

# 2022 Indio Subbasin Alternative Plan Update

Workshop #1  
February 20, 2020



# Meeting Objectives

- Provide overview of Sustainable Groundwater Management Act
- Review history of water management planning in Indio Subbasin
- Describe the Alternative Plan and Plan Update approach
- Request input and feedback to support the update process

# Agenda

- **Welcome and Introductions**
- Overview of SGMA
- Water Management Planning in Indio Subbasin
- Indio Subbasin Alternative Plan Update
- Public Comment
- Next Steps



# Plan Update Team

- Project Consultants

- ❖ Todd Groundwater
- ❖ Woodard & Curran



- Indio Subbasin Groundwater Sustainability Agencies

- ❖ Coachella Valley Water District
- ❖ Coachella Water Authority
- ❖ Desert Water Agency
- ❖ Indio Water Authority



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# What is the Sustainable Groundwater Management Act (SGMA)?

## *Landmark legislation in 2014*

- ❖ Provides a framework for sustainable management of groundwater basins
- ❖ Promotes *local* management
  - With local Groundwater Sustainability Agencies (GSAs)
  - Preparing a Groundwater Sustainability Plan (GSP) or submitting an Alternative Plan
- ❖ Sets regulatory deadlines for submitting plans, reporting progress, and achieving sustainable management
- ❖ Offers State assistance
  - Funding, data, and technical support

# What is Sustainable Management?

Management and use of groundwater in a manner that can be maintained without causing undesirable results:



