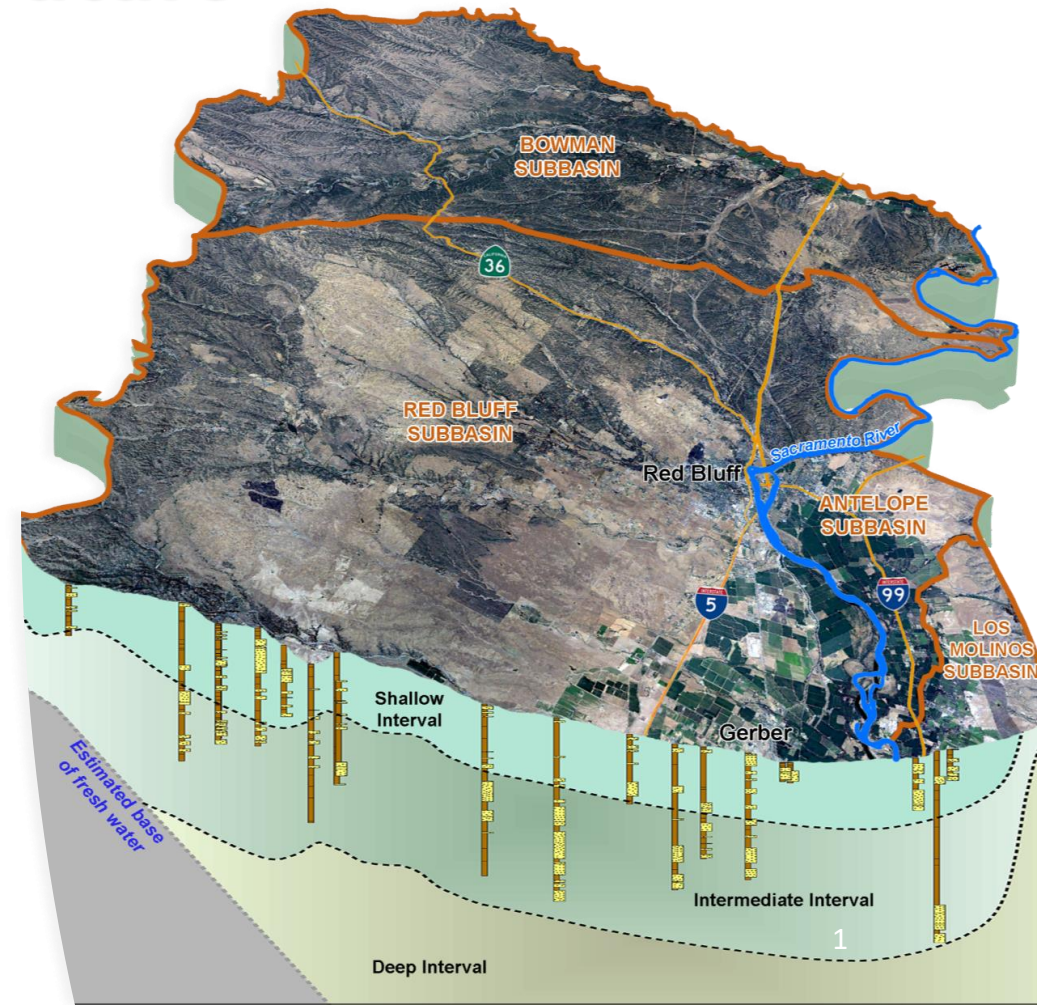




# Managing Our Groundwater for the Future

Implementing the Sustainable Groundwater Management Act (SGMA) in Tehama County

Public Webinar  
October 8, 2020 (6:00 – 7:30 PM)



# Welcome!

The webinar will  
begin shortly.

- Technical Problems?
- Use the Zoom chat,
- or email Stephanie Horii [SHorii@cbi.org](mailto:SHorii@cbi.org),
- or text: 408.768.9394

## Instructions for Getting Started:

- Use only one audio source – either computer or phone.
- Wear headsets / earbuds to cut down on ambient noise.
- Please MUTE yourself at all times, except when speaking.
- Bring a tech-adaptive mindset! We'll improve with experience with more creative application and testing :)

### While You're Waiting...

Find the Q&A Window and tell us:

*“What are you looking forward to hearing / learning about today?”*

#### COMMON TERMS

# Zoom Orientation



Introduction to Zoom Webinar Interface and Today's Meeting Process

Stephanie Horii, Consensus Building Institute (CBI)

# Participant Set-Up

## “Hosts/Co-Hosts/Panelists” – Project Team

- **Convener: Tehama County GSA**
  - Ryan Teubert, GSA Project Manager
  - Nichole Bethurem
- **Technical Consultant: Luhdorff & Scalmanini, Consulting Engineers (LSCE)**
  - Eddy Teasdale
- **Facilitation/Tech Support: Consensus Building Institute (CBI)**
  - Stephanie Horii

## “Attendees”

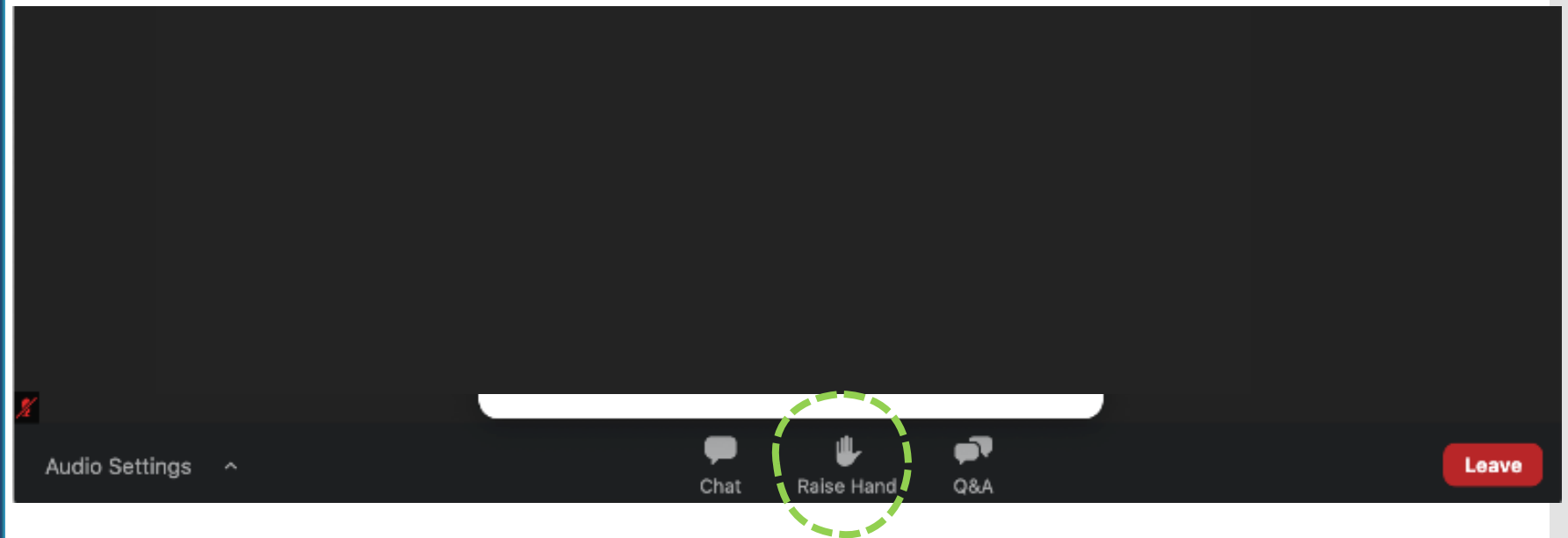
- Members of the public

*Note: The meeting will be recorded and posted to the website.*

## Verbal Questions - Raise Hand

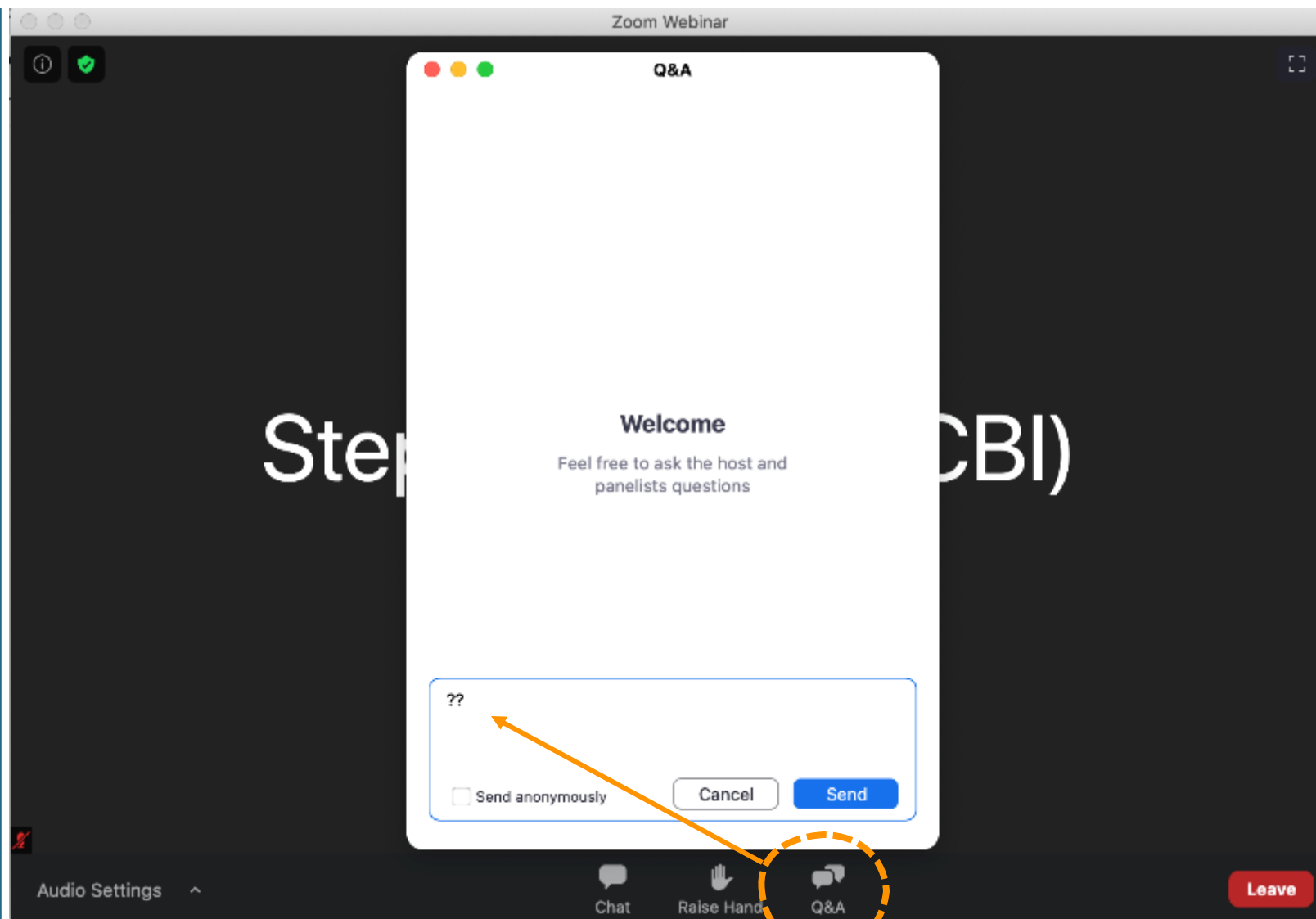
If you wish to speak, use the “Raise Hand” function

- We will be tracking the queue.
- If dialing in by phone only, press \*9 to raise hand.
- When it is your turn to speak, we will unmute you.



