2022 Indio Subbasin Alternative Plan Update Annual Report for Water Year 2020-2021

Public Workshop
March 17, 2022

WATER DISTRICT

COACHELLA WATER AUTHORITY & SANITARY DISTRICT
SERVICE. VALUE. QUALITY.

DESERT WATER

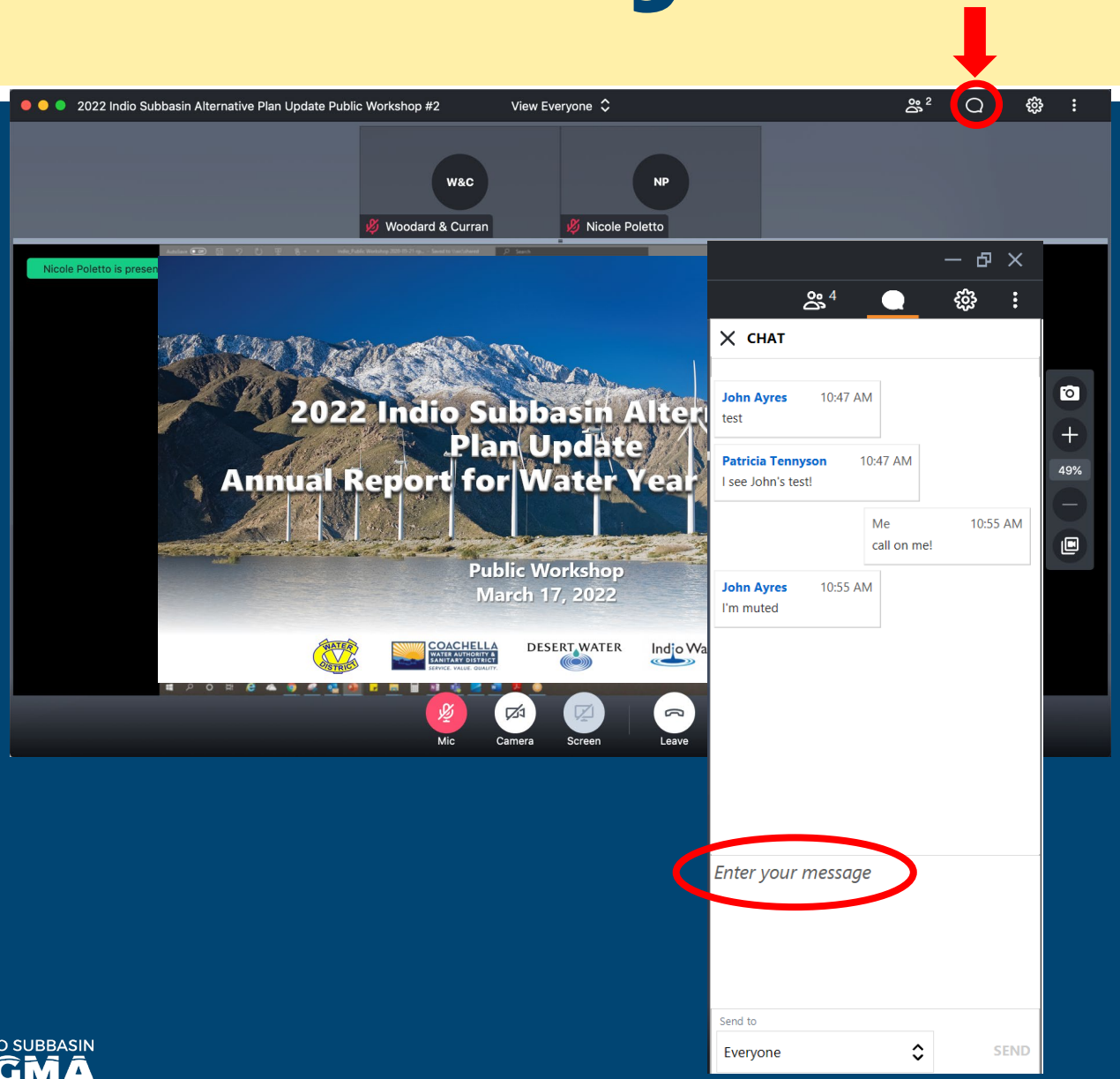
Indio Water Authority
Your Water. Our Responsibility.

GoToMeeting – Quick How To

- Your screen should look like this:

- 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

GoToMeeting – How to Ask a Question



- Our organizer will mute everyone at the beginning of the meeting
- Let us know you have a question by clicking the **Chat** icon in the top right
  - Click on *Enter your message*, type your message and hit SEND
- Once we receive your Chat, 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
  - Woodard & Curran

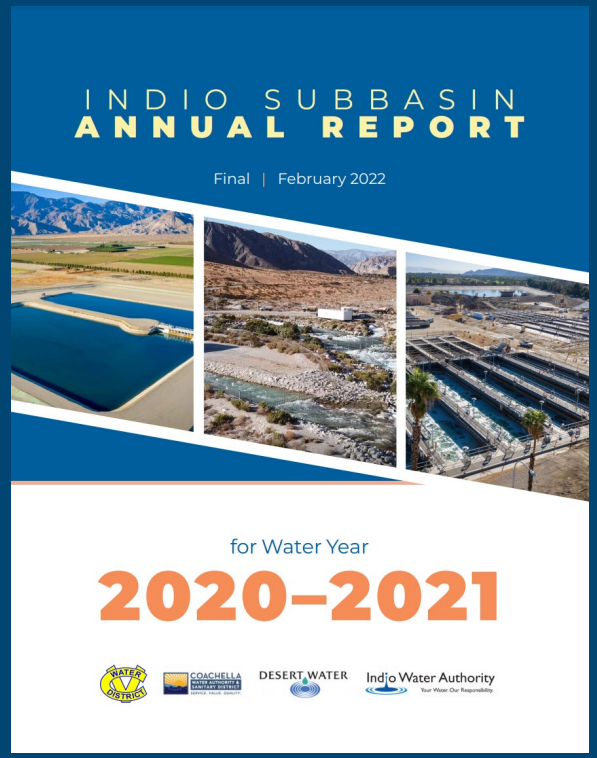
- Indio Subbasin Groundwater Sustainability Agencies (GSAs)
  - Coachella Valley Water District
  - Coachella Water Authority
  - Desert Water Agency
  - Indio Water Authority

