



# Indio Subbasin Alternative Plan Update Annual Report for Water Year 2022-2023

Tribal Workshop  
March 21, 2024

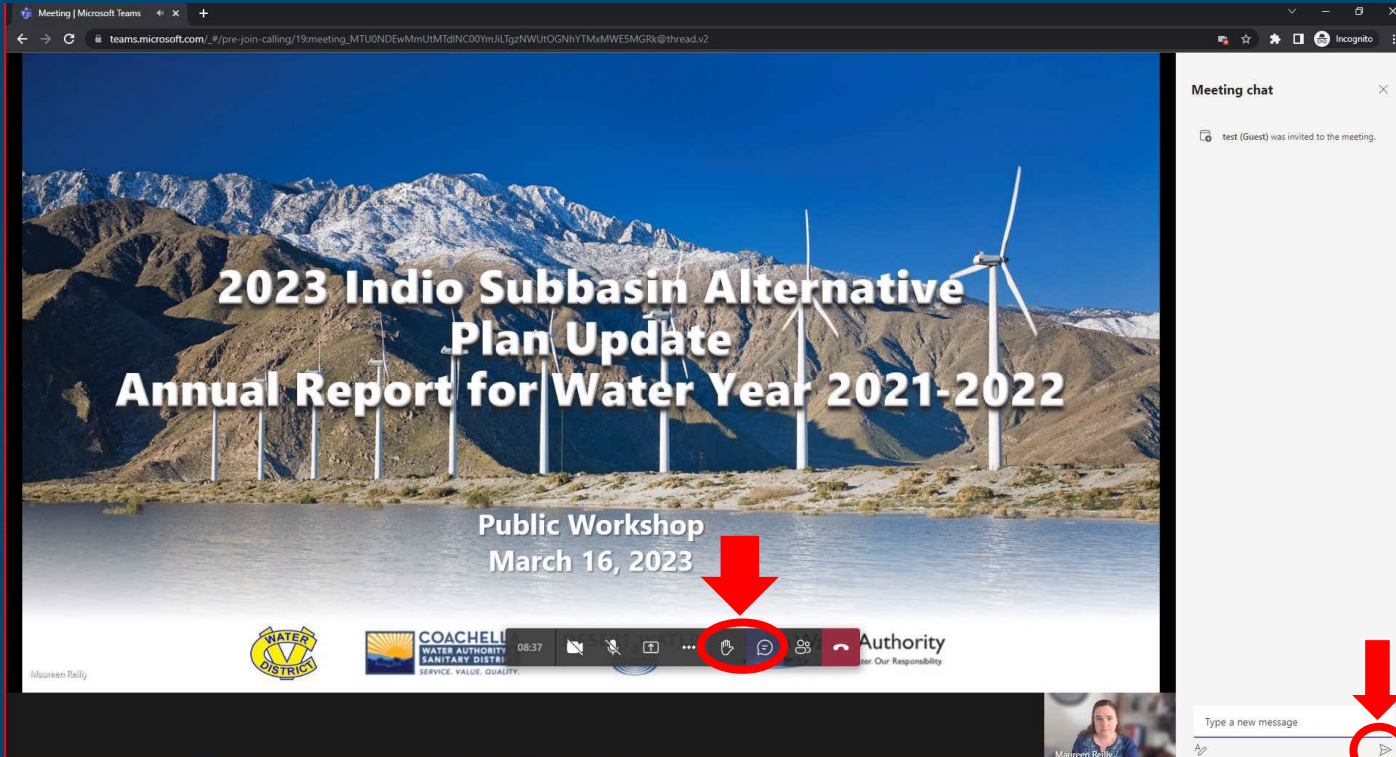


# Teams – Quick How To



- Turn on/off your Mic (mute) and Camera (video) using the controls along the bottom
- You may need to wiggle your mouse to make the controls appear
- For Callers: use \*6 to unmute on the phone

# Teams – How to Ask a Question



- Our organizer will mute everyone at the beginning of the meeting
- Let us know you have a question by
  - ❖ Raising your hand (bottom of screen)
  - ❖ Entering the **Chat** (bottom of screen)
    - Click on the right panel, type your message and hit SEND
- Once we receive your request, we will call on you and answer your question
- For Callers: when asked for questions or comments, use \*6 to unmute

# Agenda

- **Welcome and Introductions**
- Annual Report Status
- Groundwater Elevation Data
- Groundwater Extractions
- Surface Water
- Total Water Use
- Change in Groundwater Storage
- Plan Implementation Progress
- Public Comment

# Indio Subbasin Team

- Project Consultants
  - ❖ Todd Groundwater



- Indio Subbasin Groundwater Sustainability Agencies (GSAs)
  - ❖ Coachella Valley Water District
  - ❖ Coachella Water Authority
  - ❖ Desert Water Agency
  - ❖ Indio Water Authority