For Content Related Questions/Comments, use the Q&A Window -

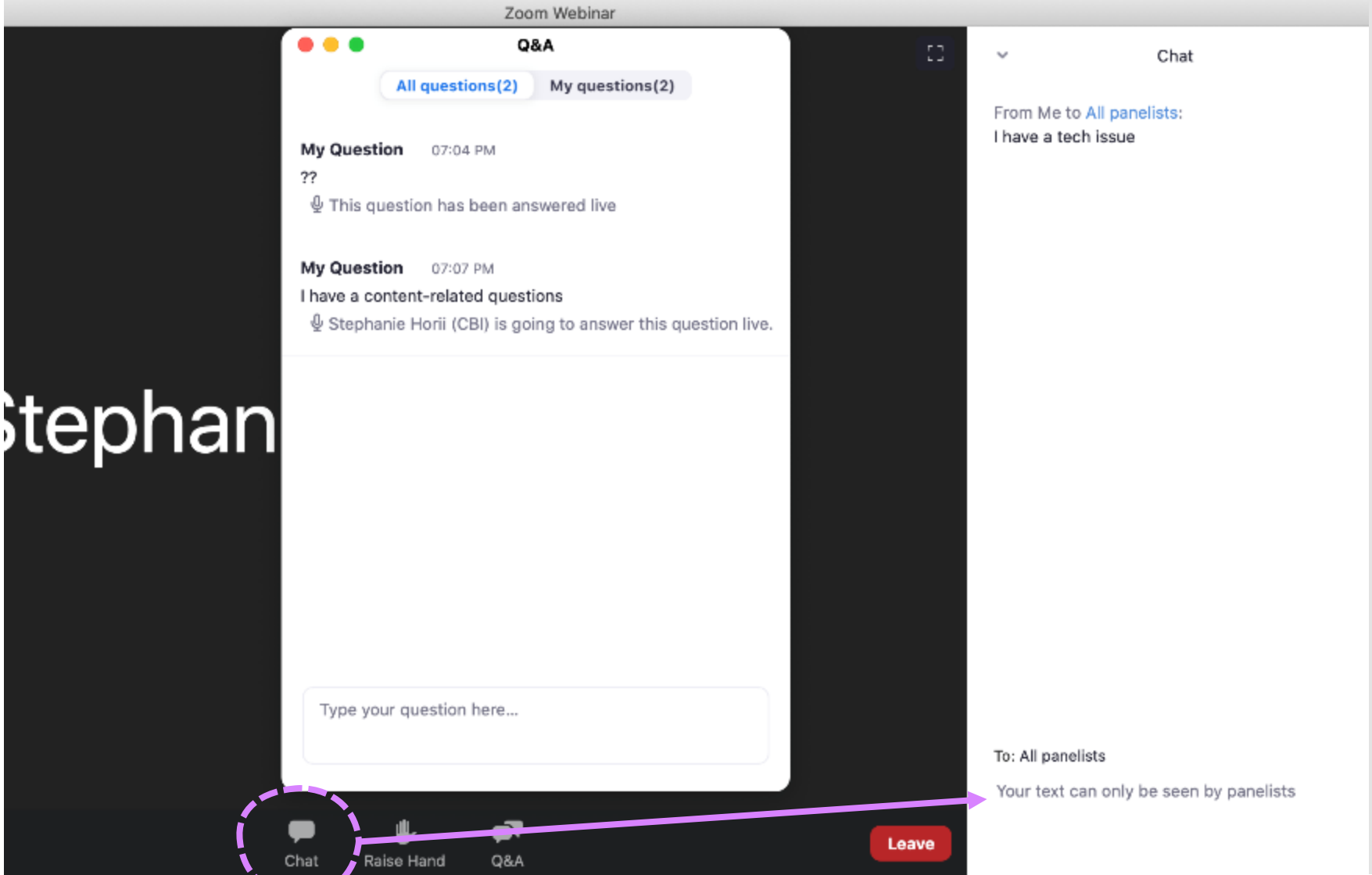
Content Questions  
Q&A Window



Calling in by phone only? email [SHorii@cbi.org](mailto:SHorii@cbi.org) or text: 408.768.9394

For Zoom Technical Support, use the Chat Window

Zoom Tech -  
Chat Window



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“Raise Hand” for Verbal Questions



“Q&A” for Content-Related Questions



Zoom “Chat” primarily for Technical Issues



Please keep yourself on MUTE at all times



Focus on Topic



Honor Time



Tech-Adaptive Mind Set

# Participating in the Workshop

# Agenda

6:00 pm

## Welcome & Meeting Overview

6:10 pm

## Background

- SGMA 101
- Governance – Implementing SGMA in Tehama County
- Q&A Discussion

6:45 pm

## Information Needs

- Developing GSPs in Tehama County
- Q&A Discussion

7:15 pm

## Outreach & Engagement

- How can I be involved?

7:30 pm

## Next Steps and Wrap Up\*

*\*Project Team will stick around if folks have additional questions*

### COMMON TERMS

SGMA (“*Sigma*”): Sustainable Groundwater Management Act  
GSA: Groundwater Sustainability Agency  
GSP: Groundwater Sustainability Plan

# Multiple Opportunities to be Involved



## EMAIL UPDATES

Sign Up for the interested parties email list and/or to receive meeting agendas - contact [nbethurem@tcpw.ca.gov](mailto:nbethurem@tcpw.ca.gov)

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(Specific to the Bowman, Red Bluff, Antelope, and Los Molinos Subbasins)

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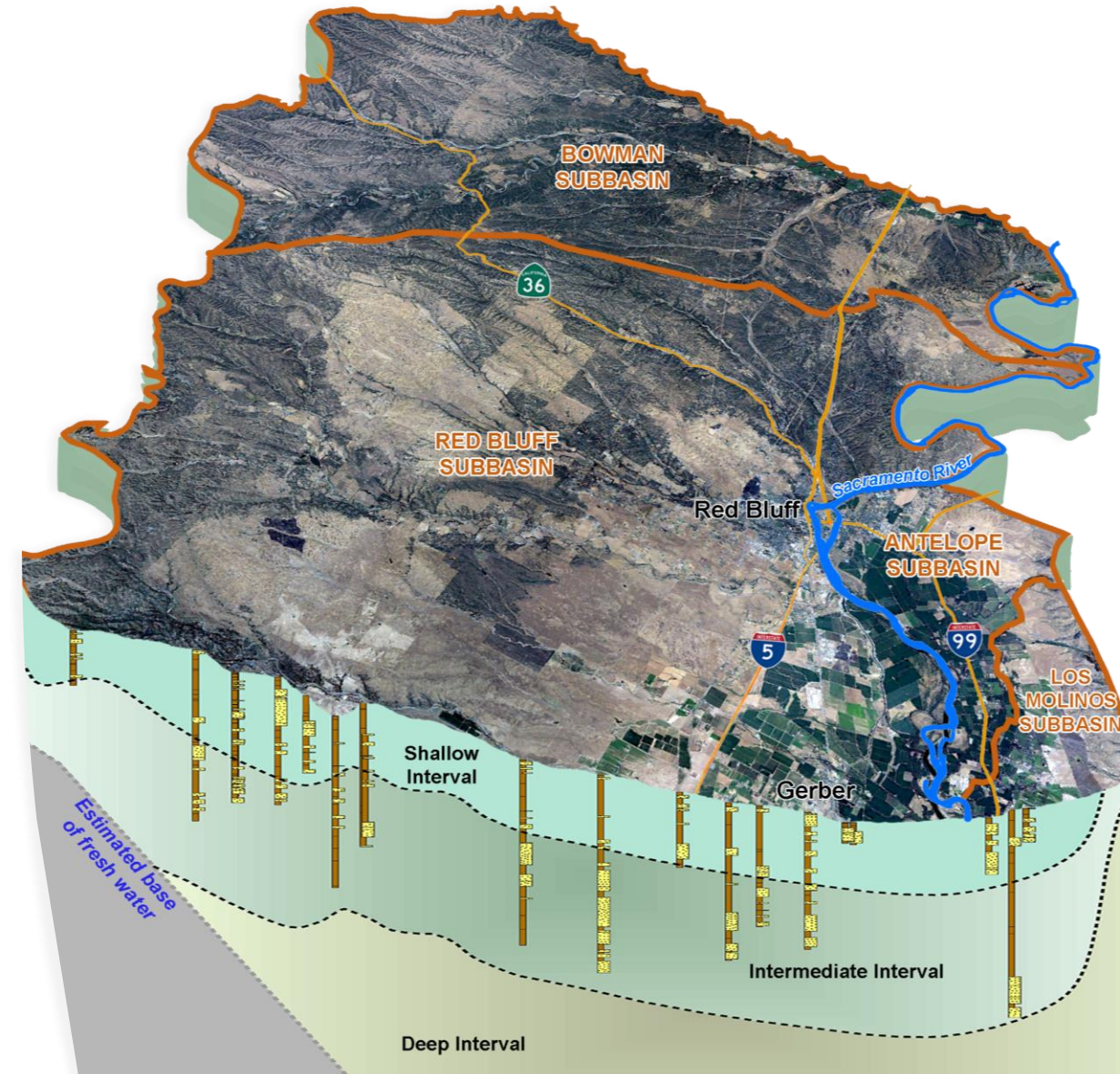
[TehamaCountyPublicWorks.CA.gov](http://TehamaCountyPublicWorks.CA.gov) and [CorningSubbasinGSP.org](http://CorningSubbasinGSP.org)

# Welcoming Remarks



## Clay Parker

Groundwater Commission Chair &  
Representative for City of Red Bluff



# Background SGMA 101

Stephanie Horii

Consensus Building Institute (CBI)

## COMMON TERMS

**SGMA** (*"Sigma"*): Sustainable Groundwater Management Act

**GSA**: Groundwater Sustainability Agency

**GSP**: Groundwater Sustainability Plan

# What is SGMA?



The Sustainable Groundwater Management Act (SGMA) -- law was passed in 2014



Values Local Control

Local responsible agencies = Groundwater Sustainability Agencies (GSAs)



Management plans = Groundwater Sustainability Plans (GSPs)



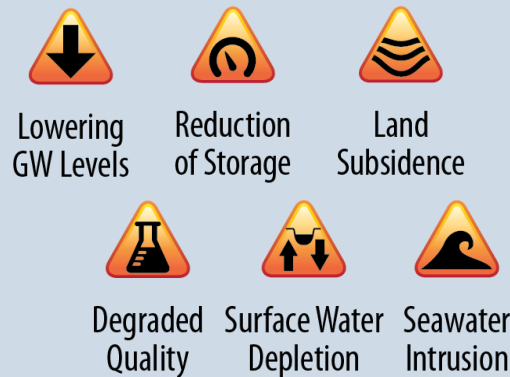
GSPs submitted to the State by January 31, 2022



Sustainability must be achieved within 20 years (by 2042)

# What is the purpose of SGMA?

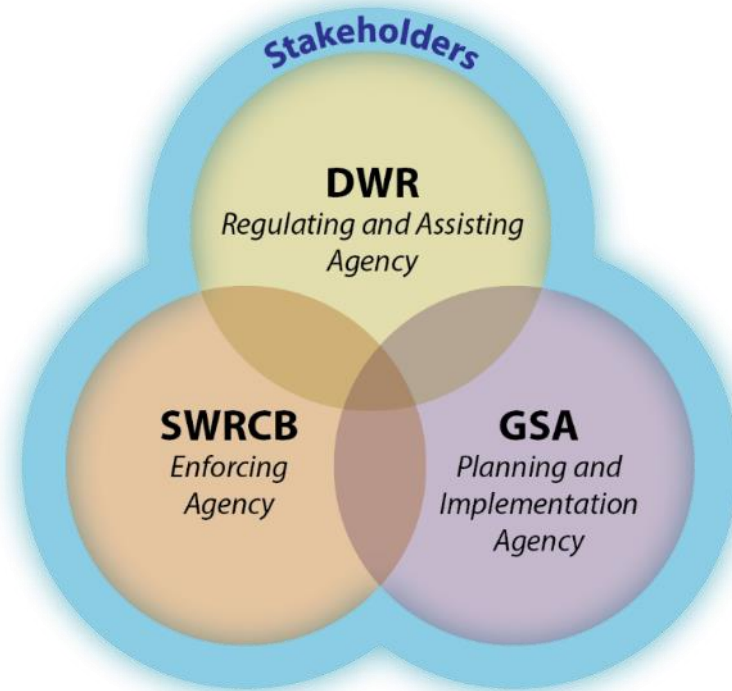
- Promote sustainable management of groundwater basins
- Enhance local management of groundwater (State to step in if necessary)
- Improve data collection and understanding of groundwater resources and management
- Avoid or minimize undesirable results to groundwater



