GWA Board Meeting
August 8, 2018

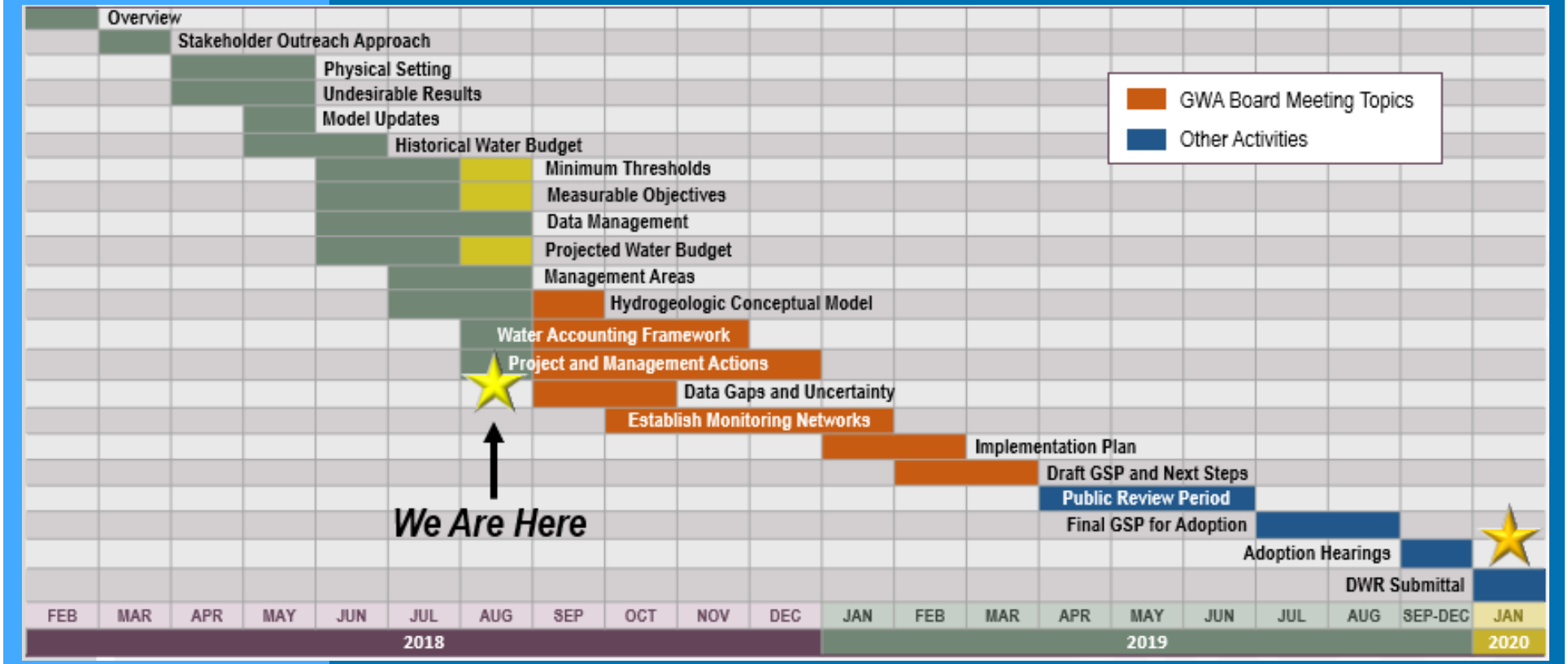
Agenda

EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

- Approval of July Board Meeting Minutes
- Roadmap Update and Project Schedule
- Outreach & Groundwater Sustainability Workgroup Update
- GSP Action Update
- Hydrogeologic Conceptual Model
- DWR Update
- September Agenda Items

GSP Topics & Project Schedule

EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY



Outreach & Groundwater Sustainability Workgroup Update

Get Connected

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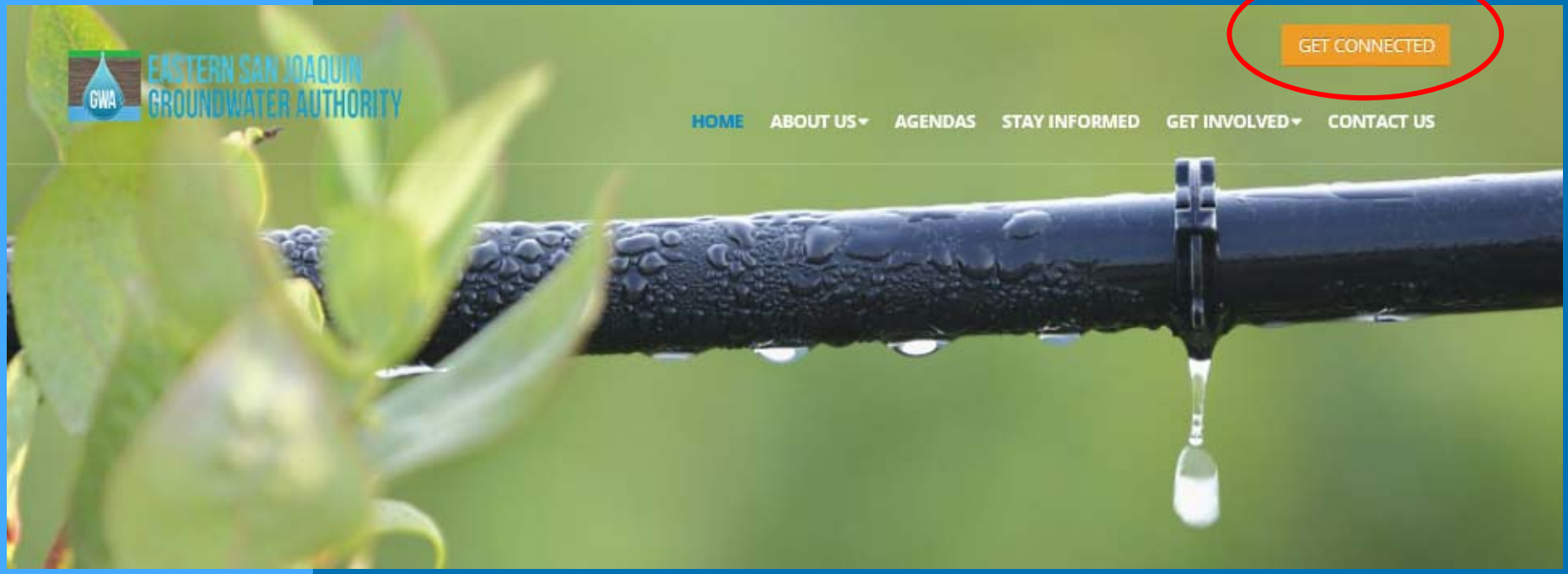

