



Groundwater Sustainability Plan Workshop 2.0

UNDESIRABLE RESULTS SESSION



Session Overview

- **Presentation (20 Minutes)**
 - Undesirable Results “Sustainability Indicators”
 - Establishing Sustainability Goals
 - Local Conversations on Sustainability
 - Tips on How to Effectively Participate in Local Conversations and Advance Community Priorities
- **Group Exercise: Sharing your Vision for Sustainability (40 Minutes)**
- **Session Resources:**
 - Community Participation in Defining Sustainability
 - Tips and Example Talking Points
 - Example Sustainability Goals that Advance Community Priorities

SGMA's Goal

Ensure sustainable management of groundwater resources (basin is operated within its **sustainable yield**) **within 20 years, by avoiding “undesirable results” that are significant and unreasonable.**

Sustainable Yield: *The maximum quantity of water that can be withdrawn annually from a groundwater supply without causing an undesirable result.*

Safe Yield: *The Maximum quantity of water that can be withdrawn from a groundwater basin at a given time without overdraft*

Undesirable Results: *One of six groundwater conditions that must be avoided in order to comply with the Sustainable Groundwater Management Act.*

Undesirable Results



Lowering
GW Levels



Degraded
Quality



Land
Subsidence



Reduction
of Storage



Surface Water
Depletion



Seawater
Intrusion



Lowering
GW Levels



Degraded
