



S A W P A

SANTA ANA WATERSHED PROJECT AUTHORITY
11615 Sterling Avenue, Riverside, California 92503 • (951) 354-4220

AGENDA

REGULAR MEETING OF THE PROJECT AGREEMENT 23 COMMITTEE

Santa Ana River Conservation and Conjunctive Use Program (SARCCUP)

Committee Members:

Thomas P. Evans, Chair, Western Municipal Water District Governing Board President
Jasmin A. Hall, Vice Chair, Inland Empire Utilities Agency Governing Board Secretary/Treasurer
Susan Lien Longville, San Bernardino Valley Municipal Water District Governing Board President
Paul D. Jones, Eastern Municipal Water District General Manager
Michael Markus, Orange County Water District General Manager

TUESDAY, AUGUST 7, 2018 – 8:30 A.M.

1. **CALL TO ORDER** (Thomas P. Evans, Chair)

2. **PUBLIC COMMENTS**

Members of the public may address the Committee on items within the jurisdiction of the Committee; however, no action may be taken on an item not appearing on the agenda unless the action is otherwise authorized by Government Code §54954.2(b).

3. **APPROVAL OF MEETING MINUTES: June 5, 2018** 3

Recommendation: Approve as posted.

4. **INFORMATIONAL REPORTS**

Recommendation: Receive and file the following oral/written reports/updates.

A. **SARCCUP PROJECT SCHEDULE** 7

Presenter: Woodard & Curran

B. **SARCCUP CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE STATUS** 23

1. Joint Environmental Impact Report (EIR)

Presenters: IEUA | OCWD | WMWD

2. San Jacinto Basin Environmental Impact Report (EIR)

Presenter: EMWD

3. Santa Ana Sucker Habitat Environmental Impact Report (EIR)

Presenter: SBVMWD

C. **SARCCUP PROPOSITION 84 GRANT AGREEMENT AMENDMENT AND SUB-AGREEMENTS STATUS**

Presenter: SAWPA

- D. [AMERICAN WATER WORKS ASSOCIATION \(AWWA\) CONFERENCE PRESENTATION ON SARCCUP](#) 35
Presenter: There will be no presentation; a copy of the PowerPoint is provided for informational purposes.

5. COMMITTEE MEMBER REQUESTS FOR FUTURE AGENDA ITEMS

6. ADJOURNMENT

PLEASE NOTE:

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Clerk of the Board at (951) 354-4230. Notification at least 48 hours prior to the meeting will enable staff to make reasonable arrangements to ensure accessibility to this meeting.

Materials related to an item on this agenda submitted to the Committee after distribution of the agenda packet are available for public inspection during normal business hours at the SAWPA office, 11615 Sterling Avenue, Riverside, and available at www.sawpa.org, subject to staff's ability to post documents prior to the meeting.

Declaration of Posting

I, Kelly Berry, Clerk of the Board of the Santa Ana Watershed Project Authority declare that on Wednesday, August 1, 2018, a copy of this agenda has been uploaded to the SAWPA website at www.sawpa.org and posted at SAWPA's office, 11615 Sterling Avenue, Riverside, California.

/s/

Kelly Berry, CMC

2018 Project Agreement 23 Committee Regular Meetings

First Tuesday of Every Other Month (February, April, June, August, October, December)
 (Note: All meetings will be held at 8:30 a.m., unless otherwise noticed, and are held at SAWPA.)

February 2/6/18 Regular Committee Meeting [cancelled]	April 4/3/18 Regular Committee Meeting
June 6/5/18 Regular Committee Meeting	August 8/7/18 Regular Committee Meeting
October 10/2/18 Regular Committee Meeting	December 12/4/18 Regular Committee Meeting



PROJECT AGREEMENT 23 COMMITTEE
Santa Ana River Conservation and Conjunctive Use Program (SARCCUP)
REGULAR MEETING MINUTES
June 5, 2018

COMMITTEE MEMBERS PRESENT

Thomas P. Evans, Chair, Western Municipal Water District Governing Board Vice President
Jasmin A. Hall, Vice Chair, Inland Empire Utilities Agency Governing Board Secretary/Treasurer
Susan Lien Longville, San Bernardino Valley Municipal Water District Governing Board President
Paul D. Jones, Eastern Municipal Water District General Manager

ALTERNATE COMMITTEE MEMBERS PRESENT [Non-Voting]

None.

COMMITTEE MEMBERS ABSENT

Michael Markus, Orange County Water District General Manager

MEMBER AGENCY STAFF PRESENT

Eastern Municipal Water District
Kelley Gage

San Bernardino Valley Municipal Water District
Bob Tincher

Inland Empire Utilities Agency
Jason Pivovarov

Western Municipal Water District
Craig Miller

Orange County Water District
Adam Hutchinson

Santa Ana Watershed Project Authority
Rich Haller
Larry McKenney
Mark Norton
Karen Williams
Ian Achimore
Kelly Berry

OTHERS PRESENT

Woodard & Curran: Brian Dietrick | Scott Goldman

1. CALL TO ORDER (Thomas P. Evans, Chair)

The regular meeting of the PA 23 Committee was called to order at 8:33 a.m. by Chair Evans at the Santa Ana Watershed Project Authority, 11615 Sterling Avenue, Riverside, California.

2. PUBLIC COMMENTS

There were no public comments.

3. APPROVAL OF MEETING MINUTES: April 3, 2018

MOVED, approve the April 3, 2018 meeting minutes.

Result:	Adopted (Unanimously)
Motion/Second:	Hall/Jones
Ayes	Evans, Hall, Jones, Longville
Nays:	None
Abstentions:	None
Absent:	Markus

4. INFORMATIONAL REPORTS

A. SARCCUP PROJECT SCHEDULE

Brian Dietrick, Woodard & Curran, provided the one-page SARCCUP Project roll-up schedule provided in the agenda packet materials. Committee Member Jones noted their storage agreement had been recently approved by the Hemet-San Jacinto Watermaster and requested updating of the SARCCUP Project schedule to include status of Watermaster approval of the various storage agreements. The storage banks cannot be operated without those agreements, and they are very important to the overall project. Dietrick noted that while only one slide was provided in the agenda packet materials and presented today, there are a total of six slides in the overall SARCCUP Project schedule which contain more detailed information. The Committee requested Woodard & Curran include the entire schedule, not just the roll-up schedule, in all future agenda packets and Committee presentations.

Larry McKenney noted that the Woodard & Curran contract will expire on June 30, 2018; McKenney asked for direction from the Committee as to whether they would like to consider extending the contract at a special meeting of the Committee, or if they would prefer the matter go before the Commission. It was the consensus of the Committee that the matter should go before the Commission for consideration prior to the June 30 expiration date.

This item was for informational and discussion purposes; no action was taken on Agenda Item No. 4.A.

B. SARCCUP CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE STATUS

Jason Pivovarovoff, IEUA, provided an oral report on the three-agency EIR (IEUA, OCWD, WMWD) for Water Banking and Arundo Donax Removal. The final EIR is expected by the end of December, which is slightly behind schedule due to the additional time needed to transition from a programmatic EIR.

Kelley Gage, EMWD, provided an oral report on the San Jacinto Basin EIR which is on schedule. The final EIR is expected to be taken to their Board later this month for certification, along with the storage agreement with the Hemet-San Jacinto Watermaster which has been finalized. Gage advised a comment letter had been received from Friends of Northern San Jacinto Valley during this process; they are interested in a wetlands wildlife area to which EMWD provides recycled water. Staff continues to respond to their comments; they will have thirty (30) days from the date of filing of the Notice of Determination with the County Clerk's office within which to file a challenge should they wish to do so.

Bob Tincher, SBVMWD, provided an oral report on the Santa Ana Sucker Habitat EIR. He anticipates the Notice of Preparation will be completed later this month.

This item was for informational and discussion purposes; no action was taken on Agenda Item No. 4.B.

C. SARCCUP PROPOSITION 84 GRANT AGREEMENT AMENDMENT AND SUB-AGREEMENTS STATUS

Mark Norton provide an oral update advising the amendment was submitted to DWR on April 25. It is anticipated DWR will respond in 4-5 months; they have voiced no concerns at this stage. Sub-agreements have been revised to reflect the new facilities and have been circulated; staff is awaiting comments. OCWD and IEUA will wait on signing their agreement until after the CEQA process is completed. WMWD will seek Board approval of its agreement once a Capital Funding Agreement is completed.

This item was for informational and discussion purposes; no action was taken on Agenda Item No. 4.C.

D. METROPOLITAN WATER DISTRICT (MWD) AGREEMENT STATUS

Kelley Gage, EMWD, and Bob Tincher, SBVMWD, provided an oral update on the status of their agreements with Metropolitan Water District (MWD). They are working with the same MWD staff relating to both agreements. While the goal is for the process to be completed administratively relating to the agreement with MWD member agencies, the agreement with SBVMWD will require an action by the MWD Board. Tincher anticipates completion by the end of 2018, depending on the agreement with MWD member agencies. Committee Member Jones recommended staff provide a presentation on terms and conditions of both agreements to the PA 23 Committee at the August meeting.

This item was for informational and discussion purposes; no action was taken on Agenda Item No. 4.D.

E. SARCCUP CAPITAL FUNDING AGREEMENT STATUS

Mark Norton provided an oral status report on behalf of Ryan Shaw. WMWD is the lead agency on developing the draft Capital Funding Agreement and will be working with the planning managers over the next few months to finalize the draft document which will be brought before the Committee at the next meeting.

This item was for informational and discussion purposes; no action was taken on Agenda Item No. 4.E.

F. AMERICAN WATER WORKS ASSOCIATION (AWWA) CONFERENCE PRESENTATION ON SARCCUP

Bob Tincher noted he was compiling a SARCCUP presentation to be given at the June 13, 2018 AWWA conference in Las Vegas. Committee Member Longville requested a copy be provided to all committee members.

This item was for informational and discussion purposes; no action was taken on Agenda Item No. 4.F.

5. COMMITTEE MEMBER REQUESTS FOR FUTURE AGENDA ITEMS

6. **ADJOURNMENT**

There being no further business for review, Chair Evans adjourned the meeting at 9:09 a.m.

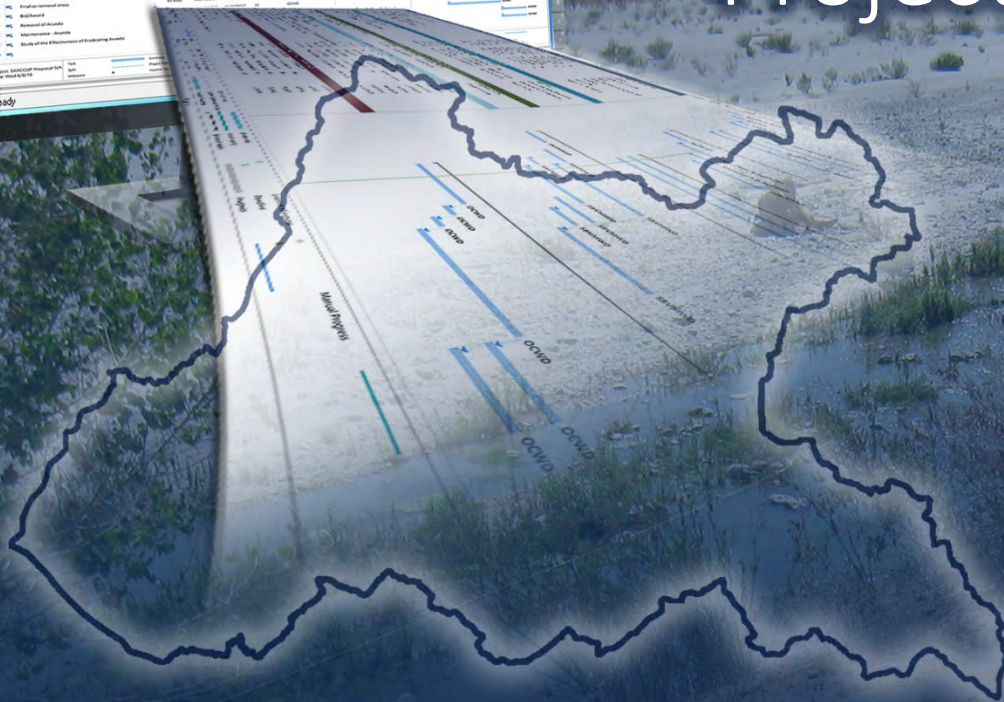
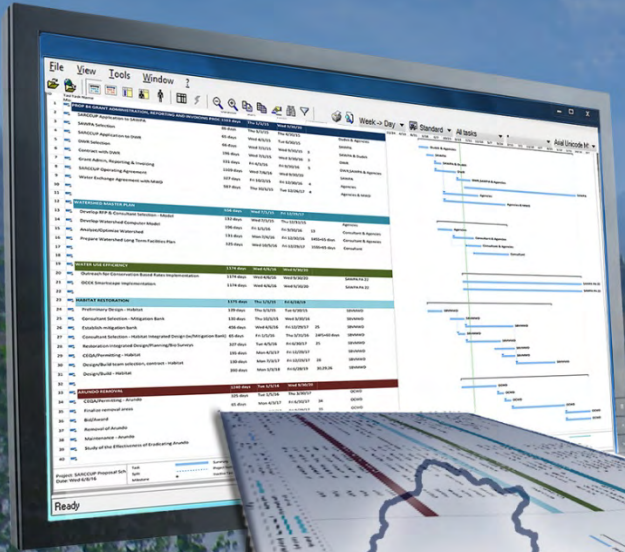
Approved at a Regular Meeting of the Project Agreement 23 Committee on Tuesday, August 7, 2018.

