

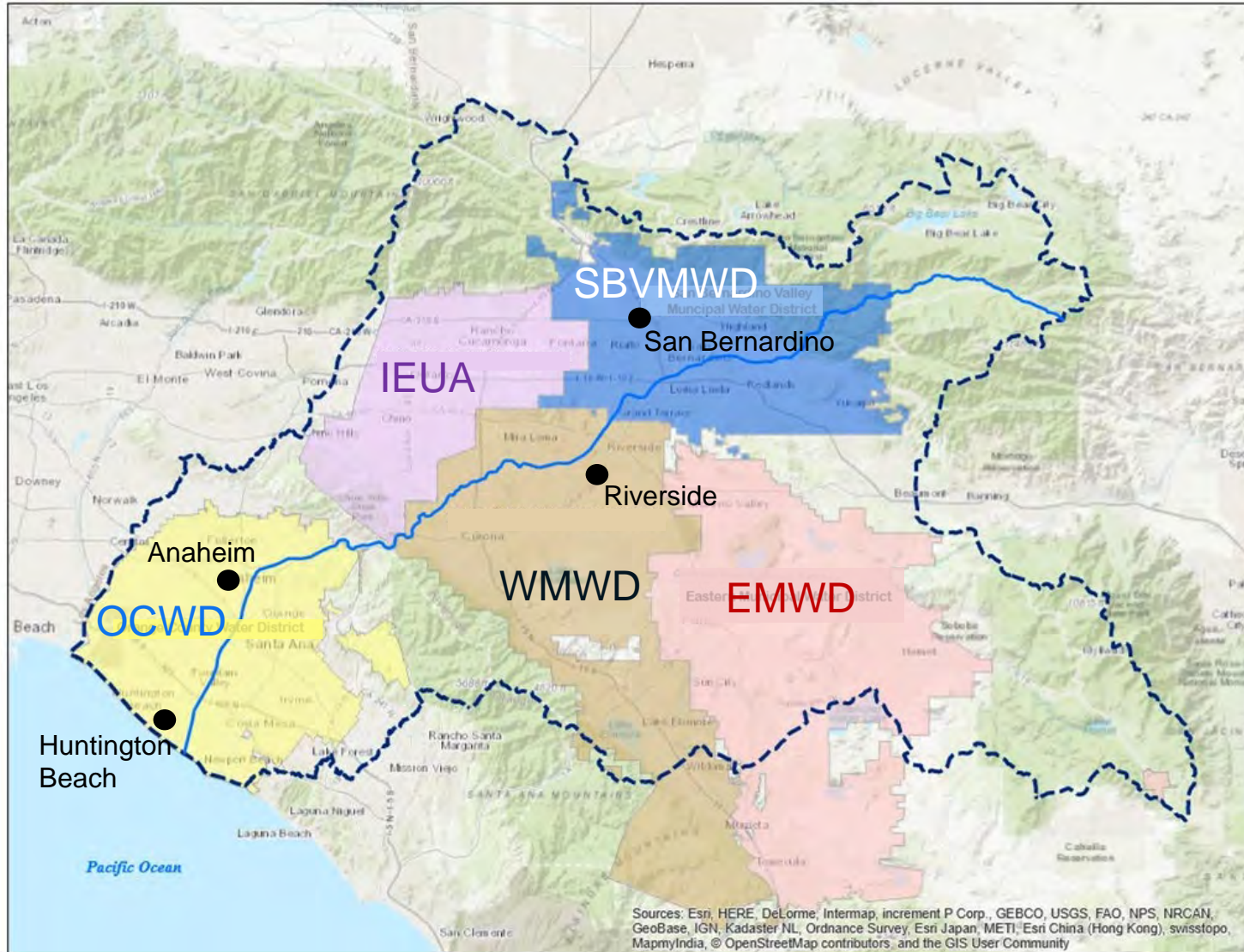
# Overview of the Santa Ana River Conservation and Conjunctive Use Program

Ian Achimore, Senior Watershed Manager  
PA 23 Committee | October 5, 2021  
Item No. 5.A.



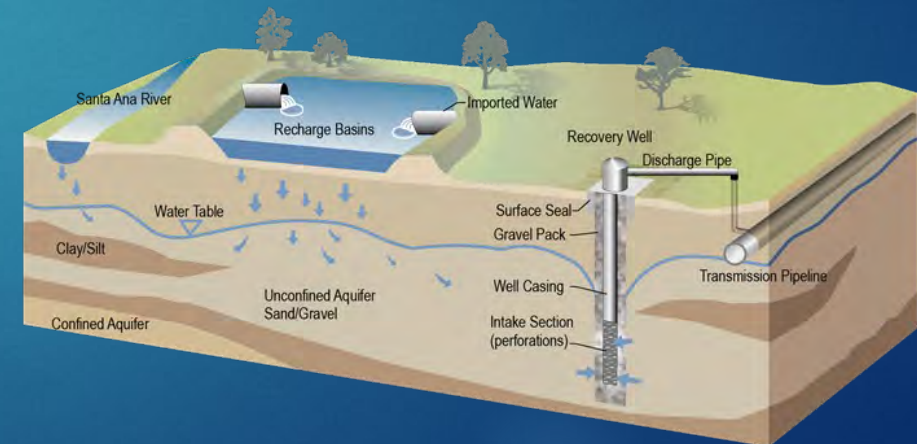
# Project Partners and Roles

# SARCCUP Partners



# SARCCUP Elements

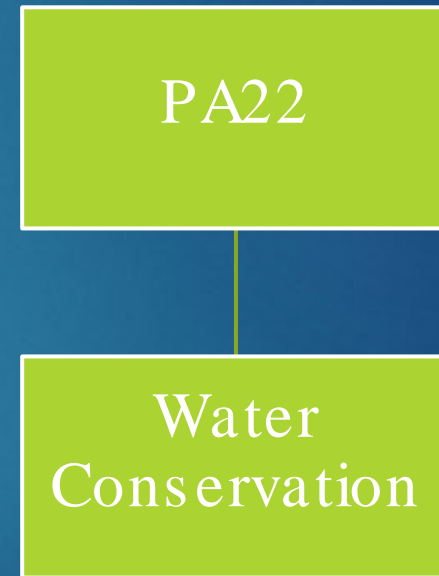
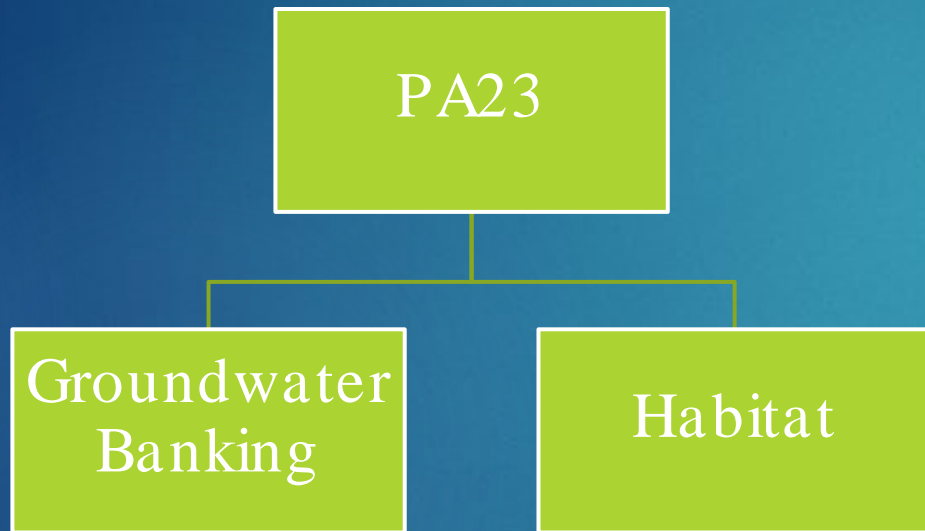
- **Groundwater Banking:** Banking & conjunctive use (“put and take”) facilities
- **Habitat Improvement:** Arundo removal & Santa Ana sucker fish habitat restoration
- **Water Conservation:** Water efficiency budget creation, water-use efficient landscaping design and upgrades



# Responsibilities

Organization	Local Share	Project Mgmt	Water Conservation	Arundo Removal	Santa Sucker Habitat	Water Bank Infrastructure	Joint CEQA
SAWPA		●	●				
EMWD	\$					●	
IEUA	\$						●
OCWD	\$			●		●	
SBVMWD	\$				●		
WMWD	\$					●	
Coastkeeper			●				