Quality



Land
Subsidence



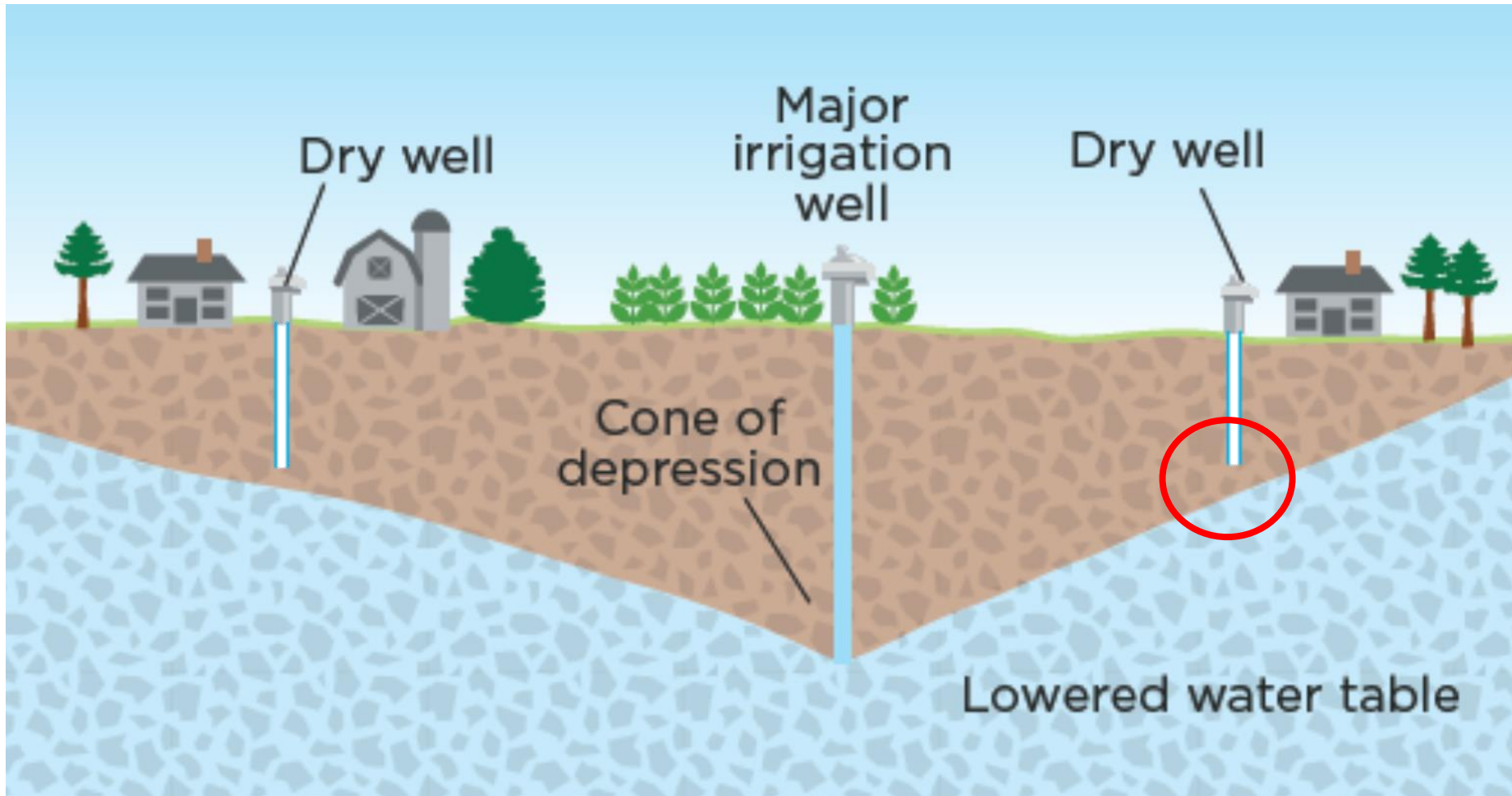
Reduction
of Storage



Surface Water
Depletion

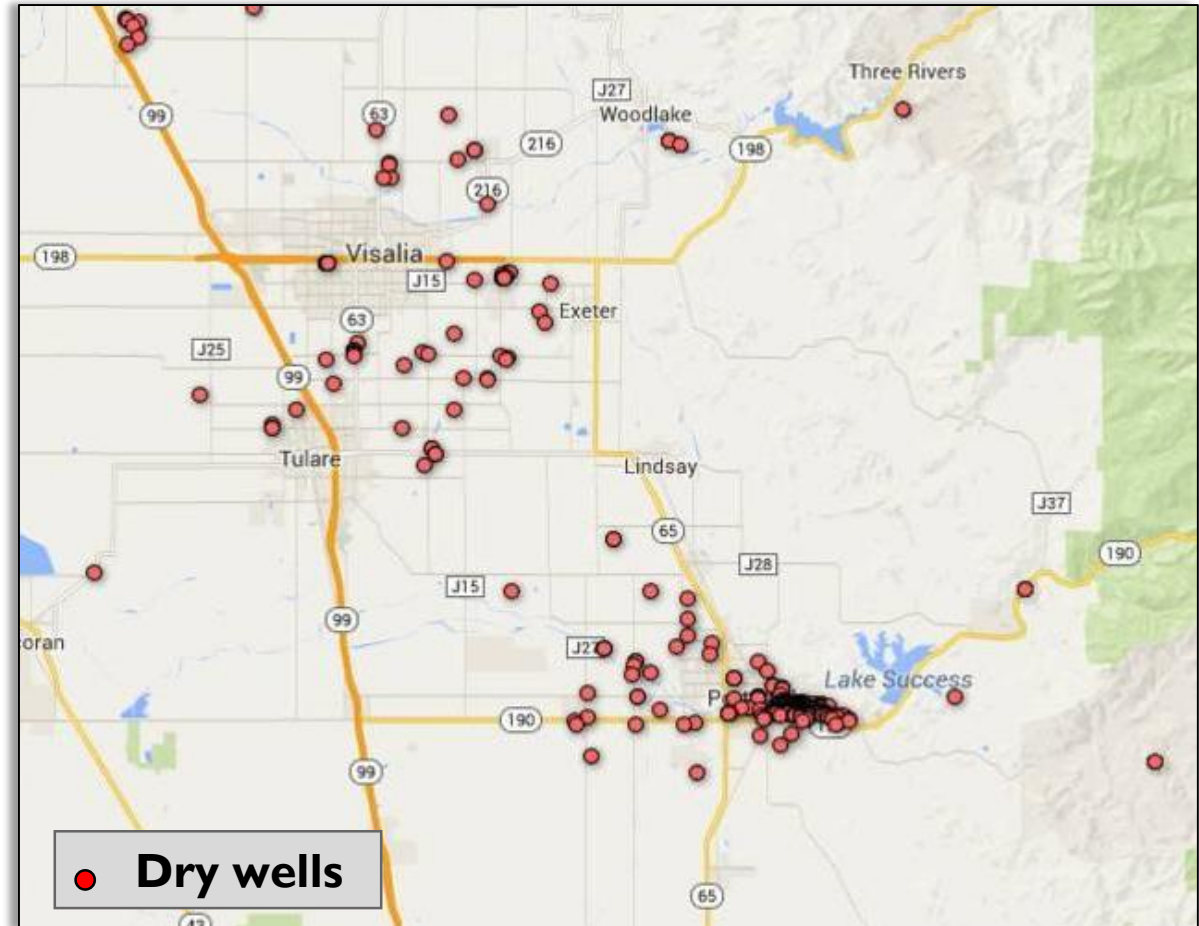


Seawater
Intrusion





Seawater Intrusion





Lowering
GW Levels



Degraded
Quality



Land
Subsidence



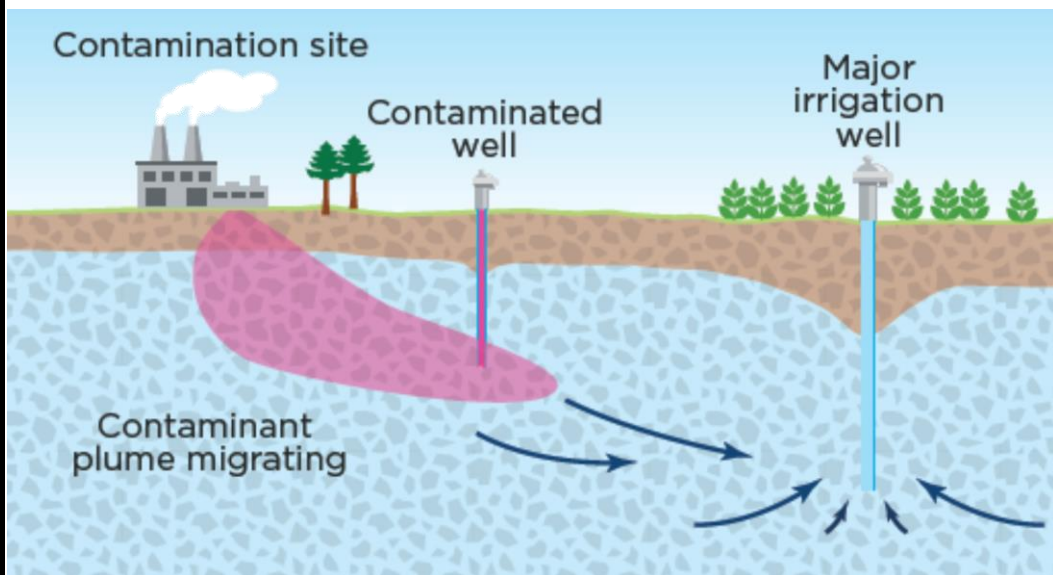
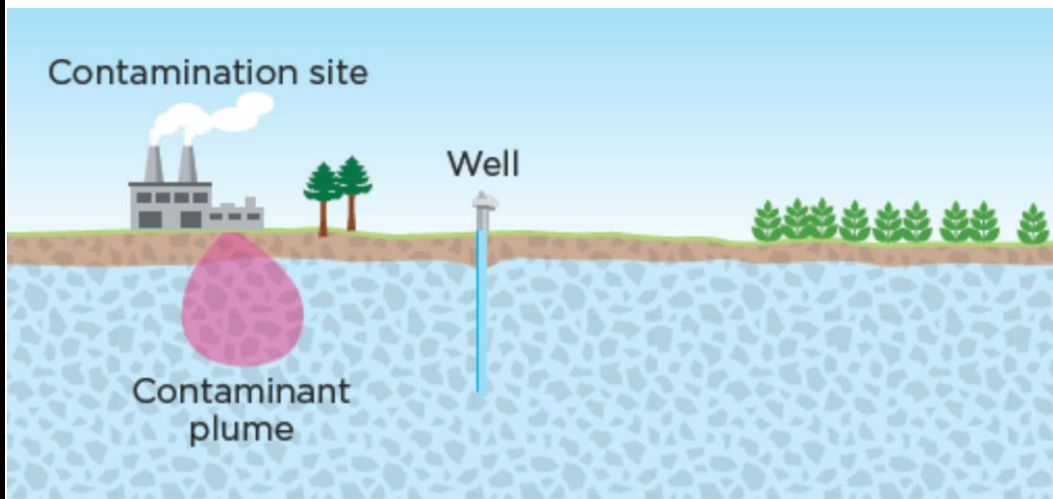
Reduction
of Storage



Surface Water
Depletion



Seawater
Intrusion



Common contaminants in the San Joaquin Valley:

Manmade Sources	Natural Sources
Nitrate	Arsenic
DBCP, 1-2-3 TCP	Uranium





Lowering
GW Levels



Degraded
Quality



Land
Subsidence



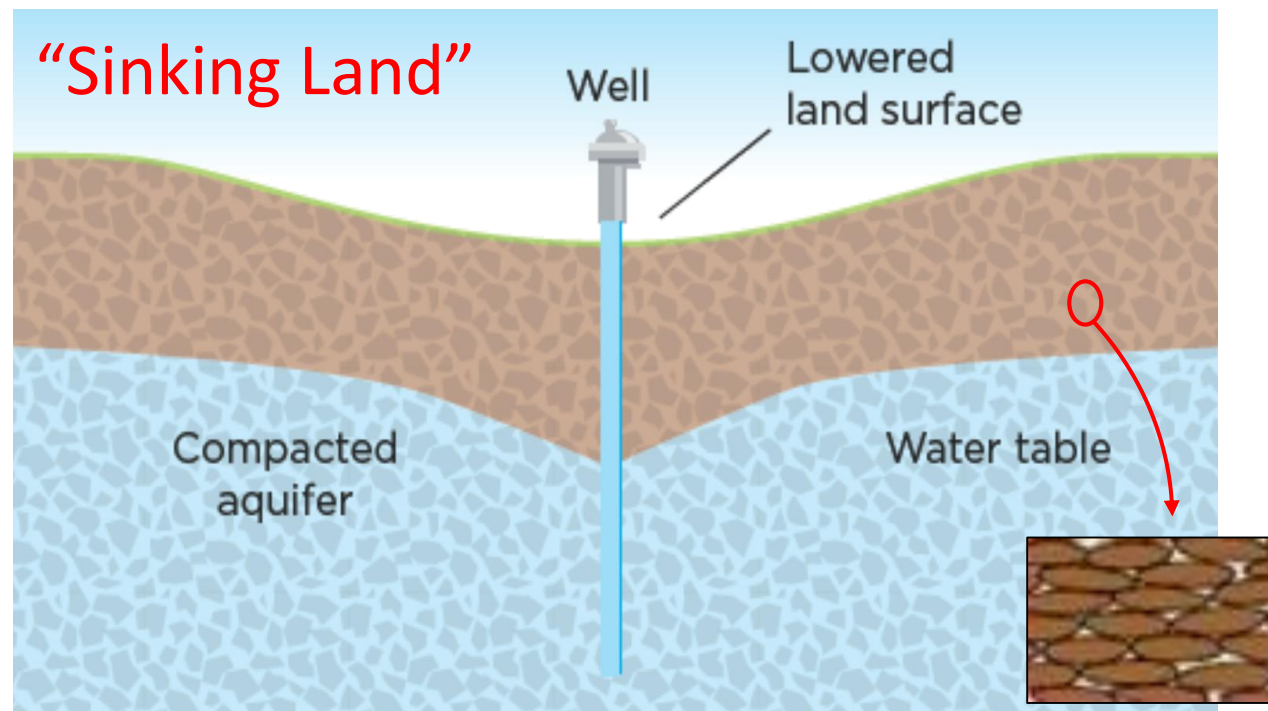
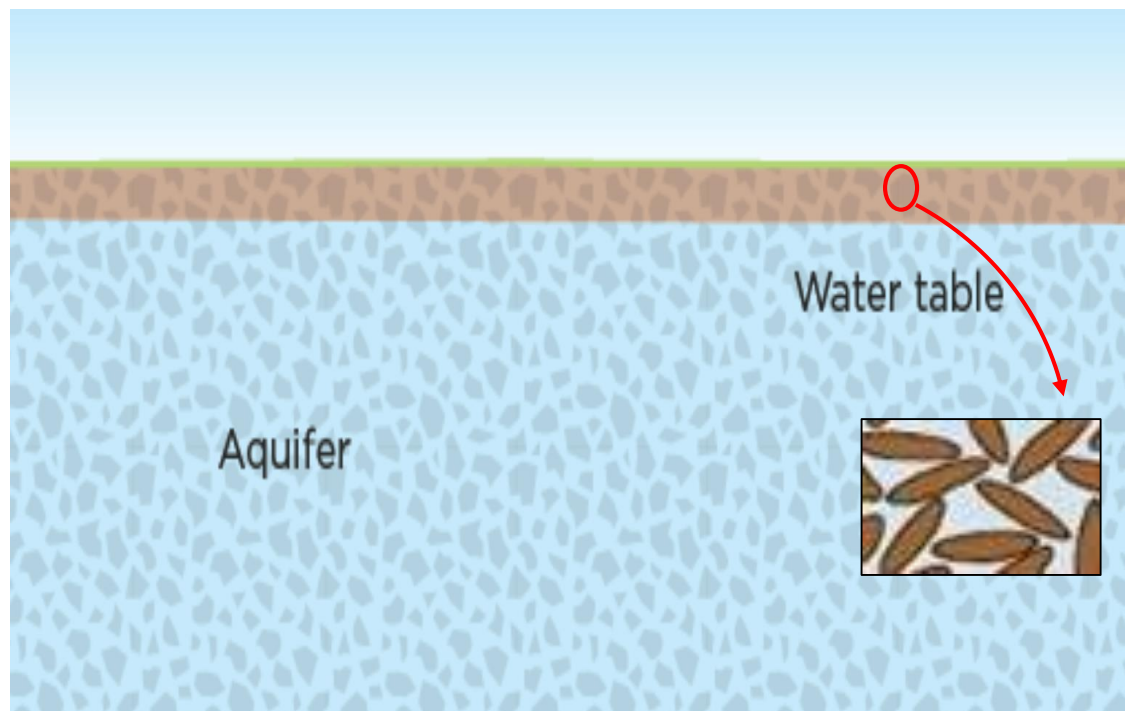
Reduction
of Storage