## Undesirable Results



# What are the major roles?



## COMMON TERMS

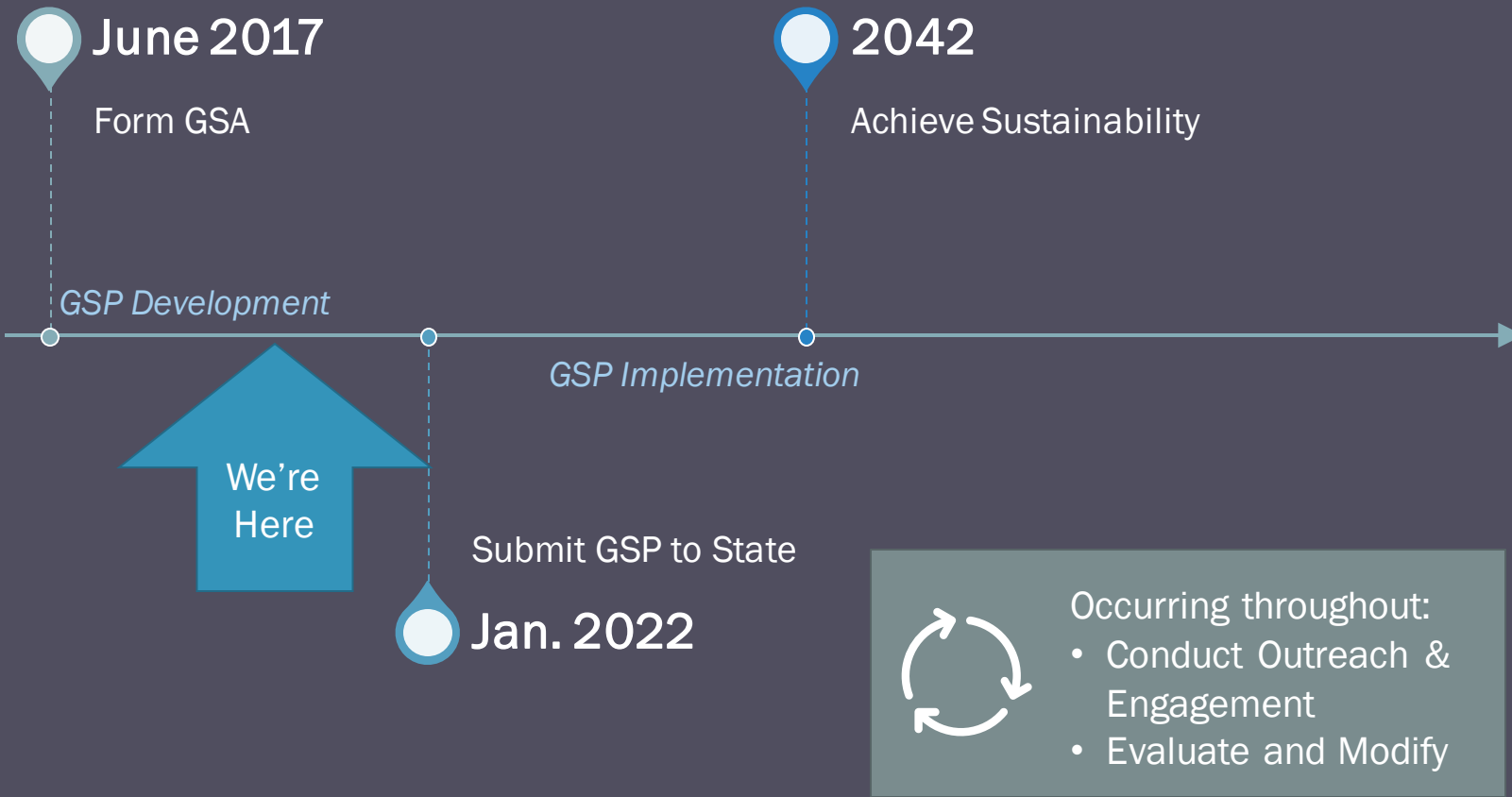
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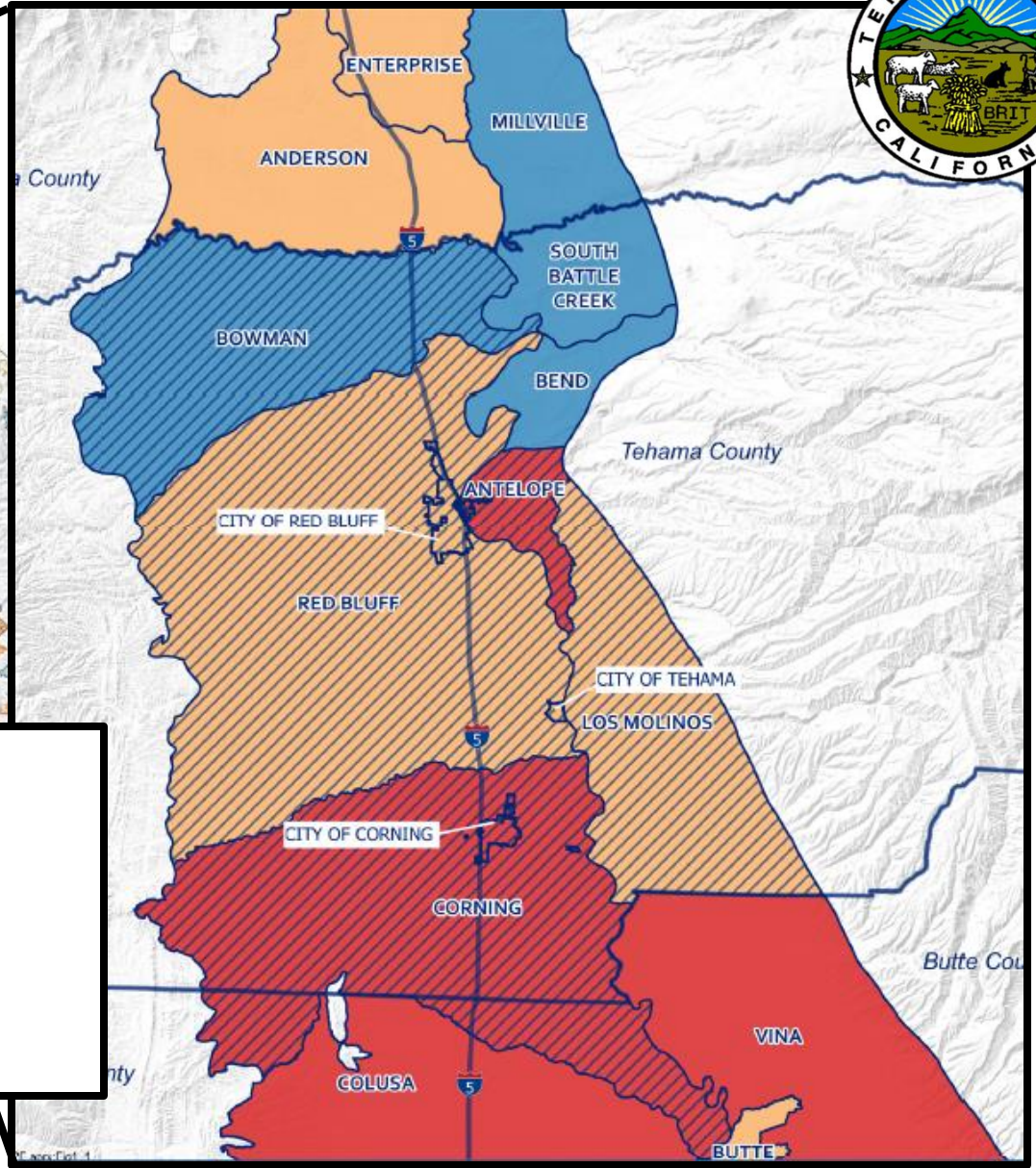
**DWR:** California Department of Water Resources

**SWRCB (“State Board”):** State Water Resources Control Board



What is the SGMA  
Implementation  
Timeline?

