

2022 Mission Creek Subbasin Alternative Plan Update

WORKSHOP #1
JULY 15, 2020



- Introductions
- Overview of Sustainable Groundwater Management Act (SGMA)
- Water Management Planning in Mission Creek Subbasin (MCSB)
- MCSB Alternative Plan Update
- Next Steps
- Public Comment

Introductions

MCSB Management Committee

Coachella Valley Water District (CVWD)

Desert Water Agency (DWA)

Mission Springs Water District (MSWD)

Consultants

Wood Environment & Infrastructure
Solutions, Inc.

Richard Rees, P.G., C.Hg.

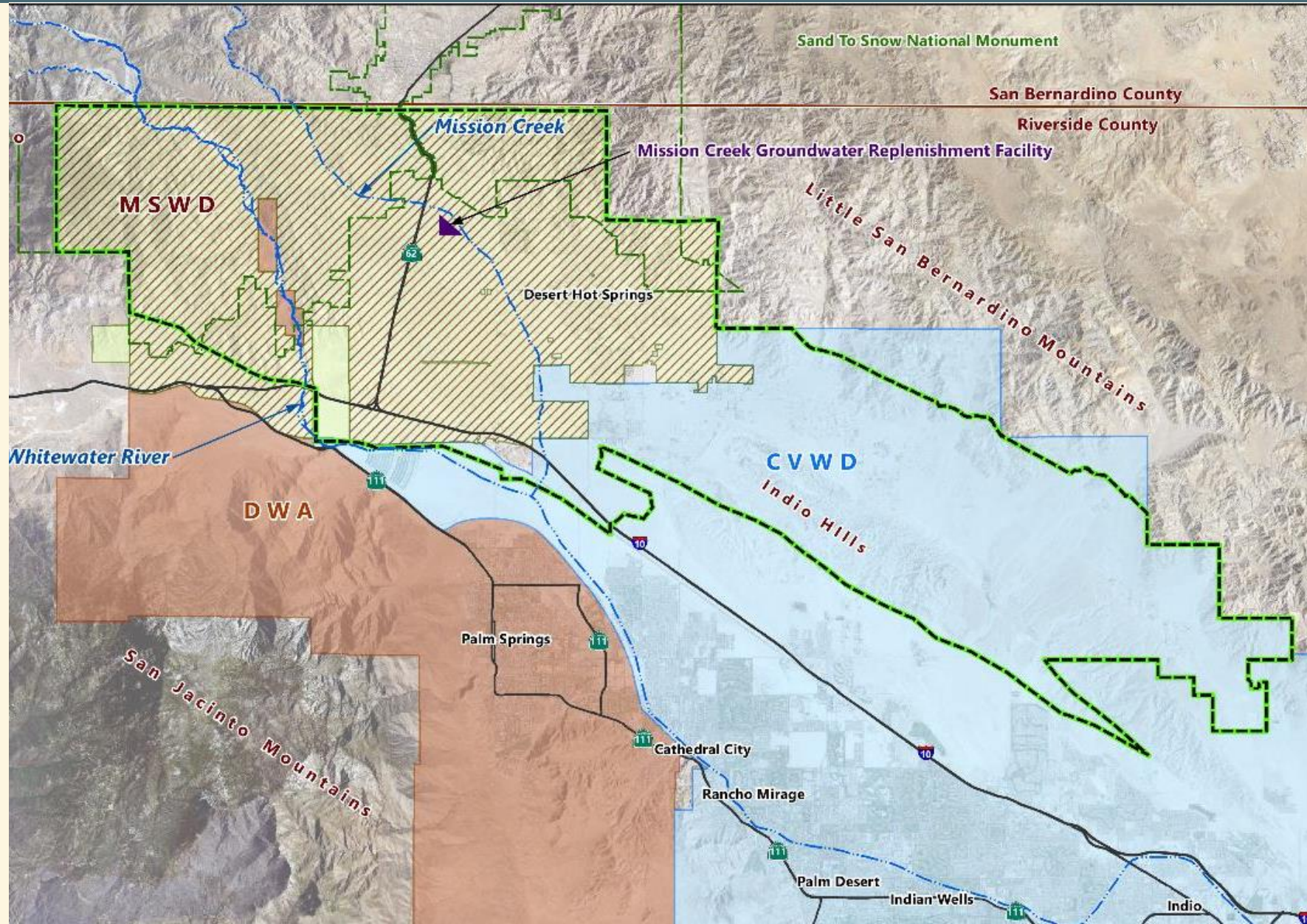
Kennedy Jenks Consultants

Sachi Itagaki, P.E.

Melanie Rivera



Management Committee Agencies



The Virtual Experience: Comments

The screenshot shows a Microsoft Teams meeting window. On the left is a sidebar with icons for Activity, Chat, Teams, Calendar, Calls, Files, and Apps. The main area displays a circular profile picture of a woman and the text "Waiting for others to join...". At the bottom is a toolbar with icons for video, microphone, screen share, and chat. A blue arrow points from a text box to the chat icon in the toolbar. Another blue arrow points from the toolbar to the chat panel on the right. The chat panel shows a message from Melanie Rivera and a text input field at the bottom.

Search or type a command

Activity
Chat
Teams
Calendar
Calls
Files
...

Waiting for others to join...

00:29

Click on speech bubble icon to open "Chat" for comments and questions

Meeting chat

Melanie Rivera joined the meeting.

Type comments or questions here

Type a new message

The Virtual Experience: Polls

The screenshot displays a Microsoft Teams meeting window. On the left is a sidebar with navigation icons for Activity, Chat, Teams, Calendar, Calls, Files, Apps, and Help. The main area shows a circular profile picture of a woman and the text "Waiting for others to join...". A search bar at the top says "Search or type a command". A blue callout box with the text "Sometimes, there will be a link to a poll. Click on the link" has an arrow pointing to a message in the "Meeting chat" pane on the right. The chat message, timestamped "8:54 AM", contains a long URL: https://forms.office.com/Pages/ResponsePage.aspx?id=EA5B4LC8yUeqVGpCvTp6MqUQcFHhOU1GpR6uPC_O4iJUQ1kyUVpKNFdEMTRJWDI3TUVPM0hWVzBHTy4u. Below the chat is a text input field labeled "Type a new message" and a row of icons for attachments, emojis, and other functions. At the bottom of the main area is a meeting toolbar with icons for mute, video, screen share, and other controls.

Sometimes, there will be a link to a poll. Click on the link

Meeting chat

Melanie Rivera joined the meeting.

8:54 AM
https://forms.office.com/Pages/ResponsePage.aspx?id=EA5B4LC8yUeqVGpCvTp6MqUQcFHhOU1GpR6uPC_O4iJUQ1kyUVpKNFdEMTRJWDI3TUVPM0hWVzBHTy4u
See less

Type a new message

The Virtual Experience: Polls

I represent:

1. I represent:

- ☐ General Public
- ☐ Planning Agency
- ☐ Water Agency
- ☐ Business
- ☐ Community non-profit
- ☐ Tribe
- ☐ Consultant
- ☐ Other

Fill out the poll and click "Submit"

Submit

Never give out your password. [Report abuse](#)

POLL: Go to “Comments” Box for Poll Link

- I represent:
 1. General public
 2. Planning agency
 3. Water agency
 4. Business
 5. Community non-profit
 6. Tribe
 7. Consultant
 8. Other