Surface Water
Depletion



Seawater
Intrusion





Lowering
GW Levels



Degraded
Quality



Land
Subsidence



Reduction
of Storage



Surface Water
Depletion



Seawater
Intrusion

How can this affect your community?



Additional Resources

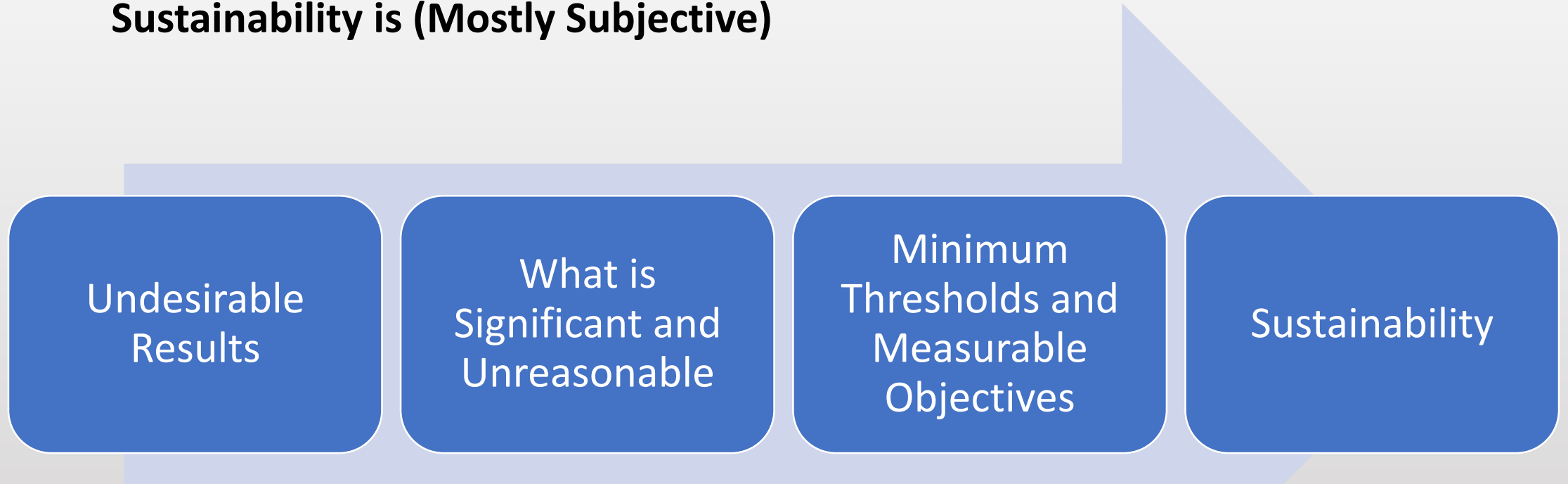
Getting Involved in Groundwater

A Guide to California's Groundwater Sustainability Plans



Establishing Sustainability Goals

Sustainability is (Mostly Subjective)



Local stakeholders (groundwater users) get to define what is **significant and unreasonable**

- How much damage is acceptable?
- How much repair is desired?