# What are our subbasins?



**Subbasin Priority**

- Very Low
- Low
- Medium
- High
- Tehama County
- Other Counties

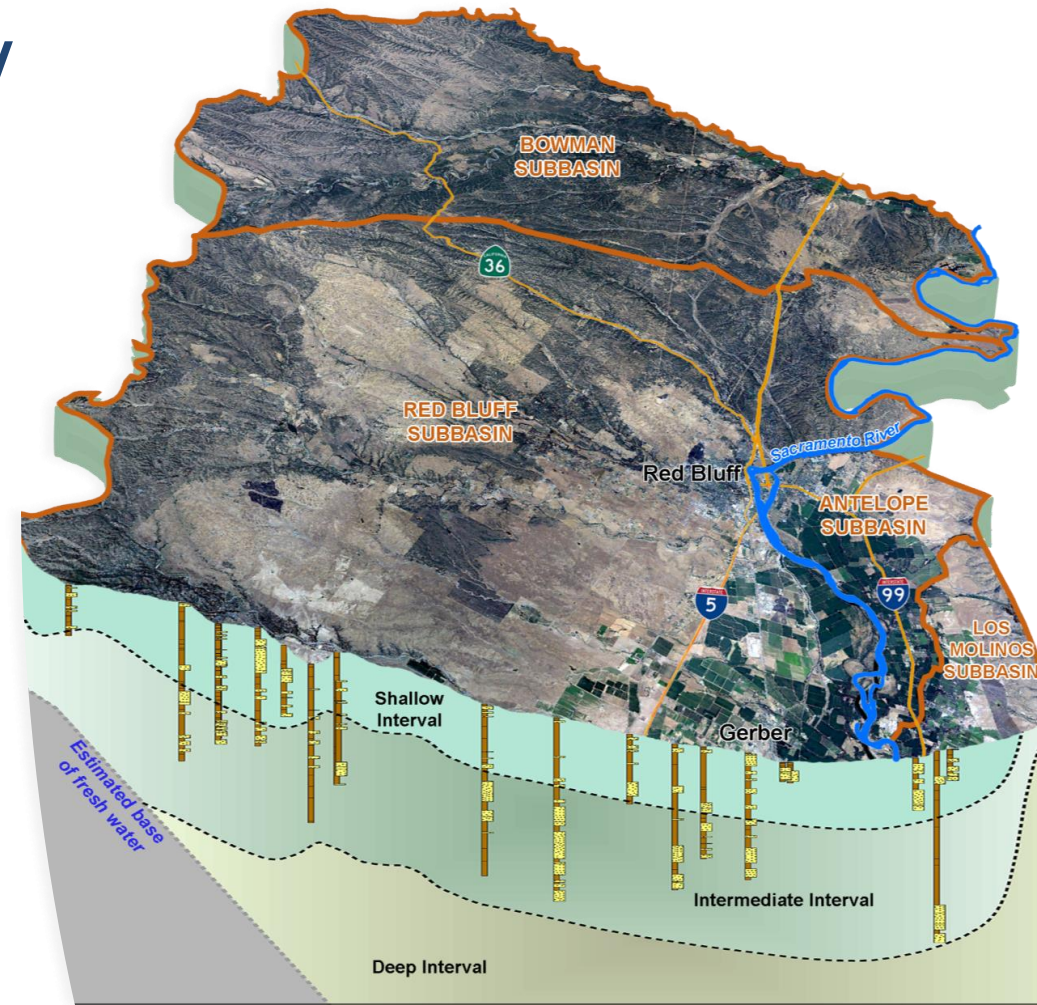
# Background | Governance



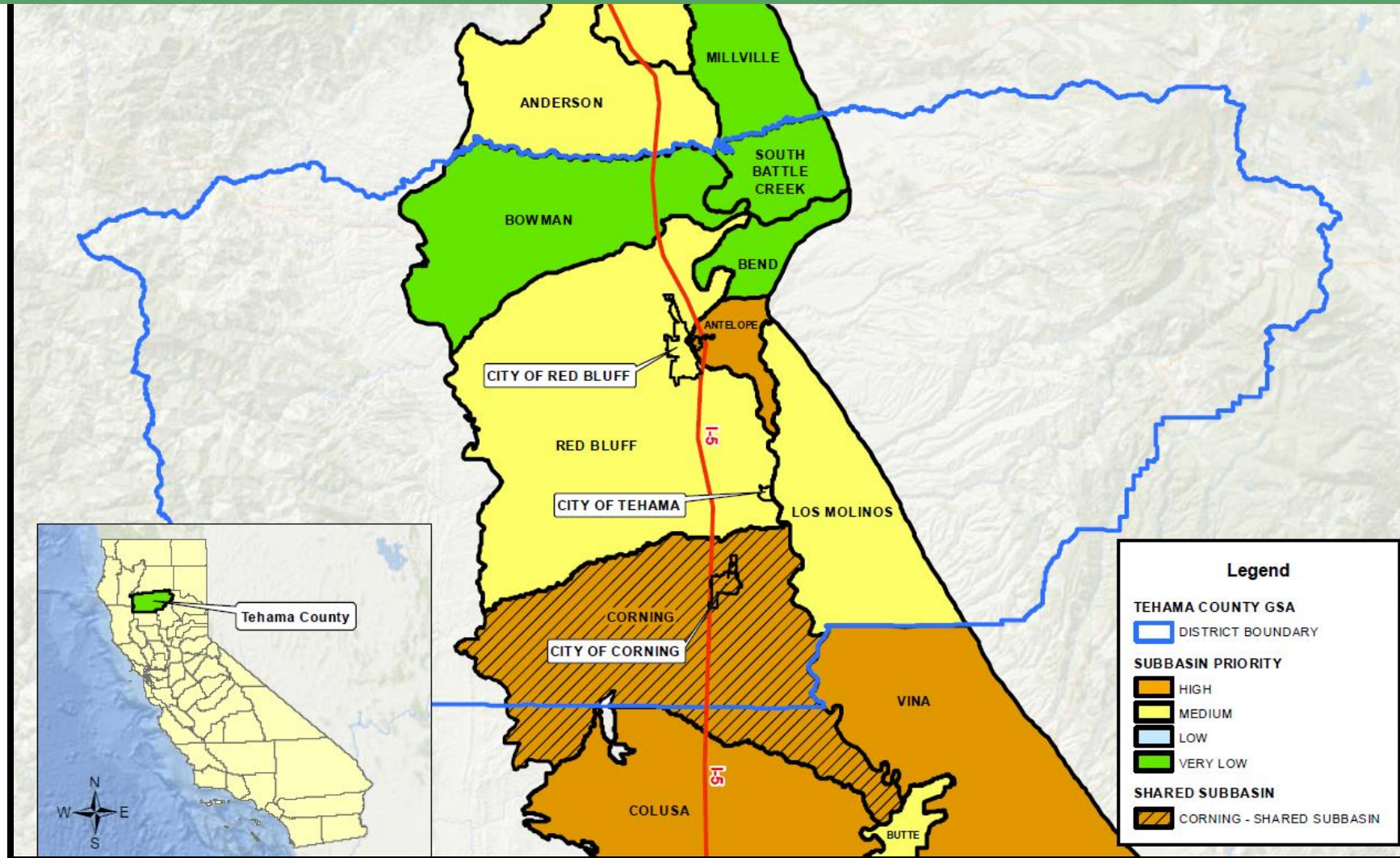
## Implementing SGMA in Tehama County

Ryan Teubert

GSA Project Manager



# Tehama County Groundwater Sustainability Agency

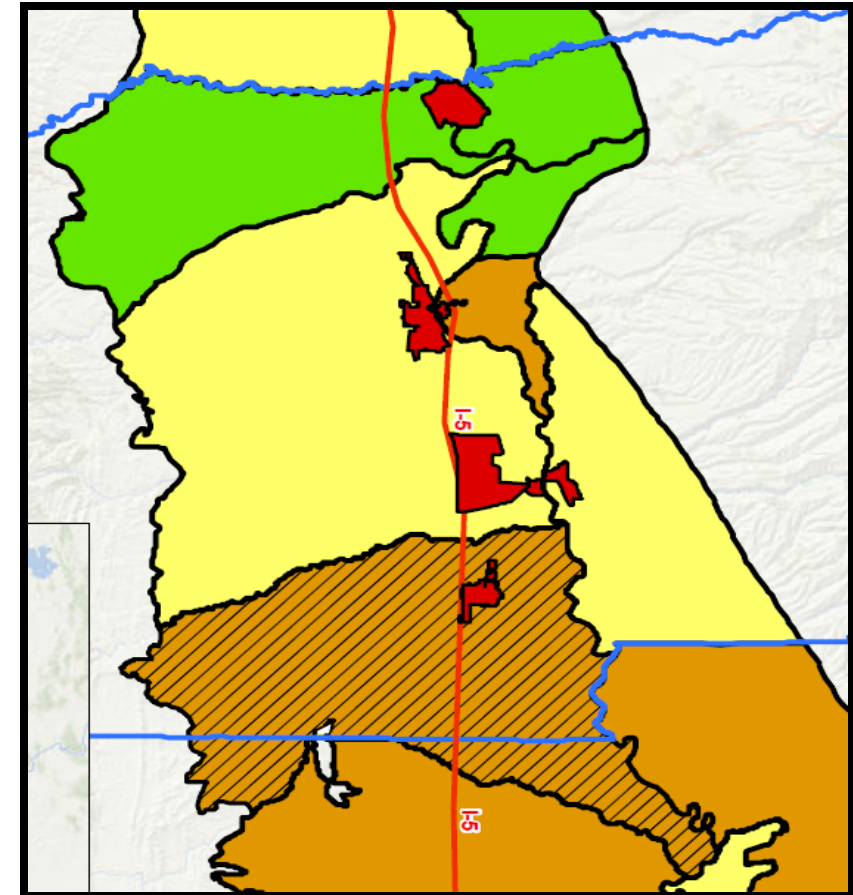


District Recognized as Exclusive GSA in February 2016



# Tehama County GSA Governance Structure

- **Governing Board** – Tehama County Flood Control & Water Conservation District Board of Directors (County Board of Supervisors)
- **Groundwater Commission** (similar to Planning Commission)
  - The Commission is made up of 11 members
  - Six agencies will have designated seats on the Commission and appoint their own members.
    - 1 – City of Corning
    - 1 – City of Red Bluff
    - 1 – City of Tehama
    - 1 – El Camino Irrigation District
    - 1 – Los Molinos Community Services District
    - 1 – Rio Alto Water District

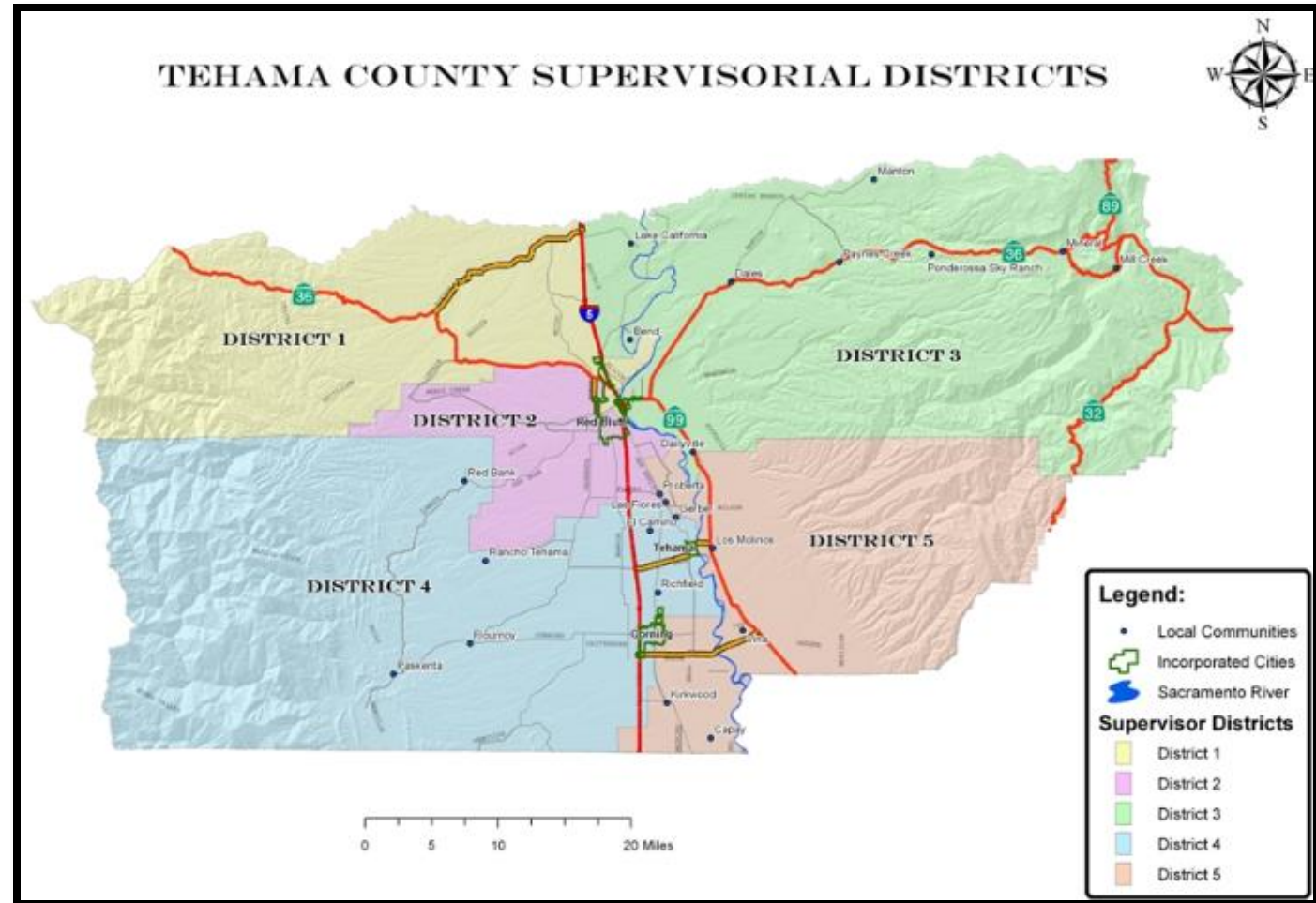


# Groundwater Commission Membership (continued)



## Additional Members will Include 1 Representative from each County Supervisorial District

- Members should be a resident, property owner, or groundwater user within Tehama County;
- 2 members should represent surface water agencies/districts;
- 2 members should represent private pumpers;
- 1 member should represent the general public.