**Chronic lowering of  
Groundwater Levels**



~~**Seawater Intrusion**~~



**Reduction of  
Groundwater Storage**



**Groundwater Quality  
Degradation**



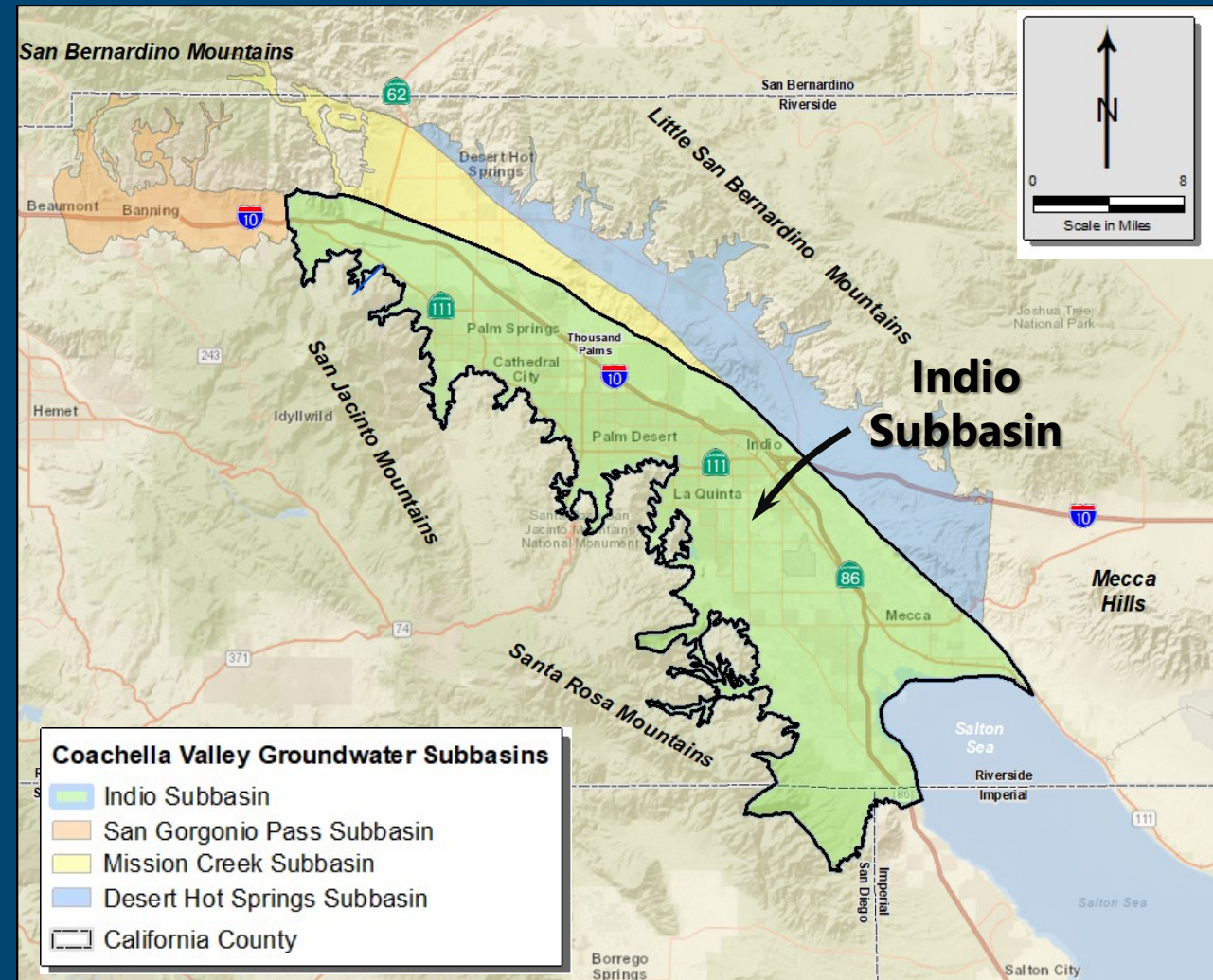
**Land Subsidence**



**Depletion of  
Interconnected Surface  
Water**

# How does SGMA Apply to the Indio Subbasin?

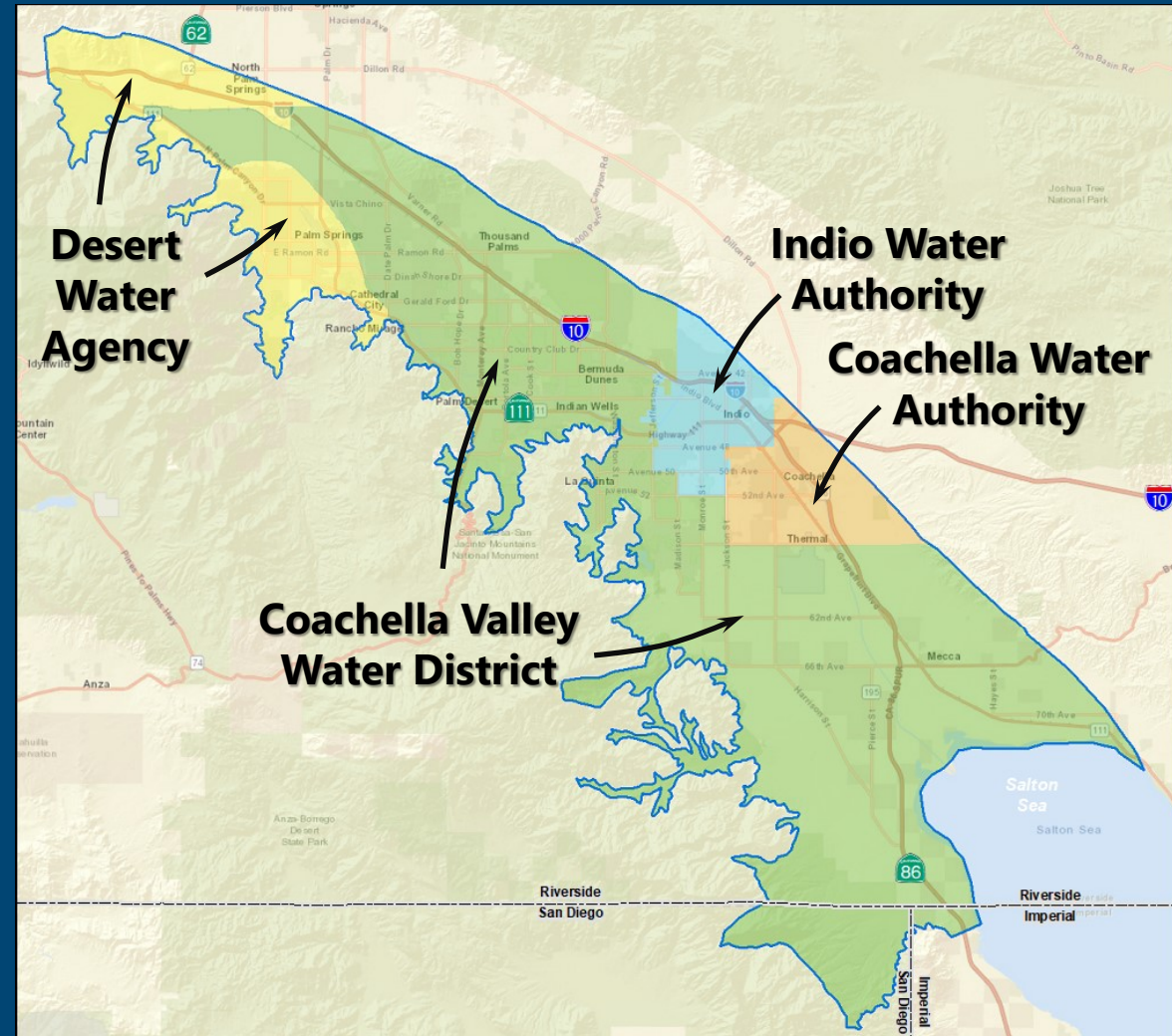
- Defines Indio Subbasin as medium priority, thus subject to SGMA
- Recognizes existing water management plan, approved as functionally-equivalent Alternative Plan
- Recommends that GSAs quantify sustainability criteria and incorporate additional elements in Plan Update
- Requires the Indio Subbasin to be sustainably managed within 20 years



