



West San Jacinto Groundwater Management Area Stakeholder Advisory Group Meeting

June 26, 2019

Agenda

Item No. 1: West San Jacinto Groundwater Management Area 2018 Monitoring Program

Item No. 2: West San Jacinto Groundwater Sustainability Agency Development of the West San Jacinto Groundwater Sustainability Plan

Item No. 3: Perris II Reverse Osmosis Treatment Facility Status



West San Jacinto Groundwater Management Area 2018 Annual Monitoring Report

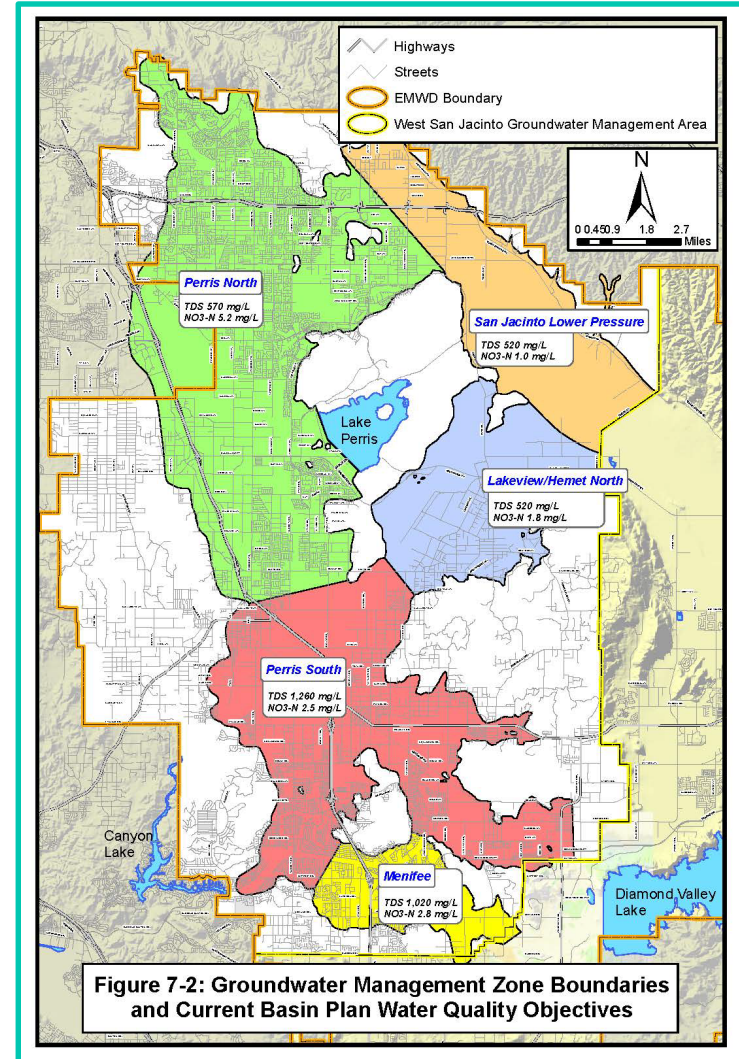
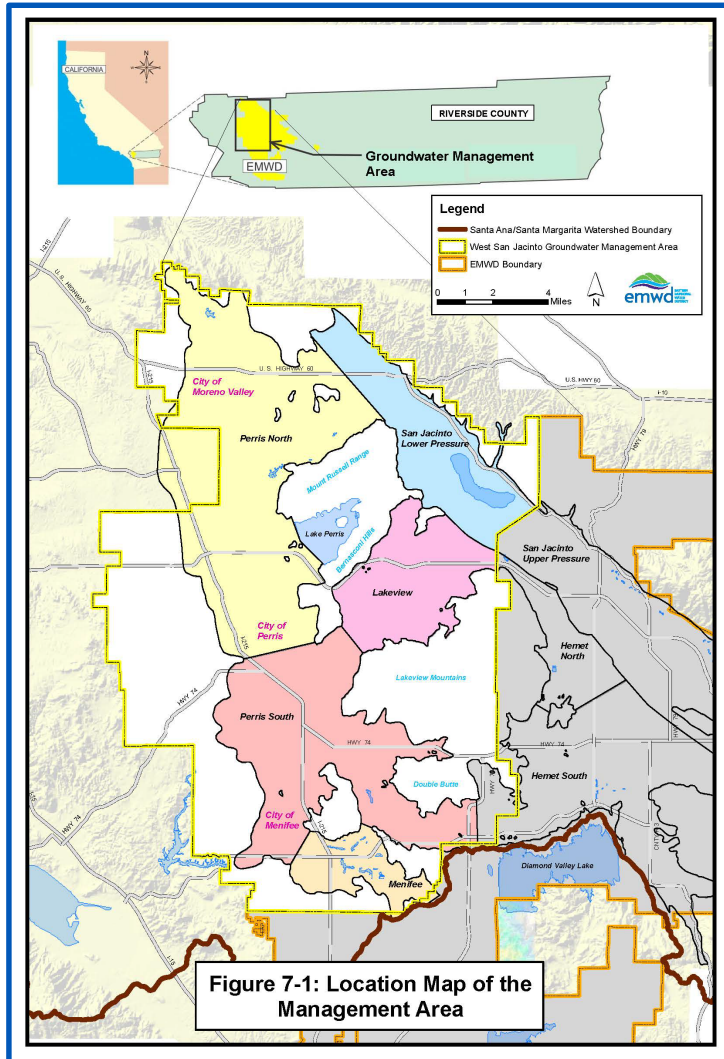
Rachel M. Gray

June 26, 2019

Agenda

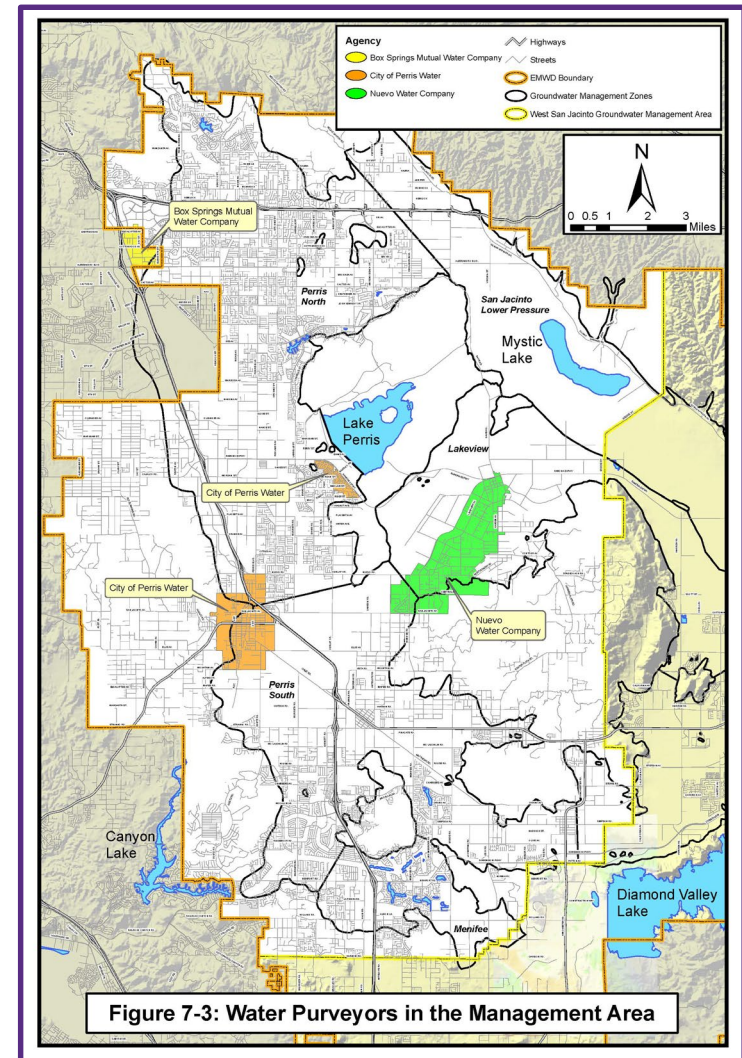
- Introduction
- West San Jacinto Groundwater Management Area 2018 Annual Monitoring Report
- Next Steps
- Feedback
- Questions and Answers