Other Considerations when defining **significant and unreasonable**

- Department of Water Resources (DWR) in consultation with State Water Resources Control Board will ensure compliance with SGMA and the Groundwater Sustainability Plan Emergency Regulations



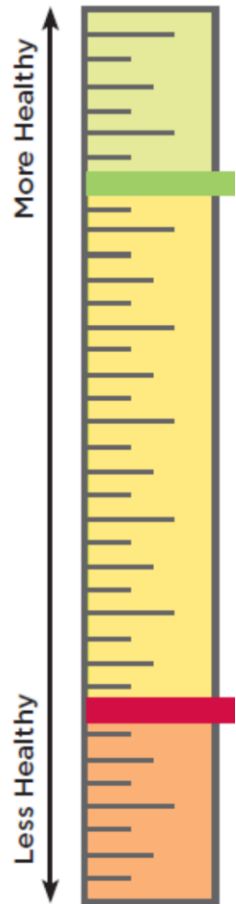
“DWR will consider state policy regarding the human right to water when implementing these regulations”

- Cannot continue to be in long-term overdraft
- Cannot harm sustainability in a neighboring basin
- Cannot deplete surface water
- **Need to consider local, state, and federal standards (e.g. The Safe Drinking Water Act, Regulatory Programs – CV SALTS)**

Measurable Objectives and Minimum Thresholds

***You can't MANAGE
if you don't MEASURE***

Two key two concepts:



Measurable
Objectives



Are **aspirational goals**.

Technically, you should achieve them by 2040, but may be difficult to enforce.

Minimum
Threshold

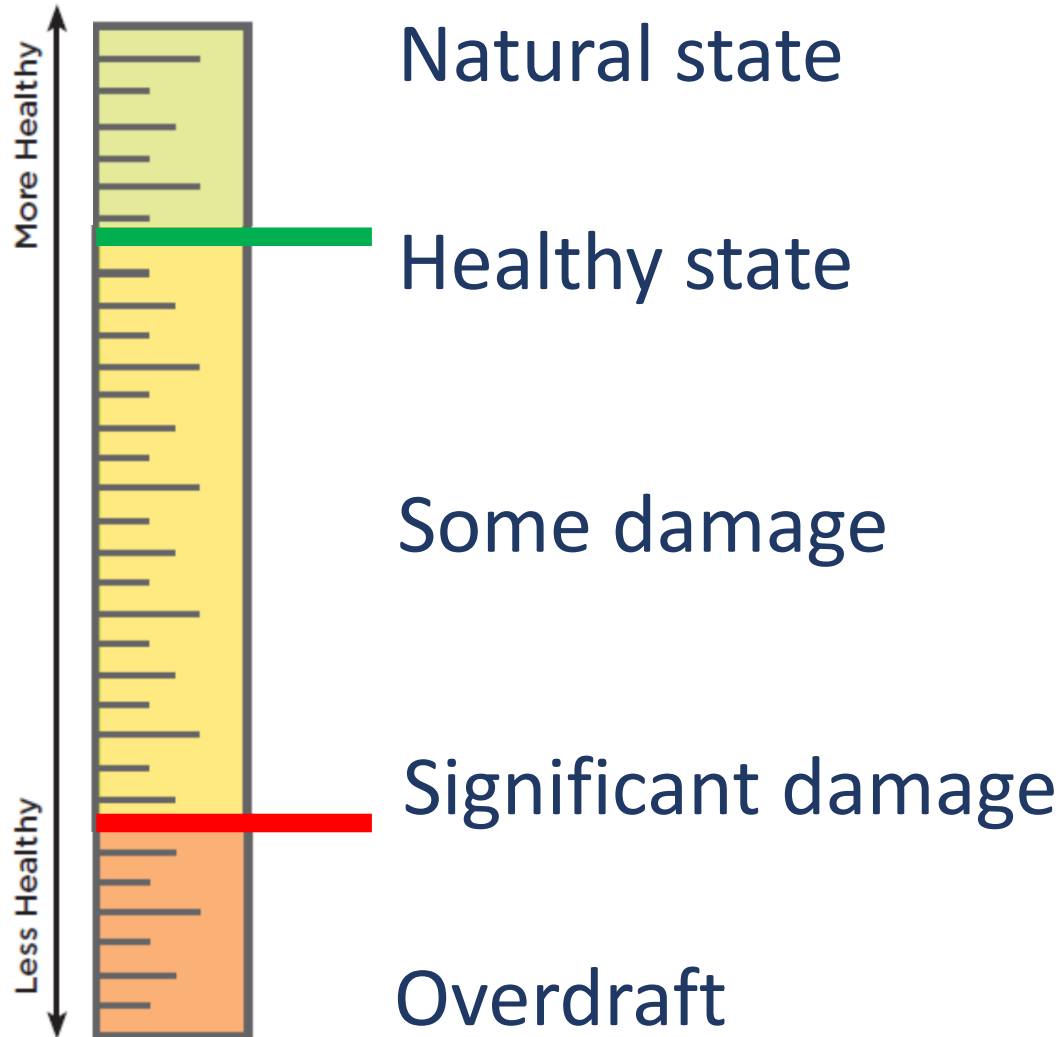


Are **failure points** and should be avoided.

