Ukiah Valley Basin Groundwater Sustainability Agency

Ukiah Valley Groundwater Sustainability Plan: Community Outreach Meeting

February 23, 2021

Draft

Introduction

Draft

Meeting Format and Remote Meeting Protocols

- Mute your Microphone
  - To help keep background noise to a minimum, make sure you mute your microphone when you are not speaking.
  - To unmute on your phone dial *6
- Asking Questions
  - Click Raise Hand in Webinar Controls
  - By Phone dial *9 to raise your hand

Draft

Meeting Agenda

- INTRODUCTION
  - Welcome
  - Introduction to Meeting Format/Remote Meeting Protocols
  - Overview of Meeting Agenda
  - Message from the Chair
- GOVERNANCE
  - Ukiah Valley Groundwater Sustainability Agency
  - Q&A
- PUBLIC ENGAGEMENT
  - Venues of Engagement
  - Q&A
- GSP TECHNICAL PROCESS
  - Introduction to PMAs
  - Updates on GSP Monitoring Networks
  - Planned next steps and schedule
  - Q&A
- NEXT STEPS
  - Planned Next Steps and Schedule

Draft

Terms and Acronyms

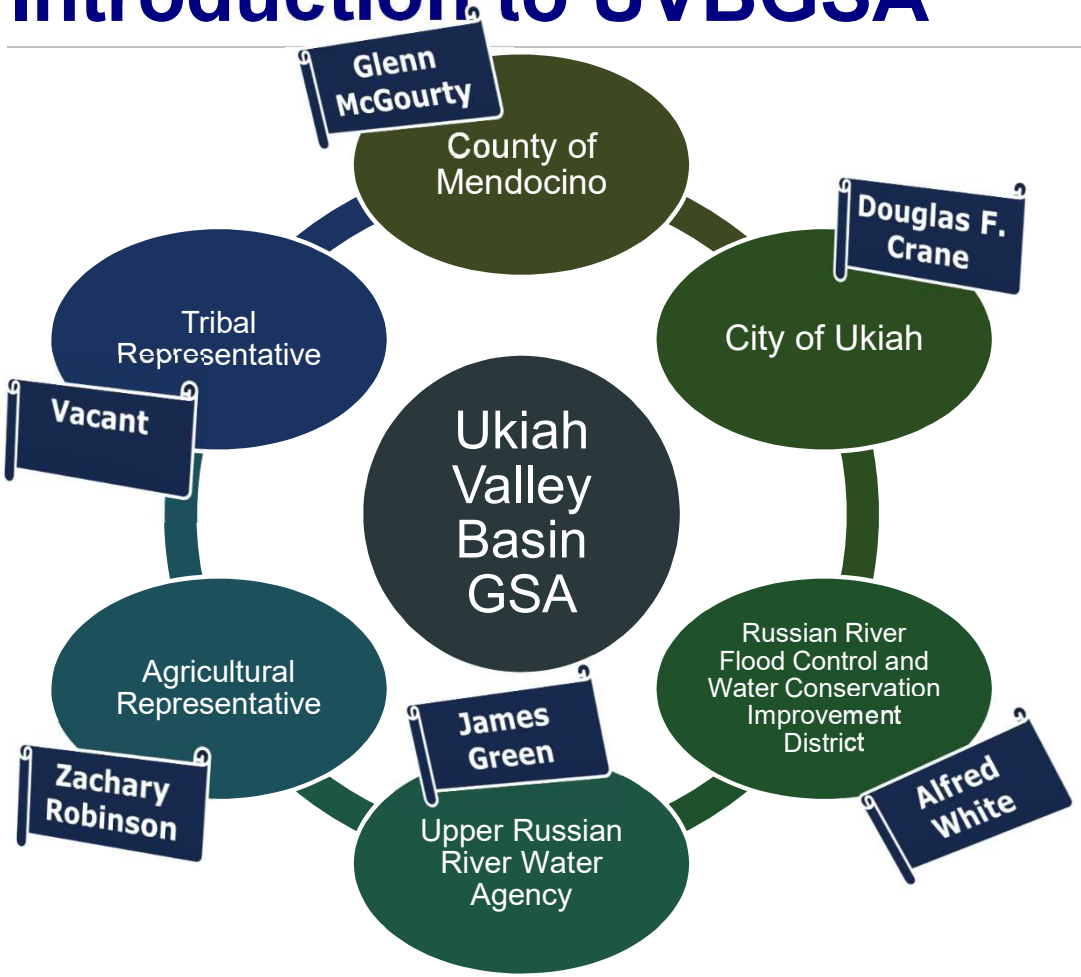
- GSA – Groundwater Sustainability Agency
- UVB – Ukiah Valley Basin
- GSP – Groundwater Sustainability Plan
- MO – Measurable Objectives
- MT – Minimum Threshold
- SGMA – Sustainable Groundwater Management Act
- SMC – Sustainable Management Criteria
- TAC – Technical Advisory Committee
- UR – Undesirable Result
- SW – Surface Water
- GW – Groundwater
- PMA – Projects and Management Actions
- GDE – Groundwater Dependent Ecosystem
- ISW – Interconnected Surface Water