Overview of SGMA

SGMA: Sustainable Groundwater Management Act

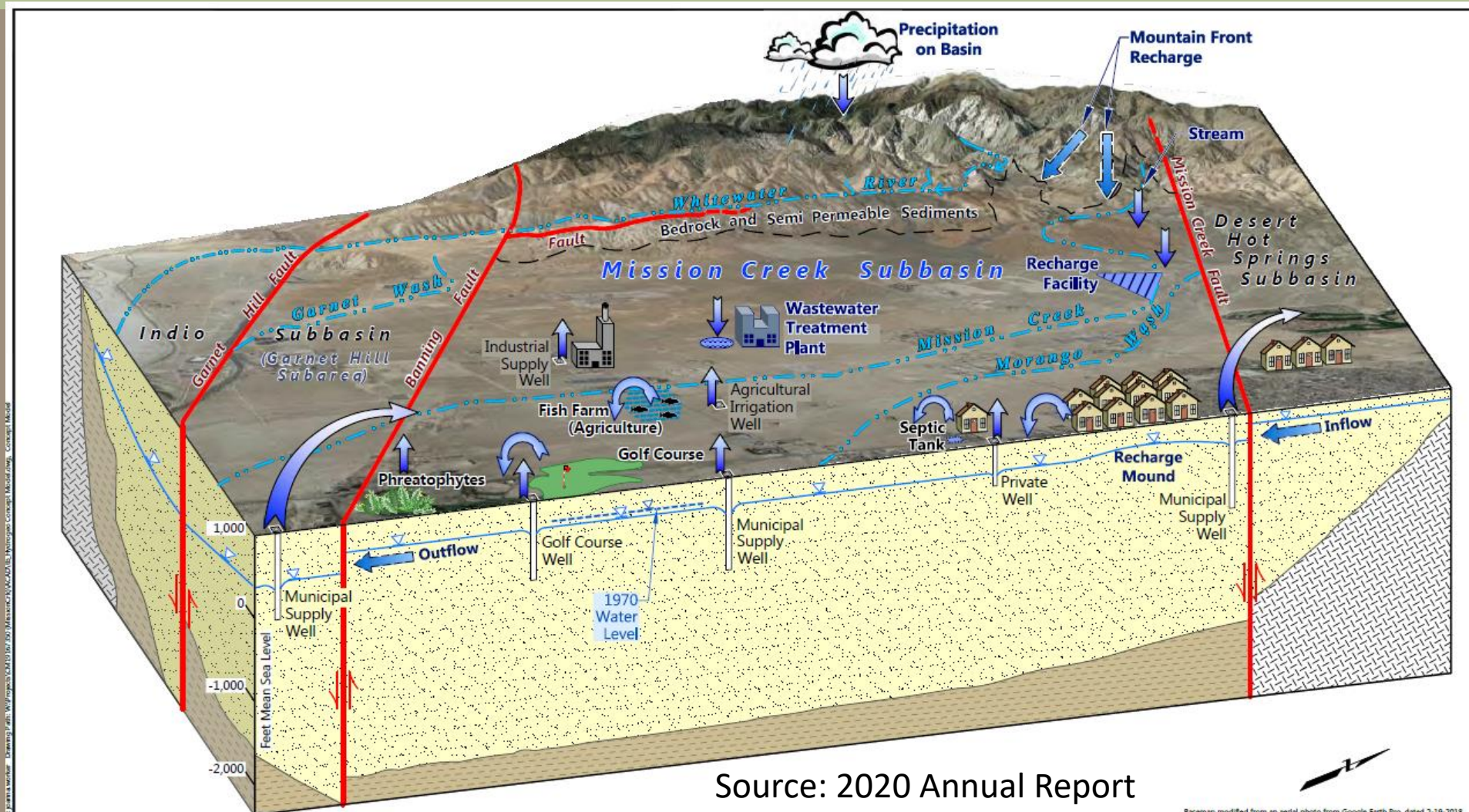
- Signed into law in September 2014
- Provides framework for sustainable groundwater management over 20 years
- Supports local management via Groundwater Sustainability Agencies (GSAs)

SGMA Requirements

- GSAs must submit plans (Groundwater Sustainability Plan or Alternative Plan) and annual reports to the California Department of Water Resources (DWR), and demonstrate progress towards achieving sustainable management
- GSP or Alternative Plan updates due every 5 years
- First MCSB Alternative Plan update due by January 1, 2022

What is Sustainable Management?

The management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results



Source: 2020 Annual Report

Basemap modified from an aerial photo from Google Earth Pro, dated 2-19-2018.

Without Sustainable Management, Issues Can Arise...



Groundwater Level Declines



Groundwater Storage Reductions



Land Subsidence



Interconnected Surface Water Depletions



Seawater Intrusion



Water Quality Degradation

Not applicable in Mission Creek
Subbasin

What is a GSA?

- **GSA:** Groundwater Sustainability Agency
- Consists of one or more local governmental agencies that implement the provisions of SGMA
- Formation of a GSA is required in high- and medium-priority basins

- **Basin Priority is Based On:**



Total
Population



Population
Growth



of Public
Wells



of Total
Wells



Irrigated
Acreage



Groundwater
Reliance



Groundwater
Impacts

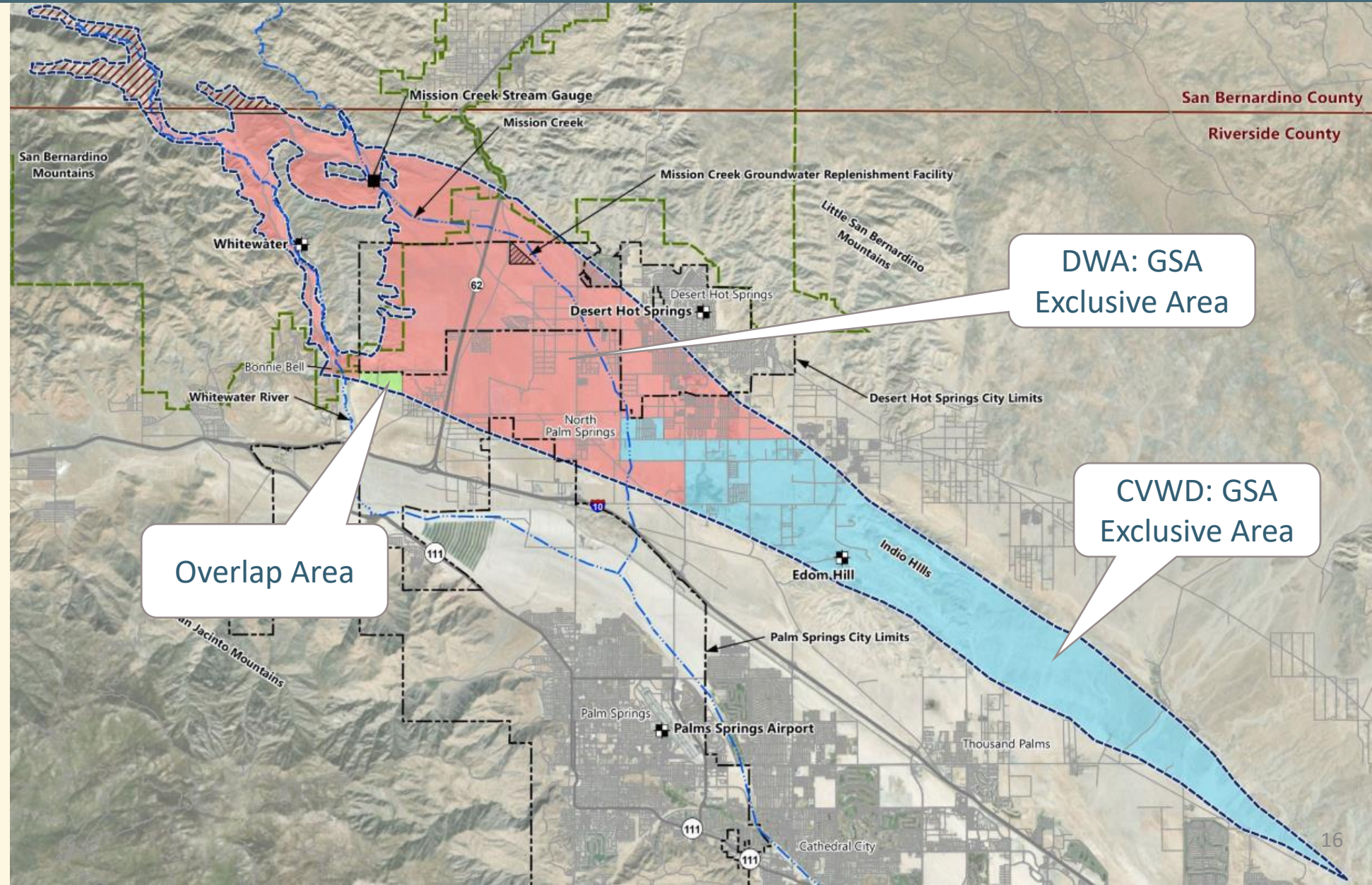


Other Adverse
Impacts

- Responsible for achieving sustainable groundwater management within their boundaries
- A GSA, or multiple GSAs, are responsible for:
 - Submitting Groundwater Sustainability Plans (GSPs) or Alternative Plans
 - Preparing Annual Reports and 5-Year Plan Updates
- GSAs have many authorities and responsibilities, such as:
 - Adopting rules, regulations, ordinances, and resolutions to implement the Act
 - Monitoring compliance and enforcement
 - Requiring registration of groundwater extraction wells
 - Requiring appropriate measurement devices and reporting of extractions

GSAs in the MCSB

- GSAs include CVWD and DWA
- Management Committee includes CVWD, DWA, and MSWD



GSP: Groundwater Sustainability Plan

- Long term plan addressing how to sustainably manage groundwater
- Required for high- and medium-priority basins

Alternative Plan

- A functionally equivalent **alternative submittal to the GSP**
- Shares goal of GSP to achieve groundwater sustainability
- Can consist of an existing groundwater management plan, groundwater management pursuant to adjudication, or an analysis demonstrating sustainability over a period of at least 10 years

- My interest in the Alternative Plan Update is (can choose more than one):
 1. Water rates
 2. Conservation
 3. Irrigation
 4. Water quality
 5. Well pumping
 6. Groundwater replenishment
 7. Recycled water
 8. Imported water
 9. Drought

