2027 Indio Subbasin Alternative Plan Update

Community Workshop #2

April 29, 2026

Indio Subbasin GSAs

Coachella Valley Water District
Coachella Water Authority
Desert Water Agency
City of Indio

RINCON
TODD GROUNDWATER

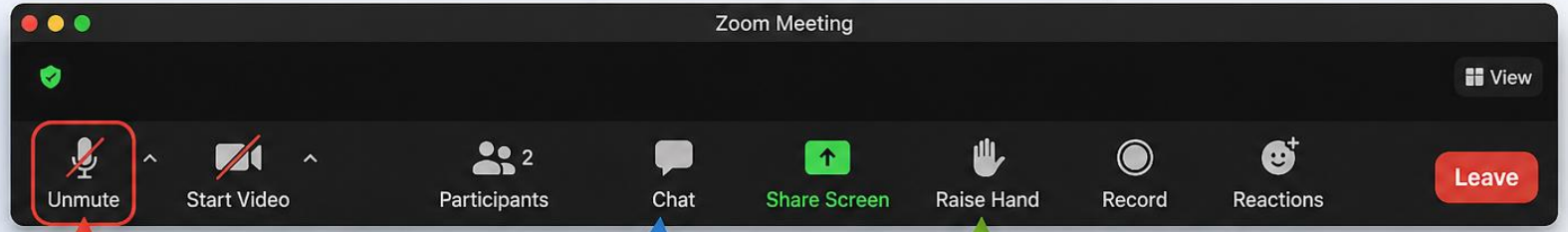
Meeting Agenda

- Introductions/Overview
- Hydrogeology and Hydrology
- Demand Forecast
- Water Supplies
- Next Steps
- Public Comment

Welcome to the Indio Community Workshop #2!

Zoom Meeting Housekeeping

Thank you for joining! Please review the tips below to help us have a productive and respectful meeting.



MICROPHONE

Kindly mute yourself when others are speaking.

Click the microphone icon to mute/unmute yourself.

CHAT

Please use the Chat to ask questions or share comments.

Click the Chat icon to open the chat window.

RAISE HAND

Please use the Raise Hand feature if you would like to speak.

Click Raise Hand and the host will call on you.

ADDITIONAL TIPS

- Keep your video on when possible.
- Please be respectful of others and their time.
- We appreciate your participation!

Thank you!

Introductions/Overview

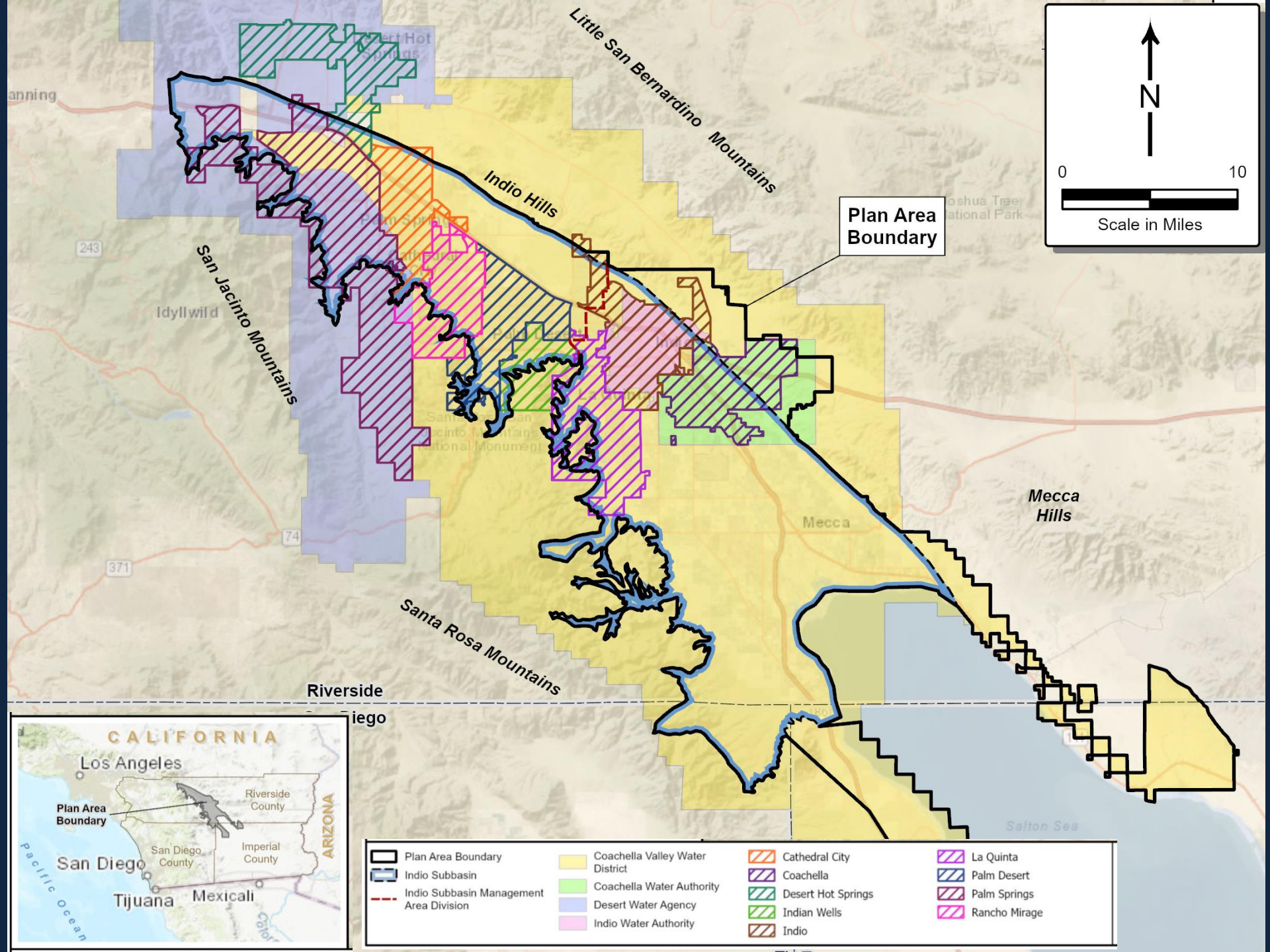
Alternative Plan Update Team

Indio Subbasin Groundwater Sustainability Agencies (GSAs)

- Coachella Valley Water District (CVWD)
- Coachella Water Authority (CWA)
- Desert Water Agency (DWA)
- City of Indio

Indio Subbasin Consultant Team

- Todd Groundwater
- Rincon Consultants, Inc.


Little San Bernardino Mountains
Indio Hills
San Jacinto Mountains
Santa Rosa Mountains
Plan Area Boundary
Mecca Hills
Mecca
Idyllwild
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Scale in Miles
CALIFORNIA
Los Angeles
Riverside County
Plan Area Boundary
San Diego
San Diego County
Imperial County
ARIZONA
Tijuana
Mexicali
Pacific Ocean
Plan Area Boundary
Indio Subbasin
Indio Subbasin Management Area Division
Coachella Valley Water District
Coachella Water Authority
Desert Water Agency
Indio Water Authority
Cathedral City
Coachella
Desert Hot Springs
Indian Wells
Indio
La Quinta
Palm Desert
Palm Springs
Rancho Mirage

Poll Question #1:

Have you participated in a groundwater or water planning meeting before?

- *Yes*
- *No*

Poll Question #2:

What are you most interested in learning today? (select all that apply)?

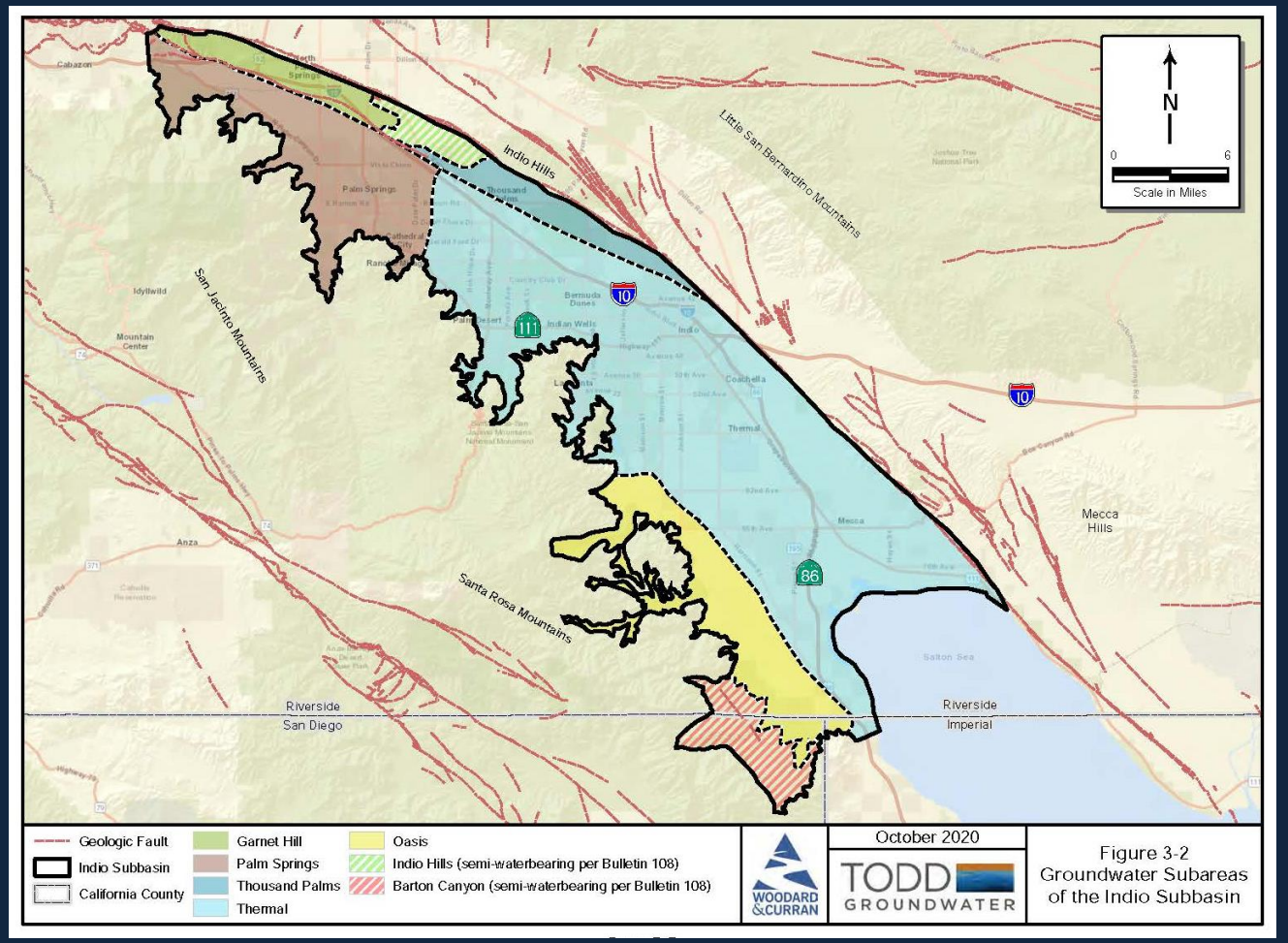
- *Water supply reliability*
- *Future growth and demand*
- *Groundwater conditions*
- *How I can get involved*

