9/24/2025

California County Café – Office Hours

– Specializing in Drought Resilience

Welcome and Setting Intention

Office Hours – An opportunity for an informal conversation about the issues and questions that are on your mind.

✓Join the conversation – share your questions, experience and learn from other perspectives and experiences.

✓ Make a connection – use the chat to connect with other participants.

✓ County focused – While all are invited to join, this gathering will focus on supporting county staff.

August County Café Follow Up

Domestic Wells and SSWS in Fractured Rock Areas

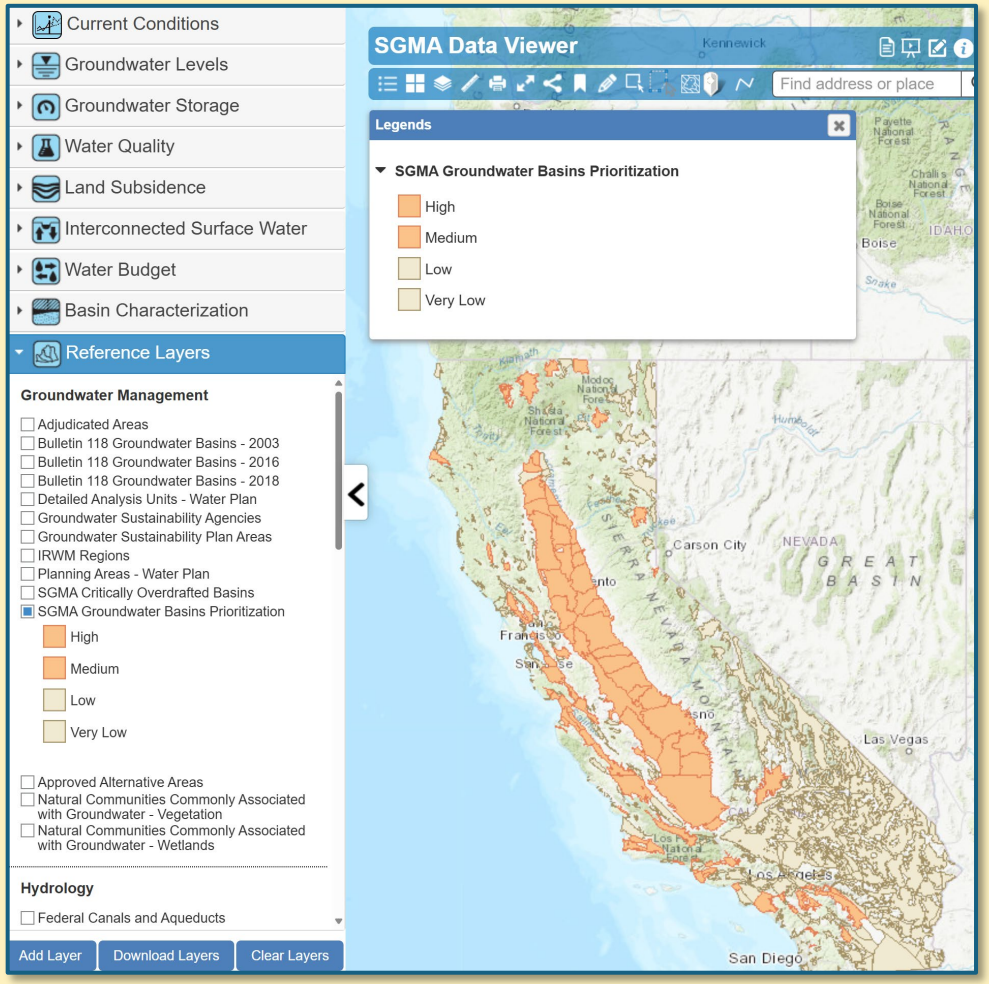
1. Understanding the Geology and its Effect

I'm curious how wells located in fractured rock groundwater basins compare to wells located in volcanic aquifers.

→ Fractured rock areas are outside of mapped groundwater basins. In these areas, water is stored and moves mainly through fractures, so **wells can have limited and variable supply**. Volcanic aquifers have fractures and porous zones, which usually allow them to **store and move more water**.

How do we identify if a rock well is a rock well? It is difficult to generalize by large area considering the vast diversity of soil types in this state.

→ Use the **SGMA Data Viewer** to explore statewide geology and identify fractured rock areas. It also provides access to groundwater levels, well locations, basin boundaries, and other SGMA-related datasets.



SGMA Data Viewer: https://sgma.water.ca.gov/webgis/

2. Coordination of Counties with GSAs in the DRP Development Process

It sounds like counties are responsible for domestic wells and small water systems per SB 552. But as I understand it, individual GSAs as part of SGMA also have domestic well mitigation programs as part of their GSPs. Do counties and GSAs communicate these plans to one another?

> Example: Our water district has put together a survey to collect domestic well data for small and individual well owners including things like date drilled, well completion report, service report, driller information, etc. This is all being captured through GIS Survey 123. However, we haven't gotten many responses to date.

Although GSAs are doing work that's related to SB 552, Counties are responsible for communities outside of a GSA's service area.

- Collaboration opportunities through Task Force
- Planning and policy alignment between DRP and GSPs
- Information sharing (DWR guidance as a resource)

Developing a Drought Resilience Plan

County Guest: Scott Gharda, Emergency Services Coordinator, Sutter County (FireSafeCouncil@co.sutter.ca.us)

1. Water Shortage Vulnerability Score & Tool

A. What strategies can be used to address **inconsistencies between the risk assessment results and on-the-ground experience**?