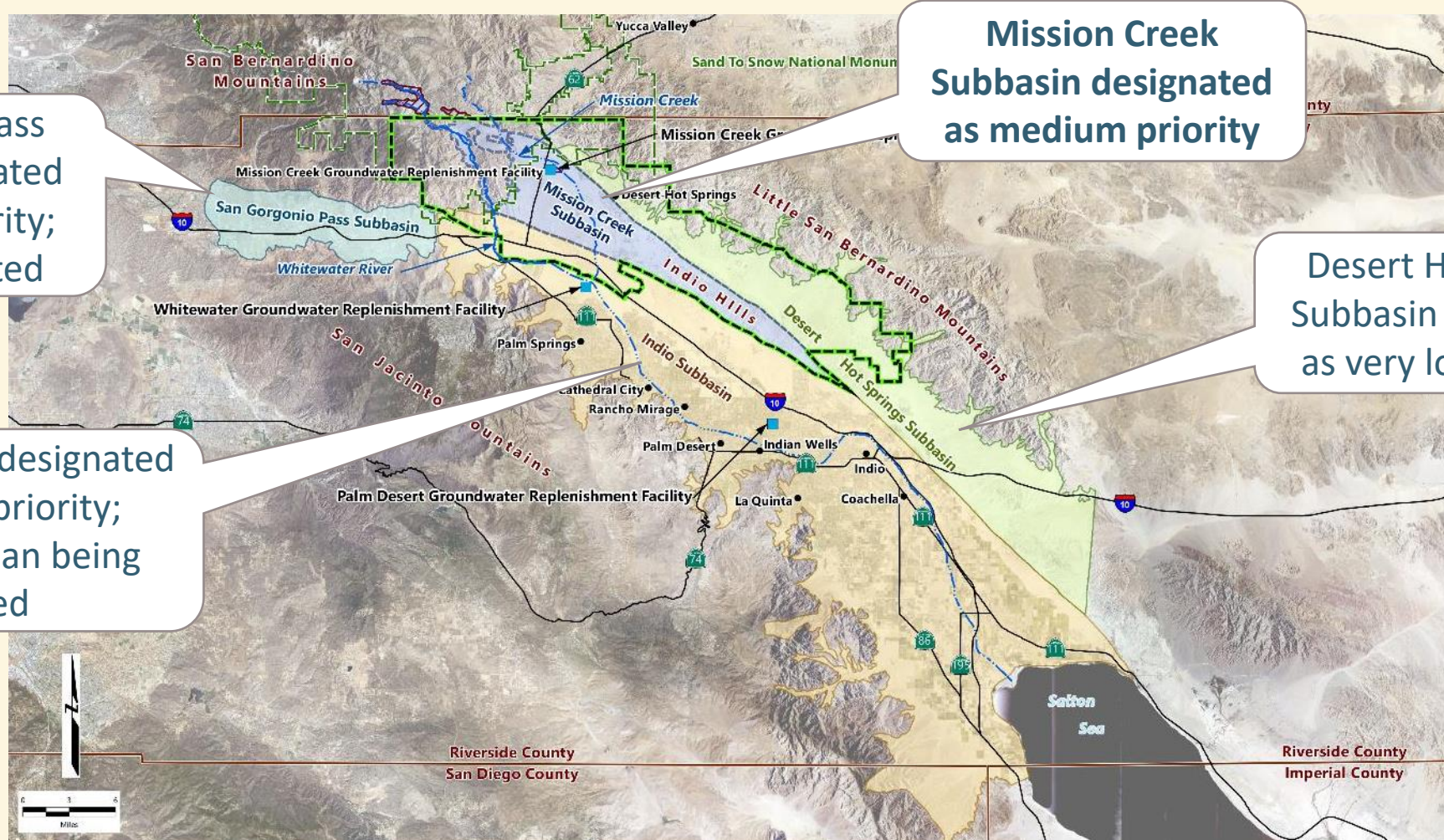
Mission Creek Subbasin and SGMA – Context

San Geronio Pass Subbasin designated as medium priority; GSP being created

Mission Creek Subbasin designated as medium priority

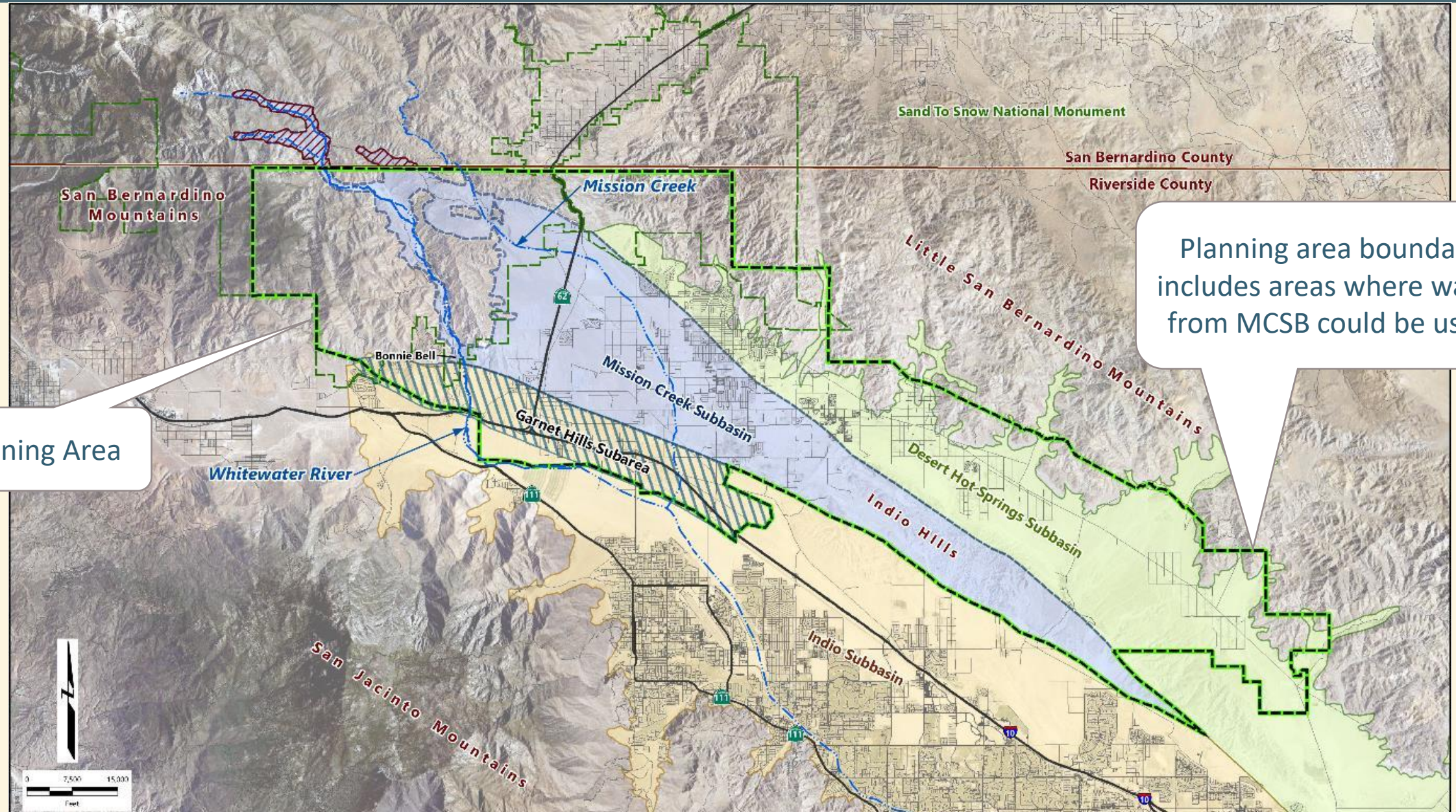
Desert Hot Springs Subbasin designated as very low-priority