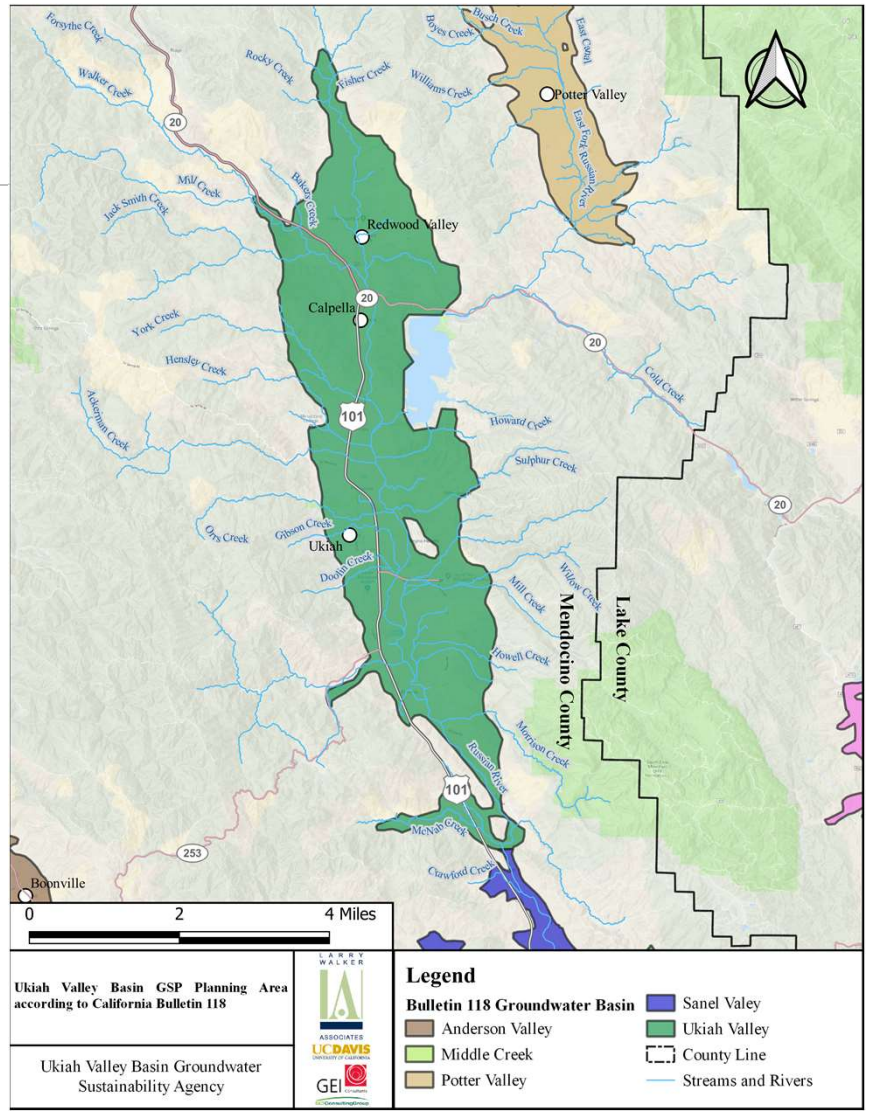
Draft

Governance

Draft

Introduction to UVBGSA





Draft

Introduction to UVBGSA: Organization and Team Structure

Groundwater Sustainability Agency	Technical Advisory Committee	Technical Team	Working Groups

• County of Mendocino
• City of Ukiah
• RRFCD
• URRWA
• Tribal Rep.
• Agricultural Rep.
	• County of Mendocino
	• City of Ukiah
	• URRWA
	• RRFC
	• Tribal Rep.
	• Agricultural Rep.
	• Sonoma Water
	• MCRCD
	• CLSI
		• Larry Walker Associates
		• UC Davis
		• GEI
		• SCI
			• Subject Matter Experts
			  • SW/GW Interaction WG
			  • PVP Operations
			  • Ag Reps
			  • GW Elevation WG
			  • PMAs WG

Draft

Technical Advisory Committee (TAC) Members

Name	Organization
James Linderman	County of Mendocino
Sean White	City of Ukiah
Ken Todd	Upper Russian River Water Agency
Elizabeth Salomone, Chair	Russian River Flood Control
Javier Silva	Tribal Representative
Levi Paulin	Agricultural Representatives
Don Seymour	Sonoma Water
Mike Webster	Mendocino County RCD
Laurel Marcus	California Land Stewardship Institute

Draft

Public Engagement

Draft

Venues for Engagement

- Sign up for Interested Parties List
  - You can use County e-Notification System https://www.mendocinocounty.org/community/enotification

- Receive, review, and comment on public drafts of chapters
- Attend Public and Community meetings

- Attend Board and TAC Meetings
  - Find dates, agendas, minutes, and presentation materials on County website
  - You will be notified if you signed for interested parties list

Draft

Venues of Engagement for Public: Get Involved

UVBGSA Board Meetings

Typically, 2nd Thursday of the month from 1:30-

- 11 March 2021
- 8 April 2021

TAC Meetings

Typically, 2nd Wednesday of the month from 1:30-3:30PM

- 10 March 2021
- 7 April 2021

Community Meetings

Look for similar posters and eblasts

- June-July 2021
- Post-September 2021

Working Group Meetings

Contact us if you are proficient in the subject and want to get involved

- SW/GW Interaction
- PVP Operations
- Ag representatives (Farm Bureau)
- GW Elevation
- PMAs

