

Eastern San Joaquin Subbasin Groundwater Sustainability Workgroup July 10, 2018



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Agenda



- Comments on Meeting Notes
- Groundwater Sustainability Workgroup Role and GSP Topics
- Background on Groundwater Conditions
- Brainstorming: What Does Sustainability Look like for the Subbasin?
- Announcements
- Other Topics



Comments on Meeting Notes



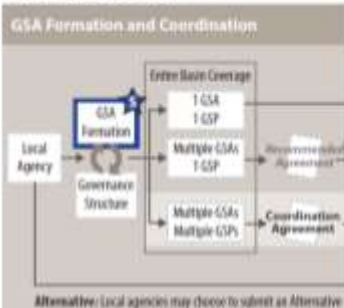
Groundwater Sustainability Workgroup Role and GSP Topics

Why Have a Workgroup?



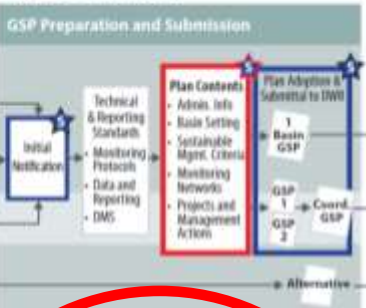
Stakeholder Engagement Requirements by Phase

Phase 1: 2015–2017



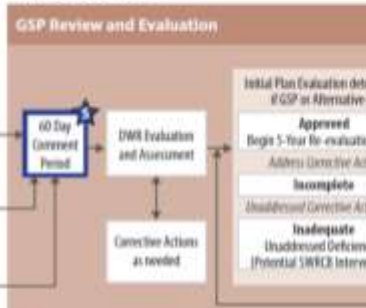
- Phase 1 Engagement Requirements**
- Establish and Maintain List of Interested Parties §10723.4
 - GSA Formation Public Notice §10723.01
 - GSA Formation Public Hearing §10723.03
 - GSA Formation (due 6/30/17) §10723.05
 - Notify DWR:
 - Include list of interested parties
 - Explain how parties' interests will be considered
 - Pre-GSP Development §10727.8
 - Provide a written statement describing how interested parties may participate to:
 - DWR
 - Cities within the GSA boundary
 - Counties within the GSA boundary

Phase 2: 2017–2022



- Phase 2 Engagement Requirements**
- GSP Initial Notification §353.6*
 - GSAs are required to submit GSP Initial Notification through the SGMA Portal - GSP Initial Notification System at <https://gsma.water.ca.gov/initial/you>
 - Public can comment on the submitted GSP notification
 - GSP Preparation §10727.8 and §10723.2
 - Encourage active involvement
 - Consider beneficial uses and users of groundwater when describing Undesirable Results, Minimum Thresholds, and Projects & Actions
 - GSP Communications Section §354.10*
 - GSA decision-making process
 - Opportunities for engagement and how public input is used
 - How GSA encourages active involvement
 - Method of informing the public
 - Public Notice of Proposed Adoption §10728.4
 - GSP Adoption Public Hearing §10728.4
 - GSP Submittal §354.10*
 - Include a summary of communications: description of beneficial uses/users, list of public meetings, comments received/voiced

Phase 3: 2018+



- Phase 3 Engagement Requirements**
- 60 Day Comment Period §353.6*
 - Any person may provide comments to DWR regarding a proposed or adopted GSP via the SGMA Portal at <https://gsma.water.ca.gov/initial/you>
 - Comments will be posted to the website

Phase 4: 2022+



- Phase 4 Engagement Requirements**
- Public Notices and Meetings §10730
 - Before amending a GSP
 - Prior to imposing or increasing a fee
 - Encourage Active Involvement §10727.8

- Engagement Requirements Applicable to ALL PHASES**
- Beneficial Uses and Users §10723.2
 - Consider interests of all beneficial uses and users of groundwater
 - Advisory Committee §10727.8
 - GSA may appoint and consult with an advisory committee
 - Public Notices and Meetings §10730
 - Before electing to be a GSA
 - Before adopting or amending a GSP
 - Prior to imposing or increasing a fee
 - Encourage Active Involvement §10727.8
 - Encourage the active involvement of diverse social, cultural, and economic elements of the population within the groundwater basin
 - Native American Tribes §10720.3
 - May voluntarily agree to participate
 - See Engagement with Tribal Government Guidance Document
 - Federal Government §10720.3
 - May voluntarily agree to participate

★ Stakeholder Input
★ Stakeholders should be informed throughout the development of Plan Content