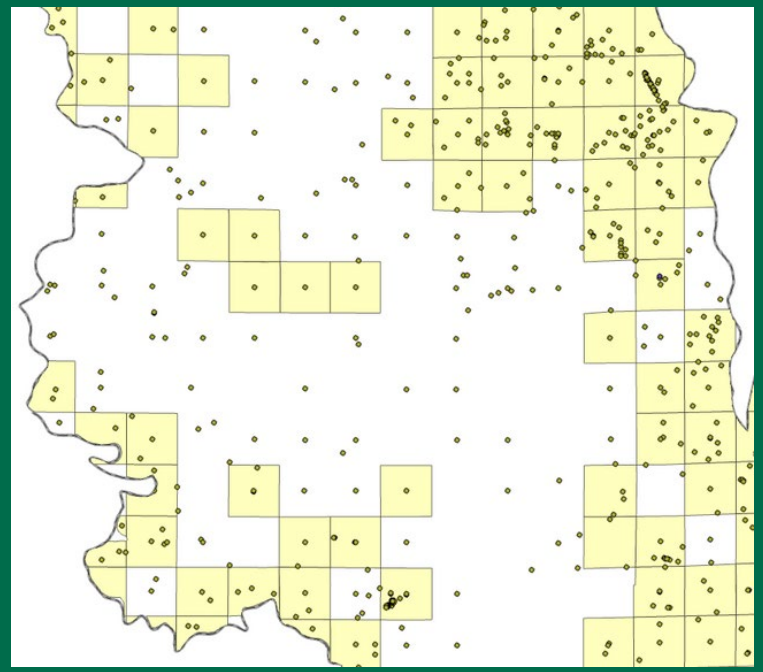
B. How should we **interpret and weigh physical vulnerability findings** in the county? Specifically, how do we account for differences in needs, vulnerabilities, geographic/geologic characteristics, and infrastructure?

C. How do we reconcile risk assessment results that indicates higher **social vulnerability** in more populated urban areas, with available resources and services that are available in these areas?

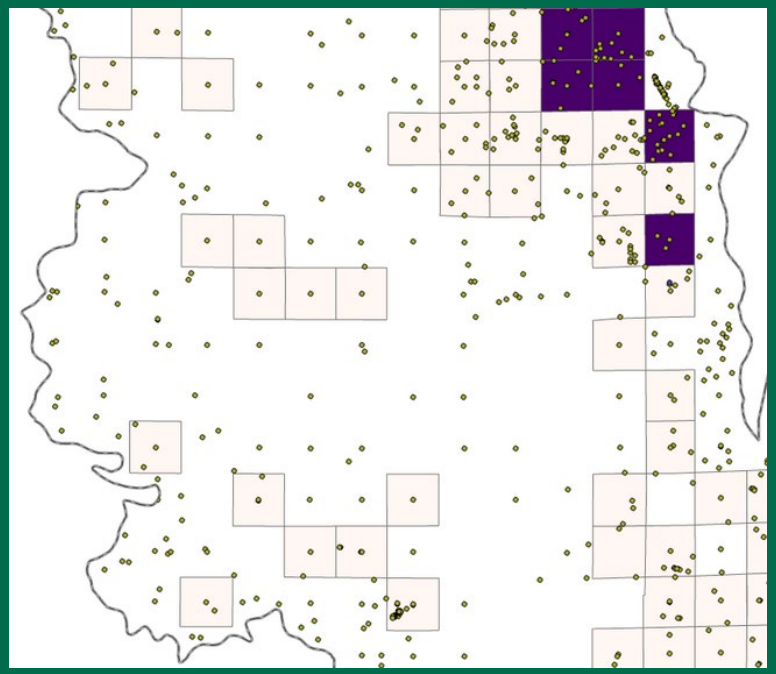
Using the Risk Assessment Tool and 2024 Methodology Document (Question A)

Strategies to Address Inconsistencies Between Risk Assessment Results and On-the-Ground Experience

- Mapping inconsistencies where Domestic Wells and State Small Water Systems are not represented (PLSS tile placement)



