Scott Valley Groundwater Advisory Committee Meeting

Tuesday August 29, 2023

Call to Order, Introductions

Amanda Cooper, Environmental/Conservation (CalTrout)

Brandon Fawaz, Private Pumper

Charnna Gilmore, Municipal/City (Etna)

Theo Johnson, Member At-Large

Tom Jopson Private Pumper

Tom Menne (Chair), Private Pumper

Jim Morris, Scott Valley Irrigation District

Michael Stapleton, Residential

Bonnie Bennett, Tribal

Agenda

3:05 Approval of Past Meeting Summary

3:10 Public Comment Period – Non-Agenda Items

3:15 DWR Updates

3:20 District Staff Updates

3:30 Committee Discussion on the State Water Board's Process for Establishing Minimum Instream Flows for the Scott and Shasta Rivers

3:55 Committee Discussion on Updated Draft Well Permitting Process

4:30 Break

4:40 Presentation on Basin Conditions and the DWR SGM Round 2 Grant Award

5:05 Updates on Groundwater Related Projects

5:30 Open Committee Member Discussion

5:55 Closing, Action Items, and Future Agenda Items

6:00 Adjourn, Form Ad Hoc Groups

Public Comment on Non-Agenda Items and Updates from Other Agencies

This time is to receive public comments on items not on the consent agenda. If your comment concerns an agenda item, please address the Committee after that item is covered.

This time is also reserved for staff from other agencies to provide updates to the Committee on activities related to groundwater, which may include the State or Regional Water Board, CDFW, and others.

DWR Updates

District Staff Updates

Committee Discussion on the State Water Board's Process for Establishing Minimum Instream Flows for the Scott and Shasta Rivers

- District staff to share information
- Committee Members to discuss the State Water Board's process and possibly generate recommendations to the GSA Board on the role of the GSA through the process.

Siskiyou County Groundwater Well Application Process Guidelines

GSA Butte, Scott and Shasta Valley Groundwater Advisory Committee meetings

August 29-31st, 2023

Why we're here – Executive Order

N-3-23 - Paragraph 9 of Executive Order N-7-22 is withdrawn and replaced with the following text:

- To protect health, safety, and the environment during this drought emergency, a county, city, or other public agency shall not:
  a) Approve a permit for a new groundwater well or for alteration of an existing well in a basin subject to the Sustainable Groundwater Management Act and classified as medium- or high-priority without first obtaining written verification from a Groundwater Sustainability Agency managing the basin or area of the basin where the well is proposed to be located that groundwater extraction by the proposed well would not be inconsistent with any sustainable groundwater management program established in any applicable Groundwater Sustainability Plan adopted by that Groundwater Sustainability Agency and would not decrease the likelihood of achieving a sustainability goal for the basin covered by such a plan; or
  b) Issue a permit for a new groundwater well or for alteration of an existing well without first determining that extraction of groundwater from the proposed well is **(1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure.**
- This Paragraph shall not apply to permits for wells (i) that will provide less than two acre-feet per year of groundwater for individual domestic users, (ii) that will exclusively provide groundwater to public water supply systems as defined in section 116275 of the Health and Safety Code, or (iii) that are replacing existing, currently permitted wells with new wells that will produce an equivalent quantity of water as the well being replaced when the existing well is being replaced because it has been acquired by eminent domain or acquired while under threat of condemnation.

Why we're here – Public Trust/CEQA

- Public Trust Doctrine
- CEQA

- *Eventual State Legislation?*

Staff updates

- Language referencing SWRCB Emergency Regulations will be updated as situation changes
- Provide more detail description and clarification for “de minimis” domestic and/or stockwater wells
- Update definitions and also text to clarify replacement, emergency, deepening terms that constitute approval or not
- Evaluation Matrix’s
  - Table for evaluating impacts to “nearby” wells that correlates GPM to Distance from nearby well
  - Scott/Shasta Public Trust – Mapping to show transmittal times

Staff updates

- Scott Valley - new adjudicated wells not subject to GSA review
- Discussion of potential recommendation for production all well applications Countywide seek professional to begin evaluation process under 9(b)
- Indemnifications under discussion to include or not
- Ministerial (exempt) wells
  - Domestic or stockwater for use under 2 acre-ft per year
  - Municipal/Public (per water code)
  - Monitoring
  - Injection
- In the future, the County will be exploring a streamlined programmatic approach

Timeline

- First Draft presented to the Board of Supervisors on February 7, 2023
- Discussion item at Tulelake GSA Core Team meeting on March 24, 2023
- Discussion item at Butte, Scott and Shasta Valley groundwater advisory committee meetings on April 25-27
- County staff with assistance from Stantec summarized feedback to the Board of Supervisors on June 20.
  - BOS directed staff to update the document
- 2nd Discussion at August AC meetings, and with Tulelake GSA
- Intentions to bring final document to BOS in October
  - Public will have opportunity to review and comment

Feedback

Break

We’ll reconvene in 10 minutes, at approximately 4:45

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AUGUST ADVISORY COMMITTEE MEETINGS

Scott Valley Groundwater Advisory Committee Meeting

LARRY WALKER ASSOCIATES
science | policy | solutions

Stantec

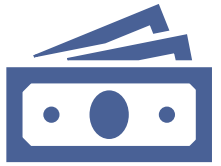
Topics

- GSP Determination and DWR Comments Received
- Sustainable Groundwater Management (SGM) Grant Program's SGMA Implementation Round 2 Funding- Grant Awards
- Implementation project recap
- Small work group formation
- Monitoring update
- Model Updates
  - SVIHM Updates
  - Scott PRMS Model
  - USGS- model coordination