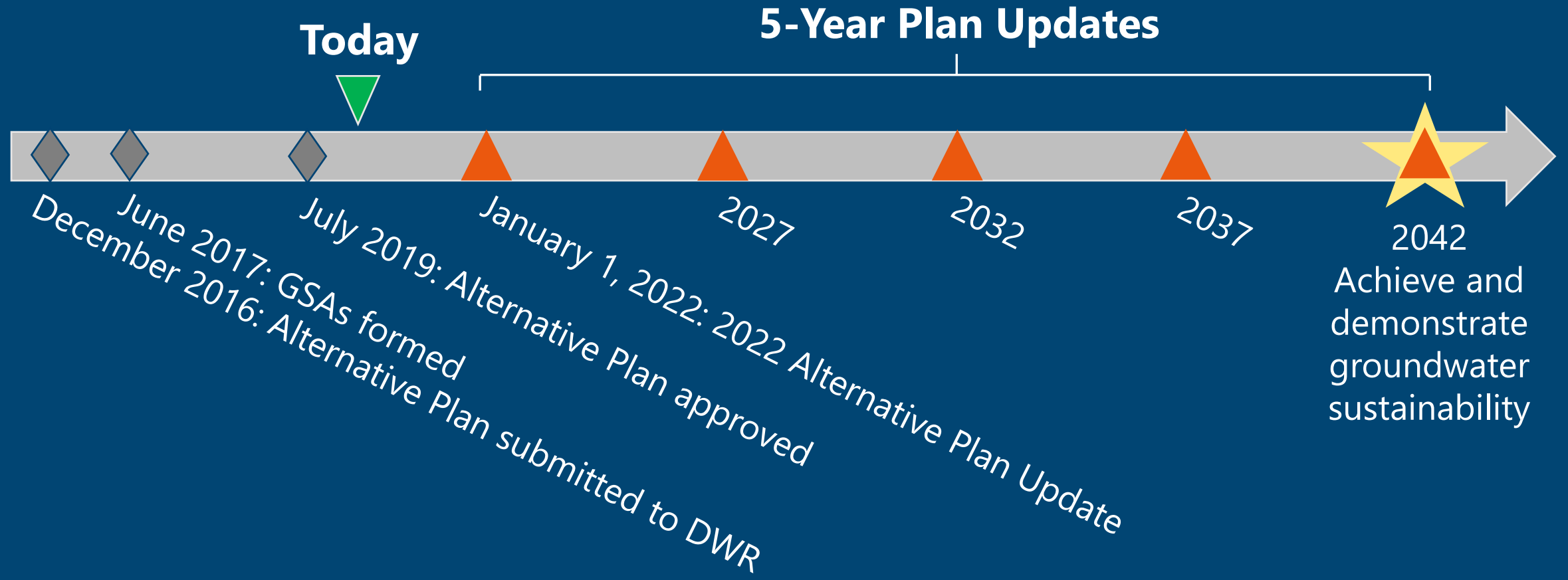


# What are the Roles/Responsibilities of GSAs?

- Each GSA has responsibility and authority for water management within their respective boundaries
- Historical and ongoing cooperation
  - ❖ Memorandum of Understanding
  - ❖ Joint submission of Alternative Plan
  - ❖ Collaboration on Annual Reports and 5-Year Plan Updates



# SGMA Timeline for Indio Subbasin



# Agenda

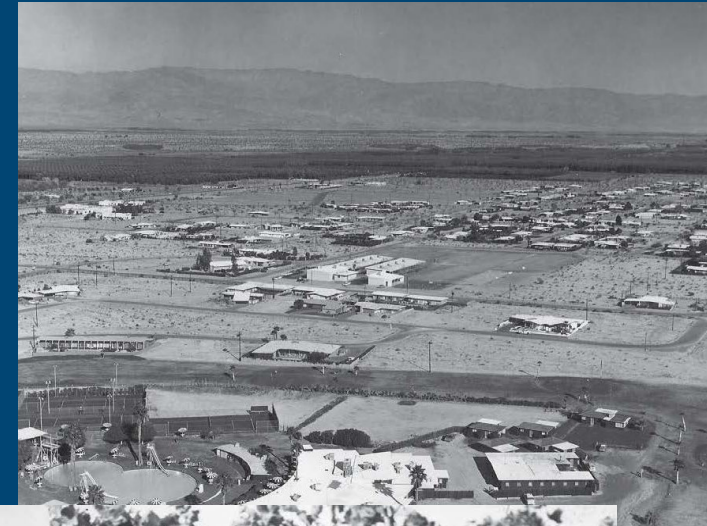
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# Alternative Plan Builds on a Long History of Active Local Water Management

- The history of Coachella Valley is one of agricultural and urban growth, accompanied by increasing water demand and periods of groundwater overdraft

*"The existing underground water supply of the District has shown rapid depletion during the past year. The urgency of completion of a supplemental water supply is now apparent to practically all of our land owners."*