RC1a_TemperatureChange

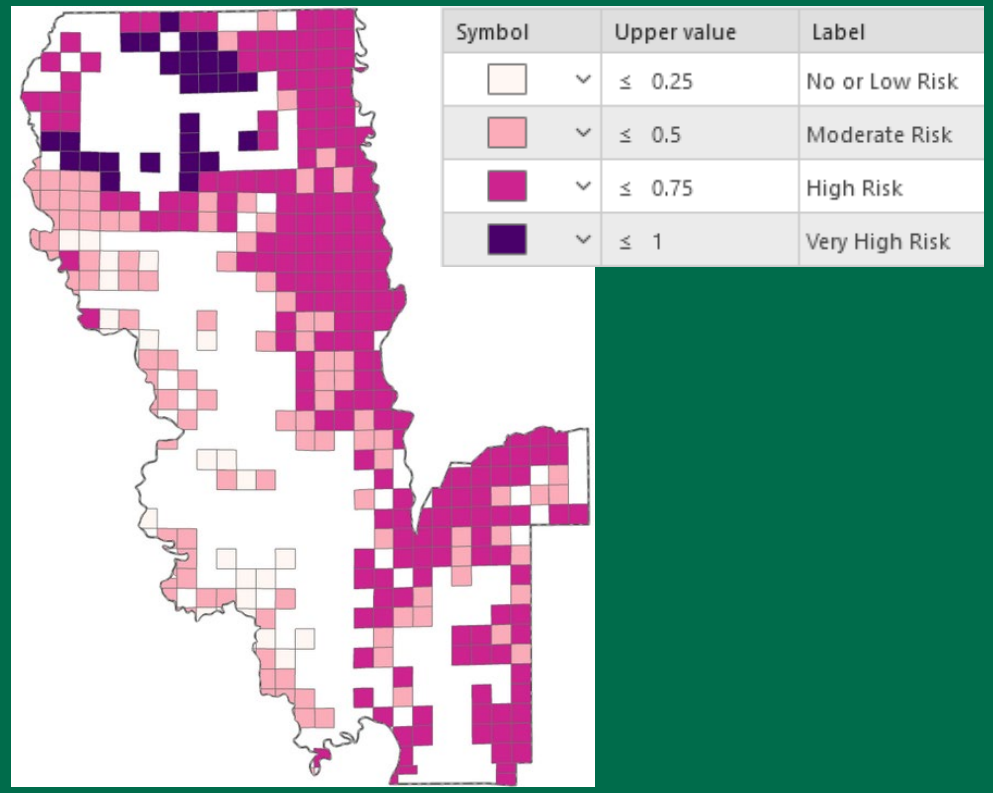


RC2a_GroundwaterDecline

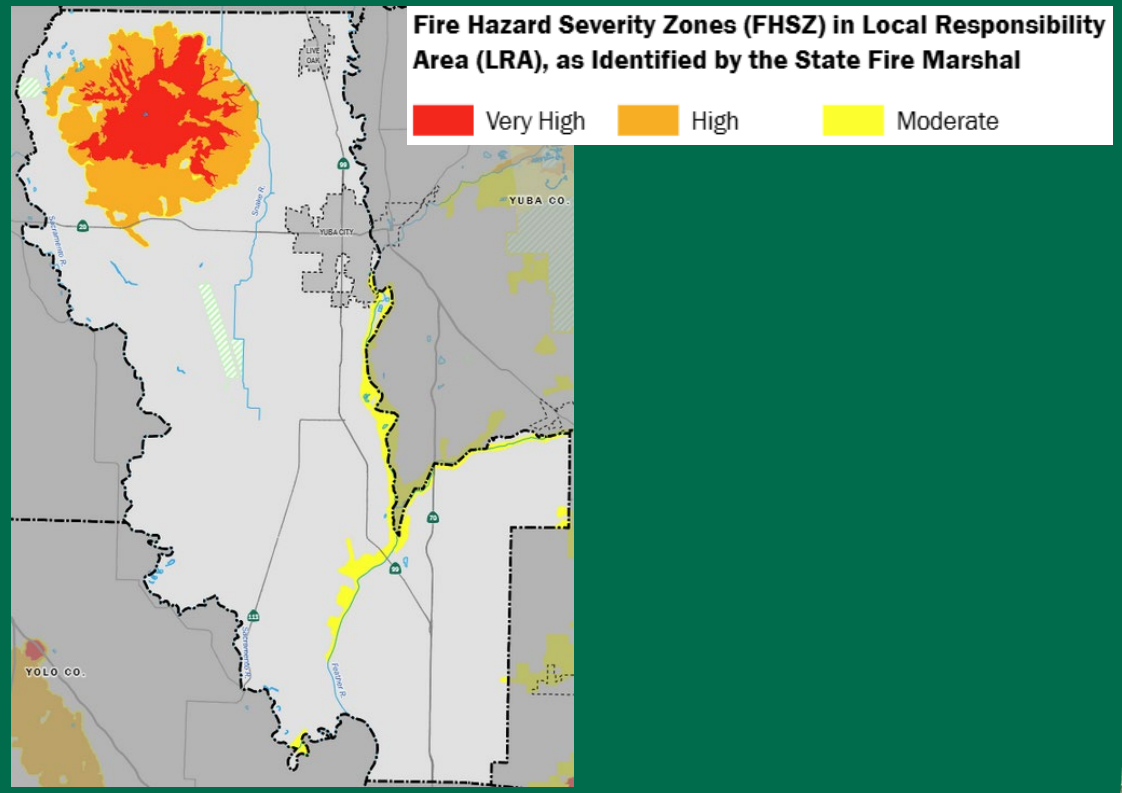
Using the Risk Assessment Tool and 2024 Methodology Document

Strategies to Address Inconsistencies Between Risk Assessment Results and On-the-Ground Experience (Question A)