Thomas P. Evans, Chair

Attest:

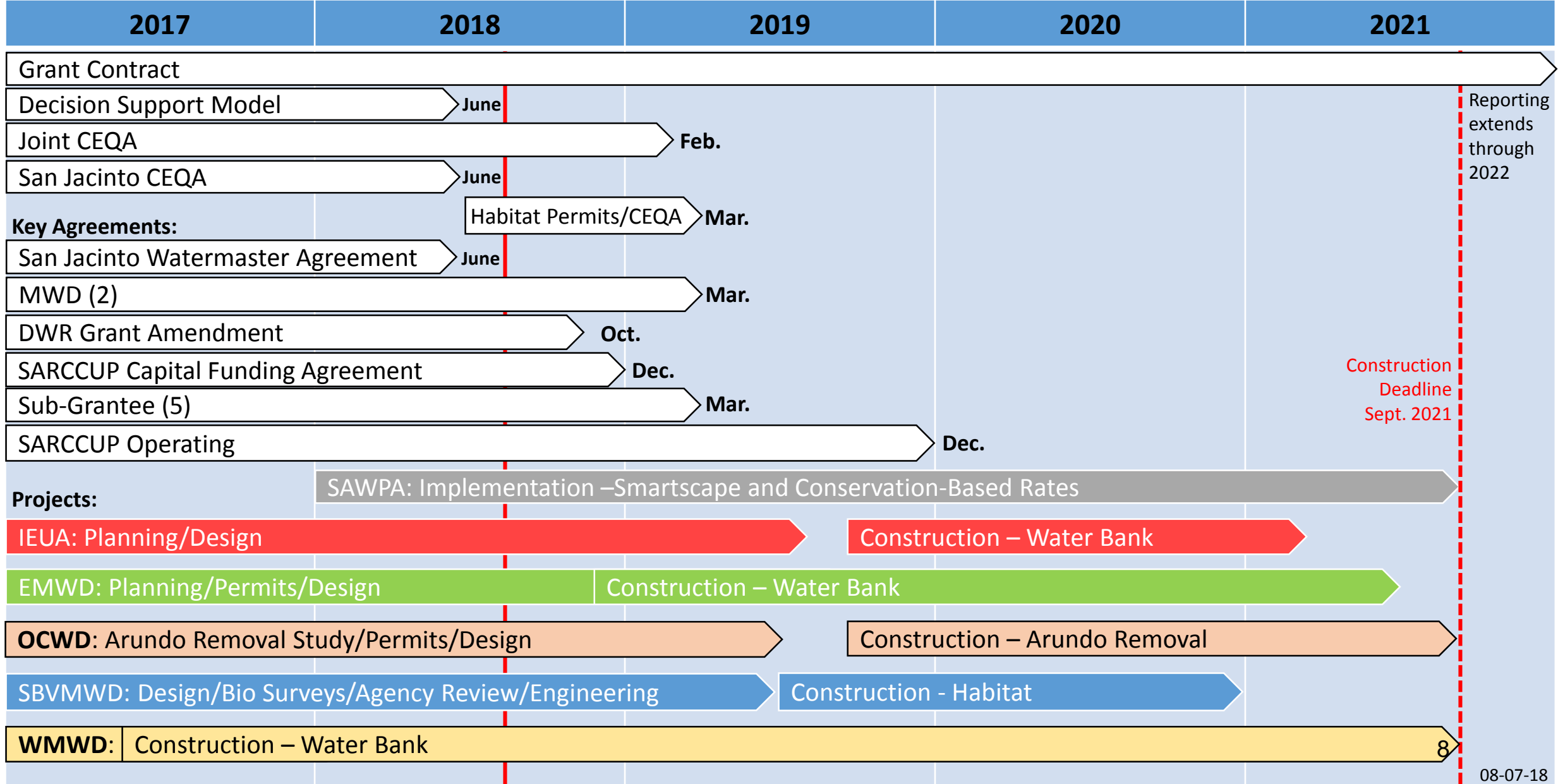
Kelly Berry, CMC
Clerk of the Board

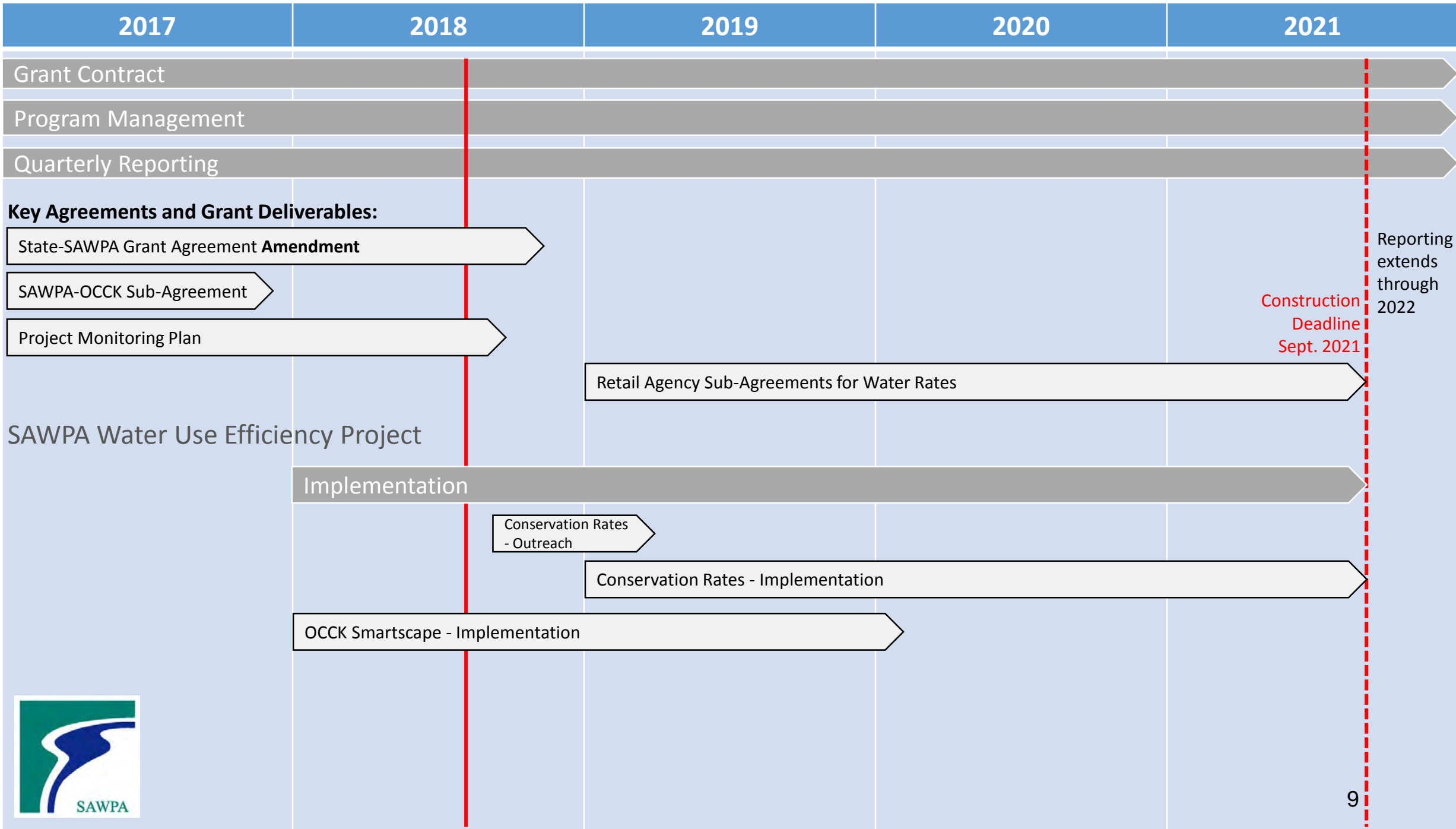
Santa Ana River Conservation and Conjunctive Use Program – Project Schedule Updates

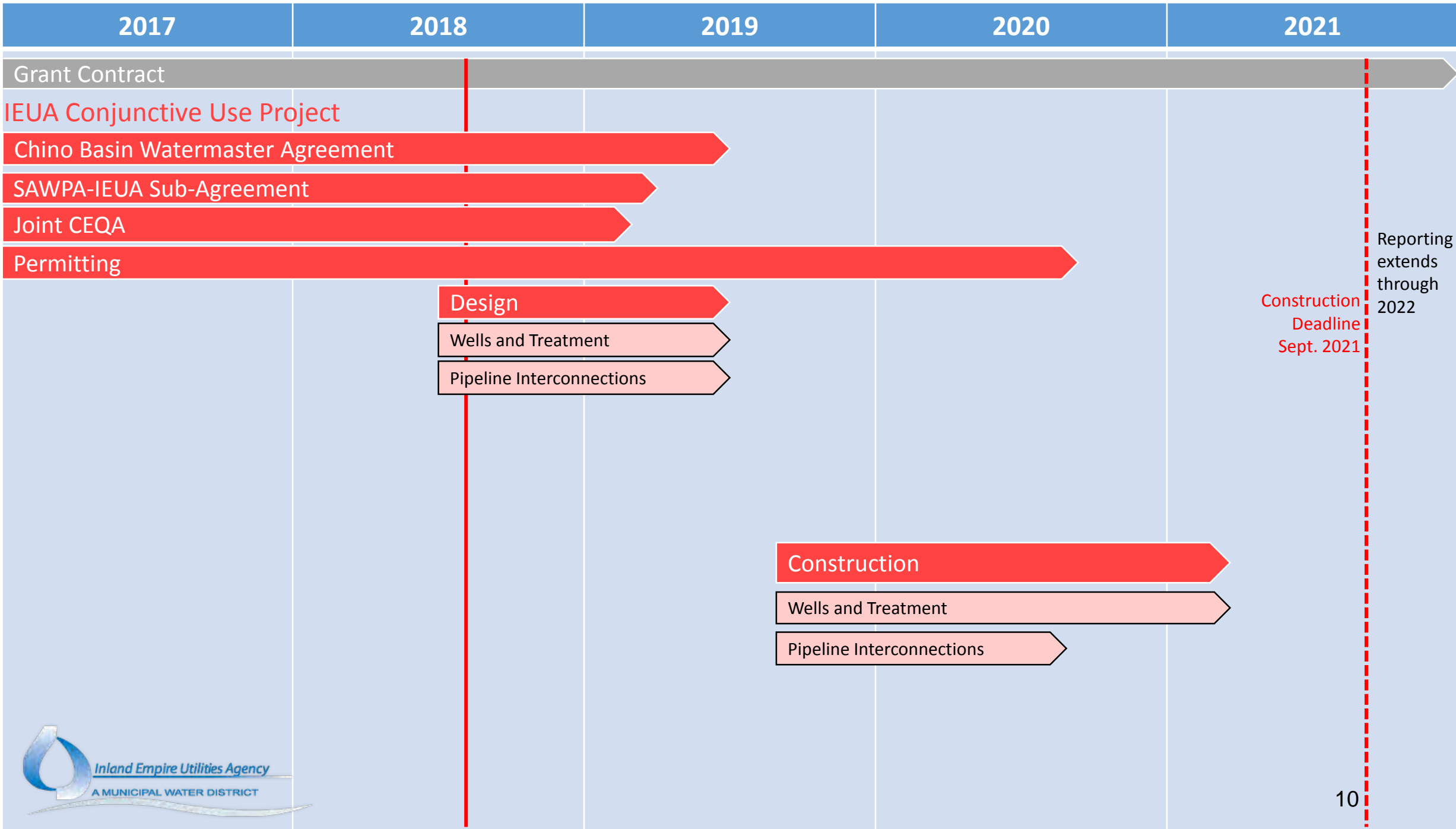


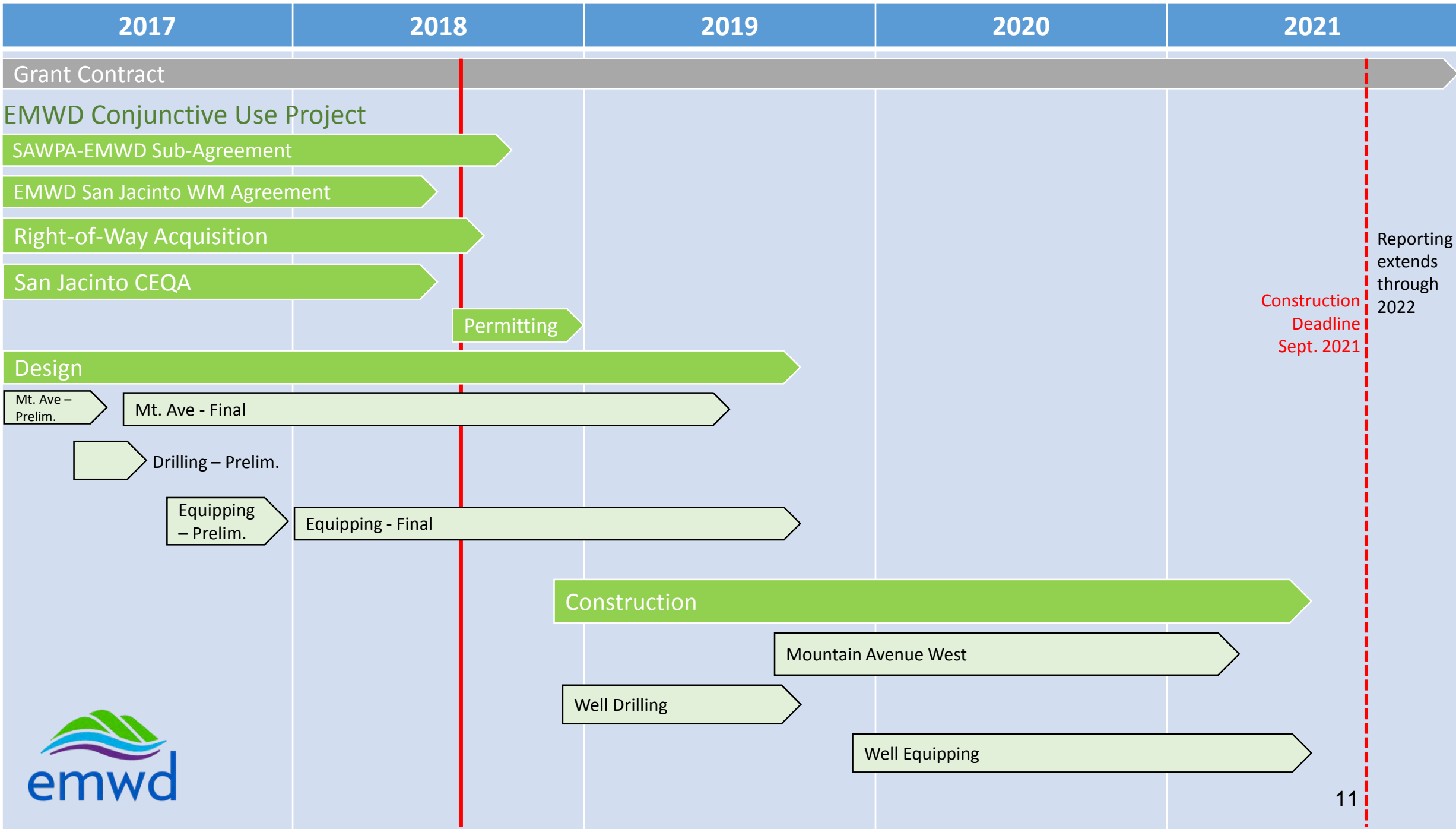
Presenter:
Brian Dietrick, Woodard & Curran

SARCCUP Schedule Roll-Up (By Agency)