# Groundwater Commission Members



- City of Corning – Kristina Miller
- City of Red Bluff – Clay Parker
- City of Tehama – Bill Borrer
- El Camino Irrigation District – Kris Lamkin
- Los Molinos Community Services District – Todd Hamer
- Rio Alto Water District – Martha Slack
- District 1 – Harley North, private pumper
- District 2 – Sam Mudd, general public
- District 3 – Bart Fleharty, surface water agency/district
- District 4 – Hal Crain, surface water agency/district
- District 5 – David Lester, private pumper



# Groundwater Commission Duties



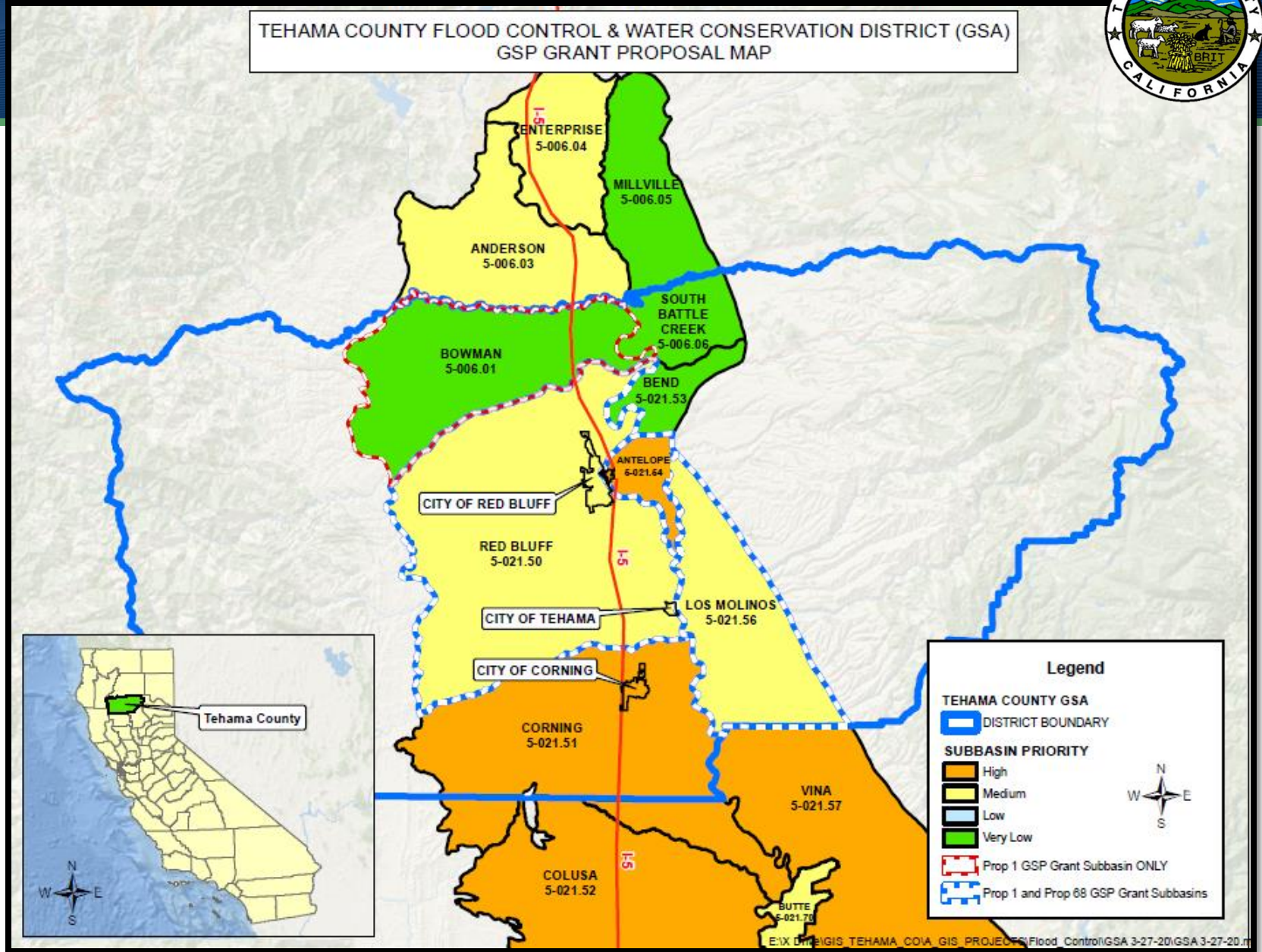
- Develop GSP and all GSA ordinances, rules, and regulations, making final recommendations to the Board of Directors.
- Conduct investigations to determine the need for groundwater management, monitor compliance and enforcement, and potential future funding costs.
- Review all proposed grant applications
- Decision-making authority for permits or similar entitlements
- Make quasi-judicial decisions in GSA enforcement matters





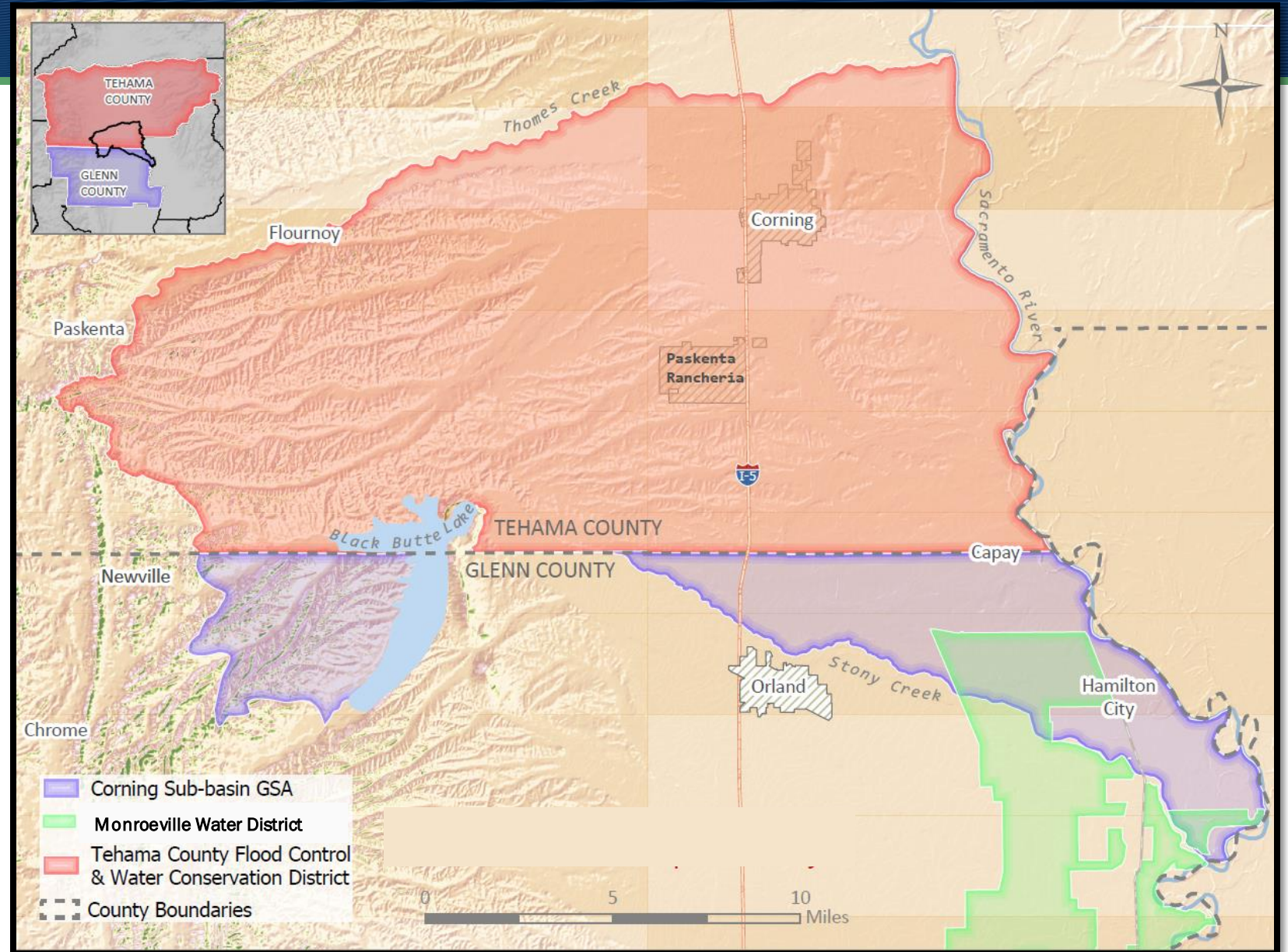
TEHAMA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT (GSA)  
GSP GRANT PROPOSAL MAP

The Antelope, Bowman, Los Molinos, and Red Bluff Groundwater Sustainability Plans being funded under Proposition 1 and 68 funding programs.



# Corning Subbasin

- 2 GSA Agencies
- Co-Management of the Subbasin
- Develop 1 GSP
- Separate Prop 1 Grant



# Corning Subbasin Advisory Board (CSAB)

## Purpose:

- Make advisory recommendations to the Members concerning development and implementation of the GSP.
- All decision-making authority resides with each Member's governing bodies.

## Membership:

### Tehama County Flood Control and Water Conservation District GSA

- **Bob Williams**, Board of Director, Flood Control and Water Conservation District
- **Steven Gruenwald**, Grower, Capay
- **David Lester**, Groundwater Commissioner

### Alternates

- **Ian Turnbull**, Member of the AB3030 TAC for the District

### Corning Sub-basin GSA

- **John Viegas**, Supervisor, Glenn County Board
- **Lisa Hunter**, Water Resources Coordinator, Glenn County
- **Julia Violich**, Board member, Monroeville Water District

### Alternates

- **John Amaro**, Glenn Colusa Irrigation District

**Memorandum of Understanding  
to jointly develop the Corning Subbasin GSP**

# SGMA 101 & Governance | Questions?



## How to Ask Questions

### Zoom Options:

Verbal – “Raise Hand” to speak 

Written – Use Q&A Box 

### Calling-In Options:

E-mail [shorii@cbi.org](mailto:shorii@cbi.org) or

Text: 408.768.9394

## Project Team

Tehama County GSA

- Ryan Teubert, GSA Project Manager

Technical Consultants, LSCE

- Eddy Teasdale

Facilitator, CBI

- Stephanie Horii

## COMMON TERMS

SGMA (“*Sigma*”): Sustainable Groundwater Management Act • GSA: Groundwater Sustainability Agency • GSP: Groundwater Sustainability Plan

