Sierra Valley Technical Advisory Committee Meeting Summary: Nov. 29, 2021

Project Website: www.sierravalleygmd.org/sierra-valley-groundwater-sustainability-plan
Data Portal: https://sierra-valley.gladata.com

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Welcome, Introductions, Agenda Review

The fourteenth meeting of the Technical Advisory Committee (TAC) for the Sierra Valley (SV) Groundwater Sustainability Plan (GSP) was an in-person meeting, with a zoom webinar option for remote participation. The video recording is at https://youtu.be/NUDwt0D4AKA. The meeting agenda was reviewed, followed by introductions.

There were 22 participants: 13 TAC members, 7 project team members, and 2 members of the public.

Project Updates

A summary of the monitoring proposal presented to the SVGMD Board during a special meeting on November 3rd. Specifically:

- For groundwater levels, a total of 36 measurements will be taken at least twice a year. This includes 19 measurements from District wells and 17 measurements from California Statewide Groundwater Elevation Monitoring (CASGEM) network wells. The District will take measurements on a quarterly basis, with monthly measurements during irrigation season.
- For interconnected surface water, 13 existing wells (mostly shallow) will measured on at least a quarterly basis. These wells are a subset of those used for groundwater level monitoring. Four new monitoring points will be established for shallow groundwater conditions near groundwater-dependent ecosystems.
- The groundwater quality monitoring networks consists of 23 existing wells. Of these, 17 wells are already in the Groundwater Ambient Monitoring and Assessment (GAMA) program and monitored by public health or other entities. Five additional wells have been volunteered by private landowners and groundwater quality will be measured by one of the new DWR monitoring wells. Monitoring will sample for Total Dissolved Solids, total nitrogen, boron, arsenic, and pH – and be collected every two years during the first 5 years. After five years, the sampling schedule will be revisited.
- A subsidence monitoring system will consist of four monuments being installed with current grant funding.

Discussion

Comment: Include both the monitoring frequency and entity exhibits in Chapter 3.

Water Budget

Gus Tolley, DBS&A, provided information on the model and the water budget.

Model Updates and Improvement

- The model has been calibrated and better represents streamflow and groundwater elevations in the Sierra Valley basin.
- The 3-D hydrogeologic conceptual model now shows some better compartmentalization between the upper and lower aquifers

Historic/Current Water Budget

The new version of the water budget is contained in Chapter 2. The historic water budgets run from 2000-2015, and the current water budget covers water years 2016-2020. The water budgets are represented by bar charts – with each bar representing a water year. The black line shows the trend in the amount of groundwater stored. Also, the water budgets can show modeled conditions for each subsystem (surface water, groundwater, soil zone) – although the scales on the graphs are different.

Comment: Dry years are increasing in frequency.

Future Water Budgets and Climate Scenarios

DWR provides four climate change scenarios to be run (one for a 2030 and three for 2070). The model shows the respective changes in precipitation, streamflow, and evaporation for each scenario. The scenarios show average yearly groundwater storage reductions ranging from 5 thousand acre-feet (wet year scenario) to 25 thousand acre-feet (dry year scenario). Looking at the different scenarios encourages what approaches could be used to address different conditions.

The models are predicting more precipitation as rain, and a major rain events, rather than snow.

Public Comments and Responses

Groundwater-Dependent Ecosystems (GDEs)

Christian Braudrick, Stillwater Sciences, reviewed the public comments received on the section relating to GDEs. Specifically, the comments noted:

- the uncertainty around the **depth-to-groundwater map** due to a sparse well network and few shallow wells
  response: the text will identify a metric for uncertainty – such as standard error or standard deviation – and potential GDE vegetation types will identified with depth-to-groundwater ranges; also the GSP will describe next steps to address and the GDE map will be refined in the future as more data is received)

  Comment: it looks as though the GDE maps are drawn alongside the irrigation ditches
  Response: irrigation canals may occur in areas where the depth-to-groundwater is less than 30 feet away; any vegetation in that area would be classified as a GDE

Question: is there any evidence as to whether pumping from the deeper aquifer affects interconnected surface water (ISW), GDEs, and habitat?
Response: this is something that the model can help with; the challenge is setting the right parameters that say definitive conditions represent GDEs
Response: without data, this is all speculation; data from the shallow groundwater wells will help check the modeling results

- the uncertainty around the impacts of ISW/groundwater on **special-status species**
response: there is no known data that links groundwater management or ISW flows to the success of special status species
- a suggestion was made to split the GDEs into units to assess impacts of groundwater and ISW management on GDEs and special status species
response: this is a great idea and could be revisited as a data gap
- better describe 1) remote monitoring, 2) the level of monitoring associated with the NVDI (reflective) index, and 3) the role of adaptive management
- response: the text will be updated for the final version GSP
- clarify in the text this is the best current understanding – defining what is known, what is not known; be clear about the constraints and what we know with what we have; explain what this work and the results are based on; document what is known and how it's known

Domestic Wells

Quite a few comments raised concerns that there is a possibility of domestic wells going dry
Response: As with GDEs, domestic wells are dependent on groundwater levels; we might ask for volunteers to monitor their wells; additional outreach is needed to involve domestic well users

Projects and Management Actions (PMAs)

It was clarified that, prior to moving forward on implementing any PMA, a feasibility study would need to be conducted – identifying the costs, benefits, and consequences for beneficial uses and users

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Participants

TAC MEMBERS

X = attendance

	Organization, Name		Organization, Name
X	Agricultural Commissioner, Plumas-Sierra Willo Viera		Sierra County Environmental Health Elizabeth Morgan
	City of Loyalton Jerry Gerow	X	Sierra Valley Groundwater Mgmt. District Paul Roen
X	Feather River Land Trust Ken Roby	X	Sierra Valley Resource Conservation District Rick Roberti
X	Feather River Trout Unlimited William Copren	X	Sierraville Public Utility District Thomas Archer, Elizabeth Archer
X	Hinds Engineering Greg Hinds	X	UC Cooperative Extension Tracy Schohr
	Integrated Environmental Restoration Svcs. Michael Hogan	X	Upper Feather River IRWM Uma Hinman
X	Plumas Audubon Jill Slocum		USFS – Plumas National Forest Joe Hoffman
X	Plumas County Tracey Ferguson		USFS – Tahoe National Forest Rachel Hutchinson
X	Sierra Brooks Water System Tom Rowson		

EX-OFFICIO MEMBERS

X	CA Department of Water Resources Debbie Spangler and Pat Vellines (alt.)		CA Department of Fish and Wildlife Bridgett Gibbons

TECHNICAL TEAM & PLANNING COMMITTEE

X Laura Foglia, LWA Project Manager
X Betsy Elzufon, LWA
X Kristi Jamason, Planning Committee
X Gus Tolley, DBS&A
X Christian Braudrick, Stillwater Sciences
X Dwight Smith, McGinley & Associates
X Judie Talbot, Outreach Facilitator

COMMUNITY MEMBERS

X Carl Butz
X Chris Spencer