Workgroup Materials

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Meetings

The Eastern San Joaquin County Groundwater Authority will conduct Groundwater Sustainability Workgroup meetings and public meetings to provide opportunities to learn more and for involvement. The meetings are open to the public with details about each meeting posted below.

Groundwater Sustainability Workgroup Meetings

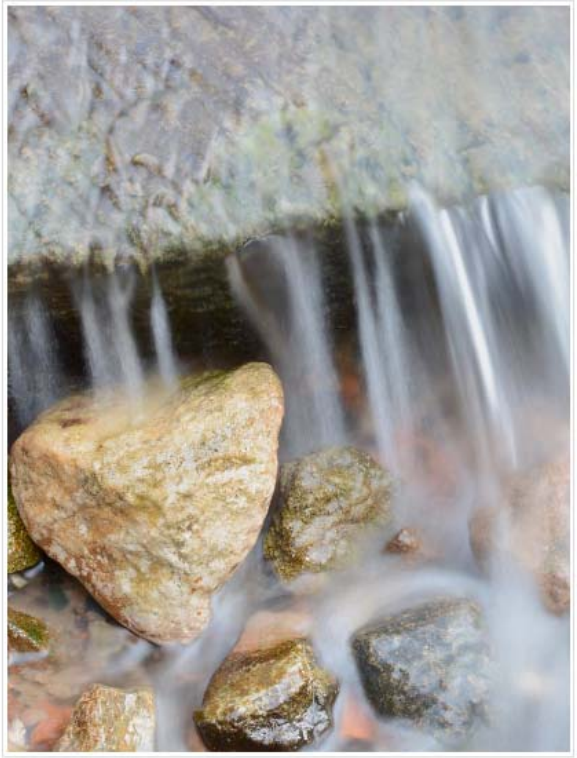
Groundwater Sustainability Workgroup meetings occur on an approximately monthly basis. The Groundwater Sustainability Workgroup represents a diverse mix of members who represent the broad interests of groundwater users in the subbasin as well as the diverse social, cultural and economic elements of the population. During the meetings, stakeholders learn about the GSP's development, share questions and provide comments to the project's consulting team. Groundwater Sustainability Workgroup members are also encouraged to communicate information back to their organizations and report back any input to the consulting team.

2018

Meeting Notifications	Meeting Agendas	Meeting Materials
	July 10	July 10
June 12	June 12	June 12

Public Meetings

Public meetings will occur quarterly in various locations throughout the Subbasin. The meetings will provide an opportunity for interested members of the public to learn about the GSP, ask questions and share comments.



Upcoming Open House

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Outreach for August will focus on building awareness & promoting attendance for the August 29 Public Meeting (Open House format)

Open House – August 29th

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- The first Public Open House will be held on August 29 at 6:30pm
- The event will follow an open house format with one outreach station for each GSA
- SGMA background provided through four stations (Background, Process, Get Involved, Technology)
- All GSAs are strongly encouraged to participate and to promote the event
- Outreach flyer provided

August 29th
6:30 p.m. – 8 p.m.
Robert J. Cabral Agricultural Center, Calaveras Room

Public Meeting Outreach Efforts

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August 29
6:30 p.m. – 8 p.m.

Robert J. Cabral Agricultural Center, Calaveras Room

Mailer: We will distribute to 400+ NGOs, local businesses & water suppliers

Bilingual Flyer: A bilingual flyer be emailed to 200+ NGOs, local businesses, and water suppliers. It has also been provided to members of the ESJ Board, Advisory Committee, & Groundwater Sustainability Workgroup

Press Release: A press release will be distributed to local media outlets & organizations with newsletters

Outreach Tool Kit for GSAs

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Open House Flyer: Available in English and Spanish

Open House Press Release: For organizations to include in their newsletters/blogs

Social Media: Facebook posts and Tweets created for use by GSA member agencies

Examples of Social Media Content that Will be Provided

EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

Did you know the Eastern San Joaquin Groundwater Authority is creating a sustainable groundwater management plan? Our first open house will be held on August 29 from 6:30–8 p.m. at the Robert J. Cabral Agricultural Center! You will have the opportunity to ask questions and provide your own input about the Groundwater Sustainability Plan. For more information visit: www.esjgroundwater.org.