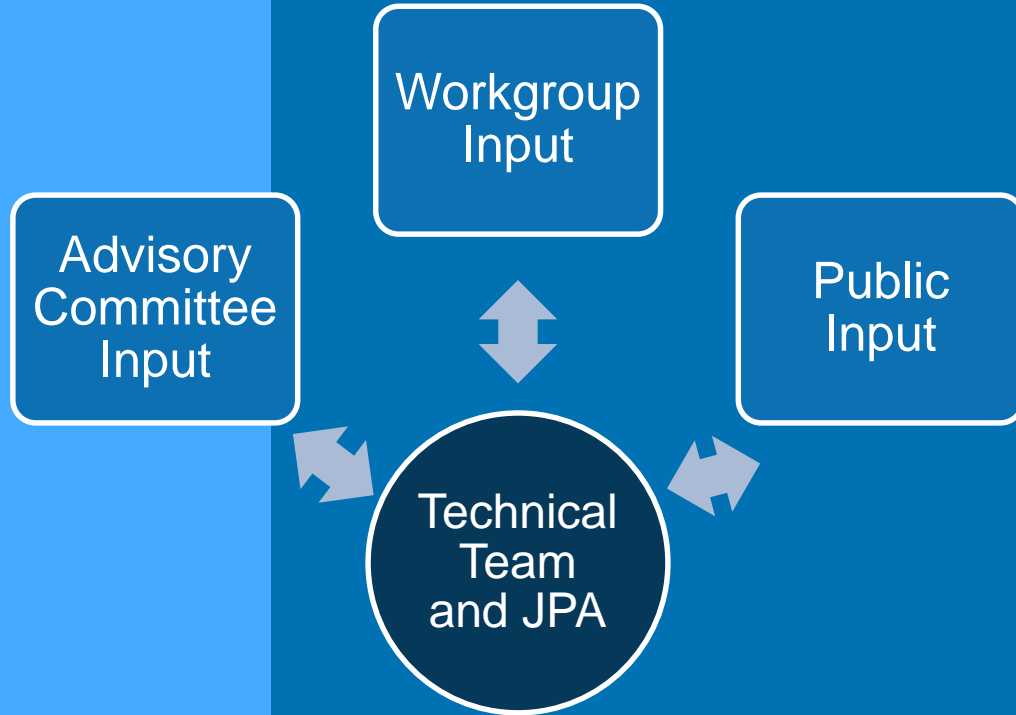
Code Abbreviations: §(R) = SGMA, §(R)* = GSP Regulations

Workgroup Provides Opportunity for More Meaningful Input



- JPA and GSA Leadership – overall authority for decision-making, GSP development and implementation (monthly meetings open to the public)
- Advisory Committee – advise JPA on plan development (monthly meetings open to the public)
- **Groundwater Sustainability Workgroup – diverse basin interests and provide input to plan development, Advisory Committee, and JPA (monthly meetings open to the public)**
- General public – awareness and understanding; emphasis on engagement of DACs (quarterly meetings)