Indio Subbasin designated as medium priority; Alternative Plan being updated



The MCSB is one of many subbasins in the Coachella Valley Groundwater Basin

Mission Creek Subbasin Planning Area

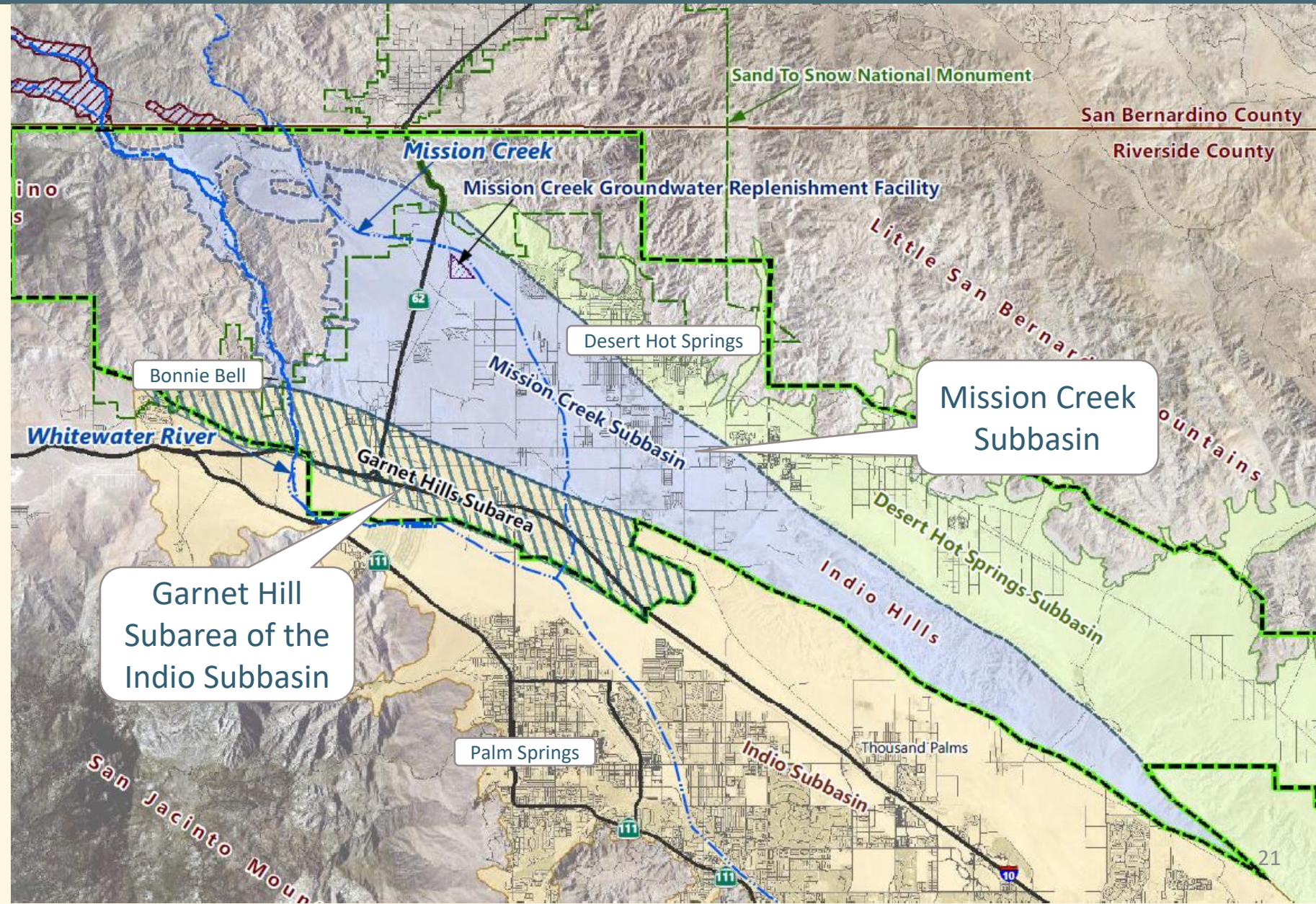


Planning Area

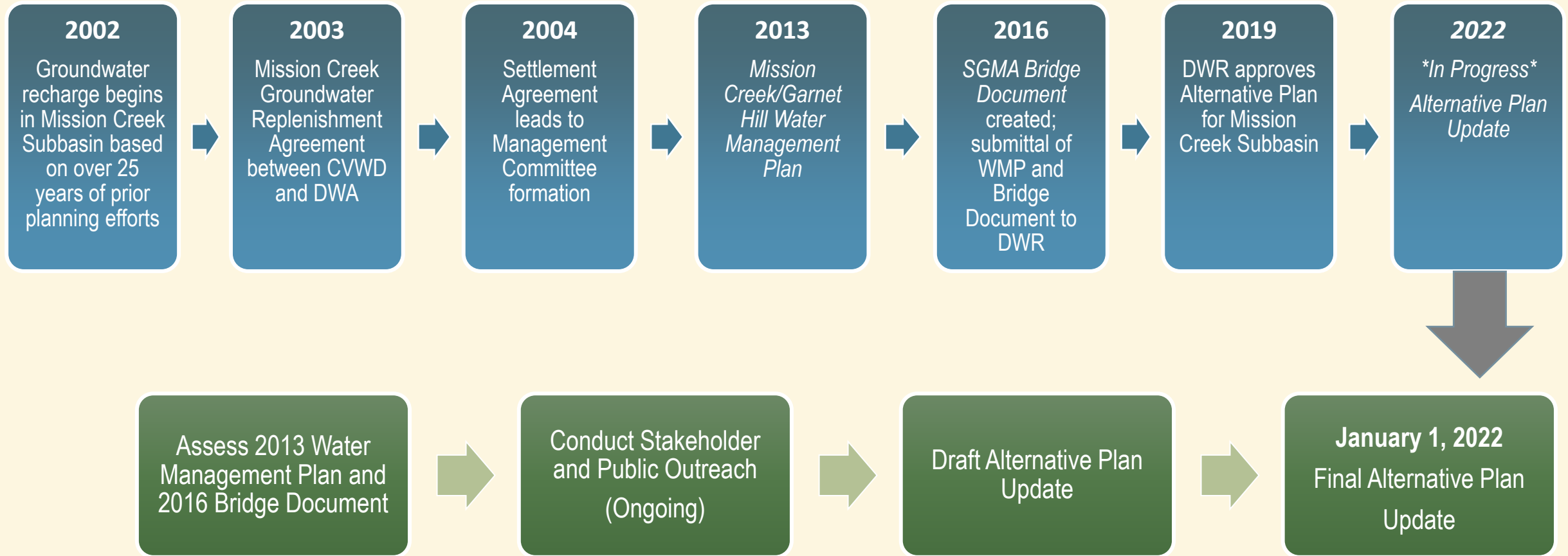
Planning area boundary includes areas where water from MCSB could be used

MCSB and SGMA

- MCSB Water Management Plan created in 2013
- The Water Management Plan in addition to the Bridge Document was approved by DWR as an Alternative Plan for the MCSB
- Management Committee to utilize several management tools to achieve sustainability goals
- Garnet Hill Subarea included in both MCSB and Indio planning efforts. Annual reporting is done as part of Indio Subbasin Annual Report



Water Management and SGMA Timeline for MCSB



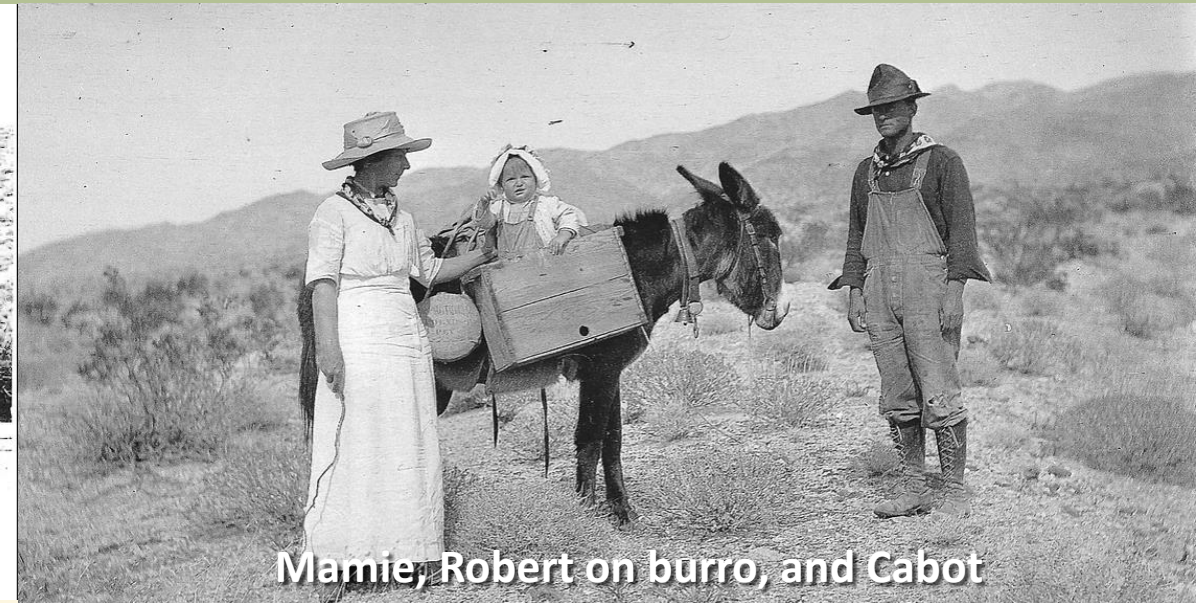
Water Management Planning in the Mission Creek Subbasin

History of Groundwater Use in the Mission Creek Subbasin

The discovery of mineral water in the Desert Hot Springs Subbasin and drinking water in the Mission Creek Subbasin led to increased tourism



Cabot Trading Post



Mamie, Robert on burro, and Cabot

"1914 Cabot Yerxa... unearthed the curative mineral waters of Desert Hot Springs... Only 600 yards from his home, Cabot dug a second well delivering drinking water."