Tracking GSA Outreach Efforts

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- Each month, GSA representatives will be asked to fill out a simple survey template to indicate the outreach activities planned for the coming month
- Survey to be included in Board packet the following month

Example Survey:

GSA Name	Website Updated	Outreach Slides Posted	Public Meeting Attended	Posted to Social Media	Distributed Press Release
GSA #1	X		X	X	
GSA #2	X	X	X		
GSA #3		X	X	X	X
GSA #4	X		X	X	X
...					

Groundwater Sustainability Workgroup Update

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- 14 Workgroup members and 3 members of the public attended the last meeting on July 10th
- Members are currently reviewing draft July meeting notes and providing comment
- The next Workgroup meeting will be held on August 15th from 4 – 5:30 p.m. at the Robert Cabral Ag Center, Mokelumne Room

Groundwater Sustainability Workgroup: Twelve Key Values

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Be implemented in an equitable manner	Be affordable and accessible	Exhibit multiple benefits to local land owners and other participating agencies	Minimize and mitigate adverse impacts to the environment including climate change
Maintain or enhance the local economy	Minimize adverse impacts to entities within the Subbasin	Maintain overlying landowner and Local Agency control of the Subbasin	Protect the rights of overlying land owners
Protect groundwater and surface water quality	Provide more reliable water supplies	Restore and maintain groundwater resources	Increase amount of water put to beneficial use within the Subbasin

Groundwater Sustainability Workgroup Update

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EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

Eastern San Joaquin Groundwater Authority Groundwater Sustainability Workgroup
August 15, 2018
4 – 5:30 p.m.
Robert J. Cabral Agricultural Center
2101 E. Earhart Ave., Stockton, CA
Calaveras Room

Agenda

I. Welcome

II. Comments and Meeting Notes

III. Update on Background Conditions

IV. Undesirable Results and Minimum Thresholds

V. Brainstorming for Open House Station

VI. Announcements
   a. First public meeting August 29, 2018 6:30 pm, Robert J. Agricultural Center, Assembly Room 1

VIII. Other Topics
   a. Non-agenda items
   b. Public Comment


GSP Update

Reminder – How do the Pieces Fit Together?

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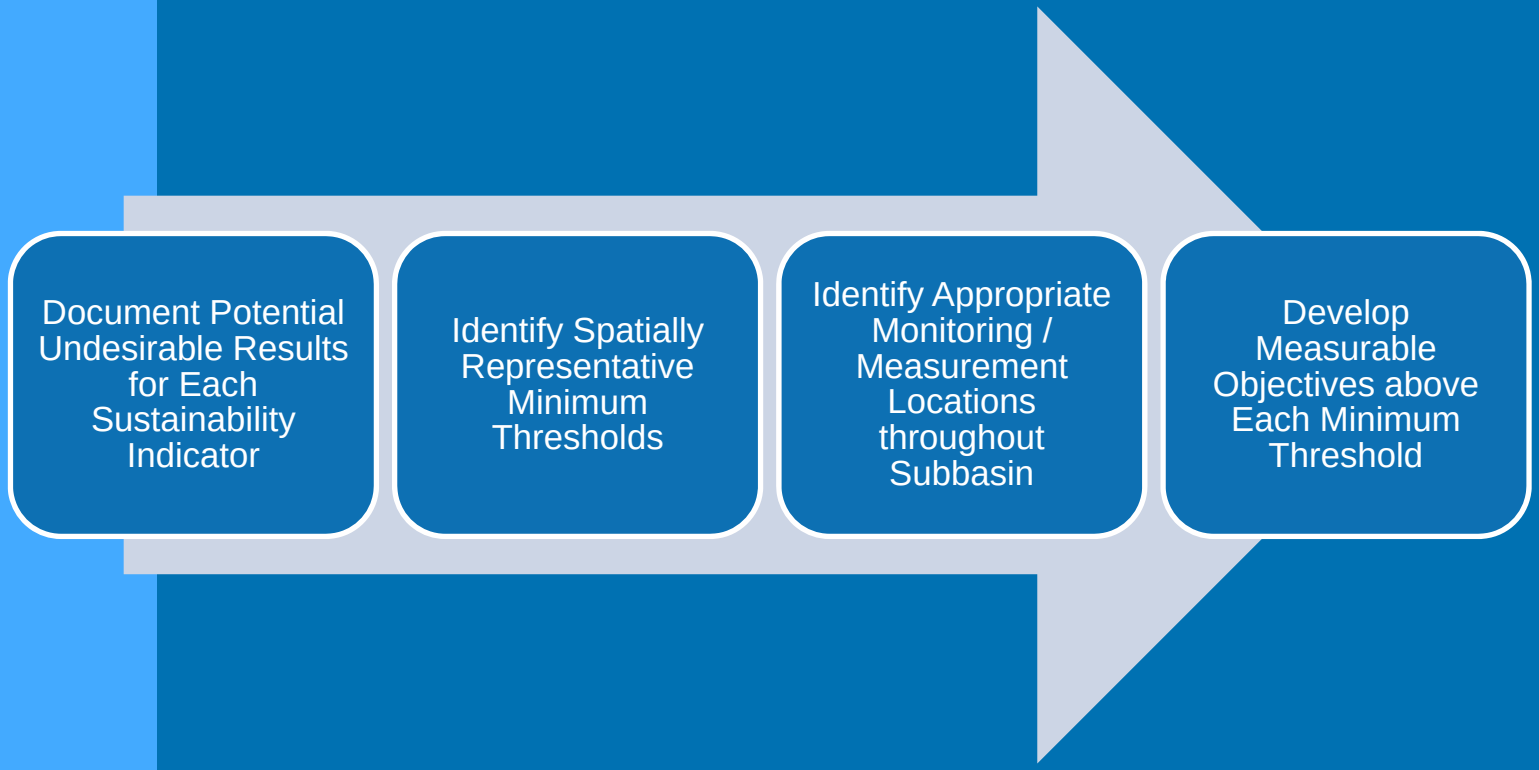