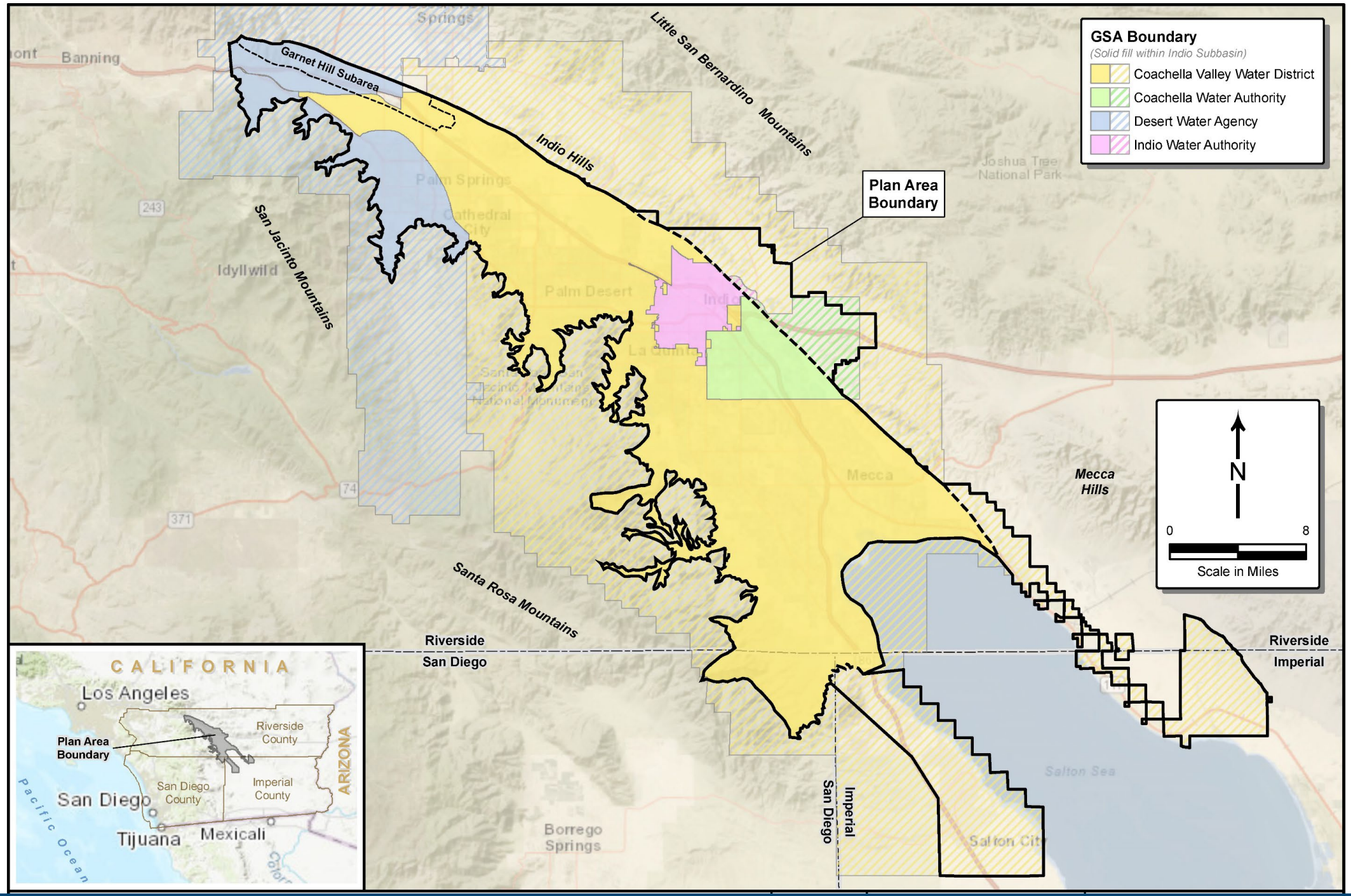
Agenda

- 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 Annual Report for WY 2020-2021

- Annual Report is required by Sustainable Groundwater Management Act (SGMA)
  - General information
  - Subbasin conditions
  - Implementation progress of projects and management actions (PMAs)
- 5th Annual Report (1st report following submittal of *Indio Subbasin 2022 Alternative Plan Update*)
  - Covers WY 2020-2021 (Oct. 1, 2020 – Sept. 30, 2021)
- Will be submitted to DWR by April 1, 2022



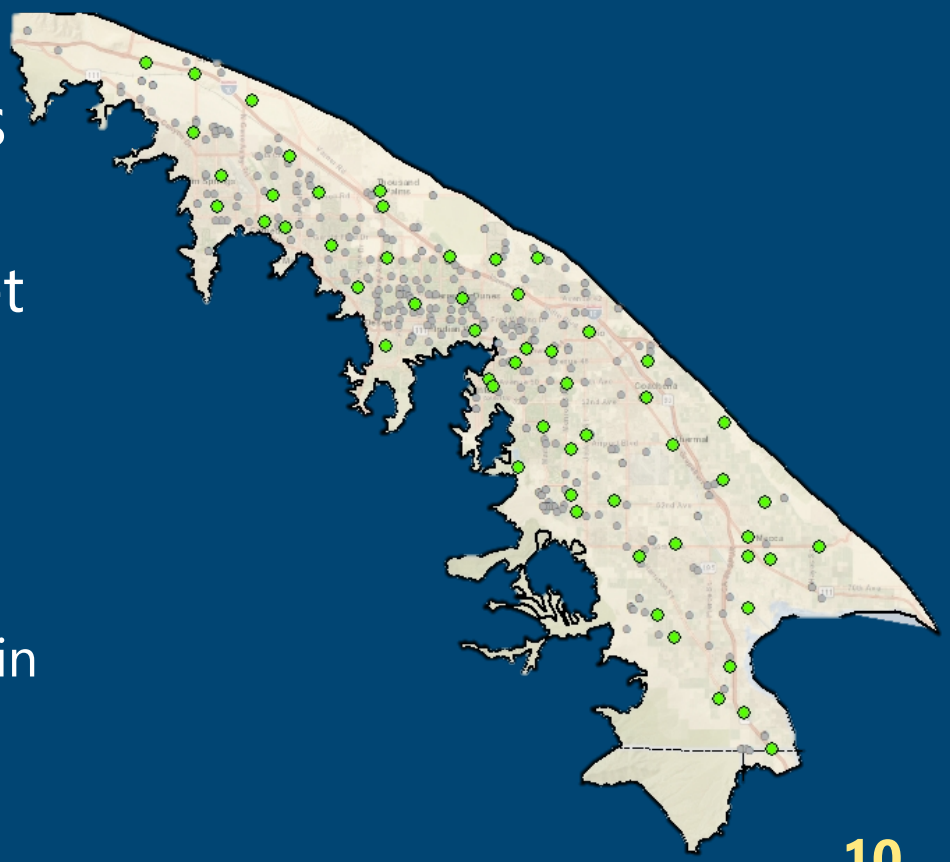

GSA Boundary
(Solid fill within Indio Subbasin)
Coachella Valley Water District
Coachella Water Authority
Desert Water Agency
Indio Water Authority
Plan Area Boundary
Garnet Hill Subarea
Little San Bernardino Mountains
Indio Hills
San Jacinto Mountains
Santa Rosa Mountains
Mecca Hills
Joshua Tree National Park
Palm Springs
Palm Desert
Idyllwild
Banning
Mecca
Salton Sea
Borrego Springs
Riverside
San Diego
Riverside
Imperial
Imperial
San Diego
N
0
8
Scale in Miles
CALIFORNIA
Los Angeles
Riverside County
Plan Area Boundary
San Diego County
Imperial County
ARIZONA
San Diego
Tijuana
Mexicali
Pacific Ocean