Hydrogeology and Hydrology

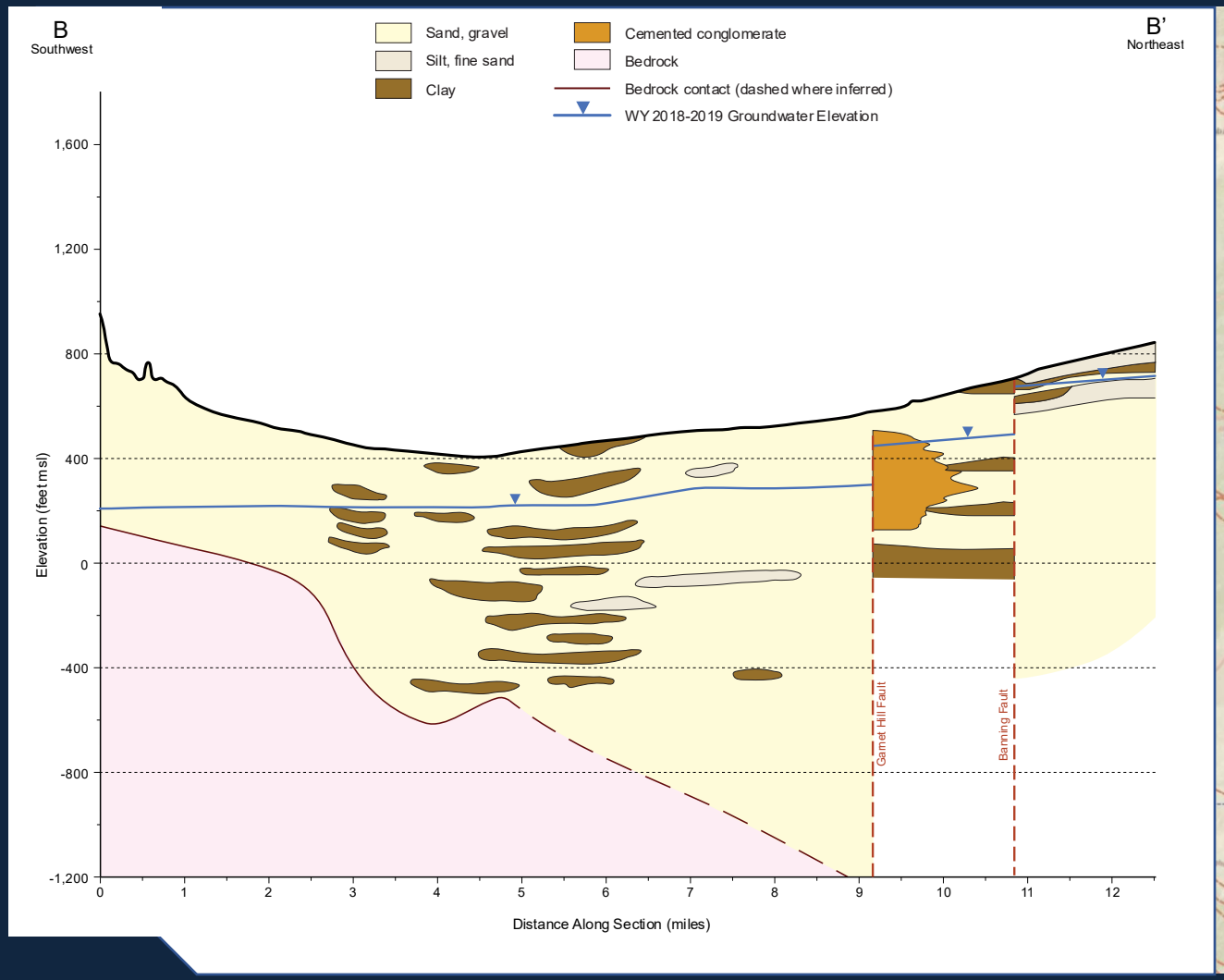
Hydrogeology and Hydrology

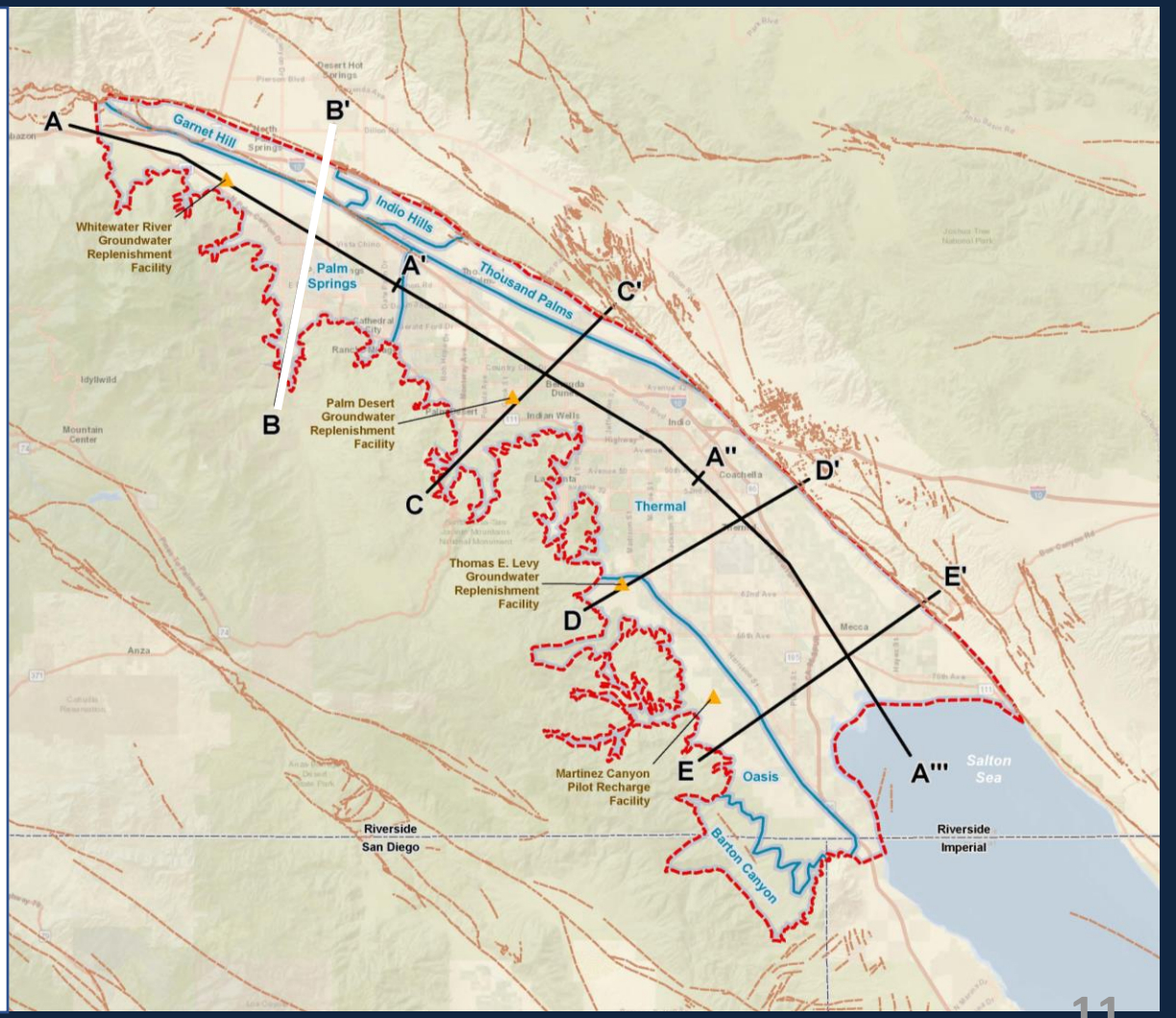
- Hydrogeologic Conceptual Model (HCM) is the foundation of our groundwater model and future simulation

- Establishes the physical framework:
  - Geologic setting of subareas
  - Faults
  - Hydrogeologic cross-sections
  - Recharge and discharge areas, inflows and outflows