# Governance Through Construction



# Governance GW Bank Operation

Elected  
Boards

Operations  
Committee

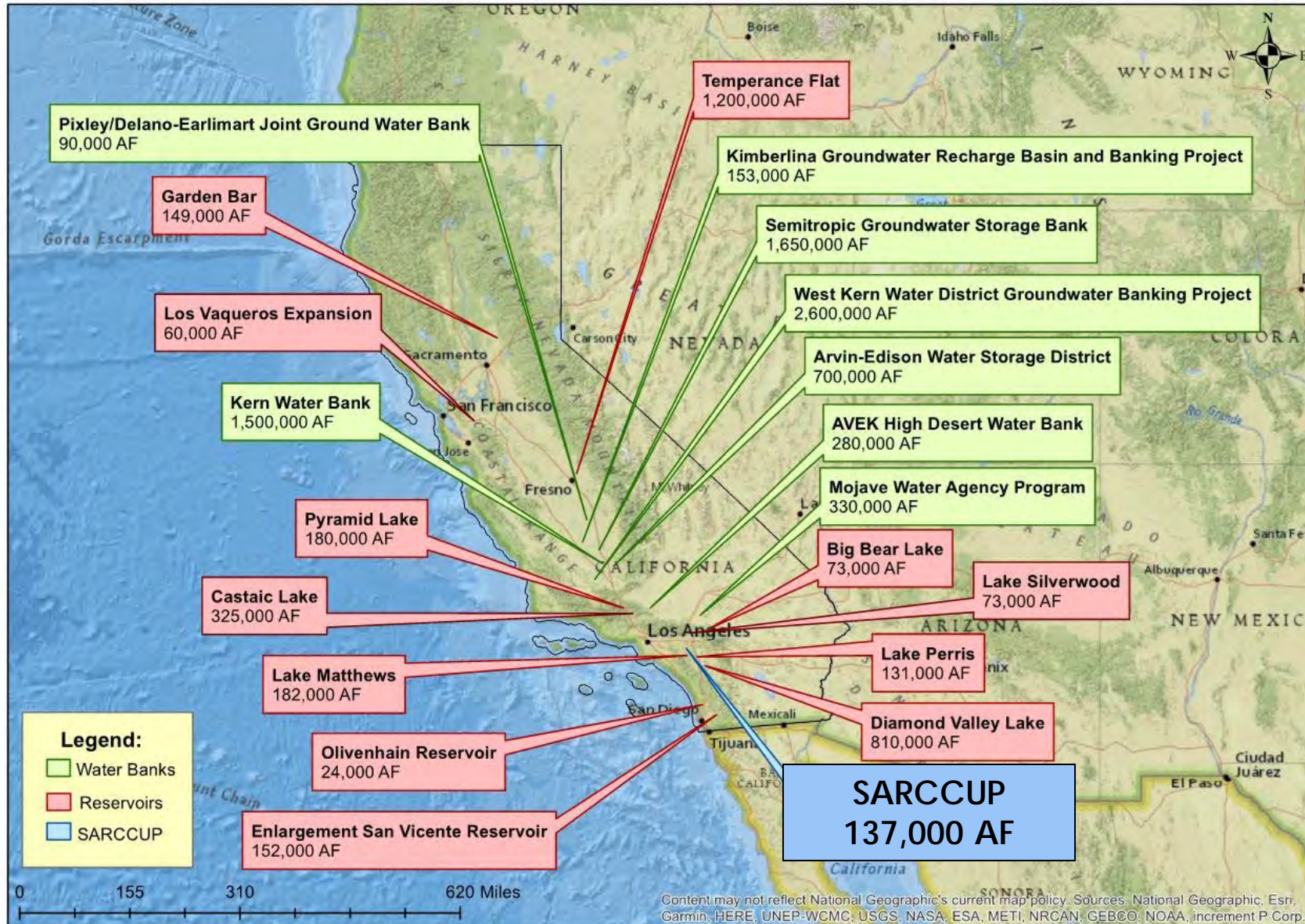




# Groundwater Banking Overview

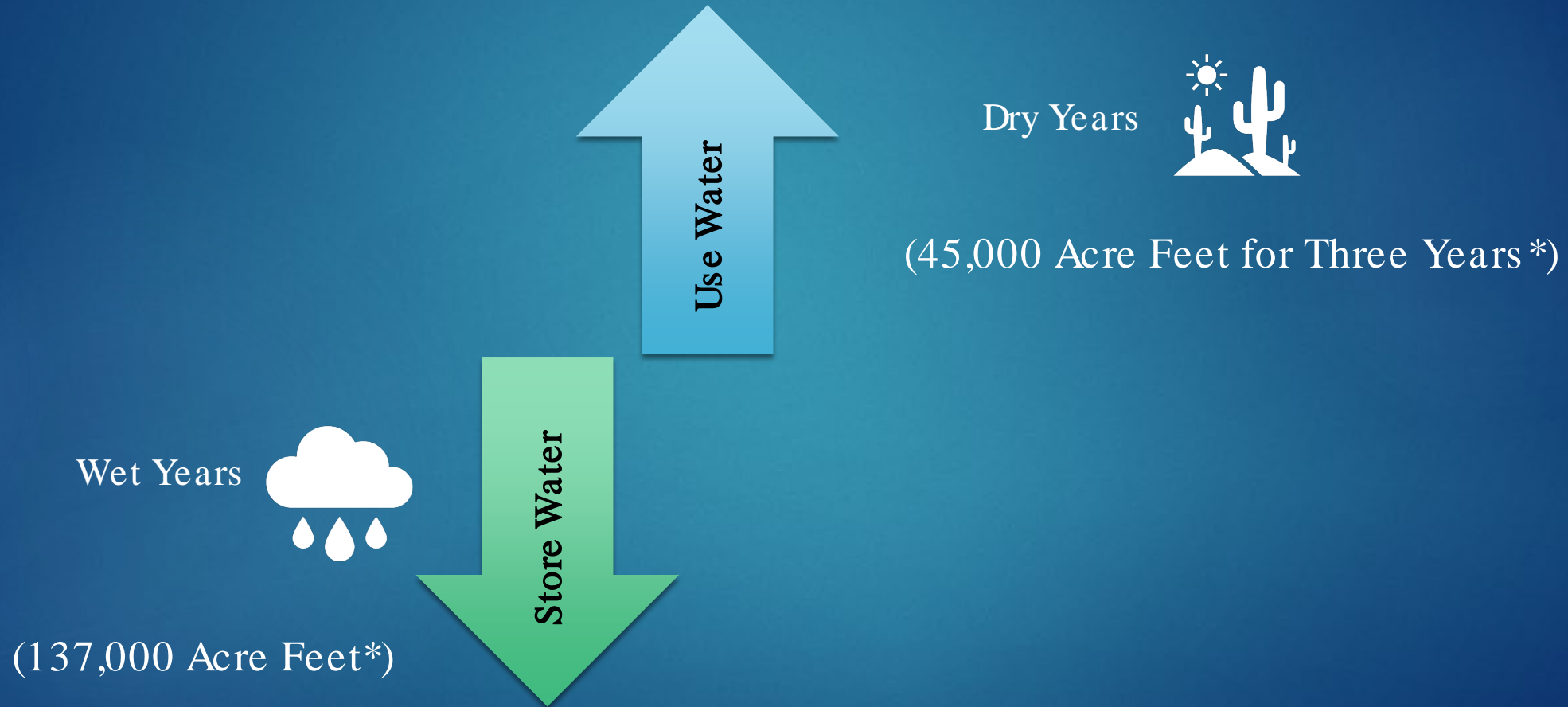


# Water Banks and Reservoirs in California



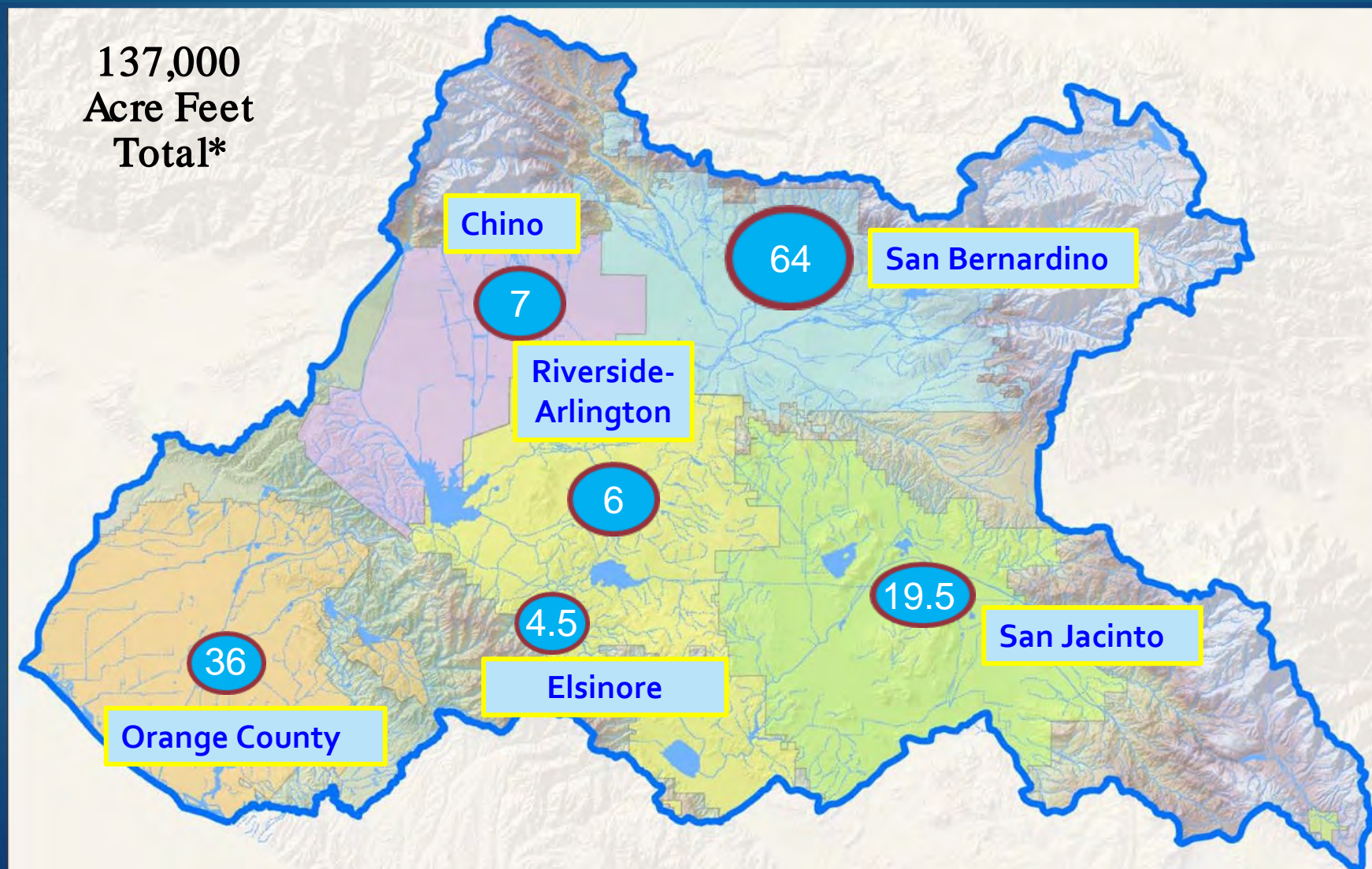
# SARCCUP Water Bank Operations

From Prop 84 Project Monitoring Plan



*\*The target amounts for storage and use are dependent upon actual hydrology.*

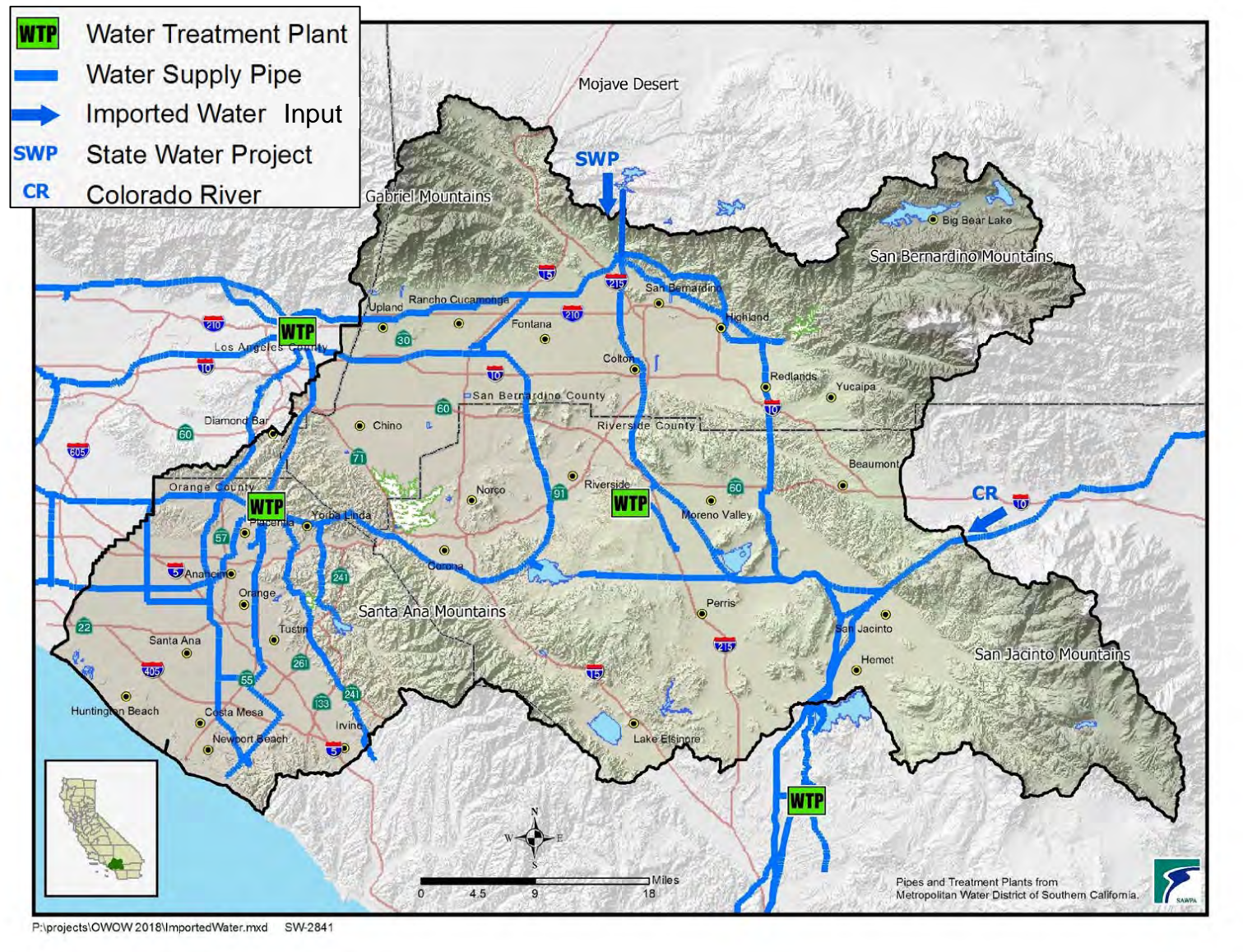
# Water Bank Groundwater Basins Used for Storage (Volume in Thousand Acre Feet)



137,000  
Acre Feet  
Total\*

*\*The target amounts for storage are dependent upon actual hydrology.*

# SARCCUP Storage Locations Take Advantage of Existing Water Distribution Infrastructure



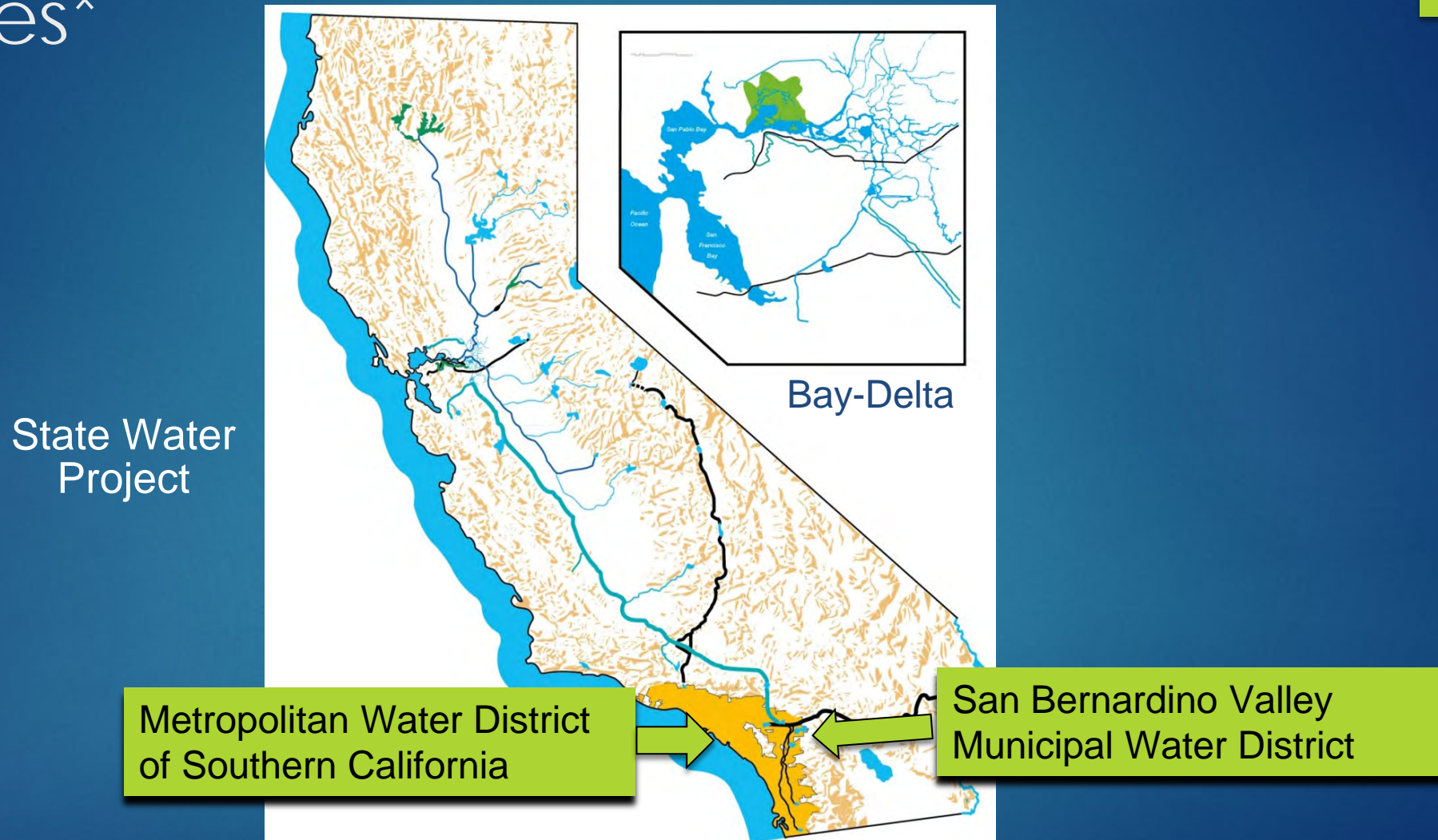
# SARCCUP Water Bank Facilities

## By Type (And Location)

- ▶ Recharge Basin:
  - ▶ EMWD (San Jacinto Basin)
- ▶ Groundwater Wells:
  - ▶ EMWD (San Jacinto Basin)
  - ▶ WMWD (Riverside-Arlington and Elsinore basins)
  - ▶ OCWD Retailers (OC Basin)
- ▶ Pump Station:
  - ▶ WMWD (Riverside-Arlington Basin area)
- ▶ Pipelines Associated with Other SARCCUP Facilities:
  - ▶ EMWD (San Jacinto Basin)
  - ▶ WMWD (Riverside-Arlington and Elsinore)

Note: Some facilities have water quality treatment capabilities.

# Banked Water: Two Imported Agency Sources\*



\*Additional imported sources may come from other entities (i.e. rice farmers in Central Valley) but will largely involve the State Water Project facilities.

# Supply Agreement Between Metropolitan and SBVMWD

## ► Coordinated Operating and Surplus Water Agreement (June 2021)

- Metropolitan may purchase SBVMWD surplus water provided that  $\leq 50\%$  of its purchase be available to agencies participating in SARCCUP (i.e. in the Santa Ana River Watershed).