Excerpt from 1945 annual report, CVCWD





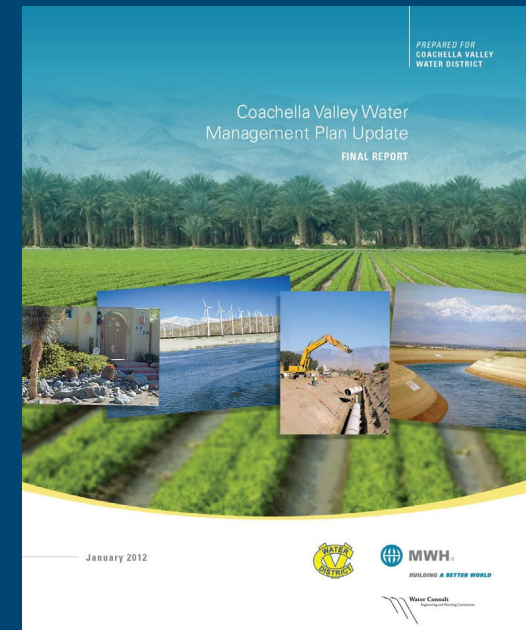
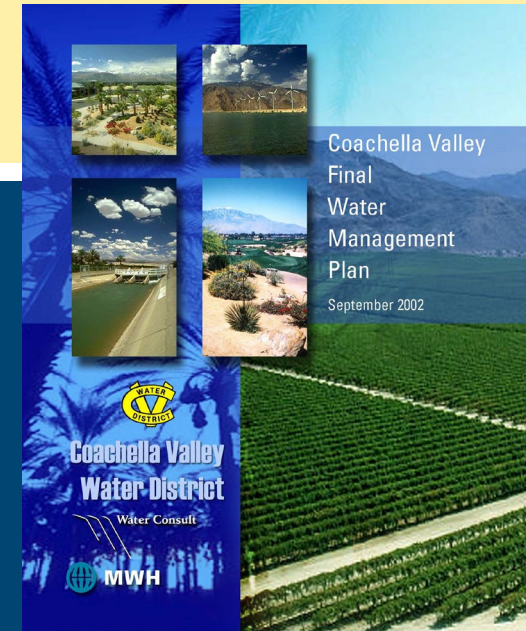
# Multiple Water Sources Have Been Developed to Ensure a Reliable Supply

- Capture and recharge of Whitewater River stormflows begins in 1918
- Coachella Canal completed in 1949
  - ❖ Bringing Colorado River water to support agriculture in East Valley
- CVWD and DWA contracts for State Water Project (SWP) water in 1963
  - ❖ SWP exchanged for Colorado River Water via Colorado River Aqueduct
  - ❖ Recharge at Whitewater River Spreading Grounds begins in 1973
- Water recycling begins in 1965



# Need for Water Management Planning to Balance Supply and Demand

- Coachella Valley Water Management Plan (CVWMP)
  - ❖ Initiated 1994 to ensure adequate supplies were available to meet future demands
  - ❖ 2002 Plan and 2010 Update
  - ❖ Submitted to DWR as Indio Subbasin Alternative Plan and approved in 2019
- Other Plans
  - ❖ Coachella Valley Integrated Regional Water Management (IRWM) Plan
    - 2010 Plan and 2014 Update
    - 2018 Expansion to include Stormwater Resources Plan
  - ❖ Urban Water Management Plans
    - 2015 (individual purveyors) and 2020 Update (regional plan)



# What is the **Alternative Plan**?

- 2010 CVWMP Update = Alternative Plan
  - ❖ Assessed future growth and land use changes
  - ❖ Estimated future water demand and supplies
  - ❖ Identified management actions needed to meet current and future water demands in a cost effective and reliable manner
  - ❖ Established data collection and monitoring programs to track groundwater conditions and Plan performance