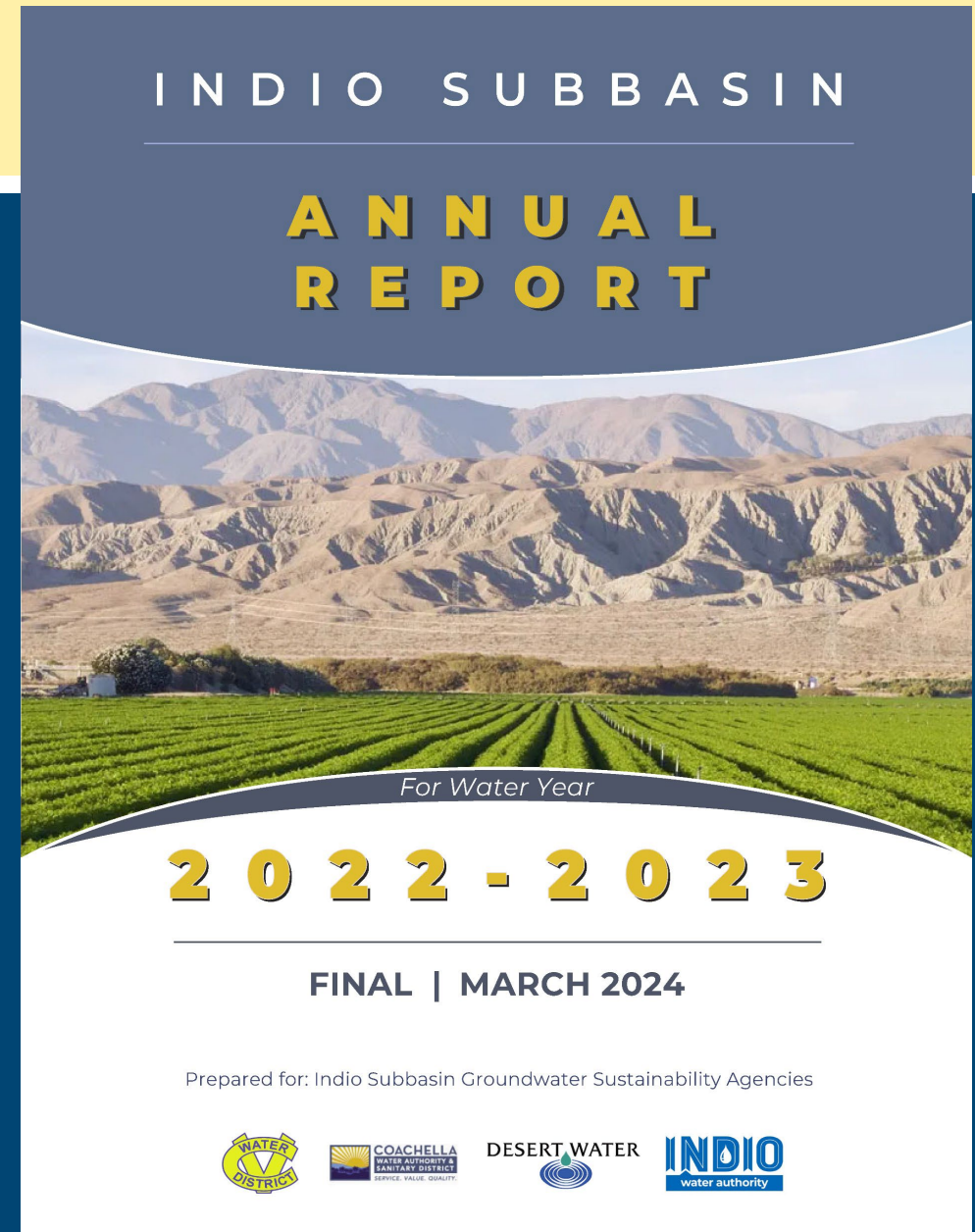


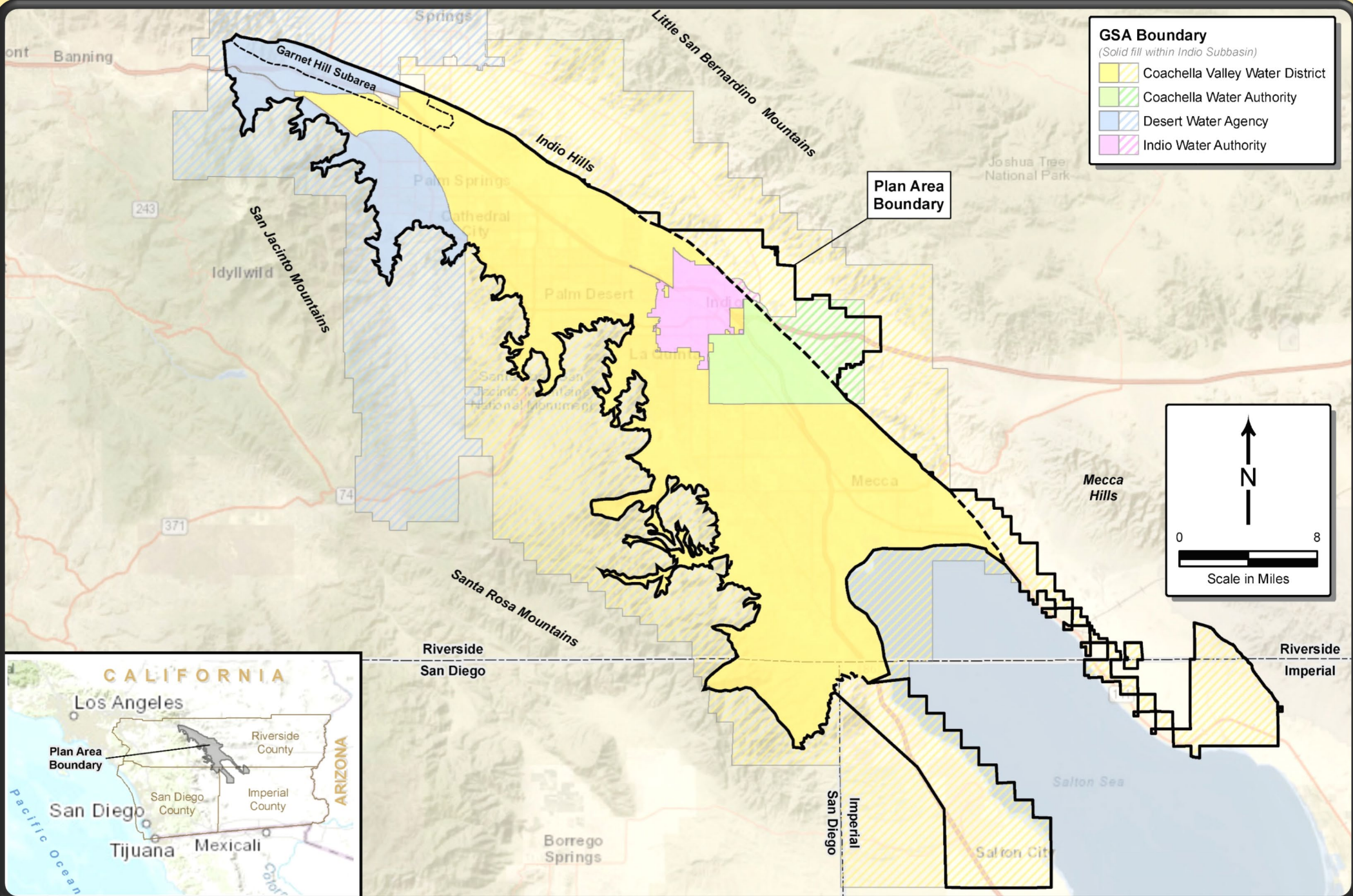
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# Indio Subbasin Annual Report for WY 2022-2023

- Annual Report is required by Sustainable Groundwater Management Act (SGMA)
  - ❖ General information
  - ❖ Subbasin conditions
  - ❖ Implementation progress of projects and management actions (PMAs)
- 7<sup>th</sup> Annual Report (3<sup>rd</sup> report following submittal of *Indio Subbasin 2022 Alternative Plan Update*)
  - ❖ Covers WY 2022-2023 (Oct. 1, 2022 – Sept. 30, 2023)
- Will be submitted to DWR by April 1, 2024