Anticipated Information Flow

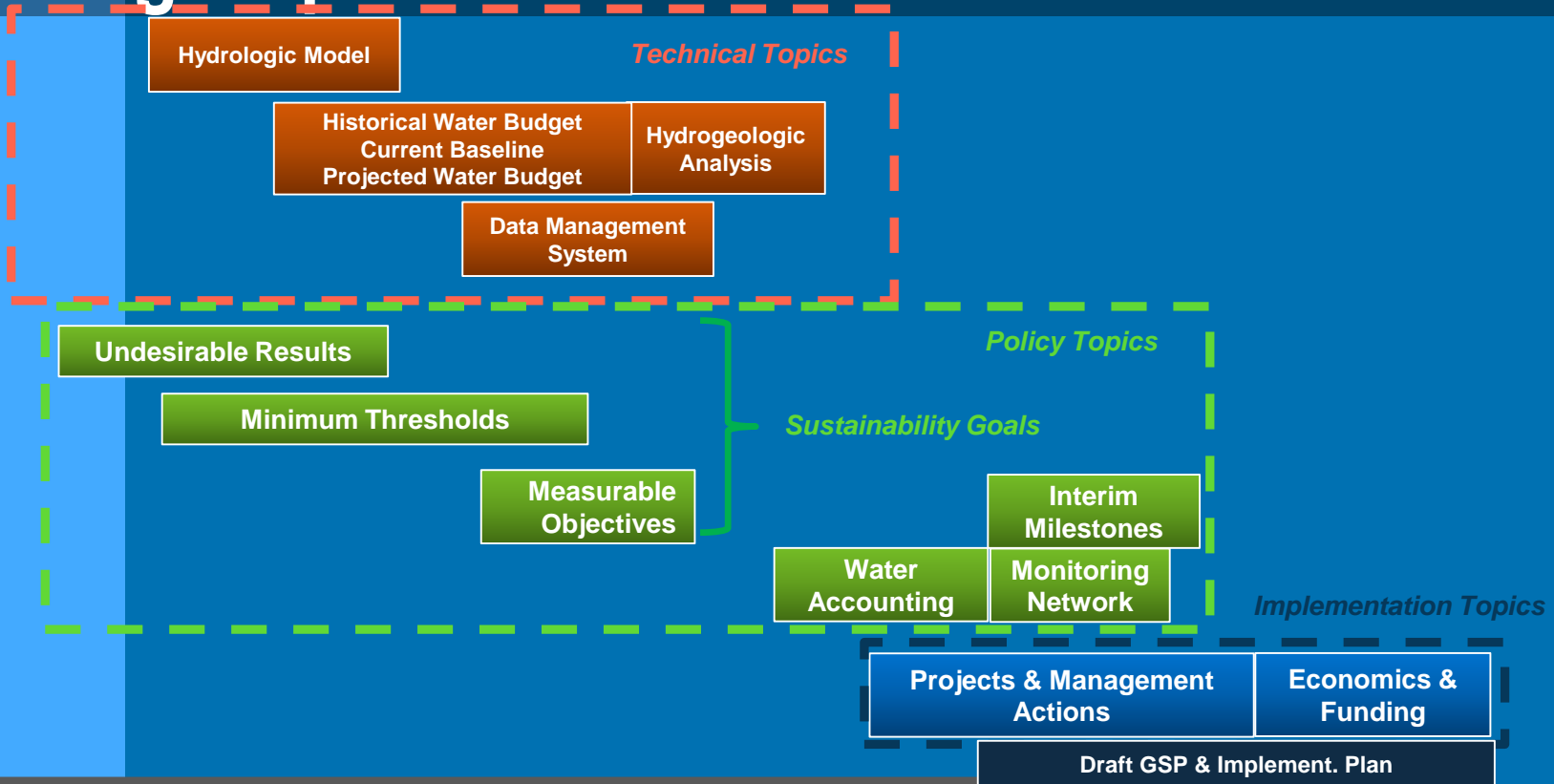


Information flow provides the Groundwater Sustainability Workgroup with an opportunity to comment on working draft concepts and documents with adequate time to incorporate feedback

What Topics Will the Workgroup Work On?

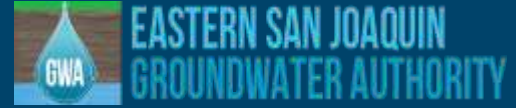


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Jun 2018 Jul 2018 Aug 2018 Sep 2018 Oct 2018 Nov 2018 Dec 2018 Jan 2019 Feb 2019 Mar 2019 Apr 2019 May 2019 Jun 2019 Jul 2019

How will Feedback and Input be Incorporated?



- ✓ Comments reflected in work and meeting notes included in plan
- ✓ Standing agenda item at advisory committee and JPA meetings
- Meeting notes included in agenda packets?
- Other ideas?



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Next Steps: Situation Assessment



Background on Groundwater Conditions

SGMA Requires 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



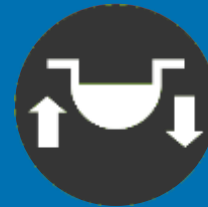
Significant and unreasonable reduction of groundwater storage



Significant and unreasonable land subsidence



Significant and unreasonable seawater intrusion



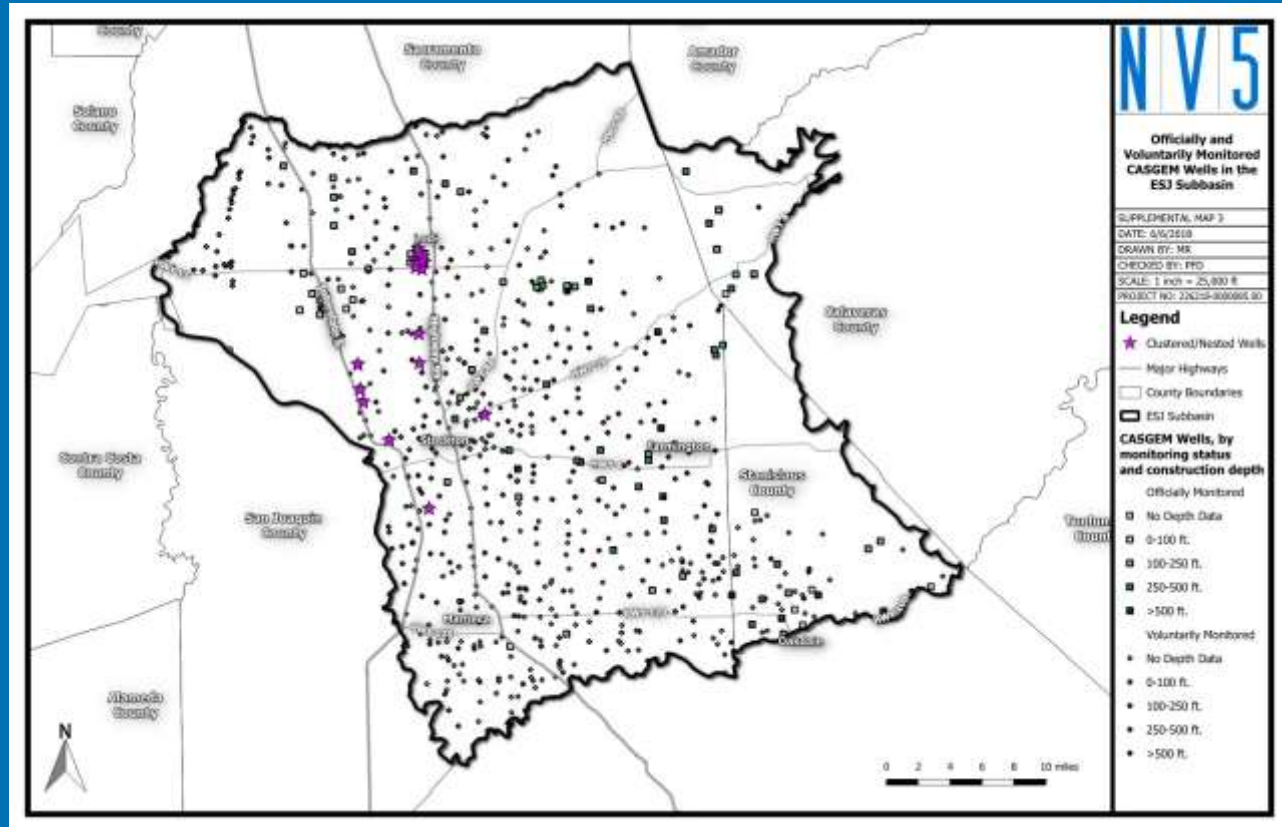
Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water