# How does the Alternative Plan Compare to a GSP?

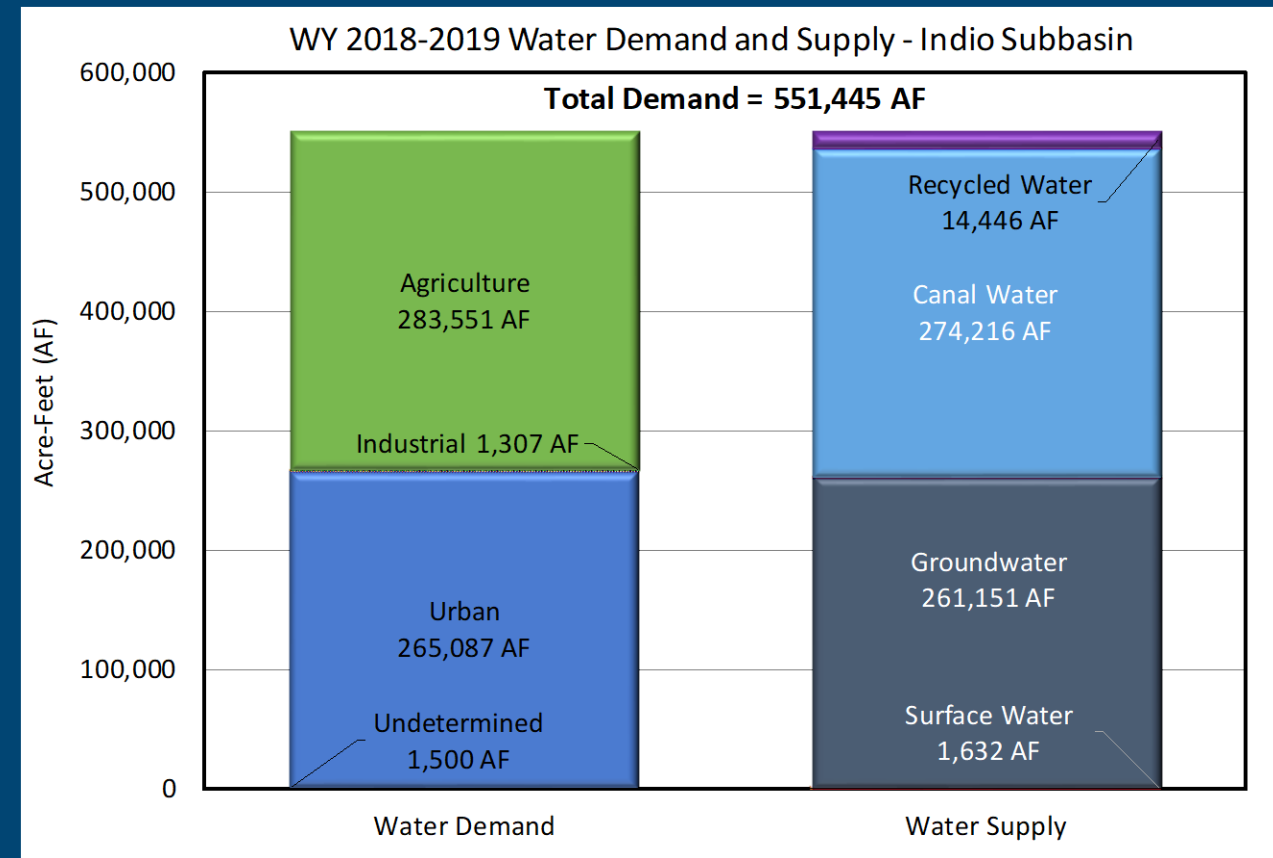
- Shares common goal of achieving groundwater sustainability
  - ❖ Eliminating overdraft and associated undesirable results
- And supports additional objectives:
  - ❖ Maximizing conjunctive use opportunities
  - ❖ Minimizing adverse economic impacts to Coachella Valley water users
  - ❖ Minimizing environmental impacts (broader than surface water depletion)





# Combination of Management Actions are Essential to Meeting Local Water Demands

- WY 2018-2019 water demand: 551,445 acre-feet
- Coachella Canal water and groundwater make up most of the water supply
- Average natural recharge to the Indio Subbasin is only ~59,000 acre-feet / year (11% of total water supply)
- Imported water for recharge and other management actions are key to avoiding overdraft and undesirable results



# Combination of Management Actions are Essential to Meeting Local Water Demands

- Local stormwater and imported water for direct replenishment of groundwater
- Source substitution provides non-potable water for irrigation, reducing groundwater pumping
- Agricultural, golf, and urban conservation reduces water demand



# Groundwater Replenishment

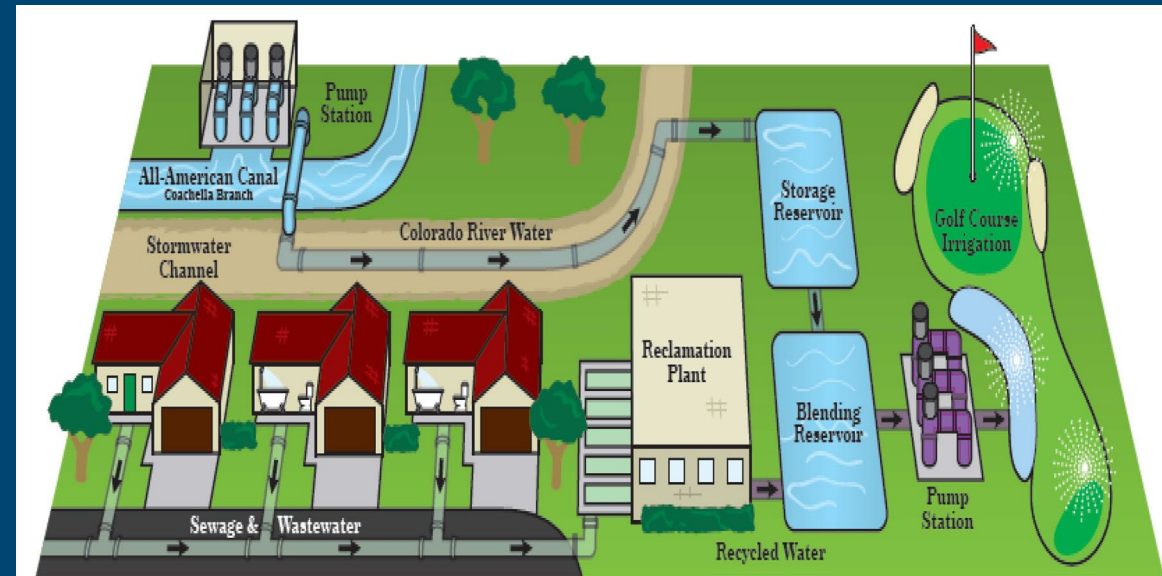
- Active replenishment at three locations in Indio Subbasin
  - ❖ Whitewater River (West Valley) replenishment began in 1973
  - ❖ Thomas E. Levy (East Valley) replenishment began in 2009
  - ❖ Palm Desert (Mid-Valley) replenishment began in 2019