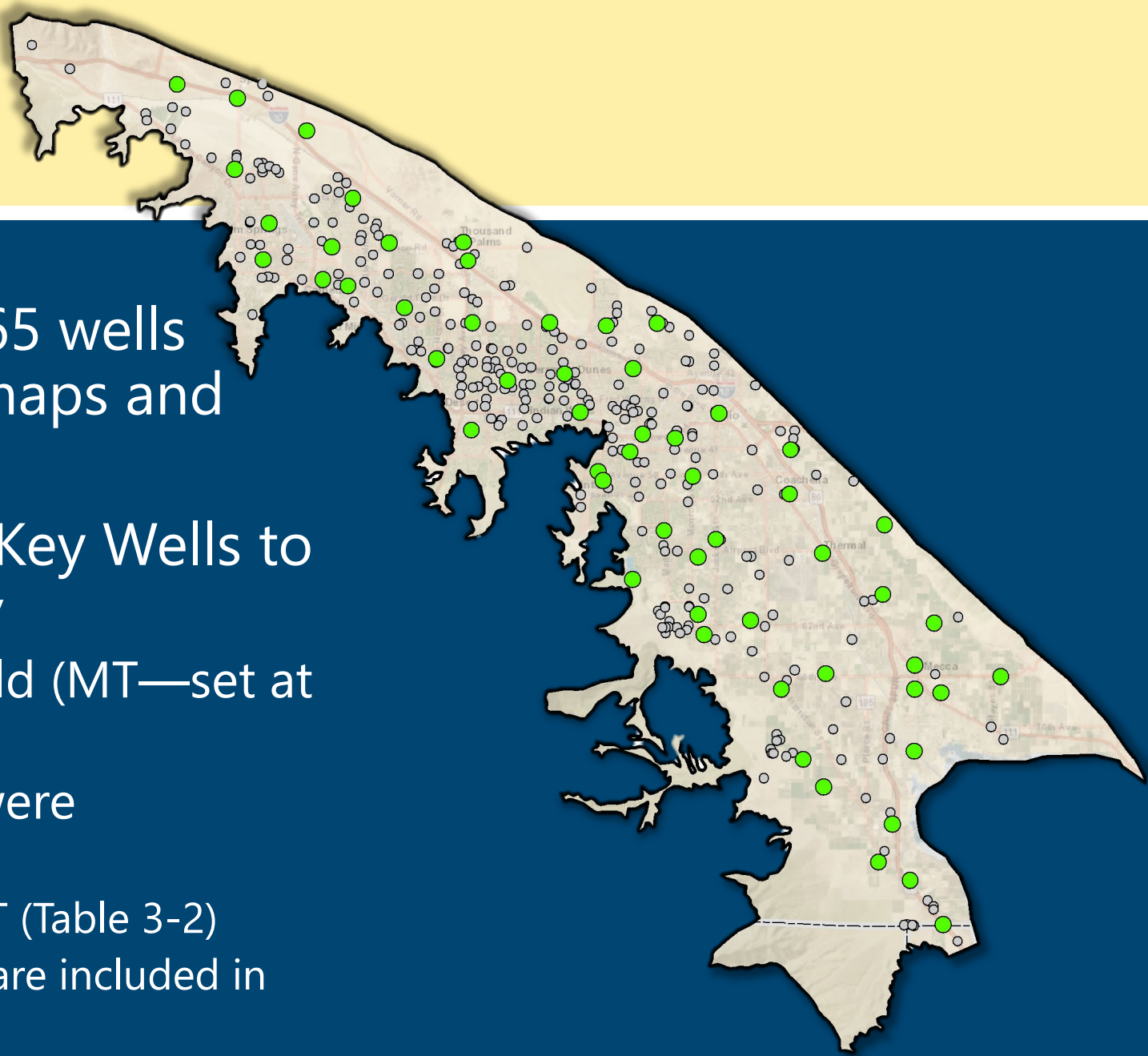




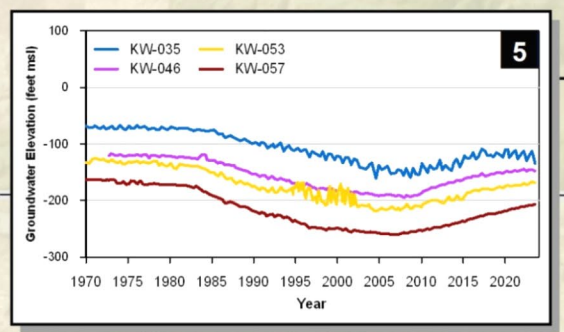
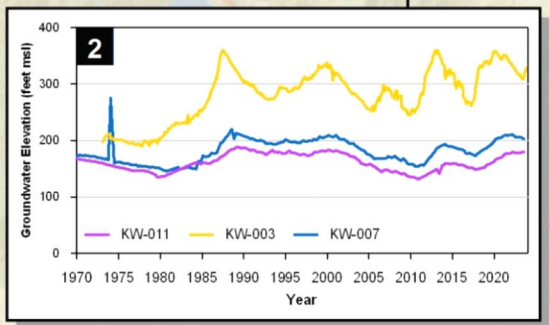
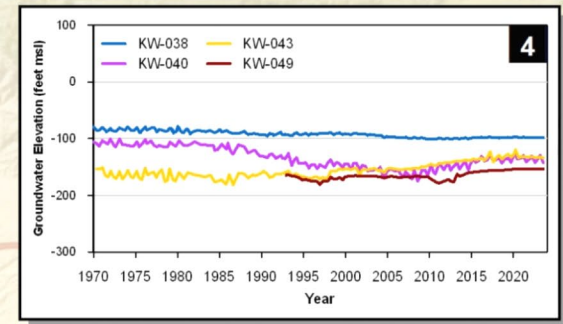
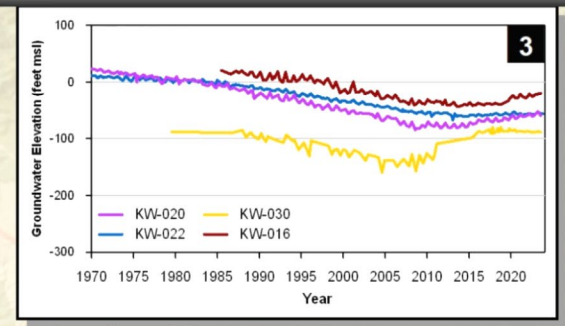
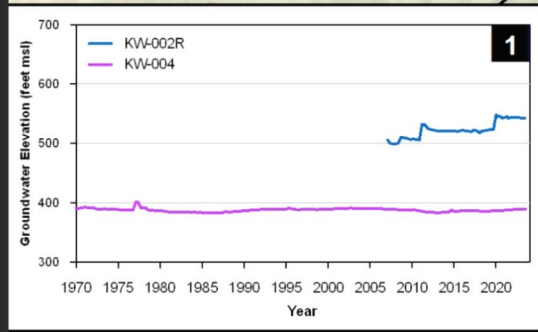
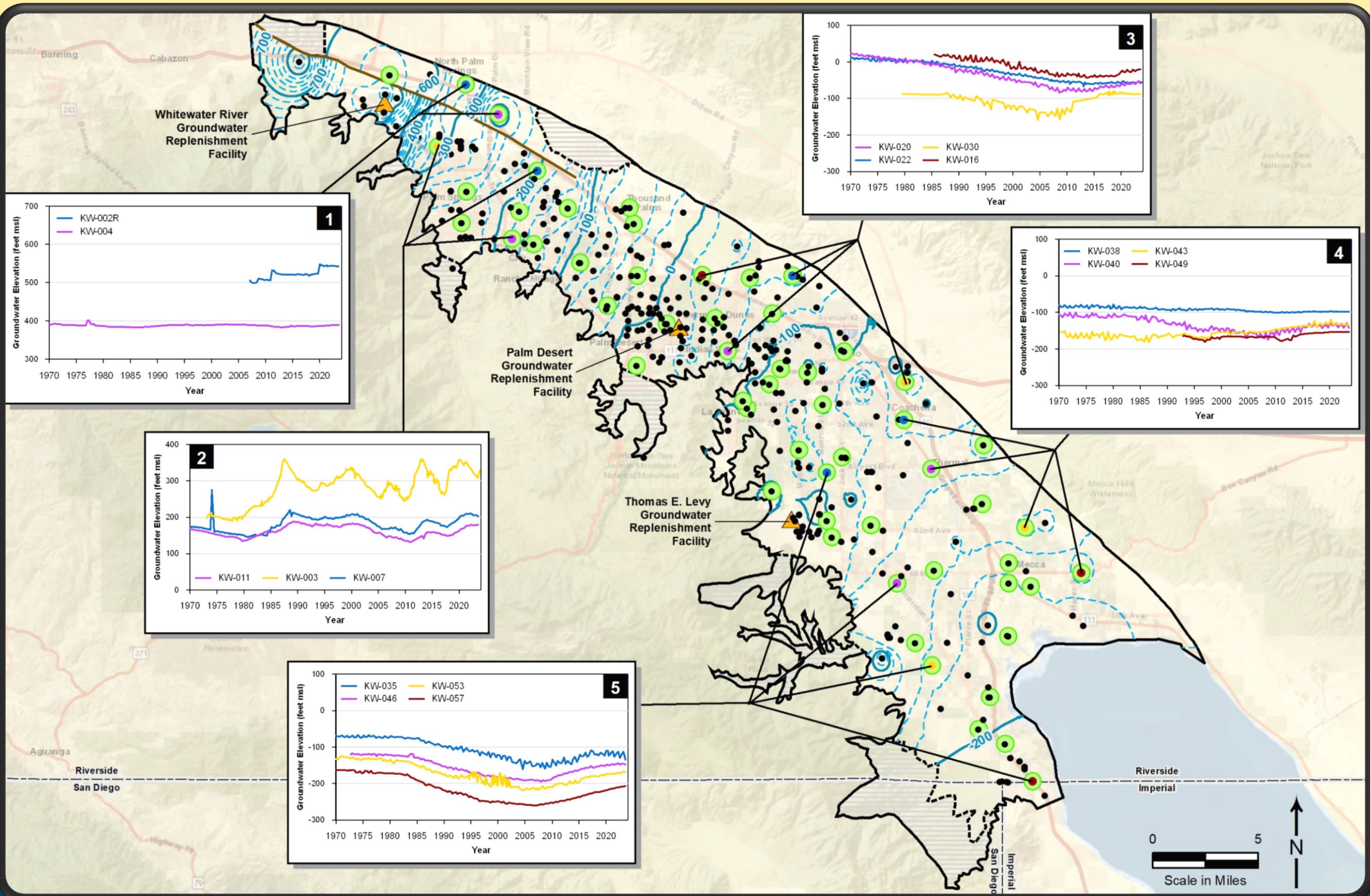
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# Groundwater Elevation Data