Location of the West San Jacinto Groundwater Management Area, Groundwater Management Zones, & Basin Plan Water Quality Objectives



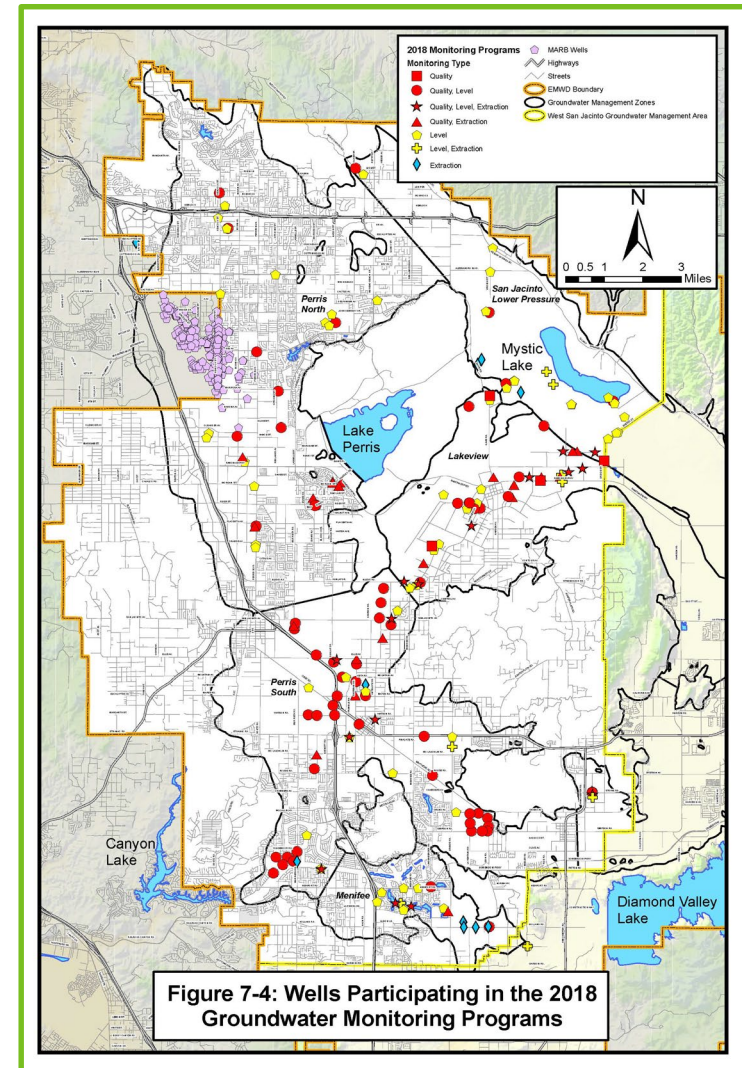
Groundwater Producers in the West San Jacinto Groundwater Management Area

- Eastern Municipal Water District
- Nuevo Water Company
- City of Perris
- Private Producers



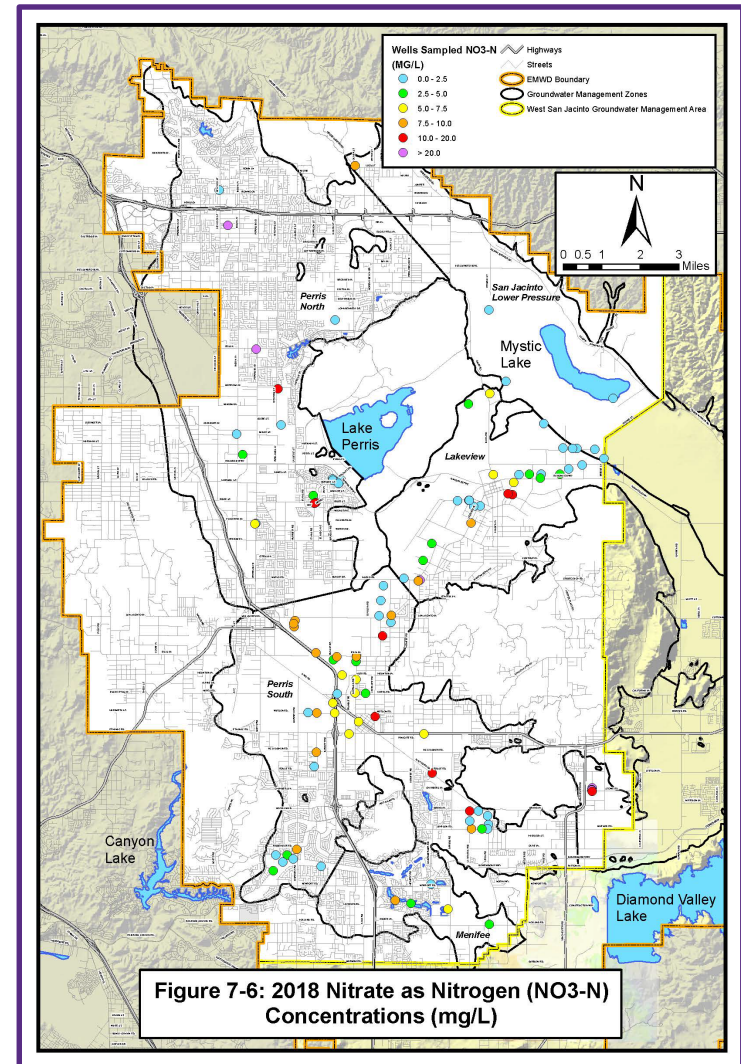
2018 West San Jacinto Groundwater Monitoring Programs

- Groundwater Quality
 - 105 Wells Sampled by EMWD
- Groundwater Levels
 - 149 Measured by EMWD in Spring and 147 in Fall
 - 257 Wells Reported to EMWD
- Groundwater Extractions
 - 39 Wells Metered by EMWD
 - 4 Wells Metered and Reported to EMWD
 - 14 Wells Estimated by EMWD



Groundwater Quality Monitoring Program

- Nitrate as N ($\text{NO}_3\text{-N}$)
 - Drinking Water Secondary Maximum Contaminant Level (MCL) for $\text{NO}_3\text{-N}$ = 10.0 mg/L
 - Highest $\text{NO}_3\text{-N}$ Concentration was **42.6 mg/L** in Perris North Groundwater Management Zone
 - Lowest $\text{NO}_3\text{-N}$ Concentration was **Non-Detect** in Remaining Groundwater Management Zones Except Menifee and Hemet South (Partial)



Groundwater Extraction Monitoring Program

Year	Method of Determining Groundwater Extraction			
	Number of Meters Read by EMWD	Number of Meters Read by Other Agencies & Reported to EMWD	Number of Wells with Extraction Estimated by EMWD	Total Wells
2014	38	4	14	56
2015	37	4	14	55
2016	38	4	14	56
2017	38	4	14	56
2018	39	4	14	57

Management Zone	Groundwater Extraction (AF)						
	Lakeview	Perris North	Perris South	San Jacinto Lower Pressure	Menifee	Hemet South (Partial)	Total
Year							
2014	4,968	5,183	9,108	1,168	3,685	423	24,535
2015	4,940	6,070	9,474	1,304	4,164	335	26,287
2016	5,572	5,466	7,813	1,301	4,024	265	24,441
2017	5,562	3,941	6,890	1,090	4,244	112	21,839
2018	5,398	4,406	6,765	1,088	4,155	1	21,813