► Includes prices for this SBVMWD water that is based on State Water Project allocations from the Department of Water Resources (DWR).

DWR State Water Project Annual Allocation	Water Cost (\$ Per Acre Foot)
0 to 20%	\$450
21 to 40%	\$350
41 to 60%	\$250
61 to 100%	\$125

# Supply Agreement Between Metropolitan and SARCCUP Agencies (Excluding SBVMWD)

- ▶ **Agreement Among Metropolitan and Agencies Regarding SARCCUP (October 2021):**
  - ▶ Allows the SARCCUP agencies the ability to purchase  $\leq 50\%$  of the surplus water that SBVMWD sells to Metropolitan.
  - ▶ Each SARCCUP member agency can inform Metropolitan of the amount of water they seek to purchase.
  - ▶ Metropolitan to then coordinate the delivery of such water with each agency during the particular calendar year. Three delivery methods mentioned in Agreement:
    - ▶ Indirect,
    - ▶ Direct, and
    - ▶ Delivery to SBVMWD.



# Cost of Water for SARCCUP Agencies (Excluding SBVMWD)

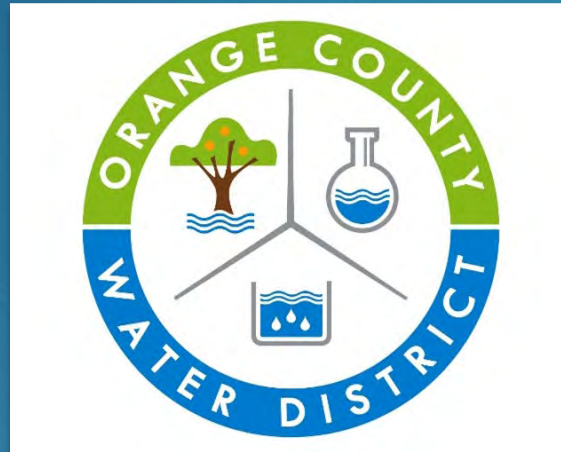
- ▶ Because the water under this Agreement is purchased directly from Metropolitan by its agencies, all Metropolitan full-service volumetric charges apply (not including capacity charge) at the time of delivery.
- ▶ If such purchased water is stored and accounted per Metropolitan's policy requirements, it can be counted as "Extraordinary Supply"\* to benefit a SARCCUP agency.

Note: To aid in the coordination of this program, there will be a SARCCUP Operations Committee (including SBVMWD as a member) to convey the purchase amounts, delivery and recovery method, and accounting of the water to Metropolitan.

\*Metropolitan program that gives Metropolitan agencies credit for investing in their own water programs that meet certain policy principles.

# Habitat Overview

# Arundo Removal



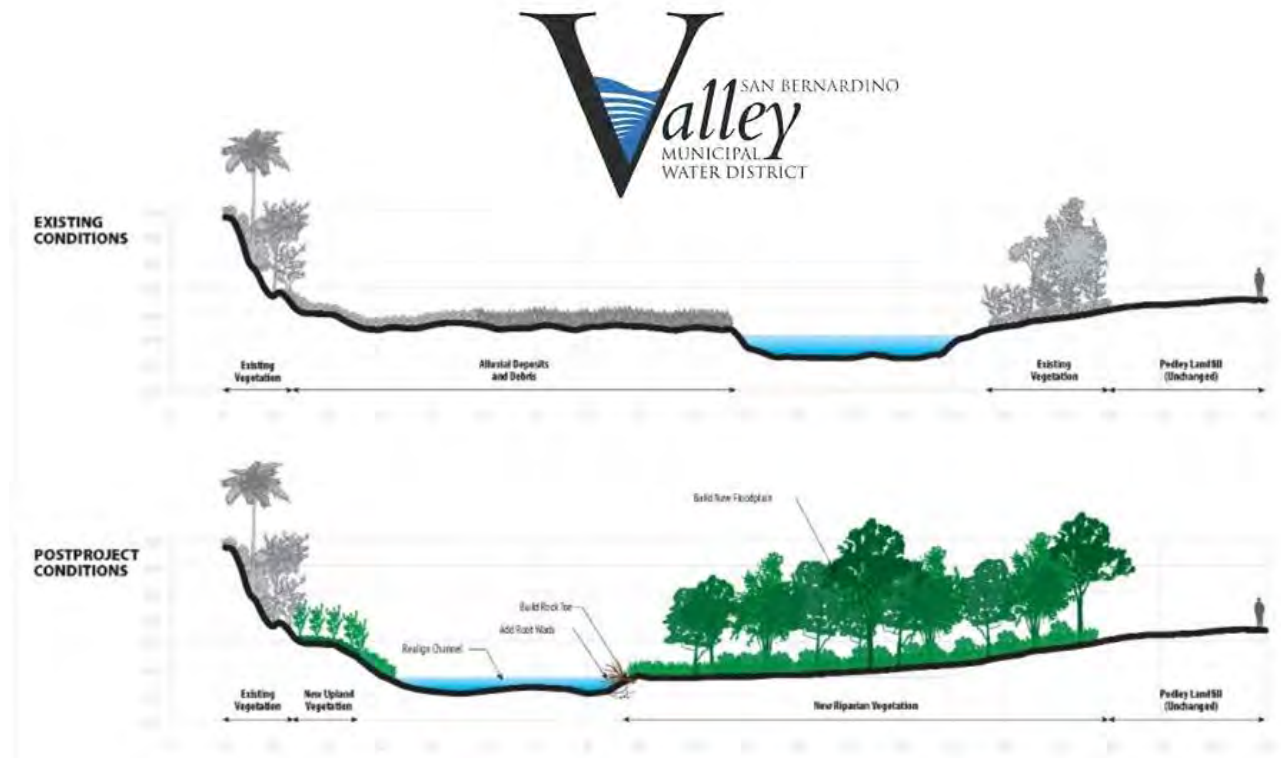
- ▶ Approximately 640 acres to be improved by removal of non-native plant Arundo Donax.
  - ▶ 1 acre of Arundo uses 3.75+ acre-feet of water per year (i.e. more water than native habitat), and
  - ▶ 2,400 afy of water to be conserved.

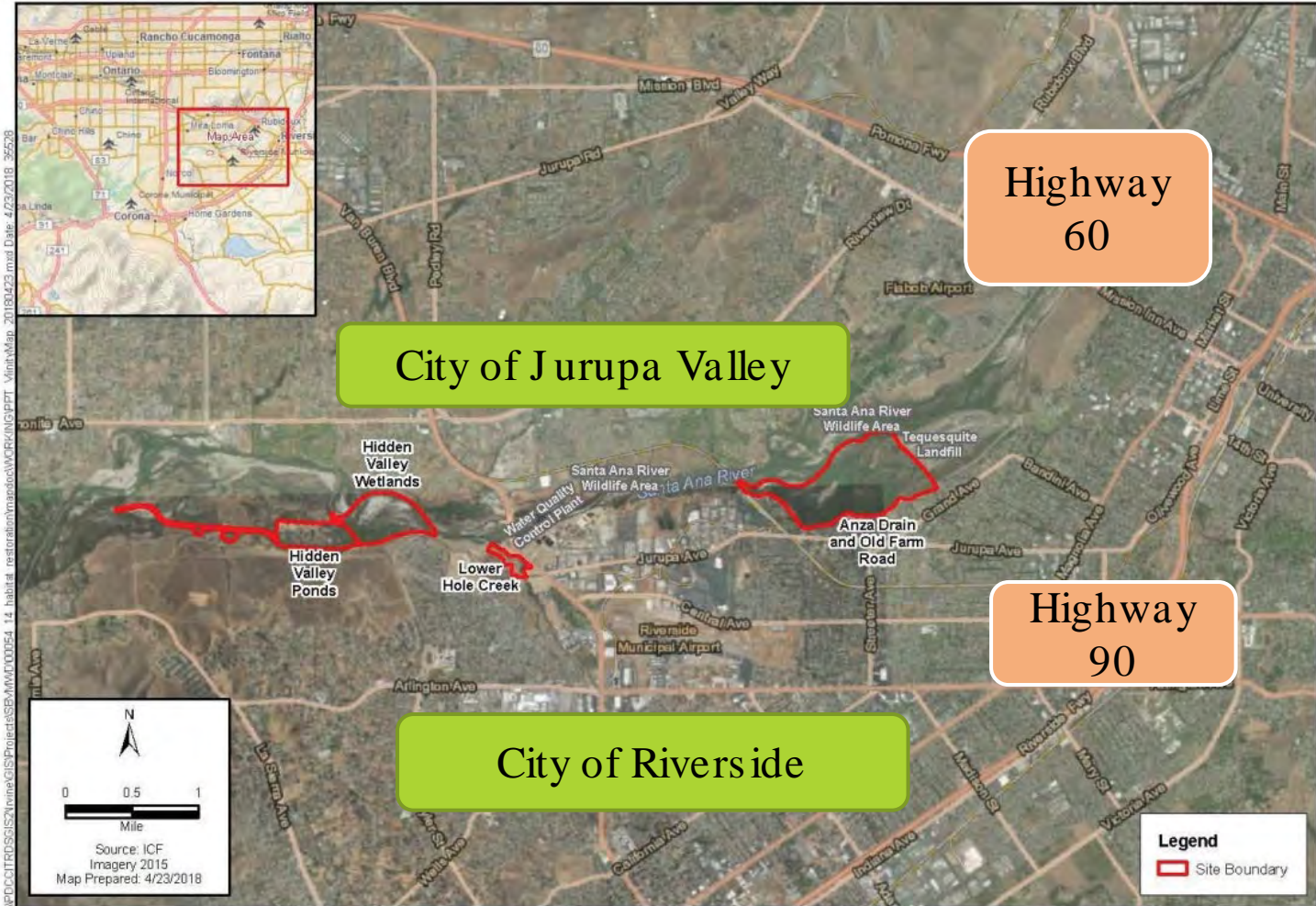
# Arundo Locations



# Habitat - Santa Ana Sucker Fish

- ▶ Create 3.5 miles of stream habitat for fish to forage and spawn
- ▶ Restore 41 acres of native, streamside riparian habitat





# Location of Projects in Santa Ana River



# Water Conservation Overview

# Water Conservation

## Dedicated Landscape Meter Customer Example

- ▶ Water Use Efficiency Budget Assistance (SAWPA):
  - ▶ Assistance for dedicated landscape meter customers,
  - ▶ Up to 10 retail agencies to participate in the program,
  - ▶ 1,200 feet of water to be saved over three years.
- ▶ Smartscape Program (Waterkeeper/Coastkeeper):
  - ▶ Landscape design,
  - ▶ Care for low water use plants,
  - ▶ Irrigation audits,
  - ▶ Irrigation tune-ups, and
  - ▶ Workshops.





# Lessons Learned from SARCCUP Smartscape Task

- Pairing Smartscape landscape designs with rebates worked well, but we hoped it would have attracted more attention from customers,
- There are many existing education-focused water conservation programs, so there is a lot of options for customers which may reduce customer attention for one particular program like Smartscape, and
- Smartscape's focus on irrigation tune-ups were popular in IEUA service area and customers of that program seem to take advantage of other IEUA water conservation programs.

## Task Leads



# Questions





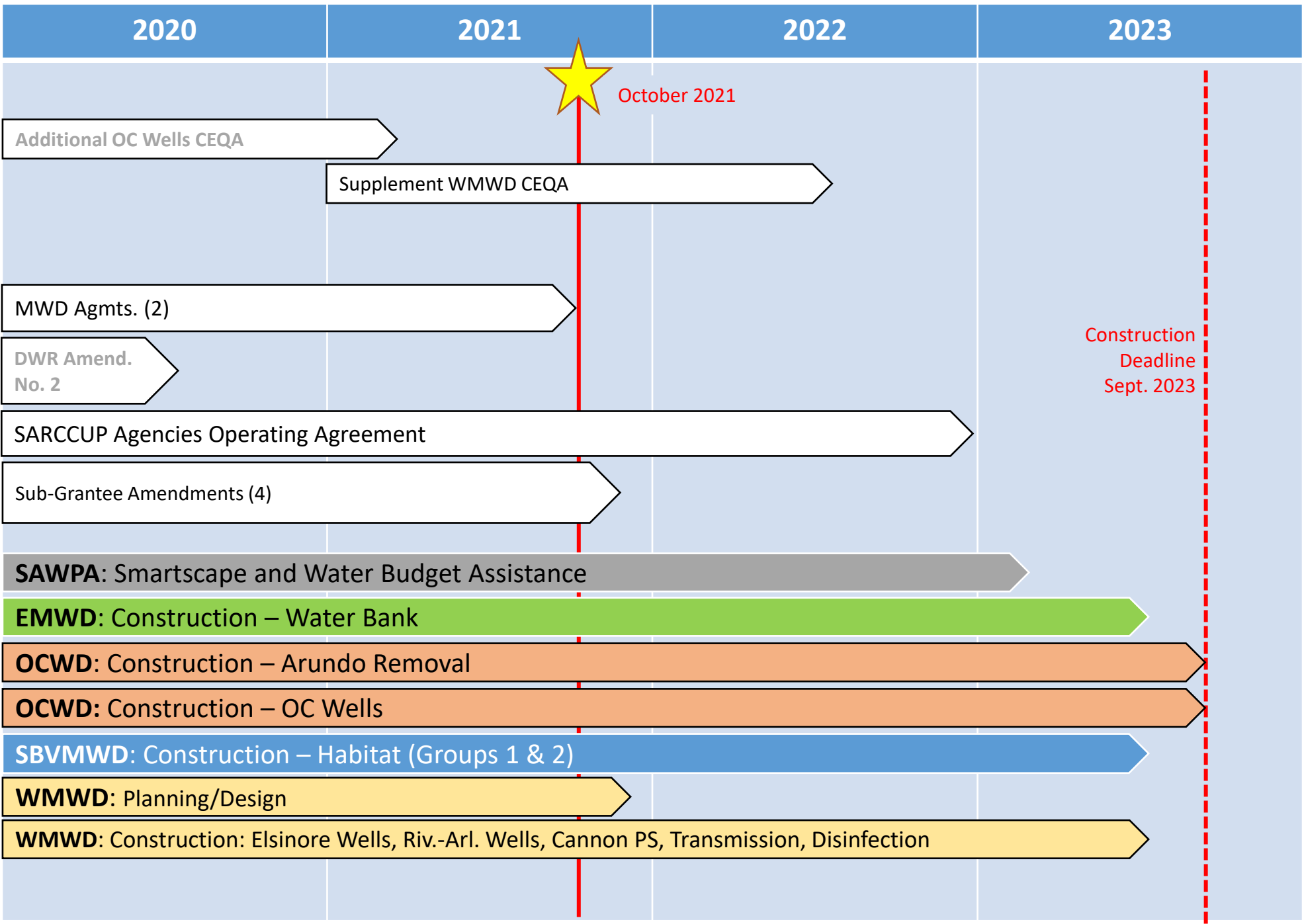
# SARCCUP Schedule Overview

Brian Dietrick, Woodard & Curran

PA 23 Committee | October 5, 2021

Item No. 5.B.