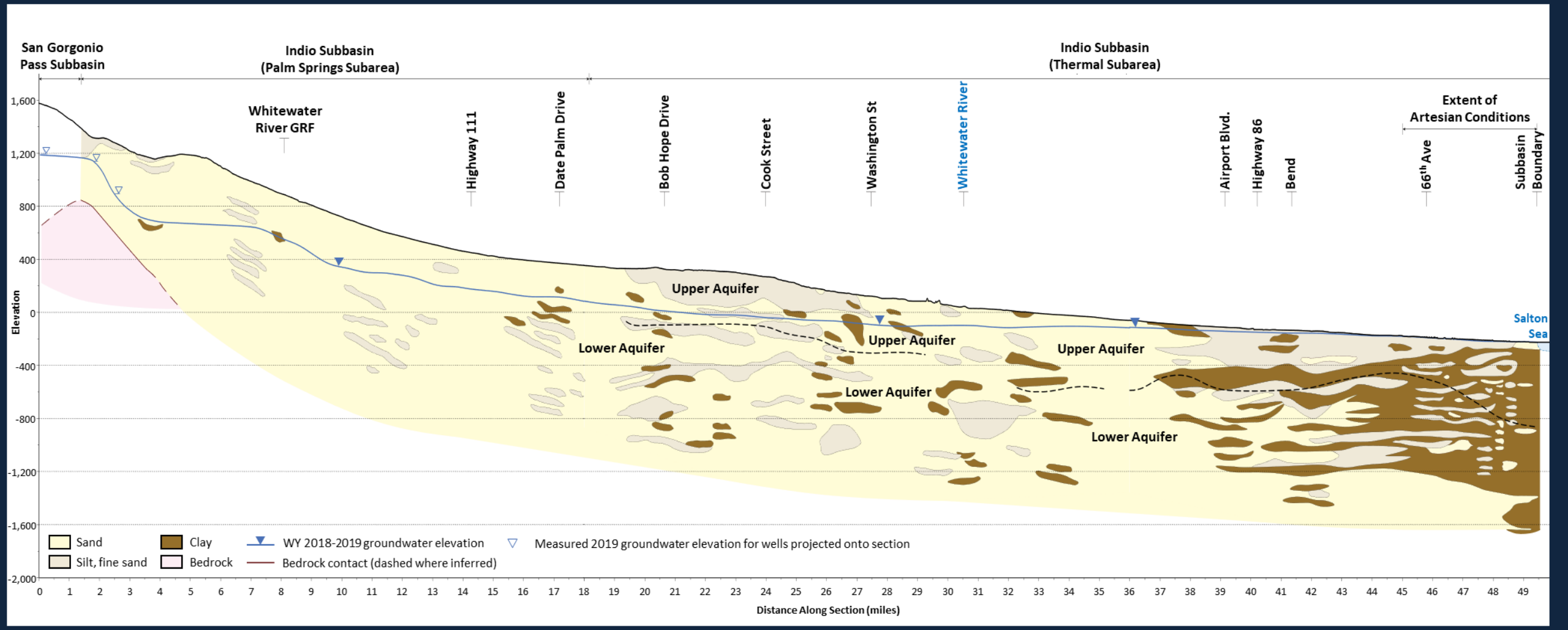


Cross Sections Show Geology, Wells, Faults, and Groundwater Levels



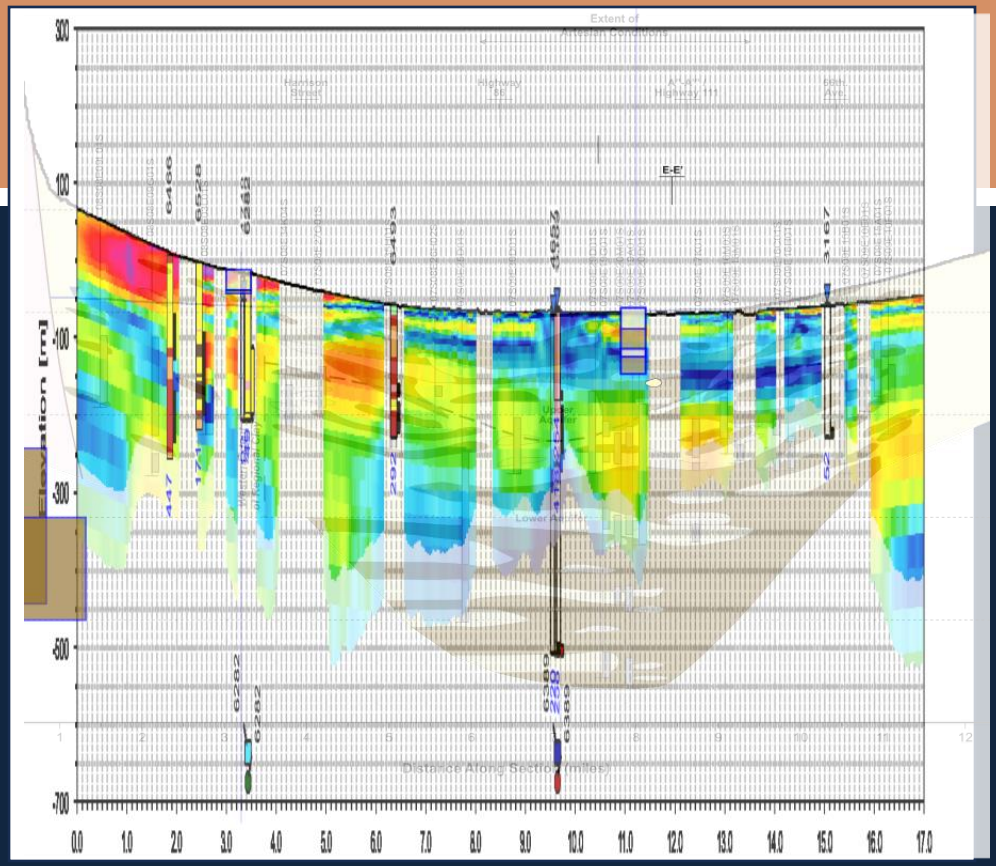


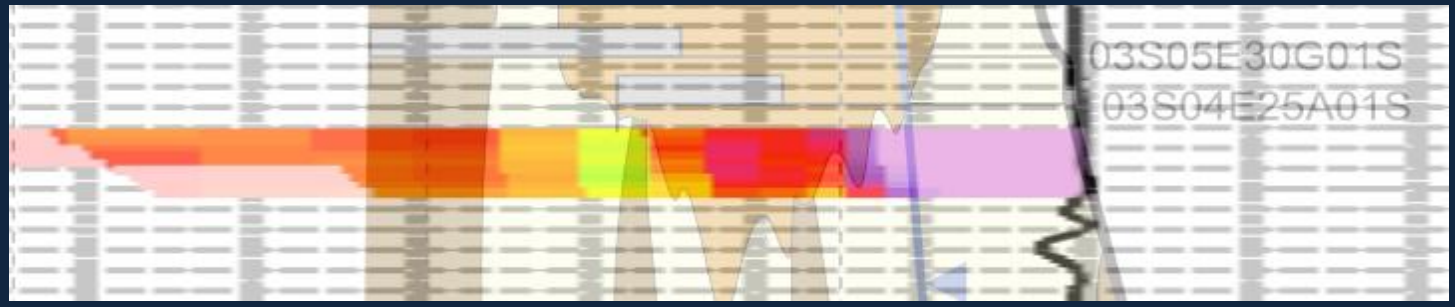
Physical Setting and How Groundwater Flows Through It

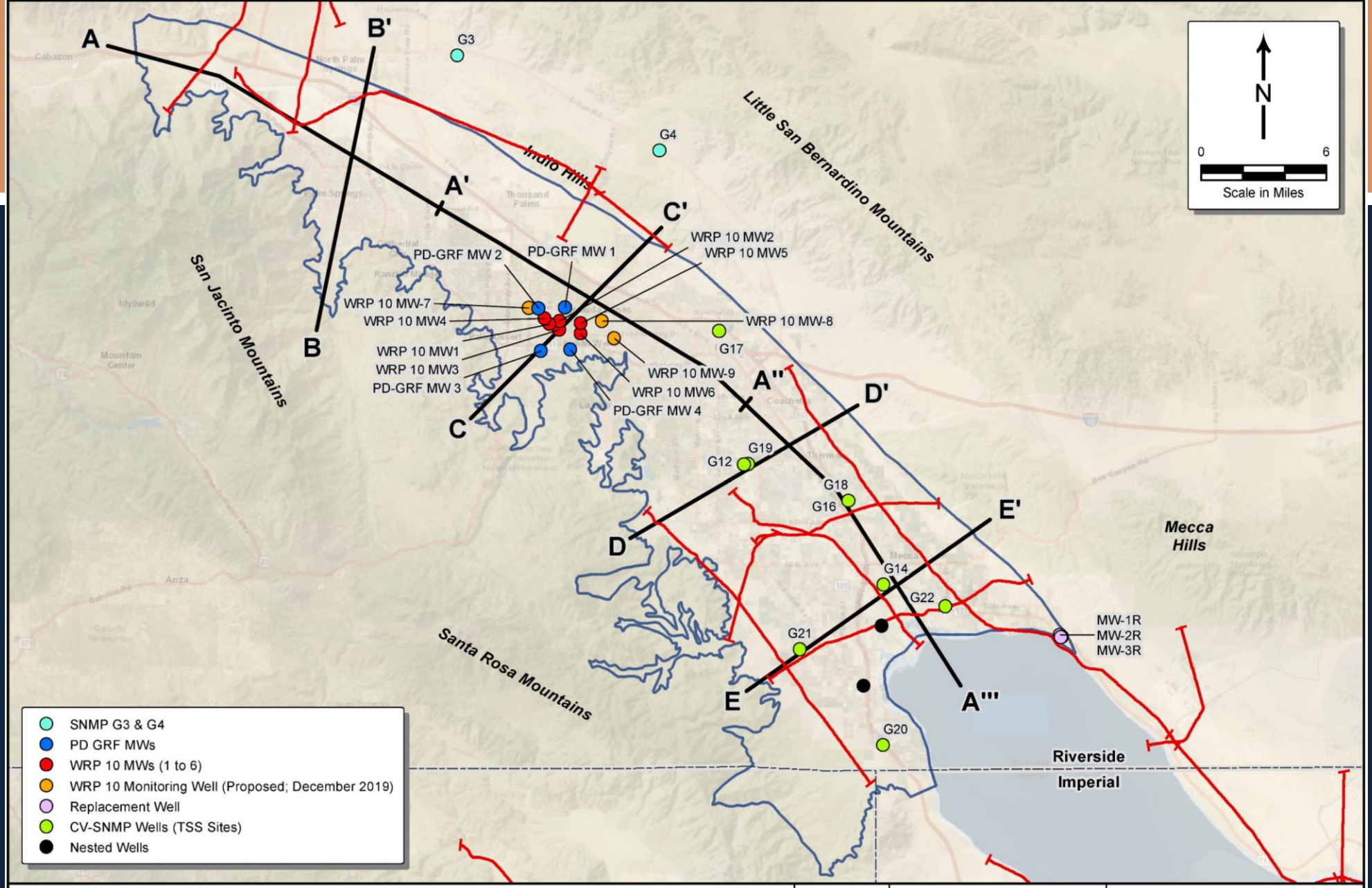


Updated Hydrogeologic Conceptual Model

- Reviewed new data from well construction reports and the Airborne Electromagnetics (AEM) study
  - Confirmed our understanding!
  - Documented in the Periodic Evaluation
- Expanded cross section to San Gorgonio boundary







rincon

January 2026

TODD GROUNDWATER

Figure 2-1
Geologic New Data

Inflows/Outflows and Recharge/Discharge Areas

Groundwater inflows

- Infiltration of natural inflows, mountain-front and stream channel recharge
- Subsurface inflows
- Artificial recharge of imported water (replenishment)
- Wastewater percolation
- Return flows from municipal/domestic use, agriculture, golf courses, etc.