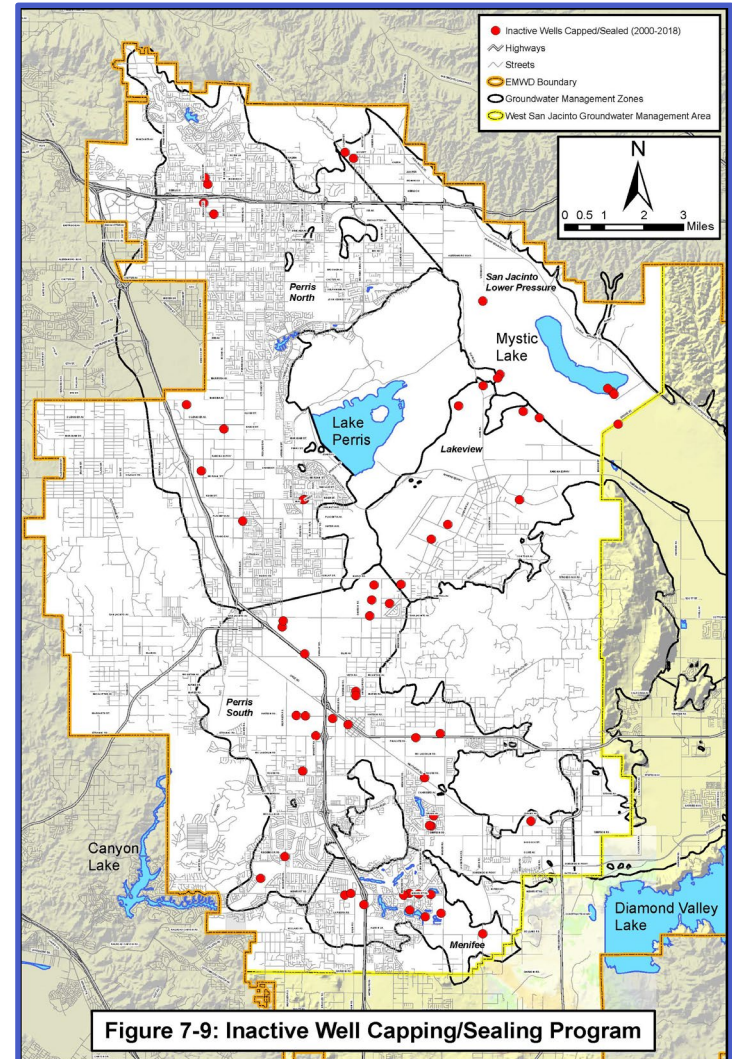
Groundwater Extraction Monitoring Program Meter Repair & Replacement



No meters were repaired/replaced in 2018

Inactive Well Capping & Sealing Program

- 1 Well Capped and Sealed in 2018
- 65 Wells Capped and Sealed Since 2000
- 5 Wells Identified for Capping and Sealing in 2019



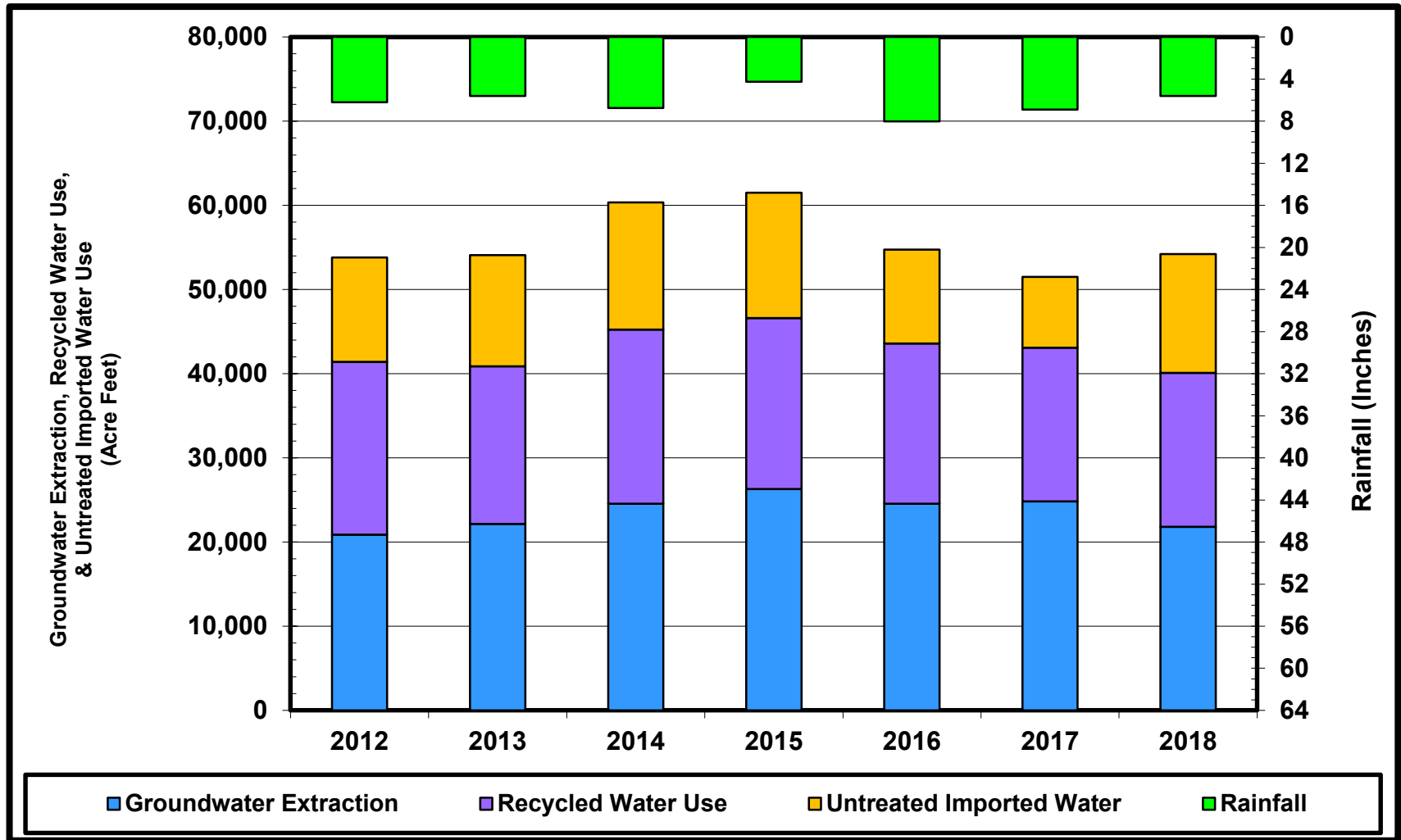
Recycled Water Monitoring

Recycled Water Use Within the Management Area From:

- San Jacinto Valley RWRF
- Moreno Valley RWRF
- Perris Valley RWRF
- Temecula Valley RWRF

Groundwater Management Zone	Recycled Water Use (AF)						
	Lakeview	Perris North	Perris South	San Jacinto Lower Pressure	Menifee	Hemet South (Partial)	Total
Year							
2014	4,688	1,846	7,948	5,652	503	50	20,687
2015	4,318	1,190	5,888	8,130	497	310	20,333
2016	3,880	1,164	5,354	7,584	662	405	19,049
2017	2,858	1,218	4,818	7,866	1,178	305	18,243
2018	3,402	1,311	4,109	8,133	950	289	18,194

Groundwater Extraction, Recycled Water, Untreated Imported Water, & Rainfall Within the Management Area



Annual Well Owners' Reports

- 42 Well Owner Reports were distributed for 2018

Annual Well Owner's Report
Calendar Year: 2018

Marvo Holsteins
Attn: Michael Oosten
P.O. Box 829
Lakeview, CA 92567

Groundwater Extractions

CASINGID	CASINGNAME	SWN	STATRECNO	YEAR	EXTRACTIONS	UNIT	GMZ
10377	Marvo Holsteins East (List)	04S02W03K01	G332888	2018	288.354	Acre Feet	San Jacinto Lower Pressure
10378	Marvo Holsteins	04S02W03L01	G332886	2018	103.52	Acre Feet	Lakeview

Depth to Water Measurements

CASINGID	CASINGNAME	SWN	DATE	LEVEL	UNIT	TYPE	GMZ
10377	Marvo Holsteins East (List)	04S02W03K01	4/17/2018	206.9	Feet	Static Level	San Jacinto Lower Pressure
10377	Marvo Holsteins East (List)	04S02W03K01	11/20/2018	214.9	Feet	Static Level	San Jacinto Lower Pressure

For more information contact:
Eastern Municipal Water District
Attn: Rachel Gray
P.O. Box 8300, Perris, CA 92572-8300
Phone: 951.928.3777 x4514

San Jacinto Watershed Groundwater Recordation Program

- 69 Recordations were distributed for 2018

PLEASE COMPLETE. SUBMIT THE ORIGINAL AND MAKE A COPY FOR YOUR RECORDS Recordation #: G334174L002

**San Jacinto Watershed
Groundwater Recordation**
Eastern Municipal Water District
Attn: Rachel Gray
P.O. BOX 8300, Perris, CA 92572-8300
Phone: (951) 928-3777, extension 4514

ANNUAL NOTICE OF GROUNDWATER EXTRACTION AND DIVERSION FOR CALENDAR YEAR 2018

Owner Name: EMWD Recordation #: G334174L002
 Contact: Steve Shockey Well Name: EMWD 91 Ramona/Esplanade
 Address: P.O. Box 8300 State Well #: 05S01E06D001
 City, State, Zip: Perris, CA 92572-8300 Phone #: 4324
 Assessor's Parcel #: 547-130-065

If the above information is inaccurate, please line it out and provide current information. Notify this office if ownership or address changes occur during the coming year.