Draft

Your participation matters

- GSAs: have authority and responsibility for GSP and content within
- TAC: members provide advice, input, and recommendations to the GSAs on all aspects of the GSP
- Technical Team: researches technical issues, prepares draft content for the GSP
- Working Groups: provide subject-specific advice, input, and recommendations to the Technical Team and TAC

Draft

GSP Technical Process

Draft

GSP Development Schedule

Draft

Plan contents and current status

A GSP has five chapters:

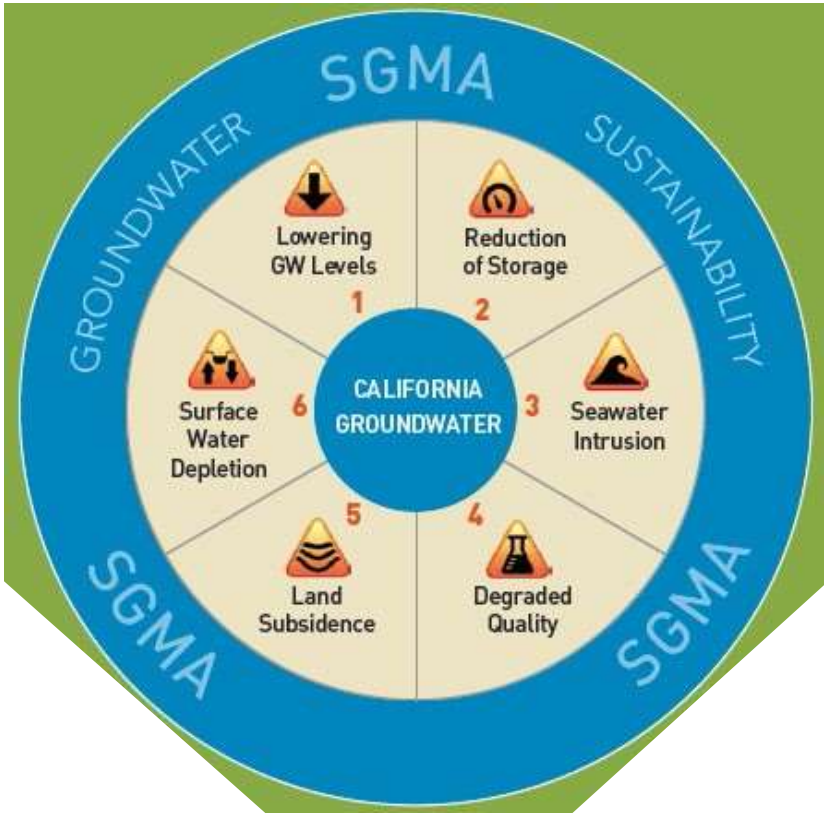
1. Introduction 
2. Plan Area and Basin Setting 
3. Sustainable Management Criteria 
4. Projects and Management Actions 
5. Plan Implementation 

Draft

Sustainability Indicators: Learning a New Language

Sustainable Management Criteria and ***Projects and Management Actions*** are the Key Components of the GSP:

- GSP needs to consider and demonstrate the applicability (or not) of all the sustainability indicators
- We will focus on: lowering groundwater levels, reduction of storage, degraded quality, and surface water depletion
- Monitoring networks to characterize and inform sustainability indicators