- Risk vs Hazard



RC2b_USFS_WildfireHazardPotential

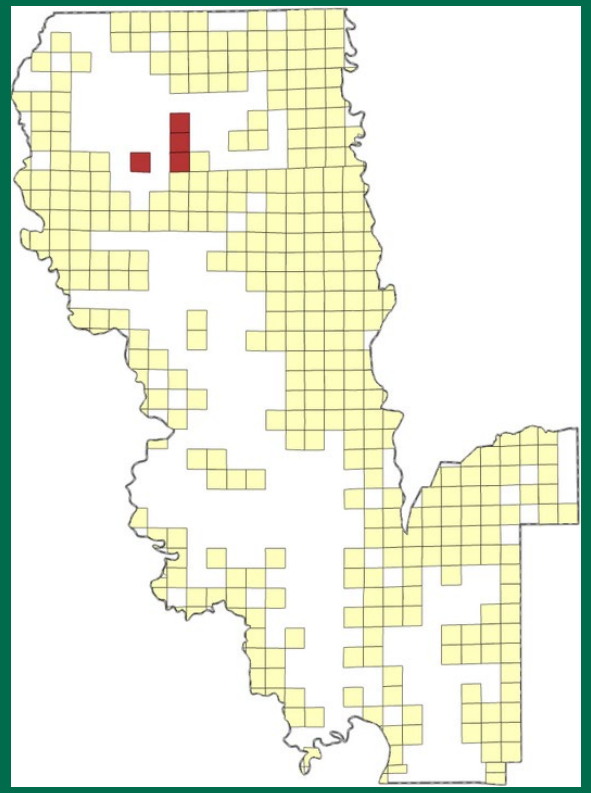


CAL FIRE Hazard Severity Zones

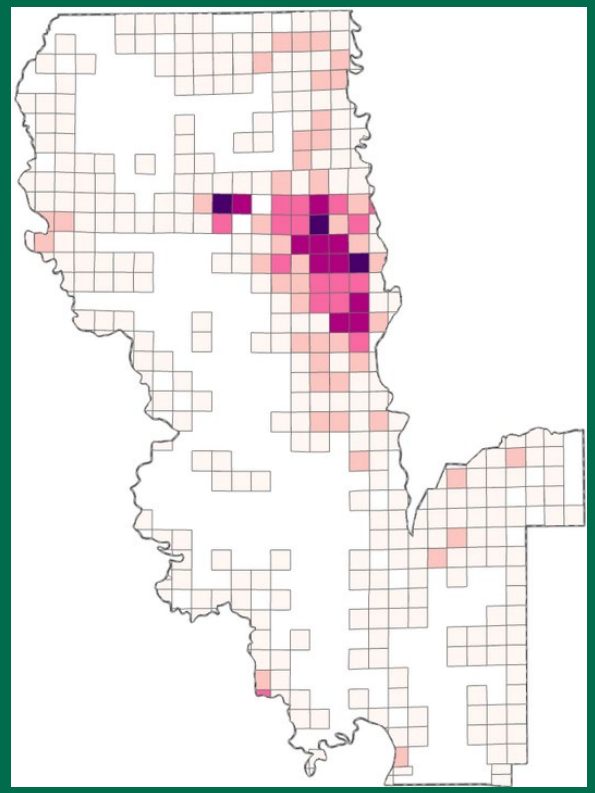
Using the Risk Assessment Tool and 2024 Methodology Document

Strategies to Address Inconsistencies Between Risk Assessment Results and On-the-Ground Experience (Questions A)

- Fractured Rock Inconsistencies



RC2c_FracturedRockAreas



RC3c_WellDensityInFracturedRock

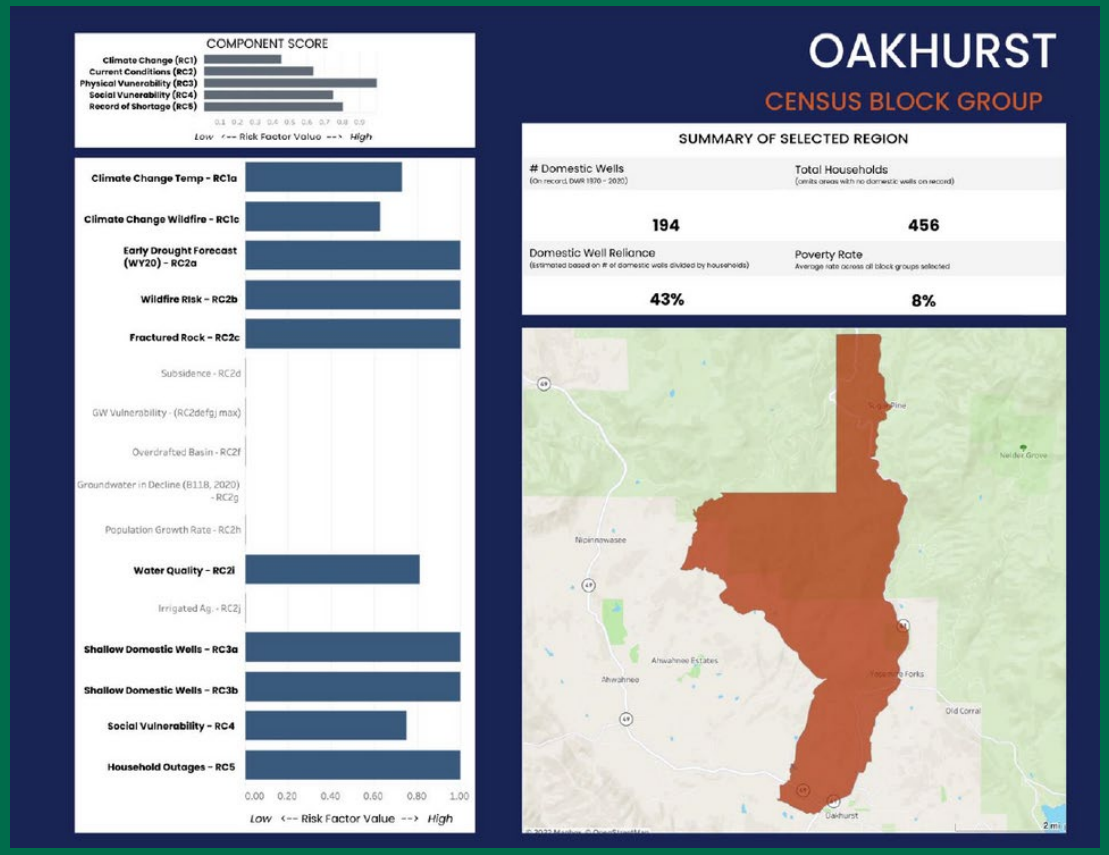
Risk and Vulnerability Representation

How to Interpret and Weigh Physical Vulnerability Findings (Question B)