**Planning/CEQA:**

Additional OC Wells CEQA

Supplement WMWD CEQA



October 2021

**Key Agreements:**

MWD Agmts. (2)

DWR Amend. No. 2

SARCCUP Agencies Operating Agreement

Sub-Grantee Amendments (4)

Construction Deadline Sept. 2023

SAWPA: Smartscape and Water Budget Assistance

EMWD: Construction – Water Bank

OCWD: Construction – Arundo Removal

OCWD: Construction – OC Wells

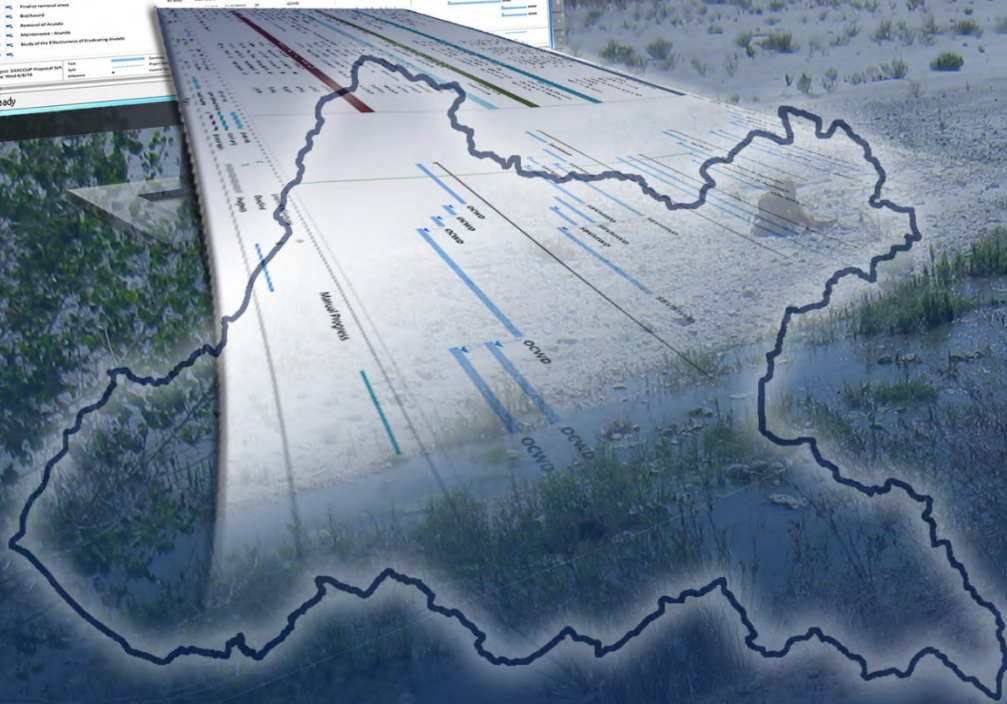
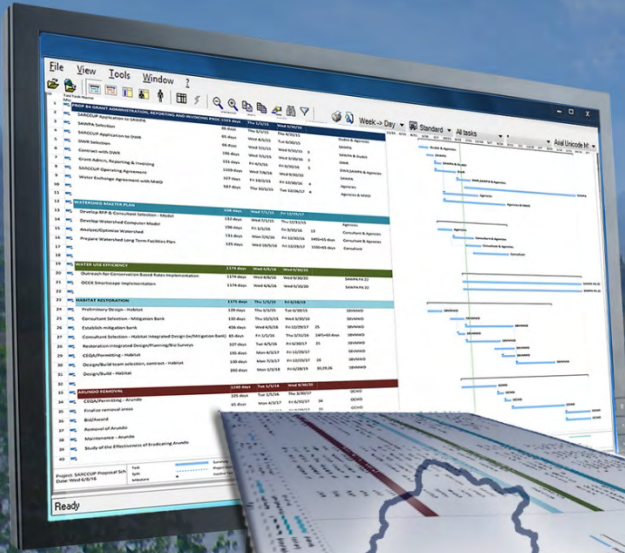
SBVMWD: Construction – Habitat (Groups 1 & 2)

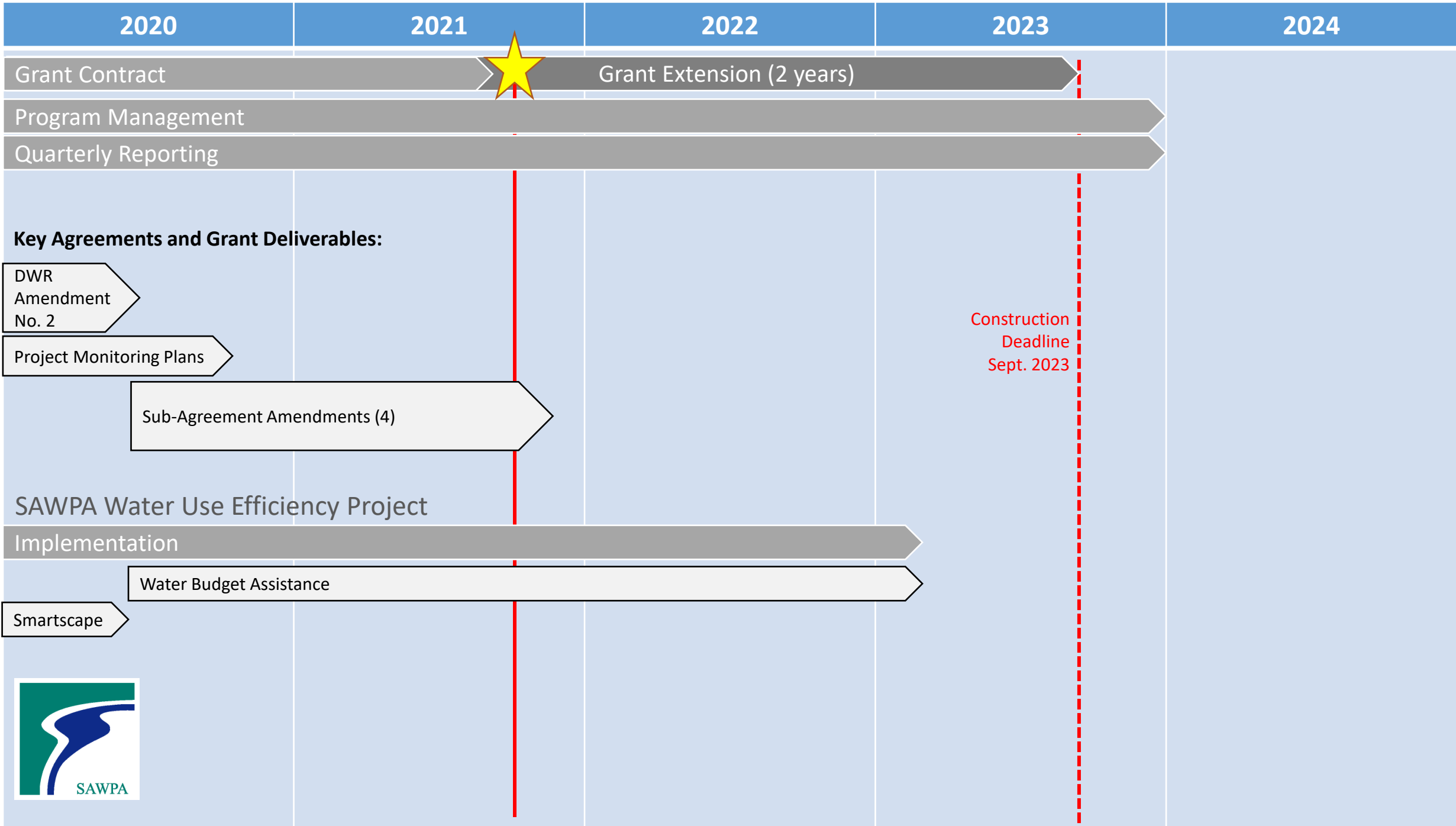
WMWD: Planning/Design

WMWD: Construction: Elsinore Wells, Riv.-Arl. Wells, Cannon PS, Transmission, Disinfection

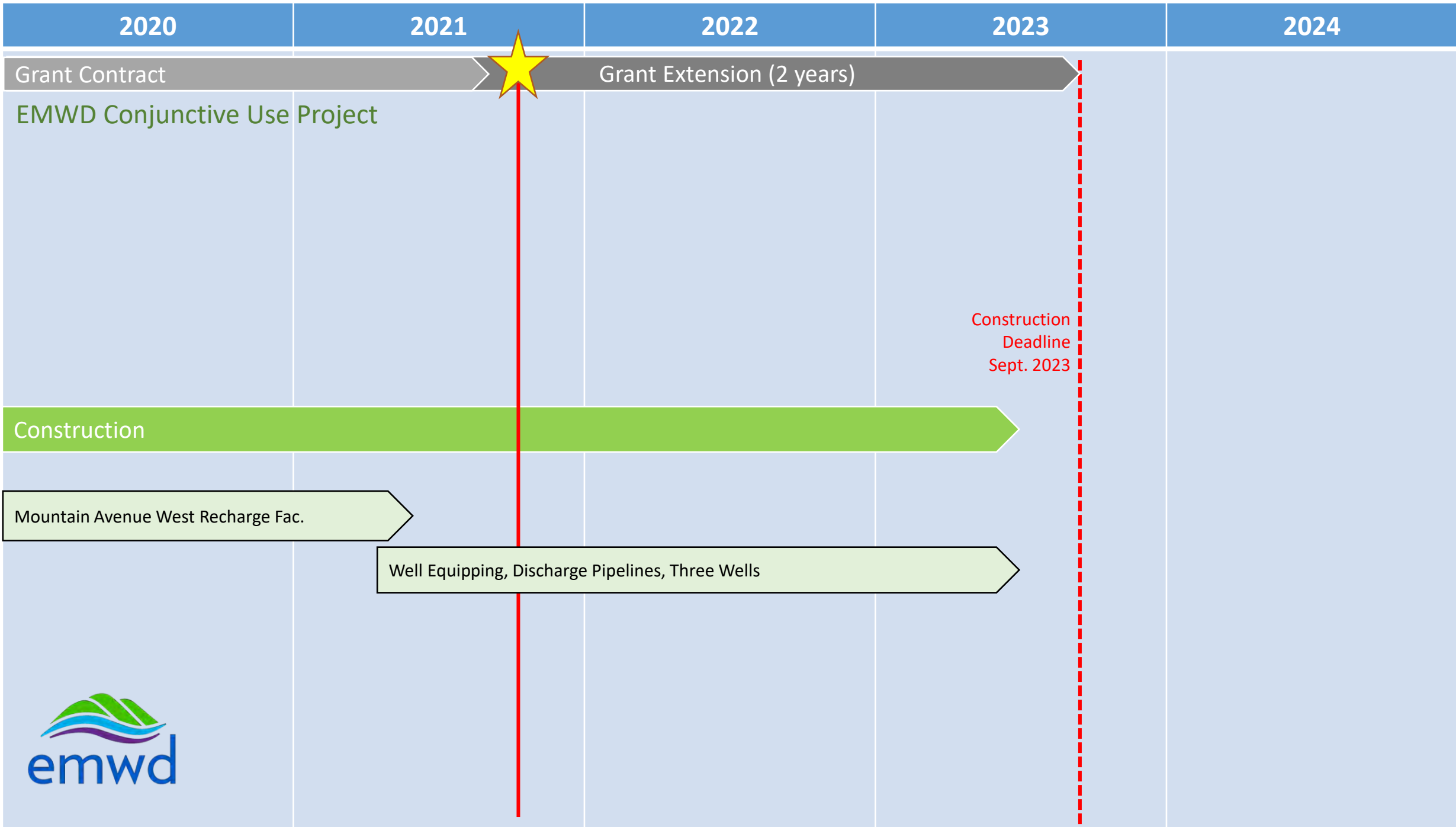
**Projects:**

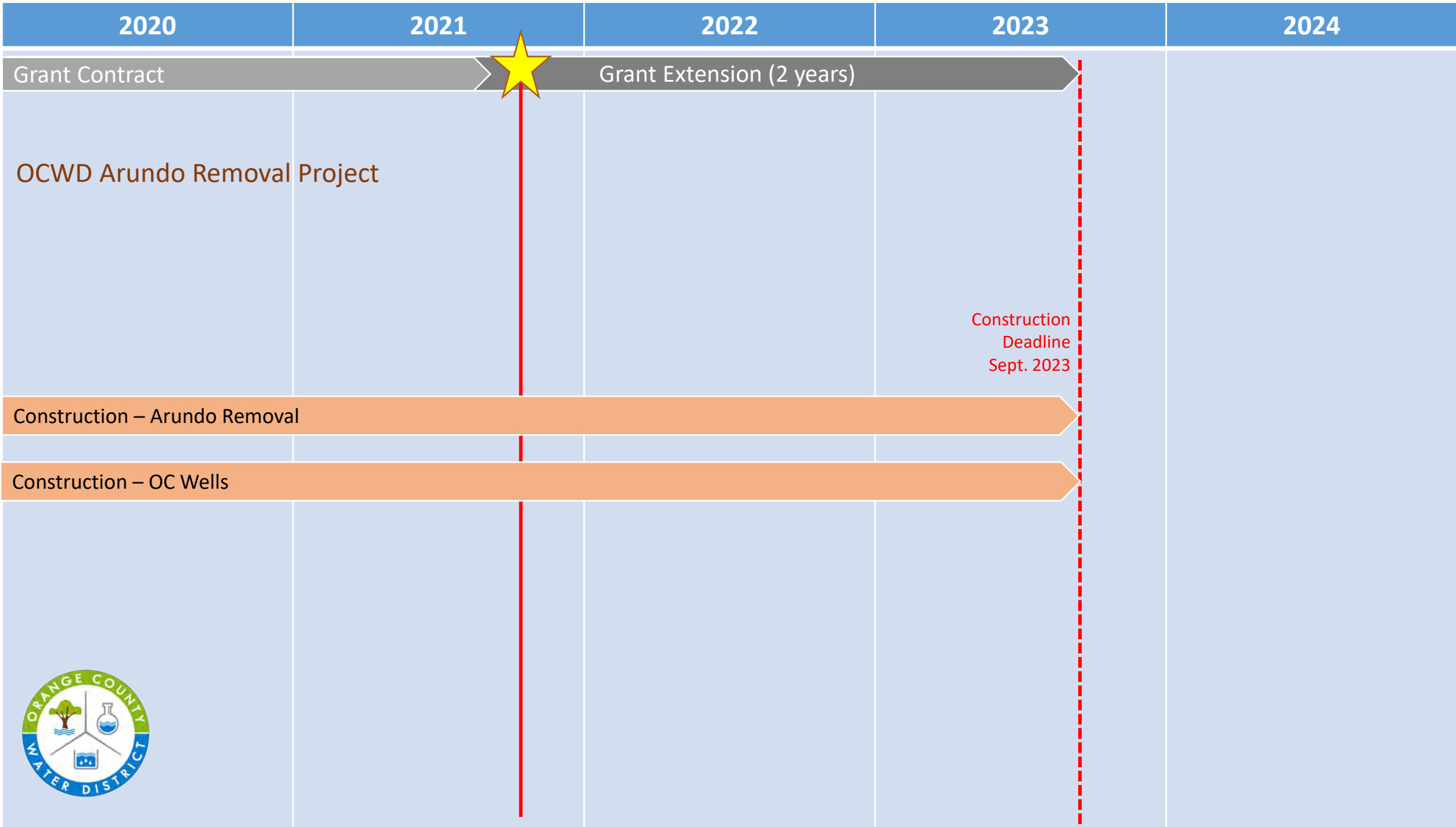
# 2020-2023 Agency Slides





Construction  
Deadline  
Sept. 2023







2020                      2021                      2022                      2023                      2024

