

**Siskiyou County Groundwater Sustainability Agency
Scott Valley Advisory Committee Meeting
MEETING SUMMARY**

Meeting date/time: January 26, 2021/ 3:00 – 6:00 pm

Location: Zoom Online Platform

Key contacts:

- Matt Parker, County Natural Resources Specialist, mparker@co.siskiyou.ca.us 530.842.8019
- Katie Duncan, Stantec Consulting – Facilitator. katie.duncan@stantec.com 916-418-8245
- Laura Foglia PhD, U.C. Davis Technical Team Lead, lfoglia@ucdavis.edu 530.219.5692

MEETING RECAP

- **Approval of Past Meeting Summary.** The committee approved its November meeting summary for posting on the Siskiyou County SGMA website.
- **Public Comment:** No initial public comments.
- **District Staff and Other Announcements:** Matt Parker provided updates on GSP Development and other SGMA related items, Pat Vellines provided updates from DWR, and there was a brief update from the ad hoc committee.
- **Presentation and Discussion of SMCs in Scott Valley:** Claire Kouba and Thomas Harter shared the proposed approach to defined the minimum threshold for the stream depletion SMC in Scott Valley.

SUMMARY OF ACTION ITEMS

<i>Action Item</i>	<i>Responsible Party</i>	<i>Status/Deadline</i>
Technical team to continue to refine SMC definition and simulated scenarios for presentation to Advisory Committee.	Technical Team	February
Advisory Committee to review Draft SMC for Surface Water Depletion in Scott Valley document and provide comments.	Technical	February 10, 2021

Next Meeting: February 23, 2021/ 3:00 – 6:00 pm. Due to current circumstances surrounding COVID -19 the meeting will again be held online with Zoom technology.

View [Siskiyou County's groundwater website](#) for posted meeting materials.

MEETING SUMMARY

Agenda Review and Approval of Past Meeting Summary

The facilitator welcomed all participants and thanked attendees for their patience with ongoing use of Zoom as alternative meeting platform during the pandemic. She secured consent from committee members to post the November meeting summary on the county's SGMA webpage. No committee members put forward questions or expressed concerns about the agenda at the outset of the meeting.

Public Comment Period

**Siskiyou County Groundwater Sustainability Agency
Scott Valley Advisory Committee Meeting
MEETING SUMMARY**

At the outset, members of the public may comment on items not on the consent agenda. The public is asked to wait until the appropriate item to comment on issues directly related to the current meeting agenda. No comments were provided.

District Staff and Other Updates

- Matt Parker reviewed key GSP milestones and overall schedule. In the coming months it will be important for the Advisory Committee to come to consensus on a range of important GSP elements.
- Matt Parker provided an update on the County's SGMA Legal Counsel RFQ process. The County received a number of applications and is currently in the processing of vetting and approving their chosen candidate.
- The Scott Valley Surface Water ad hoc group met on January 13, 2021 and discussed the proposed Stream Depletion SMC approach.
- Pat Vellines provided updates from DWR including information on future SGMA funding for medium-priority basins, future Airborne Electromagnetic (AEM) surveys over the Siskiyou County Basins, and ongoing in other SGMA basins.
- Katie Duncan provided an overview of Advisory Committee roles, responsibilities, and processes.

Presentation and Discussion of SMCs in Scott Valley

Dr. Thomas Harter and Claire Kouba used both a drafted proposal document and PowerPoint slides to introduce and present a proposed approach to defining the stream flow depletion sustainable management criteria (SMC) in Scott Valley and corresponding minimum threshold (MT).

For the purpose of this discussion, important acronyms and abbreviations include:

- CWA: Clean Water Act, 1972
- ESA: Endangered Species Act
- GSA: Groundwater Sustainability Agency
- GSP: Groundwater Sustainability Plan
- PTD: Public Trust Doctrine
- SMC: Sustainable Management Criteria
- TMDL: Total Maximum Daily Load program in the Clean Water Act

The technical team discussed all relevant background information considered in developing the proposed SMC approach. Key information includes:

- New, undesirable results must be avoided
- SGMA requires defined SMC's to be consistent with existing water rights and so the adjudication, CWA (TMDL), ESA and PTD must be considered.
- The definition of a minimum threshold provided in Section 254.28(c) of the DWR regulations

The technical team reviewed conditions in Scott Valley:

- The basin is not in overdraft, but since the 1970's pumping has increased and a decrease in summer streamflow has occurred.

