

Sierra Valley Groundwater Sustainability Plan: Workshop Survey on Main Topics

Thank you for sharing your thoughts and ideas about groundwater and related conditions in Sierra Valley. This survey covers **four main topics**. Each topic is found on a separate page, along with a brief description. For more information on each topic, check out the Summary Sheets at: www.sierravalleygmd.org/gsp-documents.

** The final question asks if you are interested in having your well be considered as part of the **monitoring network**. **

GROUNDWATER QUALITY

In the Sierra Valley basin, groundwater quality is generally good. In a few localized areas, levels for salts and nitrates have occasionally exceeded regulatory requirements. Also, the Technical Advisory Committee identified potential concerns regarding: higher levels of naturally occurring arsenic and manganese near Calpine; and possible impacts from septic systems.

1. **What would you consider to be unreasonable impact to groundwater quality? (Check as many as apply, if any.)**

- Deterioration of existing water quality
- Currently degraded water quality spreading into other areas
- Other (please specify) _____

2. **How would you rate your level of concern about groundwater quality in Sierra Valley? (Select one option)**

- Not concerned
- Somewhat concerned
- Very concerned

3. **What has been your experience with groundwater quality?** _____

4. **Other groundwater basins recommend additional monitoring to better understand and track groundwater quality – and ensure that groundwater use doesn't degrade water quality. What actions do you recommend to protect groundwater quality?**

INTERCONNECTED SURFACE WATER and GROUNDWATER-DEPENDENT ECOYSTEMS

These two concepts describe how groundwater can support natural resources at ground level. Interconnected surface water (ISW) refers to surface water features (like springs or streams) that connect to groundwater at, or very near, the surface. Groundwater-dependent ecosystems (GDEs) refers to vegetation that is supported by groundwater supplies – GDEs also include other species that rely on the vegetation for feed or habitat.

5. What would you consider to be unreasonable impact to ISW and GDEs? (Check as many as apply, if any.)

- Loss of GDEs, including fish habitat
- Reduced water levels in ponds, streams and wetlands that are supported by groundwater
- Other (please specify) _____

6. How would you rate your level of concern about Interconnected Surface Water and Groundwater-Dependent Conditions in Sierra Valley? (Select one option)

- Not concerned
- Somewhat concerned
- Very concerned

7. What have you seen or encountered in Sierra Valley regarding surface water features, vegetation or habitat that may rely on groundwater?

8. What ideas do you have to help maintain surface water features and GDEs that rely on groundwater sources?

GROUNDWATER LEVELS

The majority of monitoring wells in Sierra Valley show chronic declines in groundwater levels. Average declines of groundwater elevation range from minimal to 1.5 feet per year. From 2000 through 2020, across the Sierra Valley basin, cumulative declines in groundwater levels range from 5 feet to approximately 25 feet. Generally, declines are greater in the middle of the basin and in the northeastern section.

9. What would you consider to be unreasonable impact regarding Groundwater Levels? (Check as many as apply, if any.)

- Agricultural wells going dry or needing to be drilled deeper
- Domestic wells going dry or needing to be drilled deeper
- Increased pumping costs due to lower groundwater level
- Mandatory conservation efforts that exceeds normal measures
- Other (please specify) _____

10. How concerned are you about long-term declines in groundwater levels in Sierra Valley? (Select one option)

- Not concerned
- Somewhat concerned
- Very concerned

11. What are your observations or experiences with groundwater declines, if any, in Sierra Valley?

12. In other basins, approaches to maintaining groundwater levels include increasing groundwater supplies (for example: recharge projects, conjunctive use) and/or reducing demand (for example: increasing irrigation efficiency, limits on high-capacity pumping).

What actions would you suggest to help prevent or minimize groundwater declines?

SUBSIDENCE

Subsidence refers to a depression in the land surface. When it is associated with groundwater pumping, it is due to relatively fine-grained sediments (like clay) becoming more compact as water is removed. Depending on the type of soil and length of dewatering, the resulting subsidence be either elastic (temporary) or inelastic (permanent). Based on two different surveying efforts, both of which spanned about 4 years, the average level of subsidence in Sierra Valley was found to vary from about 1 inch to 6 inches per year.

13. What would you consider to be Undesirable Results (significant and unreasonable impacts) for Subsidence? (Check as many as apply, if any.)

- Damage to infrastructure (e.g., roads, pipes)
- Damage to irrigation systems
- Damage to natural infrastructure (e.g., channels, habitat)
- Other (please specify) _____

14. How would you rate your level of concern about Subsidence in Sierra Valley? (Select one option)

- Not concerned
- Somewhat concerned
- Very concerned

15. Are you aware of any changes in the Sierra Valley that are related to subsidence?

16. What actions would you suggest to help prevent or minimize subsidence?

Would you be interested in having your well be considered as part of the monitoring network?

- Yes
- No
- Not Applicable

If yes, please provide your contact information _____
or send an email to Jenny Gant at sierravalleygmd@sbcglobal.net.