If they are crossed, you may be causing significant and unreasonable undesired results.

Sustainability is Stakeholder-driven

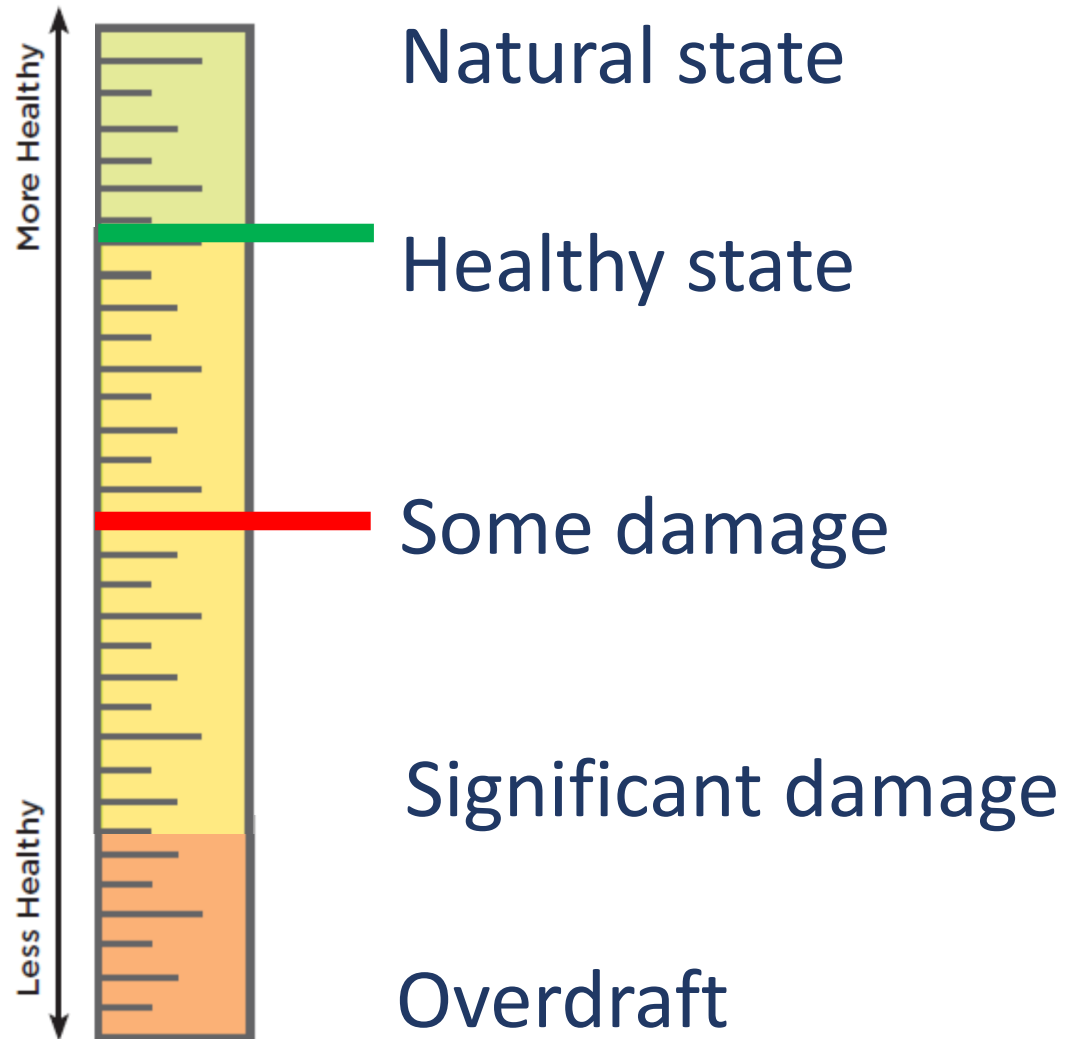
Subjective



**What is significant
and unreasonable?**

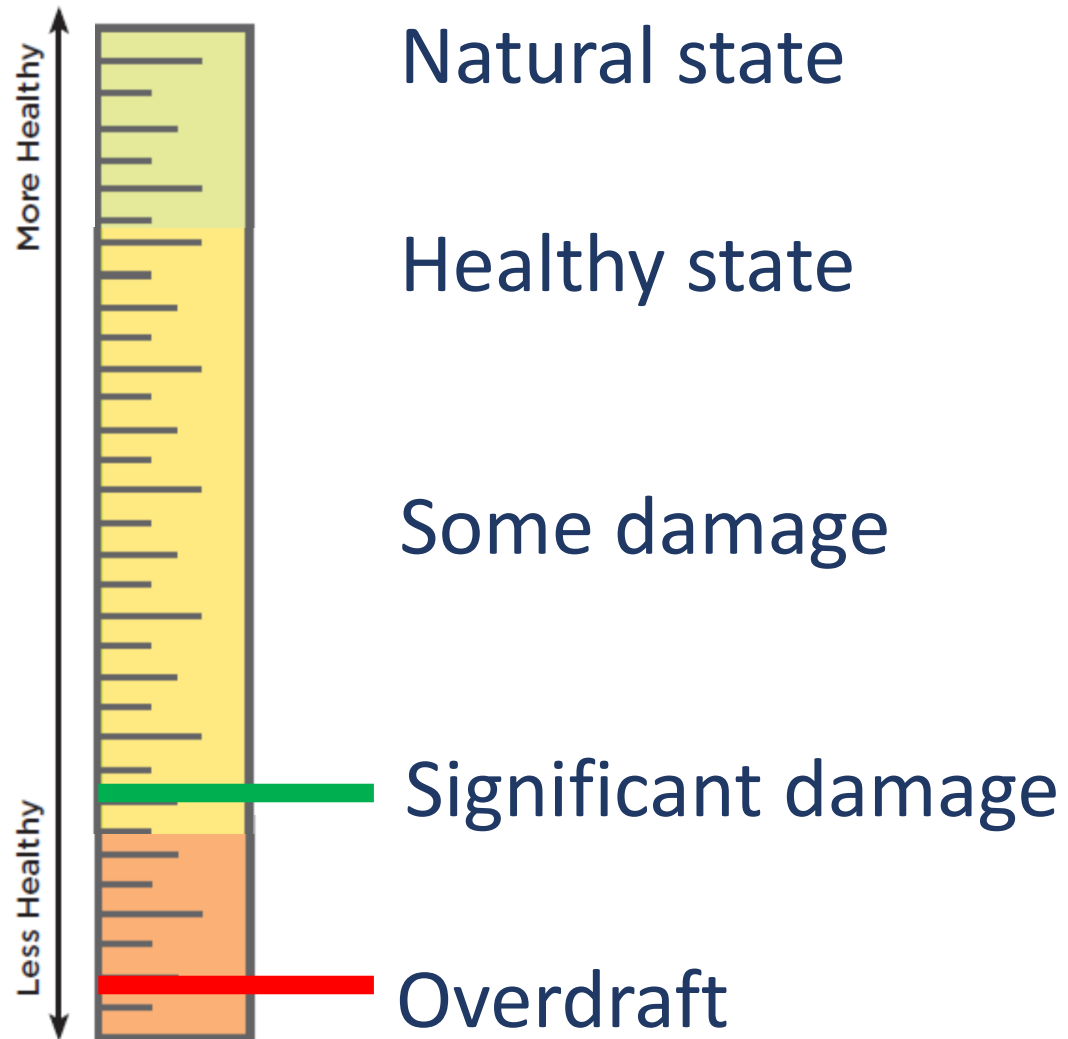
Sustainability is Stakeholder-driven

Subjective



Sustainability is Stakeholder-driven

Subjective



Suggested framework to set Thresholds

- Does the **MTs** exceed an existing standard?
- Does the **MTs** conflict with **MTs** for other undesirable results?
- Was the **MTs** developed through a transparent public process?
- Are there potential negative impacts associated with the **MTs**?
- Does the **MTs** violate the threshold of neighboring basins?
- Does the **MTs** allows long-term overdraft?
- Does the **MTs** deplete surface water?
- Are there high levels of uncertainty regarding proposed actions?

Tools for Setting Thresholds

- Hydrologic model – can give you locational information, as well as information about how undesirable results interact with each other, and uncertainty
- Vulnerability analysis or other data/understanding of potential negative impacts of minimum threshold
- Same data as other plans in your basin for:
 - Groundwater elevation data
 - Groundwater extraction data
 - Surface water supply
 - Total water use
 - Change in groundwater storage
- Knowledge of existing thresholds
- Public process
- Water budget
- Sustainable yield
- Communication with neighboring basins – may not negatively impact your neighbor's ability to meet their goals/avoid their thresholds

Sustainability is Stakeholder-driven

Subjective



Each stakeholder has unique perspectives, agendas, constraints, and resources related to groundwater.

This creates both challenges and opportunities. The key to success is finding common ground!



GSAs Are Beginning to Discuss
Sustainability Goals, Are you Part of
the Conversation?



Examples of Local Conversations

- Group Discussions
- Potential Approaches to Establish MTs