# Information Needs

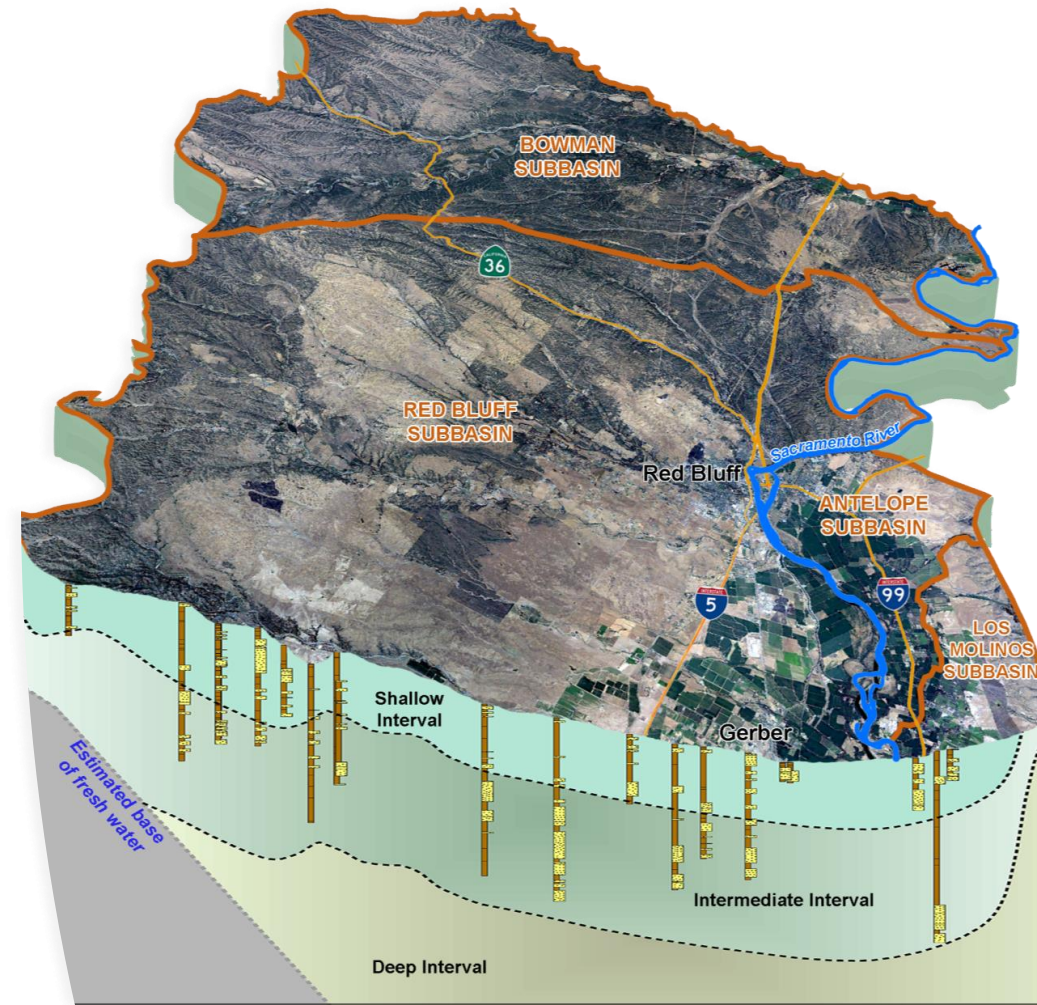


## Developing GSPs in Tehama County

Eddy Teasdale

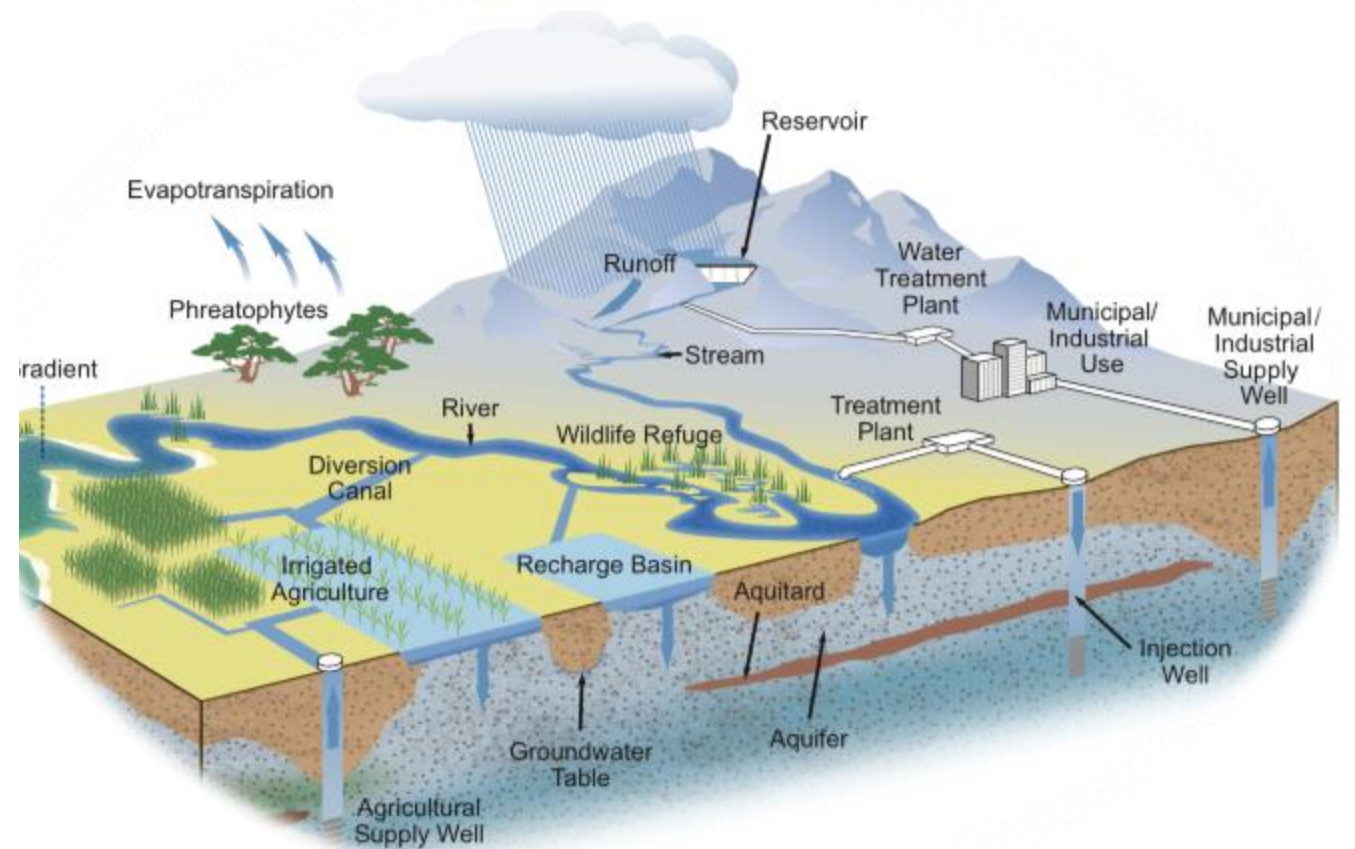
Technical Consultant

Luhdorff & Scalmanini, Consulting Engineers (LSCE)



# Understanding the Hydrogeologic Setting

- Graphical and narrative description of the physical components of the basin
- At least two scaled cross-sections
- Map(s) of physical characteristics
  - Topographic information
  - Surficial geology
  - Soil characteristics
  - Delineation of existing recharge areas that substantially contribute to the replenishment of the basin, potential recharge areas, and discharge areas
  - Surface water bodies
  - Source and point of delivery for local and imported water supplies



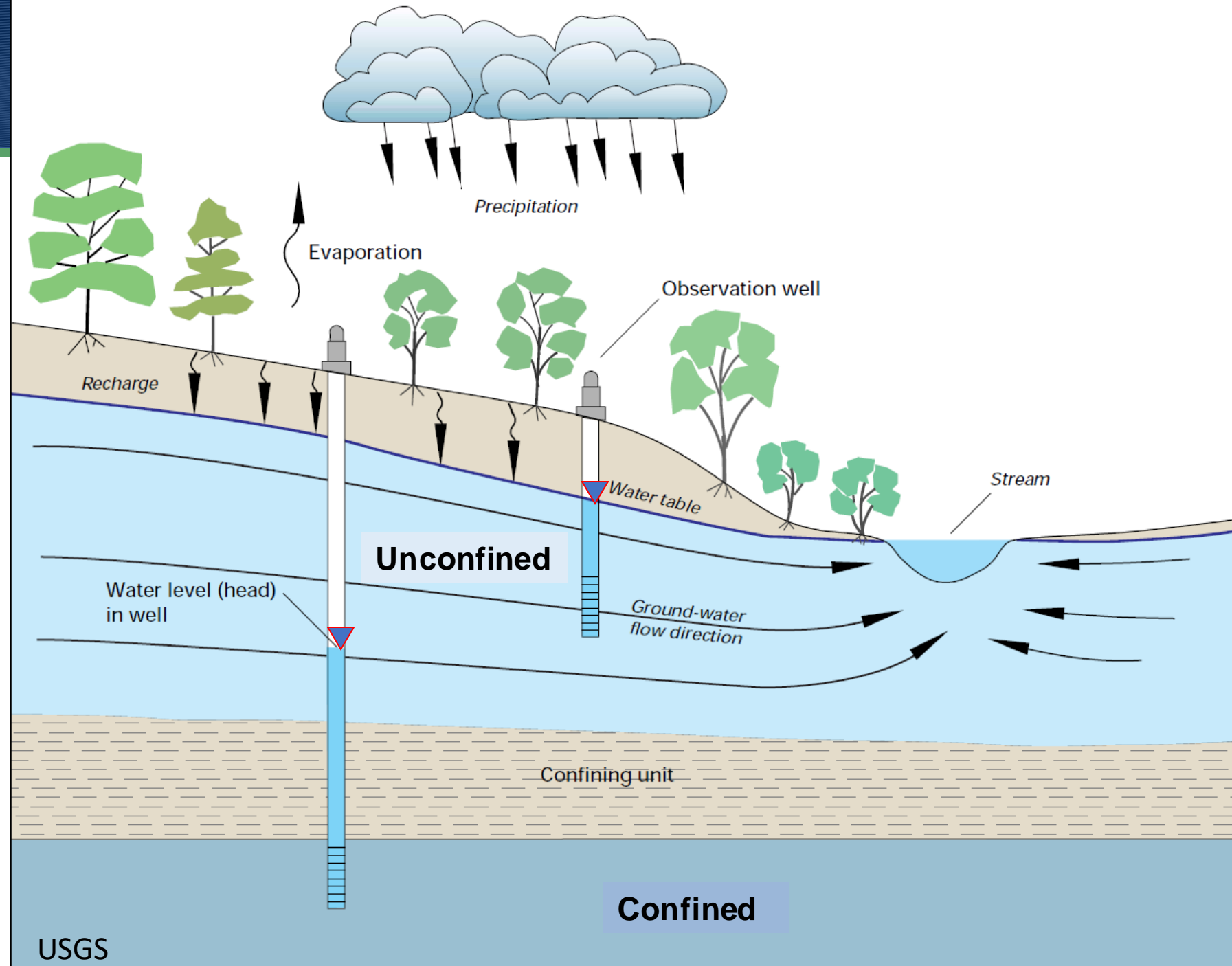
# Groundwater: Unconfined & Confined

## Unconfined:

At atmospheric pressure;  
no overlying low  
Permeability materials

## Confined:

Groundwater under  
pressures greater than  
atmospheric by overlying  
low permeability  
(confining) materials