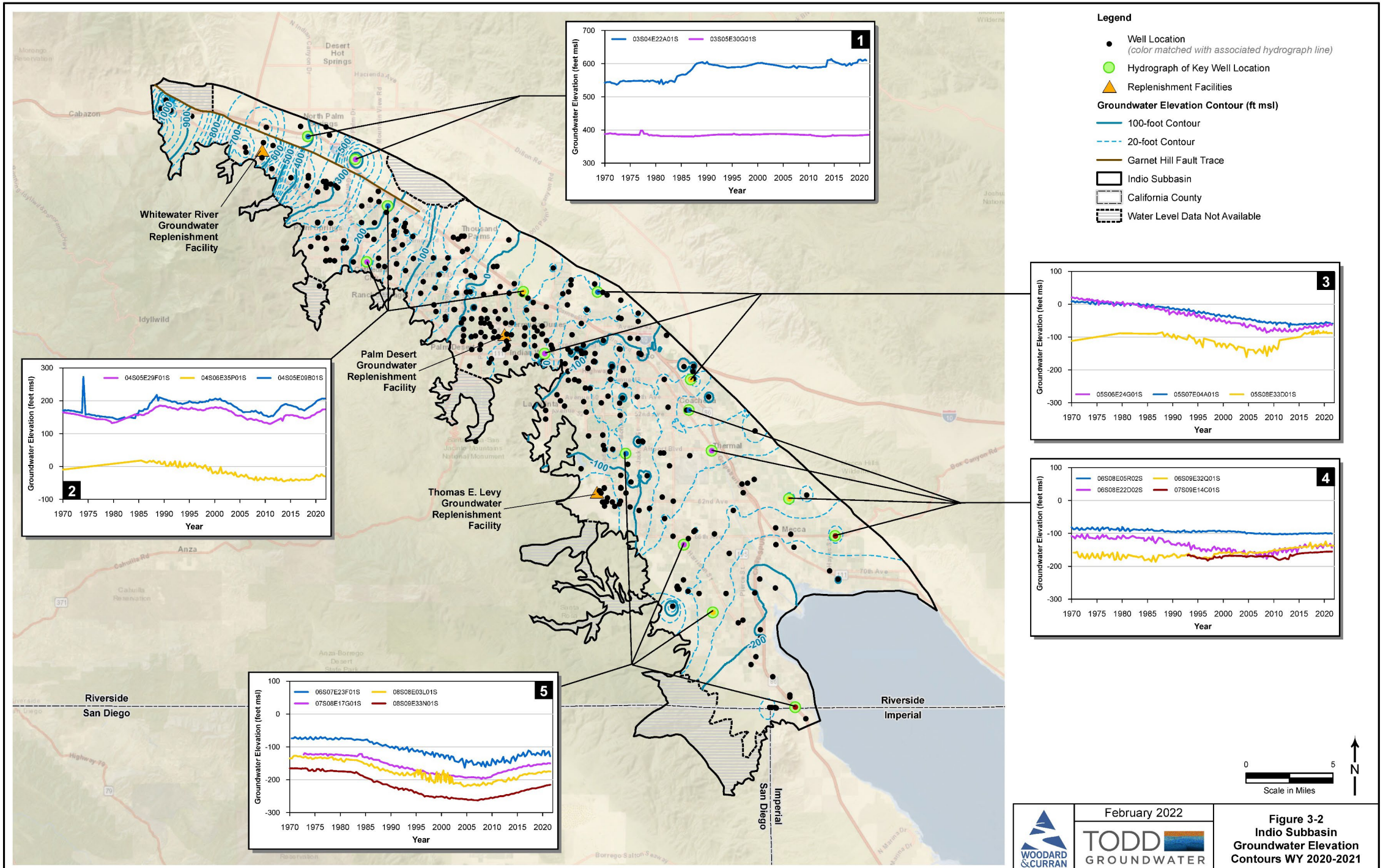
Agenda

- 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

Groundwater Evaluation Data

- Groundwater Elevations from 380 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
    - Hydrographs of each of these wells are included in the report as an Appendix




Legend
Well Location
(color matched with associated hydrograph line)
Hydrograph of Key Well Location
Replenishment Facilities
Groundwater Elevation Contour (ft msl)
100-foot Contour
20-foot Contour
Garnet Hill Fault Trace
Indio Subbasin
California County
Water Level Data Not Available
Whitewater River Groundwater Replenishment Facility
Palm Desert Groundwater Replenishment Facility
Thomas E. Levy Groundwater Replenishment Facility
Riverside
San Diego
Riverside
Imperial
San Diego
Imperial
1
03S04E22A01S
03S05E30G01S
Groundwater Elevation (feet msl)
Year
2
04S05E29F01S
04S06E35P01S
04S05E09B01S
3
05S06E24G01S
05S07E04A01S
05S08E33D01S
4
06S08E05R02S
06S09E32Q01S
06S08E22D02S
07S09E14C01S
5
06S07E23F01S
08S08E03L01S
07S08E17G01S
08S09E33N01S
0
5
Scale in Miles
N
February 2022
WOODARD &CURRAN
TODD GROUNDWATER
Figure 3-2
Indio Subbasin
Groundwater Elevation
Contours WY 2020-2021

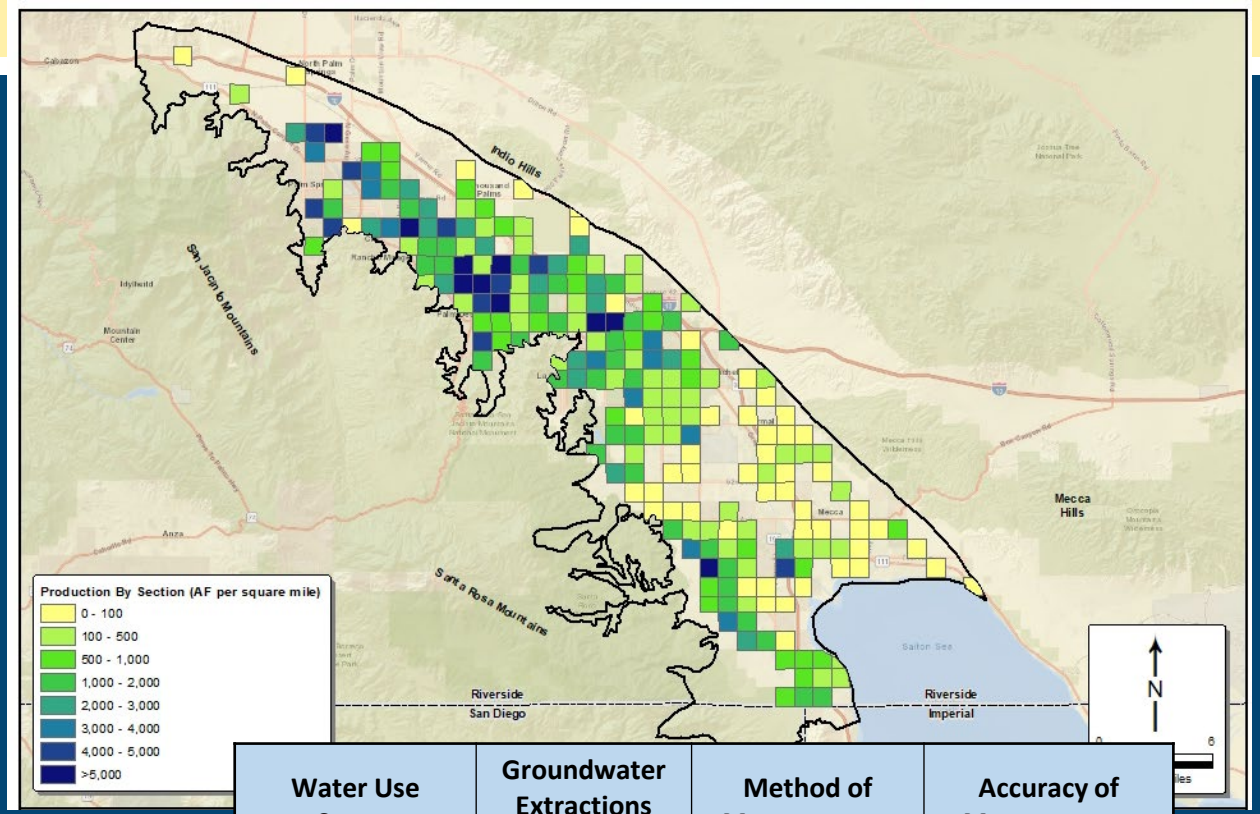
Questions?