Grant Contract                      Grant Extension (2 years)



### SBVMWD Habitat Restoration Project

Habitat Permits

Establish Mitigation Bank

Final Engineering/ Construction Package 1

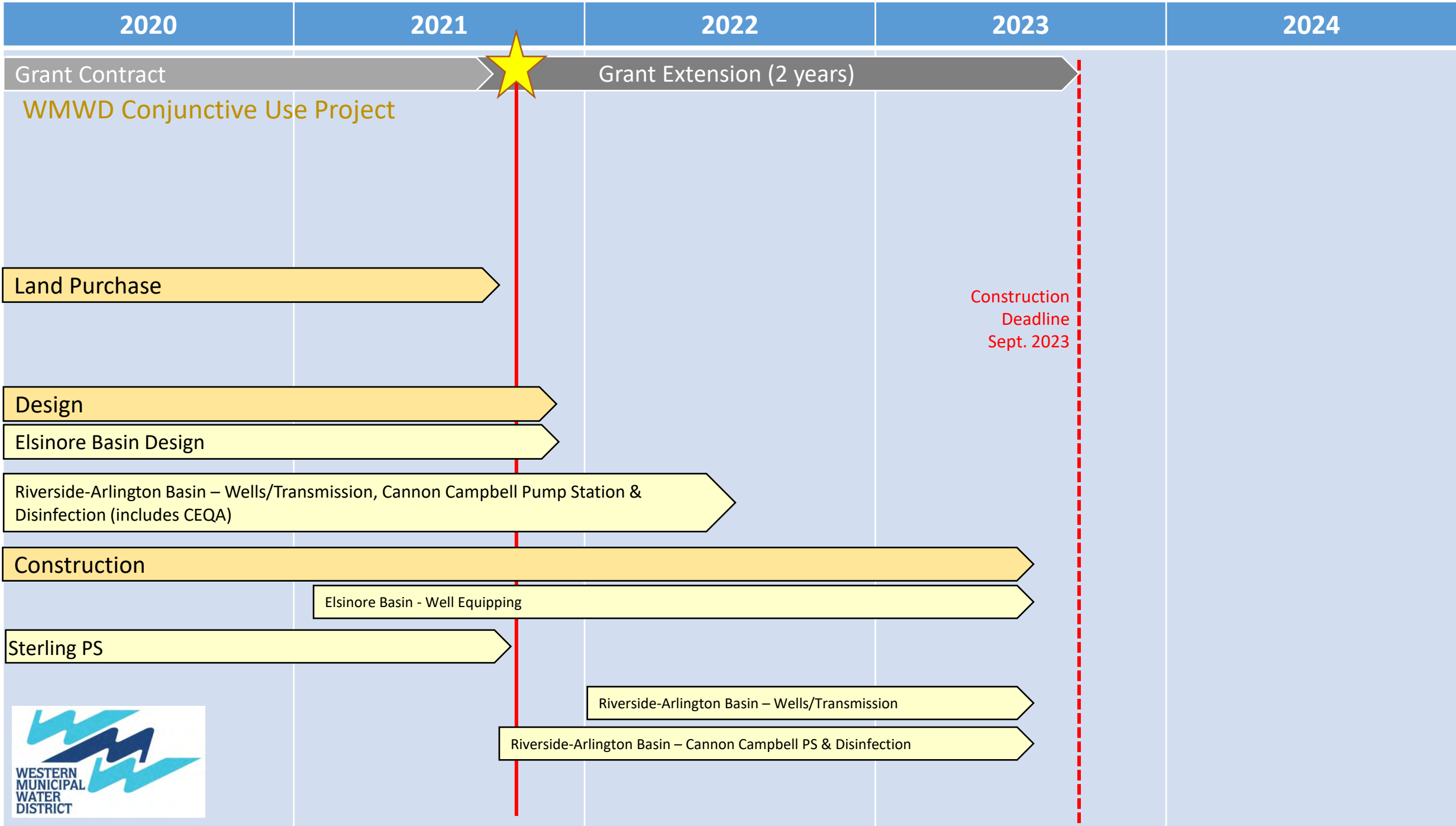
Construction Group 1

Final Engineering/ Construction Package 2

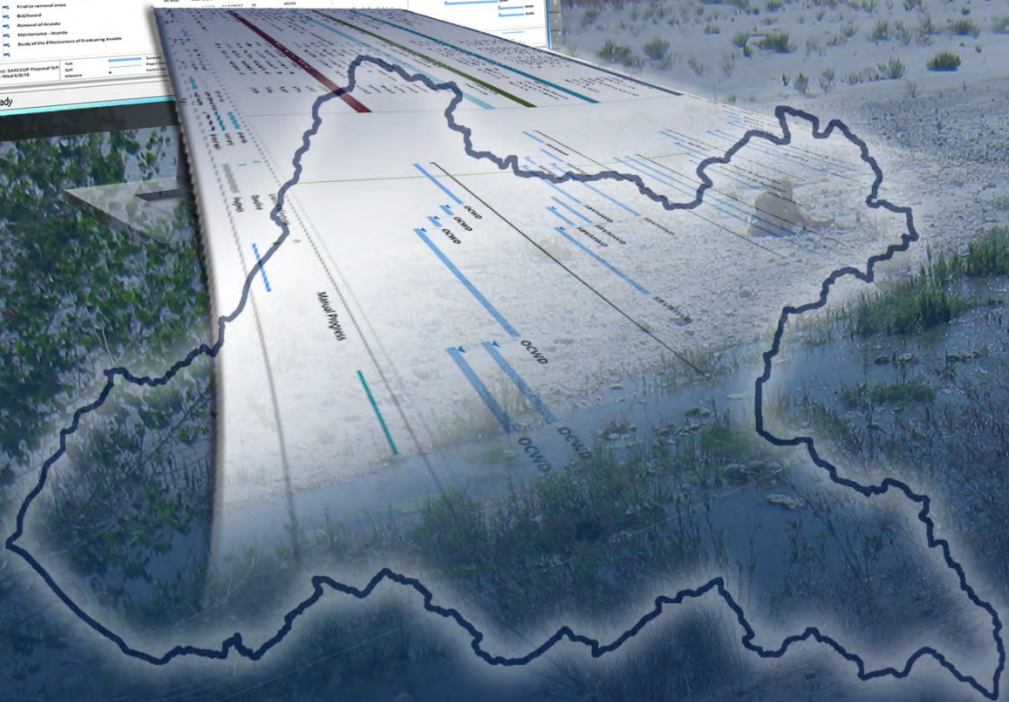
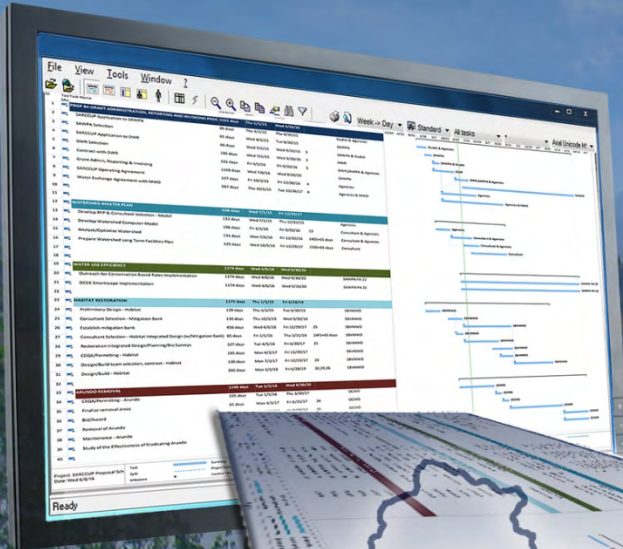
Construction Group 2