Grant Contract

OCWD Arundo Removal Project

SAWPA-OCWD Sub-Agreement

Joint CEQA

Arundo Removal Study

Permitting

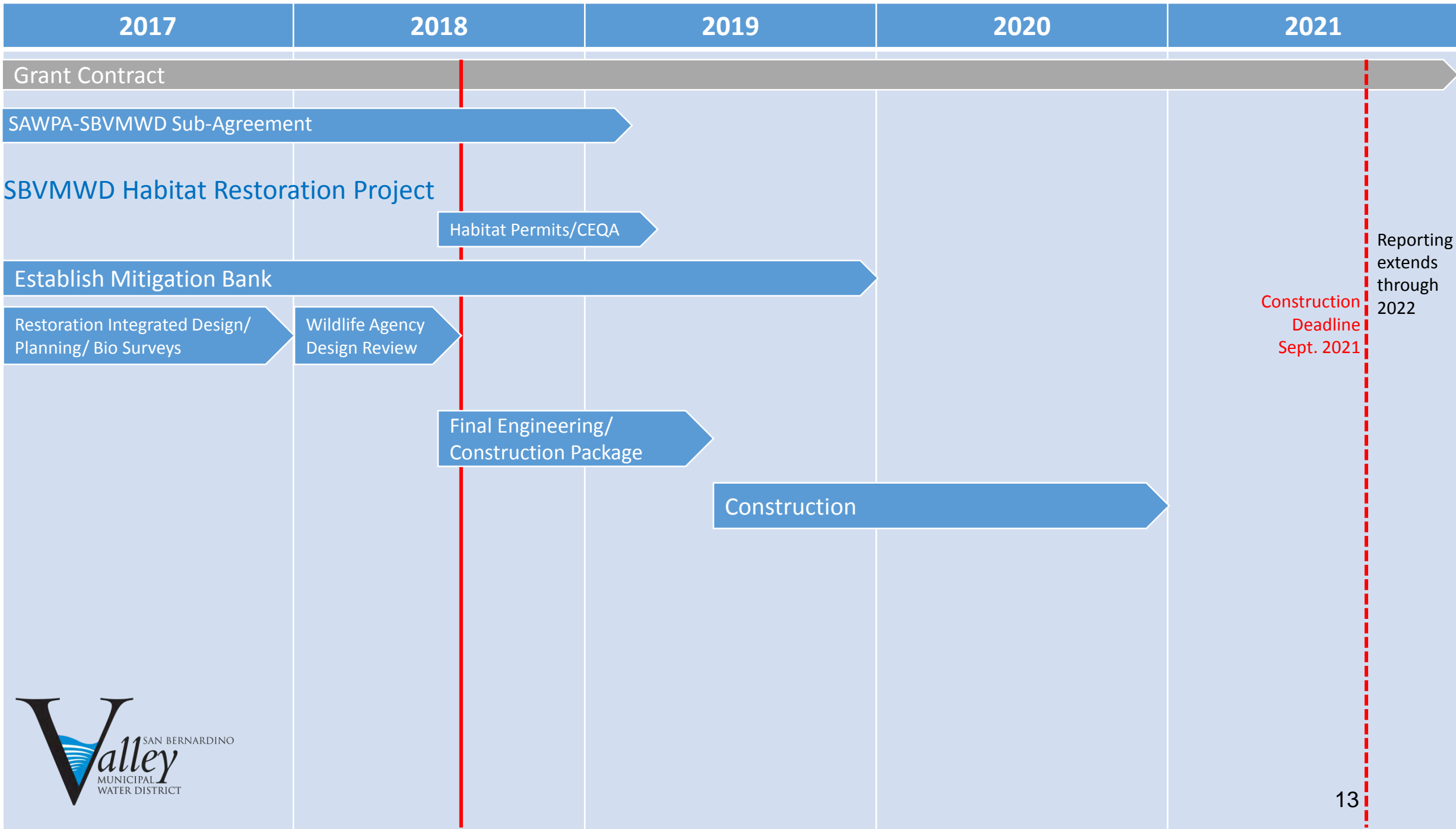
Design

Construction

Construction
Deadline
Sept. 2021

Reporting
extends
through
2022





Grant Contract

WMWD Conjunctive Use Project

WMWD-EVMWD Agreement

SAWPA-WMWD Sub-Agreement

SARCCUP Capital Funding Agreement

Land Purchase

Joint CEQA

Permitting

Design

Drilling – Prelim.

Drilling - Final

Equipping – Prelim.

Equipping - Final

Elsinore Basin - Wells

La Sierra Pipeline/Sterling Pump Station

Riverside Basin – Wells/Cannon Campbell Pump Station/Colorado River Aqueduct (PS/CRA) Crossing

Sterling Pump Station

Construction

Well Drilling

Elsinore Basin - Wells

Well Equipping

La Sierra Pipeline/Sterling PS

Riverside Basin – Wells/Cannon Campbell PS/ CRA Crossing

Construction Deadline
Sept. 2021

Reporting extends through 2022



SARCCUP Implementation

Mountain Avenue West Recharge Facility Percolation Testing and Borings



Percolation Test Site 2



Sonic drilling rig. 8-inch diameter core barrel, telescope down to 200 ft
16

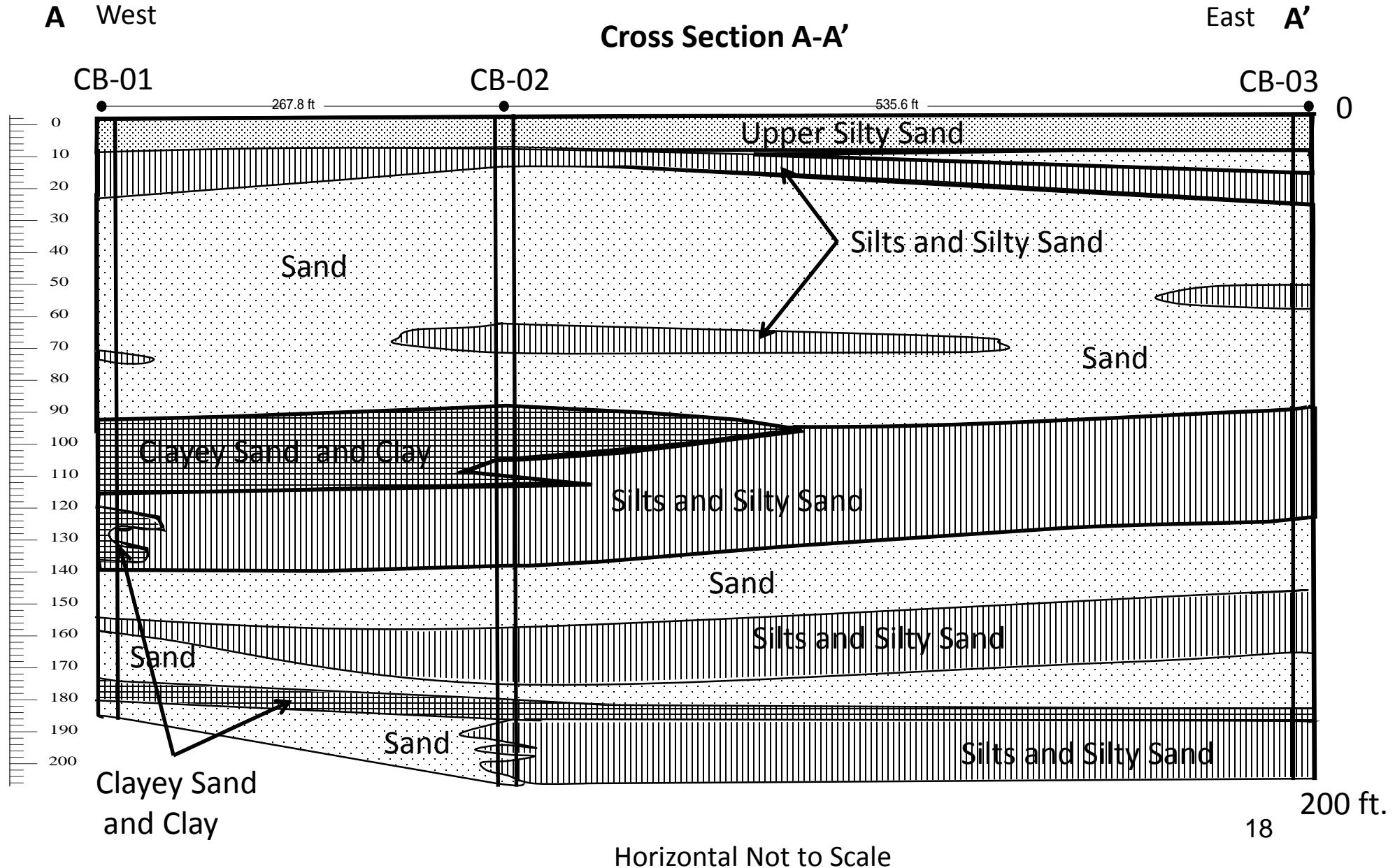
Mountain Avenue West Recharge Facility Results



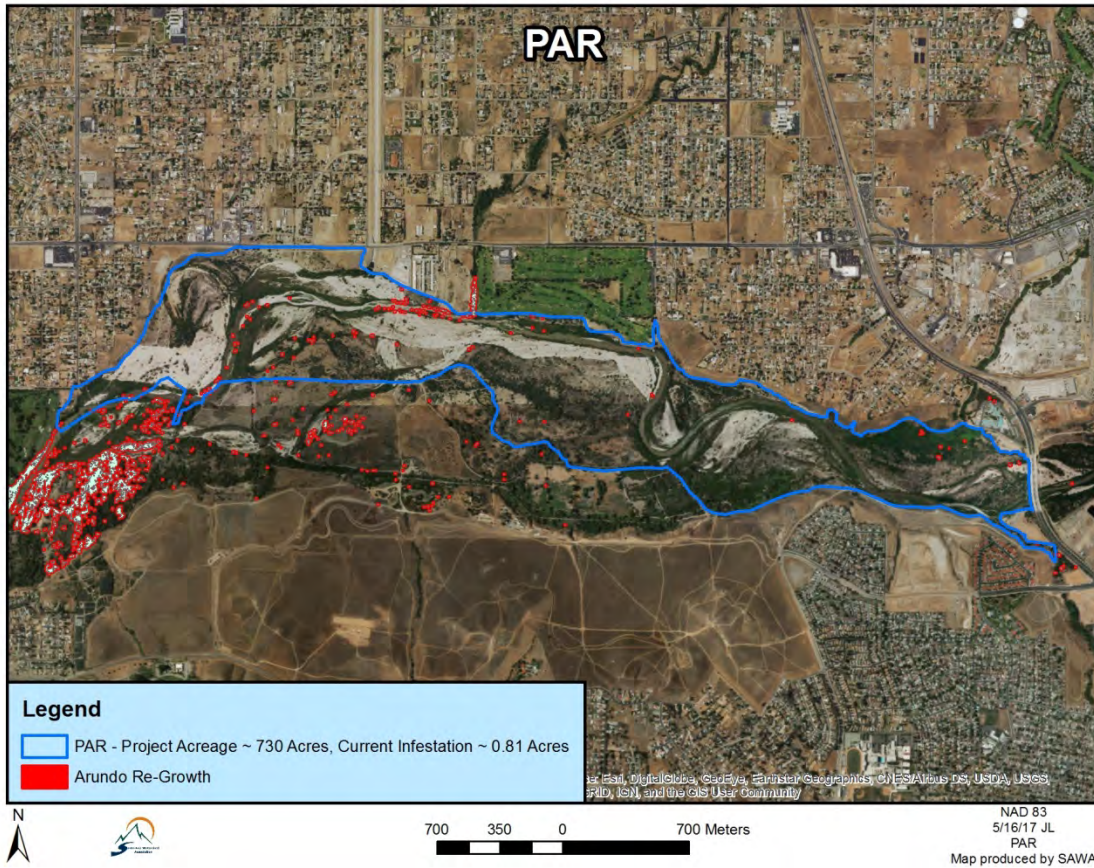
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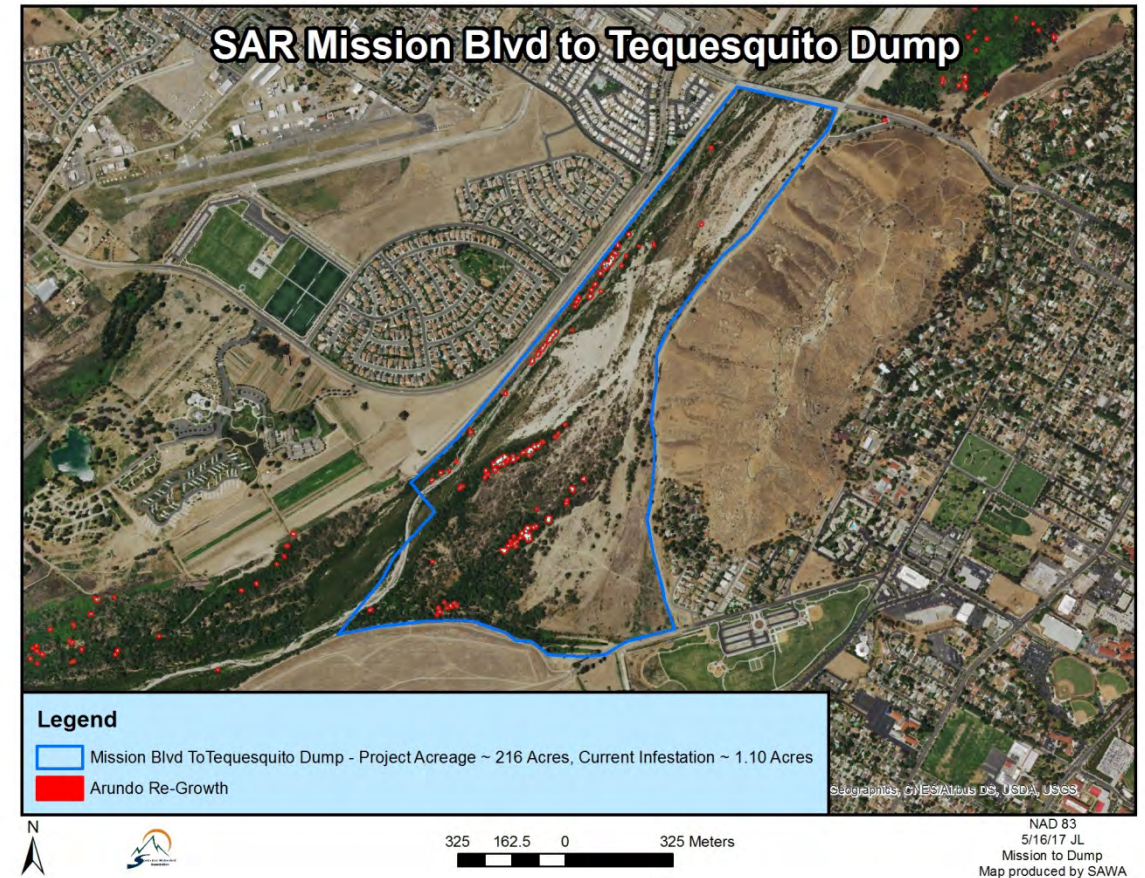
Mountain Avenue West Recharge Facility Results



Arundo Removal Study



Santa Ana River Below Van Buren Boulevard.



Arundo Regrowth on the Santa Ana River from Mission Boulevard to Tequesquite Dump

Smartsape Program



Inland Empire WATERKEEPER.
Advocacy • Education • Research • Restoration • Enforcement



Workshop at East Valley Water District

SMART IRRIGATION SAVES WATER

Water is a precious resource in Southern California. Together we can make water conservation a way of life.

