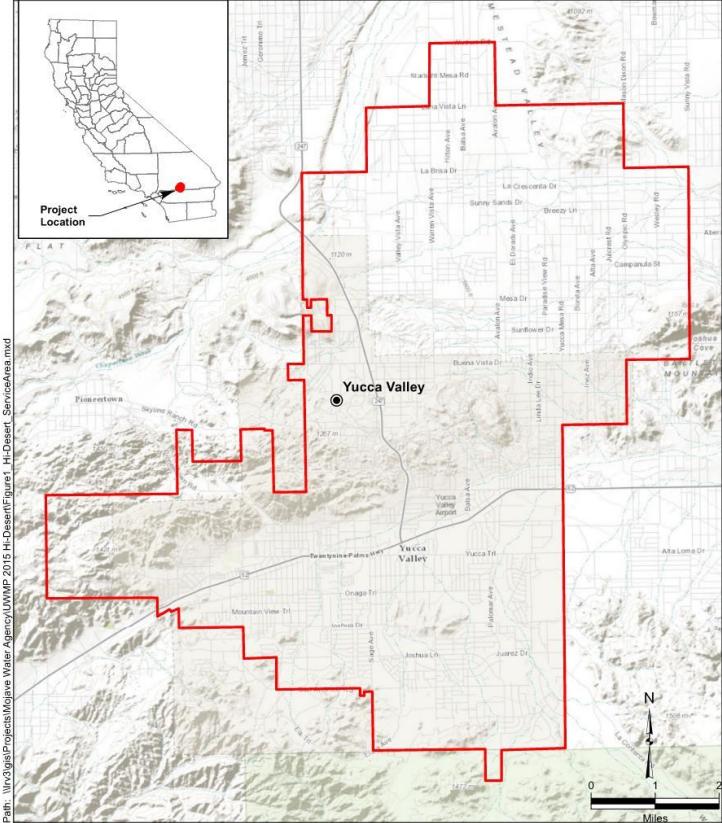
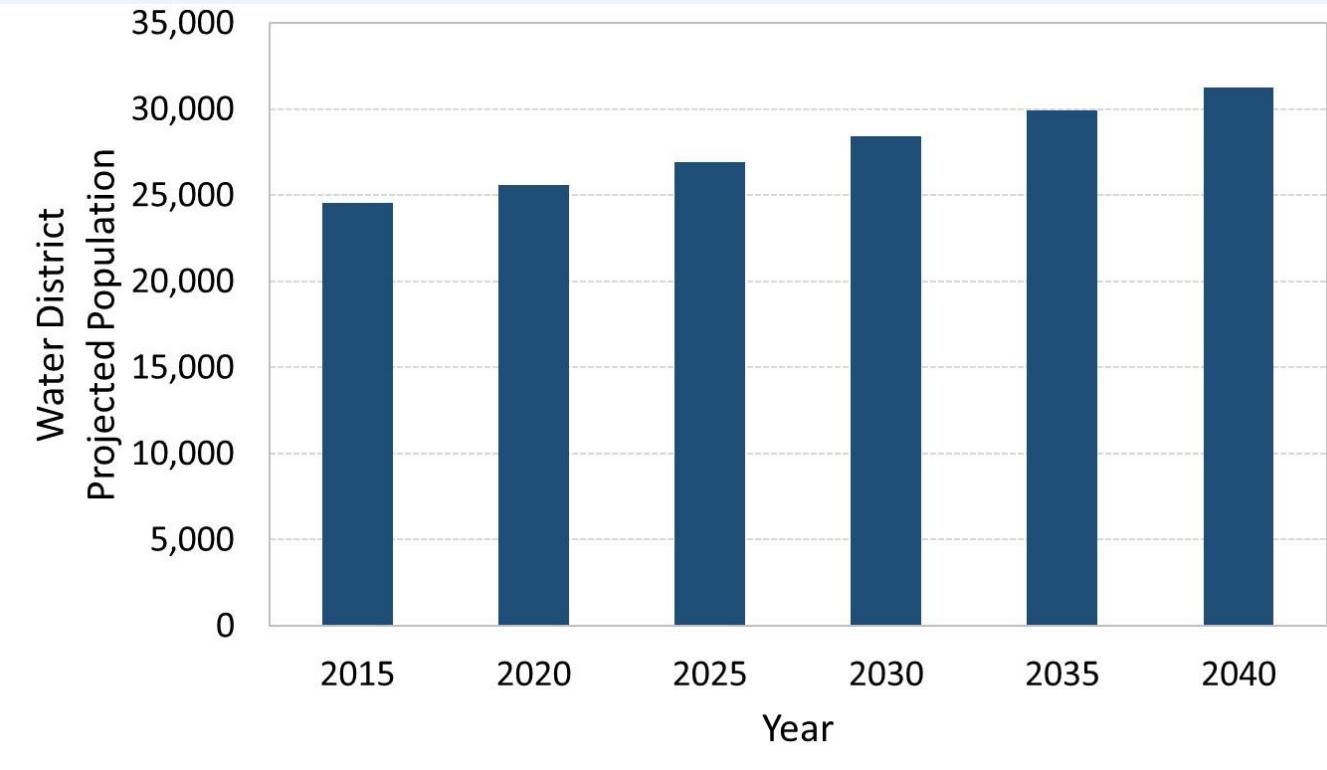