Construction Deadline  
Sept. 2023

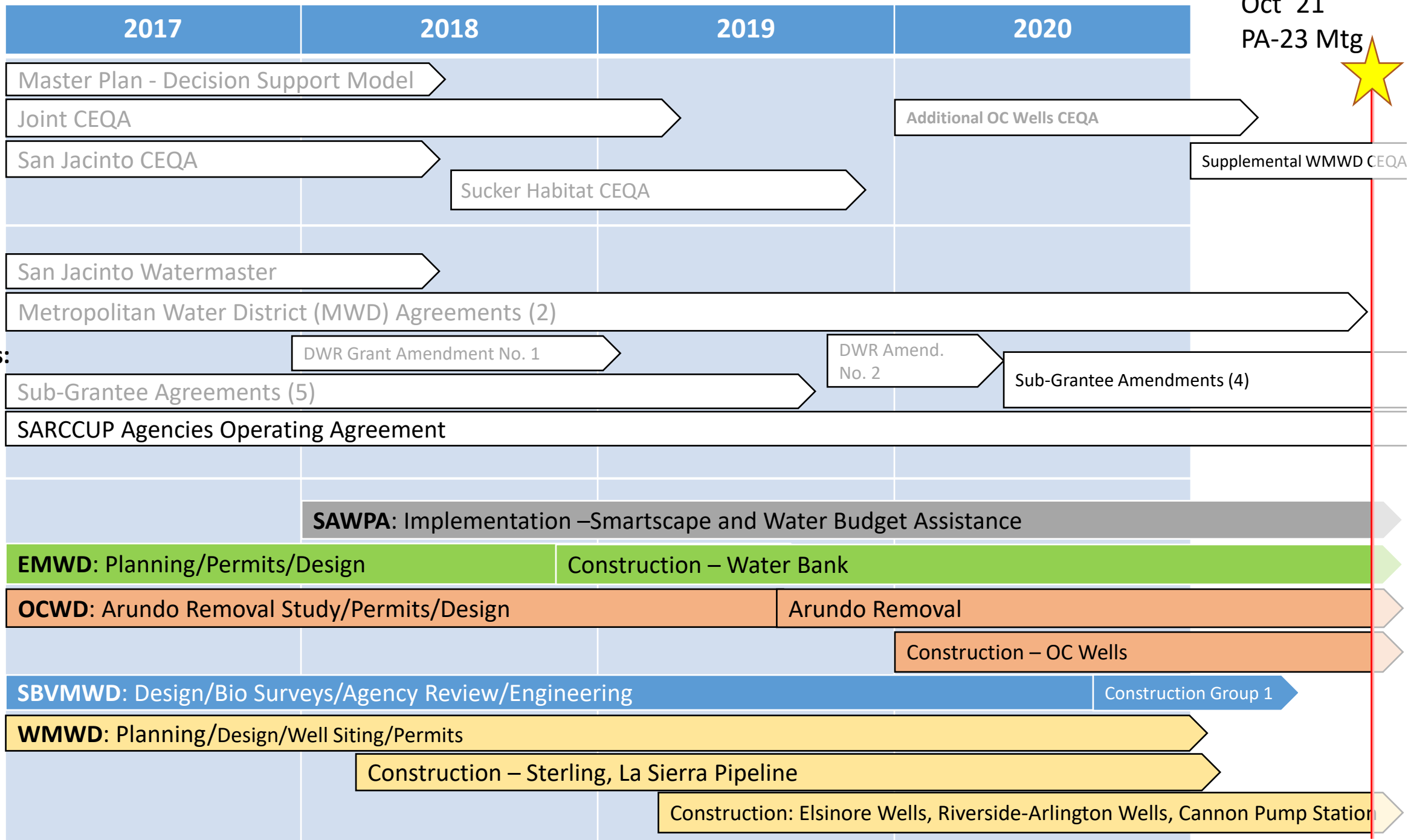




# Glance Back: 2017-2020



Oct '21  
PA-23 Mtg





**SARCCUP**

# SARCCUP Project Updates

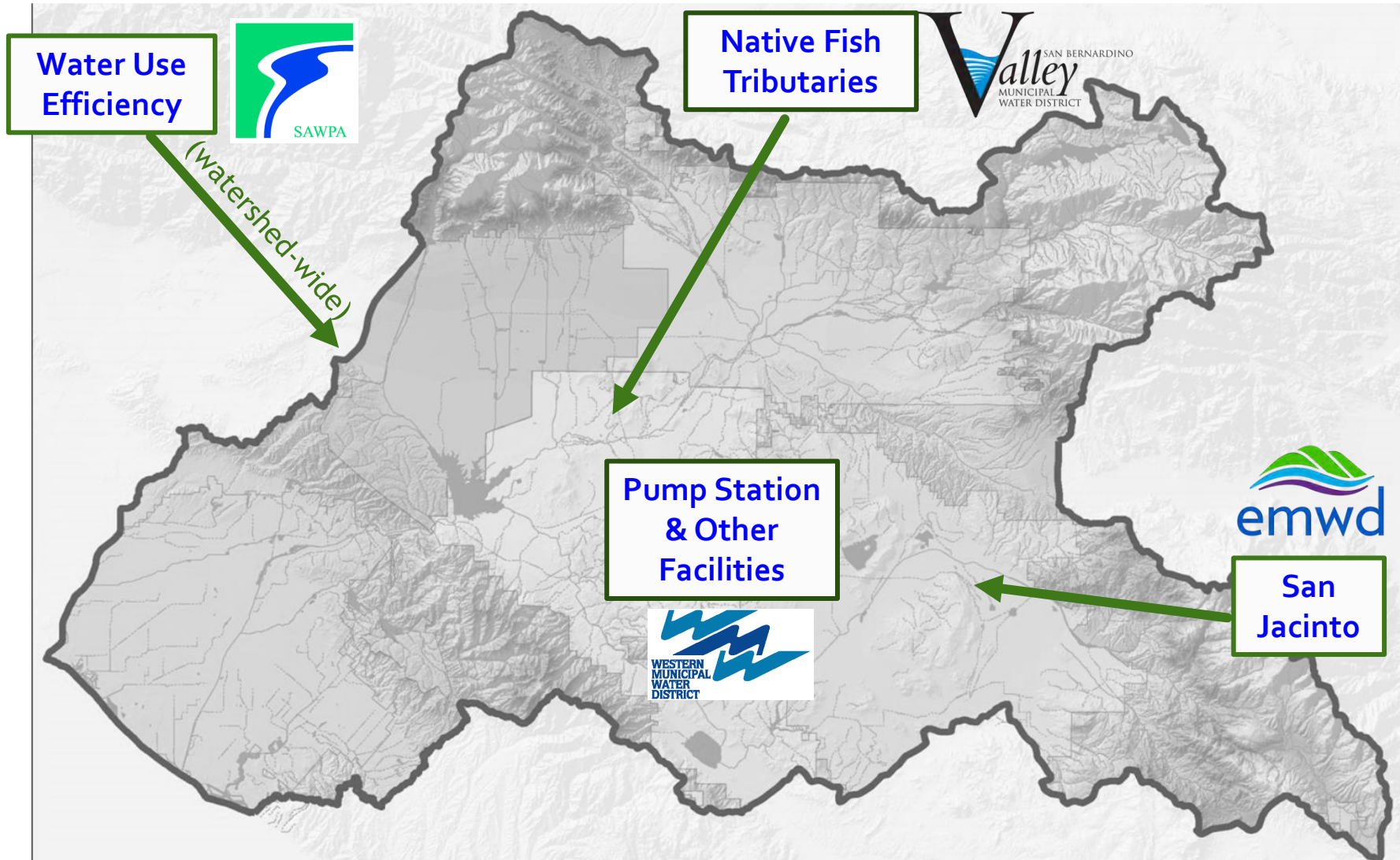
SAWPA Member Agencies & SAWPA

PA 23 Committee | October 5, 2021

Item No. 5.C.



# SARCCUP Project Update Locations



# EMWD Updates



San Jacinto Groundwater Basin Facilities

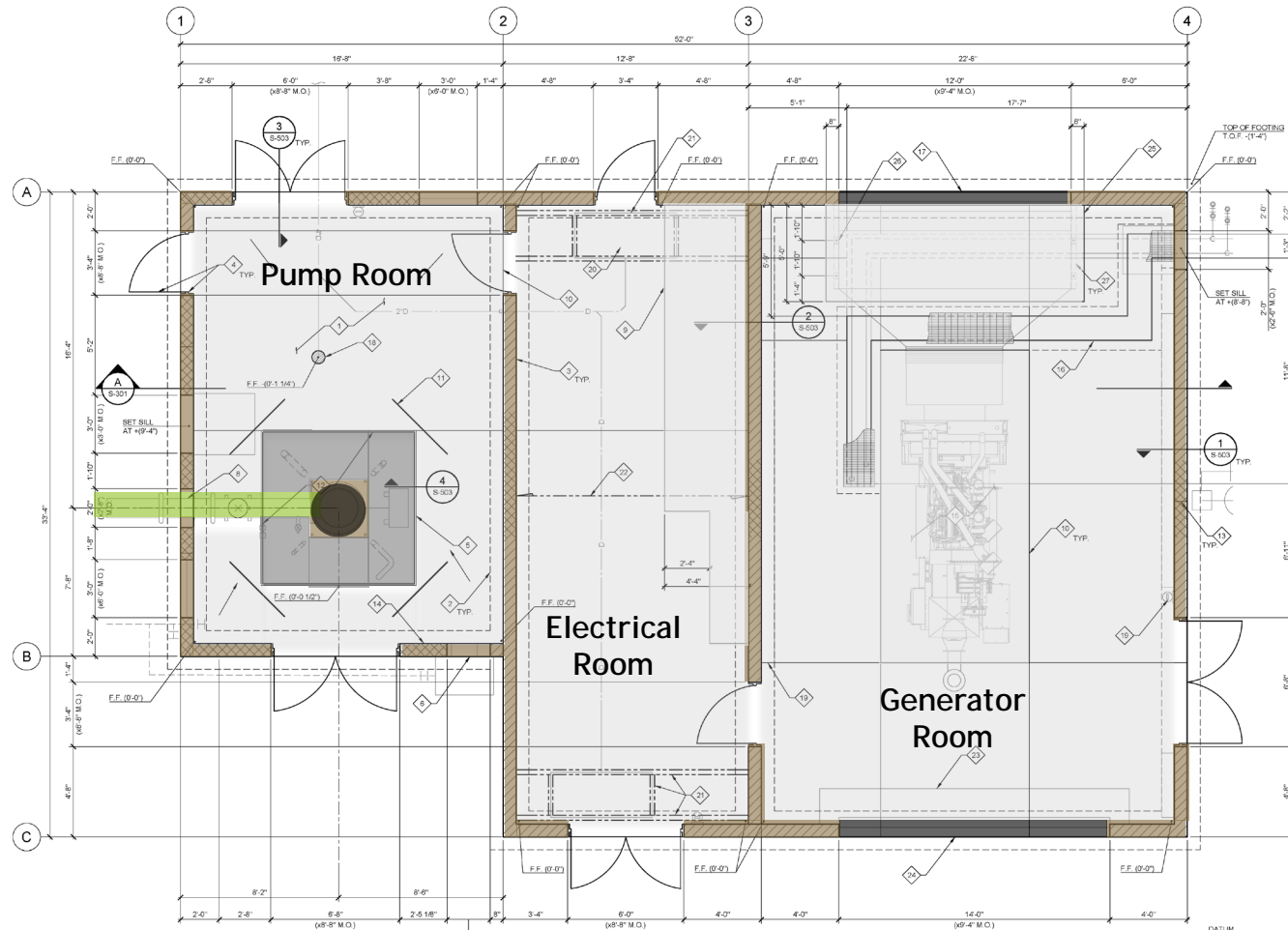
# Wells 201, 202, & 203 Phase 1B Conveyance Pipelines



- ▶ Pipeline and Appurtenance Construction Ongoing
- ▶ Biological Surveys completed
  - ▶ May 13, 2021

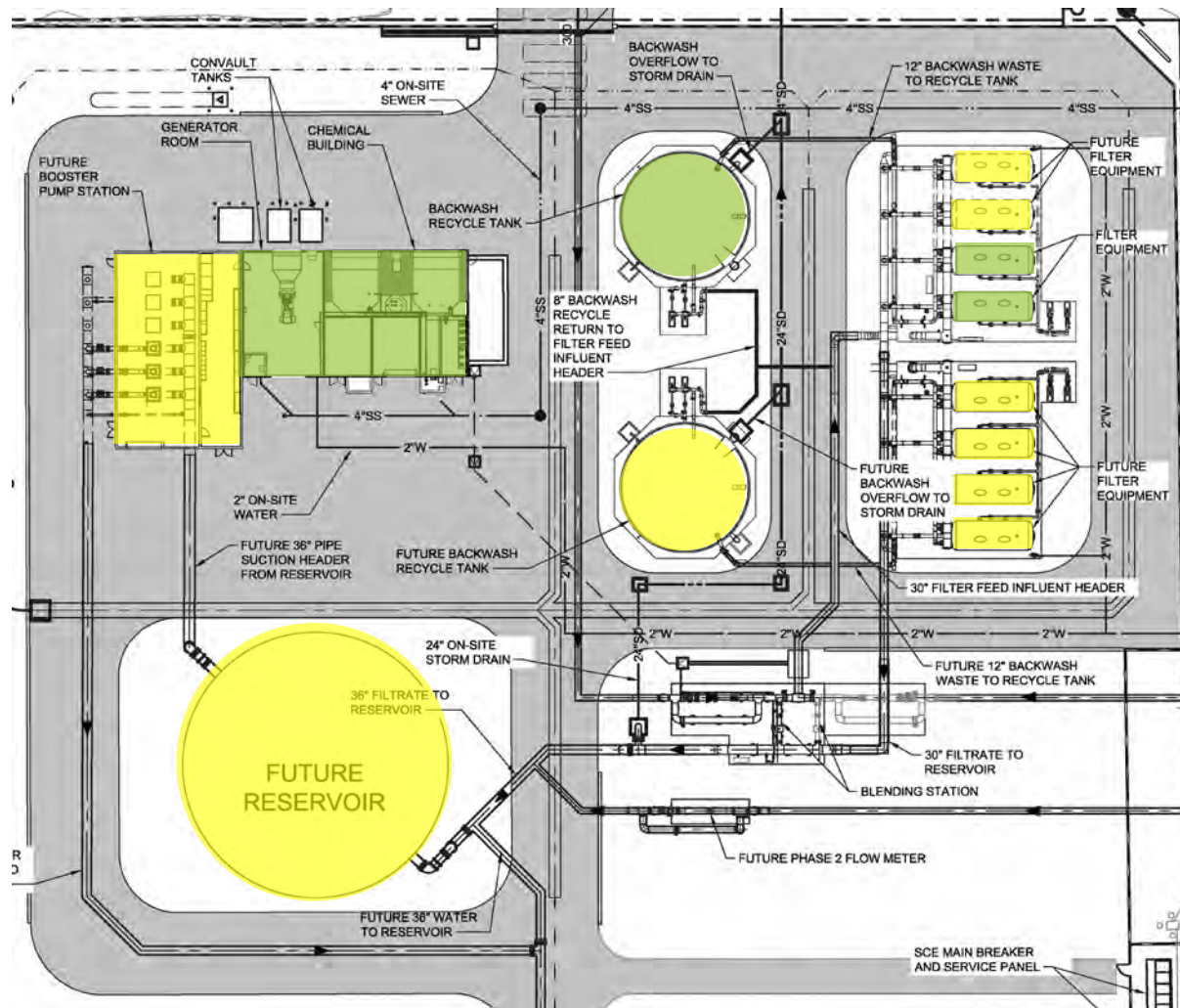


# Wells 201, 202, 203, & 205 Equipping



- Awarded Construction Contract to JF Shea in July 2021 for ~\$19.5M.
- Contractor currently providing submittals.
- Contractor to mobilize in October 2021.

# Hewitt and Evans Groundwater Treatment Facility



- ▶ City of San Jacinto Encroachment Permit is in Review
- ▶ RCFC&WCD Encroachment Permit is in Complete
- ▶ SCE Permit in Process
- ▶ Design completion targeted for late 2021
- ▶ Spec Review late 2021/early 2022

Phase 1 (Current)  
Phase 2 (Future)

# Mountain Avenue West - Construction Progress

- Project 98% complete
  - SCE energized
  - Testing completed
  - Substantial Completion and Facility is operational
- Punch lists on-going
  - Landscaping
  - Pavement repair
  - Approach
- City coordination
  - Staff engaged
  - Preparing for right-of-way/landscaping turn over for City ownership and operation
- Administrative Project Closeout