- Groundwater elevations from 365 wells were used to develop contour maps and change in storage maps
- 2022 Plan Update identified 57 Key Wells to track groundwater sustainability
  - ❖ Each well has a minimum threshold (MT—set at recent observed lowest elevation)
  - ❖ Current groundwater elevations were compared to the MTs
    - Levels in all wells were above the MT (Table 3-2)
    - Hydrographs of each of these wells are included in the report as an Appendix





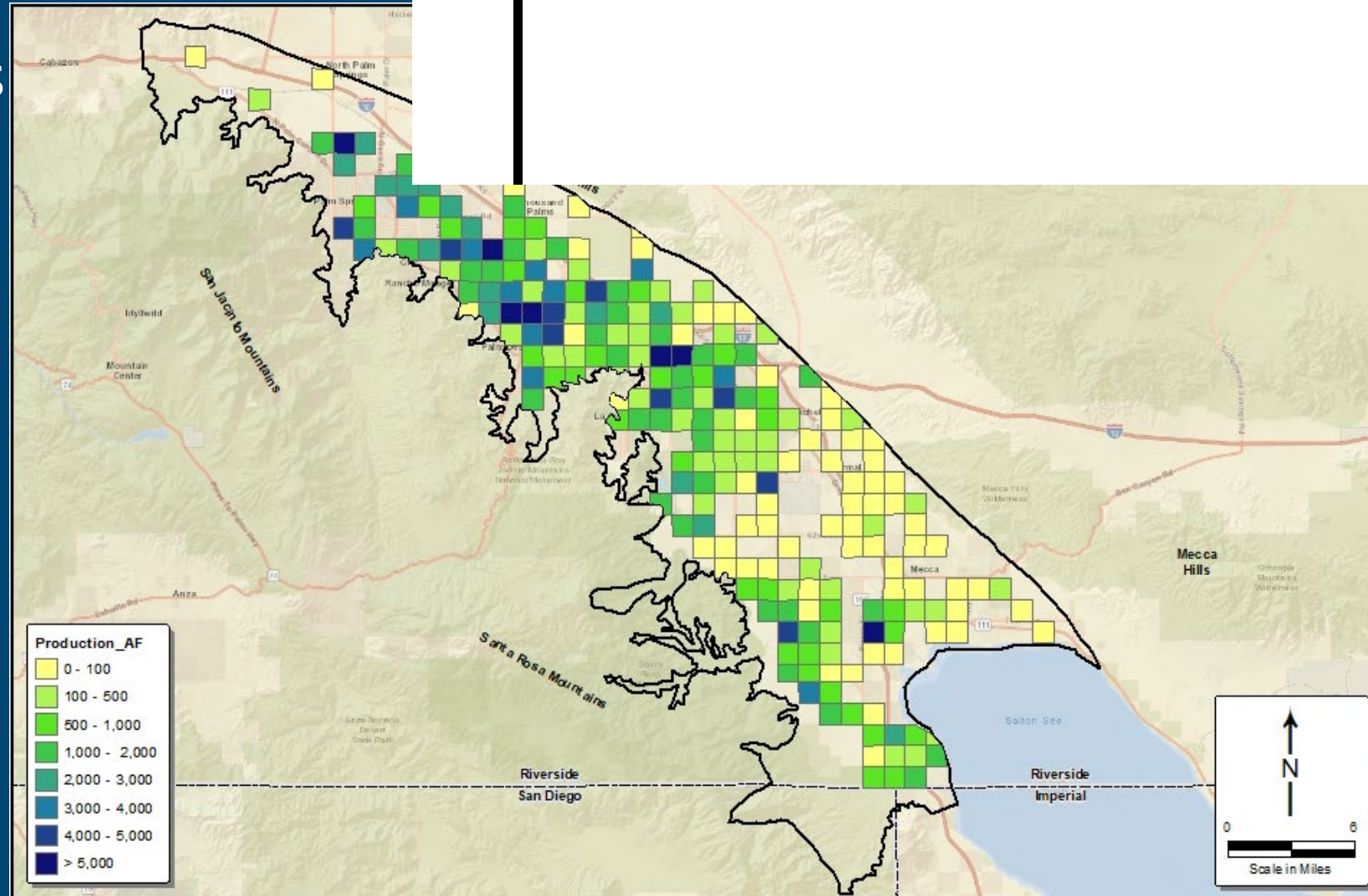
Questions?

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# Groundwater Extractions

- Groundwater extractions are metered for most uses except
  - ❖ Minimal pumpers
  - ❖ Tribal trust lands
- 258,863 AF
- Groundwater pumping decreased 8 percent from last water year





Questions?

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# Multiple Water Sources

- Capture and recharge of Whitewater River stormflows began in 1918
- Coachella Canal completed in 1949
- CVWD and DWA contract for State Water Project (SWP) water in 1963
  - ❖ Recharge at Whitewater River Groundwater Replenishment Facility (GRF) begins in 1973
- Water recycling began in 1965



# Local Surface Water

- DWA stream diversions
  - ❖ Snow, Falls, and Chino Creeks
- 548 AF surface water use in DWA's service area
  - ❖ 49% agriculture
  - ❖ 51% urban



WY 2022-2023 Direct Use of Local Surface Water in the Indio Subbasin

Water Use Sector	Surface Water Use (AF)	Method of Measurement	Accuracy of Measurement
Agriculture <sup>1</sup>	269	100% metered	±2%
Industrial	0	Not applicable	--
Urban <sup>1</sup>	279	100% metered	±2%
<b>Total Surface Water Use</b>	<b>548</b>		

# Imported Water – Direct Use

- CVWD receives Colorado River water from Coachella Canal
- 258,416 AF imported water for direct use in Plan Area
  - ❖ 85% agriculture
  - ❖ 15% urban



Coachella Canal

## WY 2022-2023 Imported Water for Direct Use in Plan Area

Water Use Sector	Water Source	Imported Water Use (AF)	Method of Measurement	Accuracy of Measurement
Agriculture <sup>1</sup>	Coachella Canal	219,809	100% metered	±2%
Urban <sup>2</sup>	Coachella Canal	38,607	100% metered	±2%
Industrial	Coachella Canal	0	100% metered	±2%
Environmental <sup>3</sup>	Coachella Canal	0	Not applicable	--
<b>Total Imported Water for Direct Use<sup>4</sup></b>		<b>258,416</b>		

# Imported Water – Groundwater Replenishment

- Two sources of water used for replenishment:
  - ❖ DWA and CVWD receive State Water Project exchange water from Colorado River Aqueduct (CRA)
  - ❖ CVWD receives Colorado River water from Coachella Canal
  