Historical Water Needs in the MCSB

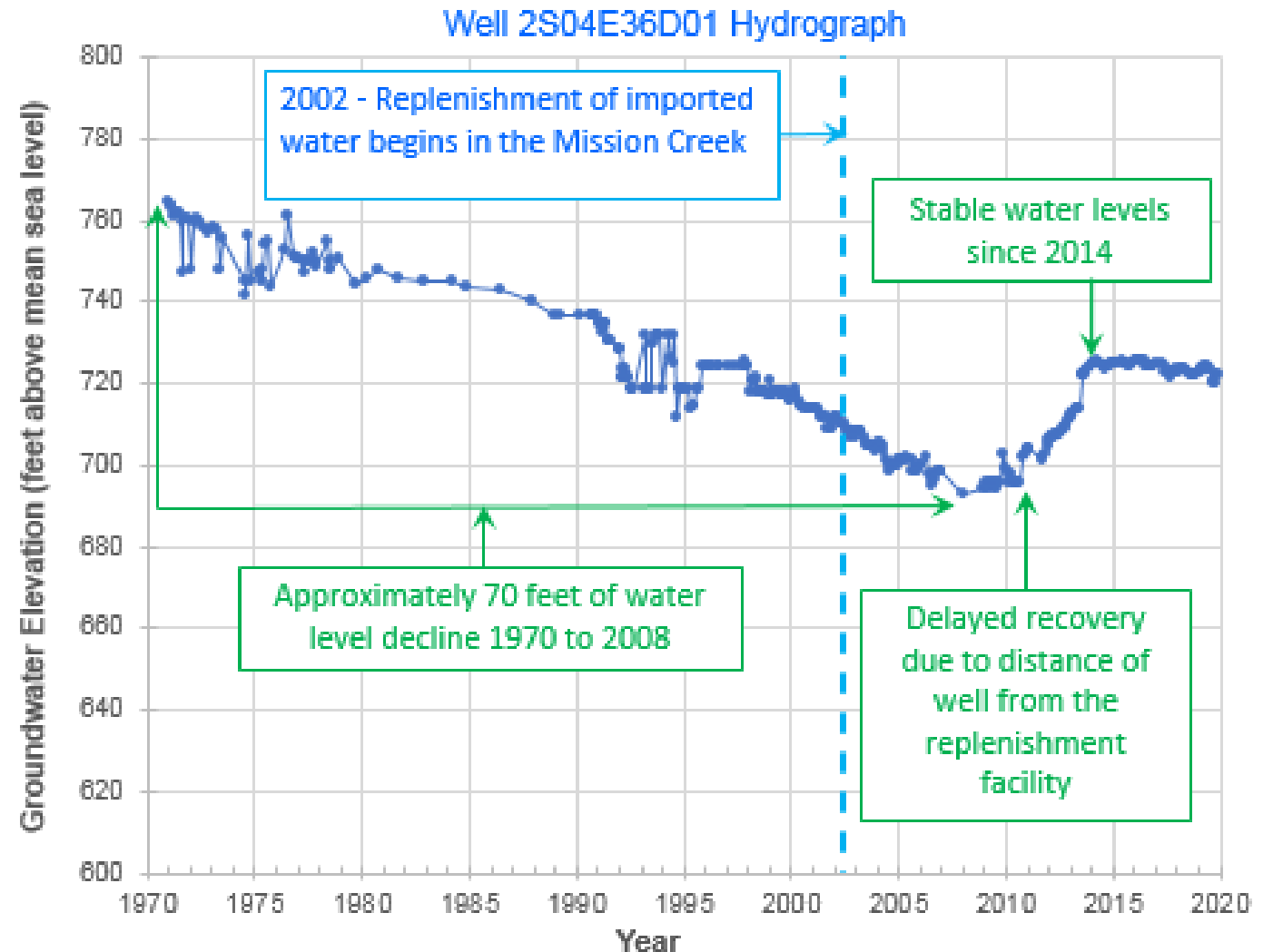
- Increased tourism led to increased population growth
- The establishment and growth of Desert Hot Springs led to the creation of MSWD in 1953
- As population in Desert Hot Springs grew, water demands also grew, leading to a decrease in groundwater levels until management was implemented
 - Population 1960: 1,472
 - Population 2000: 16,582
 - Population 2019: 29,742



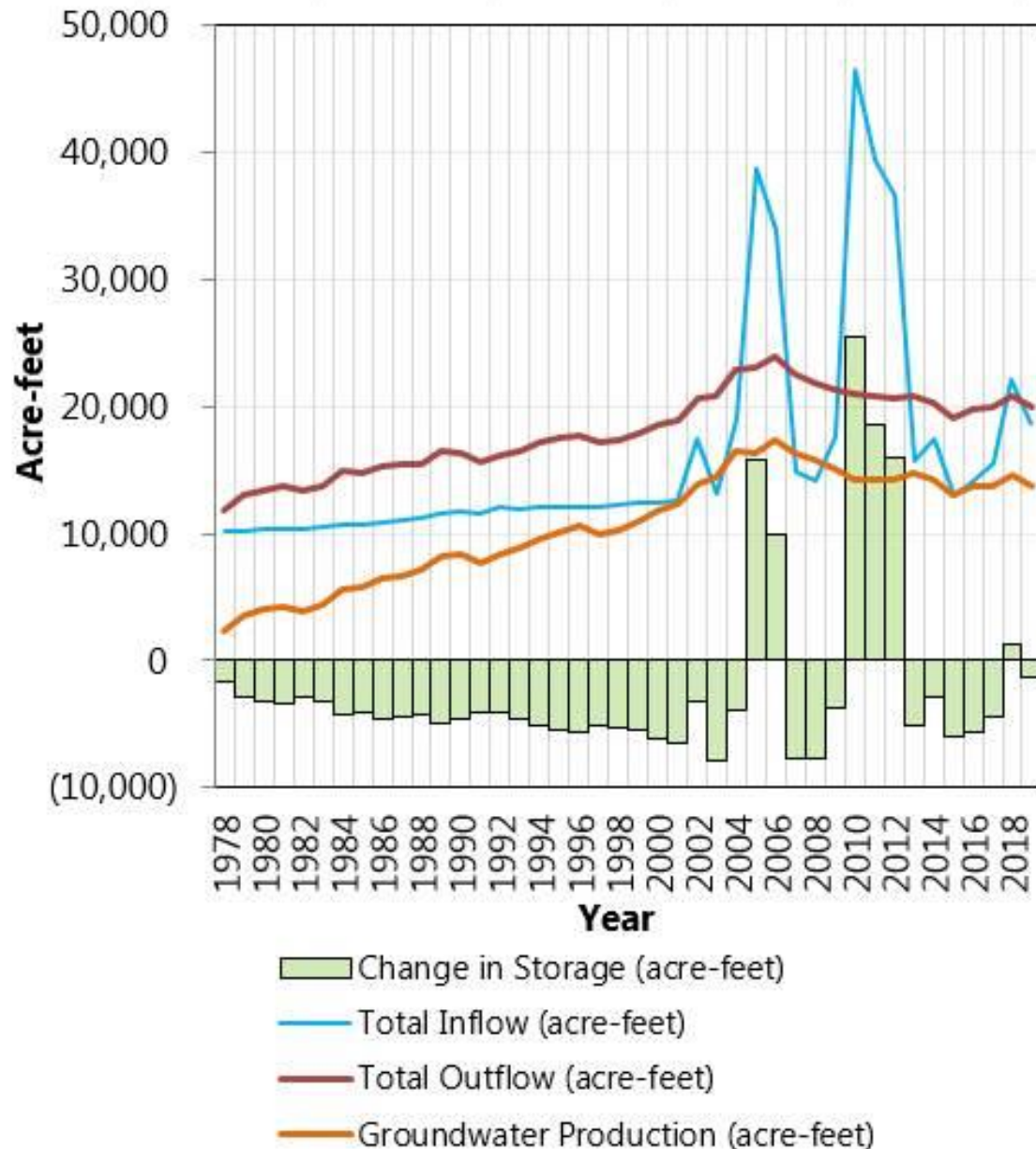
Aerial view of Desert Hot Springs, 1954 25

Why Was Management Needed to Begin With?

- Groundwater levels steadily declined as water use increased with population
- Management actions were needed to avoid undesirable results potentially caused by a continued decline in water levels (e.g., increased pumping cost, reduction in storage, and land subsidence)
- Active management creates positive results

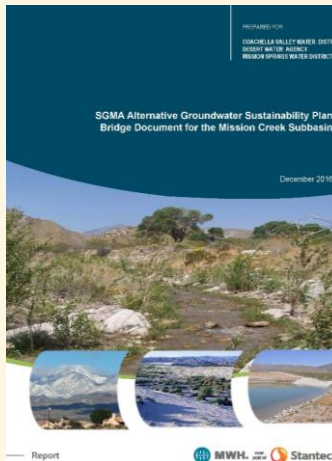
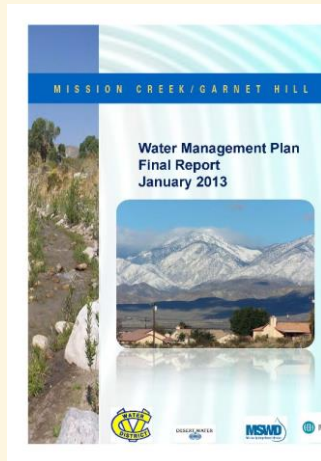


Recent History of Water Management



- Managing a groundwater basin is like managing a checking account, for long-term sustainability, what comes in has to balance with what goes out
- Water levels reflect groundwater storage in the basin (storage)
- In 1978 inflows and outflows to the MCSB were close to being balanced
- With increasing production due to population growth, outflows exceed inflows and water levels declined
- Recharge of imported water and reduced demand through conservation has reversed this trend.