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

Groundwater Extractions

- Groundwater extractions are metered for most uses except
  - Minimal pumpers
  - Tribal trust lands
- Groundwater pumping increased 7 percent over last water year, which was a dry year with increased tourism



Water Use Sector	Groundwater Extractions (AF)	Method of Measurement	Accuracy of Measurement
Agriculture[1]	46,561	100% metered	±2%
Industrial[2]	1,288	15% metered	±2%
		85% estimated	±50%
Urban[3]	236,002	99% metered	±2%
		1% estimated	±50%
Undetermined[4]	1,500	100% estimated	±50%
Total Production	**285,351**		

Questions?

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

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

Coachella Canal construction

Whitewater River GRF

Local Surface Water

- DWA stream diversions
  - Snow, Falls, and Chino Creeks
  - Subsurface flows from Whitewater River Canyon
- 719 AF surface water use in DWA's service area
  - 49% agriculture
  - 51% urban

Snow Creek

WY 2020-2021 Direct Use of Local Surface Water in the Indio Subbasin

Water Use Sector	Surface Water Use (AF)	Method of Measurement	Accuracy of Measurement
Agriculture[1]	353	100% metered	±2%
Industrial	0	Not applicable	Not applicable
Urban[1]	366	100% metered	±2%
Total Surface Water Use	**719**		

Imported Water – Direct Use

- CVWD receives Colorado River water from Coachella Canal
- 287,563 AF imported water for direct use in Plan Area
  - 85% agriculture
  - 15% urban

Coachella Canal

WY 2020-2021 Imported Water for Direct Use in Plan Area

Water Use Sector	Water Source	Imported Water Use (AF)	Method of Measurement	Accuracy of Measurement
Agriculture[1]	Coachella Canal	245,853	100% metered	±2%
Urban[2]	Coachella Canal	41,710	100% metered	±2%
Industrial	Coachella Canal	0	100% metered	±2%
Environmental[3]	Coachella Canal	0	Not applicable	--

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
- 154,848 AF imported water for replenishment
  - 10,789 AF at Palm Desert GRF
  - 37,878 AF at Thomas E. Levy GRF
  - 106,181 AF at Whitewater River GRF

WWR-GRF

WY 2020-2021 Imported Water for Replenishment in Plan Area

Water Use Sector	Water Source	Imported Water Use (AF)	Method of Measurement
Groundwater Replenishment	Coachella Canal[6]	48,667	100% metered
Groundwater Replenishment	SWP Exchange/CRA	106,181	100% metered

Recycled Water

- Three water reclamation plants (WRPs) provide recycled water
  - Palm Springs WWTP/DWA WRP
  - CVWD WRP-7
  - CVWD WRP-10
- 14,000 AF recycled water produced
  - 100% urban

DWA WRP

WY 2020-2021 Recycled Water Use in the Indio Subbasin

Water Use Sector	Water Source	Recycled Water Use (AF)	Method of Measurement	Accuracy of Measurement
Urban[1]	DWA WRP	3,877	100% metered	±2%
Urban[1]	CVWD WRP 7	2,594	100% metered	±2%
Urban[1]	CVWD WRP 10	7,529	100% metered	±2%
Total Recycled Water Use		**14,000**		

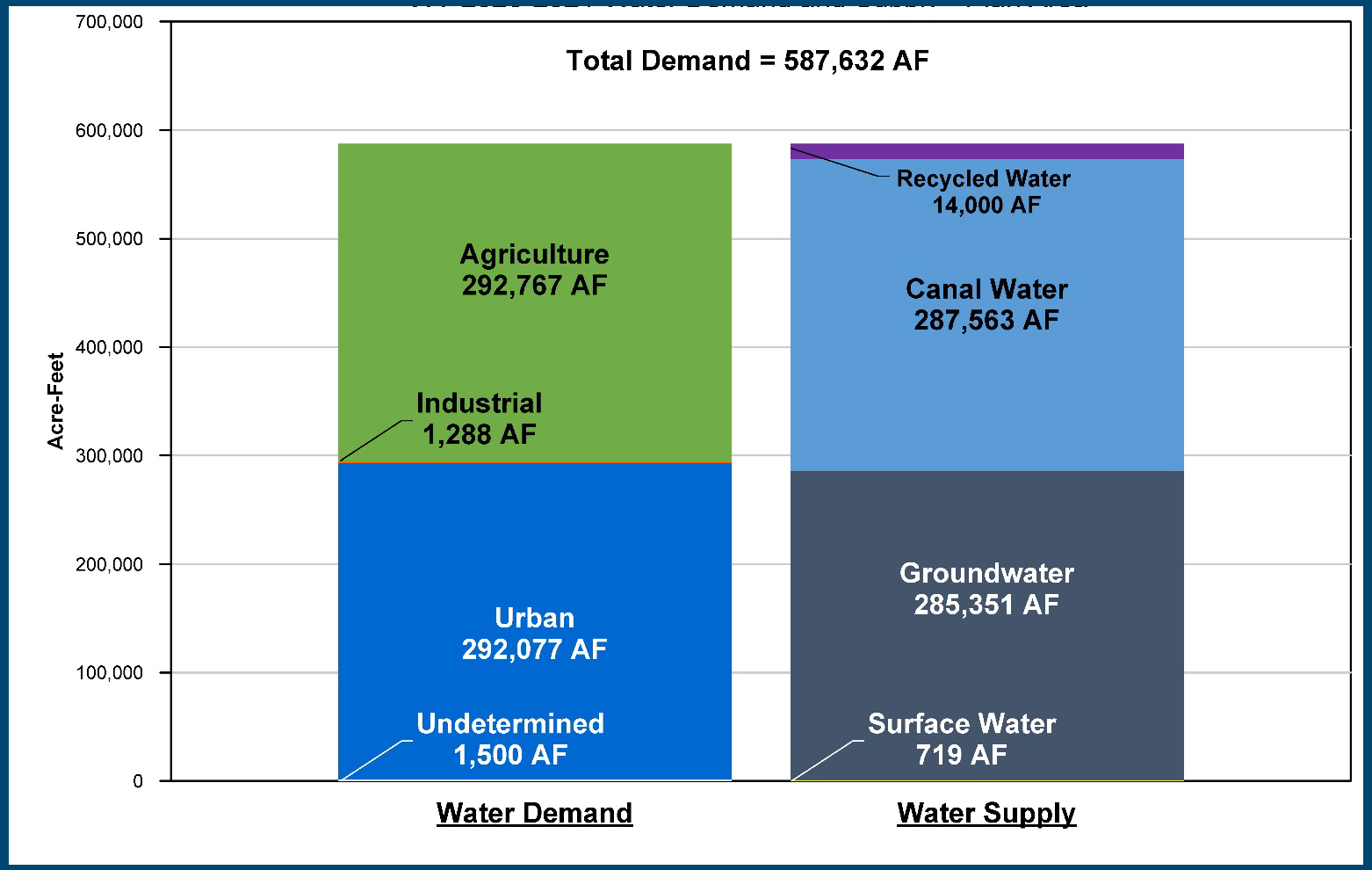
Questions?