- Surveys
- Homework Assignment
 - Write a descriptor for a sustainability goal and identify undesirable results in the area



Stakeholder Survey

Date:

Stakeholder Type (check all that apply):

<input type="checkbox"/> Agricultural User	<input type="checkbox"/> Domestic Well Owner/User	<input type="checkbox"/> Municipal Well Operator	<input type="checkbox"/> Public Water Systems
<input type="checkbox"/> Environmental User	<input type="checkbox"/> Surface Water User	<input type="checkbox"/> Disadvantaged/Rural Community Resident	

Note: The East Kaweah GSA is a public agency. Please complete your name and contact information if you'd like to be added to the GSA's email and mailing list for future updates and information regarding Sustainable Groundwater Management Act (SGMA) and the East Kaweah GSA.

Name:

Mailing Address:

City: State: Zip:

Email: Telephone:

1. Are you familiar with Sustainable Groundwater Management Act (SGMA) regulations? ☐ Yes ☐ No

2. Are you currently engaged in activity or discussions regarding groundwater management in this region? ☐ Yes ☐ No

3. Do you own or manage/operate land in this region? ☐ Yes ☐ No

4. Where are you getting your water supply? ☐ Surface ☐ Groundwater ☐ Both

5. Agriculture & Domestic Well Users: What is your well(s) depth?

6. Agriculture & Domestic Well Users: Has your well(s) ever gone dry? ☐ Yes ☐ No
If yes, when (month/year)?

7. How adequate is your current groundwater supply?

8. If you grow crops, do you use irrigation for frost protection? ☐ Yes ☐ No

9. Do you manage water resources? ☐ Yes ☐ No
If yes, what is your role?

10. What is your primary interest in land or water resources management?

Example: Group Discussions

Participants were asked to answer questions like the ones presented below:

- What do you see as important challenges or undesirable effects of groundwater use in the area?
- What does groundwater sustainability mean for you and the region?
- What groundwater goals are important?