Our Mediterranean Climate has cool winters and hot dry summers. You may have a lawn and plants native to wetter climates that require significant amounts of supplemental water when grown in Southern California. Changing your plants to those better suited to the Inland Empire climate will certainly reduce your water usage.

But no matter what kind of landscape you have, using the right type of irrigation can substantially conserve water.

The key is to give your plants the right amount of water they need to thrive and to deliver water in the most efficient way possible.

For more information on water-saving rebates, including high-efficiency irrigation nozzles and weather-based irrigation controllers, please visit www.wvd.org/conservation.

Before you change anything, start by understanding what you already have and then make adjustments to improve water conservation.

TEN STEPS TO SMART WATERING

1. Group plants with similar water needs on one water line. This "hydrozone" saves waste and supports healthy plants.
2. Know your soil. Clay holds more water, sand holds less.
3. Water early. The best time to water is before 7 a.m.
4. Use only the water that your yard needs. Water in several short cycles to water deeply without runoff.
5. Water only plants. If water hits pavement or walks, water is being wasted.
6. Apply water uniformly. Check that water from one sprinkler reaches over to the next sprinkler. This is called "head-to-head coverage."
7. Water when it is calm. Wind wastes water.
8. Adjust irrigation controllers as weather changes. Water more in the hot summer and less (or not at all) in the cooler months.
9. Apply much. Mulch keeps moisture in the soil where plants can use it.
10. Walk your garden regularly to look at your irrigation system while it is running. Leaks are a major cause for water waste.

WEST VALLEY WATER DISTRICT

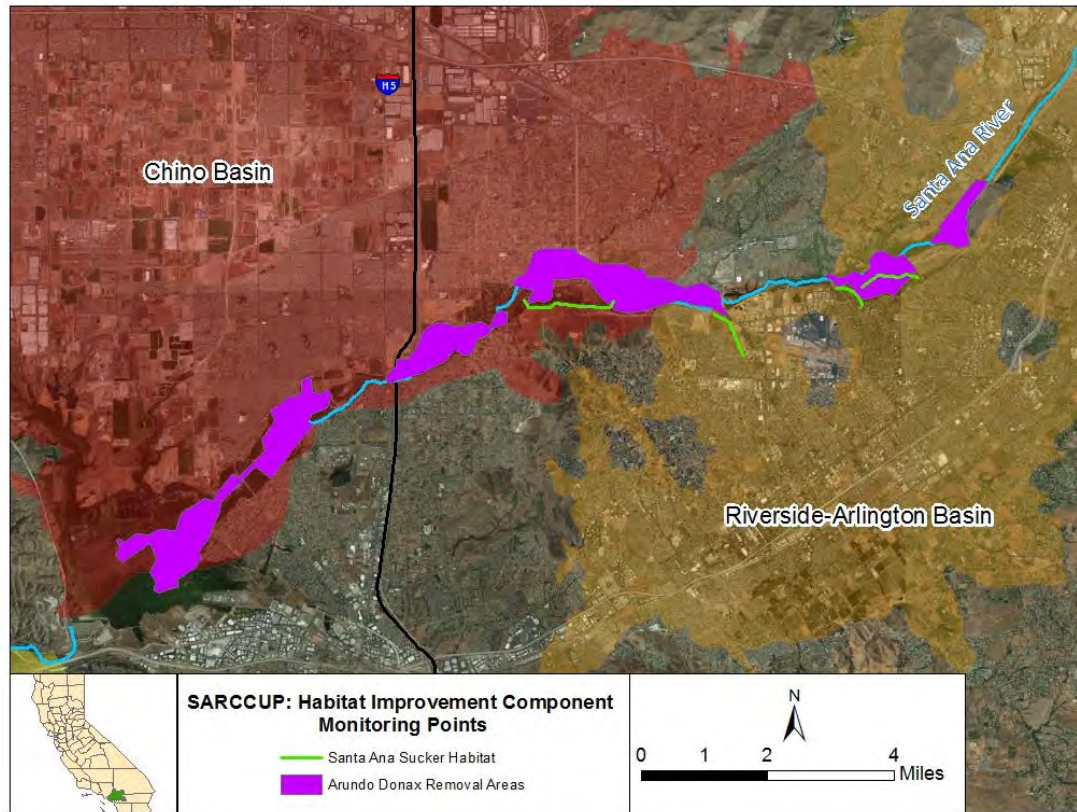
CONTACT US
(909) 875-1804 x 347
www.wvd.org/conservation
855 W Base Line Road
Rialto CA 92376
f [westvalleywaterdistrict](https://www.facebook.com/westvalleywaterdistrict)
• [westvalleywater](https://www.instagram.com/westvalleywater)

West Valley Water District
Developed in partnership with West Valley Water District and Inland Empire Waterkeeper

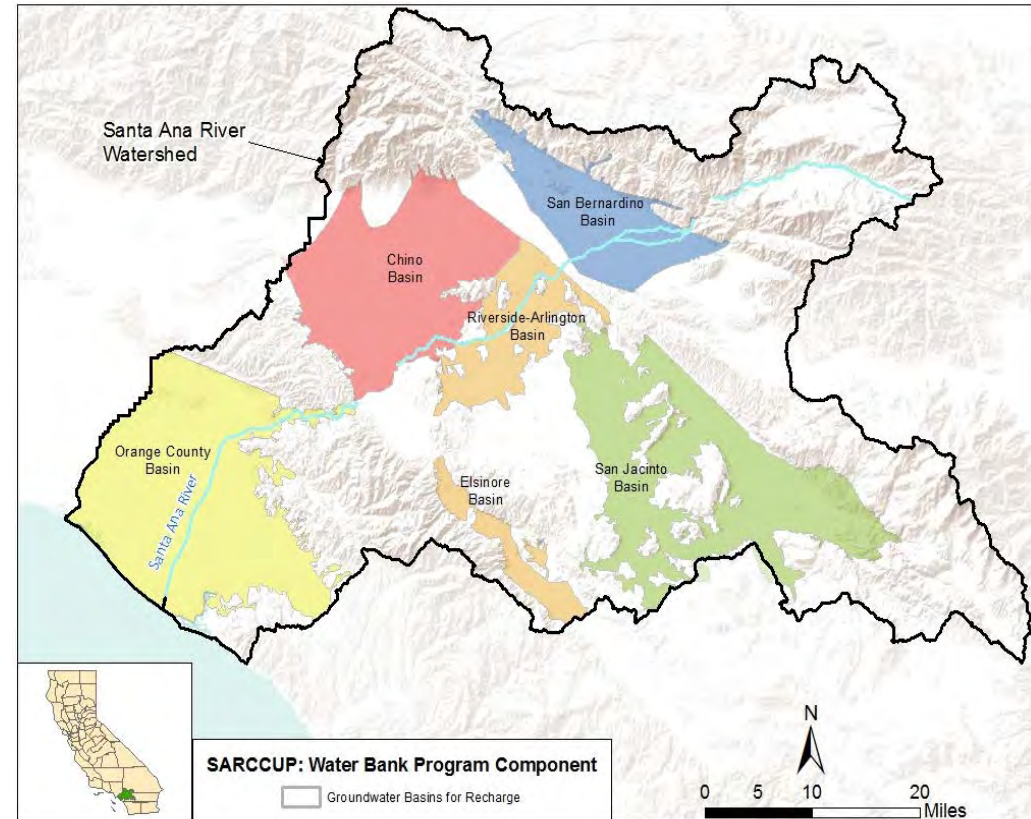
Brochure for West Valley Water District

Project Monitoring Plans

Grant Deliverable



Habitat: Sucker and Arundo



Conjunctive Use Program

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San Jacinto Valley Water Banking – Enhanced Recharge and Recovery Program (ERRP) & Phase 1 Project/SARCCUP: Final Program and Project Environmental Impact Report

SAWPA PA-23 Meeting
August 7, 2018

Kelley Gage
Senior Director of Water Resources Planning

Agenda

- Program vs. Project Environmental Impact Reports (EIRs)
- ERRP Program and Phase 1 Project Facilities
- California Environmental Quality Act (CEQA) Final Program and Project EIR conclusions
- EMWD's SARCCUP Facilities Schedule

Program and Project EIRs

- CEQA allows for Program-level analysis for streamlining of future projects
 - Can look at the “big picture” through comprehensive analysis of cumulative impacts from the overall program
 - Future project-level EIRs can “tier” off of Program EIR analysis for efficiency
- Future phases of ERRP included at a Program level analysis
 - Will require additional CEQA
- ERRP Phase 1 analysis completed at Project level
 - Can approve Phase 1 Project/SARCCUP once Final EIR is certified

ERRP – Proposed Program

- Allow EMWD to enhance current and future water supplies by developing a groundwater water bank with total storage capacity of up to 90,000 acre-feet
- Groundwater produced by the Proposed Program would be used within EMWD's service area
- Includes development of facilities and appurtenances required to support the overall Program
 - Implemented in phases

ERRP – Proposed Project

- Project is “Phase 1” of overall ERRP Program
 - Included as part of **Santa Ana Conservation and Conjunctive Use Program (SARCCUP)**
- Allows EMWD to recharge an average of approximately 6,500 to 30,000 acre-feet per year when supplies are available
 - Recharge for conjunctive use and water banking
 - SARCCUP water bank capacity is 19,500 acre-feet
- Allows EMWD to extract up to 6,500 acre-feet per year
 - Used for conjunctive use in wet and average years
 - Used for water banking production in dry years (6,500 afy)

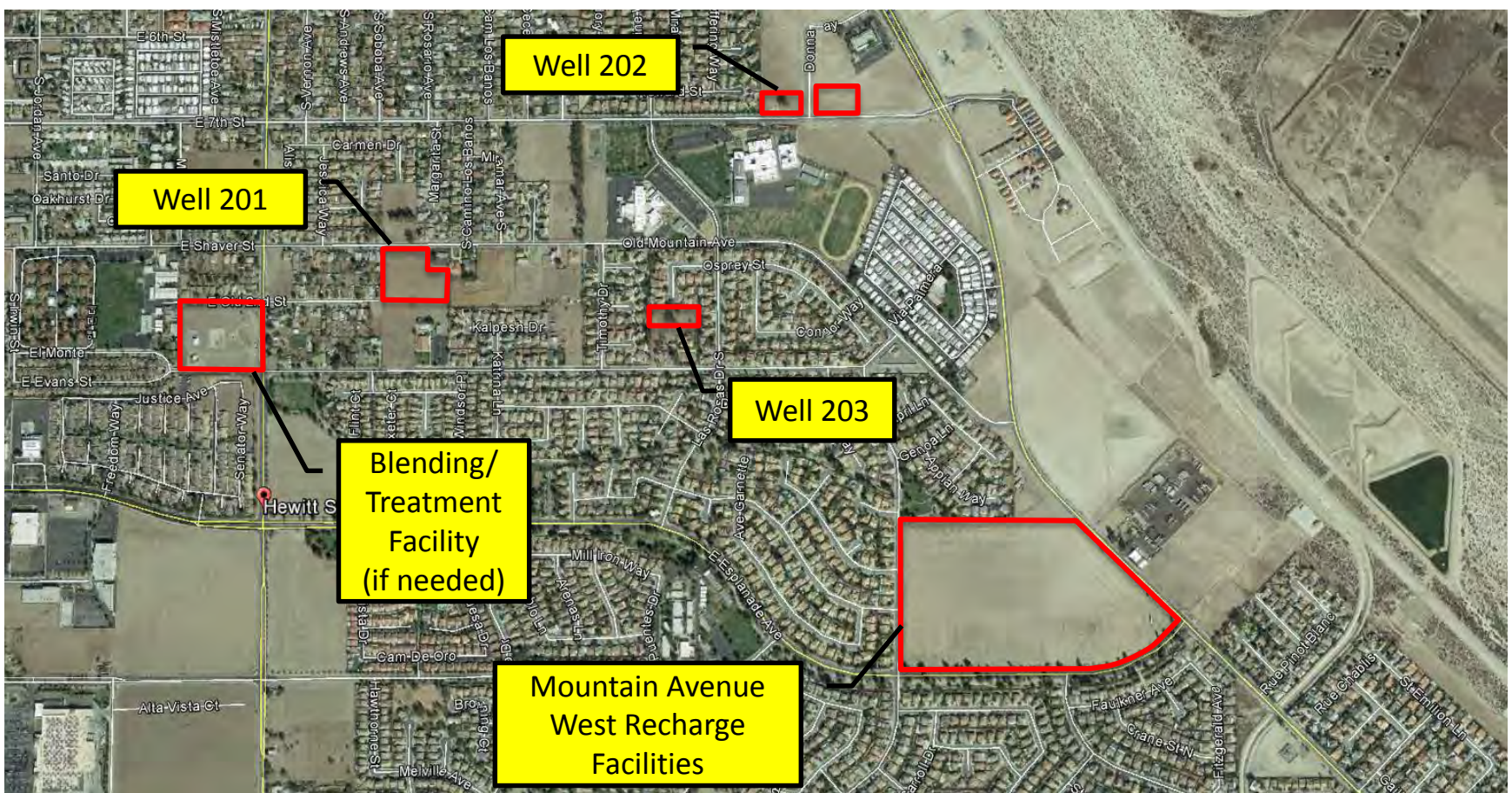
Summary of Proposed Program and Project Facilities

Facility Type	Proposed Program	Proposed Project – Phase 1 (SARCCUP)
Recharge Facilities	<ul style="list-style-type: none"> • 4 Recharge Facilities: Mountain Avenue East, West, North, South • Laterals from existing and Proposed Raw Water Pipeline to the recharge facilities • Onsite piping to desilting and recharge ponds 	<ul style="list-style-type: none"> • 1 Recharge Facility: Mountain Avenue West • Laterals from existing Raw Water Pipeline to Mt. Avenue West recharge facility • Onsite piping to desilting and recharge ponds
Monitoring Facilities	<ul style="list-style-type: none"> • 16 Shallow Monitoring Wells • 7 Multi-Depth Monitoring Wells 	<ul style="list-style-type: none"> • 8 Shallow Monitoring Wells • 3 Multi-depth Monitoring Wells
Extraction Facilities	<ul style="list-style-type: none"> • Up to 11 Extraction Wells • Treatment/blending and disinfection facilities at Hewitt & Evans site with pump station 	<ul style="list-style-type: none"> • 3 Extraction Wells • Treatment/blending and disinfection facilities at Hewitt & Evans site with pump station

Summary of Proposed Program and Project Facilities (cont'd)