- 180,710 AF imported water for replenishment
  - ❖ 10,715 AF at Palm Desert GRF
  - ❖ 1,400 AF at Thomas E. Levy GRF
    - 36,000 AF less than last Water Year
  - ❖ 168,595 AF at Whitewater River GRF



WY 2022-2023 Imported Water for Replenishment in Plan Area

Water Use Sector	Water Source	Imported Water Use (AF)	Method of Measurement
Groundwater Replenishment	Coachella Canal <sup>6</sup>	12,115	100% metered
Groundwater Replenishment	SWP Exchange/CRA	168,595	100% metered
<b>Total Imported Water for Groundwater Replenishment</b>		<b>180,710</b>	

# Recycled Water

- Three water reclamation plants (WRPs) provide recycled water
  - ❖ Palm Springs WWTP/DWA WRP
  - ❖ CVWD WRP-7
  - ❖ CVWD WRP-10
- 13,338 AF recycled water produced
  - ❖ 100% urban



DWA WRP

WY 2022-2023 Recycled Water Use in the Indio Subbasin

Water Use Sector	Water Source	Recycled Water Use (AF)	Method of Measurement	Accuracy of Measurement
Urban <sup>1</sup>	DWA WRP	3,105	100% metered	±2%
Urban <sup>1</sup>	CVWD WRP 7	2,624	100% metered	±2%
Urban <sup>1</sup>	CVWD WRP 10	7,609	100% metered	±2%
<b>Total Recycled Water Use</b>		<b>13,338</b>		



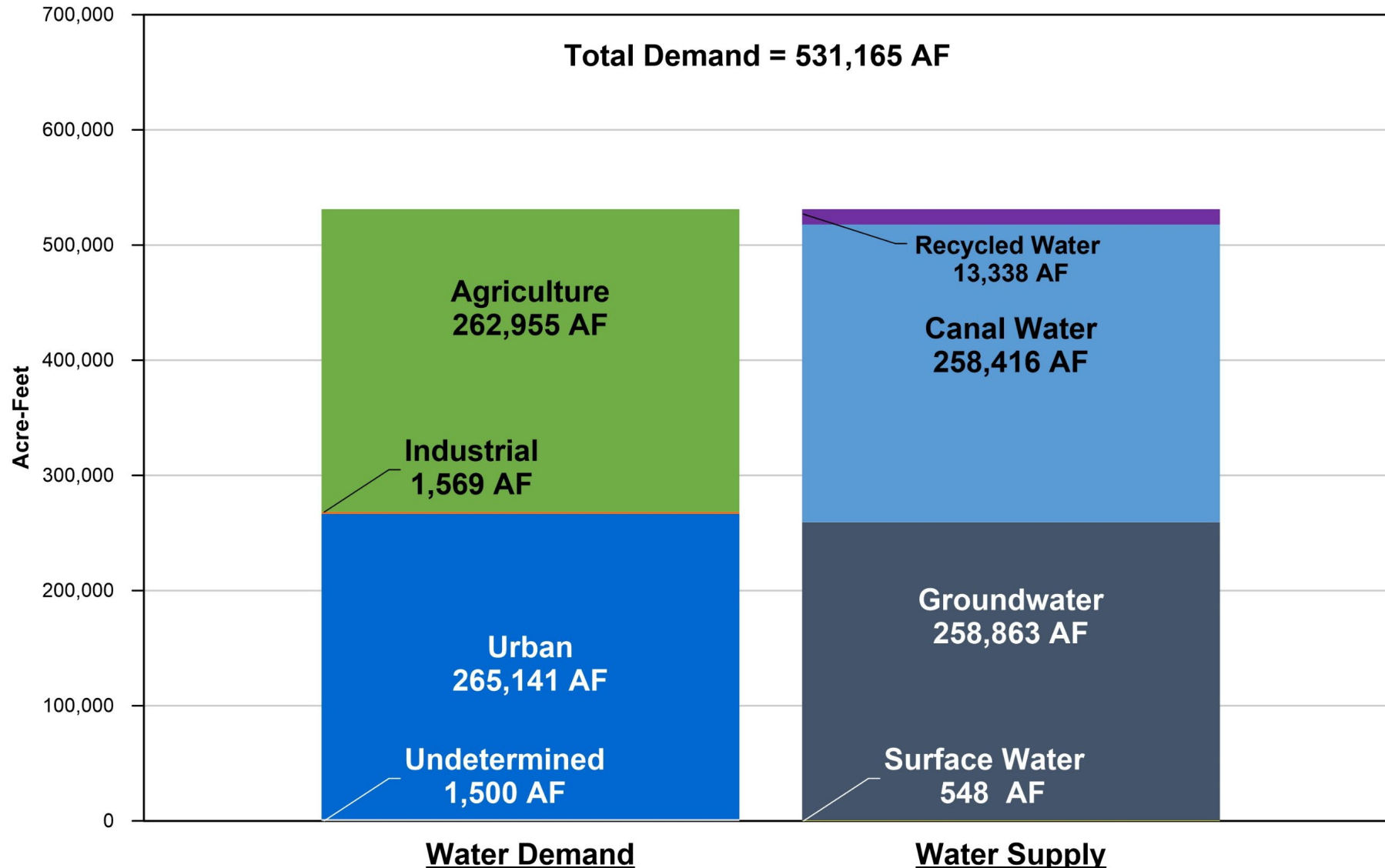
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# Total Water Use

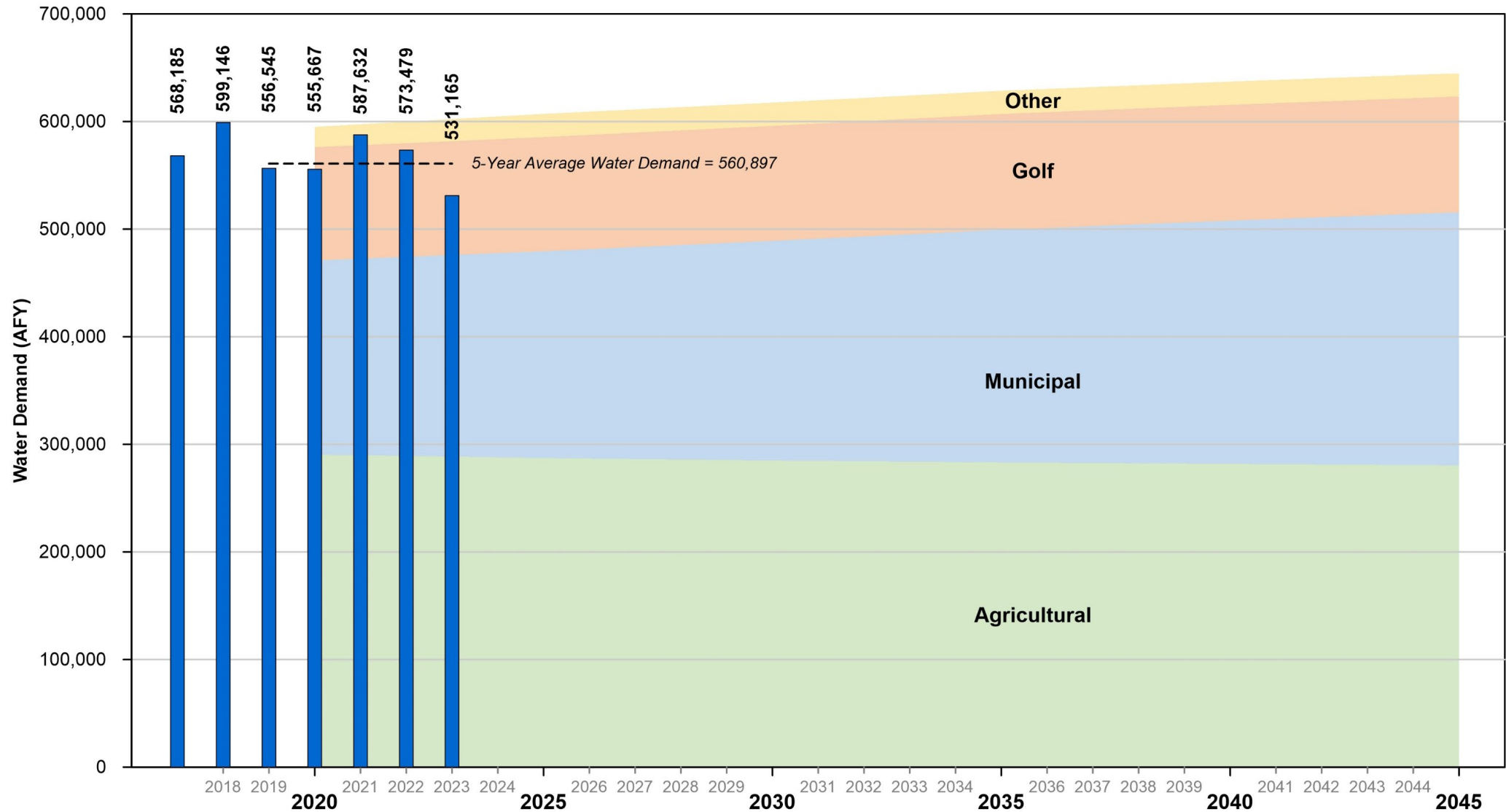
## WY 2022-2023 Water Demand and Supply – Plan Area