Image source: 2015 UWMP for Hi-Desert Water District

Population Trends

Population projected to be **over 30,000** by 2040



Water Supplies

Relies mainly on **Warren Valley Groundwater Basin, Ames/Means Valley Groundwater Basin, and the State Water Project**

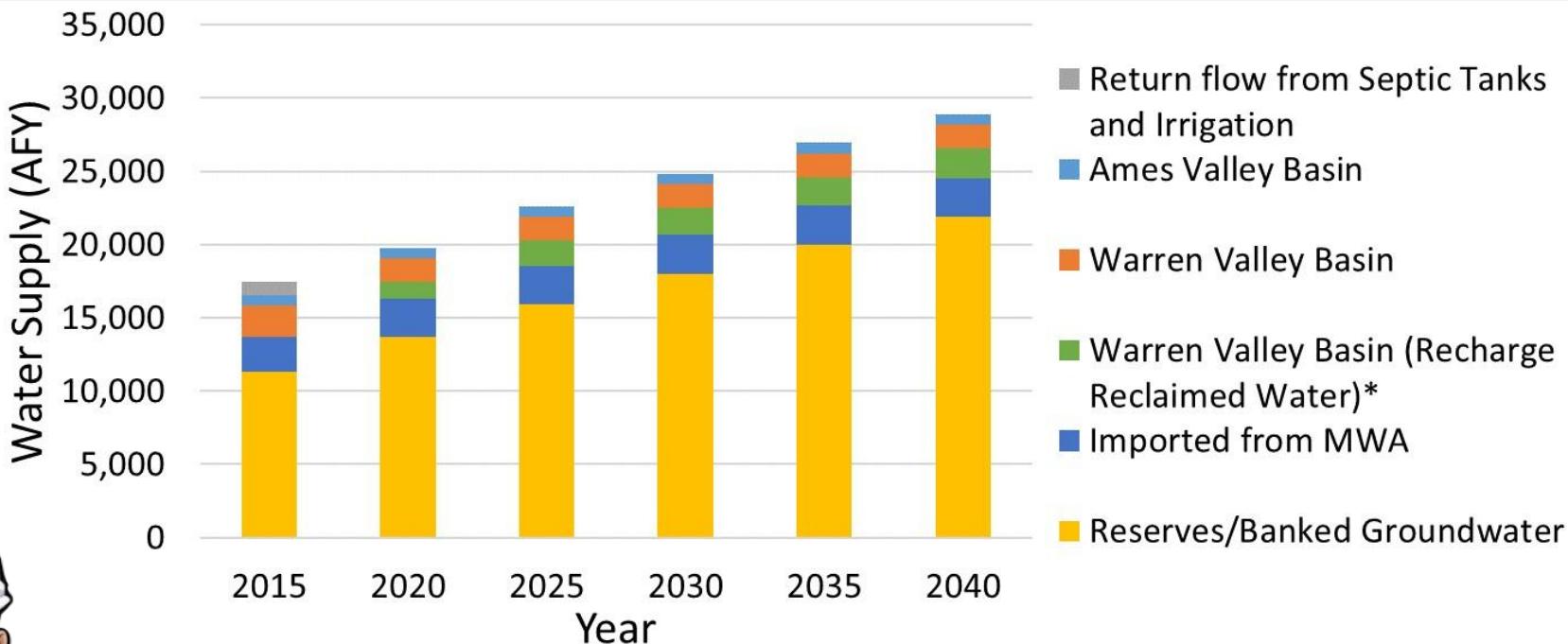


Image source: 2015 UWMP for Hi-Desert Water District

*Planned Supply



Current Challenges

Current Challenges

Groundwater Sustainability

Local basins account for majority of water supplies

Can lead to **excess pumping**

Groundwater pollution from aging septic tanks



Reliance on State Water Project (SWP)

Climate change effects on SWP water

Less rainfall and warmer climates → **reduced allocation from SWP**



Current Challenges

Water Affordability