**DEADLINE: Notices must be postmarked no later than June 30, 2019 in order to be recorded.
NO FEE IS REQUIRED FOR FILING THIS NOTICE.**

PLEASE READ THE GENERAL INFORMATION ON THE REVERSE SIDE BEFORE COMPLETING THIS NOTICE

1. TYPE OF DIVERSION Groundwater Extraction or Surface Diversion

2. OWNERSHIP. Person listed below is:
 OWNER of land on which well or point of diversion is located, and is extracting/diverting water.
 LESSEE of land on which well or point of diversion is located, and is extracting/diverting water.
 OWNER of land, but LESSEE is extracting/diverting water.
 OTHER: Please explain: _____

3. AMOUNT OF GROUNDWATER EXTRACTED DURING CALENDAR YEAR _____
 (Must be a specific number) Acres-Foot Cubic-Foot Gallons

4. AMOUNT OF SURFACE WATER DIVERTED DURING CALENDAR YEAR _____
 Acres-Foot Cubic-Foot Gallons

5. METHOD OF MEASUREMENT Water Meter Power Meter Non-metered / Estimated
 Annual Quantity _____
 Season of Diversion _____
 Begin _____
 End _____
 Maximum Rate of Diversion _____

6. TYPE OF WATER USE Agricultural Domestic / Municipal Other: _____

7. ACTION REQUESTED
 Close this file. (No fee required) (FILES MAY BE REOPENED AT ANY TIME - NO FEE REQUIRED)
 Record my water use. (No fee required)
 Do not record my water use but keep my name on mailing list. (No fee required)

Transfer this file to: _____
 (NEW OWNER'S FIRST NAME) (MIDDLE INITIAL) (LAST NAME)
 Company Name: _____
 Address: _____
 (MAILING ADDRESS) (CITY) (STATE) (ZIP CODE)
 Telephone: (____) _____ Effective Date: _____

8. SUPPLEMENTAL INFORMATION Please list any changes in your project since last year (new pump, new land irrigation, etc.) or any other comment

9. Most recent well level _____ Date Measured _____ Measuring Point Elev. _____

10. CERTIFICATION AND SIGNATURE I certify that the foregoing Notice is true and correct to the best of my knowledge.

Signature: _____ Date: _____
 Printed Name: _____
 (FIRST NAME) (MIDDLE INITIAL) (LAST NAME)
 Company Name: _____
 Contact Person (if different from above) _____ Phone # _____
 E-mail: _____ Recordation #: G334174L002

Estimated Calendar Year 2019 Budget

GROUNDWATER MANAGEMENT PLAN ACTIVITY	Estimated Annual Cost
Groundwater Extraction Monitoring	\$ 10,660
Groundwater Level Monitoring Program	\$ 12,270
Groundwater Quality Monitoring Program	\$ 66,545
Inactive Well Capping/Sealing Program	\$ 6,135
Meter Installation, Repair, and Maintenance Program	\$ 9,120
Data Management, Documentation, and Reporting	\$ 28,716
Contingencies	\$ 10,792
TOTAL YEAR 2019 ESTIMATED BUDGET	\$ 144,238

Next Steps:

- Approve the 2018 Annual Report Subject to the Inclusion of the Stakeholder Advisory Group's Comments, if Any
- Forward 2018 Annual Report to EMWD Board of Directors for Receipt and Filing



Feedback/Questions & Answers



Contact Information

Rachel Gray
Water Resources Planning Manager
(951) 928-3777 Ext. 4514
Email: grayr@emwd.org



West San Jacinto Groundwater Sustainability Agency (GSA) Development of the West San Jacinto Groundwater Sustainability Plan (GSP)

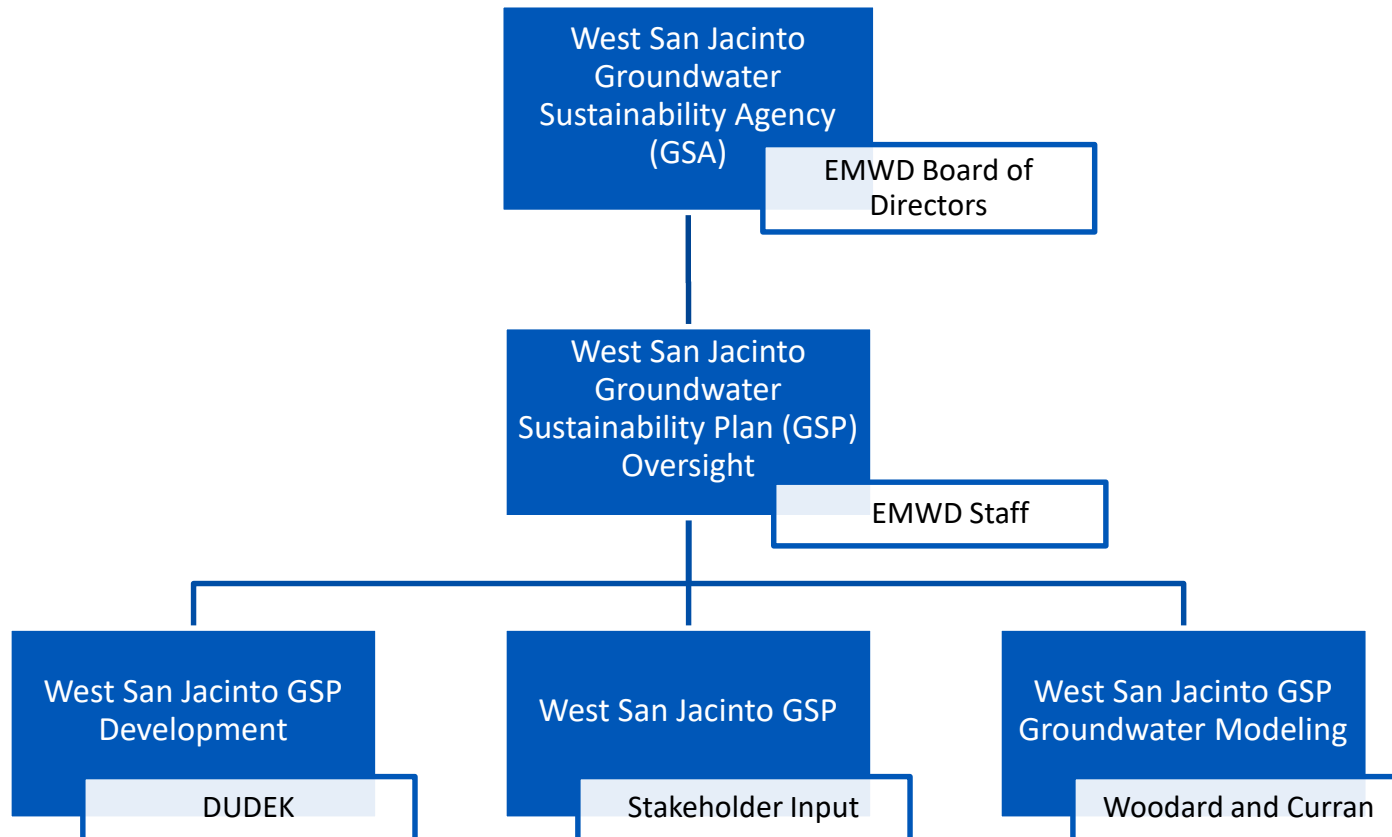
Rachel Gray

June 26, 2019

Agenda

- Introduction
- Project Overview
- SGMA Webpage
- Feedback
- Questions and Answers