# Define GW users

# Account for Water with a “Budget”

## Inflows

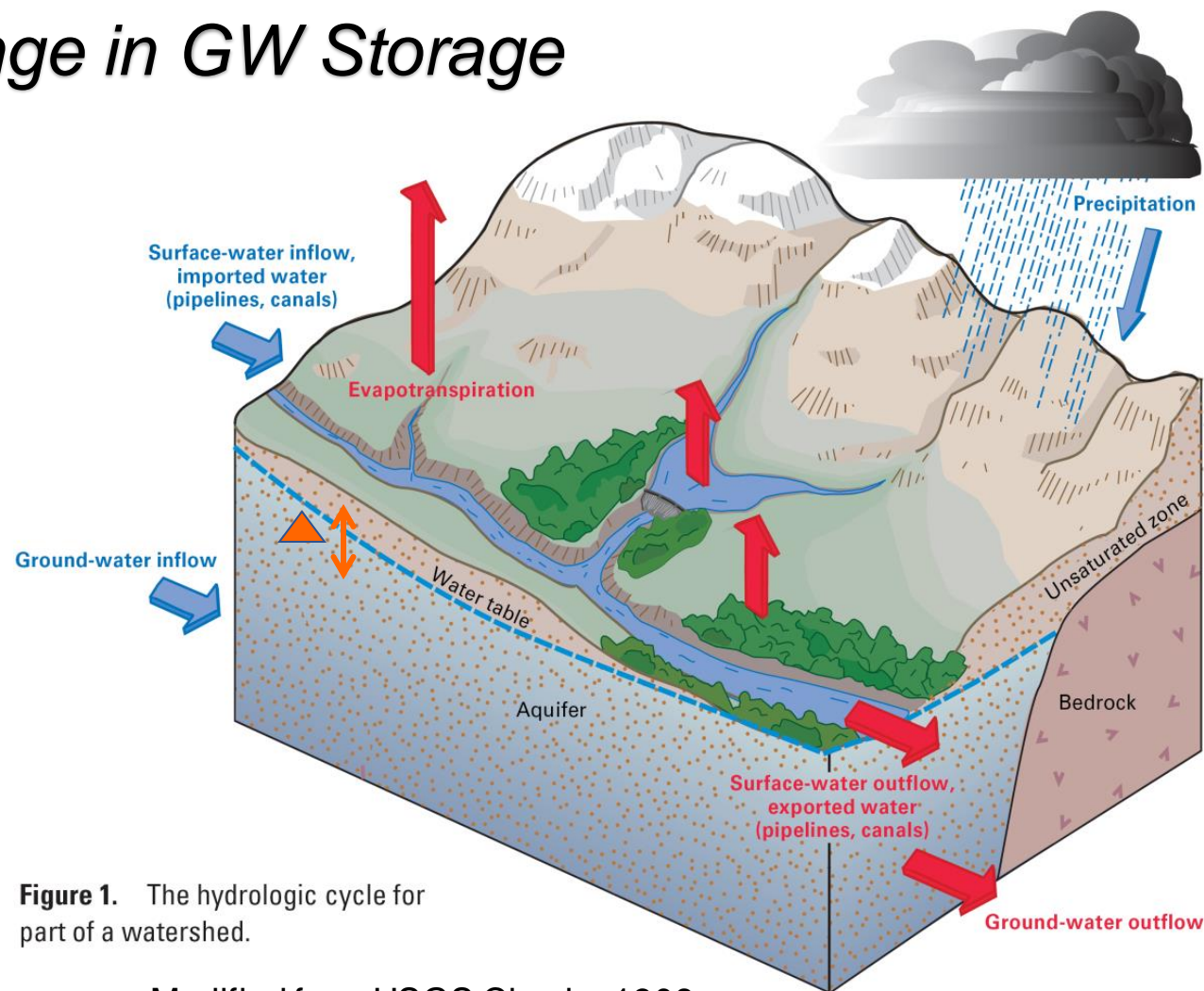
- Precipitation;
- SW inflow & infiltration;
- Intentional recharge (ponds, ditches, etc.);
- Applied water, net recharge (e.g., irrigation);
- Unintentional recharge (leaky pipelines);
- Subsurface inflows from outside basin.

## Outflows

- GW extraction by wells;
- GW discharge to SW/springs;
- Evapotranspiration; and
- Subsurface outflow from basin.

$$\text{Inflows} - \text{Outflows} = \Delta S$$

*Change in GW Storage*



**Figure 1.** The hydrologic cycle for part of a watershed.

Modified from USGS Circular 1308

# SGMA Terms Explained

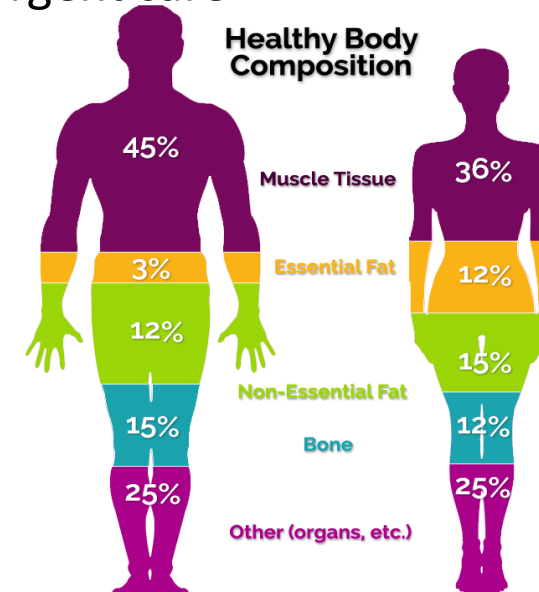
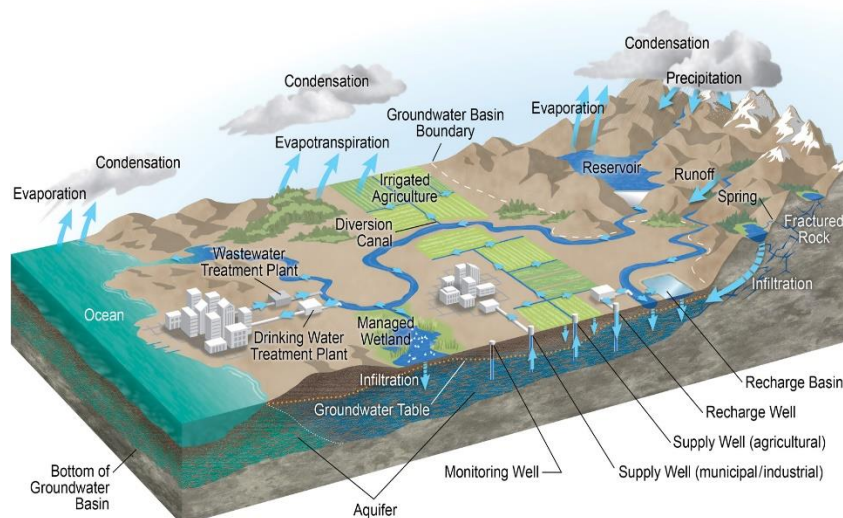
## SGMA Term

- Sustainability Goal
- Sustainability Indicators
- Measurable Objective
- Minimum Threshold
  - Undesirable Result
- Significant and Unreasonable



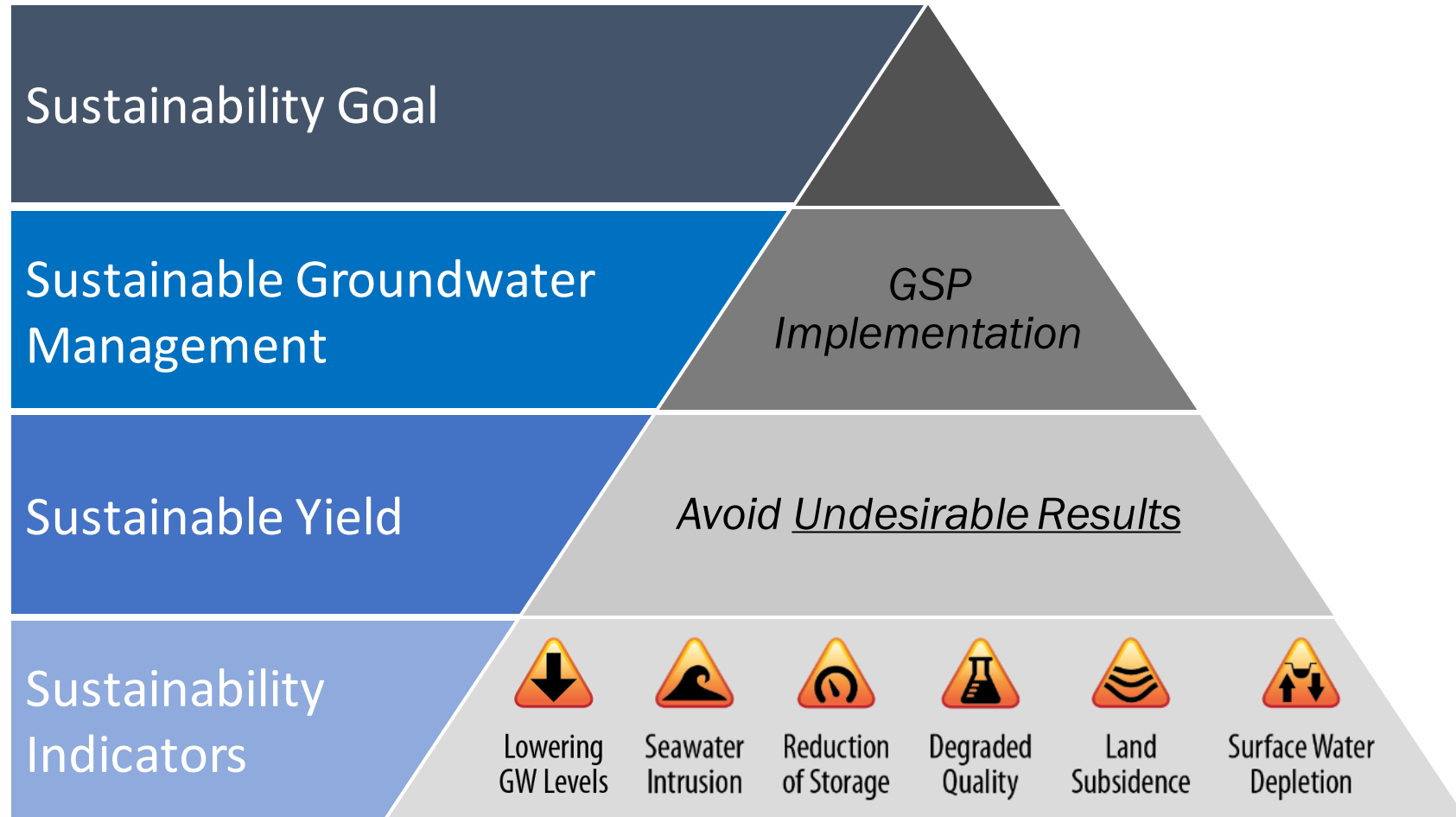
## Health Analogy

- Staying healthy and fit
- Weight, Blood Pressure, etc
- Doctors recommendations
- Healthy limit
  - When limit is surpassed
- Urgent care



DWR, 2018

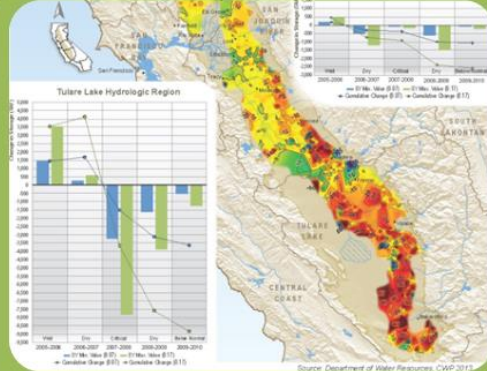
# Background - SGMA



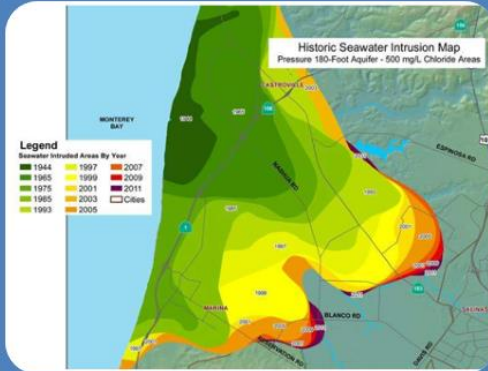
# Avoiding Undesirable Results for Six Sustainability Indicators