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

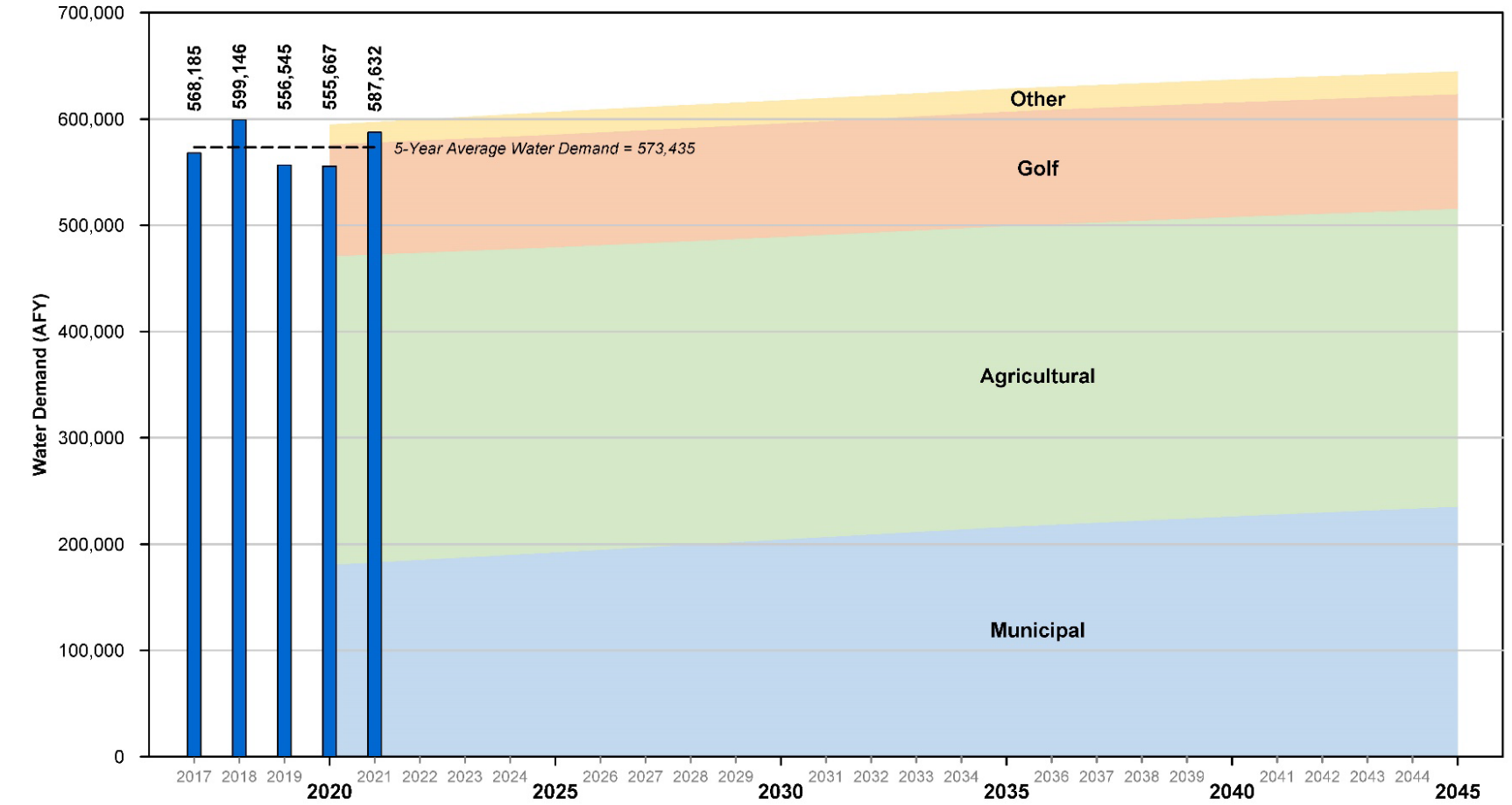
Total Water Use

WY 2020-2021 Water Demand and Supply – Plan Area



Total Water Use

Total Water Demand Actual and Forecasted – Plan Area



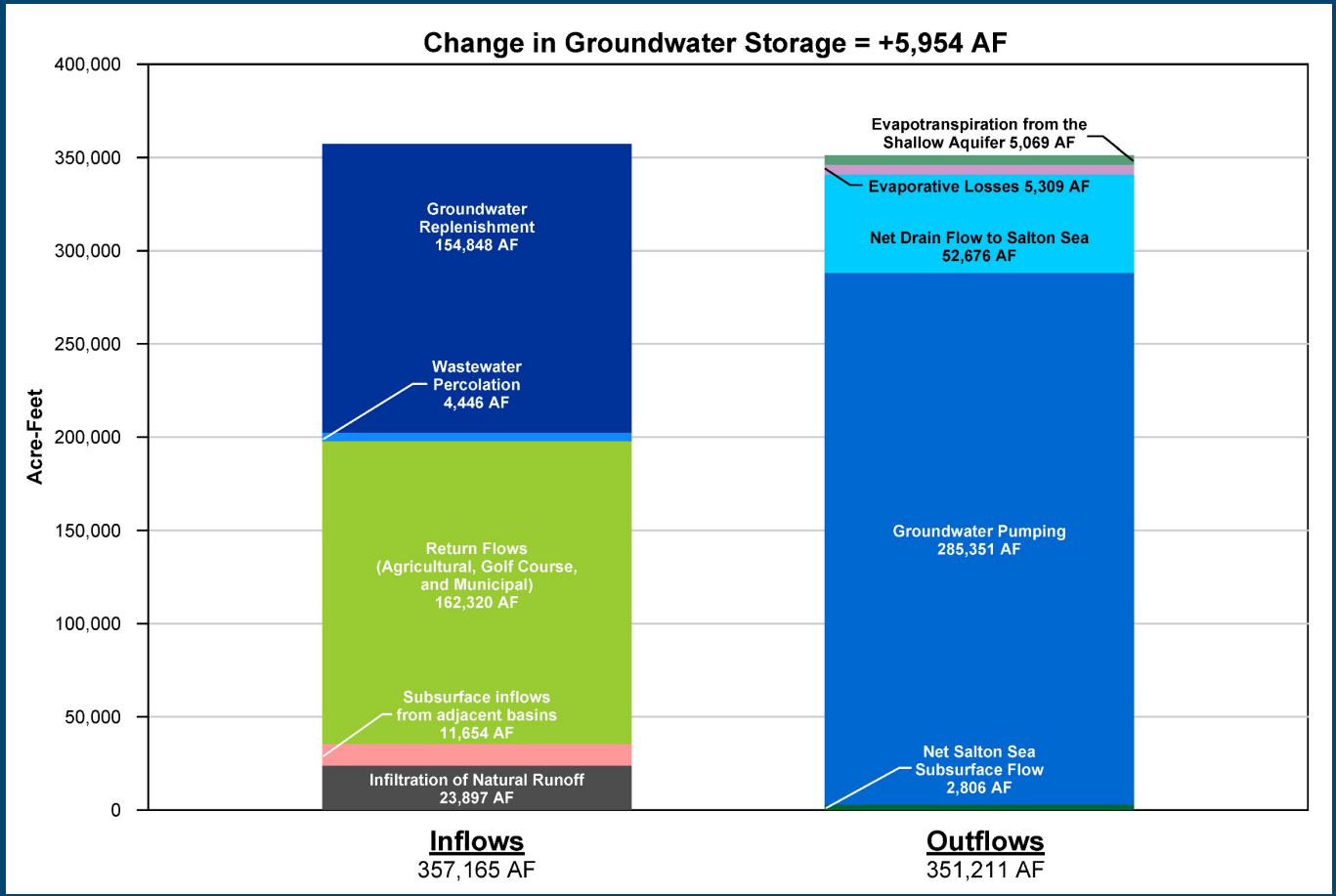
Questions?