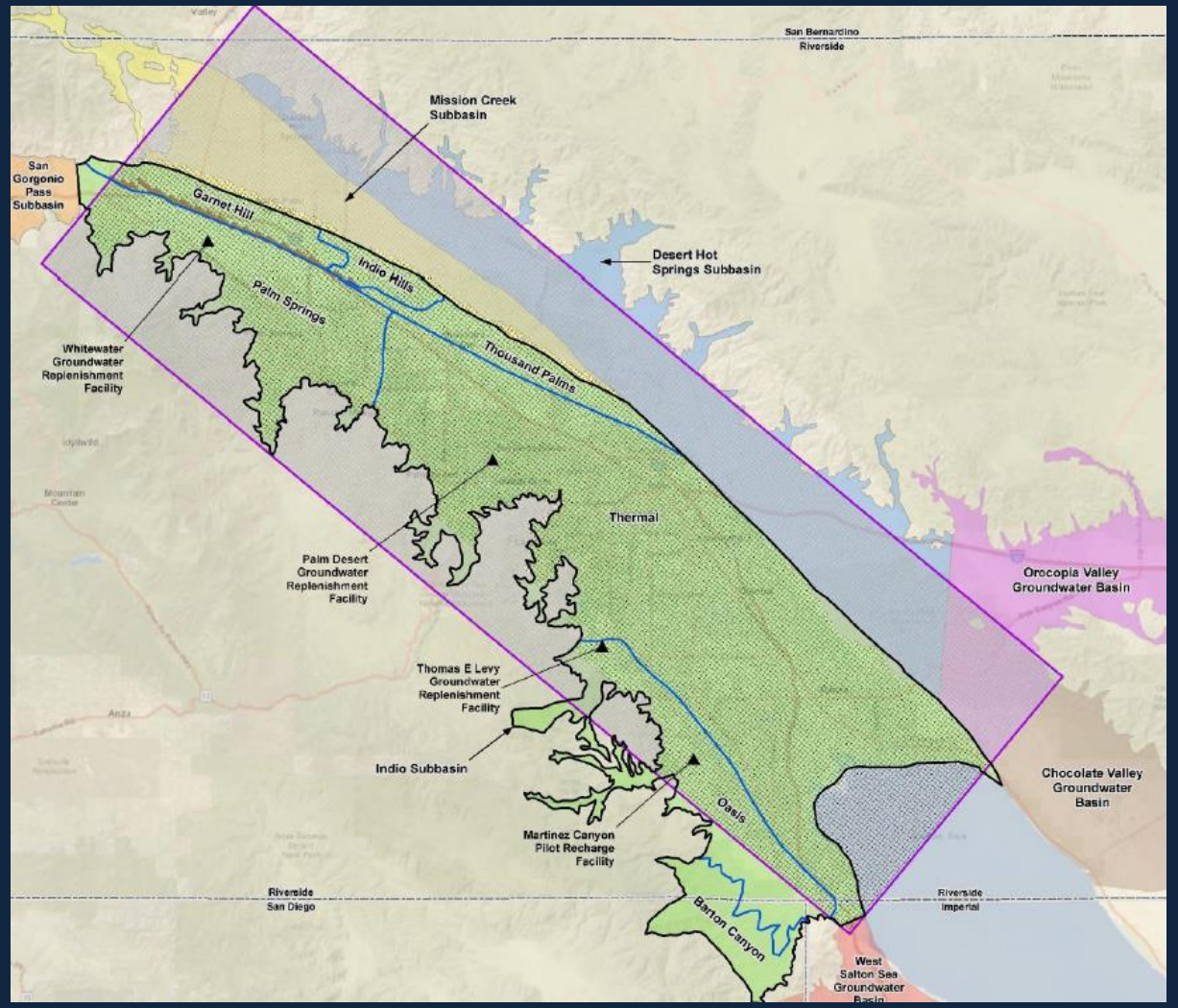
Groundwater outflows

- Groundwater pumping
- Subsurface and drain flows to Salton Sea
- Evapotranspiration (ET)

Groundwater Model Update

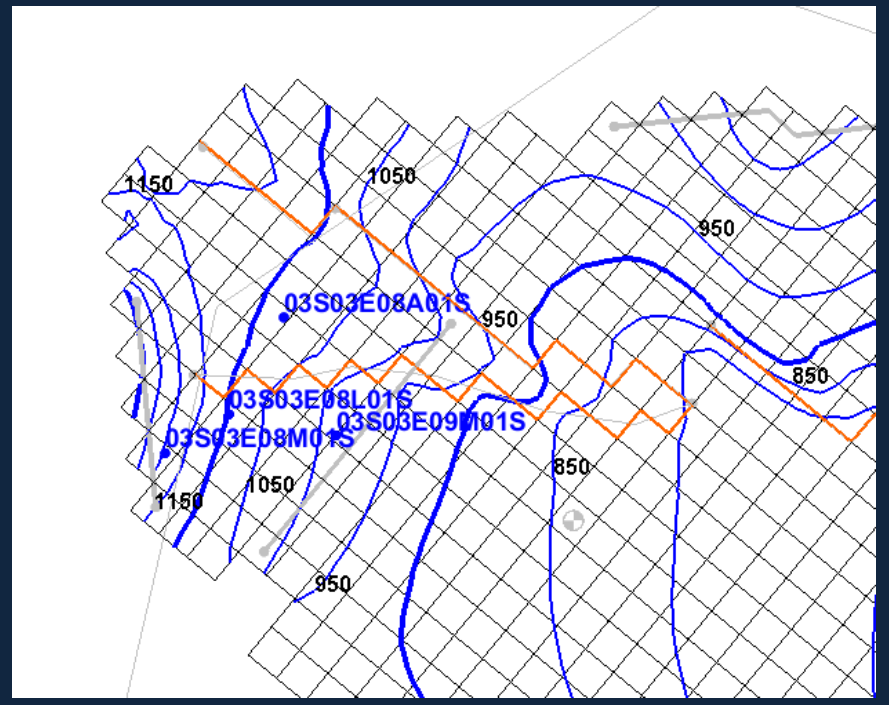
Indio Model Overview

- Extending model coverage
- Updating historical model simulation period
- Model calibration
- Future conditions models
  - Including: Climate Change, Projects and Management Actions



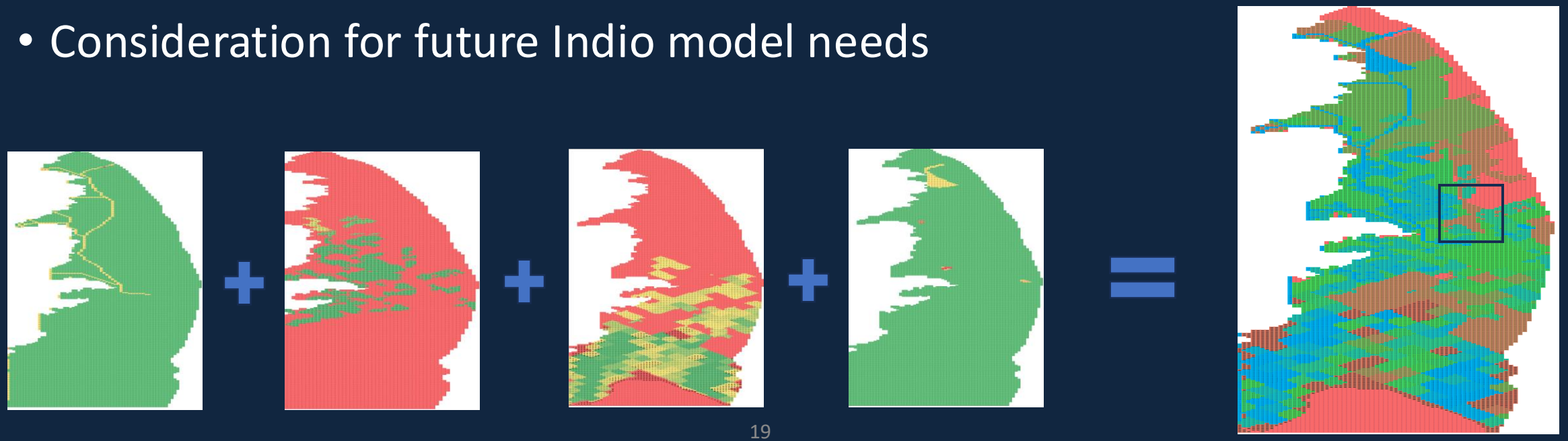
Indio Model Updates

- Extending model coverage to San Gorgonio Pass Subbasin boundary
- Updating boundary conditions for basin inflows
- Developing recharge preprocessing tool for model inputs
- Historical simulation period to be updated to WY 2025 (pending)



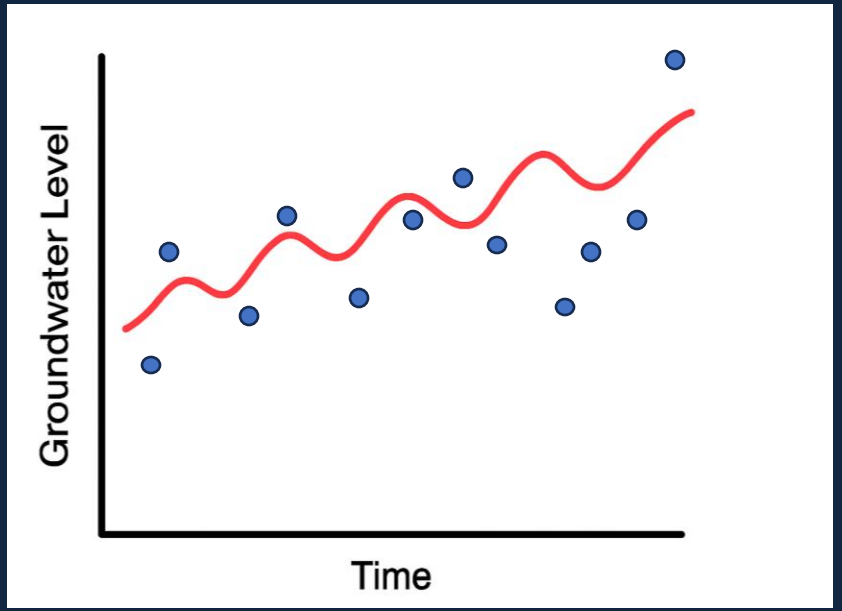
Recharge Preprocessing Utility

- Python based utility, developed for Indio model
- Simplifies preprocessing of component specific model recharge data at different time scales
- Adaptable framework that streamlines scenario development
- Consideration for future Indio model needs