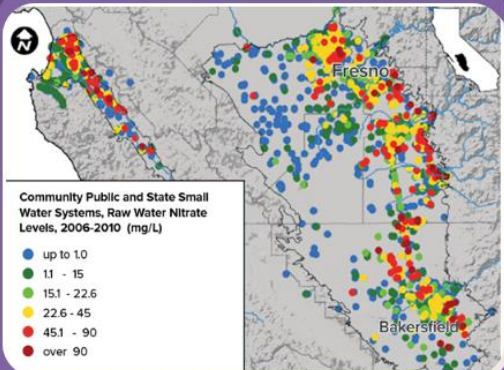
Lowering of GW Levels



Reduction of GW Storage



Seawater Intrusion



Degraded Water Quality



Land Subsidence

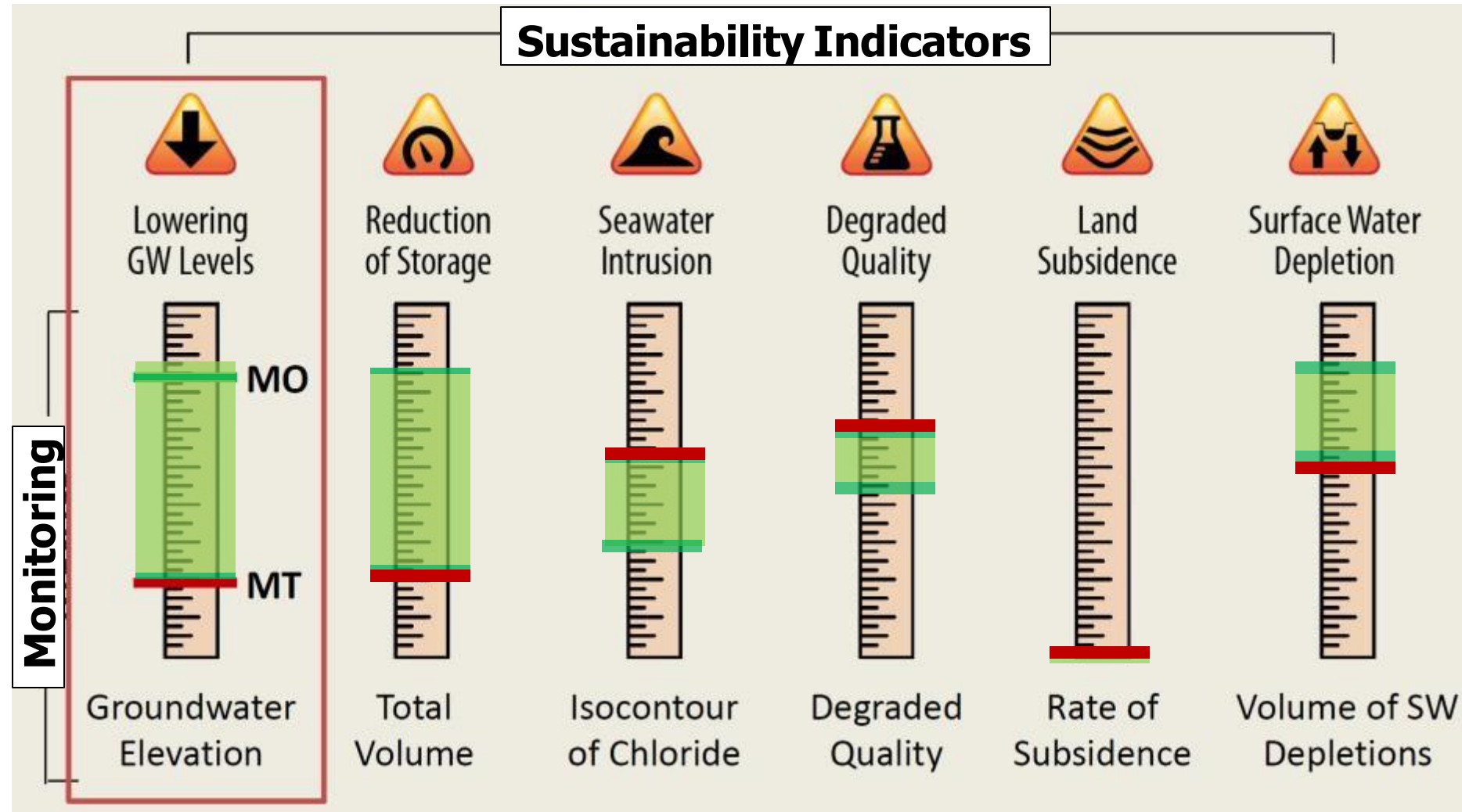


Depletion of Inter-connected Streams



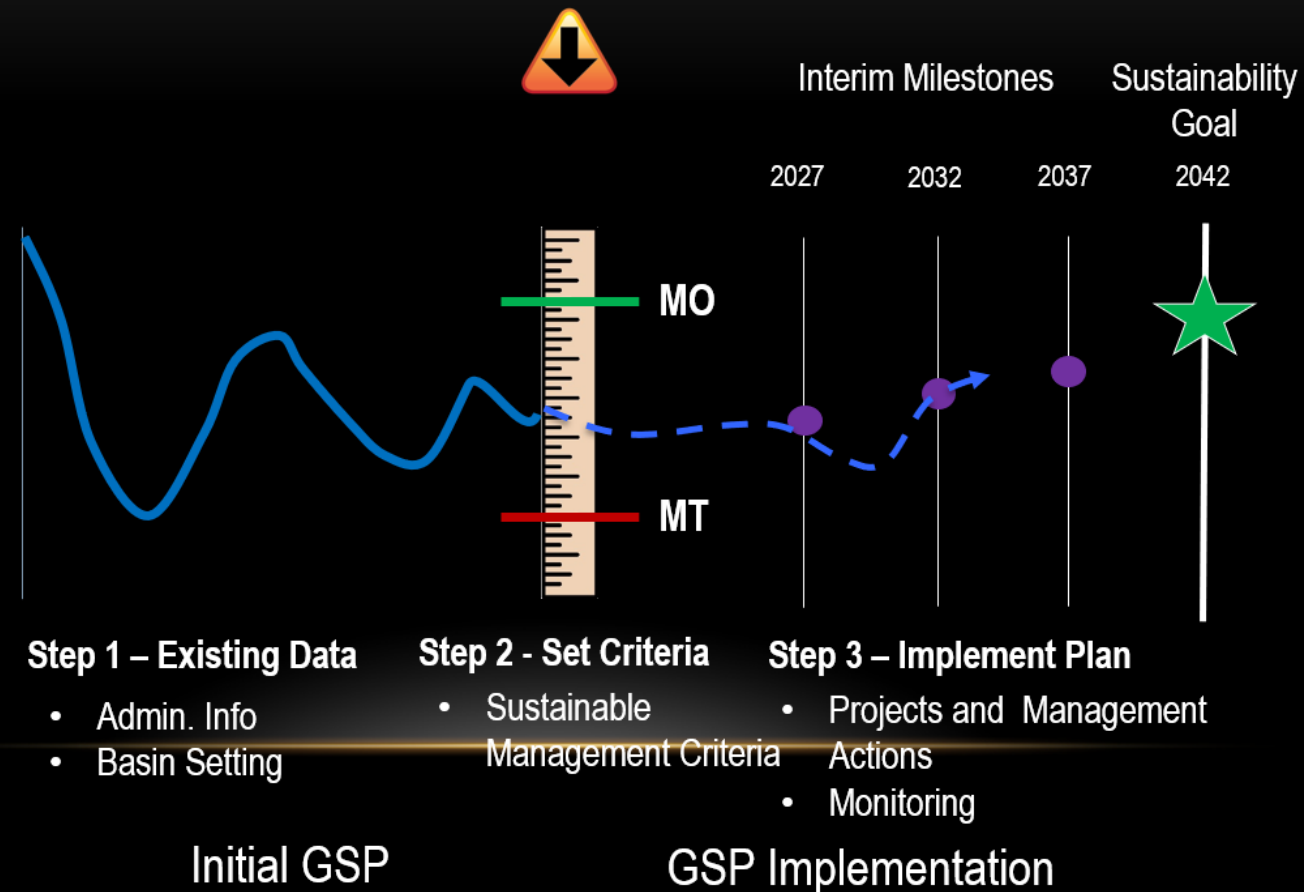
# SGMA Terms Explained

Sustainable Management Criteria for all applicable Sustainability Indicators



# SGMA Terms Explained

## MINIMUM THRESHOLD METRICS - STATEWIDE FRAMEWORK -

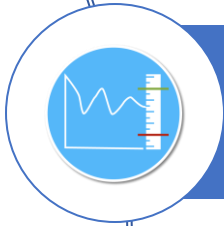


# Tehama Subbasins Groundwater Sustainability Plan



**Describe the Basin Conditions**  
Plan Area, Subbasin Setting & Water Supplies

**What water sources are used in the basin and what are the basin conditions related to those uses?**



**Define Basin Sustainability**  
Sustainable Management Criteria & Monitoring

**What is sustainable groundwater management?**



**Develop Projects/Management Actions & Implementation Plan**

**How can we ensure groundwater sustainability?**



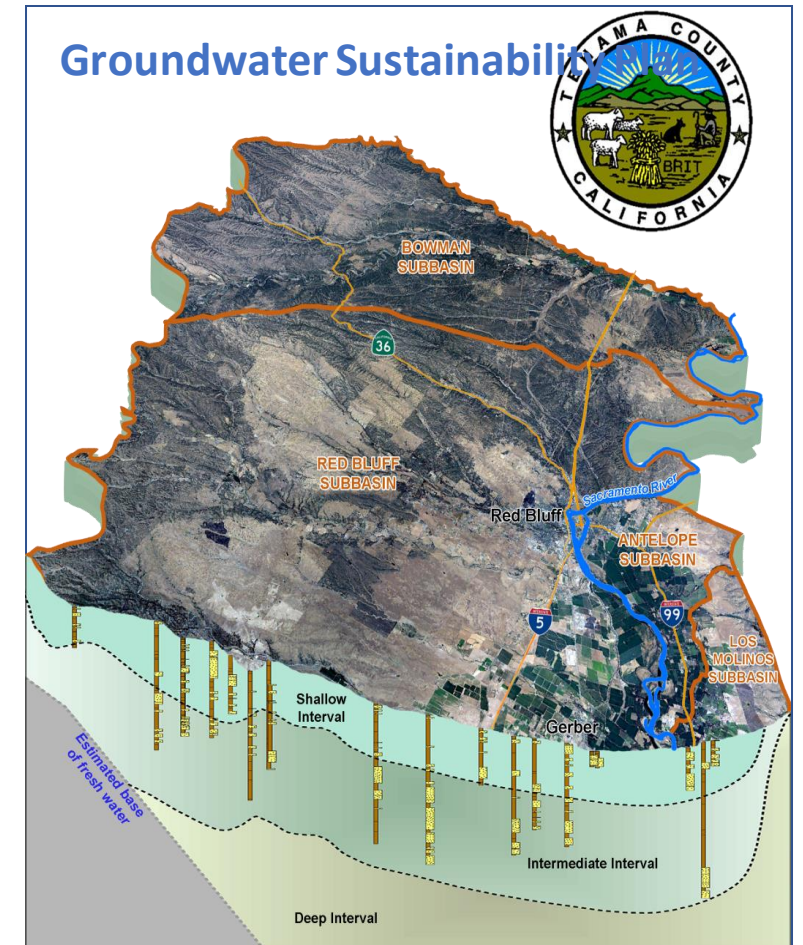
**Develop & Adopt GSP**  
Submit GSP to DWR: January 31, 2022

**Will this plan meet our sustainability goals?**



# Looking Ahead: Draft GSP in 2021

- Much underway in 2020
- Outreach Continues (October and November 2020)
- Draft GSP Sections
- Fall 2020: Developing Chapter 1 & Chapter 2
- Spring 2021: Defining sustainability criteria (including undesirable results)
- Spring 2021: Develop concepts for projects and management actions
- Modeling: anticipate completion of model calibration and running project-related and future conditions scenarios in Fall 2020/Spring 2021
- Draft GSPs Early Fall 2021



# Developing GSPs | Questions?



## How to Ask Questions

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# Thank you! | General Questions?



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