Reminder: Six Sustainability Indicators to be Addressed

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Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply

Significant and unreasonable degraded water quality

Significant and unreasonable reduction of groundwater storage

Significant and unreasonable land subsidence

Significant and unreasonable seawater intrusion

Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water

Where are we now?

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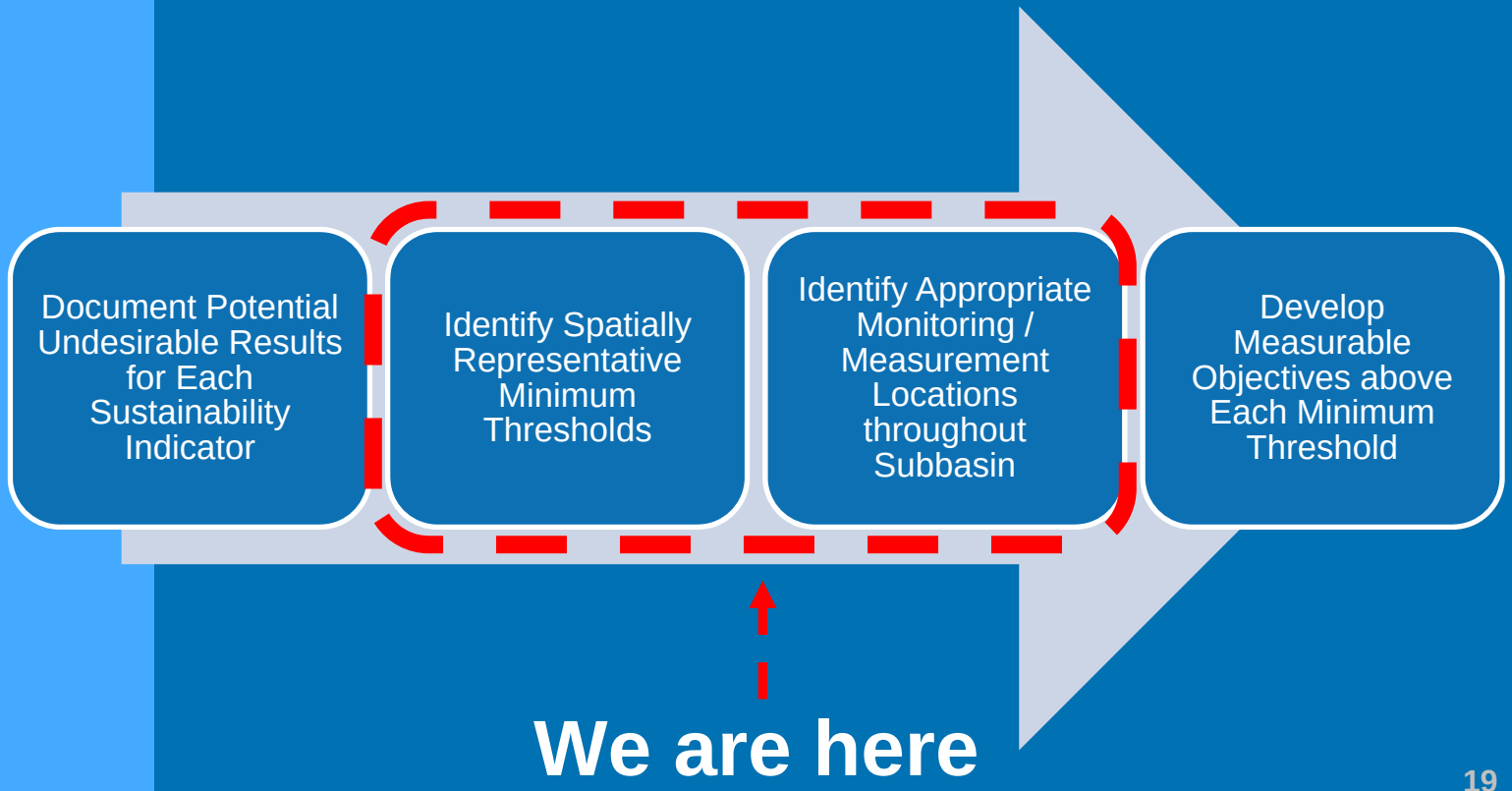

Major Plan Focus Areas

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- Working through Advisory Committee and Groundwater Sustainability Workgroup to:
  1. Develop concept of what sustainability means for the Subbasin and identify high priority values around groundwater
  2. Identify undesirable results occurring now or in the past
  3. Develop minimum thresholds for each sustainability indicator

Threshold Development

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- Mapped lowest elevation of 1992 or 2015
- Met with GSAs to confirm understanding
- Developed alternative methodology with high/stable groundwater elevations (variance of last 5 years of data applied to lowest level recorded as a buffer)
- Identified monitoring locations for groundwater thresholds