ESJ is a Well-Monitored Subbasin



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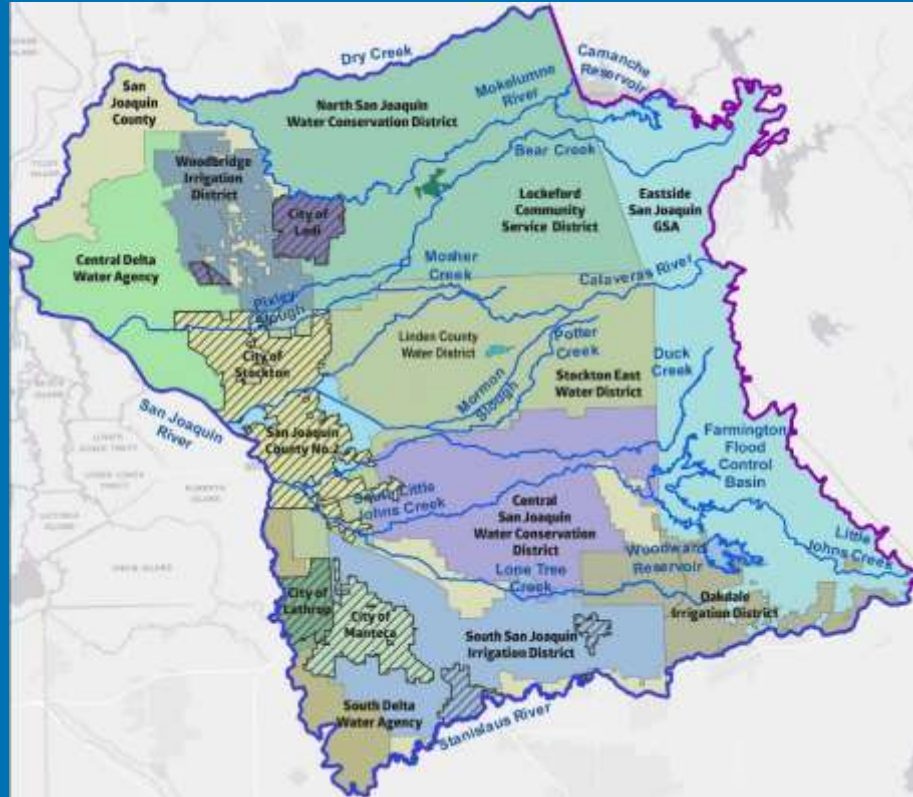
Officially
Monitored
CASGEM Wells
+
Voluntarily
Monitored
CASGEM Wells
+
Clustered and
Nested Wells
(CASGEM)