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

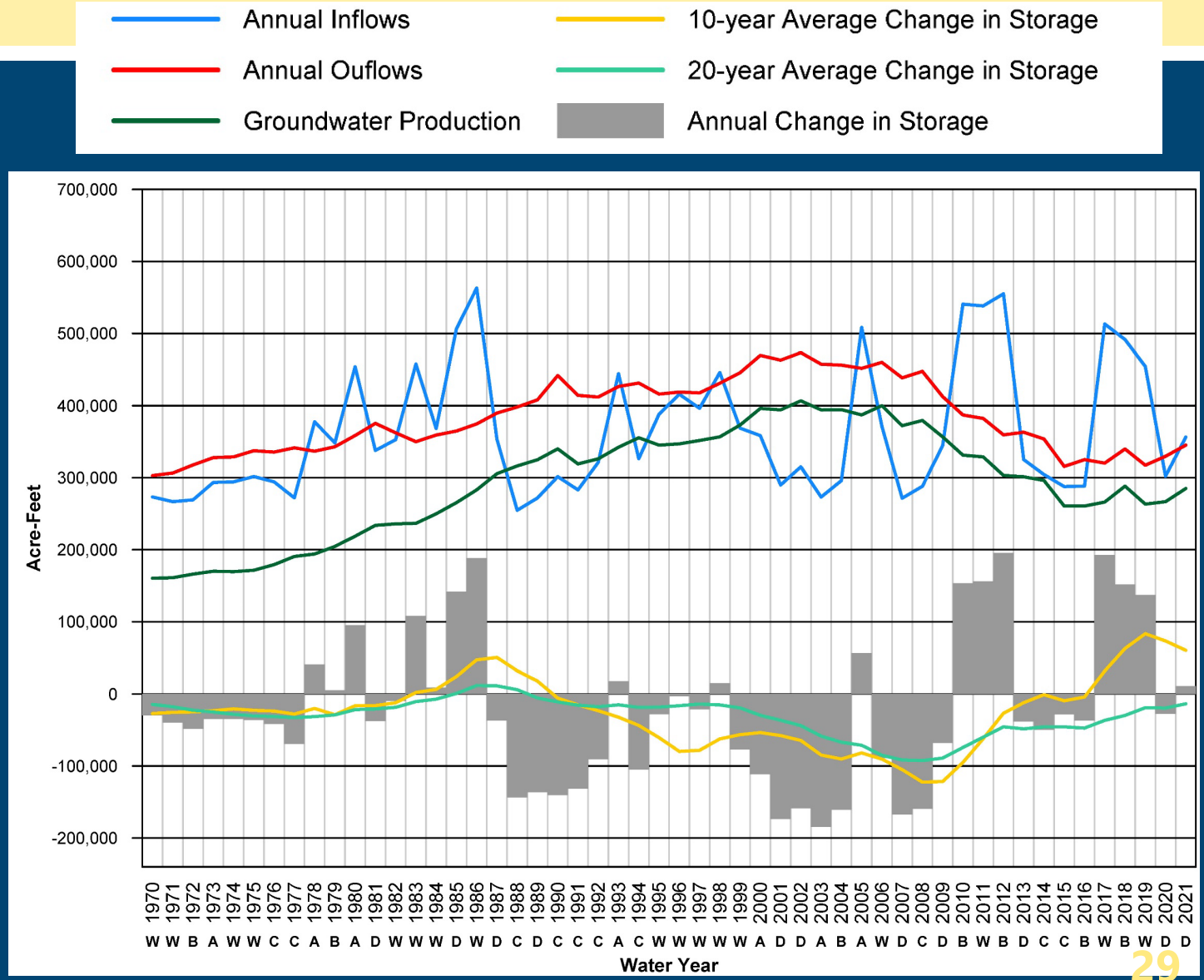
Change in Groundwater Storage

- 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
  - Slight positive (5,954 AF)
- Average change in storage
  - Since 2009, 10-year average is positive and 20-year average is near balanced
  - Shows the Indio Subbasin is sustainable