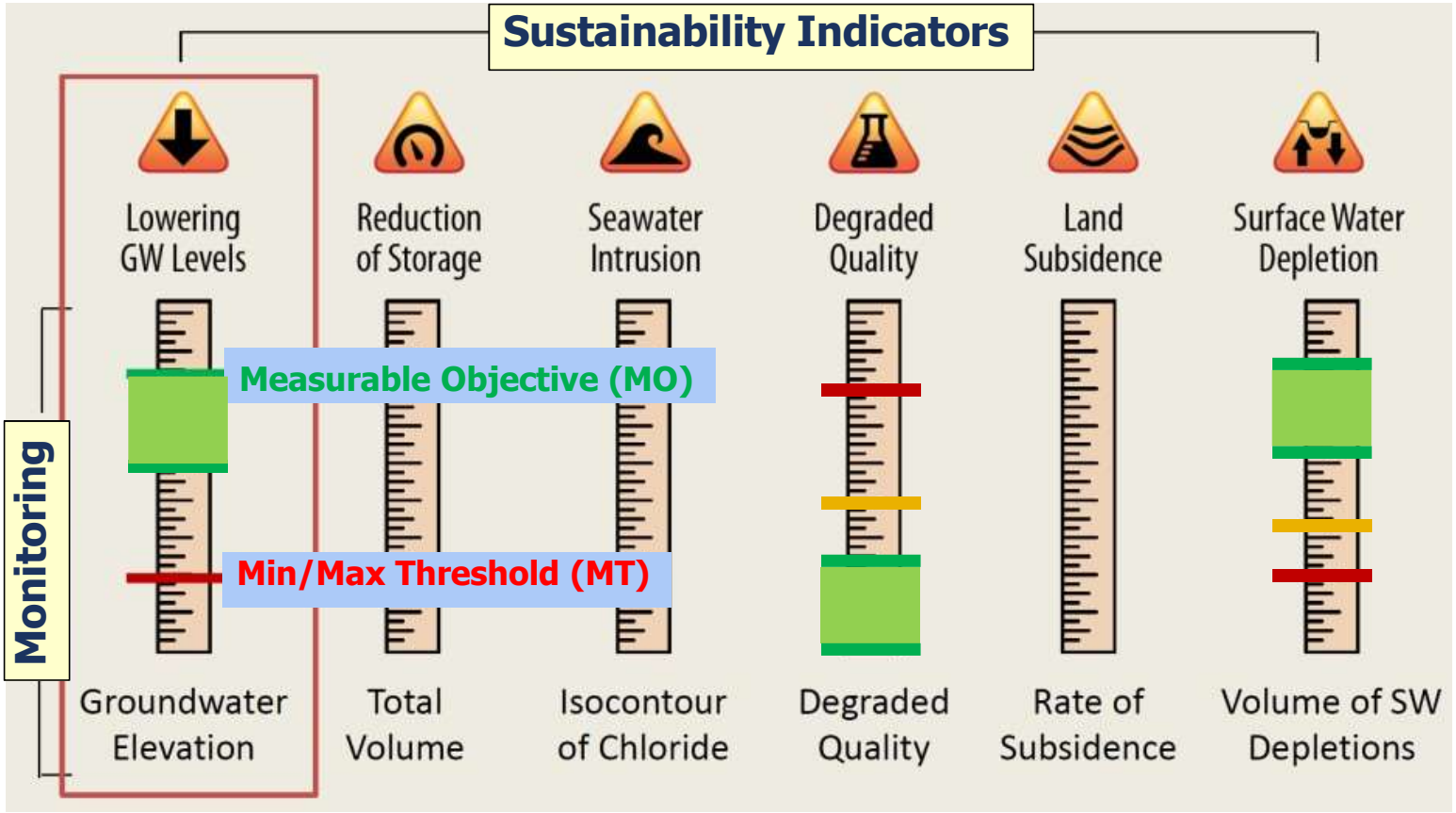


Draft

Developing "Thermometers" to Gauge the Health of the Basin for Each Applicable Undesirable Result

- **Measurable Objective:** Goal that we want to strive for.
- **Minimum Threshold:**

  Quantitative value reflecting what is significant and unreasonable. ***The line we don't want to cross.***



modified from Ca DWR 2016

Draft

Projects and Management Actions

- Why do we need projects and management actions (PMAs)?
  - To **achieve the sustainability goal** by 2042 and avoid undesirable results through 2092
  - To respond to **changing conditions** in the Basin
  - Each of the PMAs may support achieving sustainability for **one or more sustainability indicators**
- Can be categorized into
  - Existing PMAs
  - Proposed or planned PMAs to reach sustainability
  - PMAs to be evaluated in the future

Draft

Existing PMAs

- Existing PMAs:
  - City of Ukiah RW project (Water Supply)
  - PVP Project (Water Supply)
  - Ukiah Valley-Redwood Valley Water Supply Reliability Intertie and Well Development Project (Water Supply)
  - Forecast Informed Reservoir Operation (Water Supply)
  - Water Main and Meter Replacement (Demand Management)
  - Conservation ordinances and programs outlined in general plans and water plans
  - Public education and outreach
  - Improved frost and heat forecasting

Draft

Proposed PMAs

- Proposed Projects:
  - Reduce evaporation losses in storage facilities
    - Use of WaterSavr for Lake Mendocino and agricultural ponds
    - Use shade ball cover for agricultural ponds
  - Implement recharge projects
    - Using ag fields to recharge by utilizing frost protection systems and/or timely off-season diversions
    - Implement multi-benefit infiltration projects including stormwater BMPs and LIDs
  - Protect source waters and recharge areas
    - Purchase surface water tributaries' headwaters
    - Limit urbanization of recharge areas through working with land use planning agencies

Draft

Integrated Model and PMAs

- What the Integrated Model Provides:
  - Simulates existing and potential PMAs to assess their impact in terms of the relative change between baseline and projected conditions.
  - Helps evaluate how such impacts would translate to SMC settings and achieving the sustainability goal
  - Final projected model will include all relevant PMAs agreed upon for the GSP that allow maintenance of SMCs over the 50-year planning and implementation horizon.
- What It Needs:
  - Detailed information that quantifies projects in a manner that is implementable in the model

Draft

Questions?