# Total Water Use

## Total Water Demand Actual and Forecasted – Plan Area





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# Change in Groundwater Storage

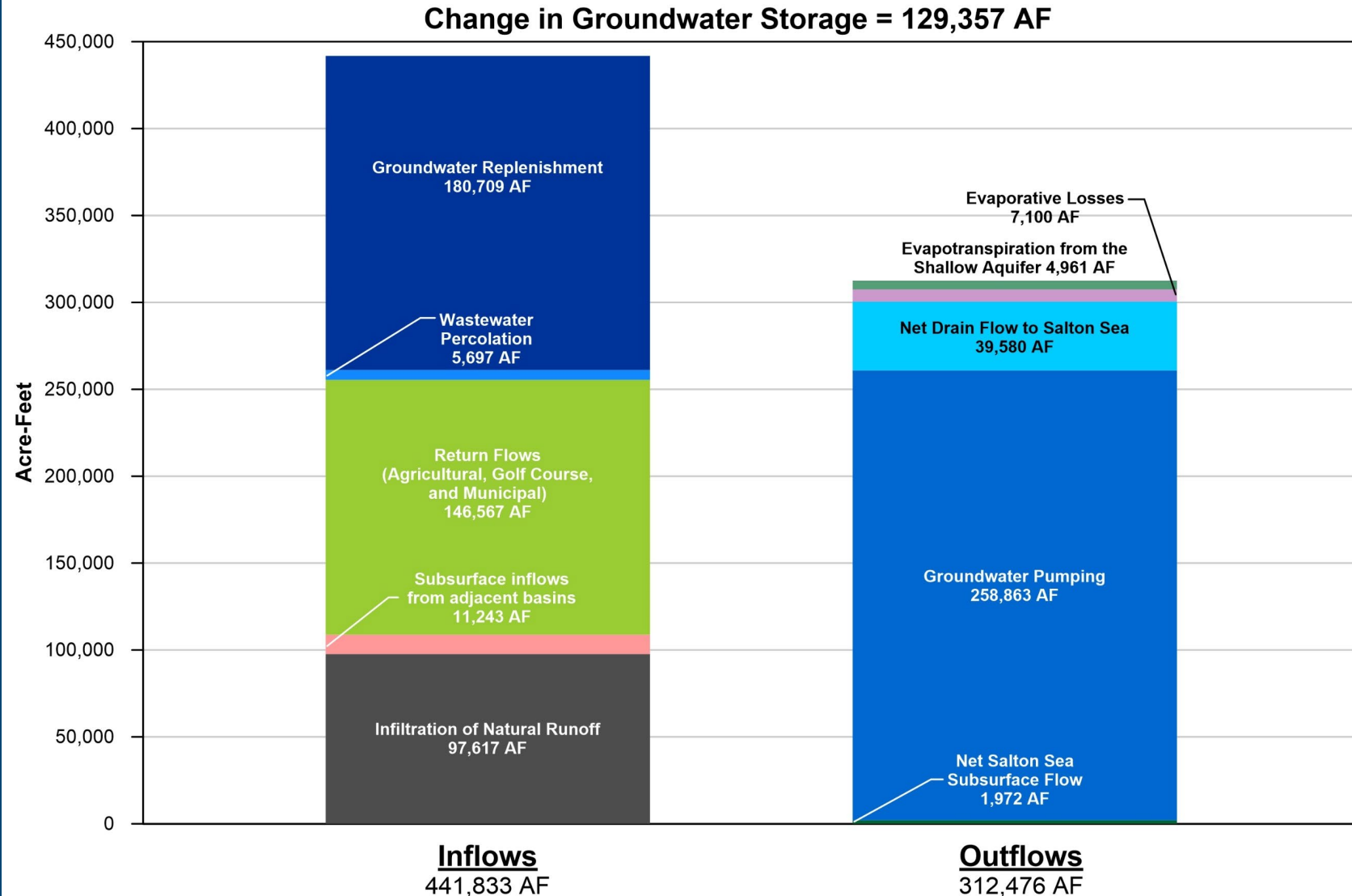
## Comparison of Inflows and Outflows

### Inflows

- ❖ Return Flows
- ❖ Replenishment
- ❖ Natural Infiltration
- ❖ Subsurface Flow
- ❖ WW Percolation