**Siskiyou County Groundwater Sustainability Agency
Scott Valley Advisory Committee Meeting
MEETING SUMMARY**

Comment: The DWR regulations (Section 254.28(c)) uses the language “supported by” and references the use of a model. It would be good to understand the legal context and interpretation of this language.

Question: Can the change in stream flow only be caused by groundwater?

Response: Many things affect stream flow, but the only way to determine how pumping has specifically affected flow, especially outside of the adjudicated zone is to use the model.

The technical team reviewed the proposed approach using the Scott Valley Integrated Hydrologic Model (SVIHM) to define the stream depletion SMC.

Comment: What is the analysis period and how is depletion being quantified?

Response: Total depletion, to the extent it is an undesirable result must be reversed (additional from what was being experienced in 2015). Land use is not changing, climate isn’t changing – we wouldn’t anticipate an increase in total depletion. Potentially the committee may want to discuss a process to define allowable limits on groundwater extractions that may contribute to additional depletion. This exercise uses the analysis period of 1991-2018 and total depletion is quantified based on daily flows and measured in CFS.

Comment: Can the quantity of water missing from the aquifer and not going to the river be expressed as a volume? Not necessarily thinking about a CFS to AF conversion, but more in terms of aquifer elevation.

Response: This is difficult because when looking at the groundwater slope or elevation, the change in stream flow (CFS) correlates to a 3-inch difference in aquifer elevation and this is difficult to measure.

Comment: Will we look at model run that looks at climate change.

Response: Yes, but not today. These are included in the future projected water budget.

Comment: How is total pumping calculated?

Response: In the model, pumping is quantified based on information about land use and associated ET demand, irrigation efficiency, and available surface water.

The technical team explained the technical elements of the proposed approach. Real-world observations and a computer model (SVIHM) will be used to take regular “measurements” of stream flow depletion. Total depletion is quantified with the model (as required by SGMA) by determining the difference in simulated streamflow at the Fort Jones gage between the Base simulation (actual historic conditions 1991-2018) and the No Pumping Reference simulation (no groundwater pumping outside the adjudicated zone for the 1991-2018 period). Depletion Reversal is the amount of streamflow that can be generated from the implementation of projects or management actions (PMA) in the basin. The Depletion Reversal from a specific PMA is likewise “measured” using SVIHM by determining the difference in simulated streamflow at the Fort Jones gage between the Base simulation and the specific PMA scenario. The Relative Depletion Reversal is the ratio of Depletion Reversal to Total Depletion, expressed as a percentage. The goal is to have a high Relative Depletion Reversal.

SVIHM is the best tool available to quantify stream flow impacts due to groundwater pumping. Models have been used as a measuring instrument for many other regulatory efforts including Superfund remediation, CVSALTS, and nitrate modeling in the Central Valley.

**Siskiyou County Groundwater Sustainability Agency
Scott Valley Advisory Committee Meeting
MEETING SUMMARY**

Comment: What are the downsides to using the model, this seems highly theoretical?

Response: The model does not provide a direct measurement. Relative Depletion Reversal will be measured in relation to a very specific model. This approach suggests a tight link between projects, outcomes, and Relative Depletion Reversal. We will look at flow at the Fort Jones gage, groundwater levels, and other measurements to evaluate ecological benefit. The minimum threshold is related to specific projects and management actions.

Comment: The Relative Depletion Reversal is a valuable metric. If you can calculate total depletion – why not just use that as direct minimum threshold and use Relative Depletion Reversal as a measurement of actions? Seems like the risks associated with using the model is if actual pumping differs from model input. How do we deal with a model that has set inputs?