Introduction



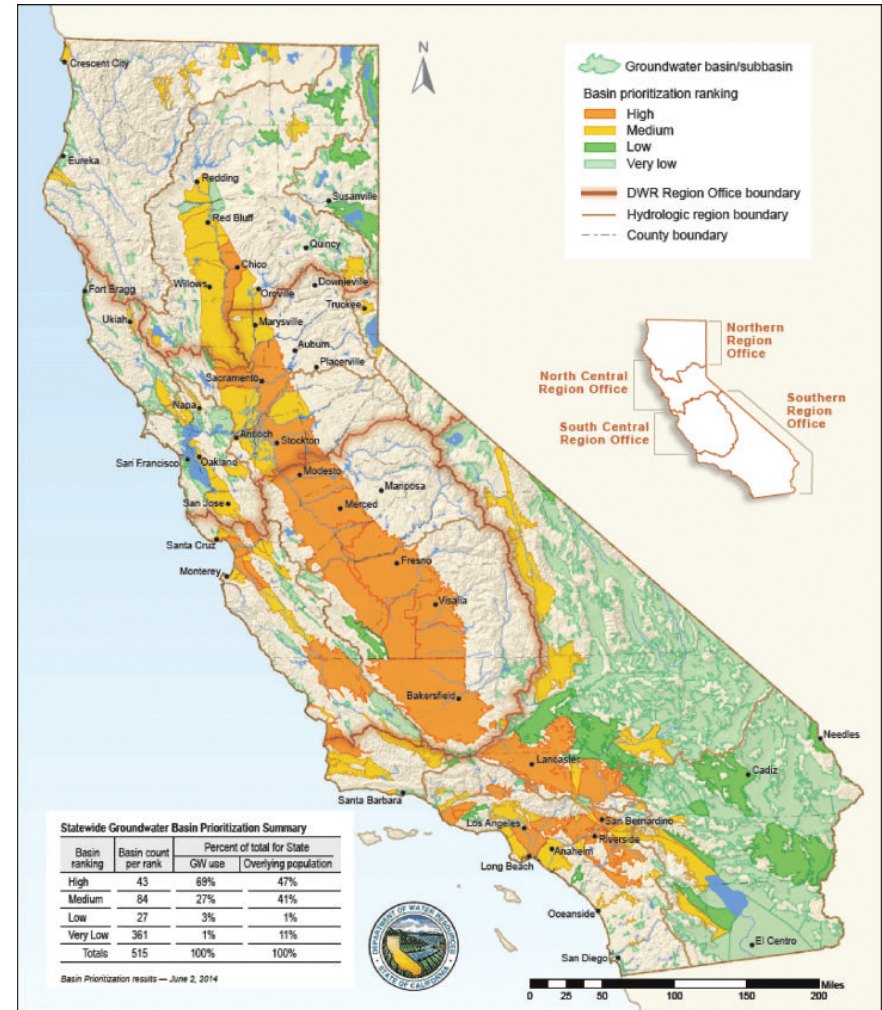


Project Overview

What is the Sustainable Groundwater Management Act?

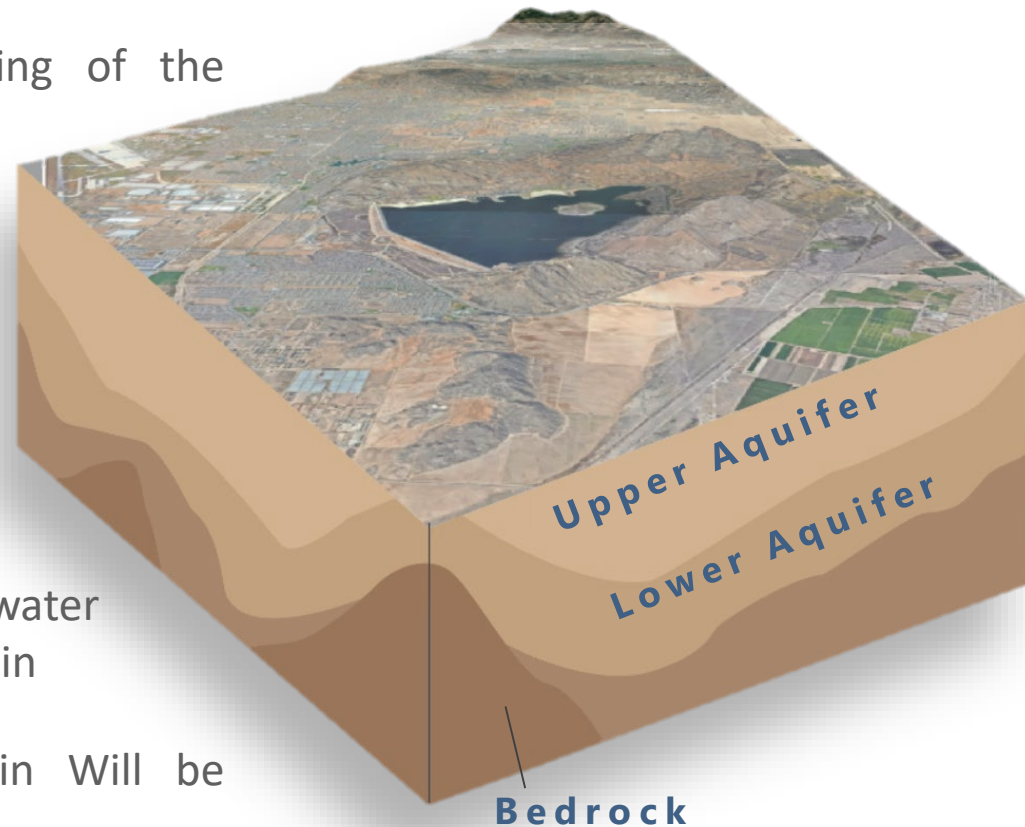
- Signed September 16, 2014
- Effective January 1, 2015
- Requires:
 - Formation of Groundwater Sustainability Agencies (GSAs) for High and Medium Priority Groundwater Basins
 - Preparation of Groundwater Sustainability Plans (GSPs) by 2022
 - Achieve Sustainability Within 20 Years of Plan Adoption
- “A Central Tenet of These Bills is the Recognition That Groundwater Management is Best Accomplished Locally.”

- Governor Edmund G. Brown, Jr.



What is a Groundwater Sustainability Plan?

- Technical and Planning Document that Includes:
 - Hydrogeological Understanding of the Basin
 - Geologic Setting
 - Aquifer Location, Thickness, and Depth to Groundwater
 - Sources of Water
 - Uses of Water
 - Predictions of Future Groundwater Use and Conditions in the Basin
 - Criteria by Which the Basin Will be Managed Sustainably by 2042
 - Based on Six (6) Sustainability Indicators