Example: Advisory Committee Meeting – Presentation of Potential Approaches to Establish MTs

- Participants were presented with data on groundwater levels and potential approaches to establishing a **MT**
 - What effect does setting the MT at these specific levels have on different water users?



Successes and Challenges

Successes

- ✓ Opportunity to plan for the future considering:
 - ✓ What is important?
 - ✓ What do we want to avoid?
- ✓ Opportunity for different stakeholders to share their opinions, concerns, and priorities and develop a shared vision
 - ✓ How can we improve water access, maintain a healthy economy, promote water conservation?

Challenges

- ✓ Limited Participation
 - ✓ Not all water users are present/represented or engaging
- ✓ Passionate Conversations/Strong Statements
- ✓ Limited time:
 - ✓ To fully explain the information and options
 - ✓ For people to engage and ask questions

Tips on How to Effectively Participate in Local Conversations and Advance Community Priorities



Tips for Participating in Defining Sustainability

- Tell your story/share your knowledge
- Describe why your priorities are important to you and/or other communities
- Partner with other communities
- Identify common ground
- Ask questions – request examples
- Request supporting or additional information
- Ask for more time to review materials/consider options
- Offer recommendations
- Seek technical assistance

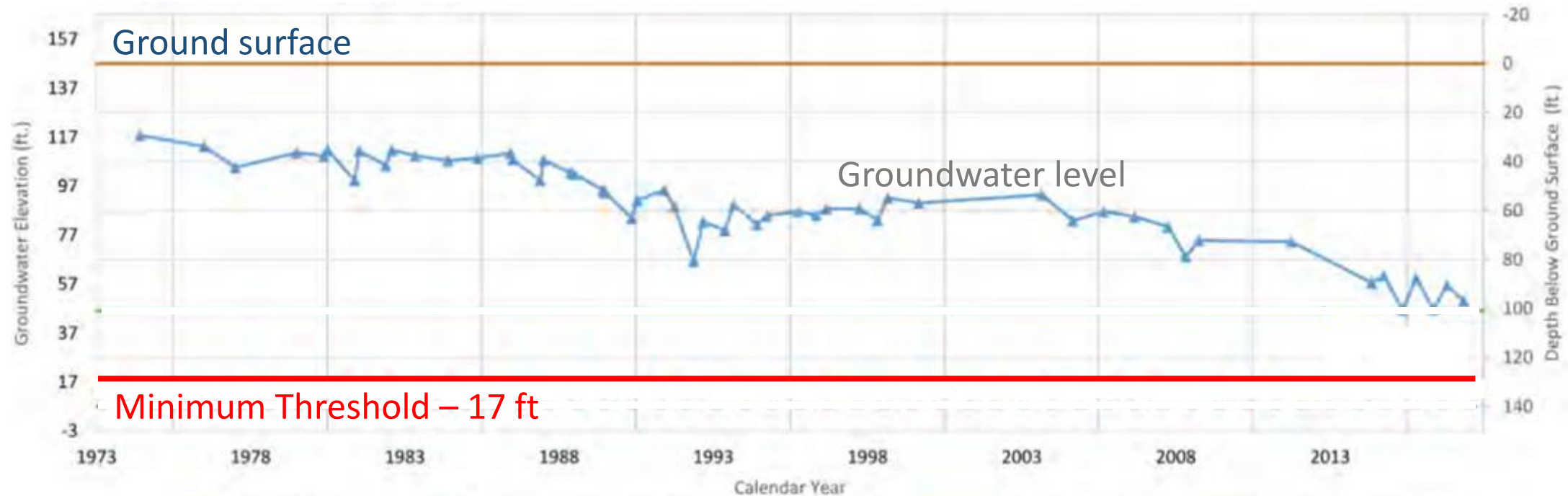


How to Advance Community Priorities

- Request MTs and MOs that protect/improve community drinking water sources
- Request consideration/implementation of mitigation policies
- Request appropriate/fair water allocations that take into account current drinking water supplies/need for additional and/or new sources
- Establish policies that prioritize public health and safety needs
- Ensure GSAs are committed to addressing data gaps

EXAMPLE

Lowering of Groundwater Level



EXAMPLE

Lowering of Groundwater Level



EXAMPLE

Lowering of Groundwater Level



Example: Groundwater Well Mitigation Policy

- Identifies at risk wells
- Improves monitoring
- Mitigates impacts caused by district's actions
 - Interim emergency water supply
 - Funds long-term solution



Group Activity: Sharing your Vision for Sustainability

Background Information

- You are at a Public Workshop that your local Groundwater Sustainability Agency (GSA) is hosting.
- The presenter has given information about the local groundwater conditions (which undesirable results are occurring/will likely occur). Now they want to have a discussion regarding your region's vision for sustainability.
- Each person in the group has been given a card with information about their role.
- You will participate in a discussion in your groups about your vision of sustainability.

Discussion Questions

- Have you, your community, or your business been affected by any of the undesirable results?
- Which of the undesirable results are the most important to you and why? Are there any more important than others?
- What improvements would you like to see happen in the next twenty years?

Debrief Questions

- What made it easy for you to participate in the discussion?
- What did you find challenging?
- Do you have any recommendations on how to improve these conversations?

Thank you!