~20% of Yucca Valley population is below poverty level

Water rates and bills considered **not affordable** for some consumers

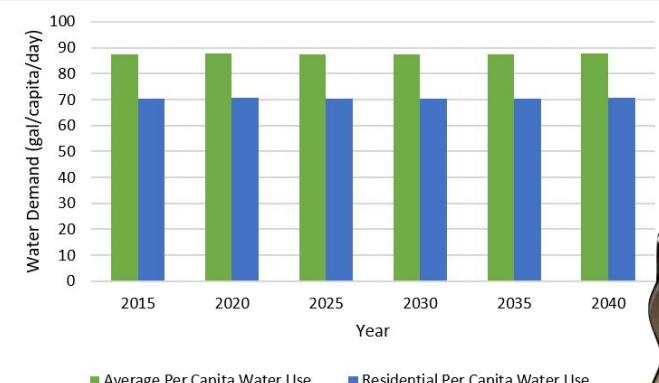
Rate increases ~12.5% for all households by 2024

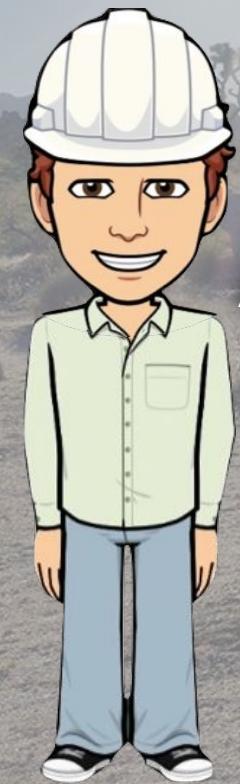
Customer	Season	# Capita	Household Type	Water Use Per (GPCD)	\$/Household/Month	\$/CCF	Ratio of Fixed Costs to Total Bill	Affordable? <1.5% Income?
1	Winter	2	Single	64.0	41.52	8.30	0.50	1.99
	Summer	2	Single	81.0	47.69	7.95	0.44	2.29
2	Winter	4	Multi	45.0	53.86	7.69	0.39	2.59
	Summer	4	Multi	45.0	53.86	7.69	0.39	2.59
3	Winter	4	Multi	70.0	79.39	7.22	0.26	3.81
	Summer	4	Multi	70.0	79.39	7.22	0.26	3.81
4	Winter	8	Single	64.0	142.57	7.13	0.15	6.84
	Summer	8	Single	64.8	142.57	7.13	0.15	6.84