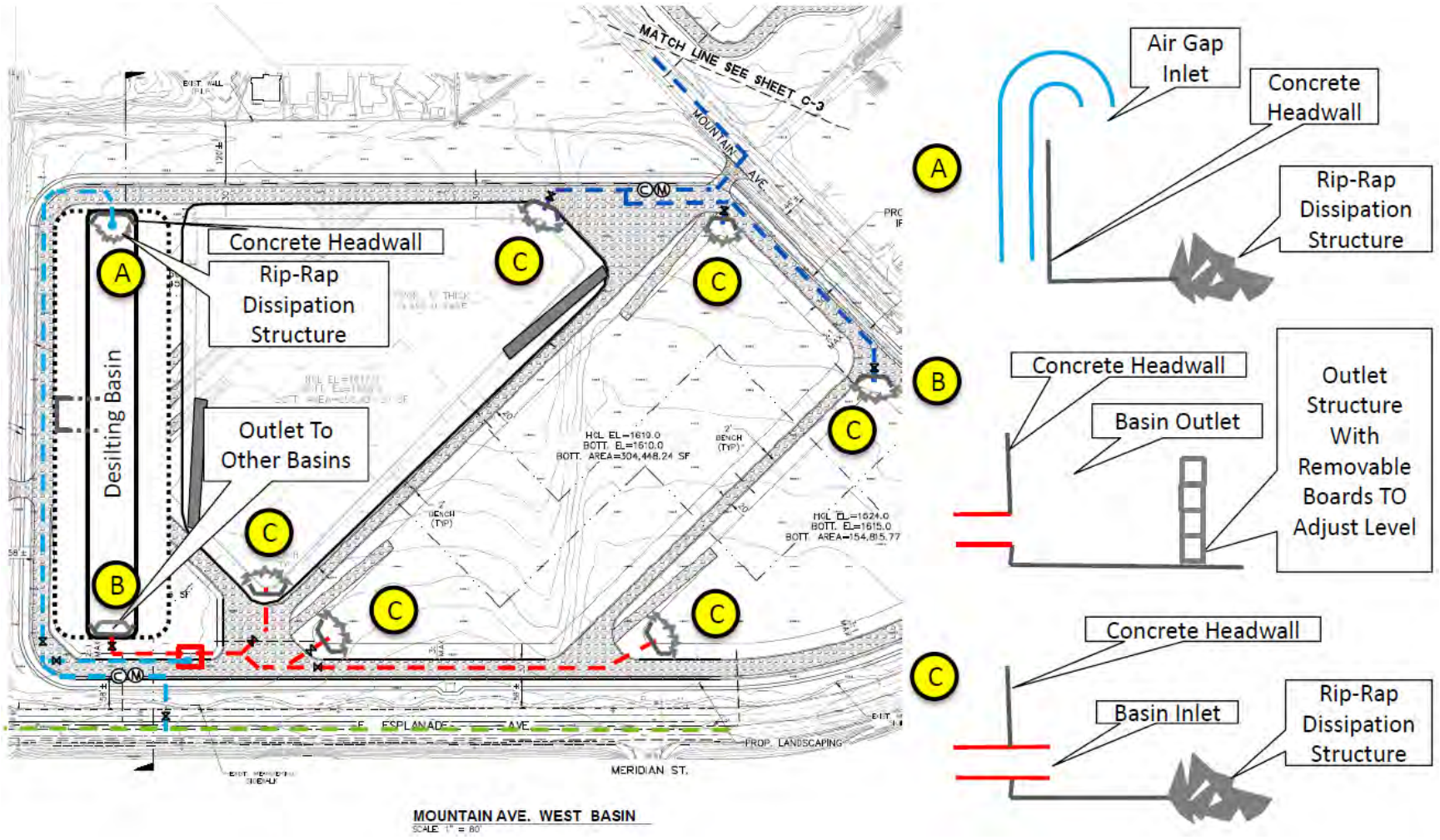
Facility Type	Proposed Program	Proposed Project – Phase 1 (SARCCUP)
Conveyance Facilities	<ul style="list-style-type: none"> • MWD Turnout EM-25 • Raw Water Pipeline #2 Transmission Pipeline • Pumping Station • Well water collector pipelines from each extraction well to the treatment/blending facility • Potable water pipelines • Blow-off pipelines 	<ul style="list-style-type: none"> • Well water collector pipelines from each extraction well to the treatment/blending facility • Potable water pipelines • Blow-off pipelines

SARCCUP San Jacinto Bank – EMWD’s Proposed Facilities



EMWD already owns all of the property needed for the SARCCUP Facilities

SARCCUP San Jacinto Bank – EMWD’s Proposed Facilities



Environmental Impact Report (EIR) - Conclusions

- **Long-term Impacts (Operations)**
 - Environmental impacts for both the Program and Project facilities are all less than significant with mitigation
- **Temporary Impacts (Construction)**
 - Environmental impacts for Program facilities are less than significant with mitigation
 - Phase 1 Project Air Quality and Noise impacts would remain significant even after mitigation is applied:
 1. Temporary noise impacts due to continuous 24-hours/day drilling of extraction wells in close proximity to residences
 2. Temporary exceedance of air quality thresholds during construction
- **A Statement of Overriding Considerations** was adopted along with the certification of the Final EIR for the above two temporary impact areas

SARCCUP San Jacinto Bank - EMWD Facilities Schedule

Date	Activity
June 20, 2018	Final EIR Certified - Phase 1 Project (SARCCUP) approved
June 20, 2018	Watermaster Storage Agreement approved
Nov. 2018	3 wells - construction start
Jun. 2021	3 wells - construction complete
Sept. 2019	Mountain Ave. West recharge facility – construction start
Mar. 2021	Mountain Ave. West recharge facility – construction complete



Contact Information

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Sr. Director of Water Resources Planning
(951) 928-3777 Ext. 4561
Email: gagek@emwd.org

ACE¹⁸
ANNUAL CONFERENCE & EXPOSITION

**ANNUAL CONFERENCE & EXPOSITION
INNOVATING THE FUTURE OF WATER**

JUNE 11-14 | EXPOSITION: JUNE 12-14 | MANDALAY BAY CONVENTION CENTER | LAS VEGAS | USA





Building a Regional Water Bank in Southern California

The Santa Ana River Conservation and Conjunctive Use Program (SARCCUP)