### Outflows

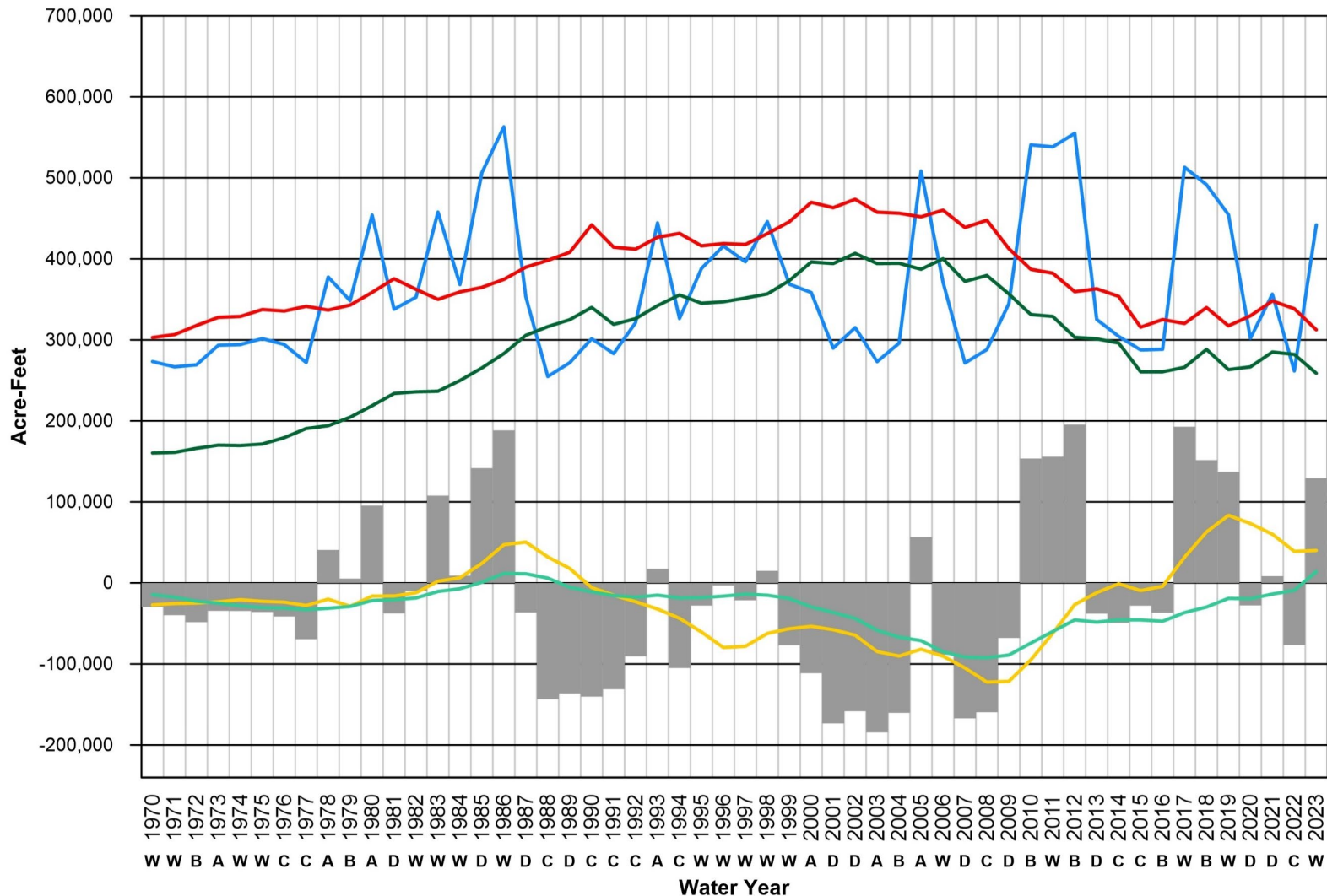
- ❖ Pumping
- ❖ Drains
- ❖ Evapotranspiration (ET)
- ❖ Subsurface Flow



# Change in Groundwater Storage



- Annual change in storage
  - ❖ Wet Conditions (+129,357AF)
- Average change in storage
  - ❖ Since 2009, 10-year average (yellow line) is positive and in WY 2023, 20-year average (green line) is positive
  - ❖ Shows the Indio Subbasin is sustainable

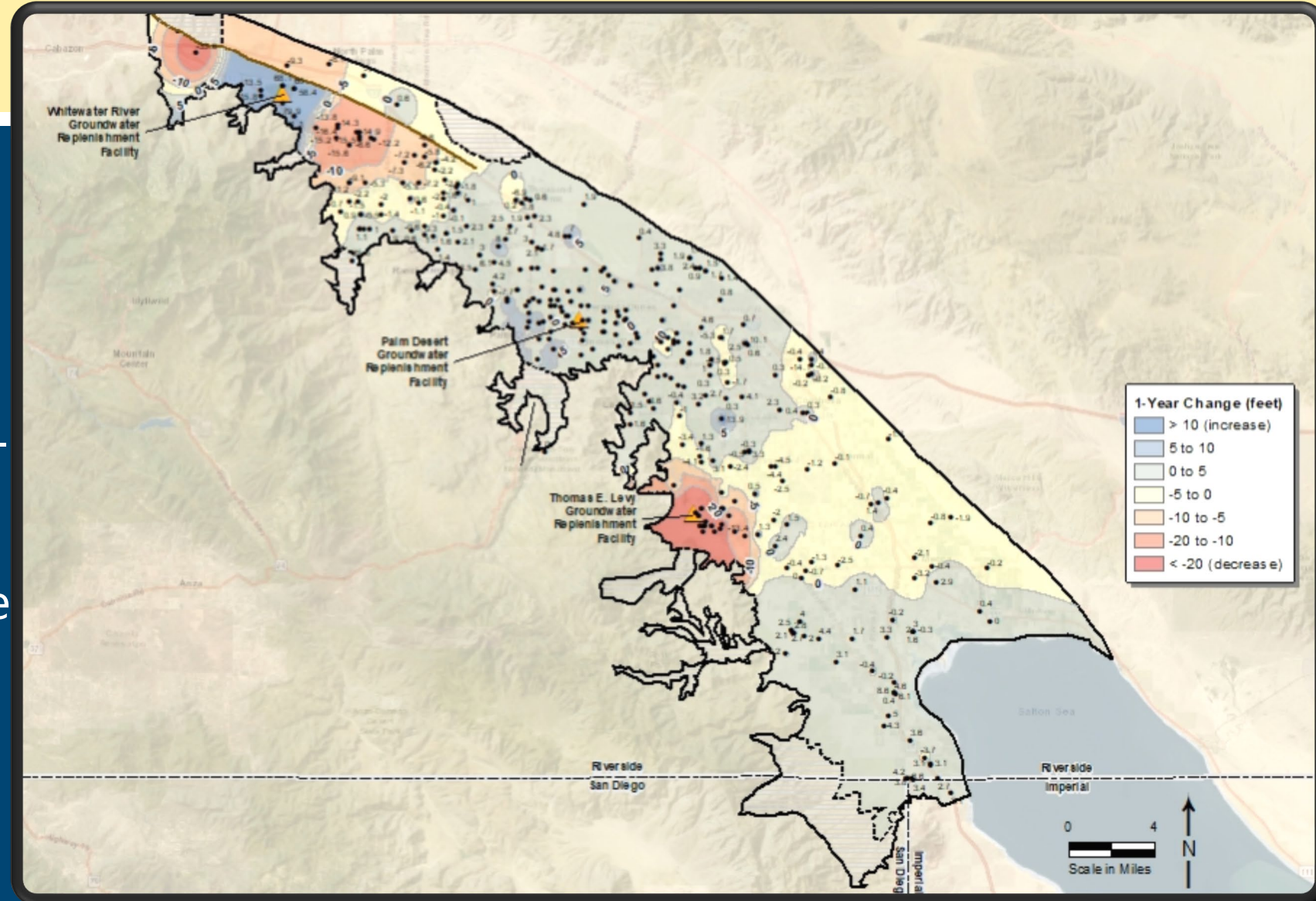


# Change in Groundwater Levels

- Maps show change in groundwater levels
  - ❖ One year change (next slide)
  - ❖ Long-term change since 2009 historical lows (following slide)
- Change in groundwater levels is a proxy for change in storage
- Based on measured water levels at 365 wells throughout the Indio Subbasin