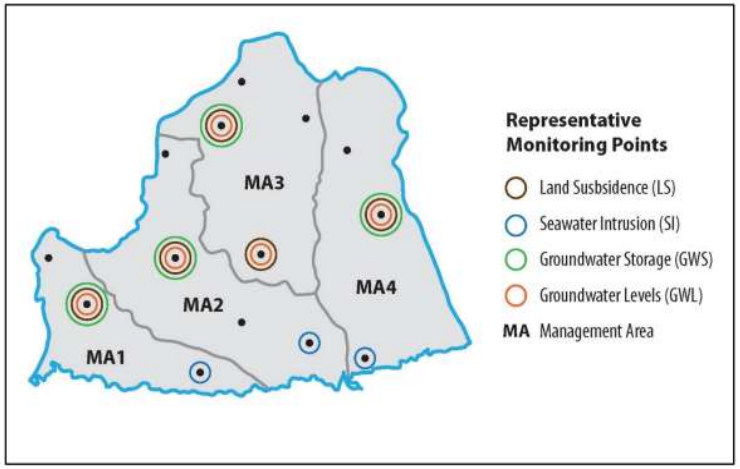
Draft

Update on GSP Monitoring Networks

Draft

Monitoring Networks

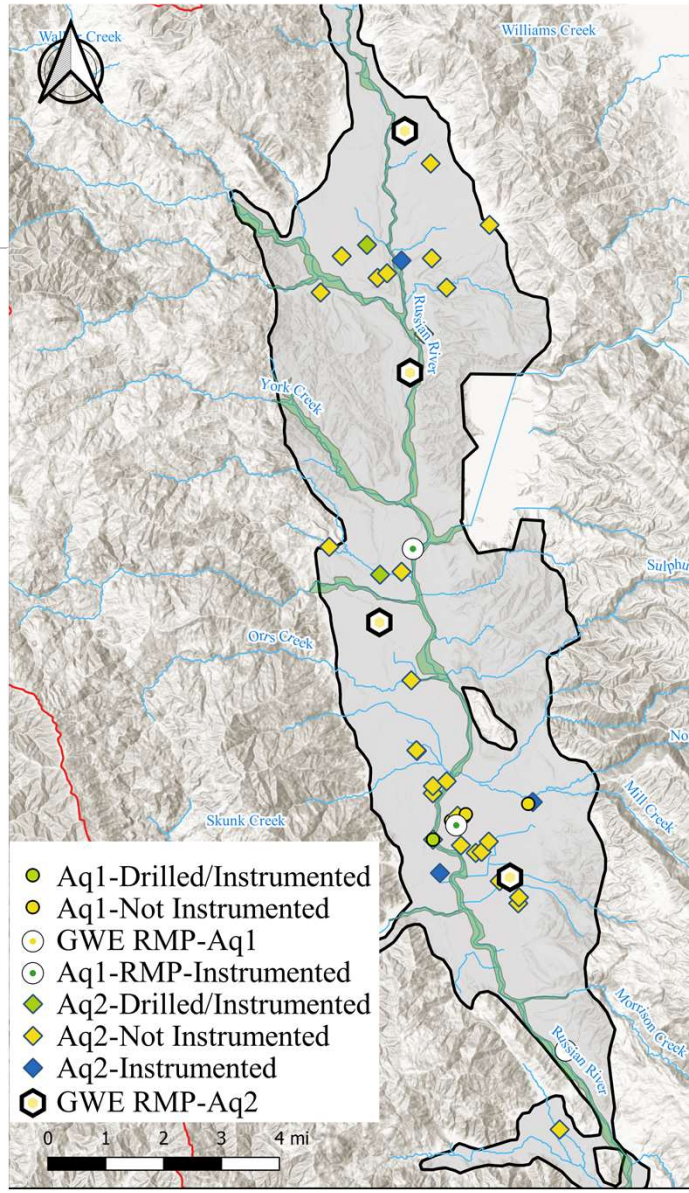
- Why is it important?
  - Measures progress toward the achievement of any management goal and measurable objectives
  - Sustainability criteria are defined based on the components of the monitoring network
- May be different for each sustainability indicator
- Must have sufficient temporal frequency and spatial distribution to:
  - demonstrate short-term, seasonal, and long-term trends in basin conditions
  - monitor impacts to the beneficial uses or users of groundwater
  - quantify annual changes in water budget components
- A series of RMPs or a single RMP may be adequate to characterize a management area or basin.
- RMPs should demonstrate similar levels, trends, and seasonal fluctuations to the surrounding monitoring wells in their represented area.