Response: We can continue to model depletion and evaluate how model is simulating depletion depending on inputs and what’s being seen in the river. We propose that this is not a static model. And new data is consistently used to recalibrate model in the future.

The technical team explained that the minimum threshold does not have to be set at 100% depletion reversal, but current conditions cannot worsen. Additional pumping may be restricted unless a project is implemented to reverse the effects of that pumping.

Comment: I like idea of using relative measurements.

Comment: This analysis is looking at land use outside of the adjudication zone and outside of the interconnected zone, so how is depletion quantified?

Response: (Showing land use map.) The model’s internal logic simulates the relationships of pumping and water use on stream flow. Even land use outside of adjudication zone has some effect on stream flow.

Comment: I understand appeal and value of using the model, but from a public participant point of view where management actions will affect our livelihood, the model does not feel transparent or tangible. Transparency is important for long-term buy in. You mentioned it can be correlated with USGS gage that has a long period of record, that is tangible and data is accessible online.

Response: The model files are public, software public, documentation is public. The public can have confidence that they have the ability to request the model to be run.

Comment: Has there been a fisheries or economic analysis? What is the cost of projects and actions?

Response: The technical team has not worked on that and are not planning to do that for the GSP.

Comment: What is the relationship between stream flow vs. total volume of groundwater depletion? There were dry wells this year in the basin. Is this supposed to address that or is it separate? What’s the intersection?

Comment: Clearly the water level and groundwater storage SMC are connected. Projects may overlap.

Response: There is also a strong relationship between the water level SMC and the stream depletion SMC.

The technical team reviewed data plots showing the “Reconnection Date Distribution” showing how dates of river reconnection changed and improved given specific management action. The technical team explained that the model is very sensitive and there are some differences between the observed and base case simulation, although the difference represents a conservative approach in analyzing the data.

**Siskiyou County Groundwater Sustainability Agency
Scott Valley Advisory Committee Meeting
MEETING SUMMARY**

Comment: Reconnection at Fort Jones is not representative of the whole watershed being connected. As we look at different flow (CFS) values, temperature is also a factor. You are showing changes in reconnection dates for fall, but we need to look at other times of the year that reconnection is critical.

Comment: We also need to look at stream drawdown.

The technical team and Advisory Committee wrapped up the conversation. Katie Duncan provided closing comments and thanked everyone for their participation and thoughtful discussion.

MEETING ATTENDEES

Advisory Committee Members

Brandon Fawaz, Private pumper
Tom Jopson, Private Pumper
Tom Menne, Scott Valley Irrigation District
Crystal Robinson, Quartz Valley Tribe
Drew Braugh, CalTrout, Environmental/Conservation
Paul Sweezey, Member-at-Large
Michael Stapleton, Residential
Jason Finley, Private Pumper

Absent Committee Members

Bill Beckwith, Fort Jones, Municipal/City

District Staff

Matt Parker, County of Siskiyou Natural Resources Specialist

Technical Team

Dr. Laura Foglia, UC Davis/Larry Walker Associates
Dr. Thomas Harter, UC Davis
Claire Kouba, UC Davis
Kelsey McNeill, UC Davis/Larry Walker Associates

Agency Staff

Bryan McFaddin, North Coast Regional Water Quality Control Board
Eli Scott, North Coast Regional Water Quality Control Board
Janae Scruggs, California Department of Fish and Wildlife
Jessica Boyt, Department of Water Resources
Pat Vellines, Department of Water Resources
Chris Watt, North Coast Regional Water Quality Control Board
Shari Whitmore, National Marine Fisheries Service

Facilitator

**Siskiyou County Groundwater Sustainability Agency
Scott Valley Advisory Committee Meeting
MEETING SUMMARY**

Katie Duncan, Stantec

Members of the public

Leah Easley

Jack Rice

Betsy Stapleton

Charnna Gilmore

Joshua Saxon, Karuk Tribe

Giuliano Galdi

Susan Fricke, Karuk Tribe

Bonny Nichols

Joe Croteau

Preston Harris

Toz Soto, Karuk Tribe

Earl Crosby, Karuk Tribe