# One Year Change

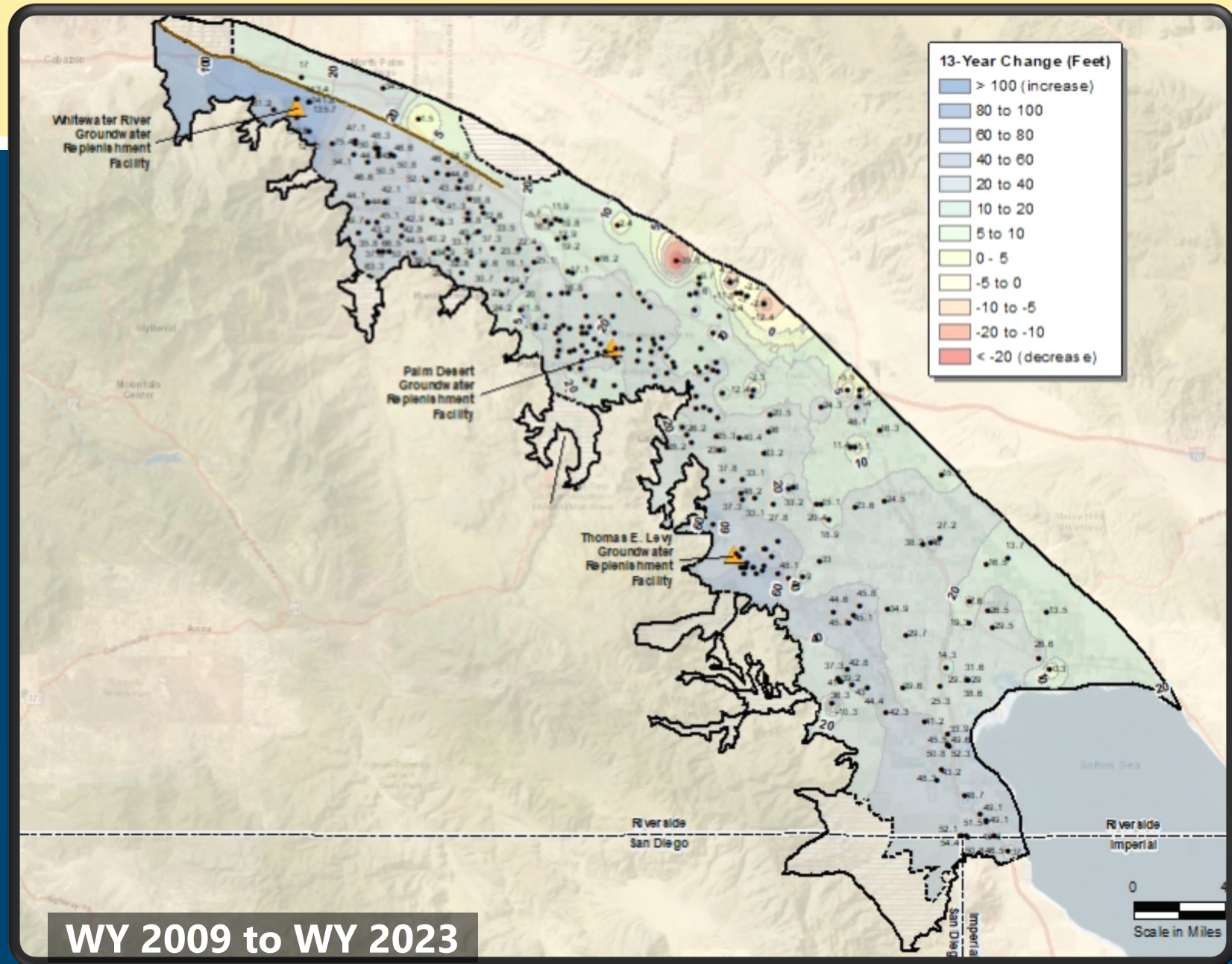
- Groundwater levels generally increased in the past water year
  - ❖ Increases near WWR-GRF but declines downstream due to variability in recharge
  - ❖ Declines near TEL-GRF due to less recharge



WY 2022 to WY 2023

# Long-Term Change

- Basin-wide increases since 2009 historical lows
- Water levels have increased or stabilized







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# Projects & Management Actions

## Water Conservation

- 1: Urban Water Conservation
- 2: Golf Water Conservation
- 3: Agricultural Water Conservation

## Water Supply Development

- 4: Increased Surface Water Diversion
- 5: Delta Conveyance Facility
- 6: Lake Perris Seepage
- 7: Sites Reservoir
- 8: Future Supplemental Water Acquisitions
- 9: EVRA Potable Reuse

## Source Substitution & Replenishment

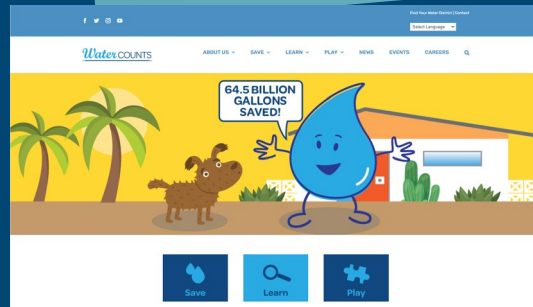
- 10: Mid-Valley Pipeline Direct Customers
- 11: East Golf Expansion
- 12: Oasis Distribution System
- 13: WRP-10 Recycled Water Delivery
- 14: WRP-10 Tertiary Expansion
- 15: Canal Water Pump Station Upgrade
- 16: WRP-7 Recycled Water Delivery
- 17: WRP-4 Tertiary Expansion & Delivery
- 18: DWA WRP Recycled Water Delivery
- 19: PD-GRF Phase 2 Expansion
- 20: TEL-GRF Expansion
- 21: WWR-GRF Operation

## Water Quality Protection

- 22: Eliminate Wastewater Percolation
- 23: Wellhead Treatment
- 24: Small Water System Consolidations
- 25: Septic to Sewer Conversions
- 26: CV-SNMP GW Monitoring Program Workplan
- 27: CV-SNMP Development Workplan
- 28: Colorado River Salinity Forum
- 29: Source Water Protection

# Projects & Management Actions – Progress in WY 2022-2023

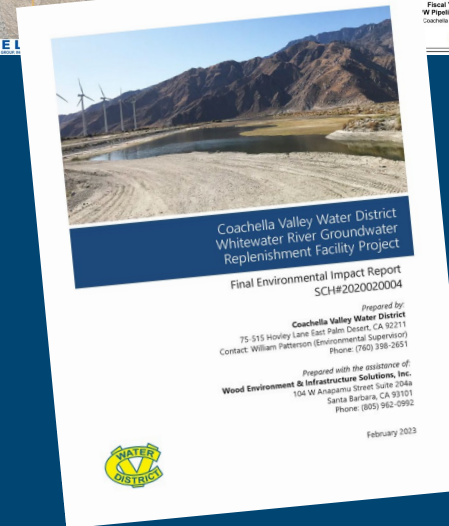
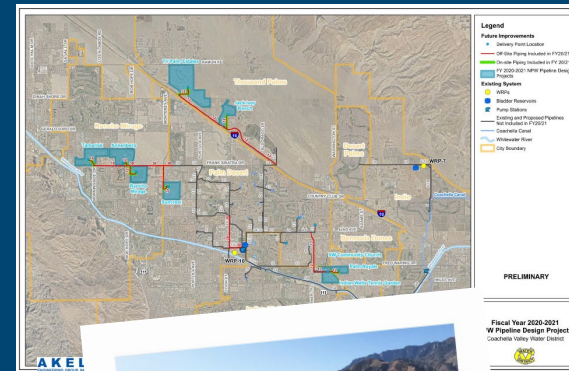
## Water Conservation



## Water Supply Development



## Source Substitution & Replenishment



## Water Quality Protection





Questions?

# Public Comment

Input and feedback are welcomed

For Callers – you may need to press \*6 to unmute

# Next Steps

- WY 2023 Annual Report can be downloaded:



[www.IndioSubbasinSGMA.org](http://www.IndioSubbasinSGMA.org)

- Indio Subbasin Annual Report for WY 2022-2023 Council/Board Presentation
  - ❖ Coachella Valley Water District – March 26th
  - ❖ Coachella Water Authority – TBD
  - ❖ Desert Water Agency – TBD
  - ❖ Indio Water Authority – TBD

# Stay Involved – Visit our Website