Several Rivers and Streams Traverse the Subbasin



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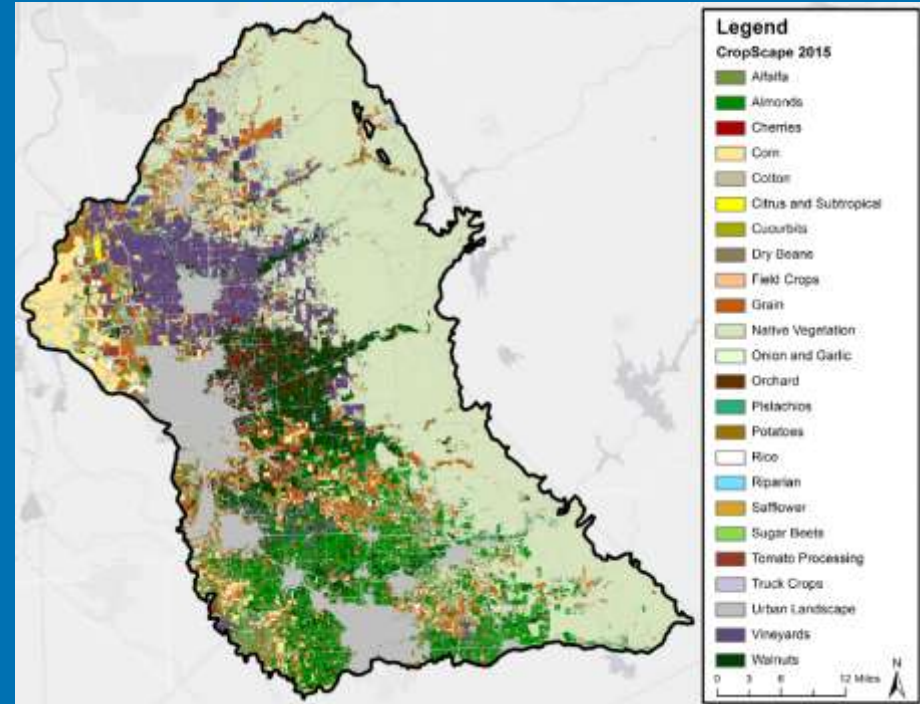
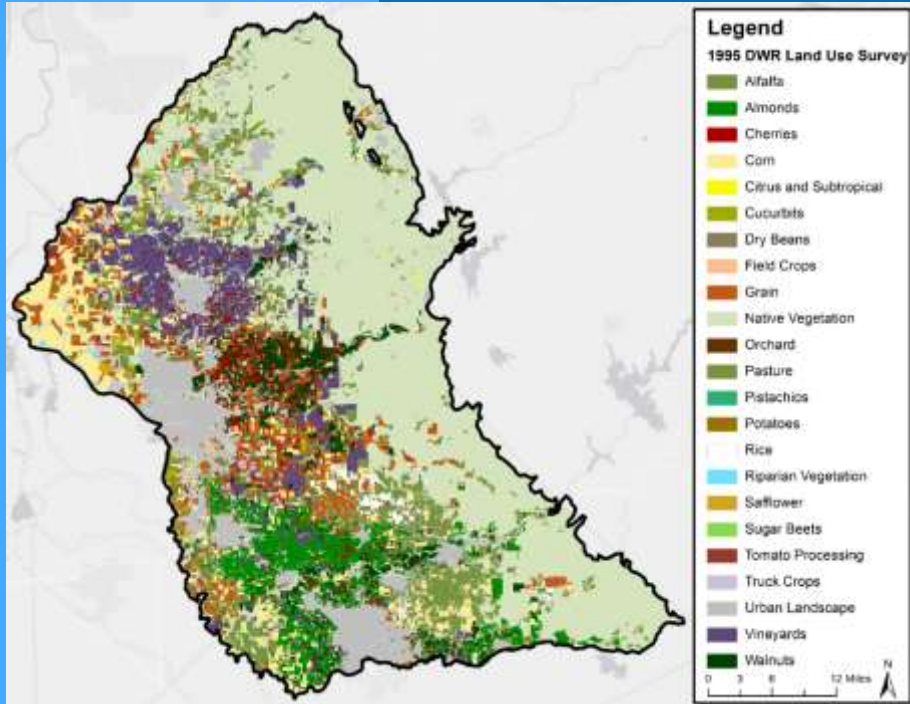