Determining Sustainability

SUSTAINABILITY INDICATORS



Groundwater Elevation



Groundwater in Storage



Groundwater Quality



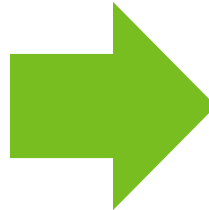
Land Subsidence



Interconnected Surface
Water and Groundwater



Seawater Intrusion



SUSTAINABLE MANAGEMENT CRITERIA

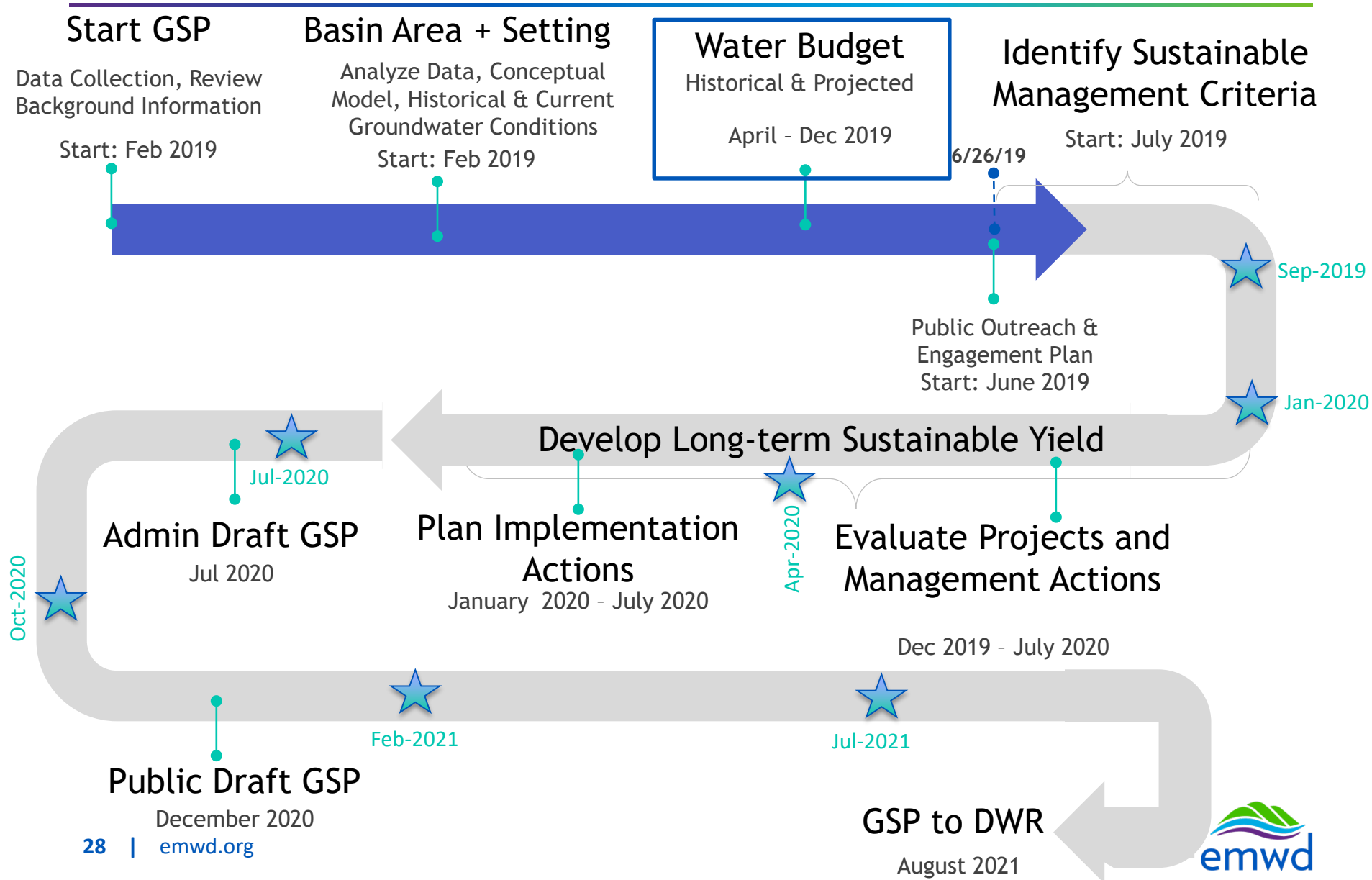
Sustainability Goal

Undesirable Results

Minimum Thresholds

Measurable Objectives

GSP Development Process Update



Next Steps

- EMWD and Consultant Team Will Continue to Work Together to:
 - Develop Figures to Support Technical Background Sections
 - Historical and Current Conditions
 - Historical Water Budget
 - Develop Model Assumptions for Future Groundwater Model Scenarios
 - Begin Defining Sustainable Management Criteria
- Next Stakeholder Advisory Group Meeting Scheduled for September 2019 to Discuss the Current and Historical Conditions and the Water Budget

SGMA Webpage

<https://www.emwd.org/post/sustainable-groundwater-management-act>



Language Contact Us Pay My Bill

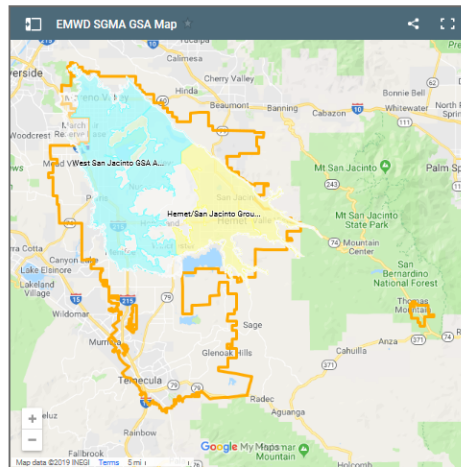
Customers Stay WaterWise Education GWR Plus Doing Business Who We Are

Sustainable Groundwater Management Act

The objective of SGMA is sustainable groundwater management in a manner that prevents significant and unreasonable impacts to groundwater basins in California. Under SGMA, each high and medium priority basin, as identified by the California Department of Water Resources (DWR), is required to have a Groundwater Sustainability Agency (GSA) that will be responsible for groundwater management and development of a Groundwater Sustainability Plan (GSP). EMWD Board of Directors is the GSA for the West San Jacinto Groundwater Basin and is responsible for development and implementation of a GSP.

Background Legislation Public Notices Meeting Schedule Program Documents Stay Informed

Background



[Click here to view a Google Earth map of the GSA area](#)

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THIS ITEM APPEARS IN

Water Supply

CONTACT

EMWD
Attn: Rachel Gray
Water Resources Planning
Manager
P.O. Box 8300
Perris, CA 92572-8300
[View map](#)
[Send message](#)





Feedback / Questions & Answers



Contact Information

Rachel Gray
Water Resources Planning Manager
(951) 928-3777 Ext. 4514
Email: grayr@emwd.org



Perris II ROTF Stakeholder Advisory Group Meeting

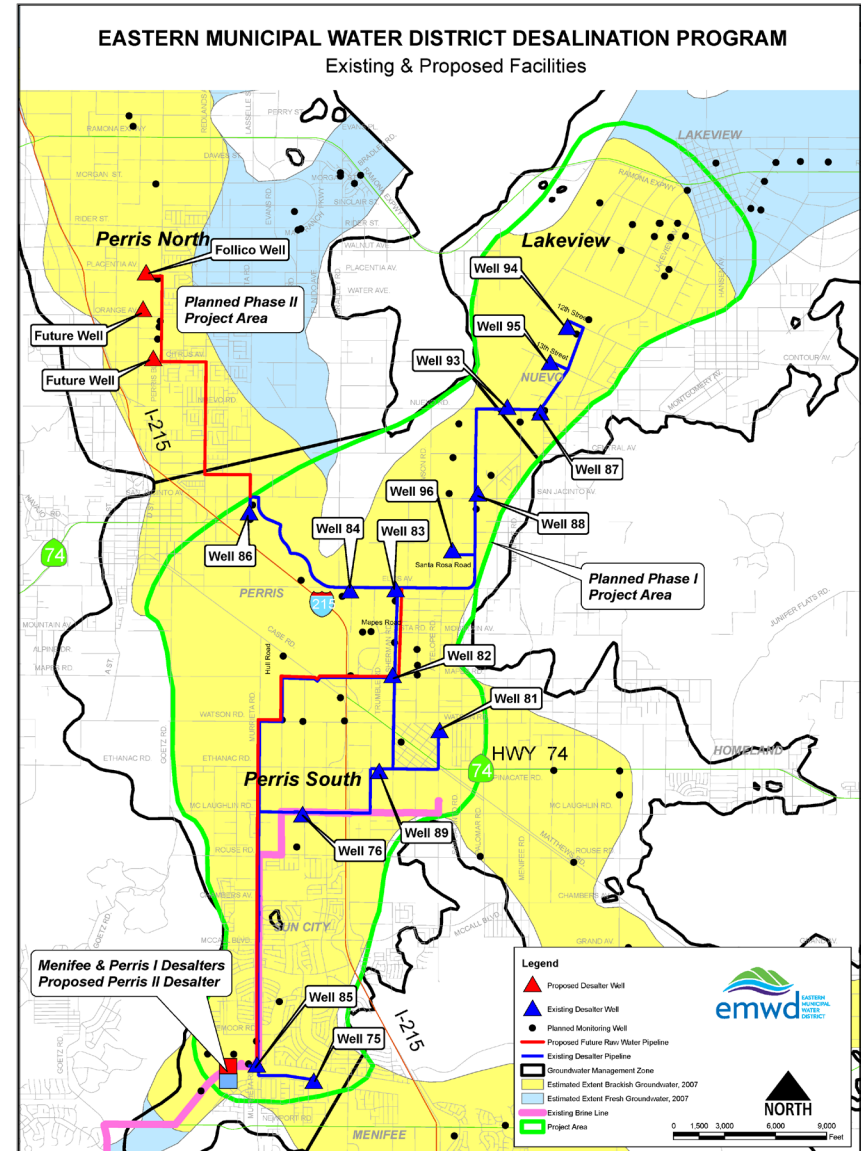
Alfred Javier

Jorge Anaya, P.E.