Potential Monitoring Well Selection

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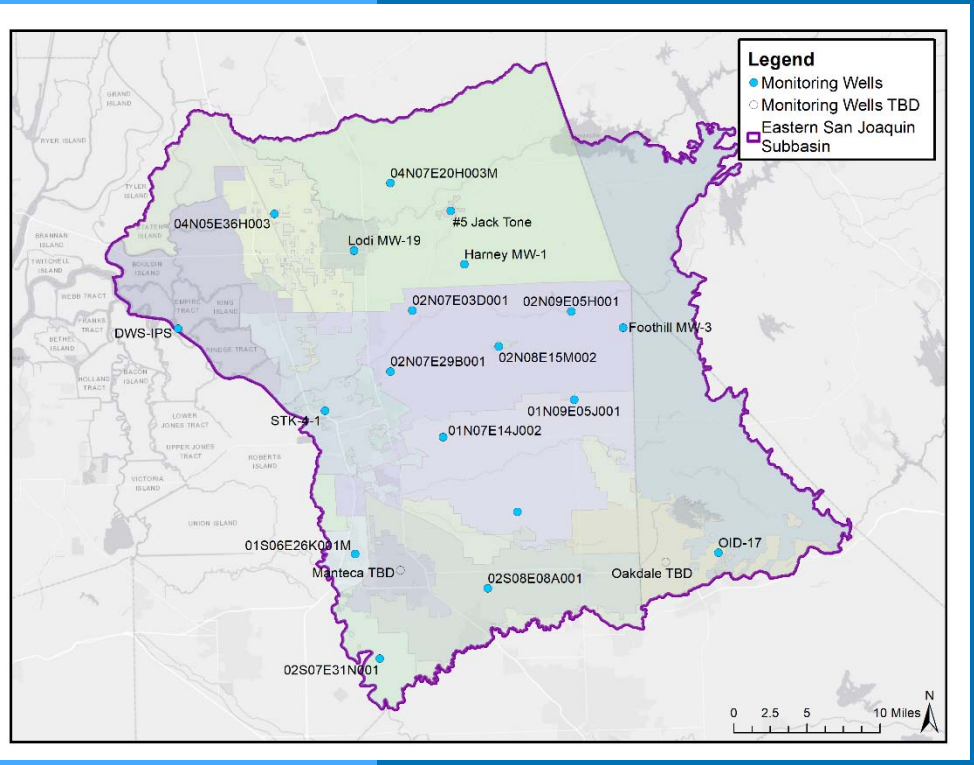

Well Characteristics

- Spatial representation (>1 well per GSA)
- Wells selected are CASGEM where available
- Wells have representative behavior of area
- Good historical record
- Well construction information

Proposed Groundwater Elevation Thresholds

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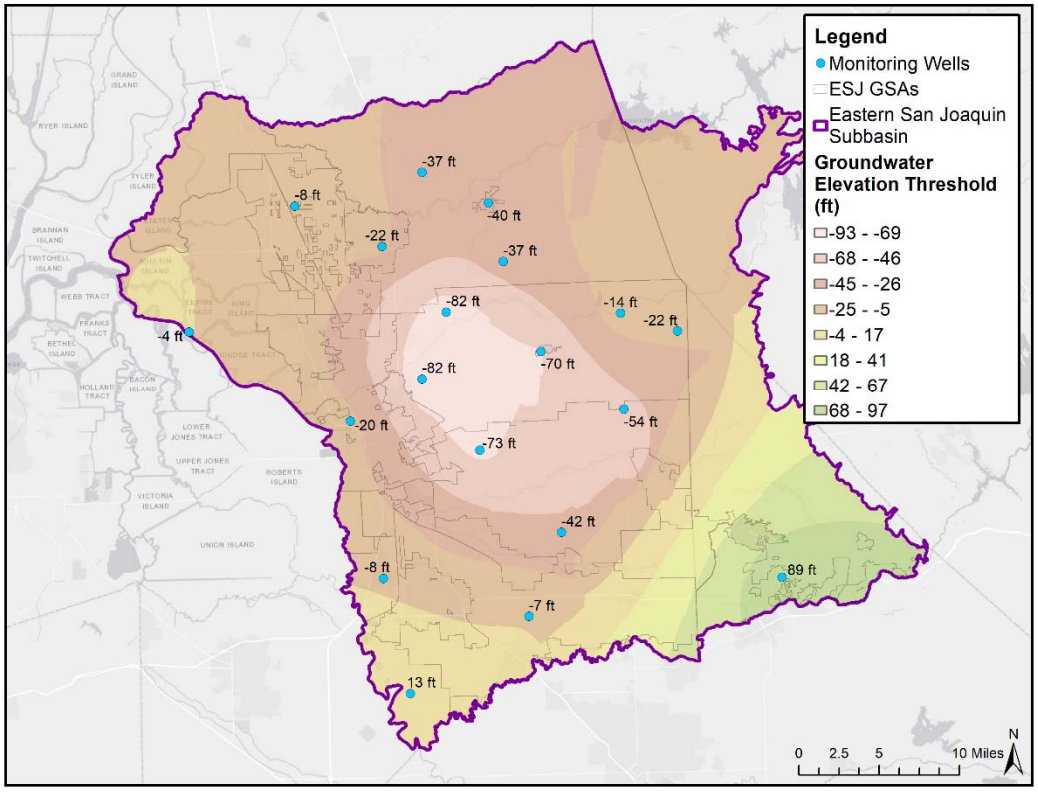