- Regions with common needs, vulnerabilities, geography

Table 3-1. Summary of Risk Assessment Findings in Napa County

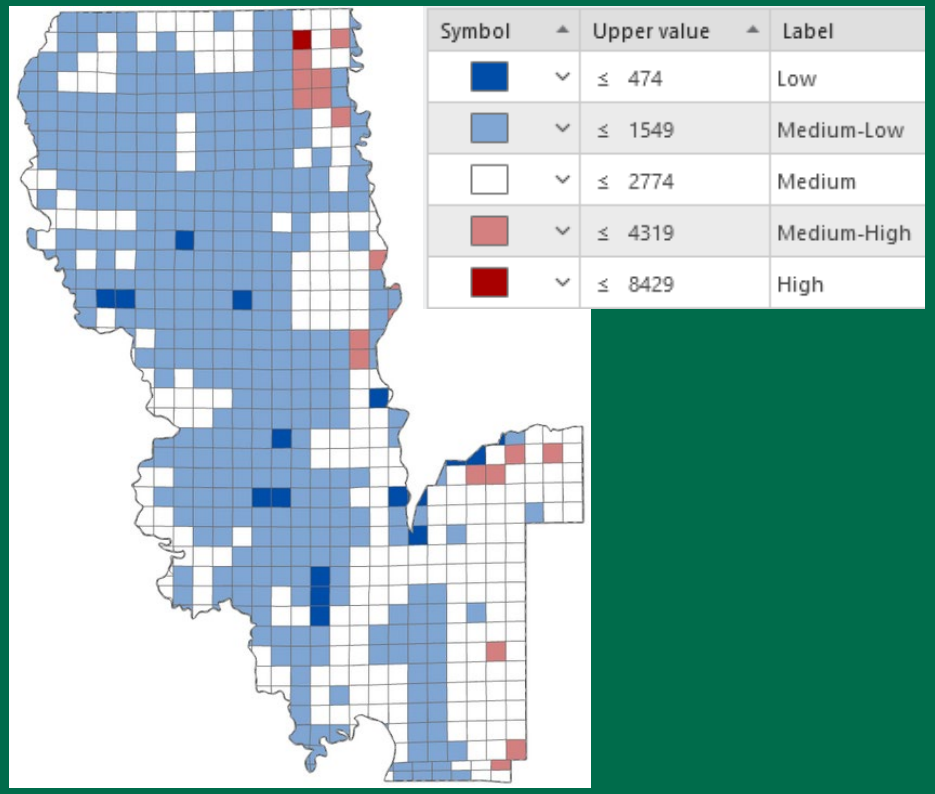
Area with Water Shortage Vulnerability and Domestic Wells/SSWSs	Physical Vulnerability Indicator	Social Vulnerability Score
The MST Subarea region east of the City of Napa	• Higher domestic well density in fractured rock areas • Consecutive dry years • Reported groundwater decline of about between -16 feet (Spring 2019-2022) • Declined water quality	Between .01 and .20
Northwest – City of Napa	• Cluster of dry wells reported • Reported groundwater decline ranges between -16 to -66 feet (Spring 2019-2022) • Consecutive Dry Years • Basin transitions between alluvial to fractured rocks • Declined water quality	Between .21 and .60
Northeast Napa Management Area	• Reported groundwater decline ranges between -16 to -66 feet (Spring 2019-2022) • Declined water quality	Between .01 and .20
City of Calistoga, City of St. Helena, and Angwin Area	• Higher domestic well density • Angwin Area falls in a semi fractured rock areas and susceptible to drying wells • Cities of Calistoga and St. Helena has reported groundwater decline of about between -16 feet (Spring 2019-2022) • Declined water quality	Between .21 and .60
Putah Creek Watershed	• Primarily lies in fractured rock areas	Between .61 and .80
Mountaintop areas outside the alluvial basin	• Primarily lies in fractured rock areas	Between .61 and .80
Southern parts of the County, including the Carneros and American Canyon areas	• Potential for salinity intrusion • Declined water quality	Between .41 and .80



Risk and Vulnerability Representation

How to Interpret and Weigh Physical Vulnerability Findings (Question B)

- Combined Social and Physical Vulnerability Score

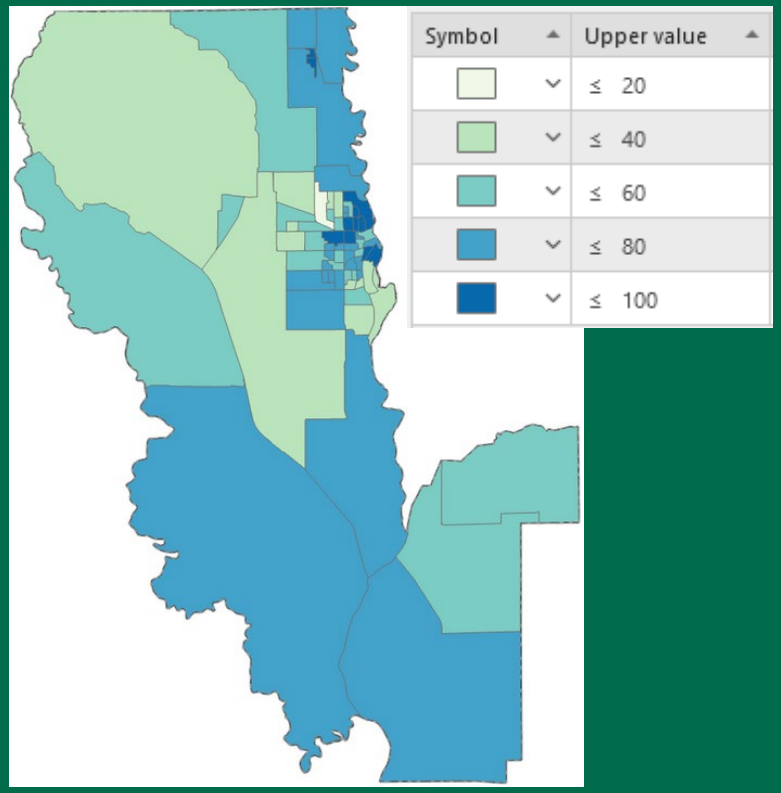


Social Vulnerability x Physical Vulnerability

Social Vulnerability

More Urbanized Areas with Greater Access to Public Resources Show Higher Social Vulnerability, Contrary to Local Experience (Question C)

- The 2 incorporated cities have the highest risk per census block data



Social Vulnerability Index (ACS 2017-2021)

2. Mitigation Strategies

Which Short-Term and Long-Term Response Actions are Cheap and Effective?