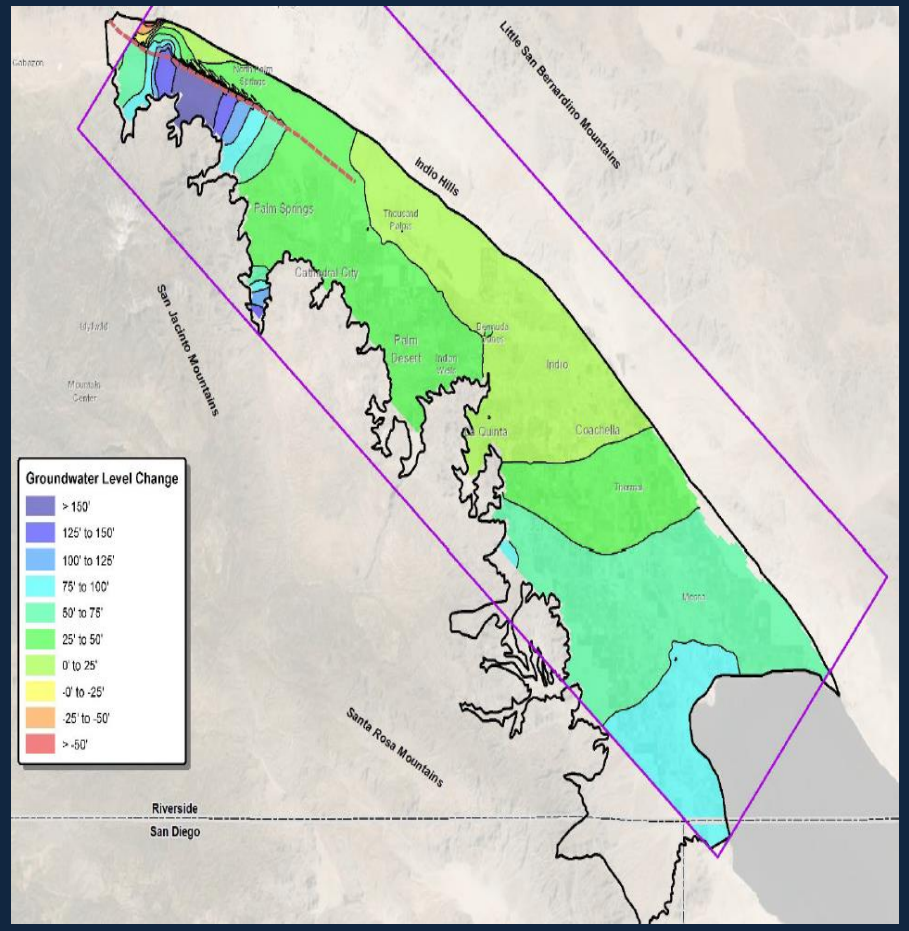
Calibration

- Calibration being performed on the historical model 1997-2019
- Matching simulation results to historical observed groundwater levels
- Primarily focused on the northwestern portion of model domain
- Accommodating increased inflows from San Gorgonio Pass
- Preserving model performance in downstream areas



Next Steps

- Complete calibration of historical model with extended grid
- Extend model simulation period to WY 2025
- Validation of recharge tool and calibration
- Develop future conditions models:
  - Baseline conditions
  - Climate change hydrology
  - Projects and Management Actions



Demand Forecast

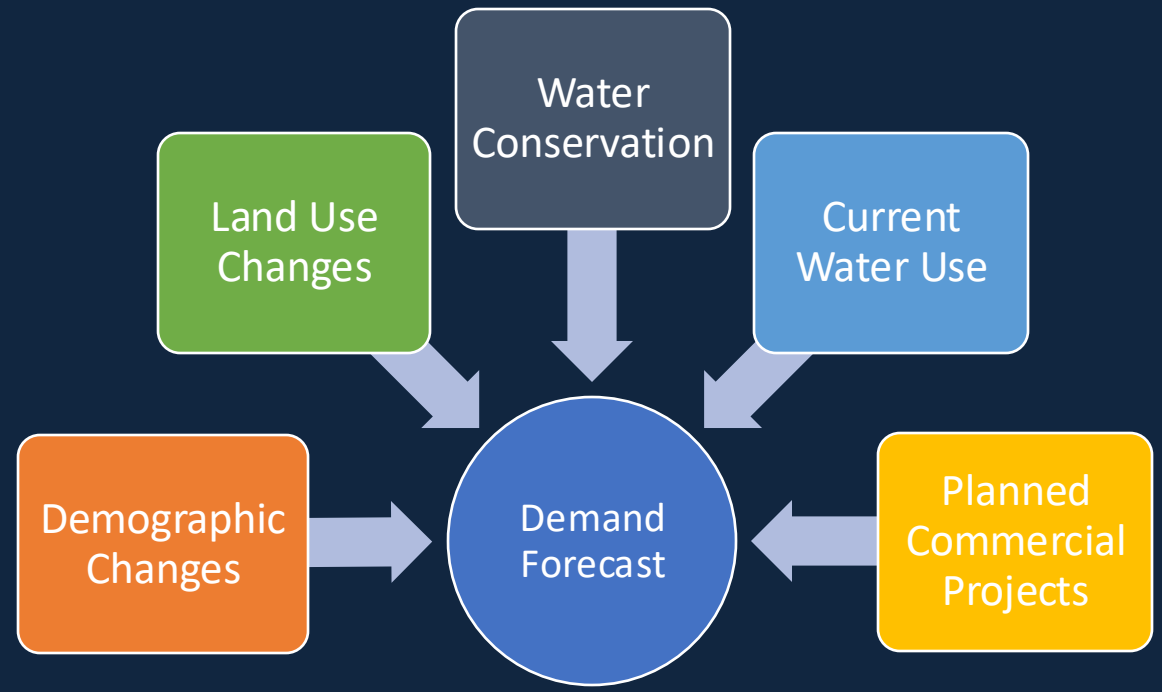
Poll Question #3:

What do you think will have the biggest impact on future water use?

- *Population growth*
- *Climate change*
- *Landscaping/outdoor use*
- *New development*

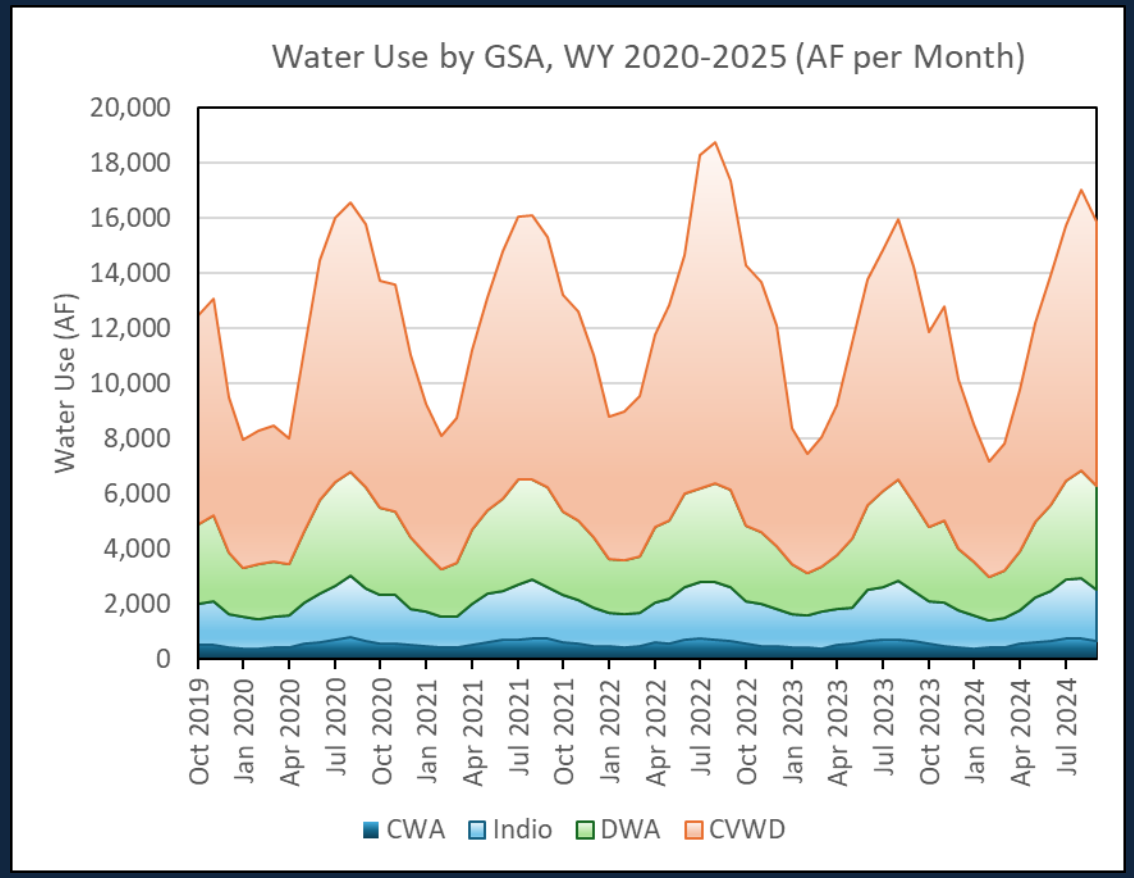
Demand Forecast

- Demand forecast estimates future water use in the Indio Subbasin
- Consider both current water use patterns and how demand could change due to growth, land use changes, and water conservation efforts
- Essential to demonstrate the Subbasin can be managed without long-term overdraft or other undesirable results