Water Conservation

Water use projections indicate **stagnant demand per-capita**

Will District be able to achieve **future water reduction mandates?**





Addressing Challenges



Centralized Sewage Collection & Treatment

- 💧 New **sewer system** and **wastewater treatment facility**
 - 💧 **Yucca Valley Water Reclamation Plant** to begin operation **by 2021** with an initial treatment capacity of 1 MGD
 - 💧 Treated effluent will better **comply with nitrate goals** established in Regional Basin Plan
 - 💧 Reclaimed water will be **recharged in Warren Valley Basin** to augment groundwater supplies

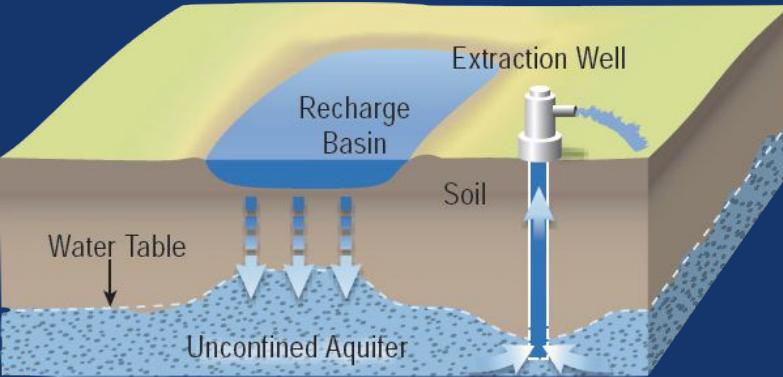


Groundwater Banking Program

Conjunctive groundwater use

- District **purchases excess surface water from State Water Project for storage** in local groundwater basins
- Augments local water supplies during wet years to **protect against future drought**
- As of 2015, **groundwater reserves totaled 11,300 AF**

Managed Recharge: Recharge Basins



Water Conservation Measures

- 💧 Pipeline replacement program
- 💧 Automated meter reading
- 💧 Turf removal rebate program





Innovations





Innovations



Innovations

Budget Based Rate Structure

Benefits

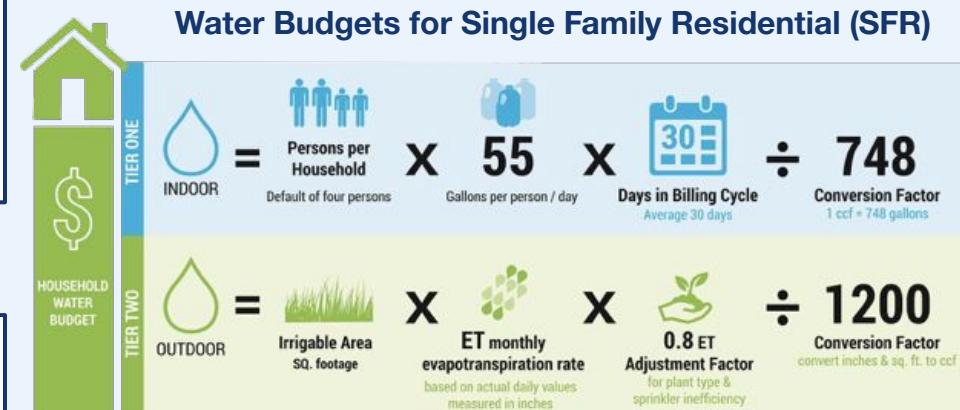
Encourage water conservation

Decrease excess water consumption

Reduce utility operational costs
(energy, chemicals)