- Mokelumne River
- Stanislaus River
- Calaveras River

Agriculture is a Dominant Land Use in the Subbasin

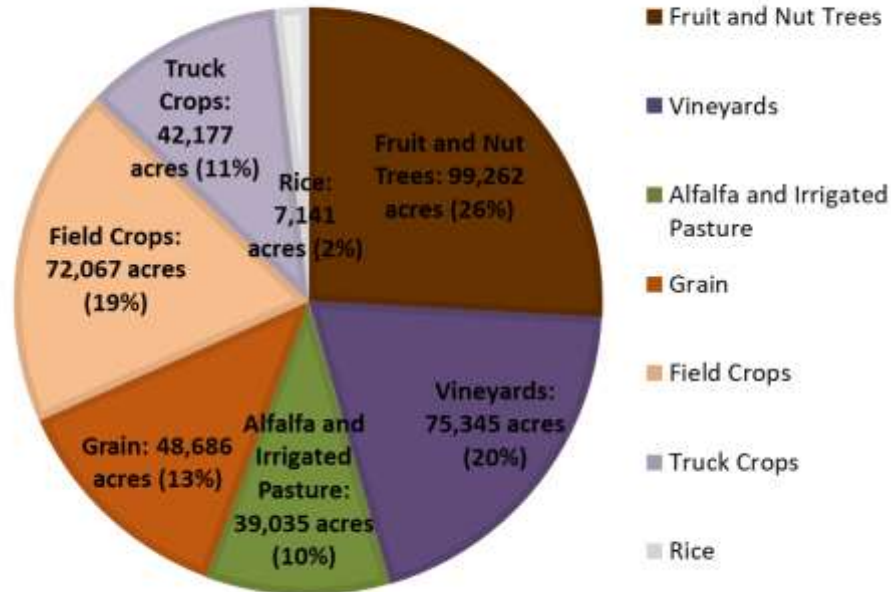


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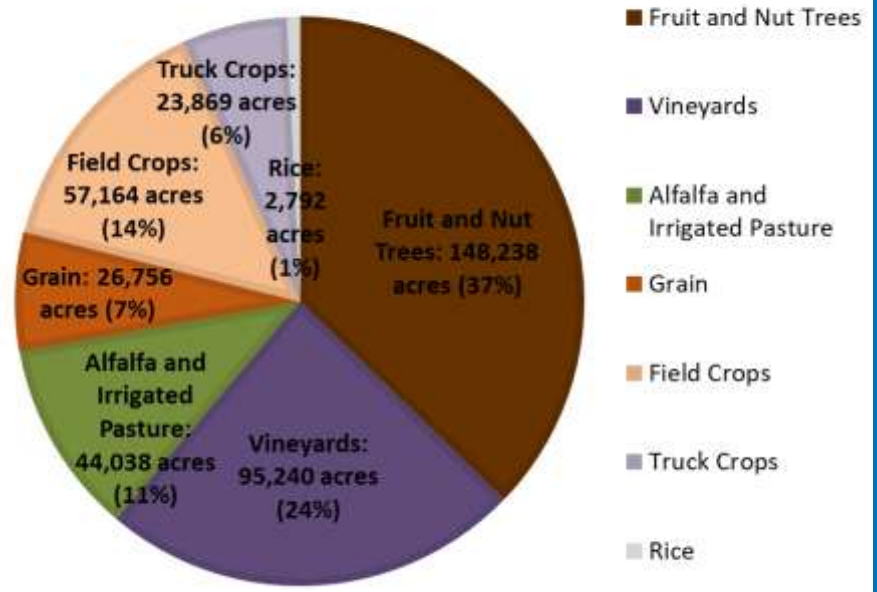