Draft

Chronic Lowering of Groundwater Levels

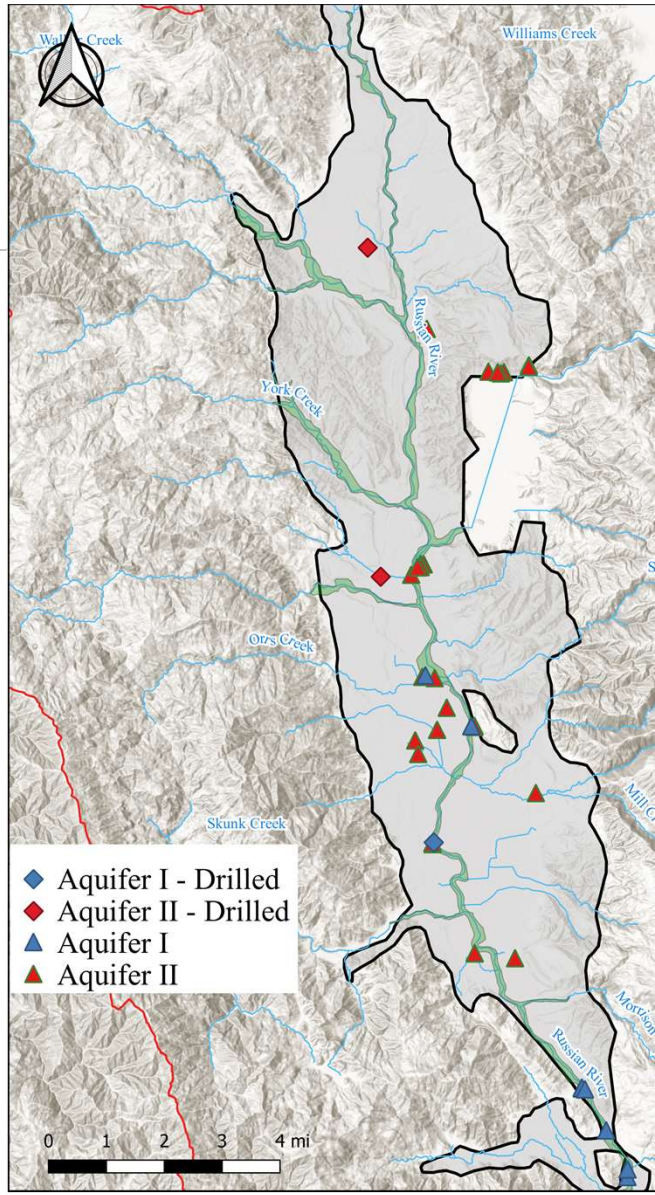
- **Goal:**
  - Adequate spatial distribution, coverage, and well density
  - Long-term history
  - Adequate frequency to capture seasonal, short and long-term trends
- **What is needed:**
  - Monitoring History: Available historical data
  - Well Information: construction information such as well depth and screened interval(s)
  - Well Access



Draft

Degradation of Water Quality

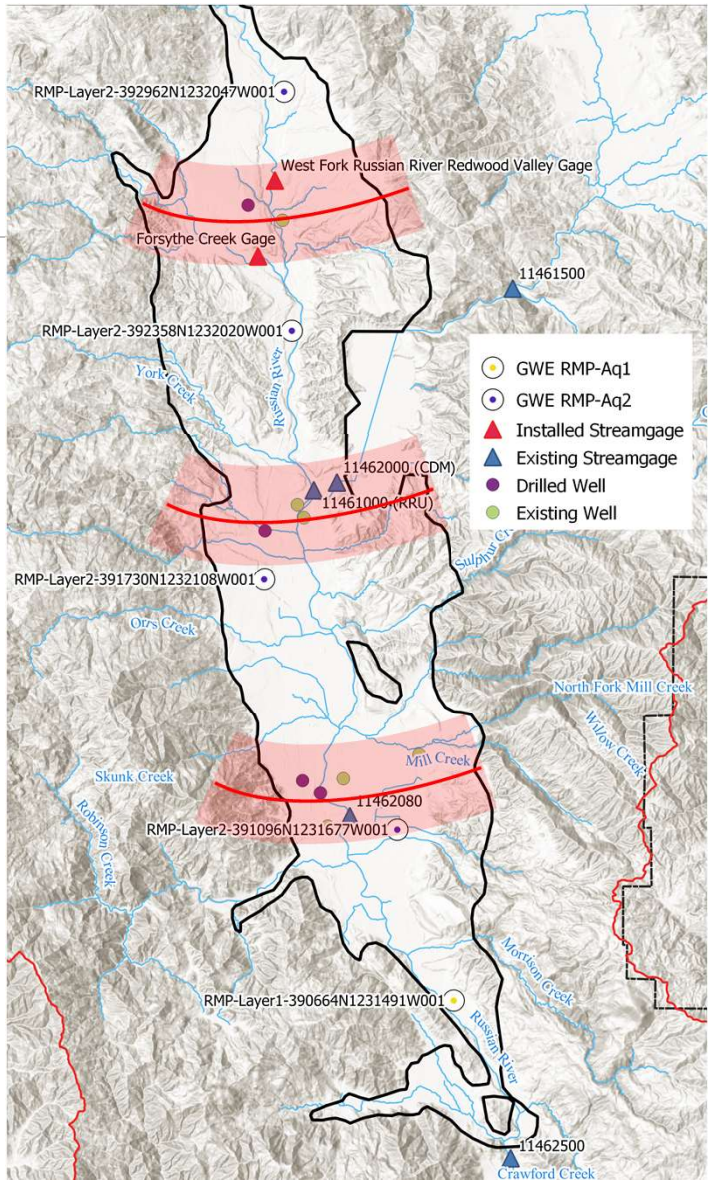
- **Goal:**
  - Adequate spatial distribution, coverage, and well density
  - Long-term history
  - Adequate frequency to capture seasonal, short and long-term trends
- **What is needed:**
  - Monitoring History: Available historical data
  - Well Information: construction information such as well depth and screened interval(s)
  - Well Access
  - Sampling of COCs with defined frequency
- **COCs**
  - Boron
  - Iron
  - Manganese
  - Nitrate
  - Specific conductivity
- Started from all Public/Private Supply wells with DDW Sampling record of COCs.
- Limited to ones we could identify their aquifers.