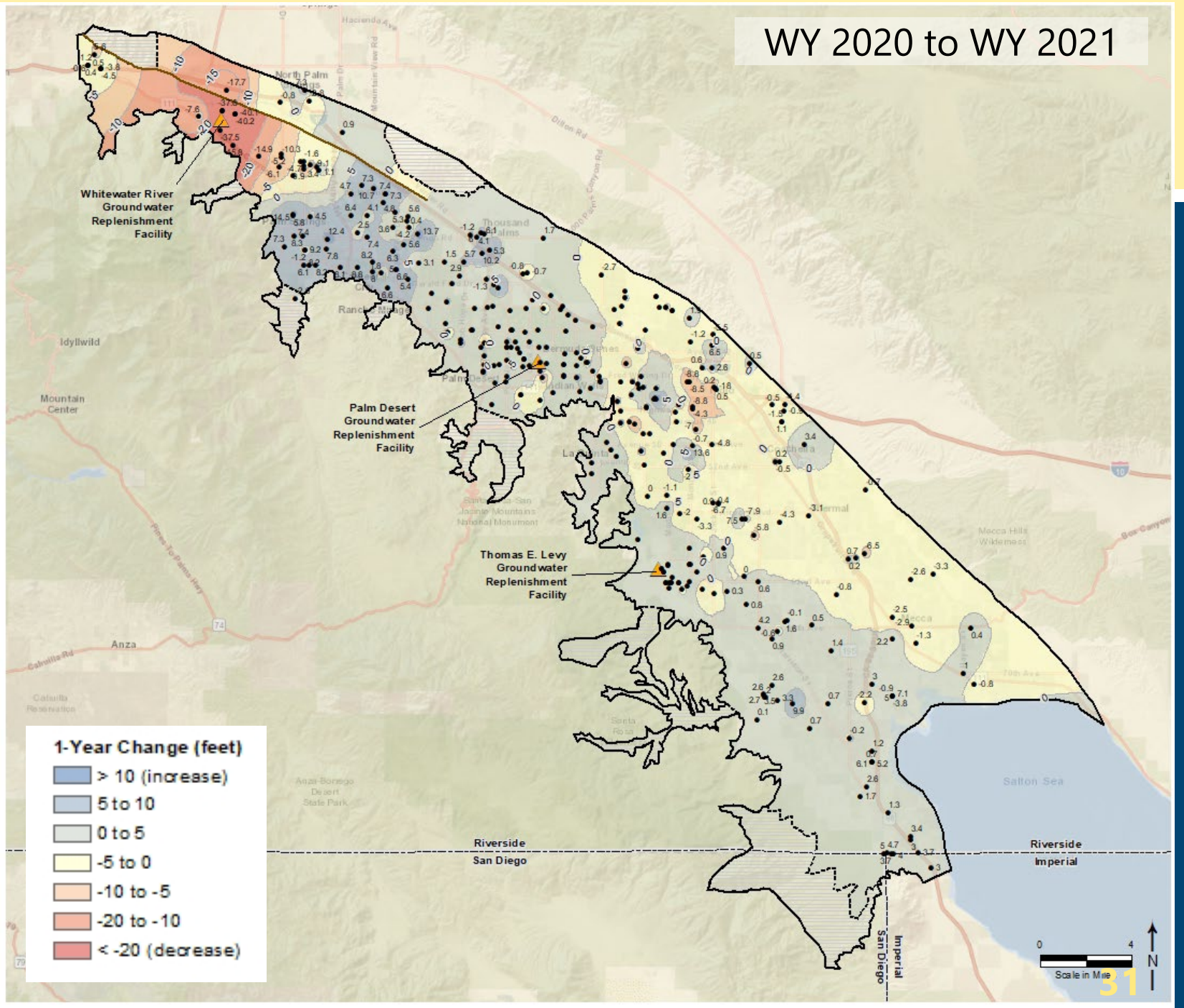


Change in Groundwater Levels

- 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 380 wells throughout the Indio Subbasin

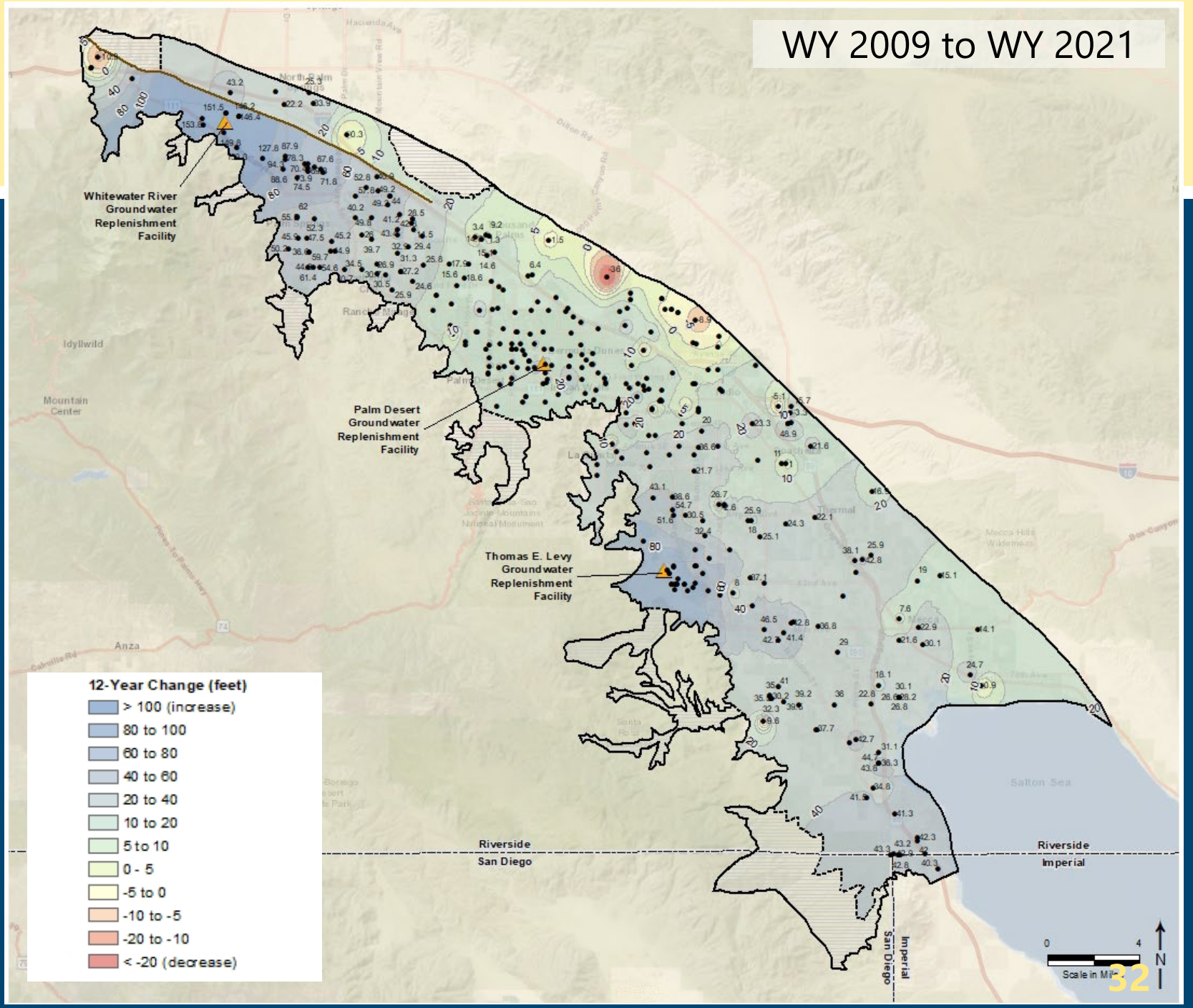
One Year Change

- Groundwater levels generally increased in the past water year
  - Declines in the norther part of the Subbasin of about 10-15 feet due to dry-year reductions in replenishment
  - Declines in the eastern part of the Subbasin were less than 5 feet



Long-Term Change

- Basin-wide increases since 2009 historic lows
- Water levels have increased or stabilized
- Very localized declines in Mid-Valley area



Questions?