# Mountain Avenue West Recharge Facility - Construction Progress



Aerial Site View

# Mountain Avenue West - Construction Progress



Aerial View of Mechanical Piping and Stilling Basin

# Video - Start-Up Testing (August 26, 2021)

Stilling  
Basin



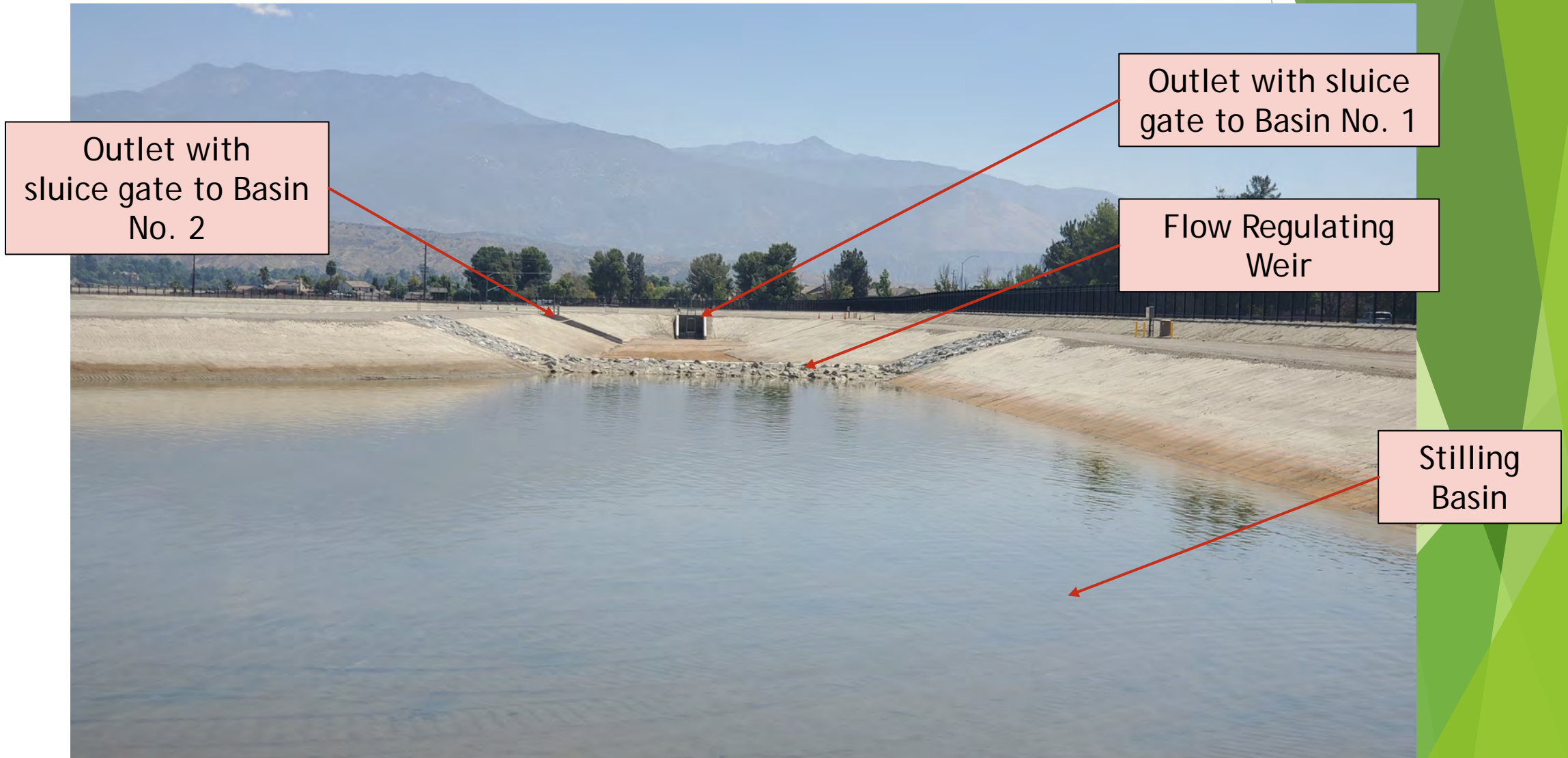
# Mt. Ave. West - Stilling Basin



Well Blow-off Inlet

Raw Water Inlet Risers

# Mt. Ave. West - Stilling Basin





# Mountain Avenue West - Construction Progress



Walking Trail and Landscaping Area at Mountain Ave Looking South

WMWD Updates



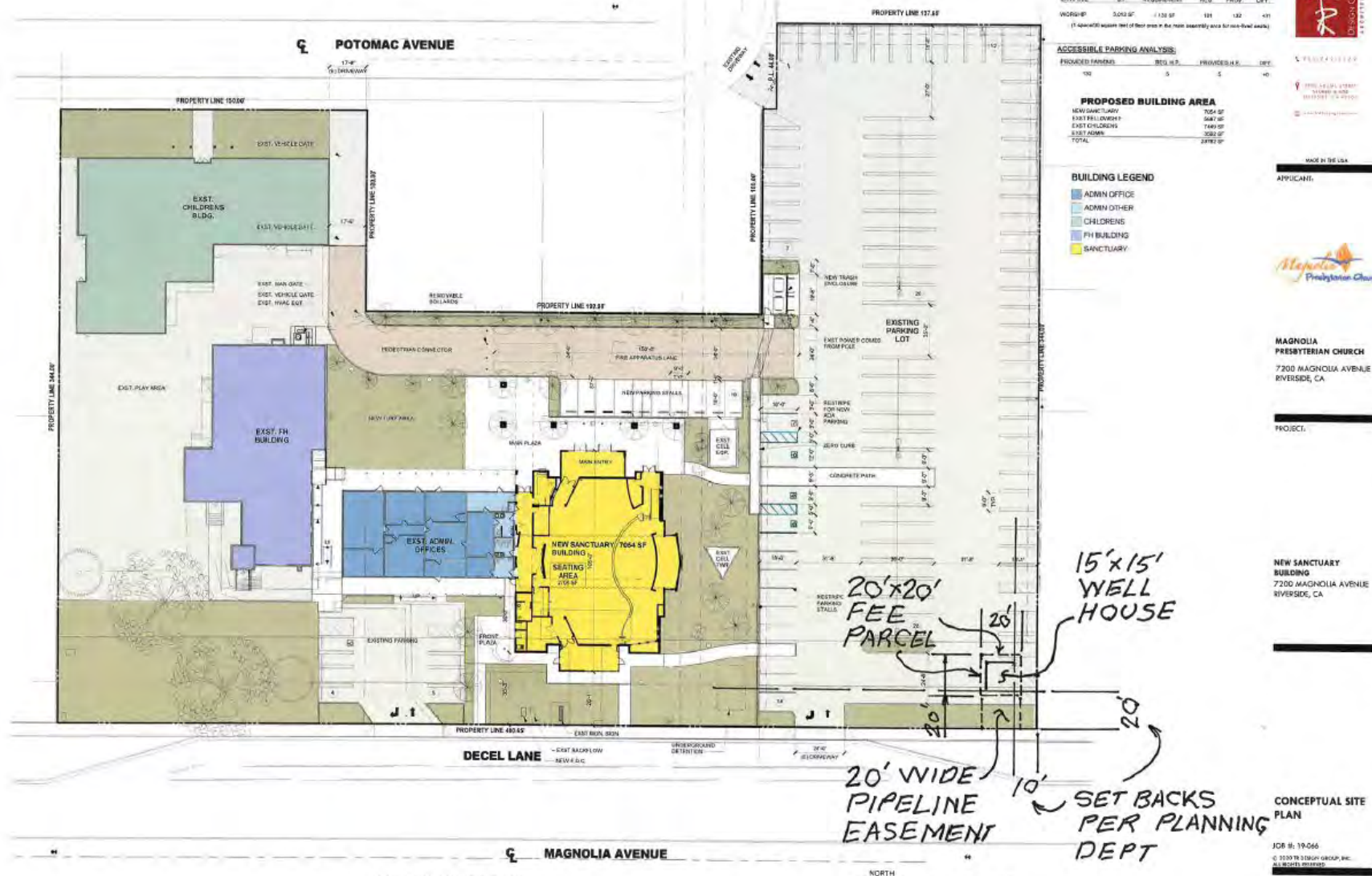
Sterling Pump Station and Riverside-Arlington Basin Facilities

# Sterling Pump Station



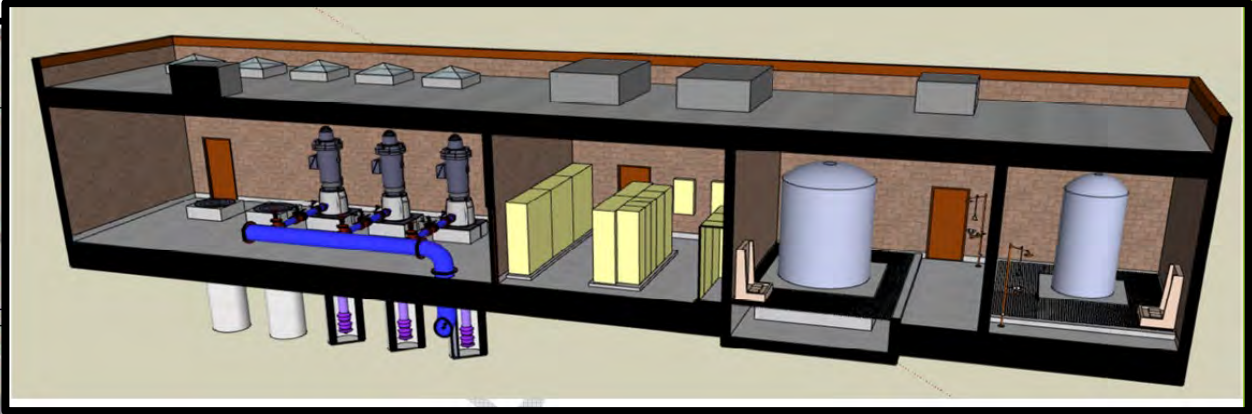
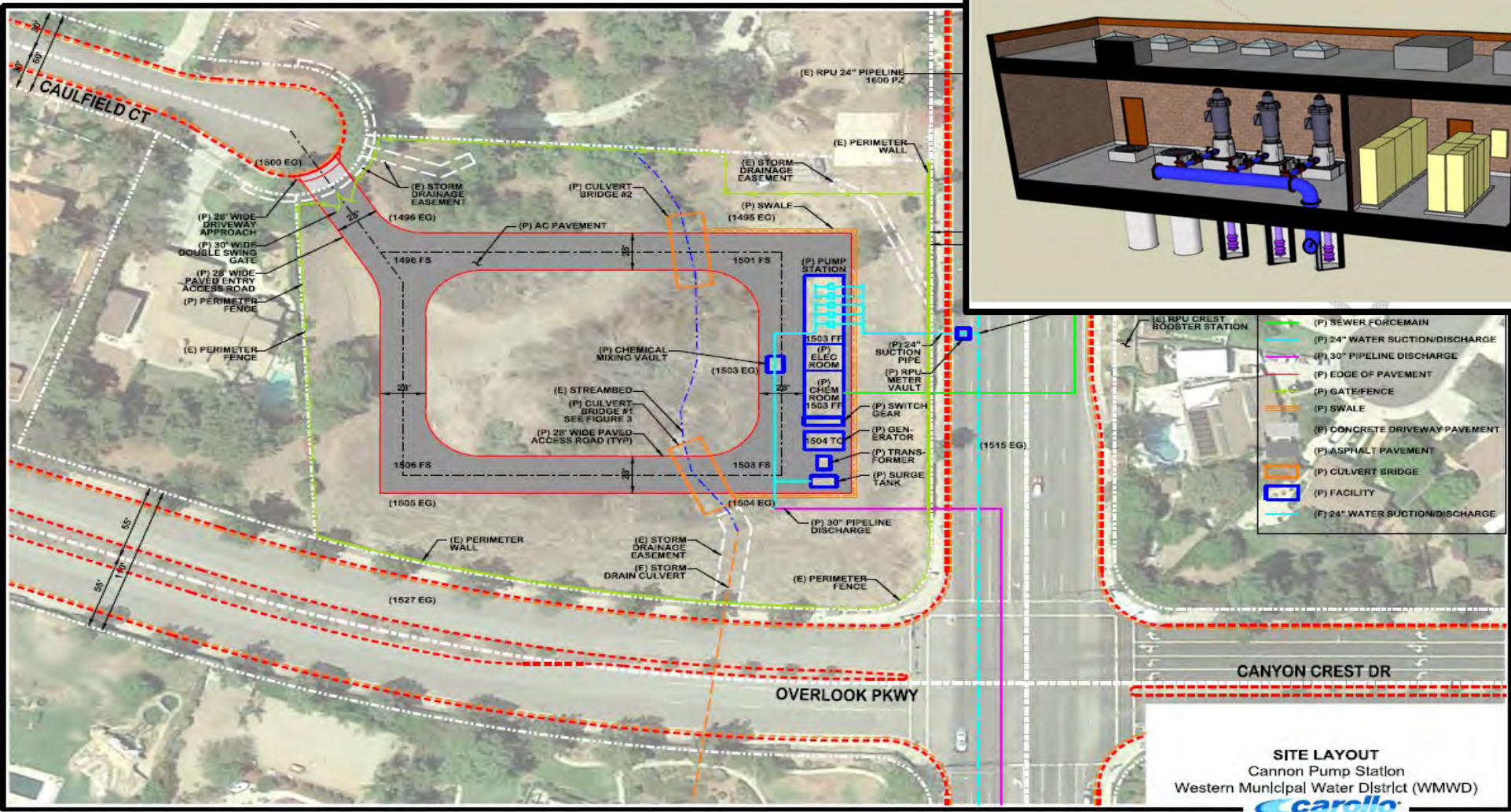
Final startup testing underway

# Riverside-Arlington Basin Well



Preparing purchase offer for land and specifications for test drilling

# Cannon Campbell Pump Station



- (P) SEWER FORCEMAIN
- (P) 24" WATER SUCTION/DISCHARGE
- (P) 30" PIPELINE DISCHARGE
- (P) EDGE OF PAVEMENT
- (P) GATE/FENCE
- (P) SWALE
- (E) CONCRETE DRIVEWAY PAVEMENT
- (P) ASPHALT PAVEMENT
- (P) CULVERT BRIDGE
- (P) FACILITY
- (F) 24" WATER SUCTION/DISCHARGE

**SITE LAYOUT**  
 Cannon Pump Station  
 Western Municipal Water District (WMWD)



Final design complete October

# SBVMWD Updates



Santa Ana Sucker Habitat

# Tributary Restoration Projects

## ▶ Phased Implementation

### ▶ Phase 1: Hidden Valley and Anza Creeks

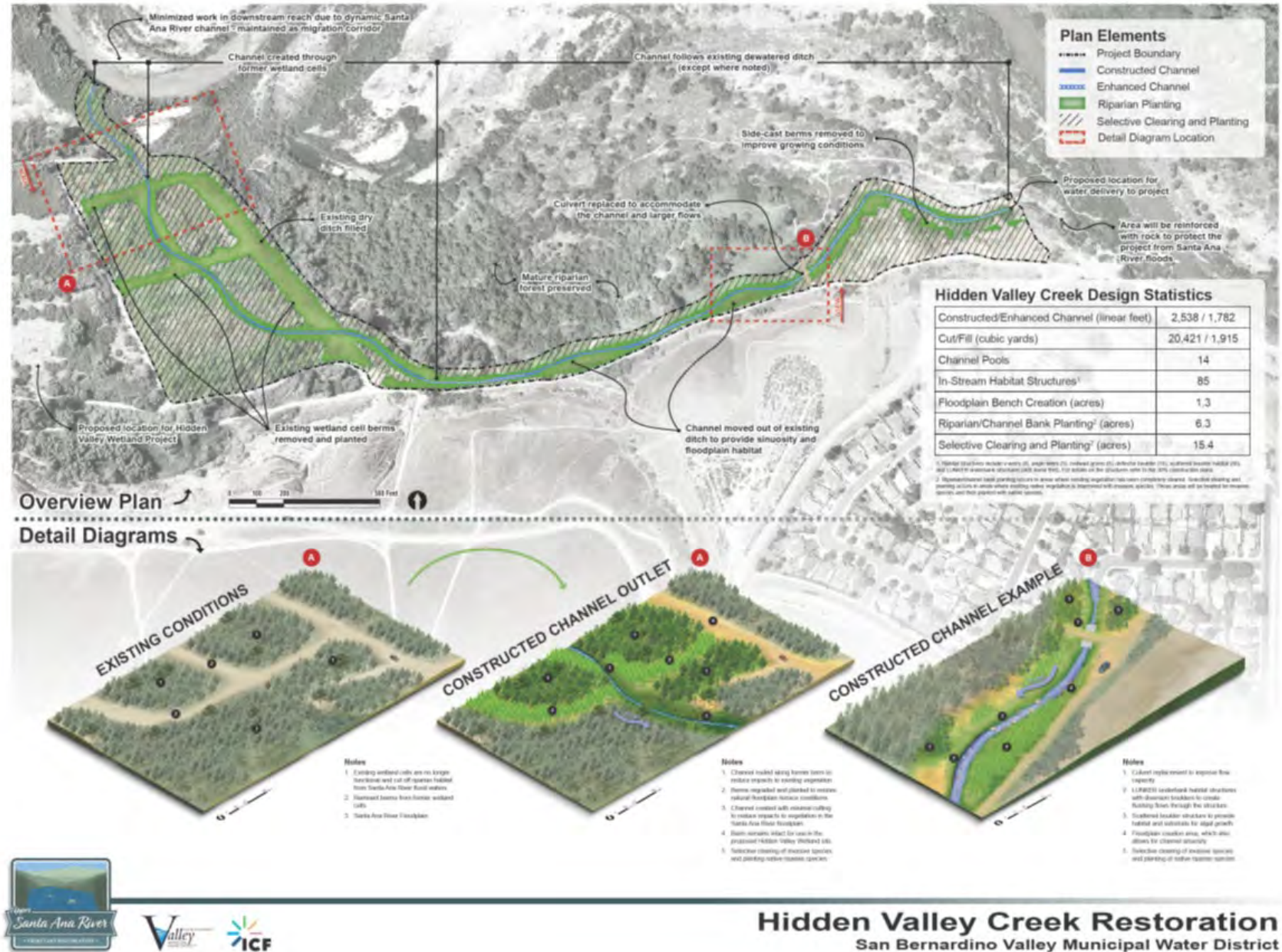
- ▶ Working towards 90% Design Package
- ▶ Land Appraisals Underway
- ▶ Site Preparation Underway
- ▶ Seed Collection and Plant Propagation Underway
- ▶ Construction: Fall 2021 - Summer 2022
- ▶ Start Monitoring and Adaptive Management: Summer 2022