Draft

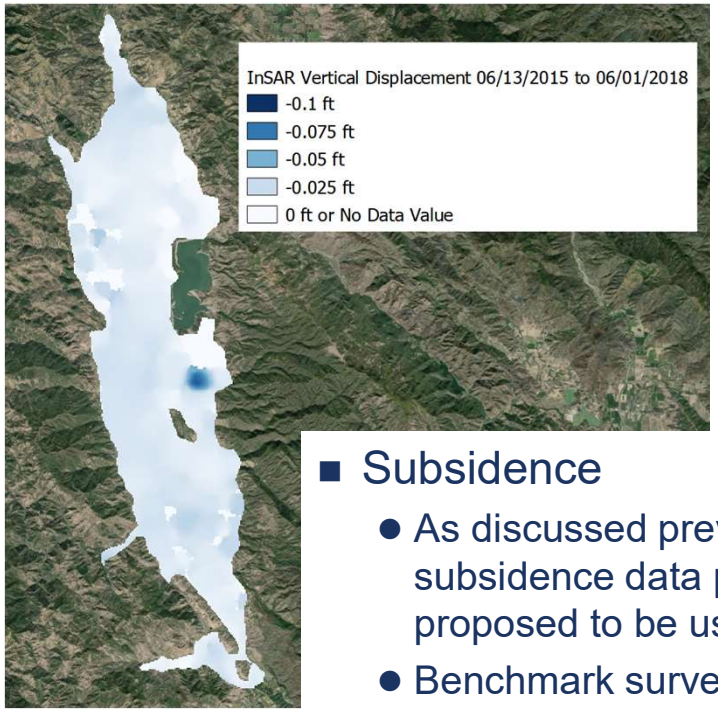
Depletion of Surface Water Monitoring Network

- **Goal:**
  - Characterize spatial and temporal exchanges between SW/GW
  - Characterize flow conditions:
    - surface water discharge
    - surface water head
    - baseflow contribution
  - Identify the approximate date and location where ephemeral or intermittent flowing streams and rivers cease to flow
  - Characterize temporal change in conditions due to variations in stream discharge and regional GW extraction
- **What is needed:**
  - Streamgages and flow measurement
  - High-frequency GW elevation measurement
  - Observations of flowing/not flowing conditions
  - Estimation of depleted volume and changes in condition (integrated model)