Primary Cropping Patterns

1995 Cropping Pattern for ESJ Subbasin

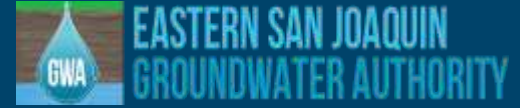


2015 Cropping Pattern for ESJ Subbasin

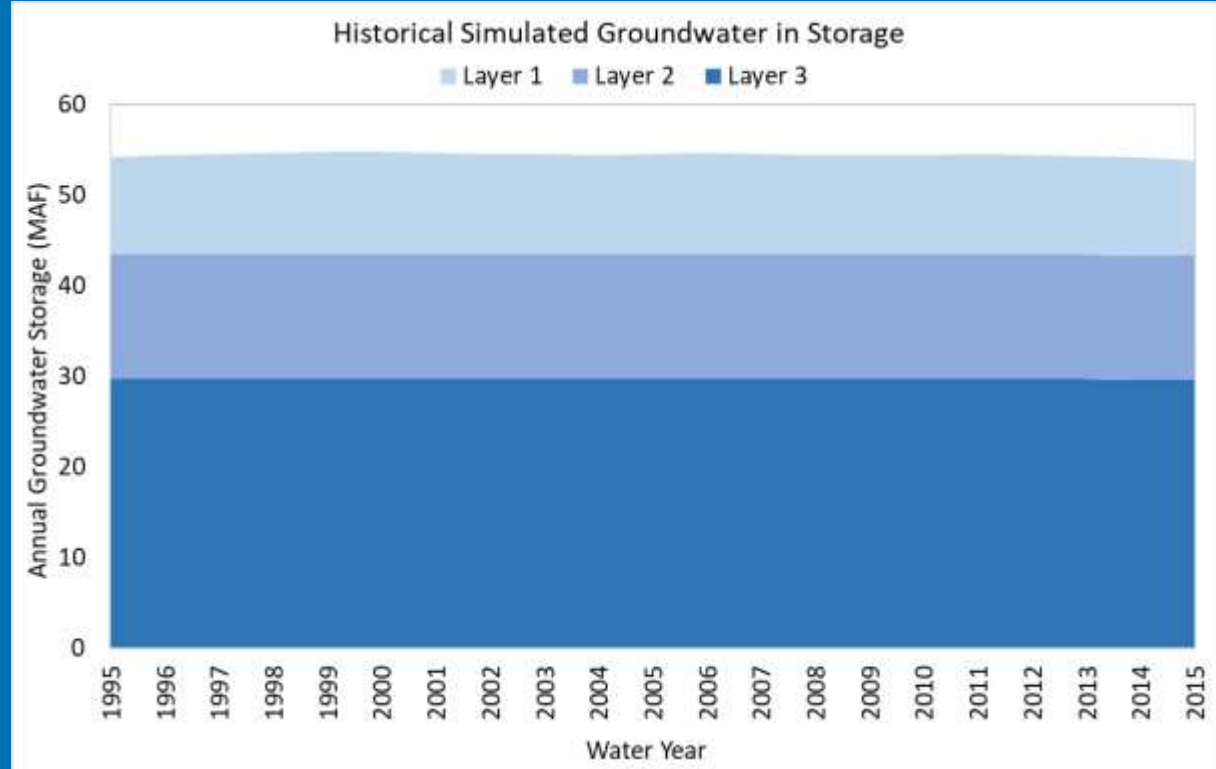


Groundwater Storage

The Subbasin has a Substantial Amount of Groundwater in Storage



This graph shows freshwater only



Groundwater Elevation Levels

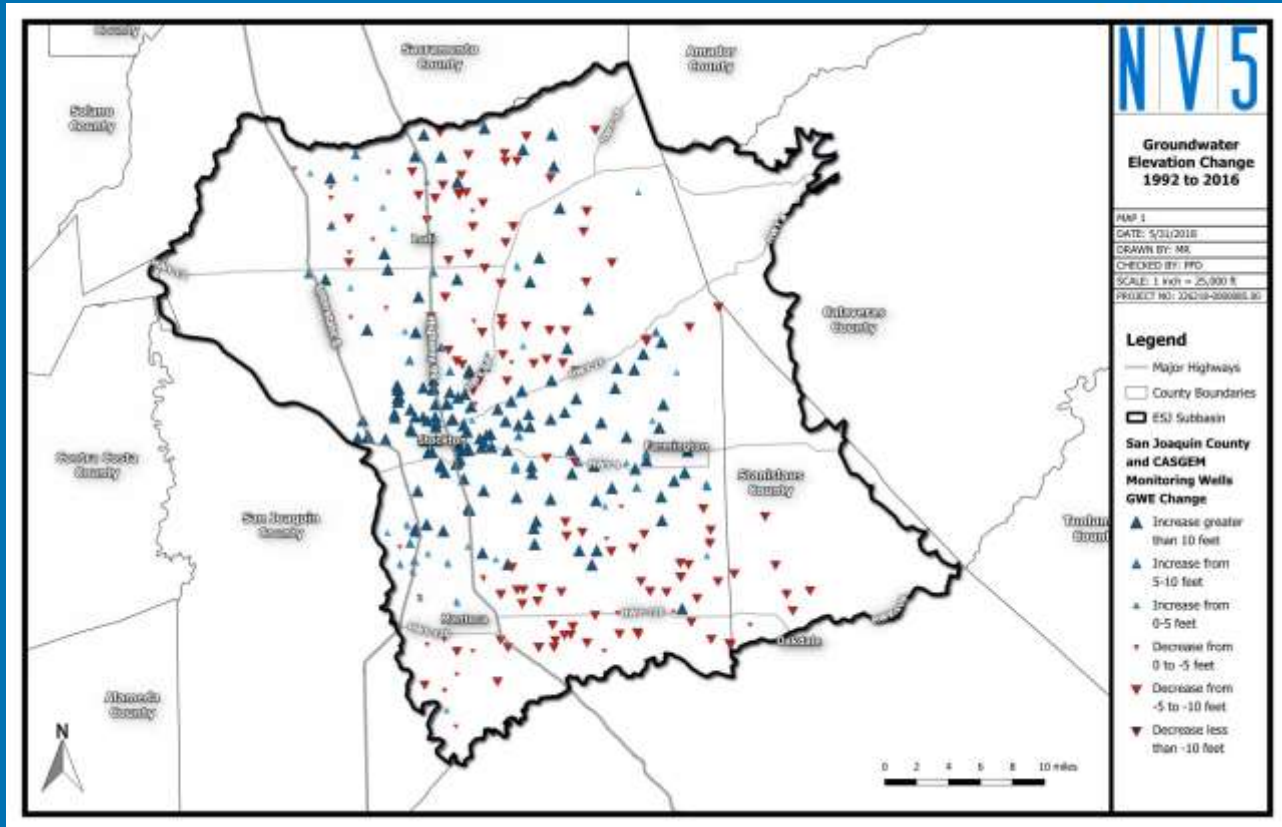
Some Areas Have Recovered and Some Have Declined Since Last Drought



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(blue) – Areas that have recovered since 1992