A. What information is available to inform the application of interties as mitigation strategy?

B. What information is available to support outreach and education?

Mitigation Strategies

Which Short-Term and Long-Term Response Actions are Cheap and Effective? (Question A)

Short-Term

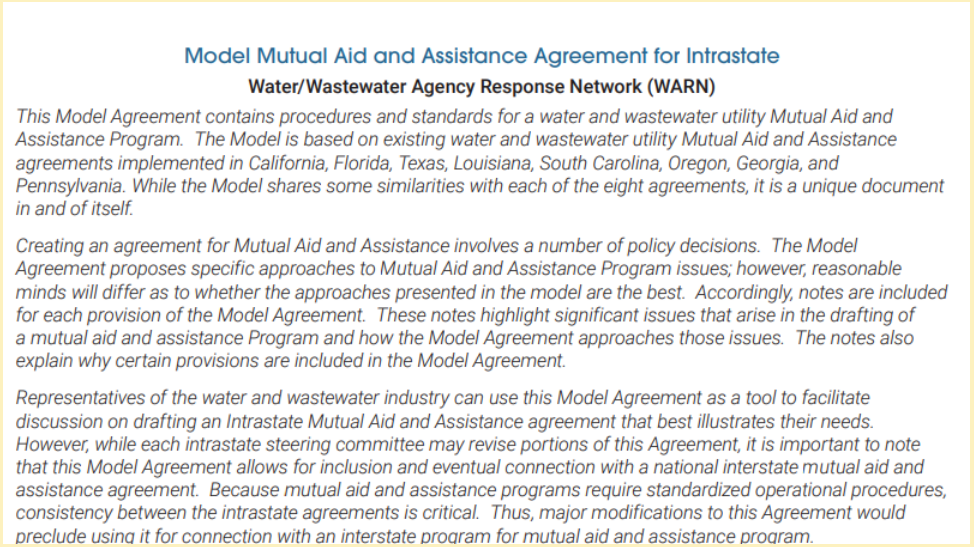
- Temporary Surface Water Diversions / Interties
  - Typical costs for equipment, operation, and permitting, and how are these usually funded?
  - How long can temporary surface water diversions generally be relied upon before a longer-term solution must be in place?
  - For counties or agencies that have implemented temporary surface water diversion and treatment, what approaches or equipment worked best?

Interties

1. What information is available to inform the application of interties as mitigation strategy?

DWR Guidebook:

- Emergency interties between state smalls and other water systems can be a potential short-term response action.
- If possible, set up a Mutual Aid Agreement prior to the emergency
- Development of new interties could facilitate discussions later regarding consolidation and or a permanent intertie for future emergencies
- May require coordination with SWRCB or LAFCO



Model Mutual Aid and Assistance Agreement for Intrastate

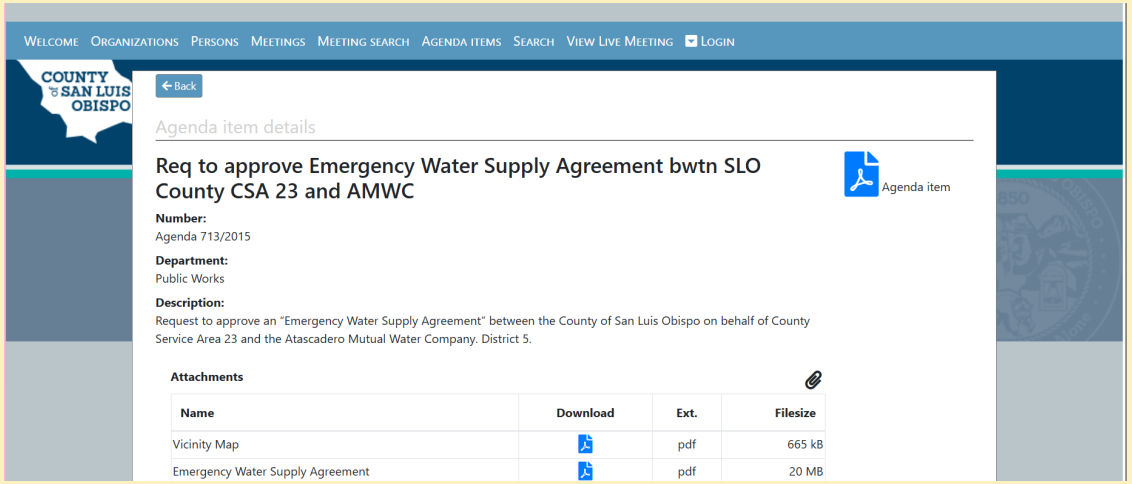
Water/Wastewater Agency Response Network (WARN)

This Model Agreement contains procedures and standards for a water and wastewater utility Mutual Aid and Assistance Program. The Model is based on existing water and wastewater utility Mutual Aid and Assistance agreements implemented in California, Florida, Texas, Louisiana, South Carolina, Oregon, Georgia, and Pennsylvania. While the Model shares some similarities with each of the eight agreements, it is a unique document in and of itself.