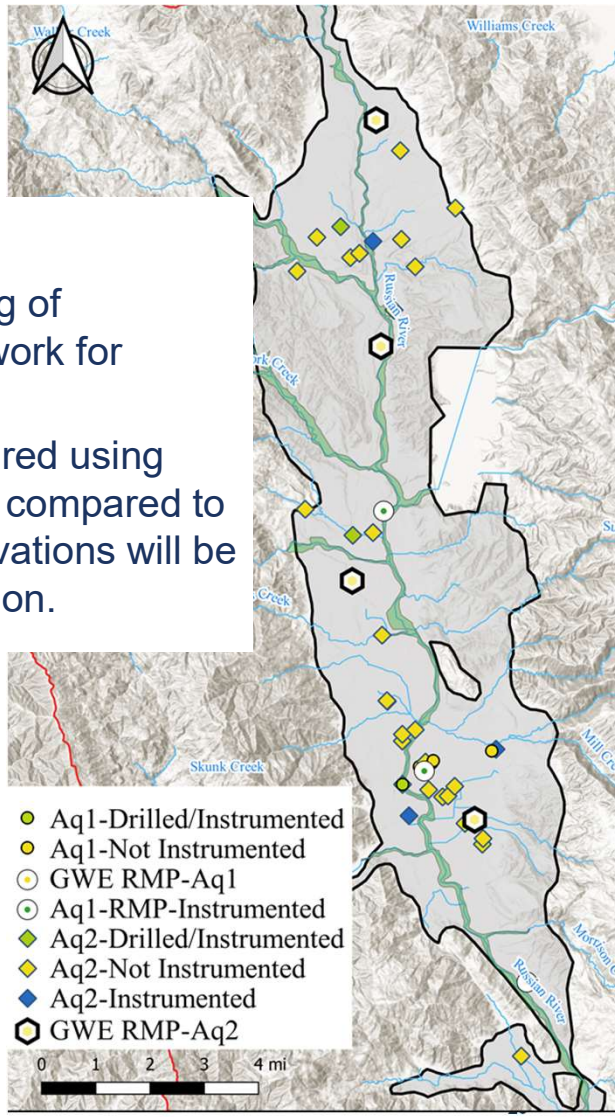


Draft

Reduction in Storage and Subsidence



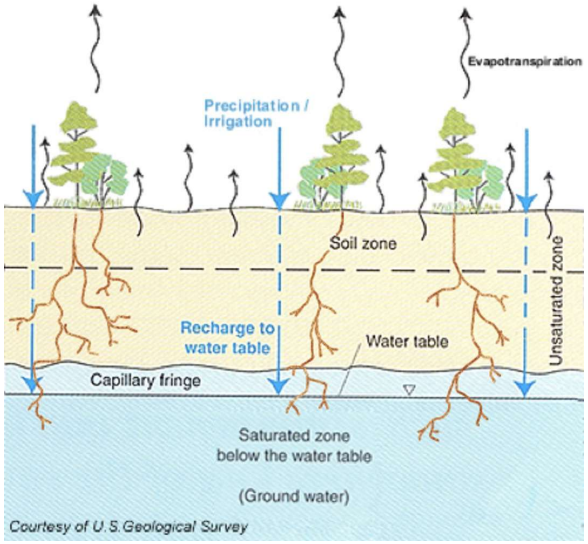
- Reduction in Storage
  - We propose to use chronic lowering of groundwater levels monitoring network for reduction in storage.
  - Reduction in storage will be measured using groundwater elevations and will be compared to model estimates. Groundwater elevations will be used as proxy to monitor this criterion.
- Subsidence
  - As discussed previously, InSAR satellite-derived subsidence data product published annually by DWR is proposed to be used for the monitoring.
  - Benchmark surveys or groundwater levels as proxy can also be used for monitoring subsidence. However, due to lack of historical subsidence in the basin they are not proposed as of now.

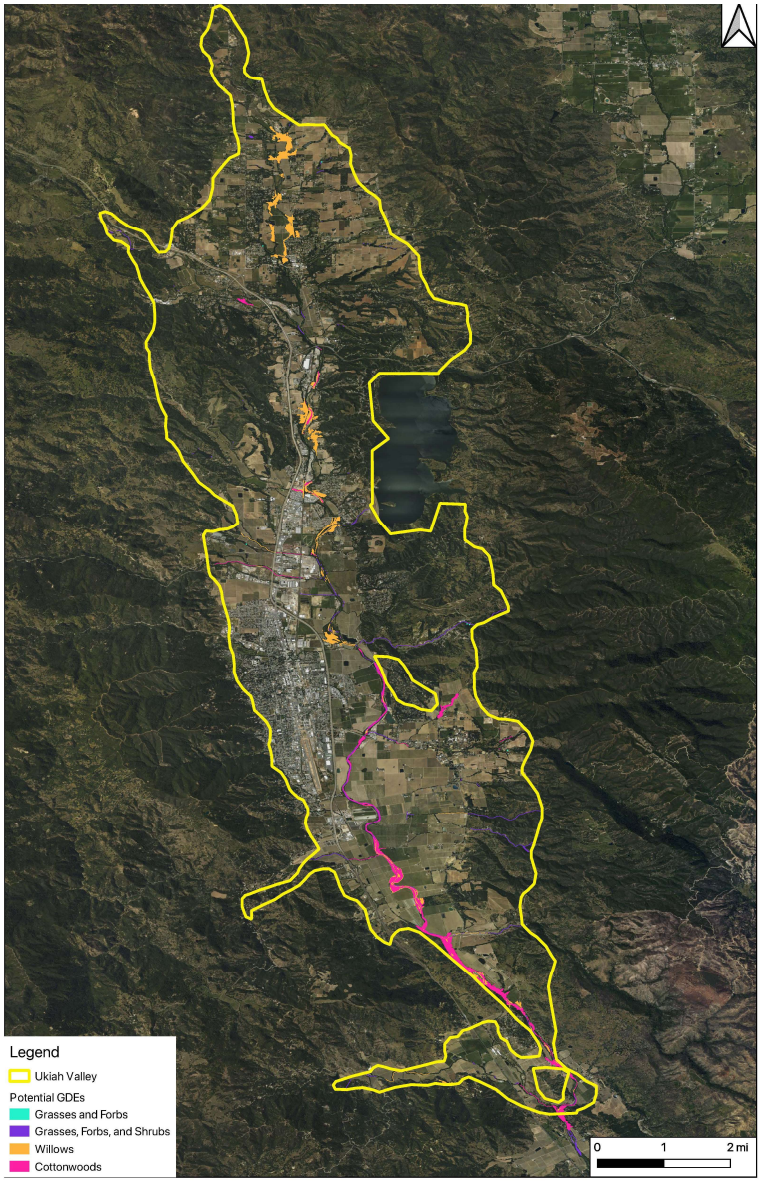


Draft

Monitoring of GDEs

- Groundwater dependent ecosystem
  refers to ecological communities or species that depend on:
  - Groundwater emerging from aquifers; or
  - Groundwater occurring near the ground surface.
- Undesirable Result for GDEs is the lowering of groundwater levels to cause diminishment of GDE habitat.





Draft

Questions?

Draft

Next Steps

Draft

Planned Next Steps and Schedule

TAC meeting	Key topics
March	• Water budget: historical, current and future conditions, and primary scenarios • Comparison of data and model; approach and results for ISW and GDEs analysis
April	• Refinement of Groundwater Dependent Ecosystems (GDEs) and ISW approach • Refinements to water budget • Additional Scenarios • Discussion to set chronic groundwater elevation decline SMC • Discussion to set reduction in storage SMC
May	• Finalize SMCs for chronic groundwater elevation decline • Discussion to set depletion of surface water SMC • Finalize PMAs • Discuss implementation plan

Draft

How to Get Involved

- **Next Public Meeting will be held in early summer**
- **But you are encouraged to:**
  - **Attend** public Board and TAC meetings and submit verbal comments/questions during the meeting
  - **Contact MCWA** to share information and comments and submit questions to be discussed in public Board and TAC meetings.
  - **Communicate** with appropriate representatives on the Board and/or TAC and convey comments and questions.

Draft

Questions?

Thank you!