- 2019 DWR Approval for Alternative Plan
- Existing Management Plan + Bridge Document for SGMA Compliance

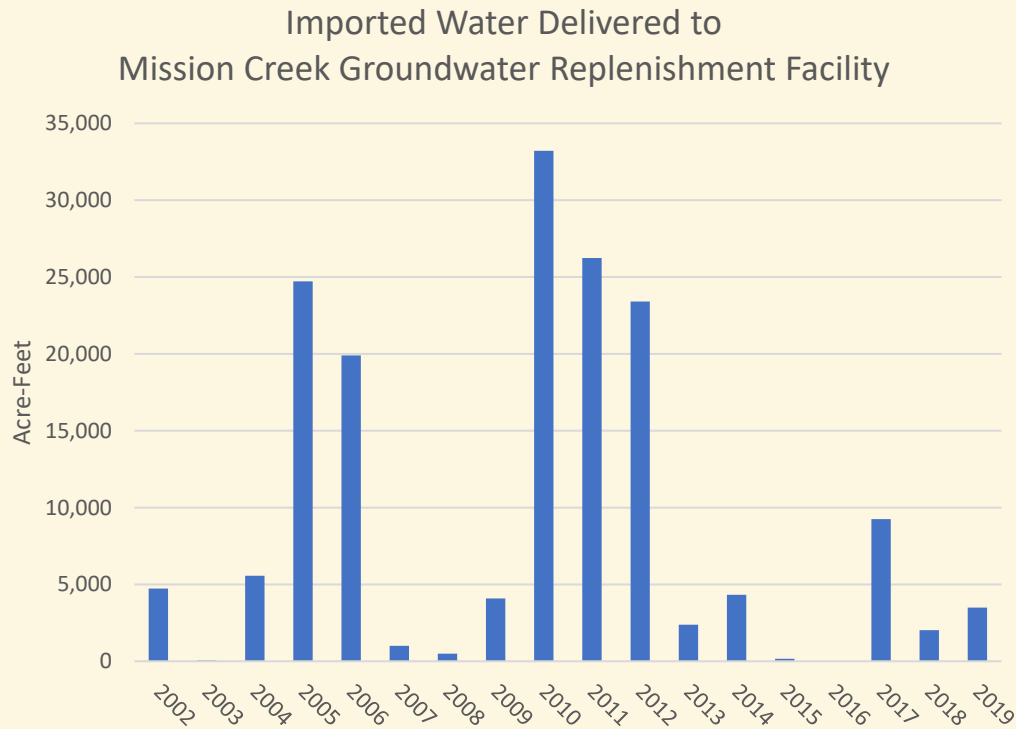


Alternative Plan

- Assessed growth and land use
- Estimated future supply/demand
- Identified management actions needed to meet demands
- Established groundwater data collection and monitoring programs

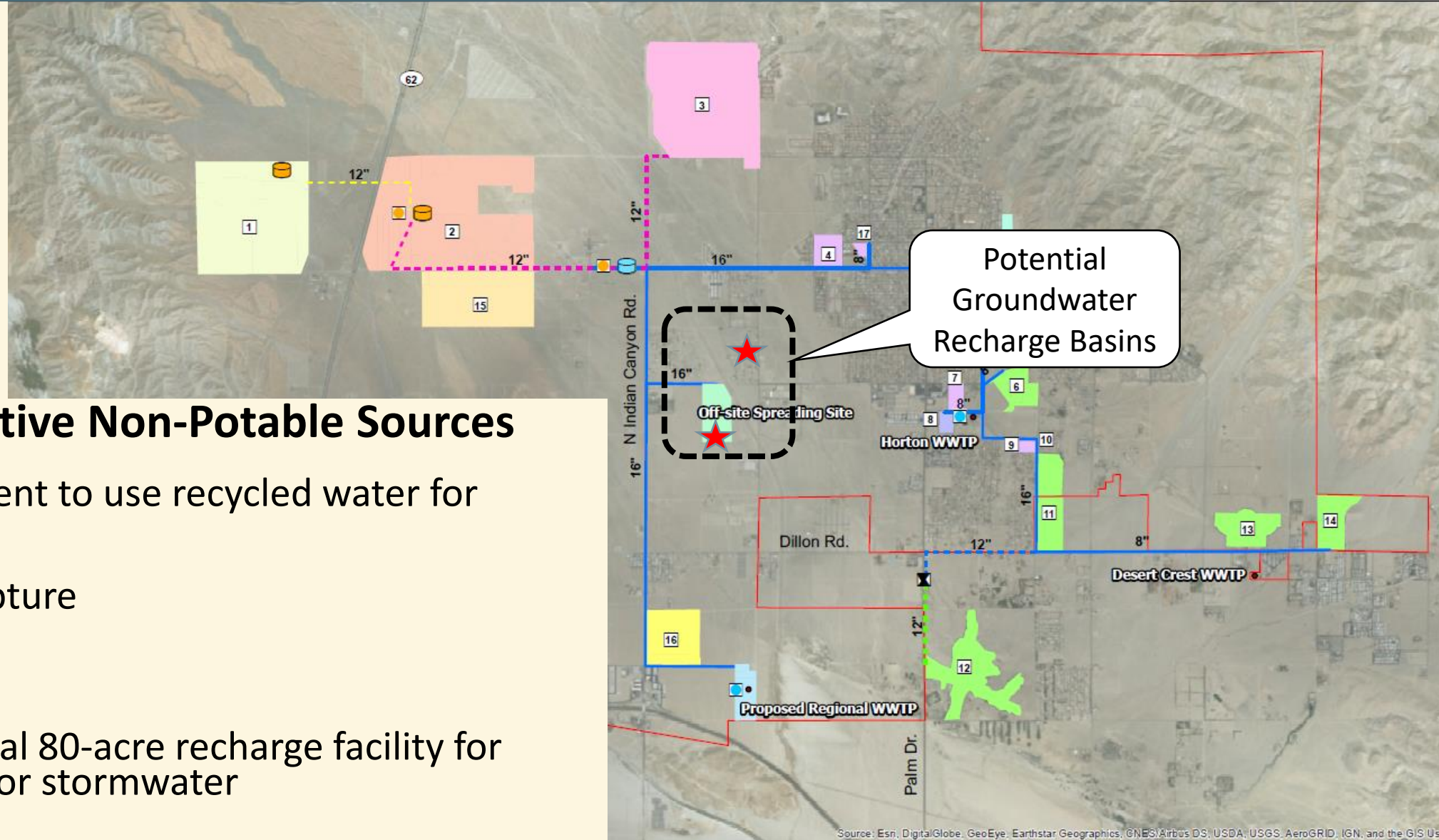
Action: Groundwater Replenishment

- Mission Creek Groundwater Replenishment Facility
- Utilizes imported water to replenish groundwater in the subbasin