June 26, 2019

Agenda

- Introduction
- Project Overview
- Project Status
- Public Outreach
- Feedback
- Q & A



Project Overview

- Intended to Manage Migration and Treat Degraded Groundwater from the Perris South Groundwater Management Zone (GMZ) in the West San Jacinto Basin
- Funding in Part by Proposition 1 Through the Grant Agreement No. D1712512 With the State Water Resources Control Board

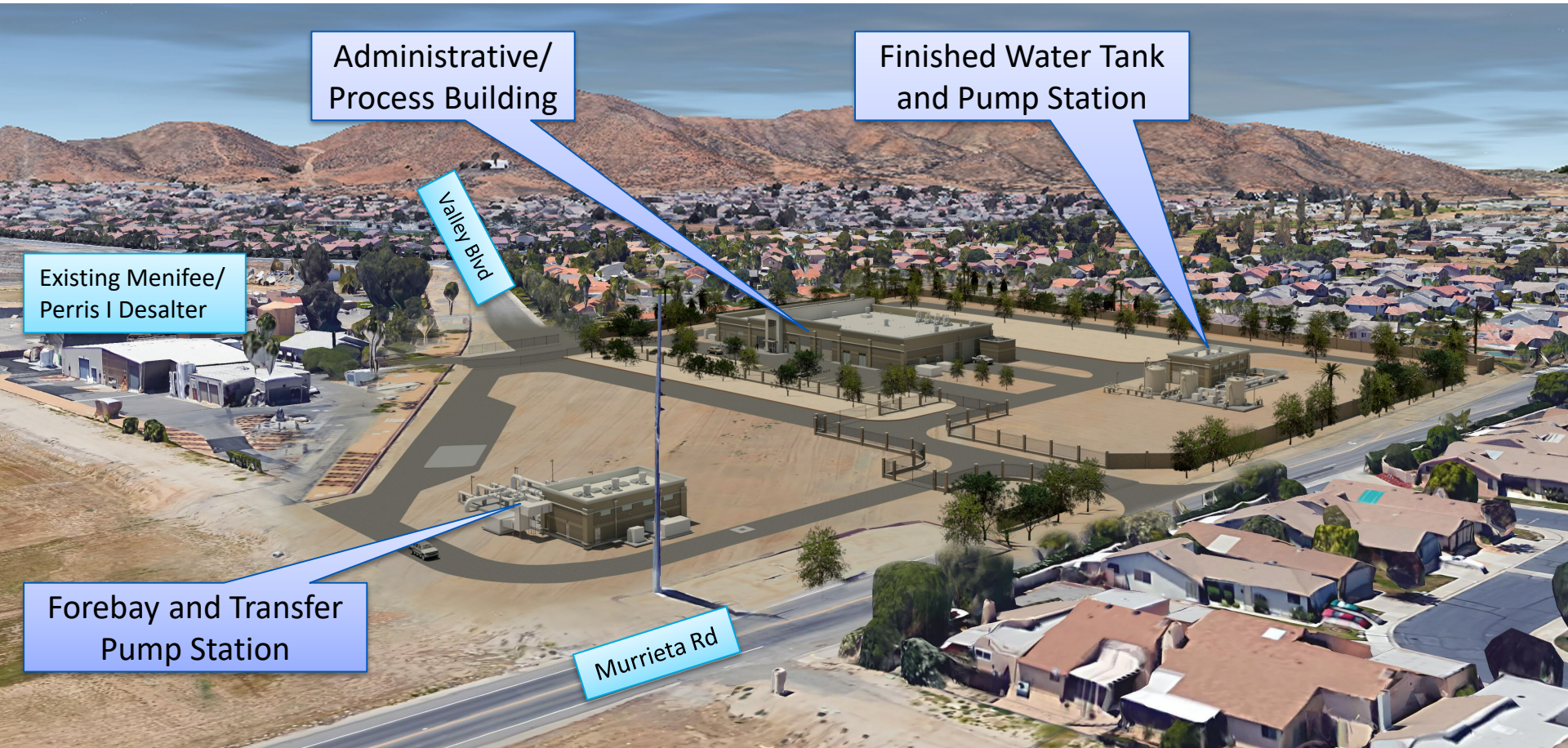


- For the Purpose of Constructing a 5.4 mgd Reverse Osmosis (RO) Treatment Facility to Protect Potable Groundwater Resources Threatened by Migration of Brackish Groundwater Contaminated by Perchlorate and Nitrate

Project Overview (Continued)

- The Perris II Reverse Osmosis Treatment Facility (ROTF)
 - Masonry Block Building that Houses the Reverse Osmosis (RO) System; Chemical Storage and Feed System; Electrical Equipment; Heating, Ventilation, and Air Conditioning (HVAC); Local Control Room; Restroom; and Maintenance Shop and Storage Area
- Monitoring and Reporting Plan (MRP)
 - Component of Grant Agreement
 - Provides Documentation of the Implementation of the Perris II ROTF Using Groundwater Quality During the Projected 20-Year Project Life
 - Provides a Description of the Wells and Facilities Associated with the Perris II ROTF; the Associated Goals, Objectives, and Desired Outcomes; and the Plan for Monitoring, Assessing, and Reporting Progress Toward Those Goals, Objectives, and Desired Outcomes After Construction and Startup of the Perris II ROTF