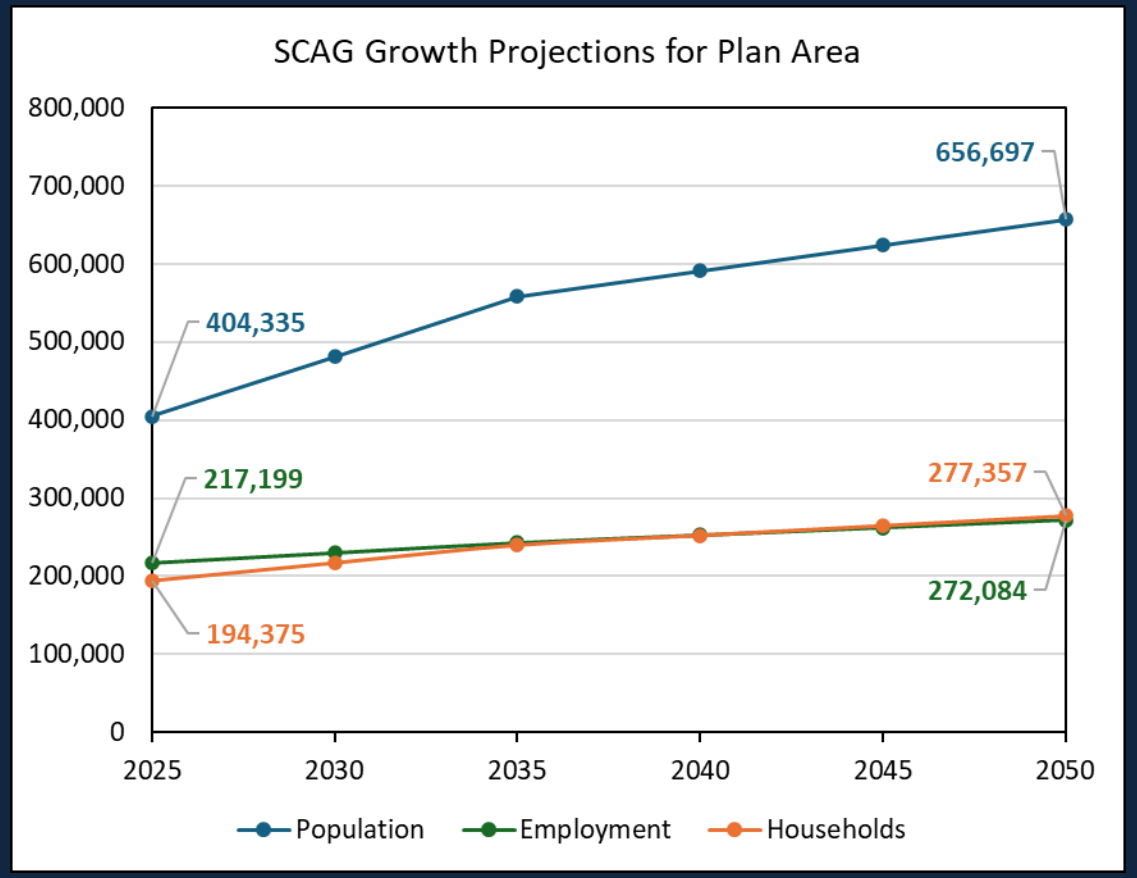
Municipal and Industrial (M&I) Demand

- M&I demand is water consumed for urban use
- M&I demand use types:
  - Residential
  - Commercial-Industrial-Institutional
  - Irrigation-Landscaping
- Forecast is based on Southern California Association of Governments (SCAG) growth projections



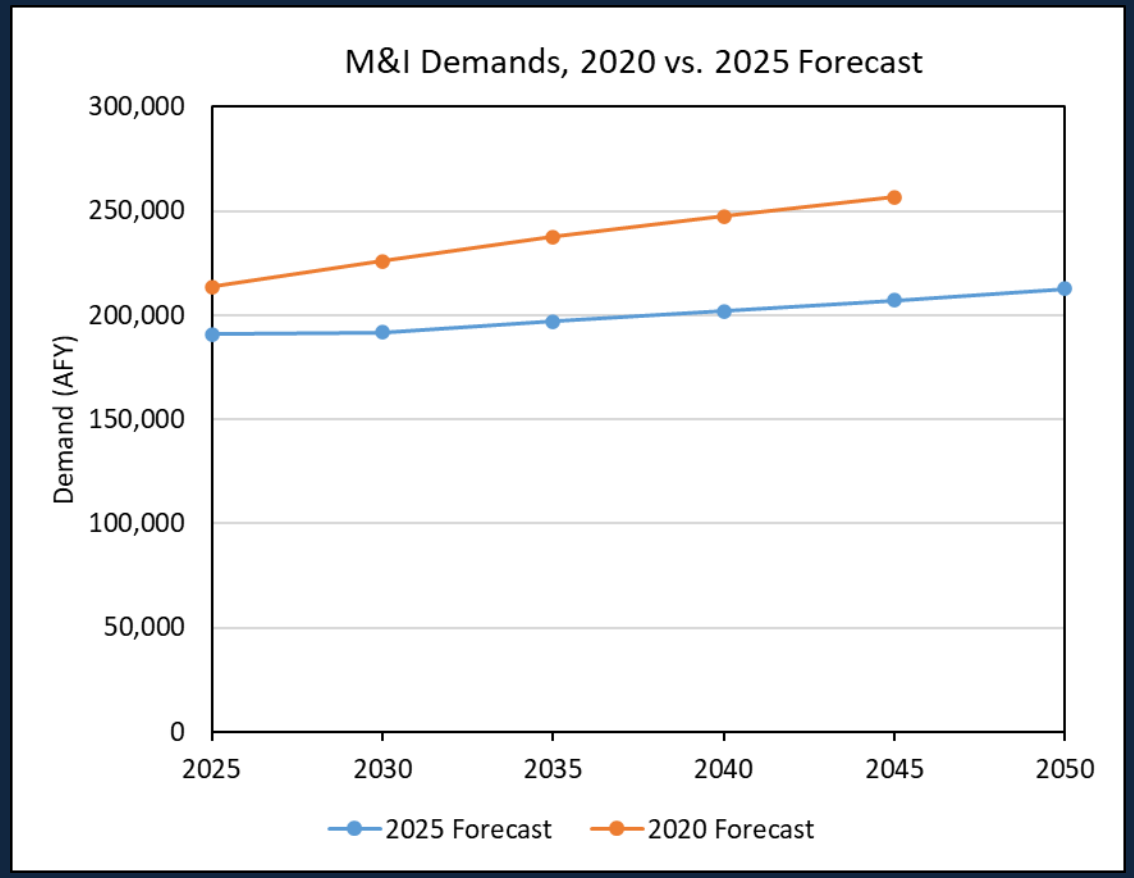
M&I Demand Methodology

- **Residential:**
  - Demand forecast based on increase in housing units by SCAG
- **Commercial-Industrial-Institutional (CII):**
  - Demand forecast based on increase in employees by SCAG
- **Irrigation-Landscaping:**
  - Demand forecast based on increase in housing units by SCAG



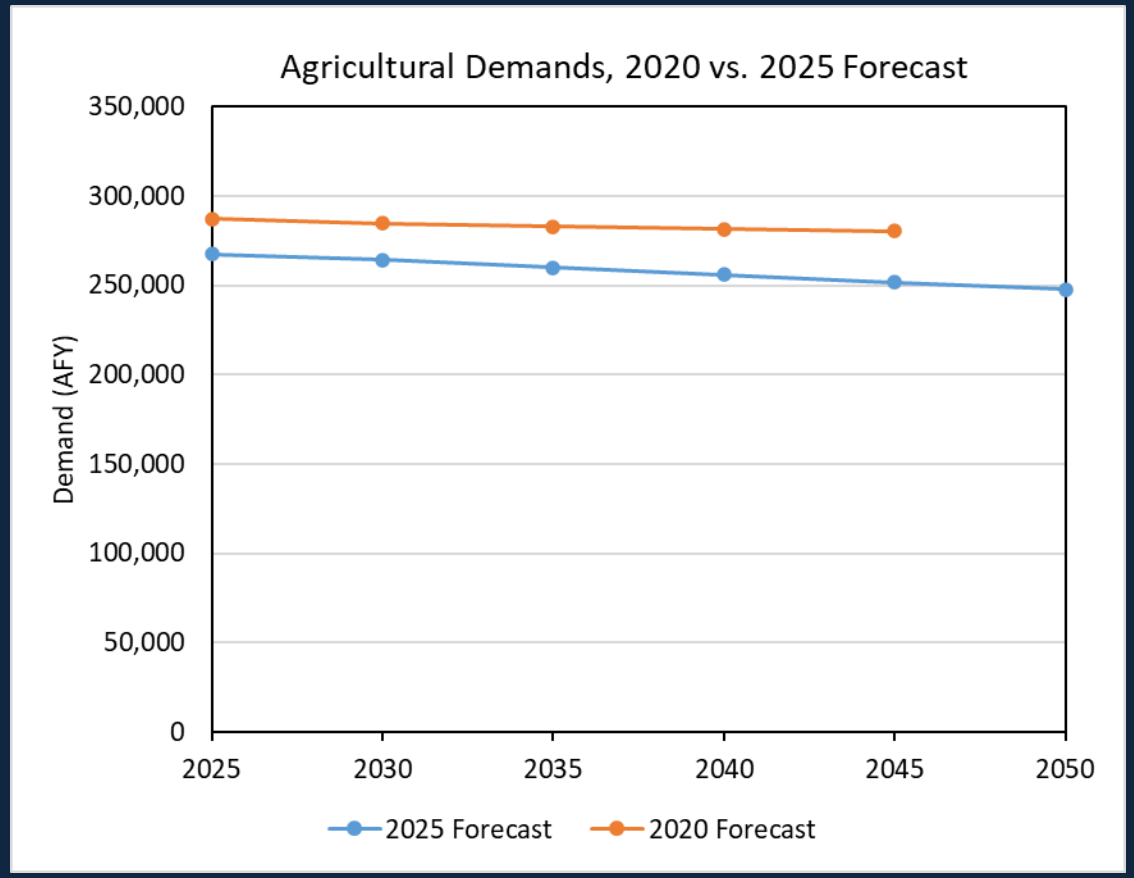
M&I Demand (cont.)

