

Sierra Valley Technical Advisory Committee Meeting Summary: Sept. 13, 2021

Project Website: www.sierravalleygmd.org/sierra-valley-groundwater-sustainability-plan

Data Portal: <https://sierra-valley.gladata.com>

Welcome, Introductions, Agenda Review

The eleventh 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/kHUXpU5ma1c>. The meeting agenda was reviewed, followed by introductions. The meeting is a continuation of the working session on Projects and Management Actions (PMAs) held on Monday, September 5th.

There were 14 participants: 9 TAC members and 5 Planning Committee members.

Initial Poll

To start the meeting, participants responded to a poll to select three projects and management actions that would most help the Sierra Valley Subbasin achieve groundwater sustainability and community goals. This will help elevate priorities from the list of ten projects and management actions. Comments are welcome on all projects and management actions.

- Ag Irrigation Efficiency received 7 of 9 votes
- The next highest priorities were: Voluntary Land Repurposing, Watershed Management, and Water Demand Management

Discussions on these PMAs will occur during the meeting.

Projects and Management Actions (PMAs)

BACKGROUND

Laura Foglia, LWA Project Manager, recapped that the Project Team is working with the Technical Advisory Committee (TAC) to develop the initial list of potential PMAs. The discussions are very helpful in categorizing, describing, and advancing the PMAs. It was noted that projects represent physical structures and management actions reflect policies and procedures. PMAs are the mechanisms to attain groundwater sustainability; implementation will be based on feasibility and funding. A menu is needed about the PMAs and how to use them.

The approach on adopting and implementing PMAs include: minimizing impacts to the basin economy, maintaining basin attributes (GDEs and agriculture), and encouraging voluntary efforts. Collectively, the PMAs address:

- Demand management
- Supply augmentation
- Other (data, modeling)

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Discussion

Question: Under the legal obligations for inter-connected surface water, it seems that all the water is connected. Is that right?

Response: It's not clear what the degree of connection is between the shallow and deep aquifers. There are different levels of connection. The monitoring is trying to determine the locations and extent of groundwater and surface water connections.

Comment: In my mind, the water is all connected at one point. If that's true, then potential PMAs such as off-stream storage fails to protect surface water – since it is used for something else.

Response: Implementing PMAs requires holistic consideration and evaluation of supplies for recharge source water, to ensure that no downstream impacts occur. Any use of surface water is looking at opportunities to divert some percentage of excess flows. It may also be possible to store agricultural water deliveries to extend its availability.

FEEDBACK ON PMAs

Betsy Elzufon, LWA Project Coordinator, asked TAC members for their perspectives and feedback on the PMAs – why they are important, what existing resources can help implement the preferred PMAs, are there concerns? Looking at Table 4.2, is there anything missing in the descriptions?

Current Metering and Monitoring Efforts

Dwight Smith, McGinley and Associates, explained that current grant funding is updating the repair and replace existing meters. The current grant will also fund expansion of the monitoring network in the Basin, to include monitoring of shallow groundwater and of subsidence.

Ag Irrigation Efficiency

Dwight would like to receive feedback on options for ag irrigation efficiency. A feasibility analysis for this PMA includes assessing the levels of water savings and funding availability. The goal is to implement this on a pilot scale to obtain better information on soil moisture and water savings.

Discussion

Question: What type of water reductions might be possible? Is there an incentive for farmers to participate (e.g. savings on water, pumping costs?)

Response: Generally, the aim would be to reduce pumping by 10%. There might be up to 1,000 acre-feet saved per year in the Basin. This might also reduce the availability of excess water that currently supports habitat.

Comment: As a voluntary approach, it's not clear how widely these practices would be adopted.

Comment: A pilot project would help quantify potential water savings. The nozzles will have to fit with the current systems and the economic (and paperwork) costs need to be assessed. If the benefits outweigh the costs, producers will want to adopt improvements.

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Question: In using surface water, in lieu of groundwater, how is the Sierra Valley Decree being addressed? The current allocation is constantly litigated as it is.

Clarification: The lining of ditches is only referring to those ditches conveying groundwater, which is very limited – perhaps a few hundred yards on a few ranches. It's a minor component for conserving irrigation water. At a few locations, minor improvements could be made when moving groundwater in unlined ditches.

Comment: It is critically important that the GSP clearly state when PMAs are being implemented valley-wide or in limited settings. If groundwater is being pumped, and transported for short distances, that is not an issue.

Comment: Lining the ditches to move groundwater seems counter-productive.

Sustainable Yield and Pumping Overages

Comment: Is 10% going to address the overdraft in the Basin?

Response: It is unlikely that any one PMA will offset the pumping levels exceeding sustainable yield. The sustainable yield is roughly 6,000 acre-feet (AF)/year, pumping in excess of the sustainable yield may be 4,000 – 6,000 AF/year. A combination of PMAs will be needed to align demand more closely with sustainable yield.

Watershed Management

Comment: A description and proposal for watershed management was created by Michael Hogan and Rachel Hutchinson, to allow the uplands to better hold and retain water. Compacted soils hold 5-10% water, healthy soils hold up to 40% water. Roads, especially after the fire, have compacted soils. Increasing water retention during runoff also flattens the hydrograph and helps capture carbon. This is especially important during a long-term drought. These activities can result in partnership with the Forest Service. There is funding for multi-benefit projects.

Question: Are there any studies that point to how much this could increase recharge?