(red) – Areas that have declined since 1992

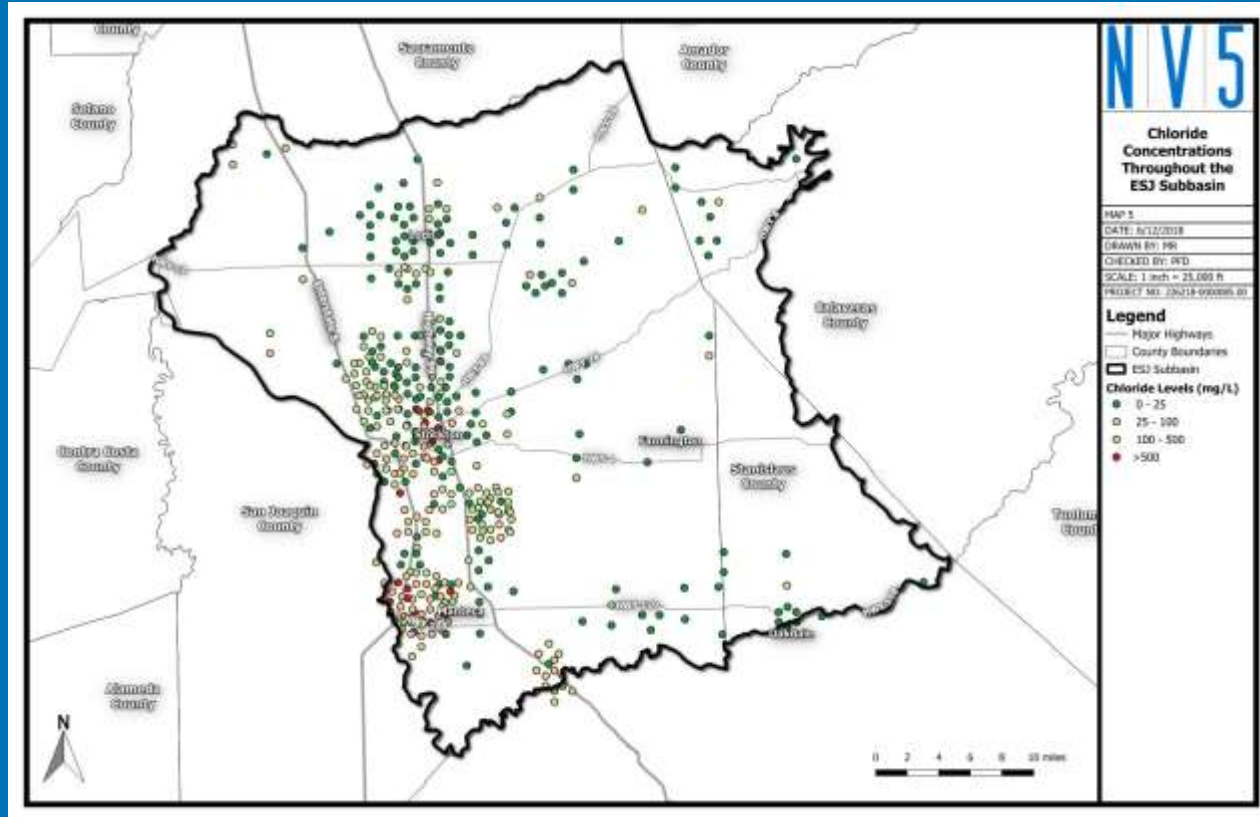


Groundwater Quality

Salinity Contamination of Freshwater Wells is a Concern



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**Brainstorming: What Does Sustainability
Look Like for the ESJ Basin?**

SGMA Requires Six Sustainability Indicators to be Addressed



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We Will Develop Measurable Objectives for Each Sustainability Indicator



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These objectives, and the pathway to achieving them (projects, management actions, etc), are the “guts” of the GSP






Document Potential Undesirable Results for Each Sustainability Indicator

Identify “Minimum Thresholds” (Levels Where Undesirable Results Could Occur)

Develop “Measurable Objectives” Above Each Minimum Threshold

We start by thinking about what our desired future condition looks like, and what negative impacts we are trying to avoid.

Example “Undesirable Results” for Each Sustainability Indicator

Sustainability Indicators	Lowering GW Levels 	Reduction of Storage 	Land Subsidence 	Surface Water Depletion 	Degraded Water Quality 
Metrics Defined by SGMA	Groundwater elevation	Total volume	Rate and extent of subsidence	Volume or rate of depletion	Migration of plumes; constituent concentrations
Approach for measurement	Measured at “representative wells”	Estimate as a function of GW elevations	Estimate as a function of GW elevations	Estimate as a function of GW elevations	Measured at “representative wells”



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But first, let's talk about what is most important...or what sustainability means in this setting.

Important Considerations We Have Heard So Far (1 of 2)



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- Adequate representation, involvement, and consideration for environmental justice and disadvantaged communities
- Transparency and openness of process for all stakeholders
- Water quality and susceptibility to drought
- Impacts of industrial agriculture on groundwater quality, quantity, habitat, and economic vitality of smaller operations
- Impacts to surface water resulting from groundwater operations
- Habitat and wildlife protection in the context of water use
- Access of farmers and growers to water at a reasonable cost (lower than for urban water uses)

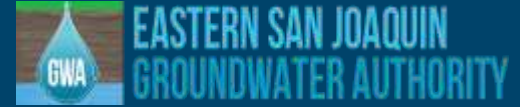
Important Considerations We Have Heard So Far (2 of 2)



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- Groundwater contamination, salt water intrusion, storage and recharge challenges, and lack of access to groundwater
- Replacing groundwater use with surface water
- Protecting water rights
- Recognizing that sustainability may mean different things in different parts of the basin
- Economic impact of pumping fees
- Protecting the nation's largest agriculturally productive region
- Protecting water supply and quality

Twelve Key Values



Be implemented in an equitable manner

Be affordable

Exhibit multiple benefits to local land owners and other participating agencies

Minimize adverse impacts to the environment

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



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What's Missing?

What other issues do we need to
be thinking about?

Sustainability Thought Questions



1. What do you envision as the preferred future of the ESJ Subbasin and how is that different from how it is today?
2. When you think about the importance of groundwater, and the twelve key values, which are of most concern for you?

Sustainability Thought Questions



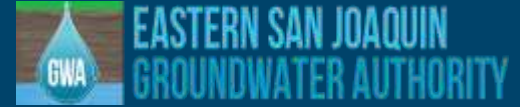
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3. What indicators or factors would best show the groundwater conditions are improving or deteriorating? For these indicators, is there a minimum or maximum level, depending on the indicator, below/beyond which the Basin's groundwater should not be allowed to go?
4. What objectives or targets would you want to see achieved to show that the Subbasin is sustainable?



Announcements

Announcements

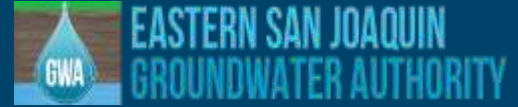


- First public meeting: August 29, 2018 6:30 p.m., room tbd, Robert J. Cabral Agricultural Center
- Next Workgroup meeting date: August 15, time and room tbd , Robert J. Cabral Agricultural Center



Other Topics

Other Topics



- Non-Agenda Items
- Public Comments