# Source Substitution – Non-Potable Water

- Non-potable water sources
  - ❖ Colorado River water
  - ❖ Recycled water
- In WY 2018-2019
  - ❖ 85% of agricultural irrigation (240,000 AF) was supplied by Coachella Canal water
  - ❖ 52% of golf courses connected to non-potable water system





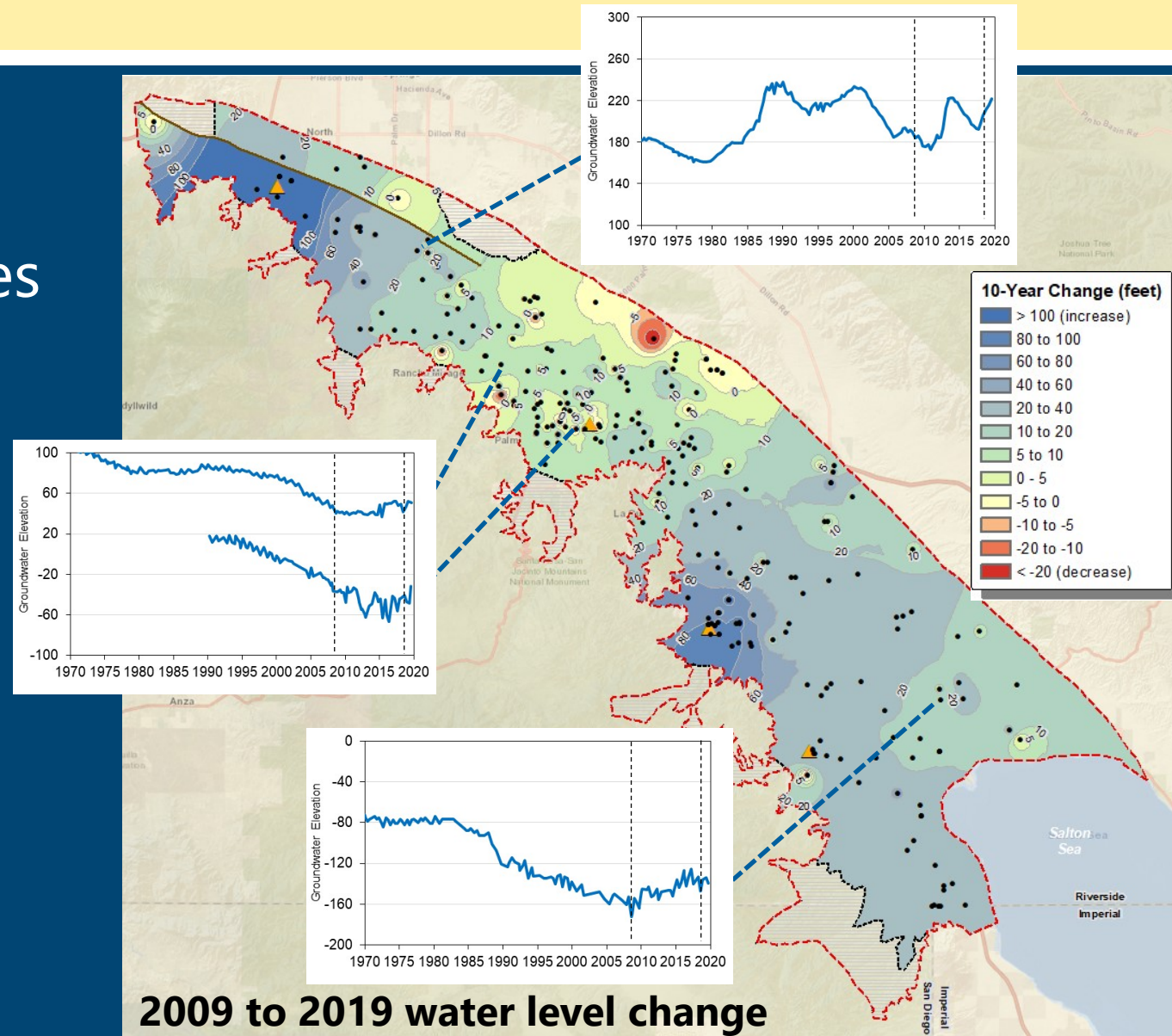
# Conservation & Water Use Efficiency

- Urban conservation
  - ❖ Indoor use rebate programs
  - ❖ Landscaping rebate programs
  - ❖ Education/workshops
- Golf course conservation
  - ❖ Education
  - ❖ Recycled water
  - ❖ Collaborative tools
    - (water budgets, BMPs, ordinance appendix)
  - ❖ Desert landscaping rebate
- Agricultural conservation
  - ❖ Education
  - ❖ Flood to drip rebate
  - ❖ Soil/irrigation management assistance and training



# Is the Alternative Plan Working?

- Plan implementation has resulted in significant groundwater storage increases across the Indio Subbasin
- Over the last 10 years, groundwater levels have increased regionally
- More work is planned and needed to ensure continue success of the Plan



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# Plan Update – Questions to be Answered

- Are predictions of population growth and water use/demand in 2010 still valid?
- What is the status of existing management actions?
- Is the current Plan implementation schedule appropriate?
- Are there any new management actions to consider?
- What new factors/conditions could affect future water demand and supplies?
- What goals and criteria are appropriate to define groundwater sustainability?