Response: There are ways to get at recharge levels. However, runoff ultimately goes to Lake Oroville. Increasing soil water retention holds water in the Basin for a longer period of time and supports habitat.

Comment: Work done in Perazzo Meadows (off Webber Lakes) and Clover Valley highlights the need to work with water rights and downstream water users. Both of them were meadow and stream restoration projects using ponded water that could reduce downstream flows. At Perazzo, the stream itself was then restored which produced the best result,

Response: The proposal for upper watershed management would strictly focus on de-compacting soils, not ponding water.

Comment: Much of the runoff from forest roads goes back into the forest. The greatest loss of runoff occurs where forest roads intersect with streams – that's where the runoff is directed downstream. Heavily roaded areas can increase flood peaks by 3-5%, which is quite a bit of water. Watershed management also includes thinning, which reduces evapotranspiration. The gains aren't big – about 1-3% - although that adds up.

BREAK

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Voluntary Managed Land Repurposing

The voluntary removal of ag land usually involves areas of low productivity. The NRCS Conservation Reserve program provides a yearly rental payment to farmers who remove environmentally sensitive land from agricultural production and plant vegetation that improves environmental health and quality. In Sierra Valley, the yearly rent wouldn't offset the economic losses associated with not planting. Also, voluntary actions or conservation easements to remove land from production have tax implications. However, conservation easements do prevent development pressures from encroaching on rural areas – as occurred in Mason Valley. Tax implications may be minimal anyway due to the Williamson Act.

Voluntary Water Conservation / Demand Management

This might involve approaches such as only applying crop ET. Or, for example, major ranchers or producers might forego a fourth cutting to avoid going to mandated measures. Or cutting back on x% of irrigated acreage to forego mandatory restrictions.

The GSA could develop an approach for limiting groundwater extractions – to only be implemented when and if needed – taking into account a variety of factors such as crops, acreage, etc. as addressed in the enabling legislation for the District. This has been mentioned as creating “groundwater shares.” The Board may also need to respond to requests to reactivate currently inactive wells, or requests for new high capacity wells outside of the restricted zone. A process is needed to work through these type of requests.

Discussion

Comment: Some questions will depend on the level of confidence in the hydrologic model.

There are a lot of variables in running scenarios as to implications for drilling a new well. The model will provide big picture impacts for the Basin, without finer nuances for local impacts.

Comment: This is probably the simplest solution that is also hardest to get to. Looking at the maps, the general cone of depression is located in one part of the Basin. Does the Board have the interest in asking people to pump less? Do they have the authority to request reductions in the area of the cone of depression?

Response: The Board does have that authority, which they've exercised in precluding new wells in the restricted area.

Comment: This would be an option of last resort. However, it's not clear how PMAs can reduce all of the pumping overage. Producers will cut back on pumping when it becomes too expensive to pump (and that point is not far away.) Producers change all the time, they'll have to figure something out. The question is how to make adjustments that are fair to all.

Comment: This is not a path that producers want to take at this time. Transitioning to this type of approach is the most painful, economically, to Sierra Valley. An equitable approach requires careful thought. Allocations would need to be progressively reduced to reach the target. A groundwater rights approach does provide some elements of certainty for ranching decisions. It does make sense to do the difficult work – of thinking about how to allocate “groundwater shares” – while the District has the support of a technical team and facilitator.

Comment: This question also touches on reactivating an inactive well, or a new high-capacity well outside of the restricted area. A framework is needed for those discussions and decisions about what is fair. These are questions for the Board and not the TAC.

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The proposal is that the GSP contain a recommendation that the Board develop approaches for: reviewing requests to reactivate inactive wells, reviewing requests for new high-capacity wells outside of the restricted area, and equitable reductions in pumping if and when needed. Time is needed to determine how much PMAs can reduce the pumping overage, so that the level of potential reductions is better understood.

This recommendation needs to provide context, saying that consideration of pumping allocations is prudent since PMAs may not offset all pumping overages.

OTHER PMAs

Frenchman Reservoir

Discussion:

Comment: PMAs related to increasing water levels at Frenchman Reservoir should be removed from consideration since this was built for recreation and not water storage.

Comment: Frenchman Reservoir was originally constructed for agriculture, it shifted to 60% recreation and 40% agriculture since the agricultural users couldn't cover the entire costs.

The reservoir is part of the State Water Project. Some have the impression that the reservoir could hold up to 2 more feet of water. However, evaporation is a problem.

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Participants

TAC MEMBERS

X = attendance

| | Organization, Name | | Organization, Name |
|---|--|---|---|
| | Agricultural Commissioner, Plumas-Sierra Willo Viera | | Sierra County Environmental Health Elizabeth Morgan |
| | City of Loyalton Jerry Gerow | | Sierra Valley Groundwater Mgmt. District Einen Grandi and Dwight Cerasola (alternate) |
| 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 Paul Rose (alternate) |
| | Hinds Engineering Greg Hinds | X | UC Cooperative Extension Tracy Schohr |
| X | Integrated Environmental Restoration Svcs. Michael Hogan | | 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 |
| | 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 |
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TECHNICAL TEAM & PLANNING COMMITTEE

- | | | | |
|---|------------------------------------|---|-------------------------------------|
| X | Laura Foglia, LWA Project Manager | X | Dwight Smith, McGinley & Associates |
| X | Betsy Elzufon, LWA | X | Judie Talbot, Outreach Facilitator |
| X | Kristi Jamason, Planning Committee | | |

COMMUNITY MEMBERS (none)