- Projected M&I Demands are decreased from last cycle due to:
  - Increased conservation estimates (including active conservation)
  - Some assumed demand increases from last cycle that did not materialize (e.g. surf parks)



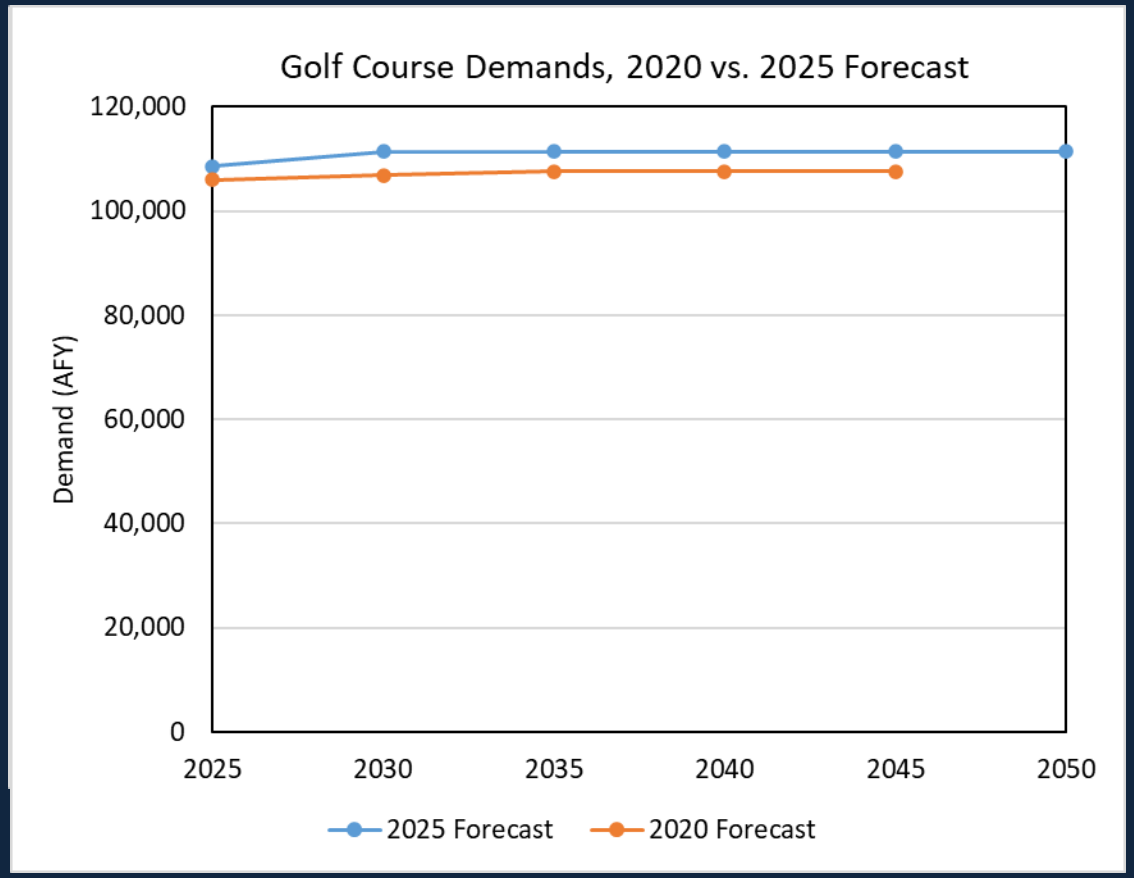
Agricultural Demand

- Projected Agricultural Demands are decreased from last cycle due to:
  - Lower actual Agricultural Demands than anticipated in 2020-2024
  - Anticipated conversion of idle to agricultural land use from last cycle that did not materialize



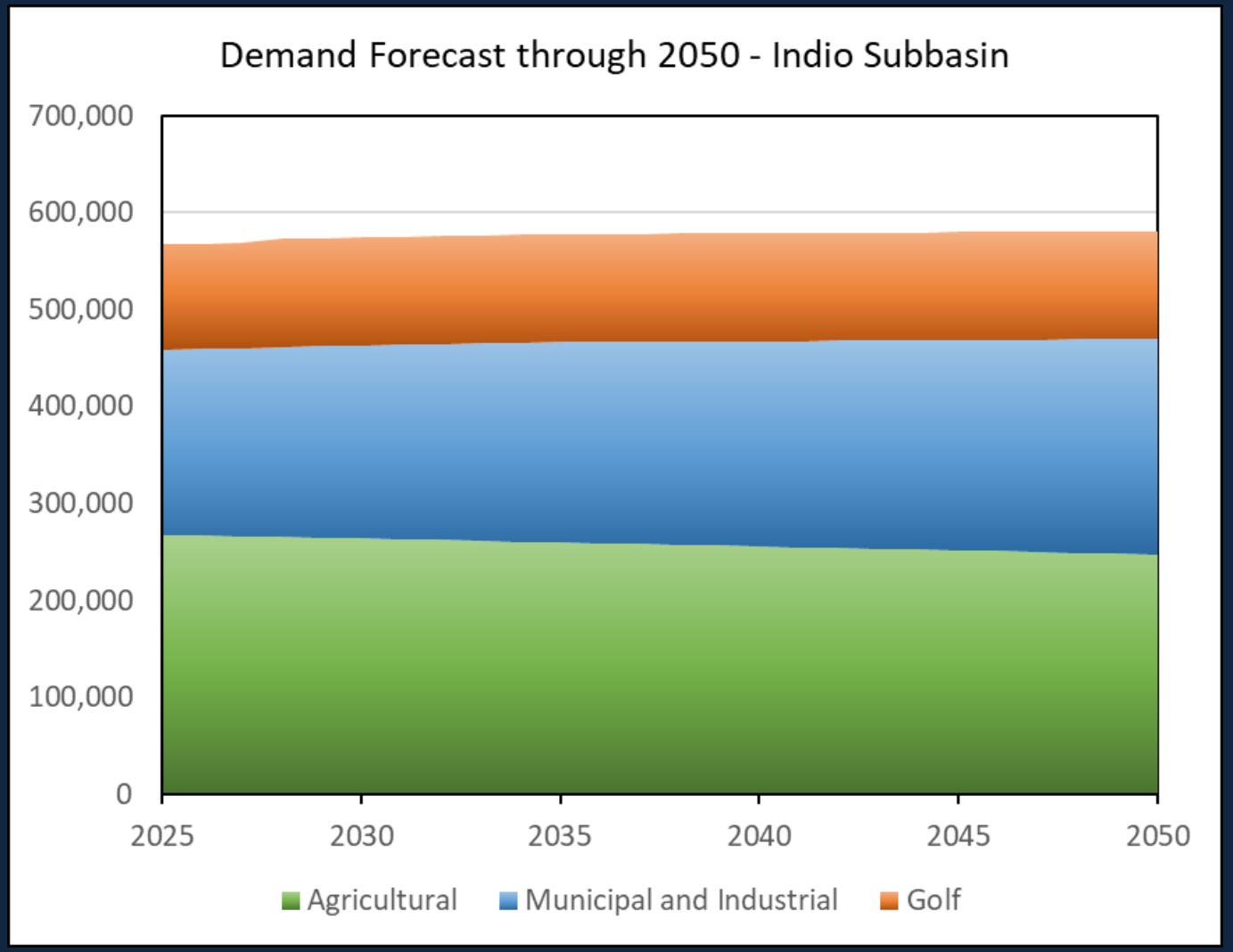
Golf Demand

- Projected Golf Course Demands are slightly greater than last cycle due to:
  - One new golf course included in baseline demands
  - Three new golf courses assumed to come online between 2035 and 2040 per Approved WSAs



Demand Forecast - Overview

- Overall, water demand in Indio Subbasin is projected to remain flat, increasing from ~567,000 AFY in 2025 to ~581,000 AFY in 2050



Water Supplies

Poll Question #4:

How familiar are you with where your water in the Indio Subbasin comes from?

- *Very familiar*
- *Somewhat familiar*
- *Not familiar at all*

Water Supply Sources in the Coachella Valley

- Groundwater
- Local Surface Water
- Recycled Water
- Colorado River Water
- State Water Project (SWP)

Coachella Canal – Completed in 1949

Local Groundwater

- Main source of urban supply
- Overdraft reversed in the 2000's via source substitution and groundwater replenishment
- 3 Groundwater Replenishment Facilities (GRFs) in the Indio Subbasin
- Funded by Replenishment Assessment Charge (RAC) paid by pumpers

Palm Desert GRF – Completed in 2019

Local Surface Water

- Local surface water diverted from Whitewater River and tributaries (Chino, Snow, and Falls Creeks)
- Undiverted surface water recharges groundwater through natural streambeds
- Supplies are variable and subject to variations due to climate
- ≈2,000 AFY diverted, anticipated to increase to 6,000 AFY by 2035

Snow Creek

Recycled Water

- Locally produced and managed
- 3 WRPs provide recycled water for irrigation in the Indio Subbasin
- Recycled water currently supplied to golf courses and HOAs
- Planned expansion of existing WRPs will increase recycled water production in the Subbasin