Perris II ROTF - Site Rendering



View of Facility from Murrieta Road - Looking Northwest

Project Status

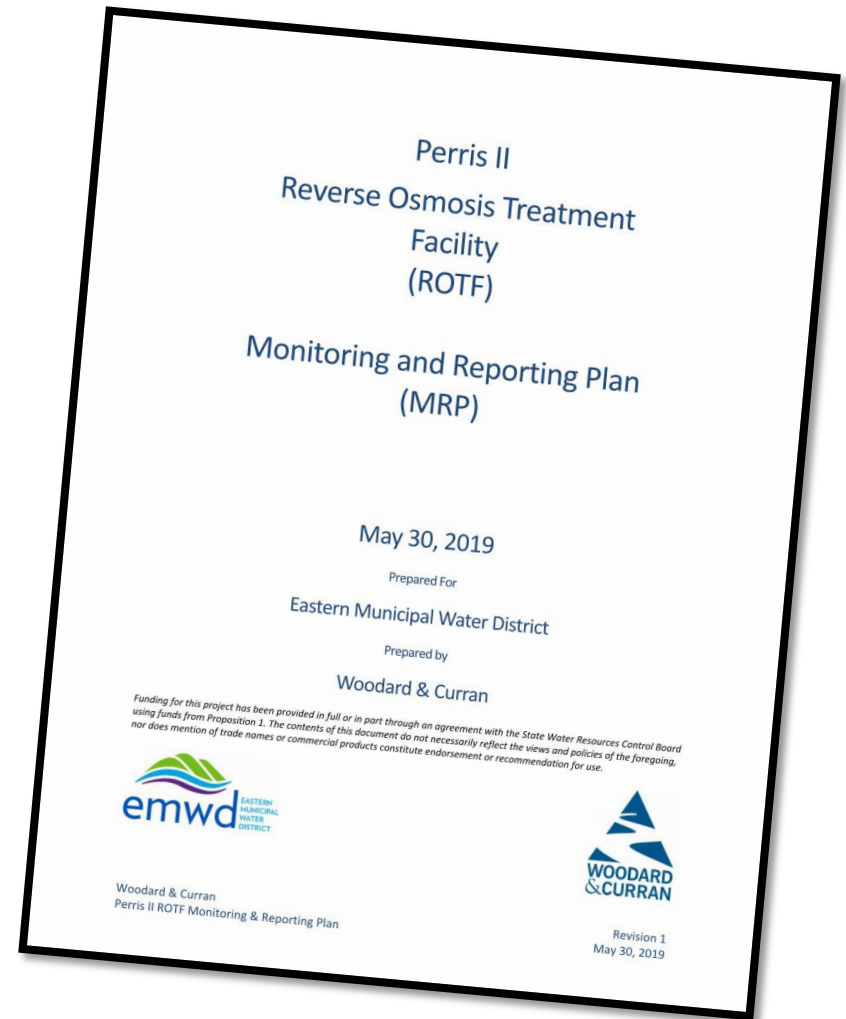
Submittals & Deliverables Exhibit A-3

Item	Description of Submittal	Critical Due Date	Estimated Due Date	Status
1	Project Management			
1.2	Notification of Upcoming Meetings, Workshops, Fieldwork, and Construction Activities		15 working days prior to Meetings	Ongoing
1.3	Detailed Project Schedule	60 days after Execution		Completed
1.4	Periodic and Final Site Visits		As Needed	Ongoing
1.5	Pre-, During, and Post-Construction Photos		Ongoing	Ongoing
2	General Compliance Requirements/Project Effectiveness and Performance			
2.1	GPS Information	October 30, 2020		Completed
2.2	Monitoring and Reporting Plan (MRP)		January 2019	Completed
2.2.1	Monitoring Plan (MP)		January 2019	
2.2.2	Project Assessment and Evaluation Plan (PAEP)		January 2019	
2.4	Quality Assurance Project Plan (QAPP)		January 2019	
2.5.2	Annotated List of Reviewed Data and Reports		January 2019	Completed
3	Permitting			
3.1	List of Approvals, Entitlements, and Permits		October 2020	
4	Technical Advisory Committee (TAC)			
4.1	List of TAC Members, Roles and Responsibilities, and Affiliations	September 30, 2018		Completed
4.2	Summary of the Kickoff Meeting		March 2018	Completed
4.3	Agendas, Meeting Minutes, and Sign-in Sheets		Ongoing	Ongoing
5	Stakeholder Advisory Group (SAG)			
5.1	List of SAG Members		January 2019	Completed
5.2.1	SAG Meeting Schedule		January 2019	Completed
5.2.2	SAG Meeting Materials, Summary of Feedback and Comments, and Sign-in Sheet;		Ongoing	Ongoing
6	Memorandum of Understanding (MOU)			
6.1	Executed MOU	September 30, 2018		Completed
7	Design and Engineering			
7.1	100% Design Plans and Specification	October 31, 2018		Completed
7.2	Advertised Bid Documents and Bid Summary		December 2018	Completed
8	Construction and Implementation			
8.1	As-built Drawings for Extraction Wells and Transmission Pipeline		November 2020	
8.3	Proposed Changes that Arise During Construction		Ongoing	
8.4	As-built Drawings and Summary of Changes		February 2021	
8.5	Operations and Maintenance Plan	January 31, 2021		
9	Public Outreach			
9.1	Outreach Materials and Web Links		September 2018	Ongoing
9.2	Meeting Materials and Sign-in Sheet(s)		September 2018	Ongoing



Project Status – MRP & QAPP

- Monitoring and Reporting Plan (MRP) & QAPP:
 - Living Document
 - Accepted by SWRCB on June 17, 2019
 - Division of Financial Assistance (DFA)
 - Santa Ana Regional Water Quality Control Board
 - Division of Drinking Water (DDW)



Project Status - Construction

- Perris II ROTF Construction:
 - West perimeter wall construction completed one week ahead of schedule
 - Forebay excavation completed, placement of compacted fill and reinforcement begun
 - Below grade yard piping installation is underway
 - Potholing completed



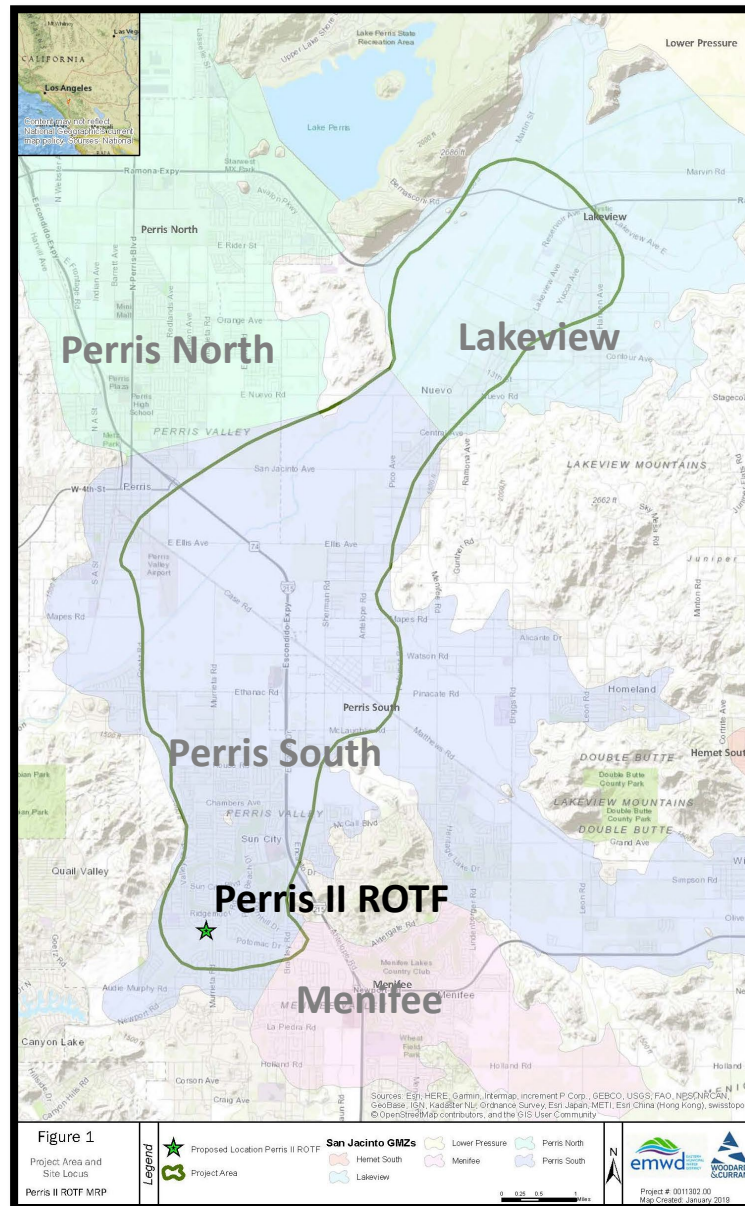
Public Outreach

OUTREACH EVENT NAME	DATE	THOSE INVITED
Wake-Up Menifee	February 6, 2019	Menifee Valley Chamber of Commerce, local public
Perris II Desalter Community Meeting	February 13, 2019	Local residents near the Desalter site; Board President Sullivan, EMWD staff, contractors, City of Menifee staff and electeds
Perris II Groundbreaking Ceremony	March 28, 2019	EMWD Board members, key EMWD staff, contractors, USBR, Regional Board, City of Menifee, Riverside County
Perris II Desalter Community Meeting Update	Future As-Needed	Local residents near the Desalter site; Board President Sullivan, EMWD staff, contractors, City of Menifee staff and electeds



Stakeholder Advisory Group

- Feedback
- Q & A





Contact Information

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951.928.3777, Ext 4447