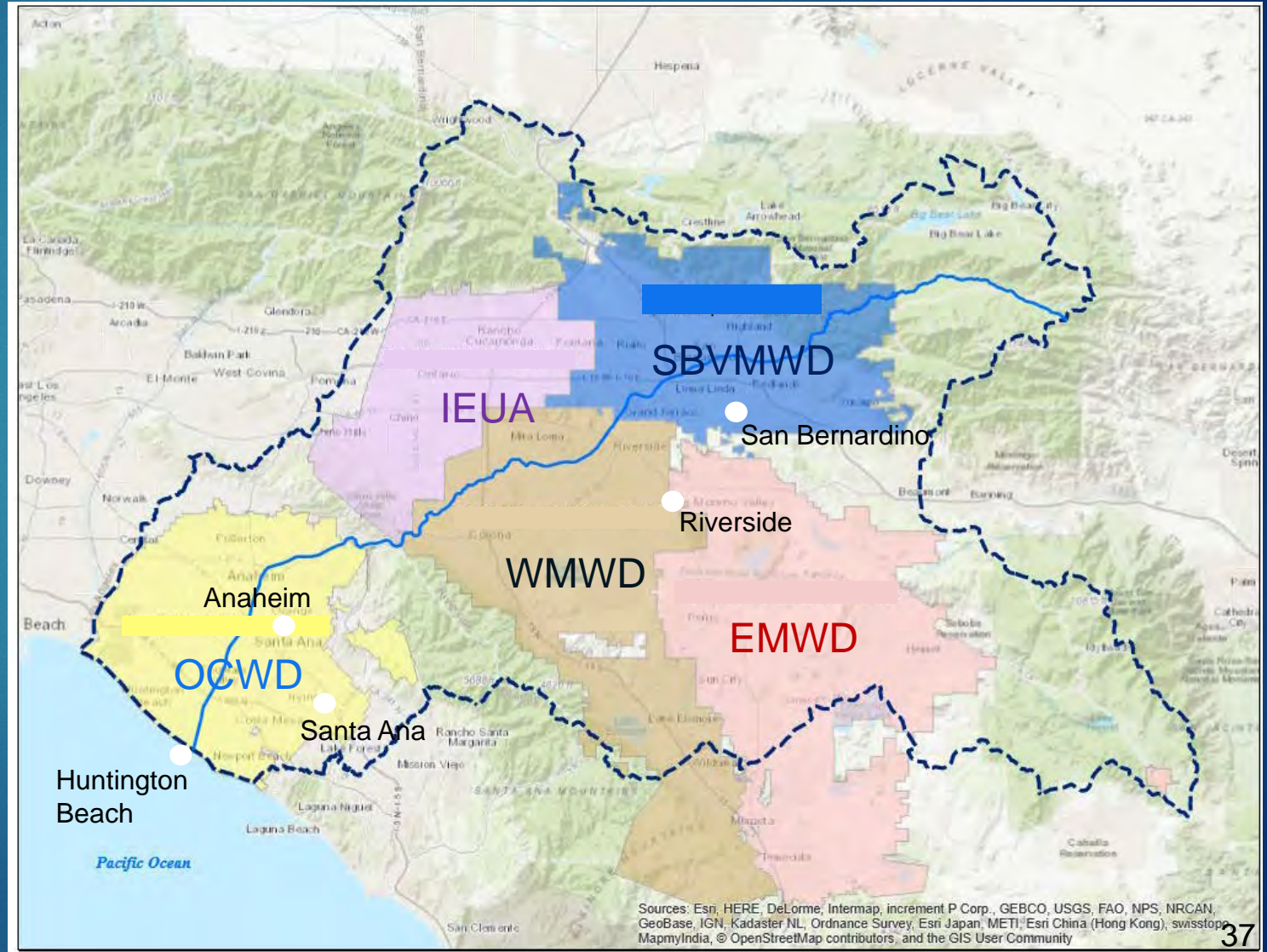
Ryan Shaw

Western Municipal Water District

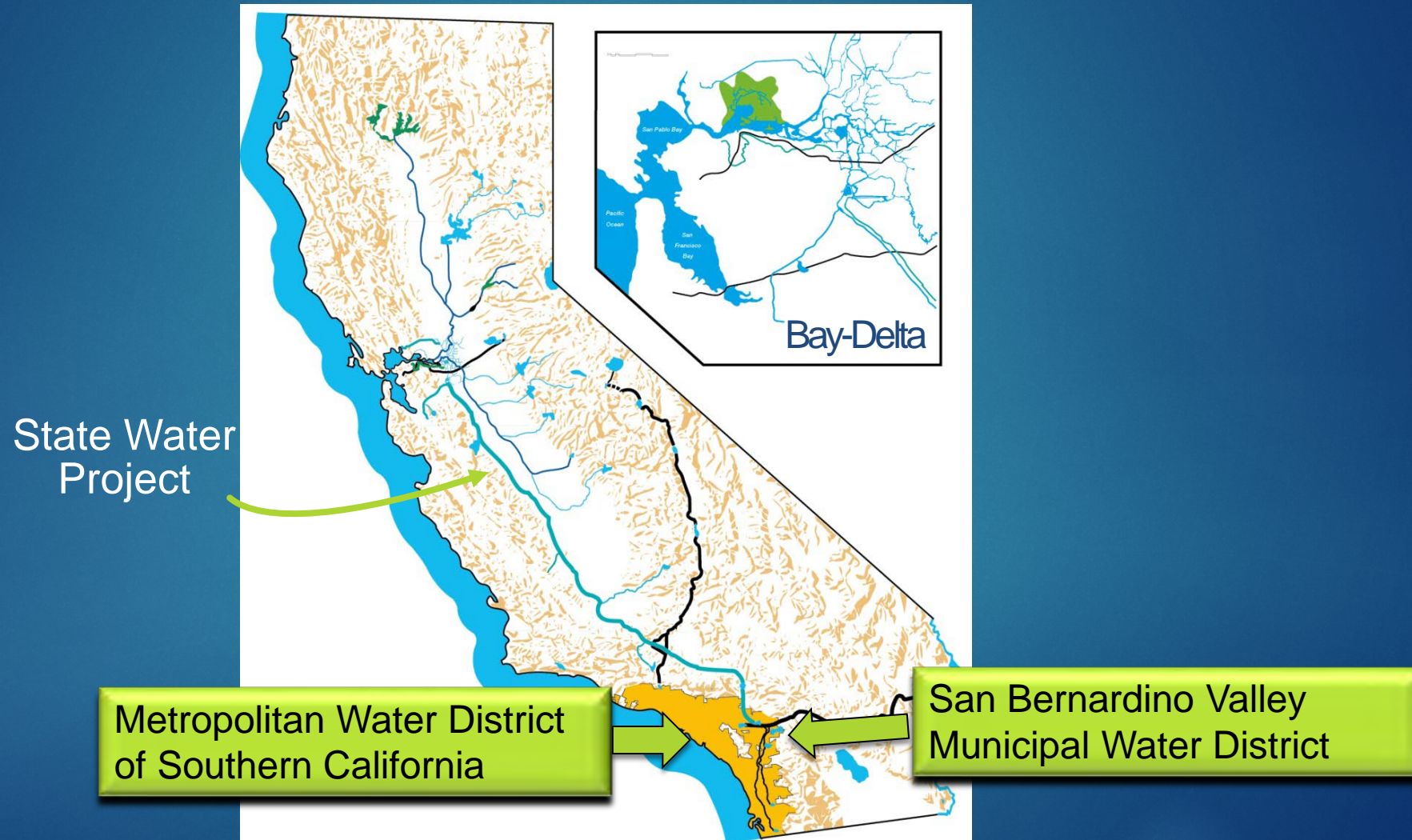
Bob Tincher

San Bernardino Valley Municipal Water District

Santa Ana River Watershed



State Water Project

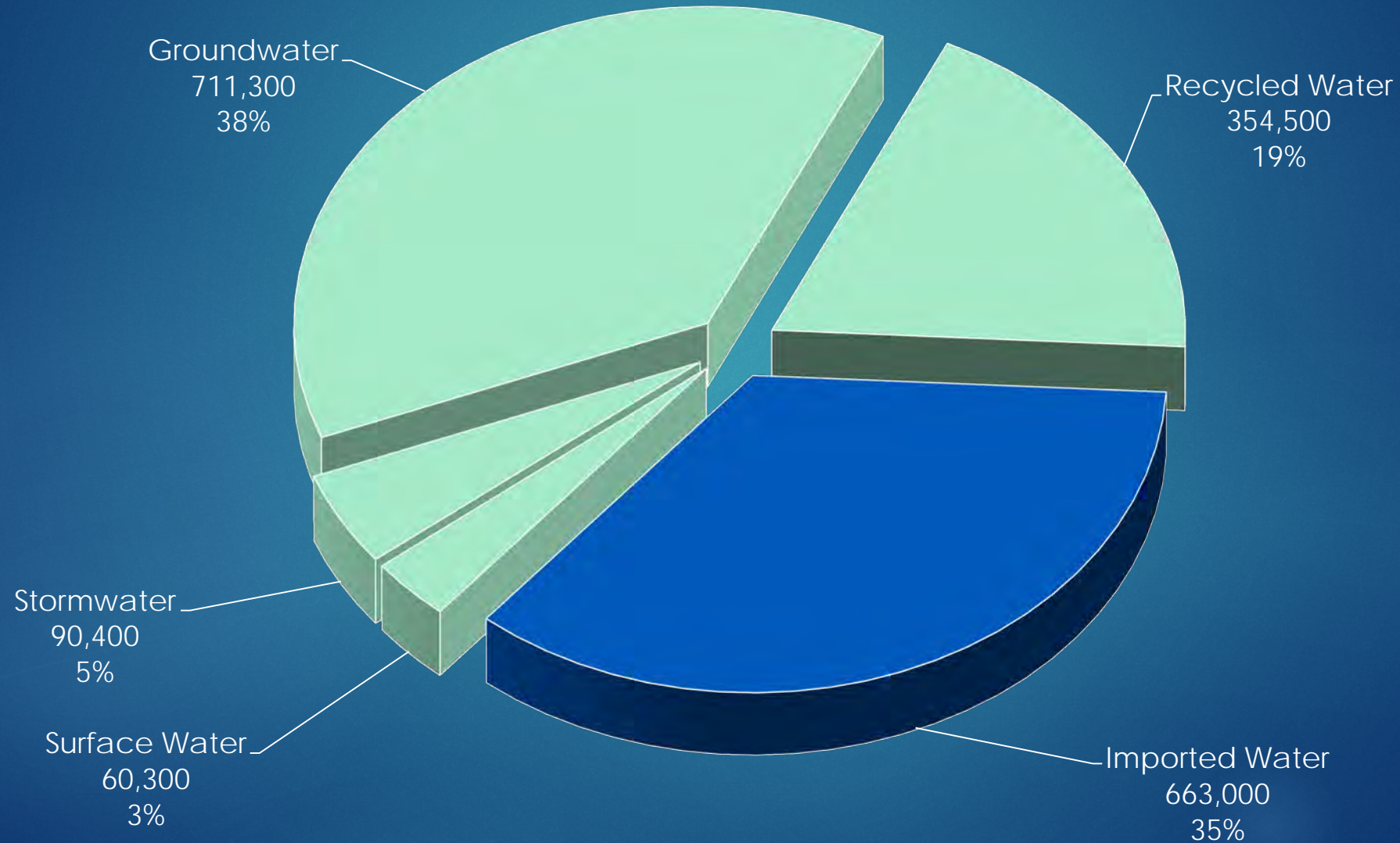


Outline

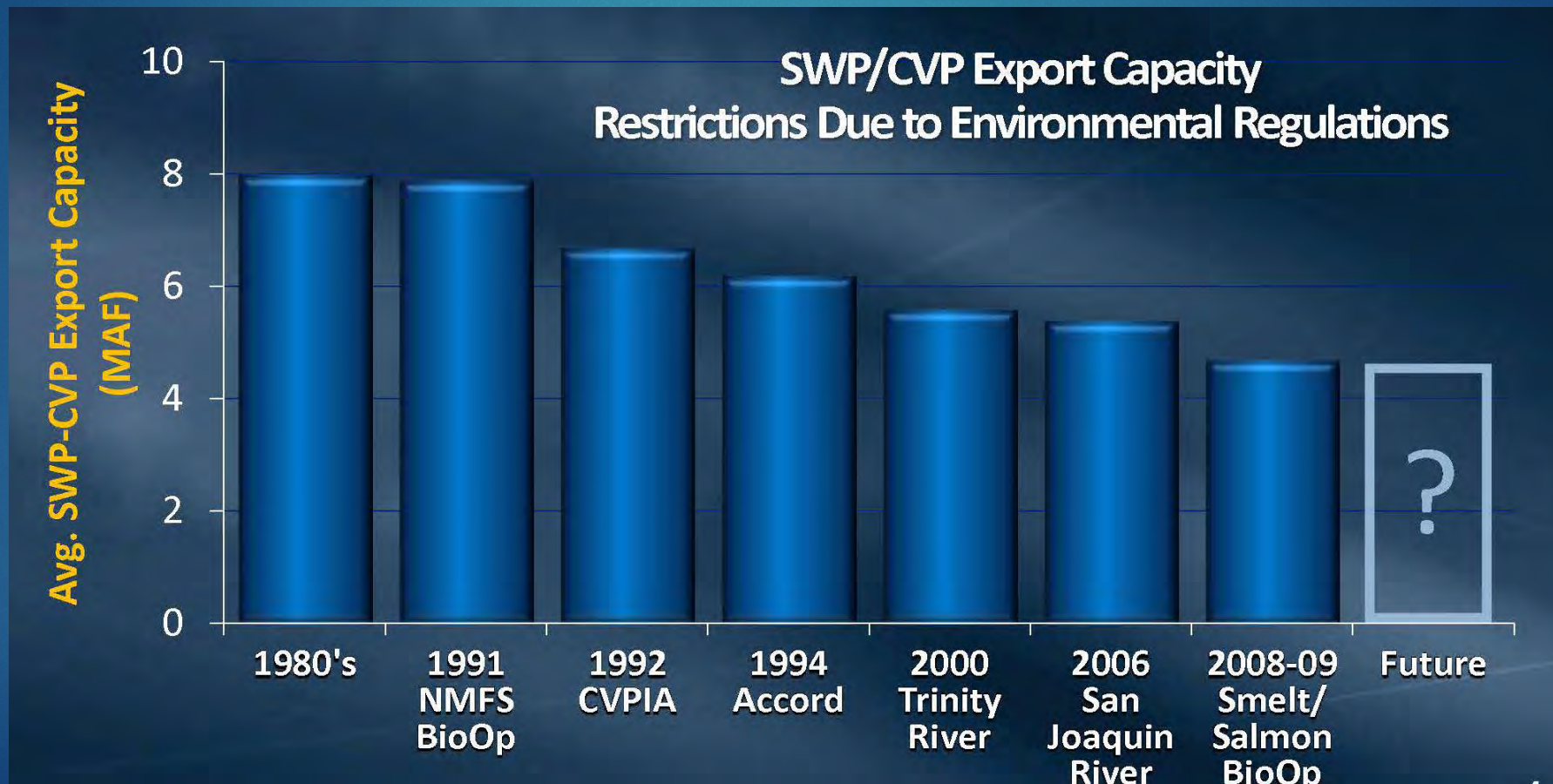
- ▶ Need for the project
- ▶ Project overview
- ▶ Lessons learned

Need for the Project

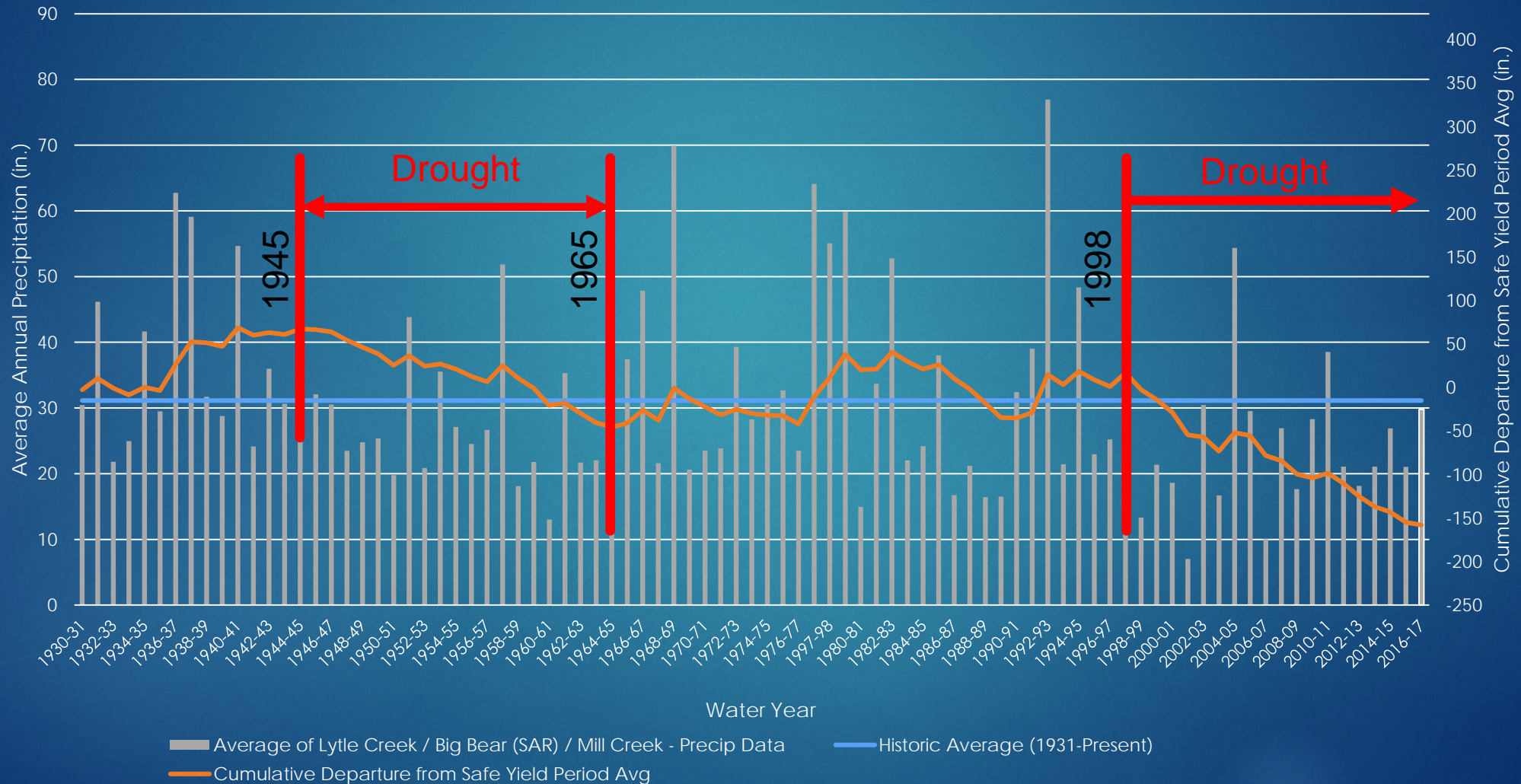
Local Supplies Are Not Enough



The Reliability of Imported Water is Declining



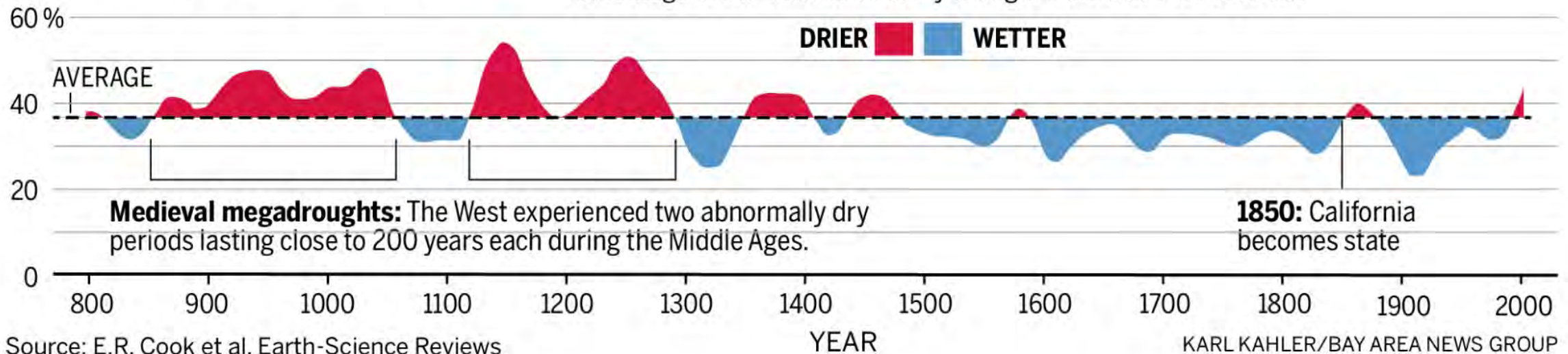
20 Year Droughts Are Common



Droughts Could Last Longer...

A 200-year drought?

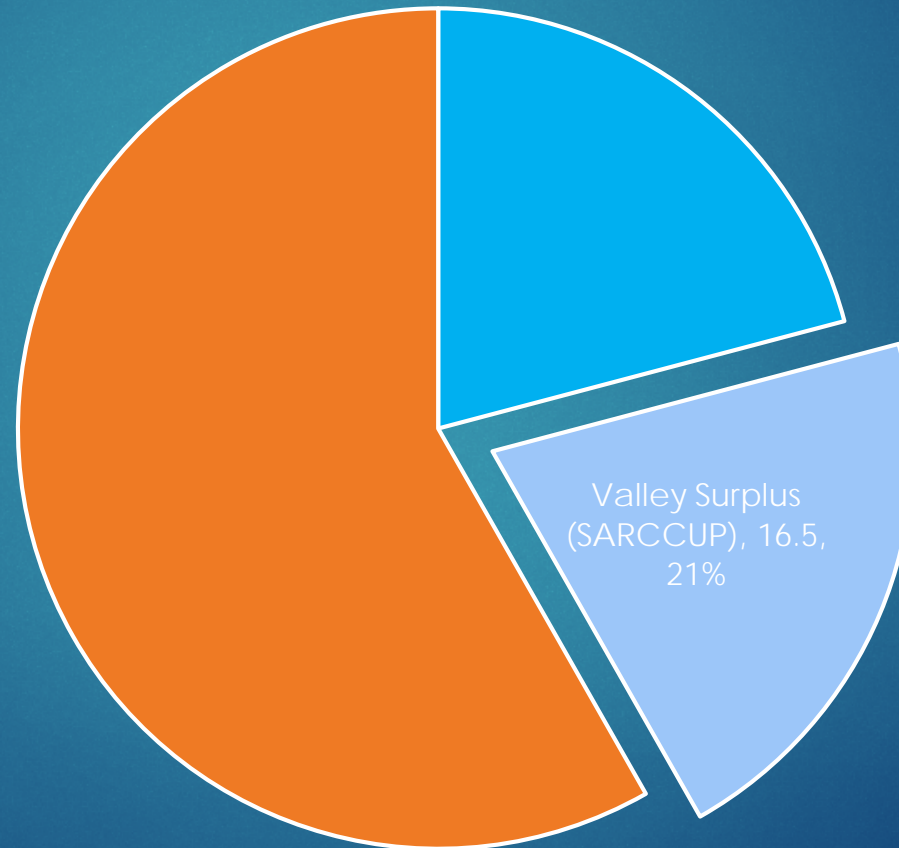
Evidence from tree rings shows that drought was historically much more widespread in the American West than now, while the 20th century was wetter than normal. Percentage of the West affected by drought from 800 A.D. to 2000:



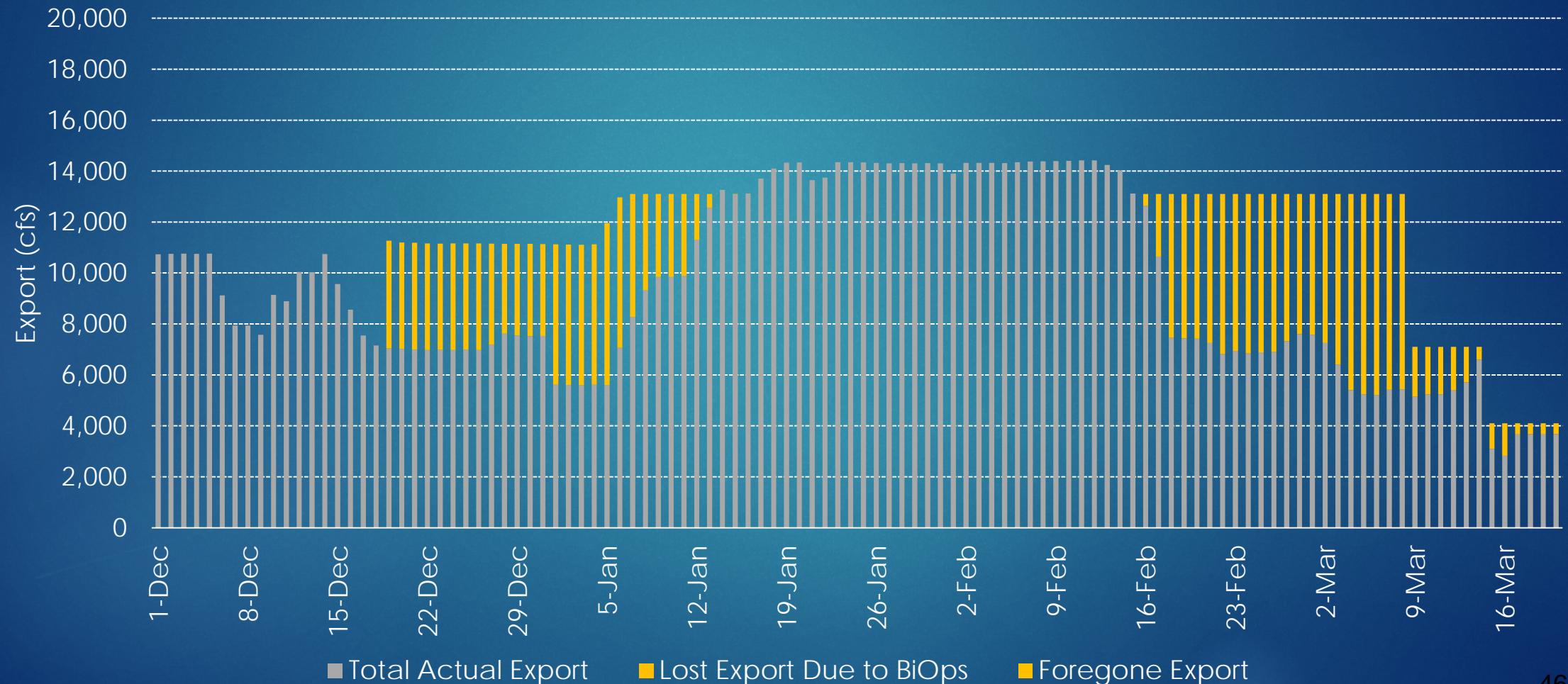
Source: E.R. Cook et al, Earth-Science Reviews

KARL KAHLER/BAY AREA NEWS GROUP

Valley District Predicts Surplus Water in Wet Years



In Wet Years, Excess Water Flows Under the Golden Gate Bridge



The Solution: STORAGE

Project Overview



Dry year yield

(60k/yr x 3 yr)

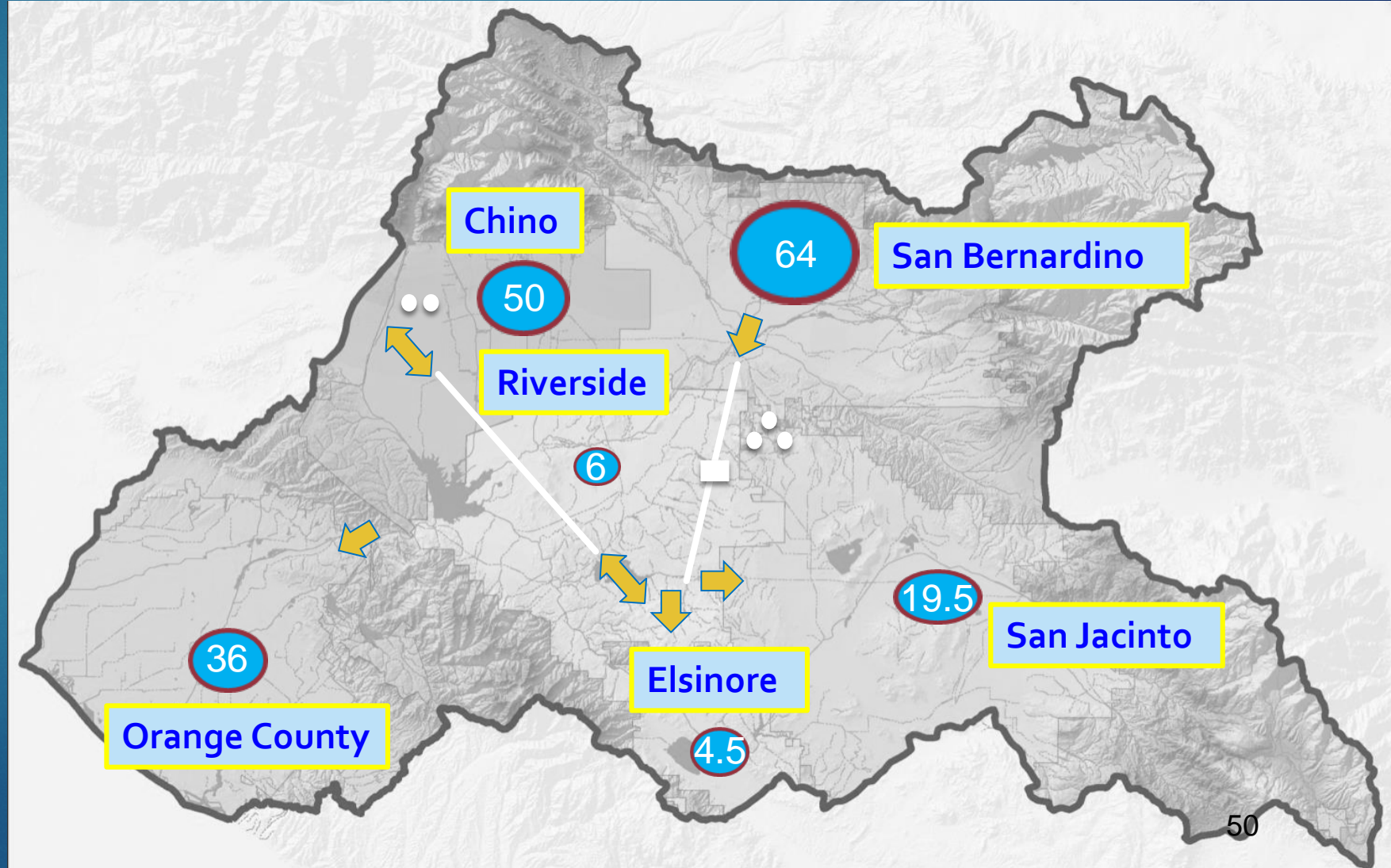


Wet year
storage (180k)

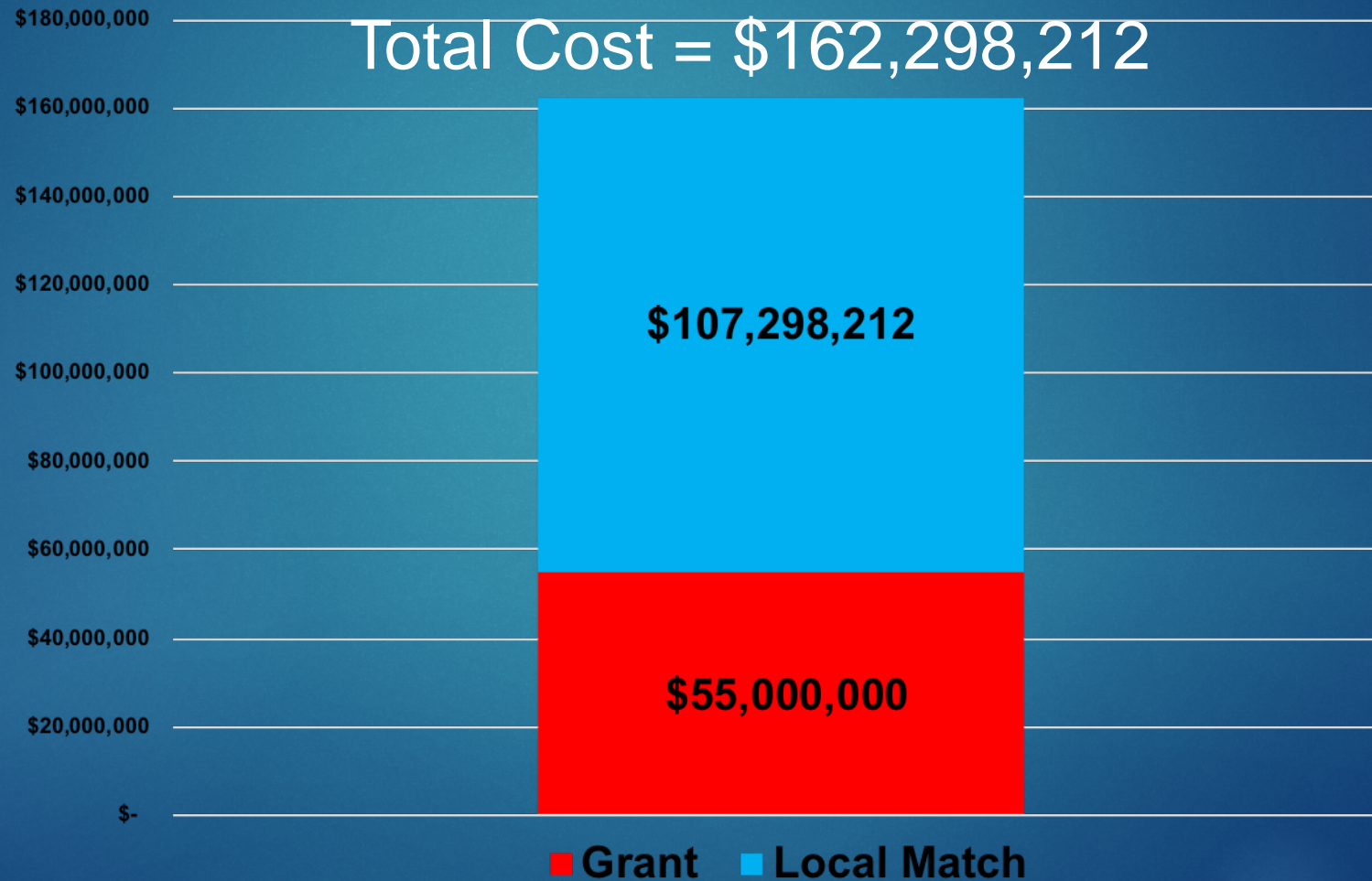
Water Bank



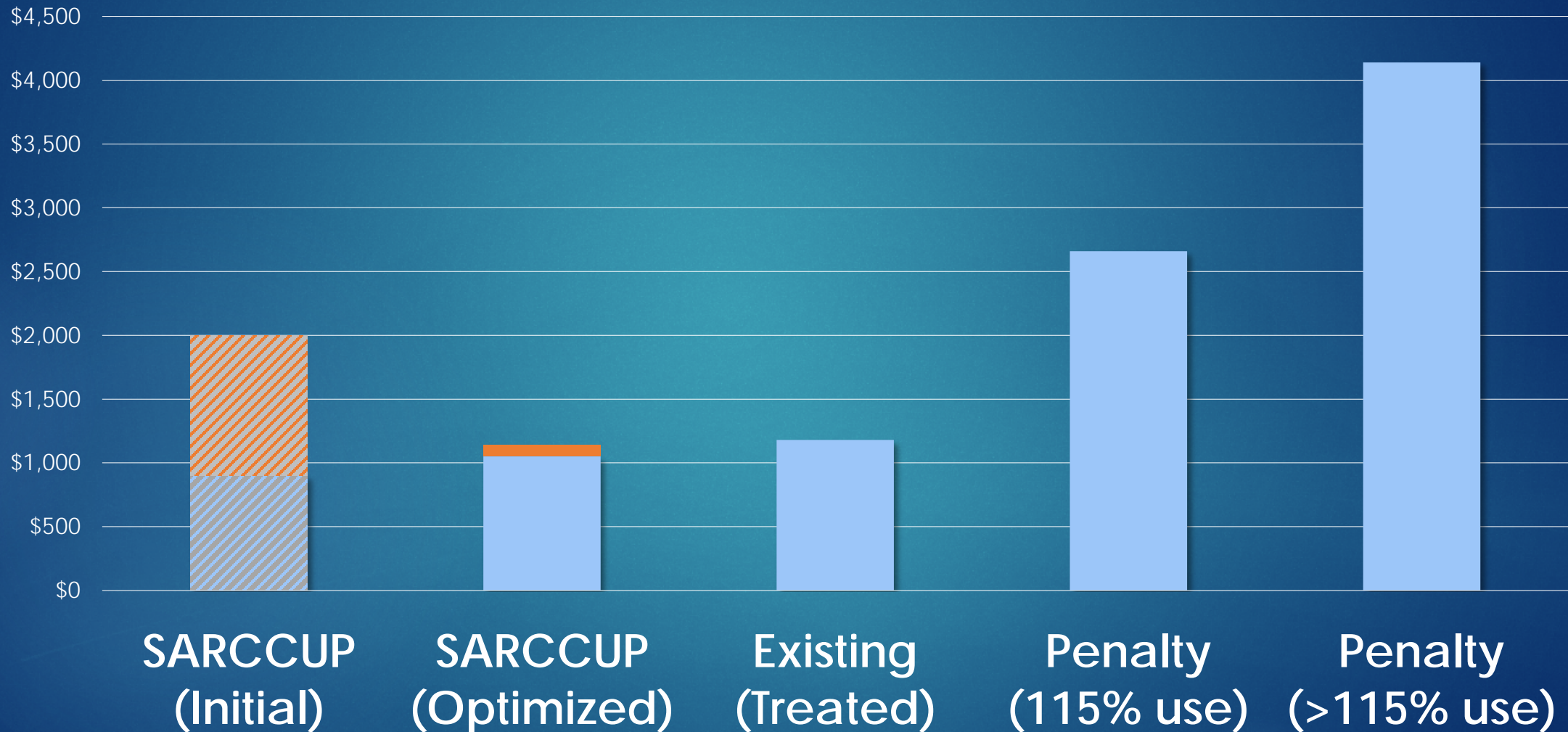
- ✓ Local Storage
- ✓ Six Basins
- ✓ 180,000 AF