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

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

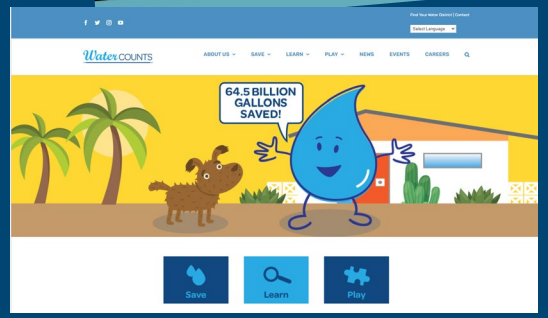
10: Mid-Valley Pipeline Direct Customers
11: East Golf Expansion
12: Oasis Distribution System
13: WRP-10 Recycled Water Delivery
14: WRP-10 Tertiary Expansion
15: Canal Water Pump Station Upgrade
16: WRP-7 Recycled Water Delivery
17: WRP-4 Tertiary Expansion & Delivery
18: DWA WRP Recycled Water Delivery
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

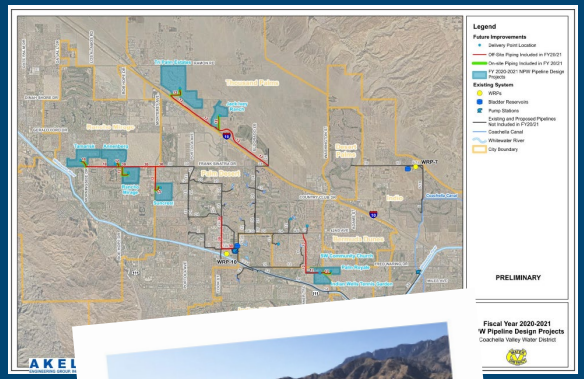
Projects & Management Actions – Progress in WY 2020-2021

Water Conservation

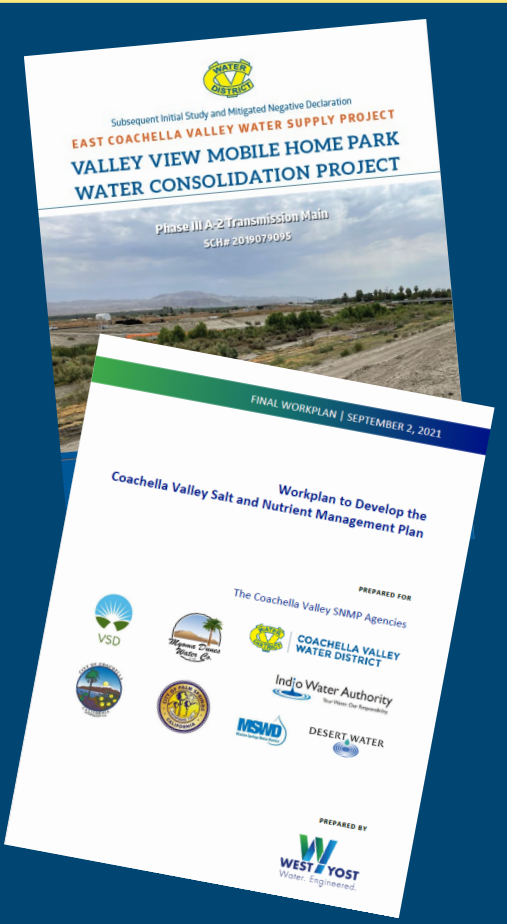


Water Supply Development

Source Substitution & Replenishment



Water Quality Protection



Questions?

Public Comment

Input and feedback are welcomed

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

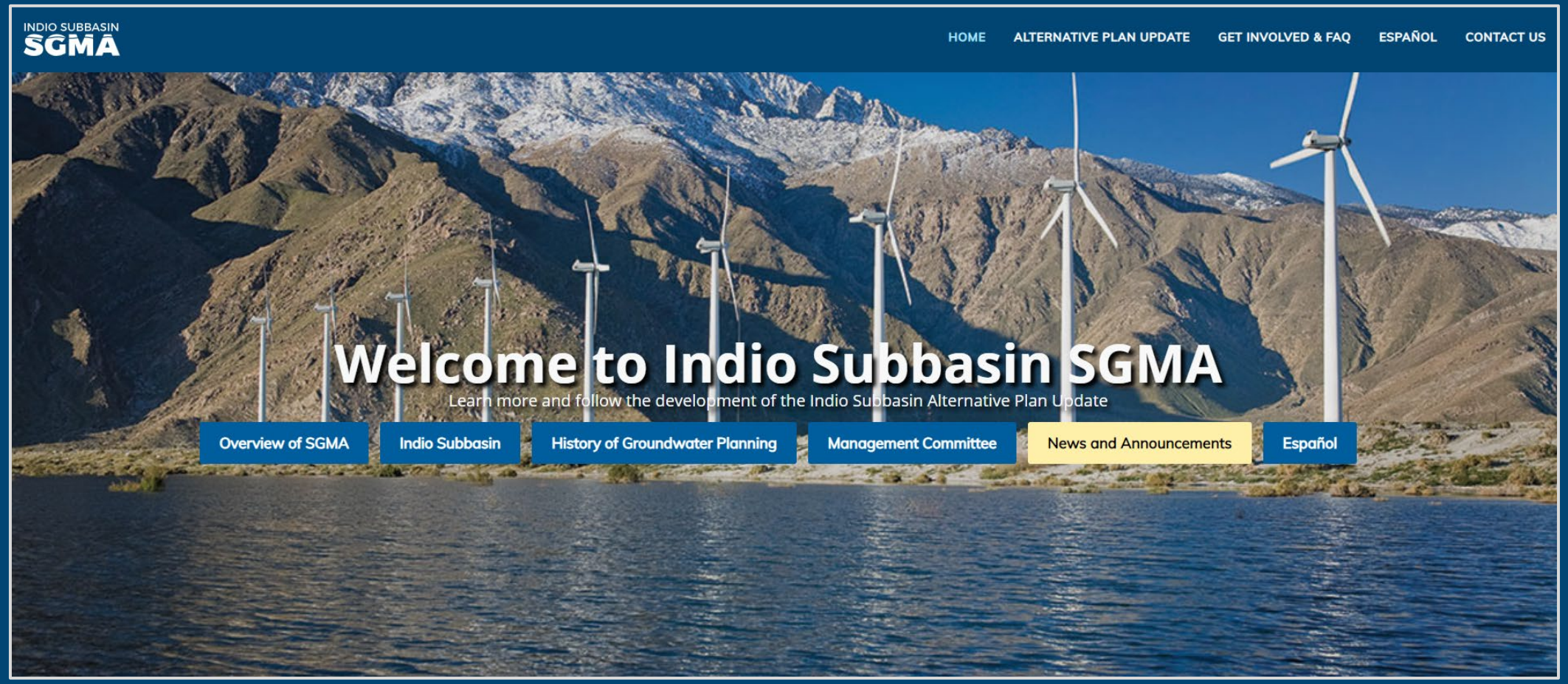
Next Steps

- WY 2022 Annual Report can be downloaded:

  www.IndioSubbasinSGMA.org

- Indio Subbasin Annual Report for WY 2020-2021 Council/Board Presentation or Adoption
  - Coachella Valley Water District – March 8, 2022
  - Coachella Water Authority – TBD
  - Desert Water Agency – April 19, 2022
  - Indio Water Authority – April 20, 2022

Stay Involved – Visit our Website



www.IndioSubbasinSGMA.org