### ▶ Phase 2: Lower Hole and Old Ranch Creeks

- ▶ 30% Designs
- ▶ Construction: Fall 2022 - Fall 2023
- ▶ Start Monitoring and Adaptive Management: Fall 2023

- CEQA
  - Completed for all four restoration sites
- Permitting
  - Phase 1 Sites
    - LSAA (CDFW): Operation of Law (Op Law)
    - Section 401 Compliance (RWQCB)
      - Anza: Complete
      - Hidden Valley: In progress
    - CWA Section 404 Compliance (USACE)
      - Section 7 Federal ESA Consultation Initiated with USFWS
  - Phase 2 Sites
    - After Phase 1 Site permits are obtained

# Example of Tributary Restoration





# SAWPA Updates



Water Use Efficiency Budget Assistance Task

# Purpose of Task

- ▶ Help up to 10 retail agency partners comply with State regulations\* that require water agencies to adhere to agency-wide water use efficiency budgets;
  - ▶ Side benefit: Provides retail agencies with mapping data to target their existing water use efficiency programs to inefficient water users.
- ▶ OCWD/MWDOC the lead for retail partners in North Orange County.

Dedicated Landscape Meter Customer Example



\* Senate Bill 606 and Assembly Bill 1668

# Latest Progress with Retail Partners

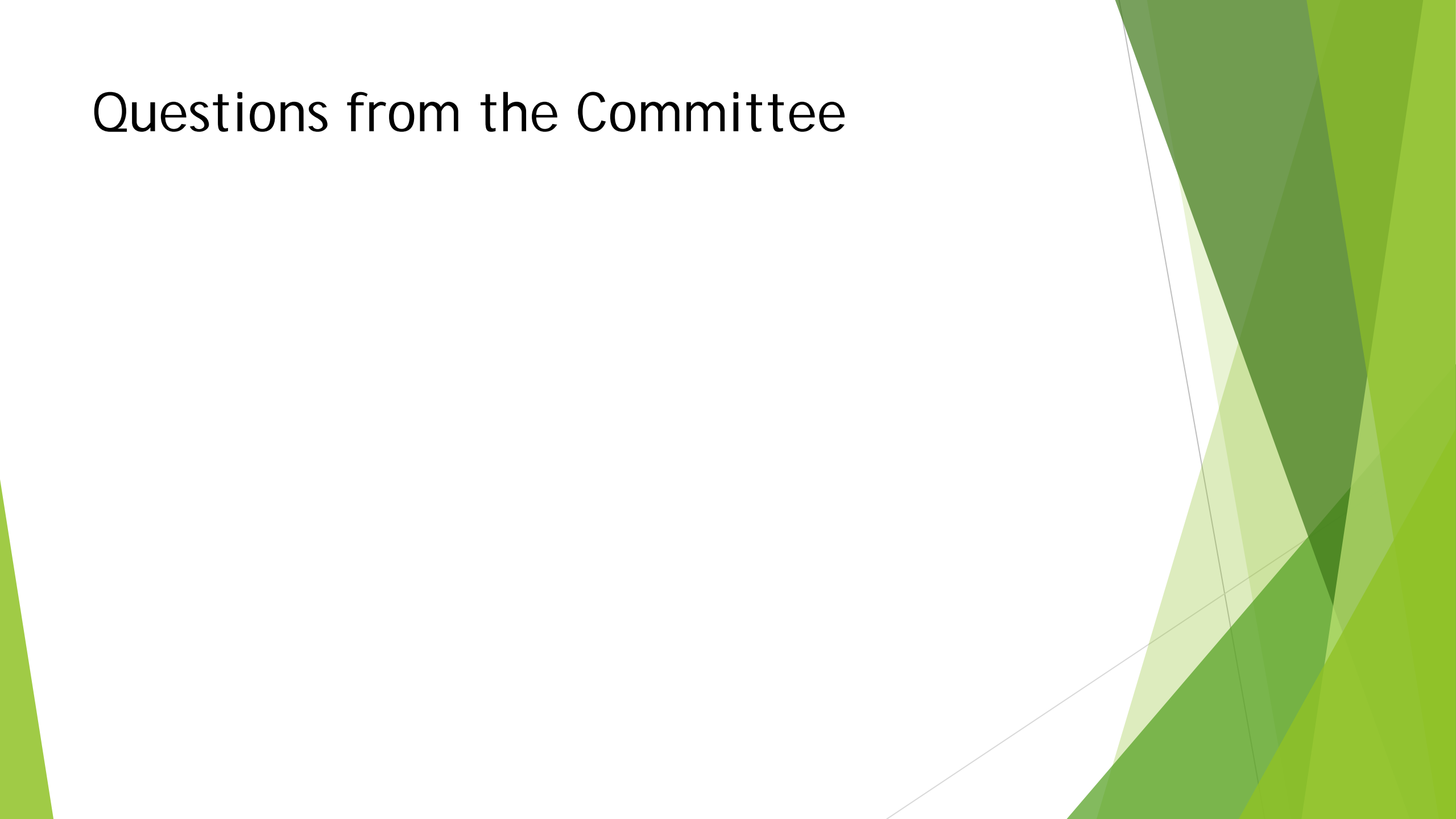
- ▶ In August and September 2021, the following retail water agencies partnered with SAWPA by signing the project MOU:
  - ▶ Riverside Public Utilities
  - ▶ Monte Vista Water District
  - ▶ Hemet, and
  - ▶ Perris.
- ▶ In North Orange County, MWDDOC signed MOUs with the following retailers
  - ▶ Brea, and
  - ▶ Fountain Valley.



# Ongoing Recruitment with Retailers

- As of September, 2021, SAWPA and various SAWPA member agencies are still working with the following retailers to encourage them to participate:
  - San Bernardino Municipal Water District,
  - Loma Linda,
  - Chino Hills, and
  - Jurupa Community Services District.

# Questions from the Committee





# SARCCUP Grant Payment Updates

Ian Achimore, Senior Watershed  
Manager

PA 23 Committee | October 5, 2021

Item No. 5.D.

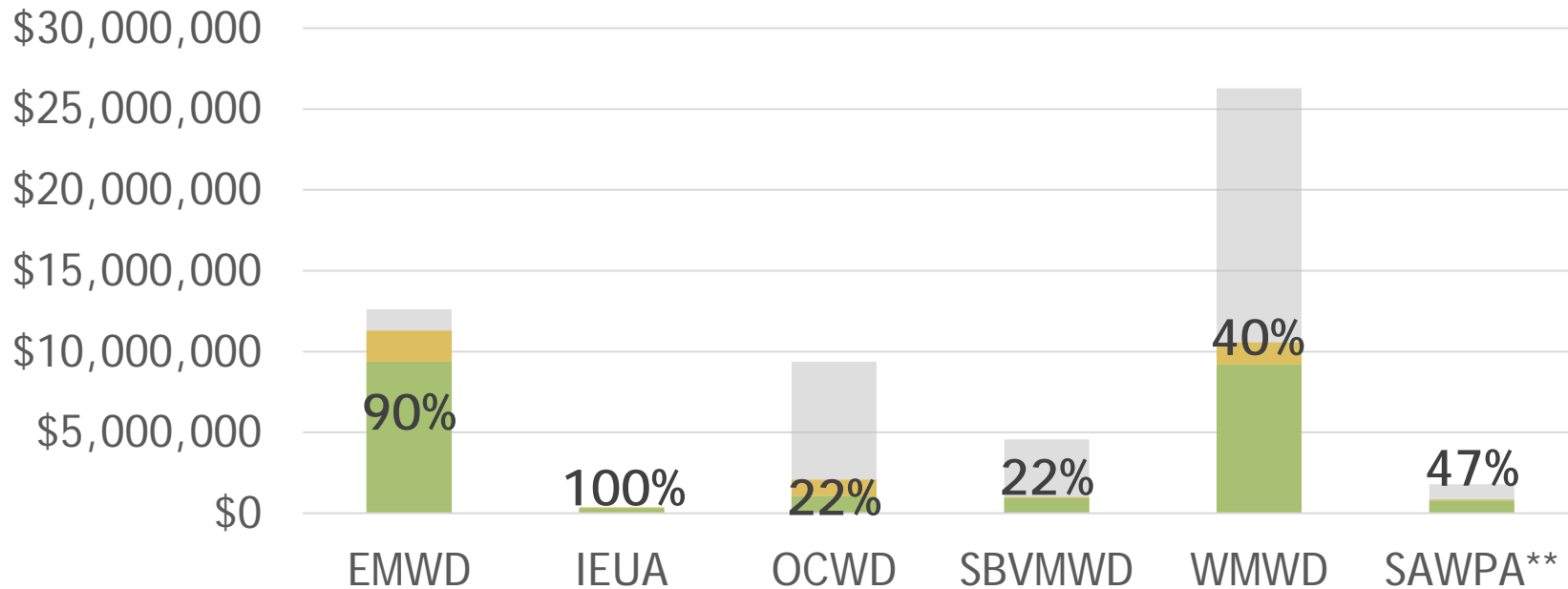


# Background on Grant

- ▶ Department of Water Resources adopted grant agreement amendment No. 2 with SAWPA on May 29, 2020.
  - ▶ PA 23 Committee adopted grant amounts (as shown on next slides) at the April 2 and October 1, 2019 Committee meetings, which were incorporated into the amendment with DWR.
- ▶ Amounts shown in this presentation reflect invoices submitted through **June 30, 2021** (latest invoices received at time of publishing this agenda packet).
- ▶ As of **June 30, 2021**, the amount of grant invoiced is 48% of the total \$55M grant.



# Grant Payment Status By SARCCUP Agency (Percent of Total Grant Invoiced Shown)



## Notes:

\*Payment outstanding due to 10% retention withheld on each grant amount included in invoice, or lag in payment from last quarter's invoice.

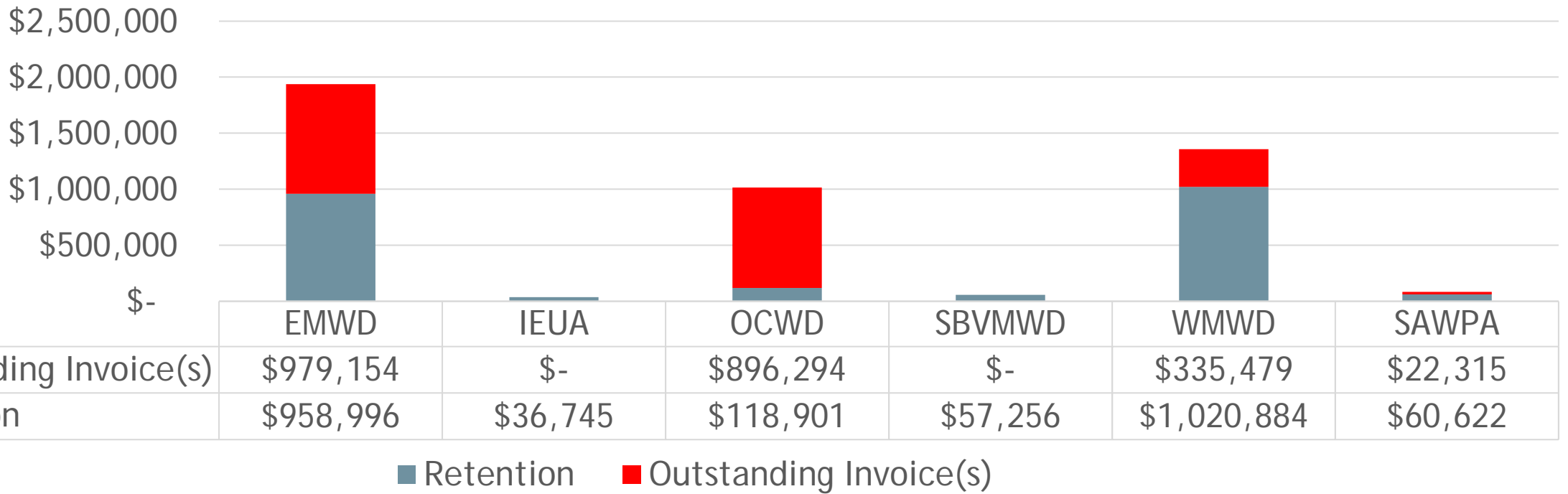
\*\*Includes funding for Woodard & Curran and Water Use Efficiency Tasks.

	EMWD	IEUA	OCWD	SBVMWD	WMWD	SAWPA**
Grant Paid	\$9,363,468	\$330,706	\$1,070,105	\$942,516	\$9,195,661	\$766,739
Total Outstanding Grant Payments*	\$1,938,150	\$36,745	\$1,015,195	\$57,256	\$1,356,362	\$82,937
Total Grant (Amendment No. 2)	\$12,621,835	\$367,968	\$9,368,344	\$4,565,932	\$26,283,723	\$1,792,199



# More Detail on Outstanding Grant Payments

(Through June 30, 2021)



Notes:

- Retention will be withheld by DWR until complete invoicing of overall SARCCUP Project (scheduled for **December 2023**).
- Last paid invoice from DWR was for reimbursing expenses incurred by SARCCUP agencies through **March 31, 2021**.