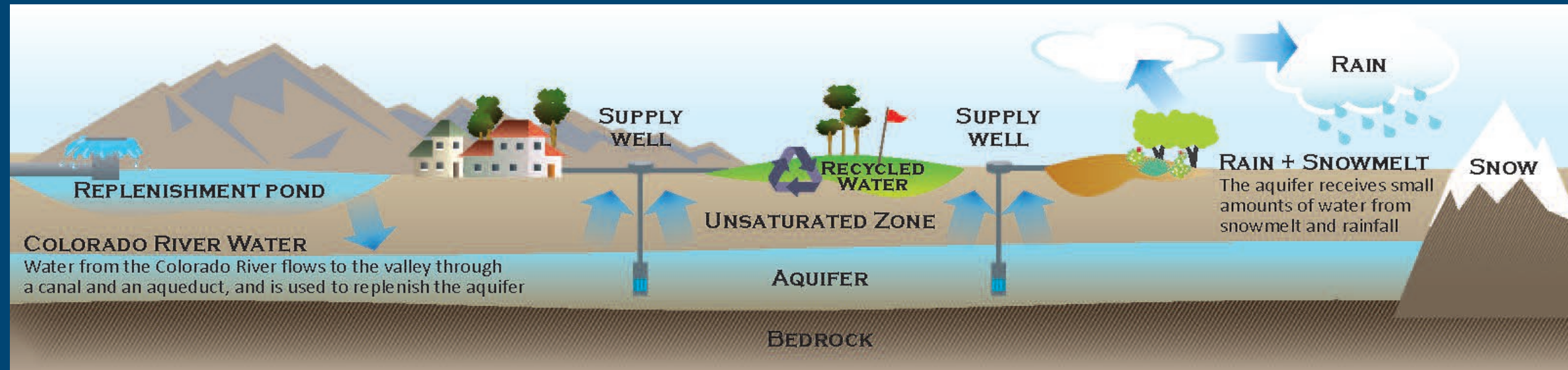


# Plan Update – Tasks

1. Assess existing Plan
2. Update and process datasets
3. Document current groundwater conditions
4. Estimate future water demand and supplies
5. Evaluate management actions and update implementation plan
6. Simulate groundwater response to future conditions
7. Establish quantifiable sustainability goals and criteria
8. Assess data collection/monitoring programs
9. Develop and implement stakeholder and public outreach plan

# Plan Update – Groundwater Simulations

- Update Coachella Valley groundwater flow model
- Apply model to...
  - ❖ Estimate current and future water budgets
  - ❖ Evaluate benefits of proposed management actions
  - ❖ Support selection of appropriate sustainability goals and criteria



# Plan Update – Stakeholder/Public Outreach

- Eight quarterly public workshops planned in 2020/2021
  - ❖ February, May, August, and November
  - ❖ Report on progress
  - ❖ Share results and findings
  - ❖ Request input and feedback
- 2022 Alternative Plan Update Report
  - ❖ Draft Report – early Fall 2021
    - Public Review and Comment
  - ❖ Final Report – Winter 2021