Creating an agreement for Mutual Aid and Assistance involves a number of policy decisions. The Model Agreement proposes specific approaches to Mutual Aid and Assistance Program issues; however, reasonable minds will differ as to whether the approaches presented in the model are the best. Accordingly, notes are included for each provision of the Model Agreement. These notes highlight significant issues that arise in the drafting of a mutual aid and assistance Program and how the Model Agreement approaches those issues. The notes also explain why certain provisions are included in the Model Agreement.

Representatives of the water and wastewater industry can use this Model Agreement as a tool to facilitate discussion on drafting an Intrastate Mutual Aid and Assistance agreement that best illustrates their needs. However, while each intrastate steering committee may revise portions of this Agreement, it is important to note that this Model Agreement allows for inclusion and eventual connection with a national interstate mutual aid and assistance agreement. Because mutual aid and assistance programs require standardized operational procedures, consistency between the intrastate agreements is critical. Thus, major modifications to this Agreement would preclude using it for connection with an interstate program for mutual aid and assistance program.

Mutual Aid Agreement Template:
County Drought Resilience EPlan Guidebook



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COUNTY OF SAN LUIS OBISPO

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Agenda item details

Req to approve Emergency Water Supply Agreement bwtn SLO County CSA 23 and AMWC

Agenda item

Number:
Agenda 713/2015

Department:
Public Works

Description:
Request to approve an "Emergency Water Supply Agreement" between the County of San Luis Obispo on behalf of County Service Area 23 and the Atascadero Mutual Water Company. District 5.

Attachments

Name	Download	Ext.	Filesize
Vicinity Map		pdf	665 kB
Emergency Water Supply Agreement		pdf	20 MB

San Luis Obispo County Example:
SLO County Mutual Aid Agreement

Mitigation Strategies

Which Short-Term and Long-Term Response Actions are Cheap and Effective? (Question B)

Long-Term

- Domestic Well Mitigation Program - Education and Outreach
  - What might public workshops and trainings for domestic well users and state small water systems look like?
  - Are templates for brochures/handouts available?
- System Consolidation
  - How do city limits vs a city's sphere of influence affect who needs to be involved in the process?

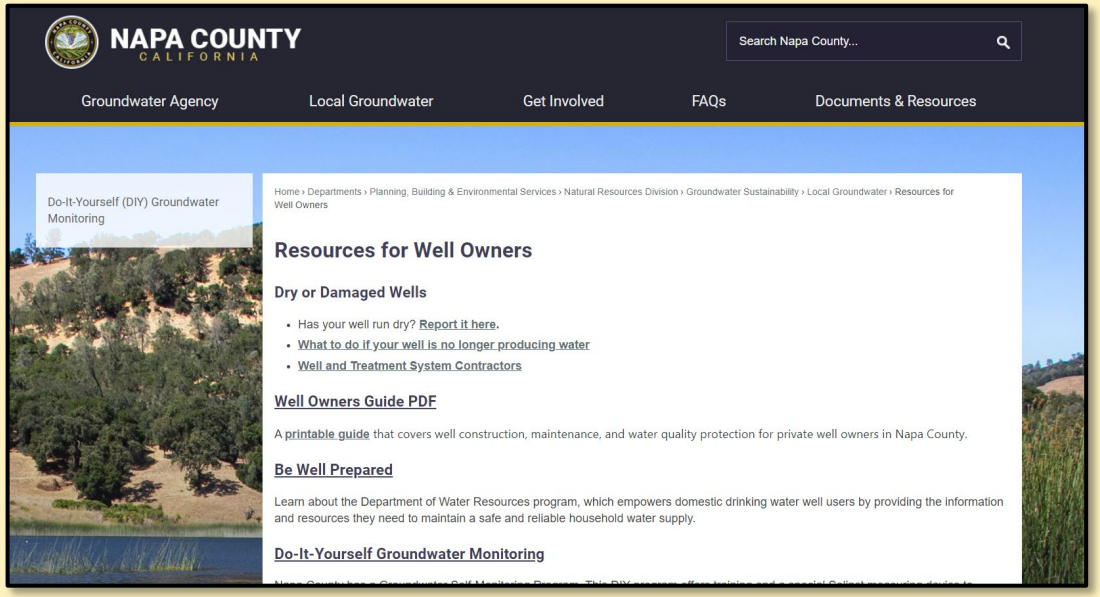
Resources to support outreach for domestic wells