CVWD's Water Reclamation Plant (WRP) No. 10

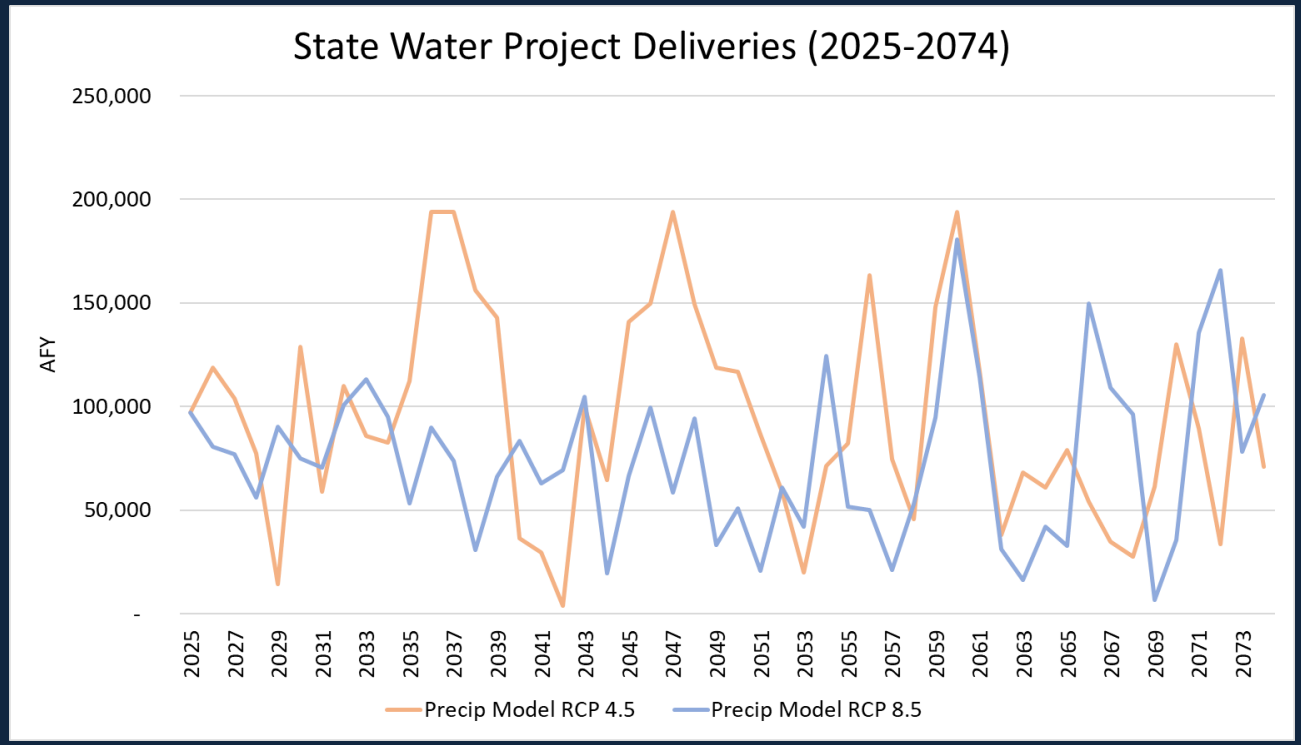
Colorado River Water

- Managed by U.S. Bureau of Reclamation and supplied via the Coachella Canal
- CVWD has entitlements for 424,000 AFY
- Used primarily for agricultural irrigation (~72%)
- Delivered to HOAs and golf courses for irrigation (~13%)
- Diverted for groundwater recharge (~11%)

Colorado River Aqueduct

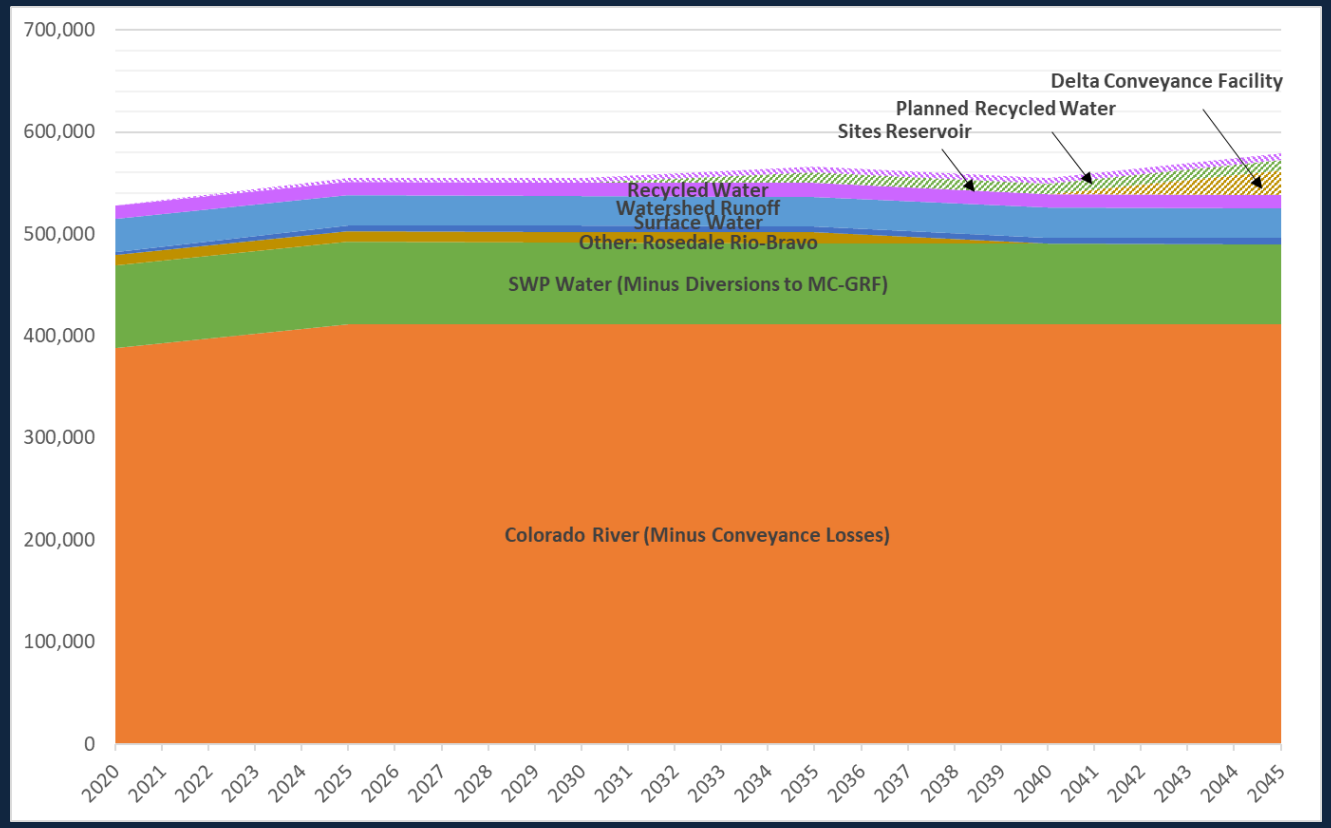
State Water Project (SWP)

- Managed by California DWR
- CVWD and DWA have contracts for 194,100 AFY
- SWP does not have a physical connection in Coachella Valley, CVWD and DWA exchange with MWD for Colorado River water
- Anticipated SWP deliveries through 2074 are projected based on climate modeling and proposed projects

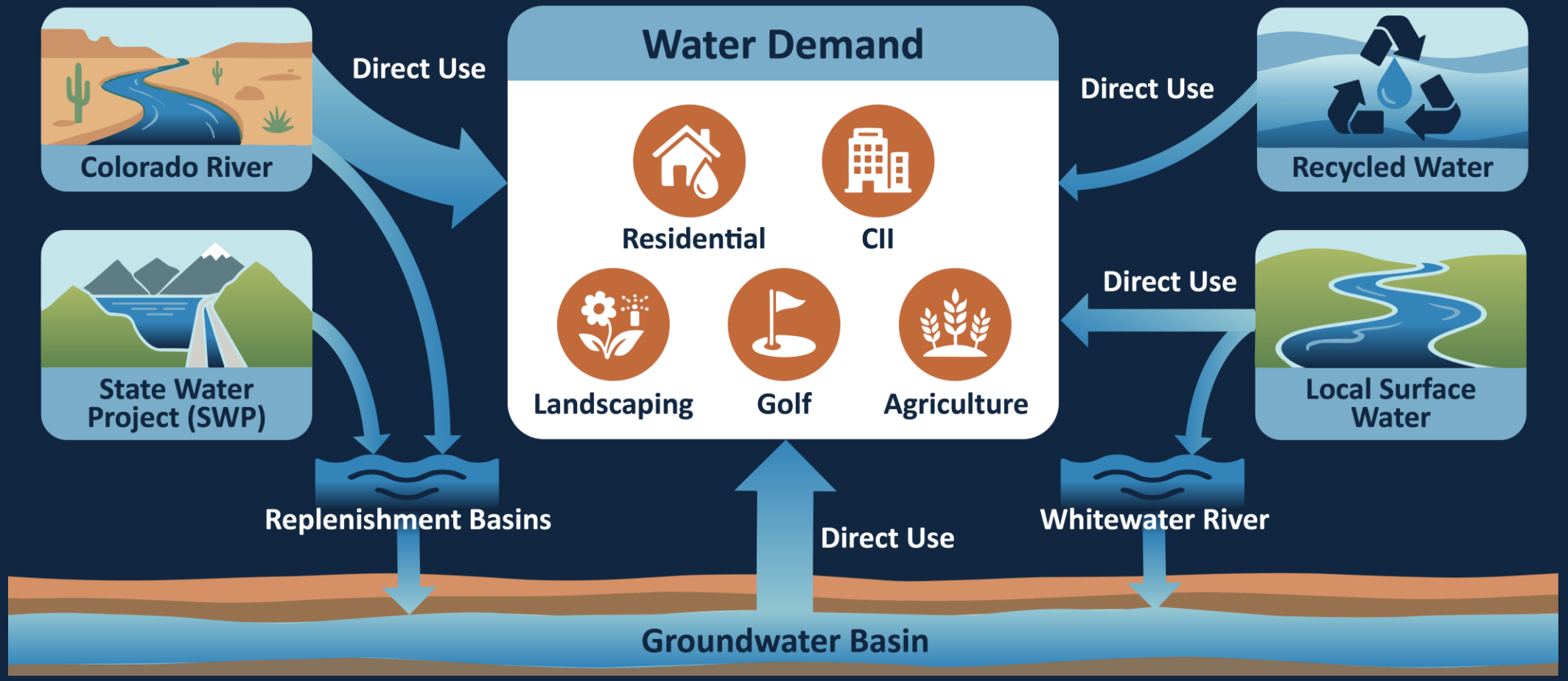


Supply - Overview

- Overall, supply availability in Indio Subbasin is projected to stabilize, increasing from ~528,000 AFY in 2025 to ~579,000 AFY in 2050
- But what about groundwater?



Supply vs. Demand



Next Steps

Outreach Timeline

Today!

Spring 2026

WORKSHOP #2: Basin Setting, Hydrogeology and Hydrology, Demand Forecast, Water Supplies

Summer 2026

WORKSHOP #3: Groundwater Model – Baseline, Sustainable Management Criteria

Fall 2026

WORKSHOP #4: Groundwater Model – Scenarios, Projects and Management Actions, Plan Implementation

Winter 2026

WORKSHOP #5: Alternative Plan Update – Draft Plan Review

Public Comment Period Open

Next Steps

- Update of Groundwater Conditions
- Evaluation of Sustainable Management Criteria
- Development of future scenarios (near term, future projects)
- Simulation of future scenarios using the groundwater model
- Evaluation of Indio Subbasin sustainability in future scenarios
- Compilation of Indio Subbasin Alternative Plan Update

Poll Question #5:

How would you like to stay informed about this process (select all that apply)?

- *Email updates*
- *Project website*
- *Social Media*
- *Community meetings*
- *I'm not interested in updates*


Public Comment

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Name *

Please enter your name

Email *

Please enter your email

Submit


Thank you!