Water Bank Cost

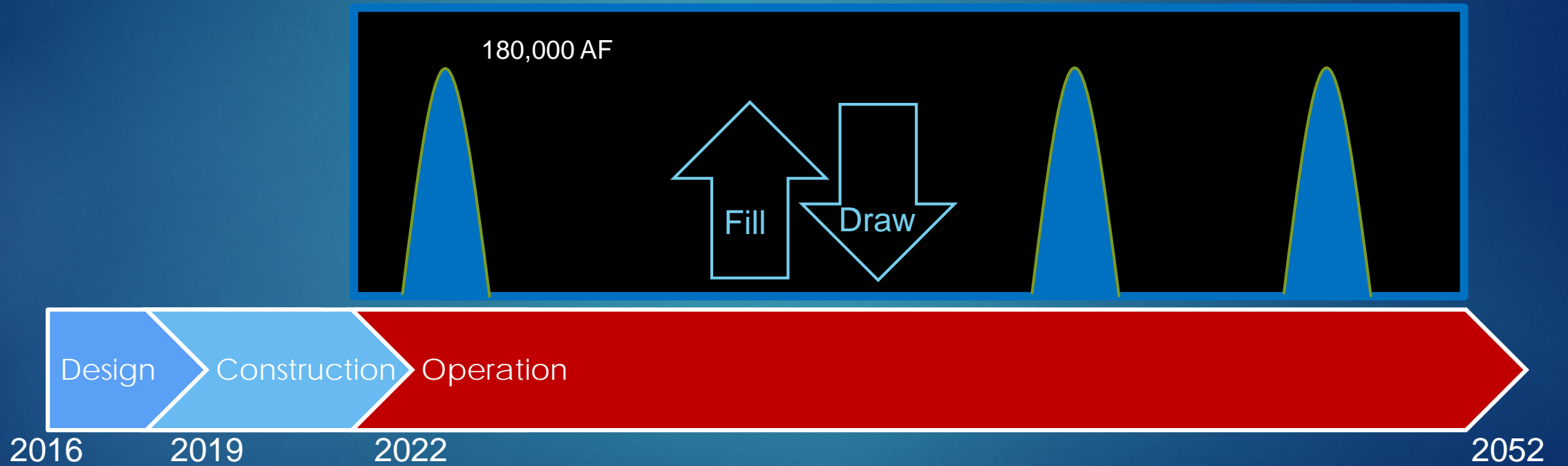


Cost of Water from the Bank



Does not include capital recovery cost for facilities

Schedule



Lessons Learned

Initial Concept: "Postage Stamp"

- ▶ Share water cost
- ▶ Share facility cost
- ▶ Share storage in each location



Water Cost is not the Same for All Partners

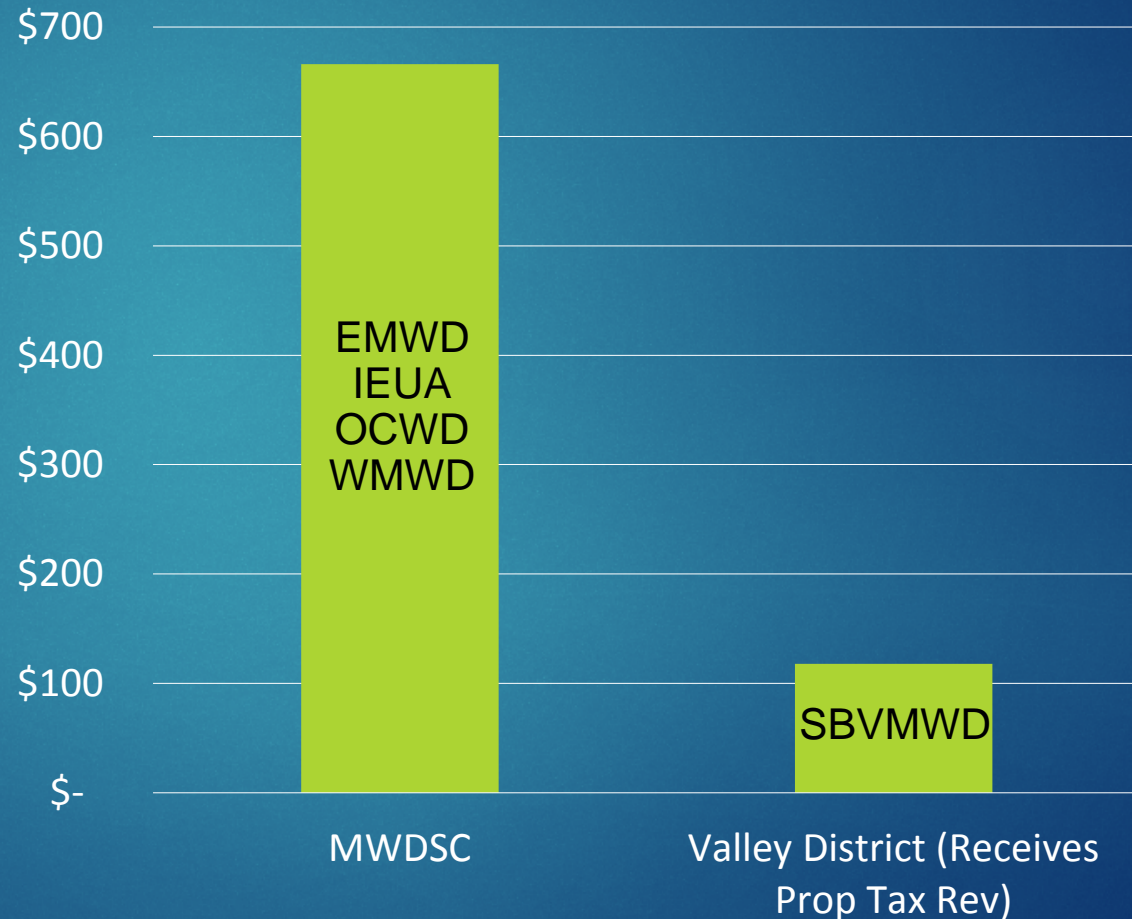
Two State Water Contractors



Different Funding Mechanisms

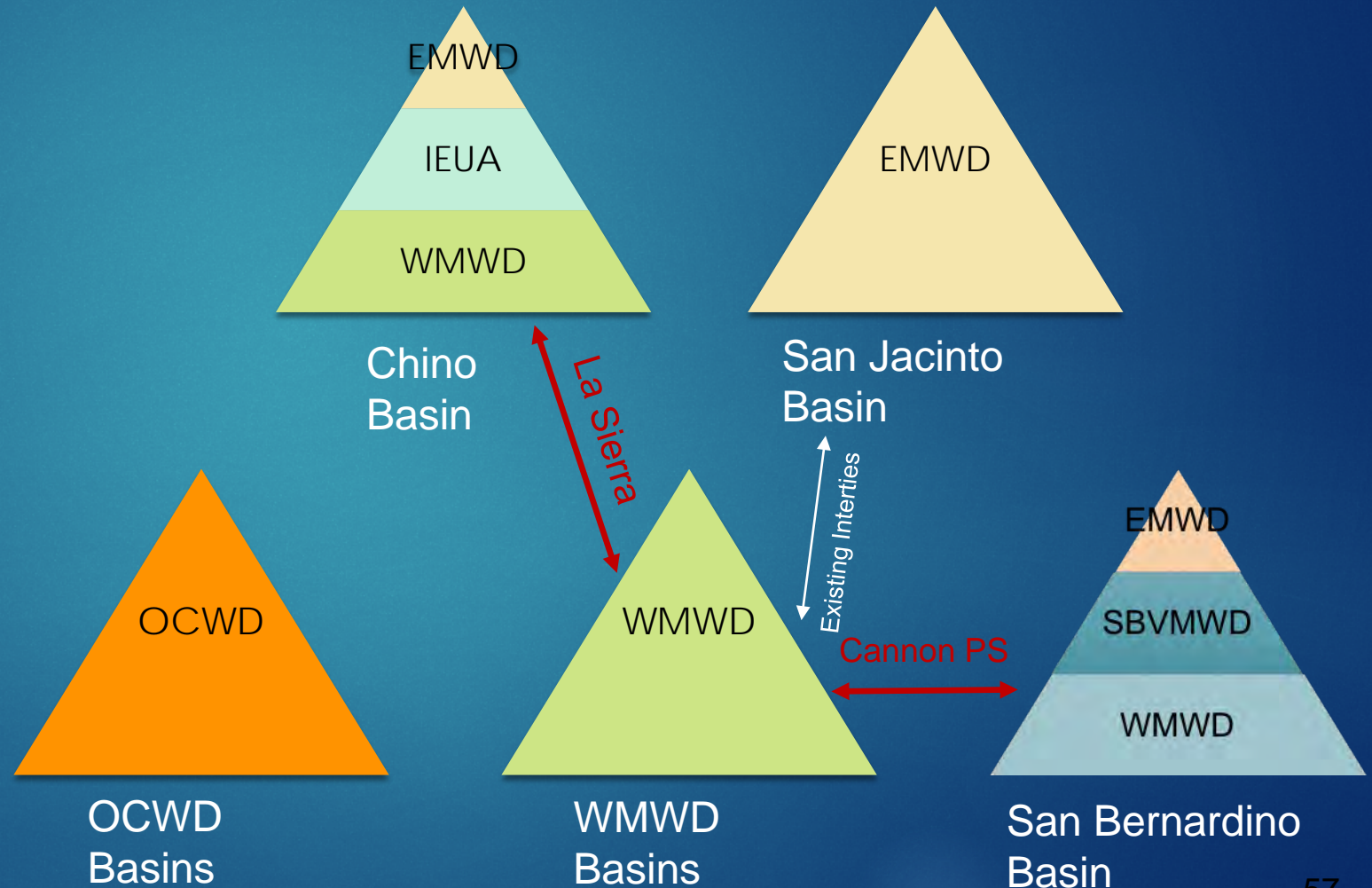


Different Rates for Imported Water



Not All Partners Need Facilities or Storage in Other Locations

- ▶ Used modeling to optimize operation and reduce cost
- ▶ Some facilities were eliminated
- ▶ Some facilities were added



Final Projects

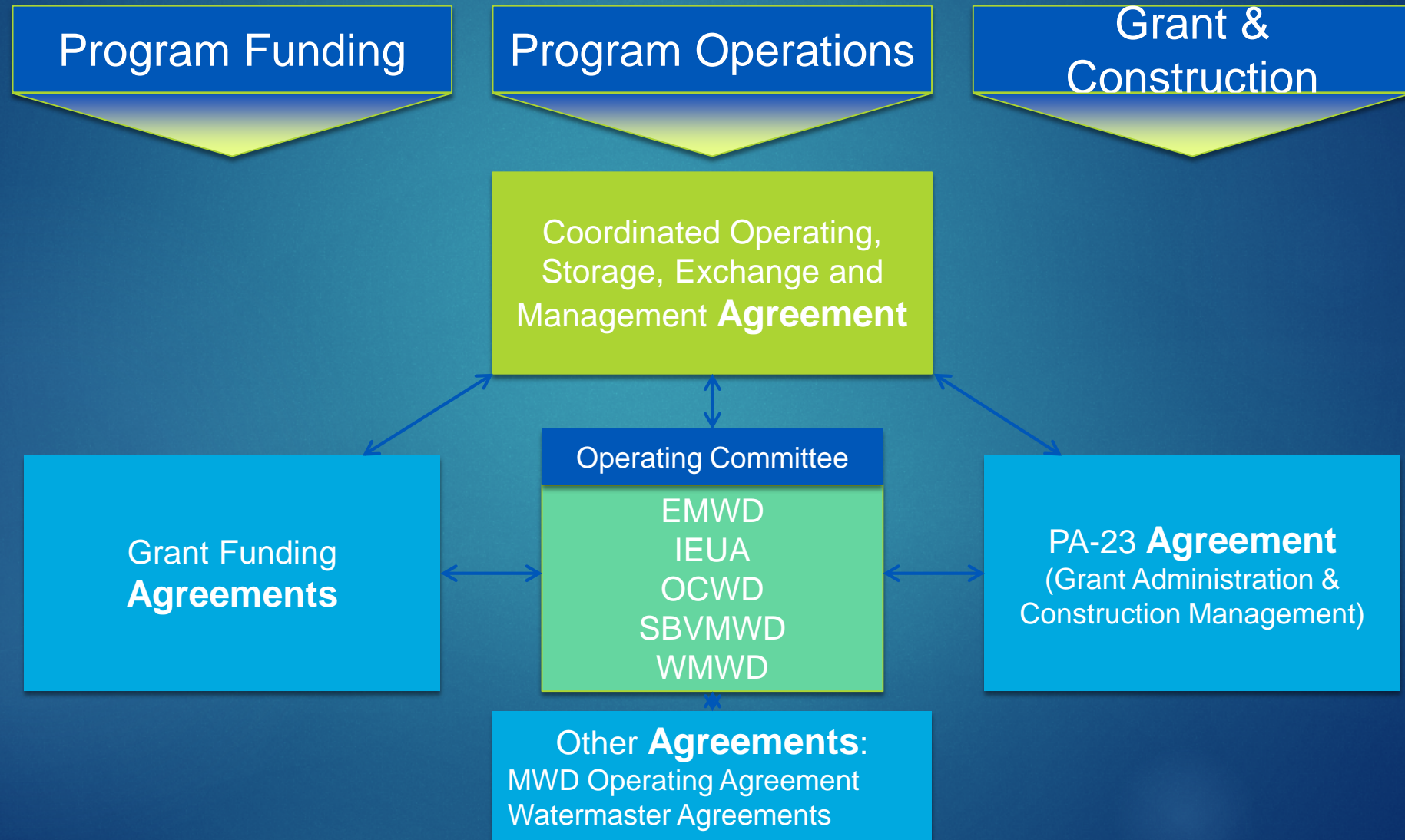
- ▶ San Jacinto Recharge Basin & Extraction Wells
- ▶ Chino Basin Extraction Wells and Treatment Facilities
- ▶ Riverside-Arlington Extraction Wells
- ▶ New Pipeline & Pump Stations Connection Chino, San Bernardino & Riverside Basins

New Approach: Beneficiary Pays

- ▶ Water Costs Different for Different Partners
- ▶ Not all Partners need facilities
- ▶ Not all Partners need access to all of the banks
- ▶ Lesson Learned: Postage Stamp not the right approach for SARCCUP
- ▶ No surprise? Most common approach in joint projects



Lots of Agreements Needed



Lessons Learned

- ▶ Decision Support Modeling Optimized System Operation
 - ▶ Eliminated unneeded facilities
 - ▶ Reduced unit cost of the water
- ▶ “Postage stamp” cost-sharing difficult unless agencies are similar
 - ▶ Not all agencies needed facilities or all of the storage locations
 - ▶ Different imported water rates
- ▶ Buy-in is crucial (lots of agreements)
 - ▶ Two State Water Contractors
 - ▶ Multiple Watermasters
 - ▶ Five regional water agencies, retail water agencies

Questions?