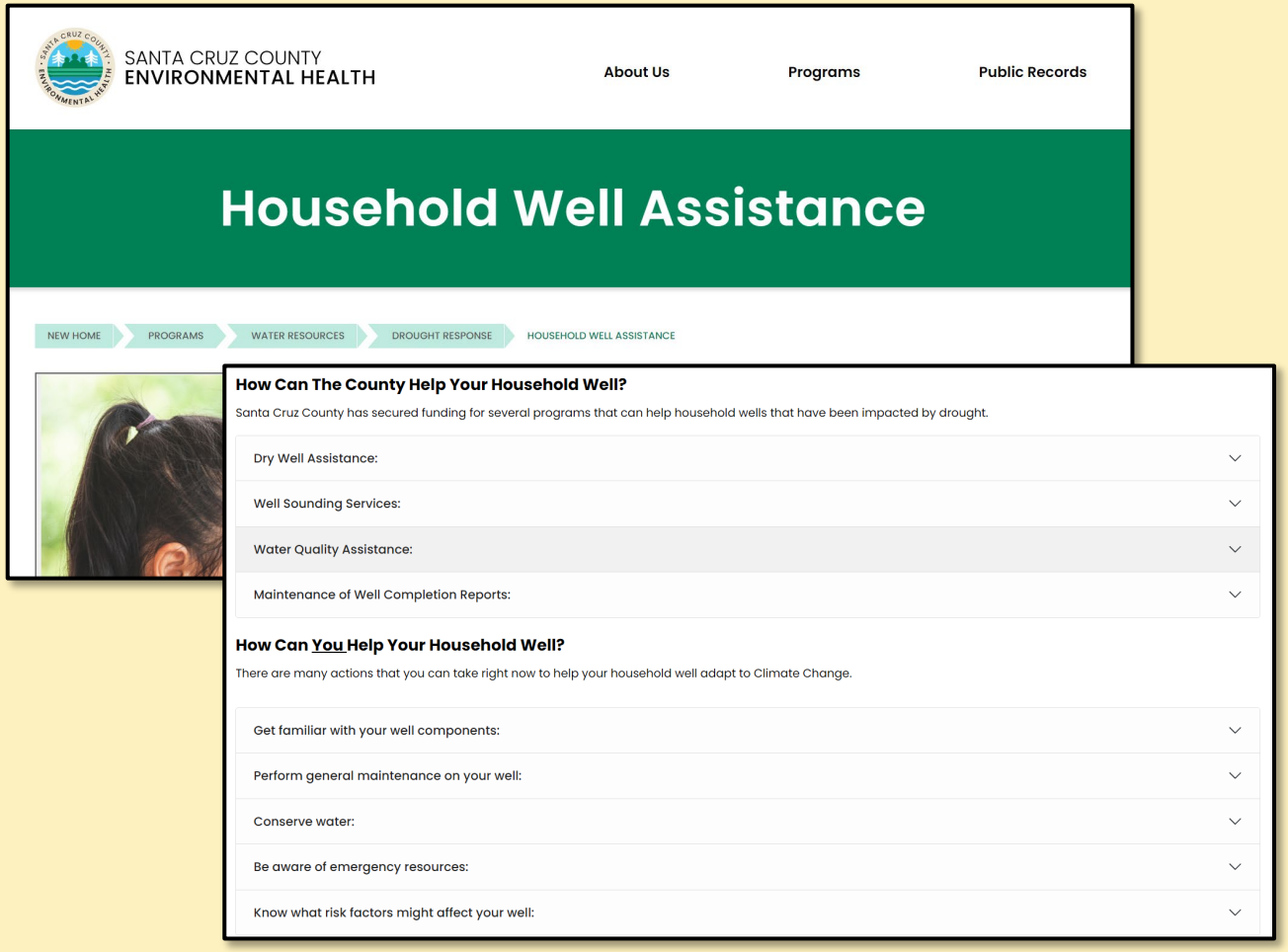
Educational materials to direct domestic well owners towards.

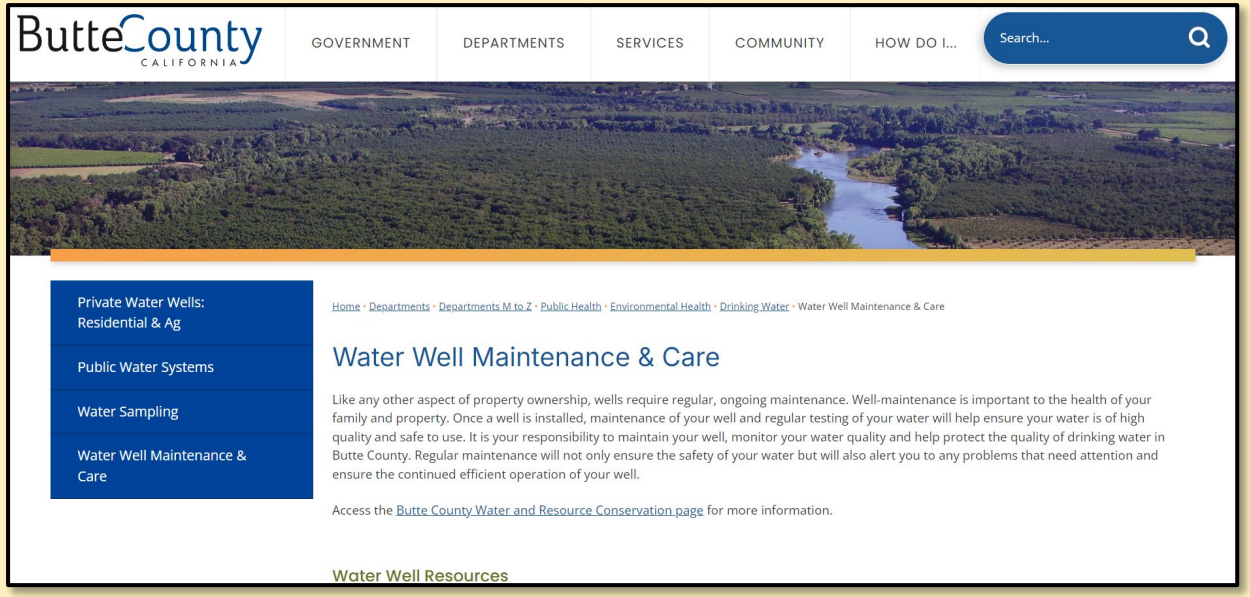
- DWR: Be Well Prepared, Save Our Water
- SWRCB: GAMA – Domestic Well Owners
- EPA: Private Drinking Water Well
- RCAC: Individual Well Program
- CWC: Drinking Water Guide for Domestic Wells

Examples across counties:

Domestic Wells Resources







Upcoming County Discussion Opportunities

October 29th, 9-10am: CA County Café Gathering

→ Groundwater monitoring

→ Registration form

Follow-up questions?
Feedback to share?
Fill out this survey!

https://forms.office.com/g/A3k7p81CKQ

Thank you!