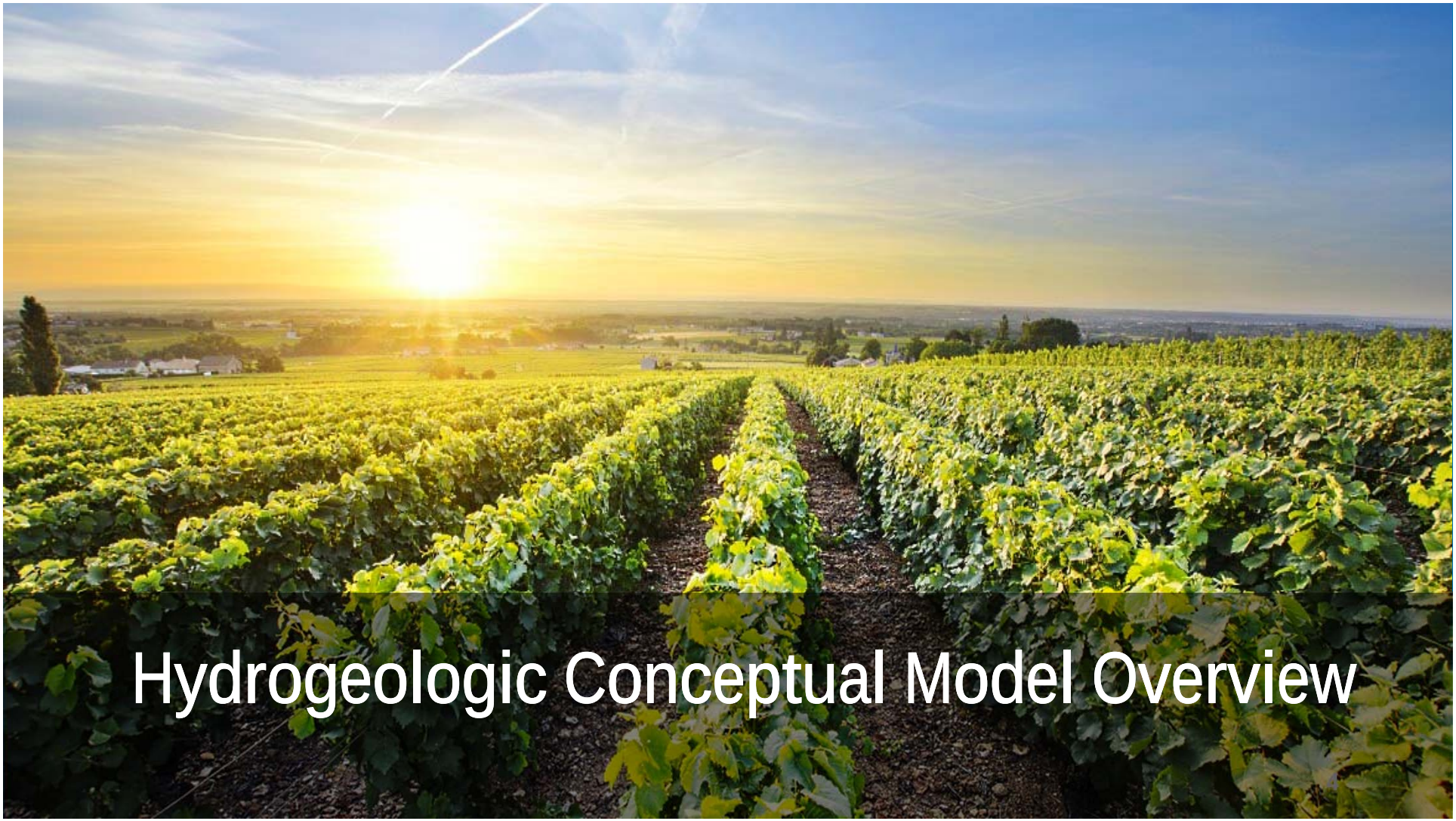

Hydrogeologic Conceptual Model Overview

HCM Cross – Section Line Selection

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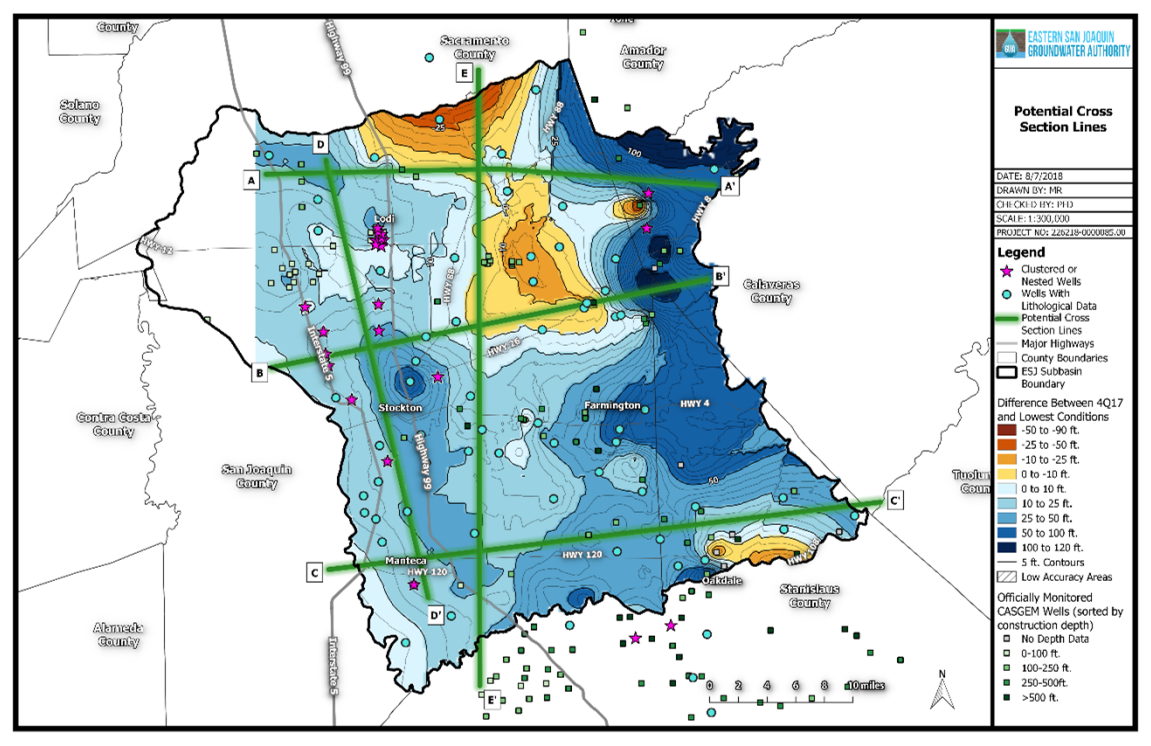
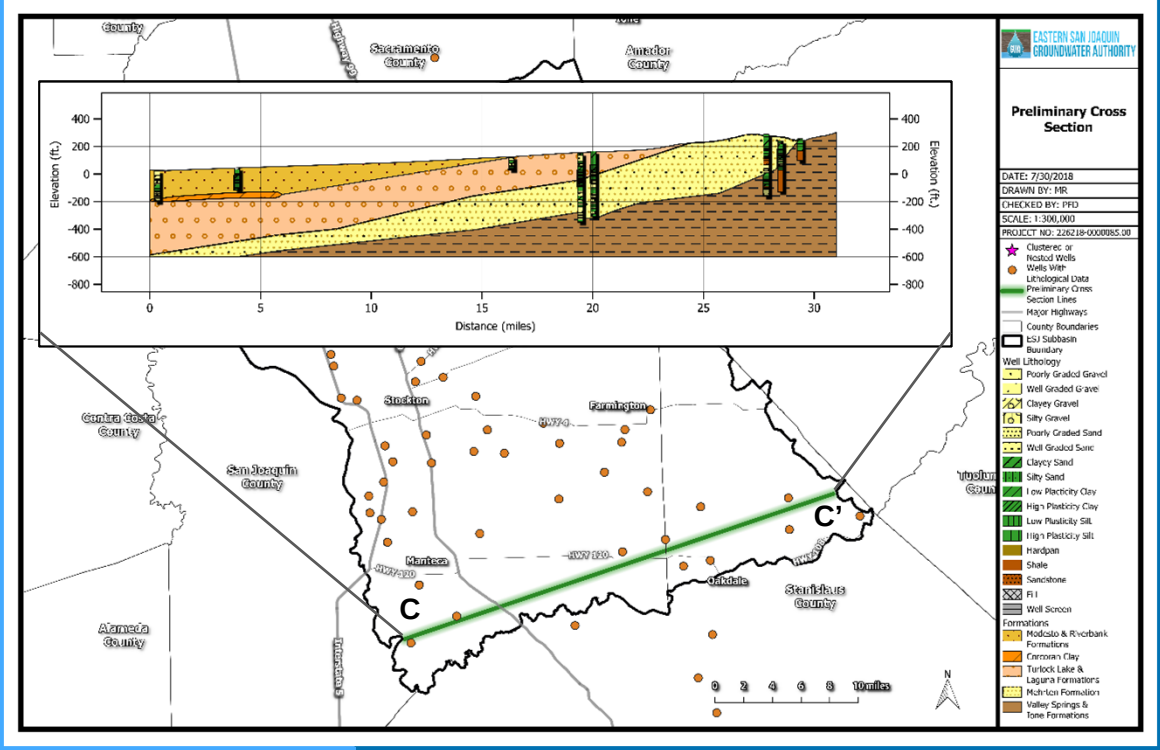


Cross section lines were chosen based having the following characteristics:

- Spans the entire subbasin
- Proximity to an adequate number of wells with borehole geologic and construction information
- Covers areas where current groundwater levels are lower than 1992 and 2015 levels (minimum thresholds)

HCM Cross Section C-C’

Preliminary Cross Section



Cross sections show principal aquifers, aquitards, and stratigraphy

Basin configuration

- West tilting stratigraphy

Oldest to Youngest:

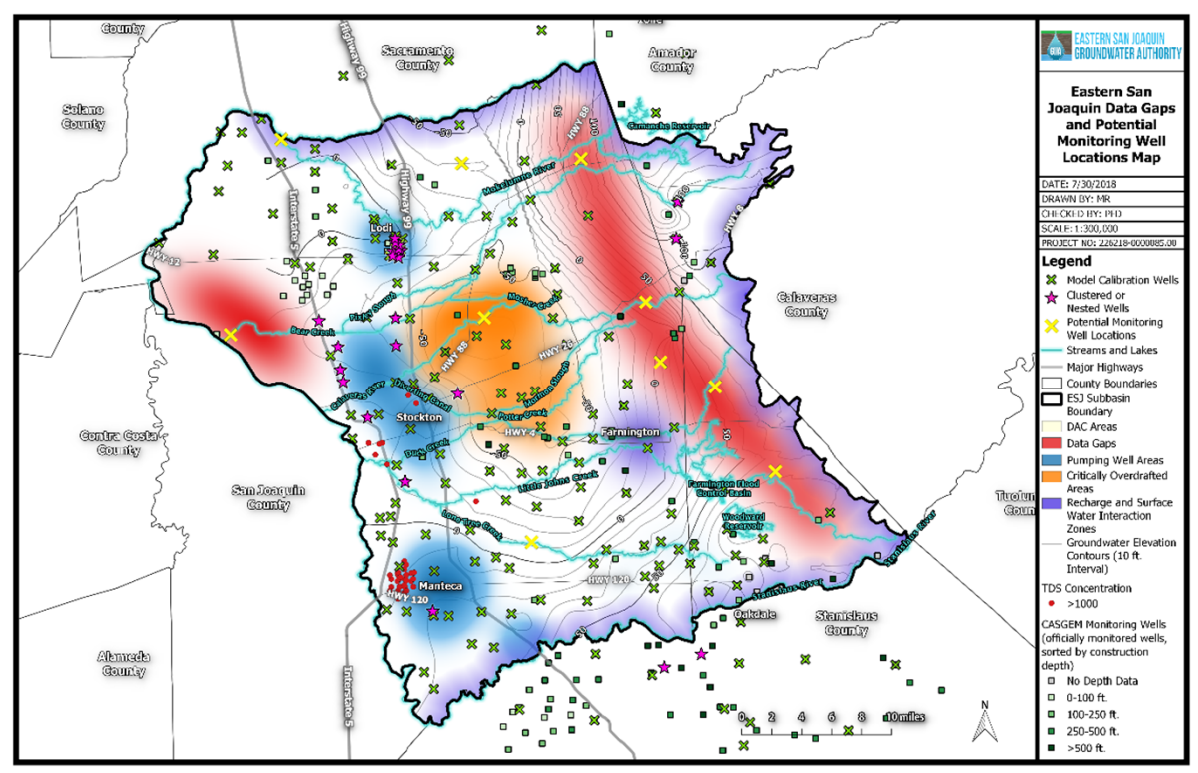
- Ione/Valley Springs, Mehrten, Laguna Turlock/Lake, Corcoran Clay, Modesto/Riverbank Formations
- Borehole specific geology and well screen intervals depicted at each well

HCM and Monitoring Data Gaps

Clustered or nested wells are critical for obtaining water level and water quality data with depth.

Proposed monitoring well locations are based on:

- Existing monitoring well sites
- Areas with recharge and surface water interaction
- Areas of critical overdraft
- Areas of water quality concerns
- Minimum thresholds



DWR Update

Technical Support Services Funding Update

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- Draft application was submitted and approved!
- Working on monitoring well work order (next step)

DWR Update

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- Update from Paul Wells


September Board Topics

September Board Topics

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- Projects and Management Actions

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Extra Slides

Geologic Formations

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Formation	Distinguishing Characteristics
Modesto	Weakly developed B-horizon that is compact with minor clay and abundant sand-sized grains of quartz and feldspar; coarse-grained material not significantly weathered; granitic material usually fresh. Lithology similar to that of Laguna, Turlock Lake, and Riverbank Formations, although more fine-grained.
Riverbank	B-horizon soils fairly compact with considerable clay, coarse-grained material weathered and stained, but granite pebbles and cobbles commonly intact. Reddish, clay-rich duripan caps this unit.
Turlock Lake	Succession of gravel and coarse sand that overlies well sorted, fine-grained sand, silt, and clay of possible lacustrine origin. Sands distinguishable from the Mehrten sands by dominant quartz and feldspar lithology (>70%). Reddish, clay-rich paleosol at the top of the upper unit; blue lacustrine Corcoran Clay at base of upper unit covers much of the study area; Corcoran Clay is overlain by Friant pumice in places. This formation coevolved with the Tulare Formation to the west.
Laguna	Discontinuous distribution in outcrop, but may exist in subsurface; lithologic character may not serve to distinguish it from overlying Pleistocene sediments, although feldspars more weathered and biotite altered or bleached; may contain reworked andesitic detritus from Mehrten. Moderate to strong degree of compaction.
Mehrten	Distinguishable from overlying formations by predominance of andesitic material (>50%) and generally well sorted beds of more uniform texture; general decrease in mean grain size southward from Stanislaus River.
Valley Springs	Presence of rhyolitic materials distinguishes the Valley Springs from the Ione Formation. Absence of andesitic fragments delineates it from the Mehrten Formation; erodes to form valleys; altered zones that are kaolinitic and pisolitic form ledges.
Ione	Lateritic soils containing crystalline iron oxides and kaolinitic clay; locally contains marine fossils.

Source: Burow, K.R., Shelton, J.L., Hevesi, J.A., and Weissmann, G.S., 2004, Hydrogeologic Characterization of the Modesto Area, San Joaquin Valley, California: U.S. Geological Survey Scientific Investigations Report 2004-5232, 54 p.