Action: Potential Source Substitution of Non-Potable Water

★ Recharge Basin Site



- **Possible Alternative Non-Potable Sources**

- Tertiary treatment to use recycled water for irrigation
- Stormwater capture

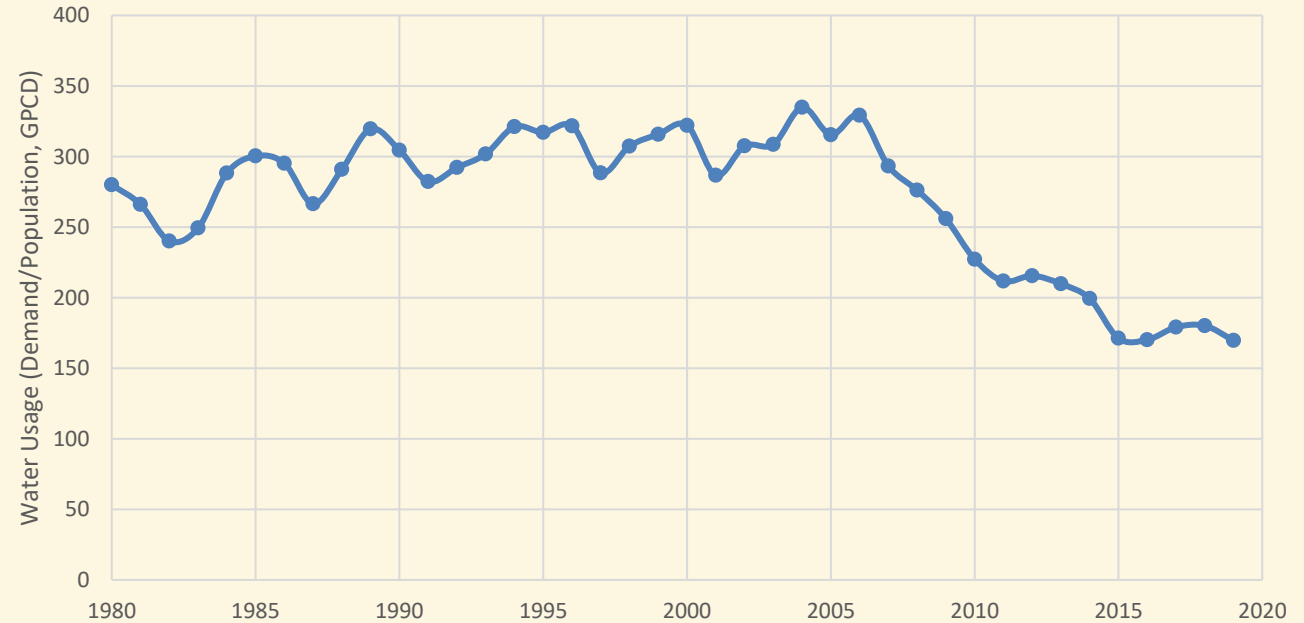
- **Within MCSB**

- MSWD: potential 80-acre recharge facility for recycled water or stormwater

Source: MSWD Recycled Water Program Feasibility Study (2018)

- **Urban**

- Landscape rebates
- Irrigation guides
- Plumbing fixtures
- Education/workshops



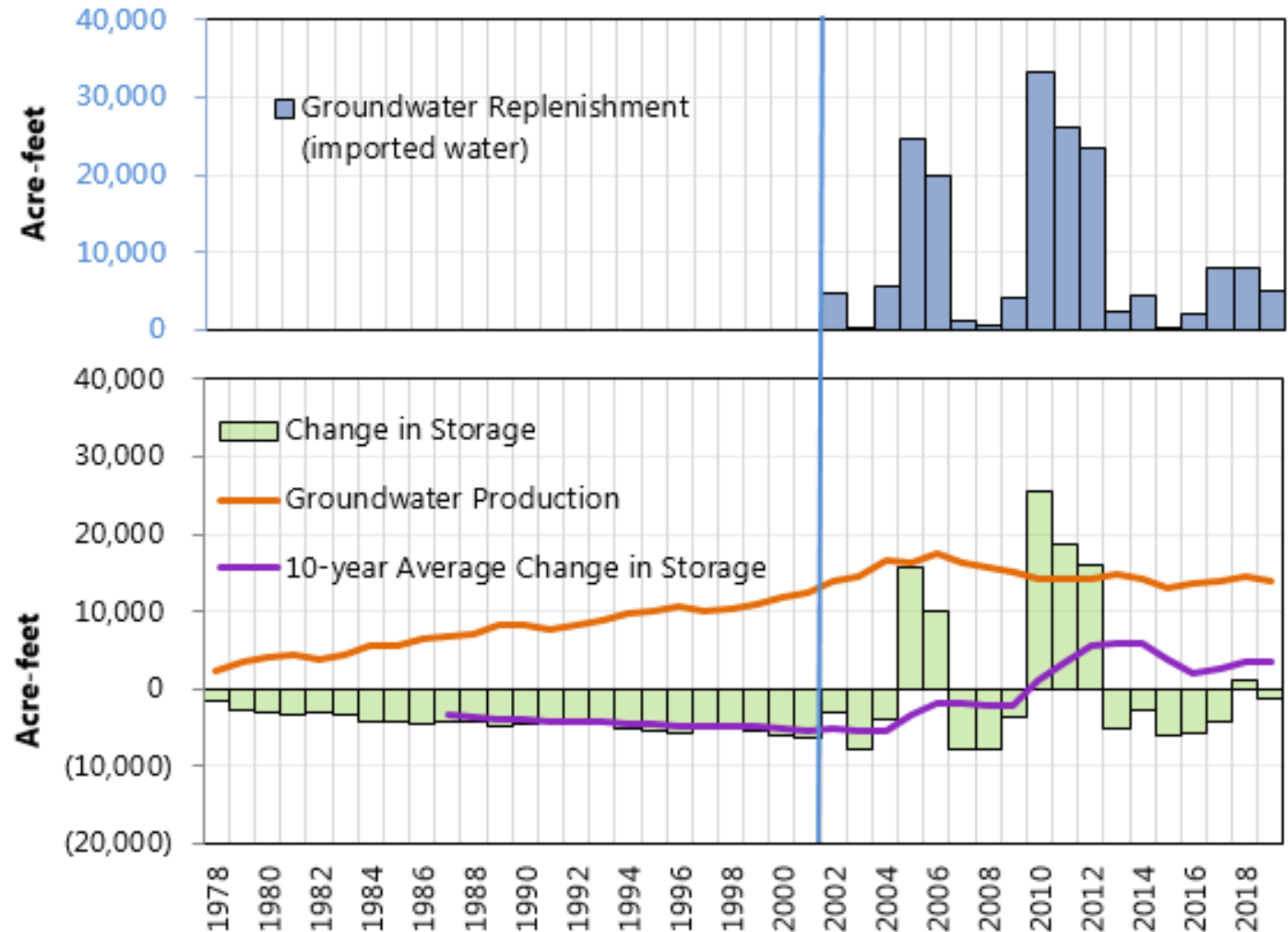
Sources: "Demand" from Historical MCSB Pumping Data; "Population" from 2013 WMP and SCAG TAZ Data



- Which conservation actions have you participated in?
 1. Installing a low-flow showerhead
 2. Installing a low-flow toilet
 3. Installing an energy efficient washer/dryer
 4. Installing greywater system (washers, sinks, showers) for irrigation
 5. Irrigation management (e.g. weather-based controllers, landscape watering guidelines)
 6. Replacing landscaping with drought-tolerant plants
 7. Attending workshops about water conservation and drought

Is the Alternative Plan Working?

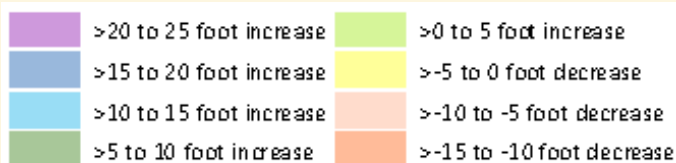
- 2002 replenishment begins and reduces annual deficit in groundwater storage
- 2005 first annual surplus in groundwater storage in decades. Production stabilizes due large part to conservation efforts
- 2006 groundwater production begins to decline
- 2009 to date, the 10-year average of change in storage shows net increase
- Sustainable management works!



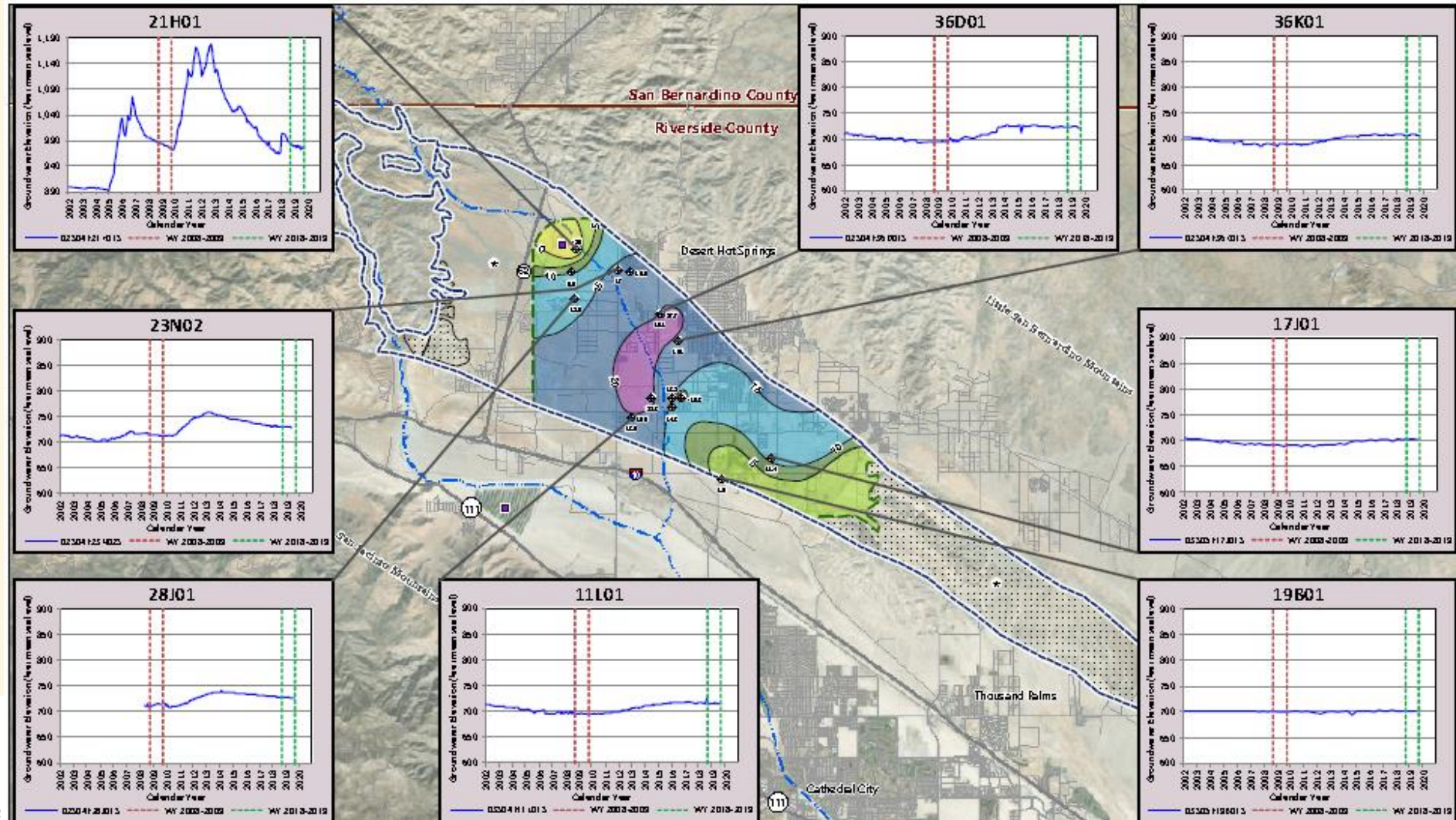
Source: Mission Creek Subbasin Annual Report for WY 2018-2019