Grant Uses

Help cover fixed costs during transition period



Public Conservation Gardens

Community xeriscaping days

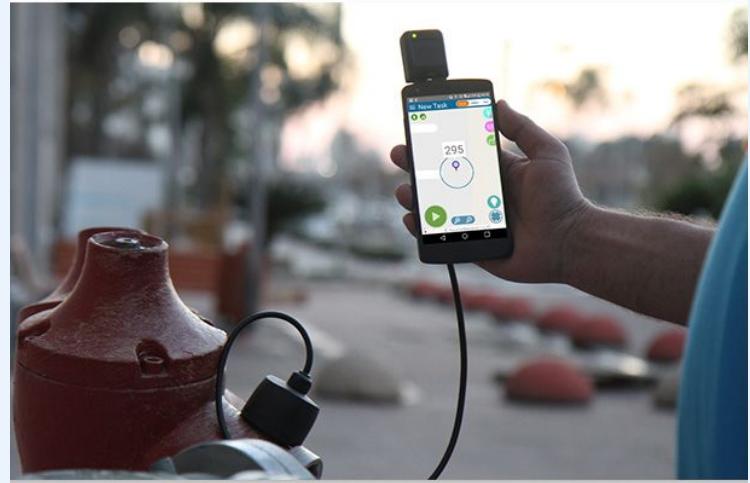
Workshops about conservation practices

Resident involvement



Automated Leak Detection Program

- Better pressure-gauging equipment
- Mobile leak detection system
 - Cloud processing



Desalination with Water Trades

Benefits

Reduce investment risks

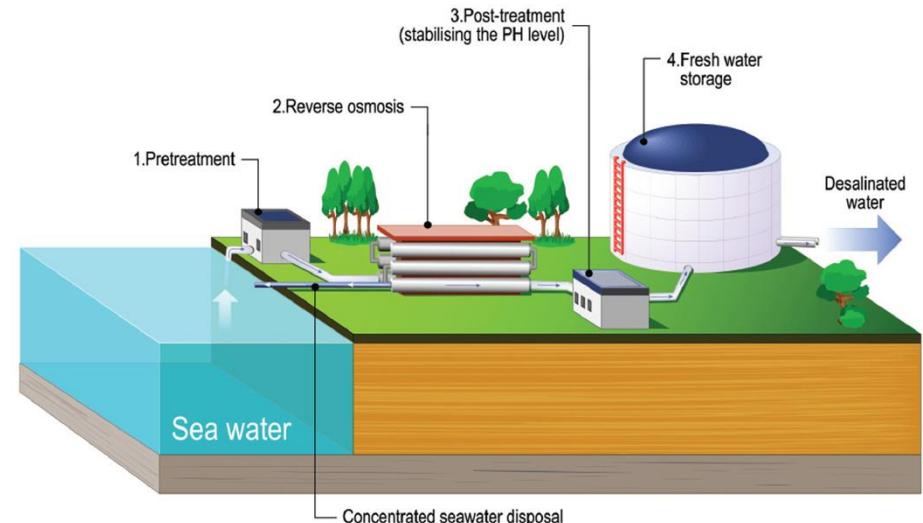
Enhance groundwater recharge

Improve drought resilience

Grant Uses

Help fund construction and operation

Avoid rate increases







Water Conservation





Water
Efficiency



Water
Conservation





Water
Efficiency



Water
Conservation



Environmental
Stewardship





Water
Efficiency



Water
Conservation



Environmental
Stewardship



Community
Engagement

One Water Approach



- Water Conservation
- Water Efficiency
- Environmental Stewardship
- Community Engagement

A photograph of a Joshua tree silhouette against a vibrant sunset sky. The sun is low on the horizon, casting a warm orange glow over the landscape. In the foreground, several Joshua trees stand tall, their unique Y-shaped trunks and spiky, finger-like leaves silhouetted against the bright sky. The background features rolling hills and mountains under a vast, cloudy sky.

Thank you

CREDITS

The background of the slide features a photograph of a desert landscape at sunset. The sky is filled with warm orange and yellow hues, transitioning into a darker blue at the top. Silhouettes of Joshua trees are scattered across the foreground and midground. In the distance, low mountains are visible against the horizon.

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