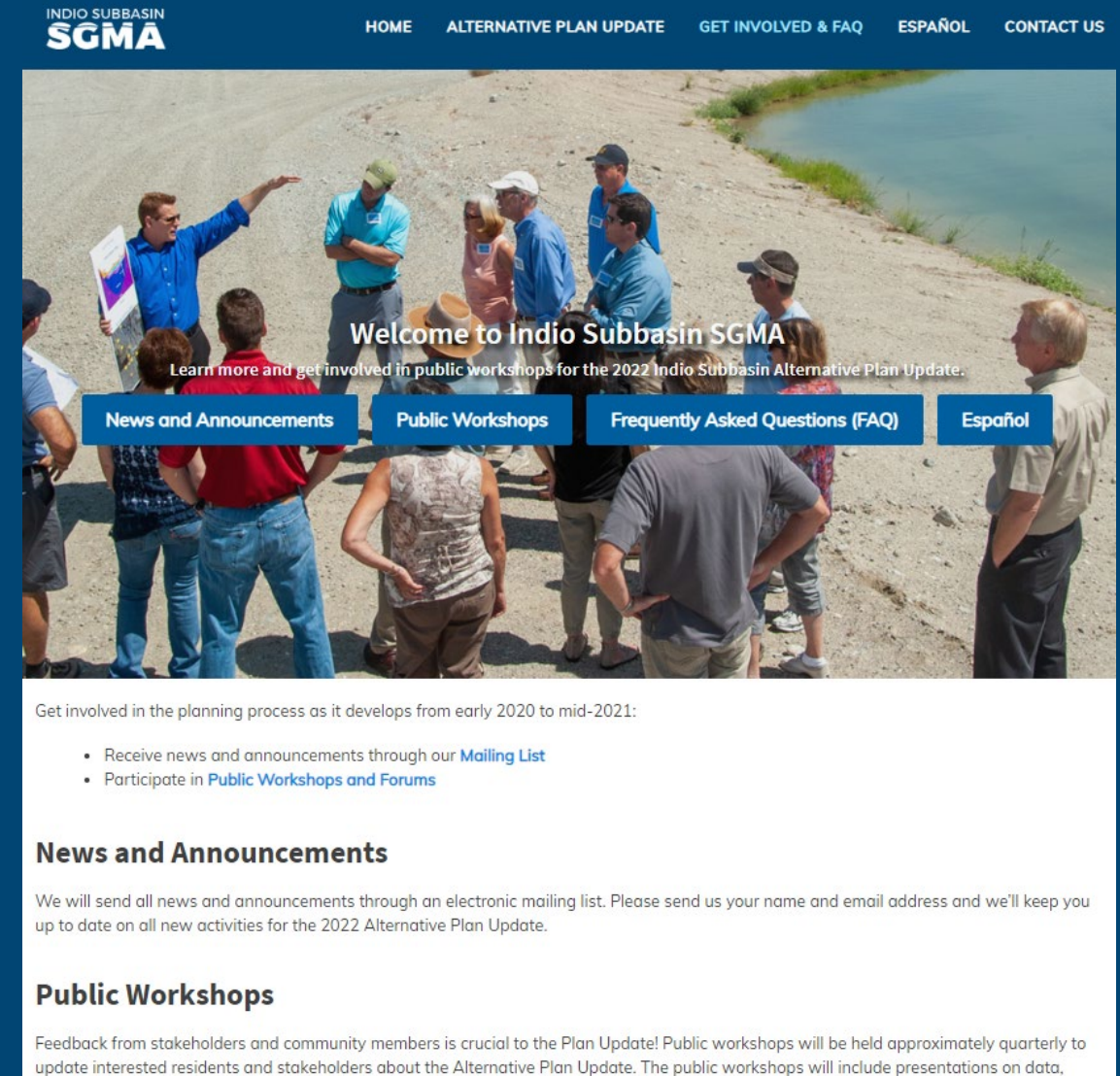
# Get Involved – Visit our Website





# Get Involved – Visit our Website

- Questions? Our website contains numerous resources related to:
  - ❖ Background on SGMA and Indio Subbasin
  - ❖ Frequently Asked Questions
  - ❖ Upcoming Meetings/Agendas
  - ❖ GSA Contacts
  - ❖ Alternative Plan Reports
- Learn more at [www.IndioSubbasinSGMA.org](http://www.IndioSubbasinSGMA.org)



INDIO SUBBASIN  
**SGMA**

HOME ALTERNATIVE PLAN UPDATE GET INVOLVED & FAQ ESPAÑOL CONTACT US

Welcome to Indio Subbasin SGMA  
Learn more and get involved in public workshops for the 2022 Indio Subbasin Alternative Plan Update.

News and Announcements Public Workshops Frequently Asked Questions (FAQ) Español

Get involved in the planning process as it develops from early 2020 to mid-2021:

- Receive news and announcements through our [Mailing List](#)
- Participate in [Public Workshops and Forums](#)

**News and Announcements**

We will send all news and announcements through an electronic mailing list. Please send us your name and email address and we'll keep you up to date on all new activities for the 2022 Alternative Plan Update.

**Public Workshops**

Feedback from stakeholders and community members is crucial to the Plan Update! Public workshops will be held approximately quarterly to update interested residents and stakeholders about the Alternative Plan Update. The public workshops will include presentations on data,

# Get Involved – Visit our Website


Sign up for email invites, updates, and data/report releases at  
**[www.IndioSubbasinSGMA.org](http://www.IndioSubbasinSGMA.org)**

## Stay Connected

Sign up to be on our mailing list for updates about the Indio Subbasin SGMA process.

Name \*

Email \*

Submit 

We will never share your information with anyone.

# Your Participation and Input are Important

- Our goals are to:
  - ❖ Enhance public understanding about water resources in the Indio Subbasin
  - ❖ Keep you – the public and stakeholders – informed about the Plan Update process
  - ❖ Engage diverse interested parties and stakeholders
  - ❖ Make sure we incorporate best available information
  - ❖ Respond to your concerns



A blue-tinted photograph of a desert landscape. In the foreground, there is a body of water. In the middle ground, a line of wind turbines stands on a sandy shore. In the background, a range of rugged mountains is visible under a clear sky.

# **Public Comment**

Input and feedback are welcomed



# Next Steps

- March – May 2020
  - ❖ Finish assessment of 2010 Plan
  - ❖ Complete data collection and process datasets
  - ❖ Document existing groundwater conditions
  - ❖ Forecast future growth, land use, and water demand

# Next Steps



**May 21, 2020**



**2:00 – 4:00 PM**



**Location: TBD**



For additional information,  
please contact:

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