Is the Alternative Plan Working?

- Groundwater levels/groundwater storage have increased in the MCSB over the last 10 years
- Plan projects future growth and identifies strategies for meeting future and current needs
- More work to be done to ensure the continued success of the Plan



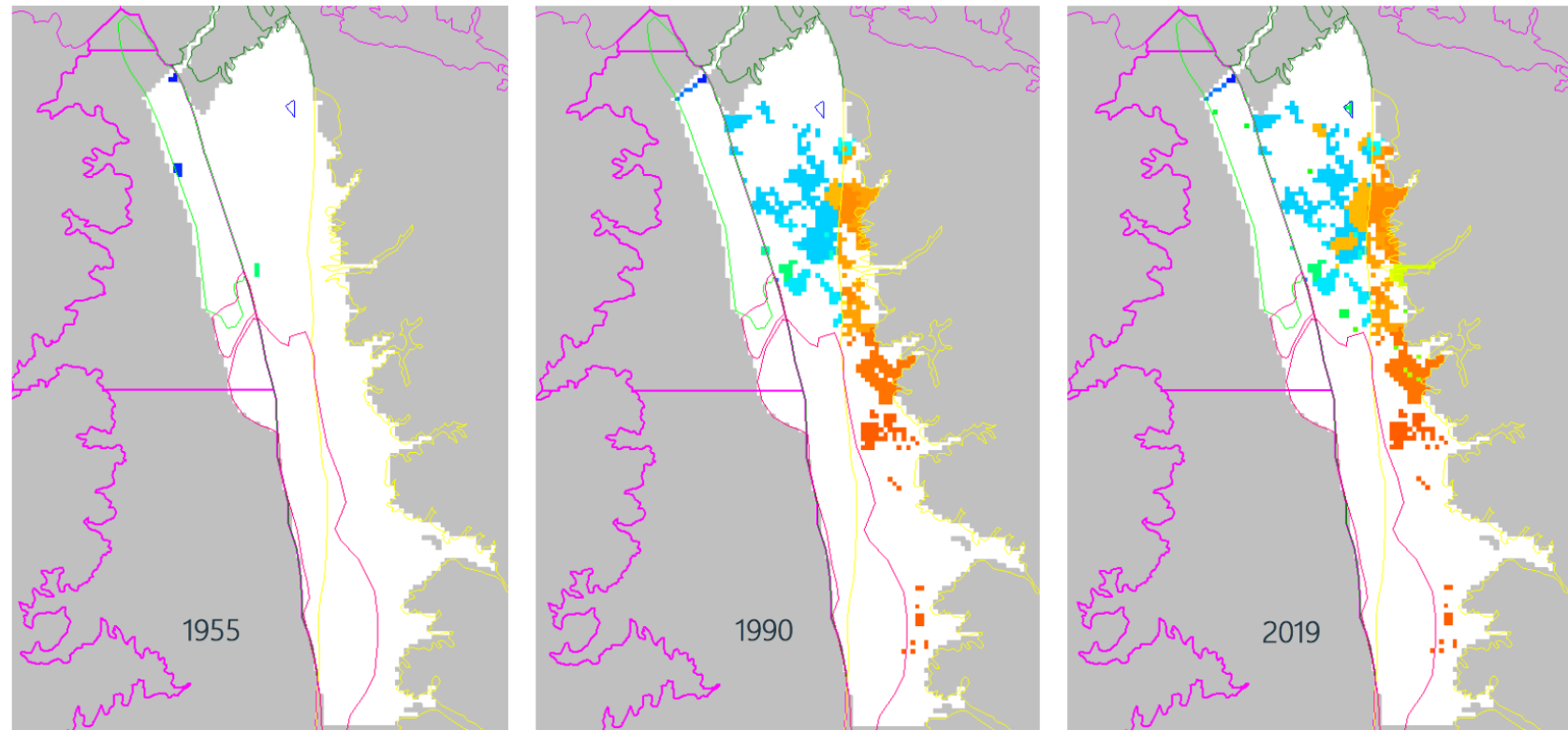
Groundwater Levels and Change in Storage 2009 to 2019



Source: Mission Creek Subbasin Annual Report for WY 2018-2019

- **Model used for:**
 - Simulating groundwater inflows and outflows from the subbasin to estimate groundwater balance (water budgets) and calibrated using water level observations over decades
 - Evaluating benefits of management actions by simulating the actions
 - Selecting appropriate sustainability goals/criteria

Model inputs include both temporal and spatial variables



Source: MCSB Alternative Plan Model Update 6-16-20

Mission Creek Subbasin Alternative Plan Update

- Are projections of population growth and water use/demand from 2013 still valid?
- What new factors/conditions could affect future water demand and supplies?
- What is the status of existing management actions? And are there any new actions to consider?
- Is the current Plan implementation schedule appropriate?
- What goals and criteria are appropriate to define groundwater sustainability?

- Assess the existing Alternative Plan
- Update and process current datasets
- Research and document current groundwater conditions
- Estimate future water demand and supplies
- Evaluate management actions and check if new actions should be considered
- Update implementation plan
- Simulate groundwater response to future conditions using a model
- Establish quantifiable sustainability goals and criteria
- Assess data collection/monitoring programs
- Develop and implement stakeholder and public outreach plan

- **Workshops Planned to:**
 - Share results/findings
 - Receive input and feedback
- **Public Comment on Reports:**
 - Draft report: 45 days to review
 - Final report: DWR to post for minimum 60 days public comment following January 1, 2022 Submittal



- My concerns about water are:
 - Water supply reliability
 - Water rates
 - Drinking water quality
 - Recycled water
 - Conservation
 - Drought

- My concerns about groundwater are:
 - Water quality
 - Declining levels
 - Expensive
 - Subsidence (sinking land)

Next Steps

July – September 2020 Activities:

- Forecast future growth based on land use
- Project future water needs
- Developing future water supply assumptions
- Model groundwater inflows/outflows

- **Next Meeting:** 4th Quarter 2020
- **For additional information, please contact:**
 - Sachi Itagaki
 - info@missioncreeksubbasinsgma.org
 - (650) 852-2817

- **Goals for Outreach:**
 - Enhance public understanding
 - Inform public of Plan Update process
 - Engage all parties within planning area
 - Respond to public concerns

- Website: www.missioncreeksubbasinsgma.org/get-involved-faq
- Email address: info@missioncreeksubbasinsgma.org

Stay Connected

Name *

Please enter your name

Email *

Please enter your email

Submit

Public Comment

The Virtual Experience: Raising Hand

The screenshot displays the Microsoft Teams meeting interface. On the left is a sidebar with navigation icons for Activity, Chat, Teams, Calendar, Calls, Files, and Apps. The main area shows a circular profile picture of a woman and the text "Waiting for others to join...". At the top right is a search bar and a user profile. On the right side is a "Meeting chat" panel with a message: "Melanie Rivera joined the meeting." At the bottom is a toolbar with icons for duration (00:29), video, microphone, screen share, more options, a hand icon, chat, participants, and end call. A blue arrow points from a text box to the hand icon.

Search or type a command

Activity
Chat
Teams
Calendar
Calls
Files
...

Waiting for others to join...

00:29 [video] [microphone] [screen share] [more] [hand] [chat] [participants] [end call]

Meeting chat

Melanie Rivera joined the meeting.

Type a new message

“Raise your hand” by clicking on hand icon

- Questions?
- Possible Topics:
 - Private wells
 - Recycling water (future)
 - Groundwater questions

Thanks for joining us!