Overview of Implementation

Addressing DWR Comments on GSP Determination

Routine Monitoring, Data Evaluation and Annual Reporting



Funding Awards and Implementation of Project and Management Actions

Model Updates

GSP Determination and DWR Comments

- Scott Valley's GSP was approved on April 27th, 2023
- Findings from DWR included recommended actions:
  - Provide current water budget
  - Fill data gaps
    - Water quality
    - Interconnected surface water
  - Sustainable Management Criteria Definition
    - Water quality
    - Interconnected surface water sustainable management criteria
  - Coordinate and collaborate with other agencies to understand beneficial users

GSP Determination and DWR Comments

- Sustainable Management Criteria Definition
  - Water Quality
    - Redefine undesirable results- based on quantitative description of minimum threshold exceedances
    - Refine minimum thresholds to be based on number of supply wells, volume of water, or location of isocontour
  - Interconnected Surface Water
    - Consider revising undesirable result definition with quantitative minimum threshold exceedances
    - Consider using a numeric value for minimum thresholds

Implementation Grant Funded Projects (from Draft Awards)

- SGMA Compliance and GSP Updates
- Fee Study and Economic Analysis
- Well Inventory
- SVID Recharge Project
- Ditch Infiltration Study
- Upland Management

Implementation Approach

Work group formation

Work groups will oversee project design, progress, and evaluation of results

Updates for each project will be provided to the larger group at quarterly advisory committee meetings

Timeline

2023 Q3

- Formation of work groups in August AC Meetings
- Work groups approve draft project scope and schedule
- Final grant awards expected in September

2023 Q4

- October AC Meetings- review of final funding awards
- Detailed scope and schedule for funded projects provided to Advisory Committee

2024 Q1

- February AC Meetings- updates from project work groups, updates depend on individual project schedules

SGMA Compliance and GSP Updates

GOAL: Ensure that the Scott Valley Basin Groundwater Sustainability Plan continues to meet requirements of SGMA and continues to build on monitoring, hydrologic modelling, and outreach efforts.

1. GSA administration
2. Data management
3. GSP updates- comments from DWR with determination
4. Reporting
5. Model updates and scenario evaluation
6. Data gap analysis and monitoring network expansion
7. Outreach & engagement

Fee Study and Economic Analysis

GOAL: Establish a fee program to fund GSP implementation and conduct a comprehensive economic analysis to evaluate baseline conditions and impact of project and management actions.

1. Evaluation of Fee/Rate Options
2. Update and Future Development of Parcel Specific Database of Groundwater Use and Supply
3. Analyze baseline economic conditions
4. Analyze economic conditions for project and management actions

Well Inventory

GOAL: Develop well inventory and a well risk assessment and mitigation program.

1. Well Inventory
    1. Well Records Survey
    2. Well Verification
2. Well Risk Assessment
3. Database Development
4. Monitoring well construction and/or instrumentation

Recharge and Upland Management

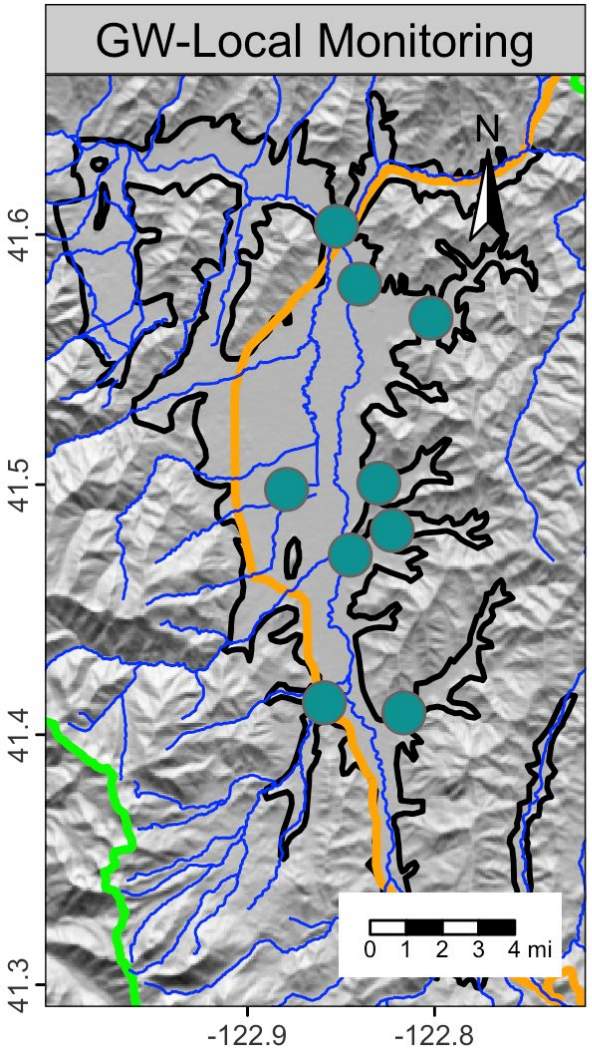
- SVID Recharge Project and Ditch Infiltration study have additional funding sources and are in progress.

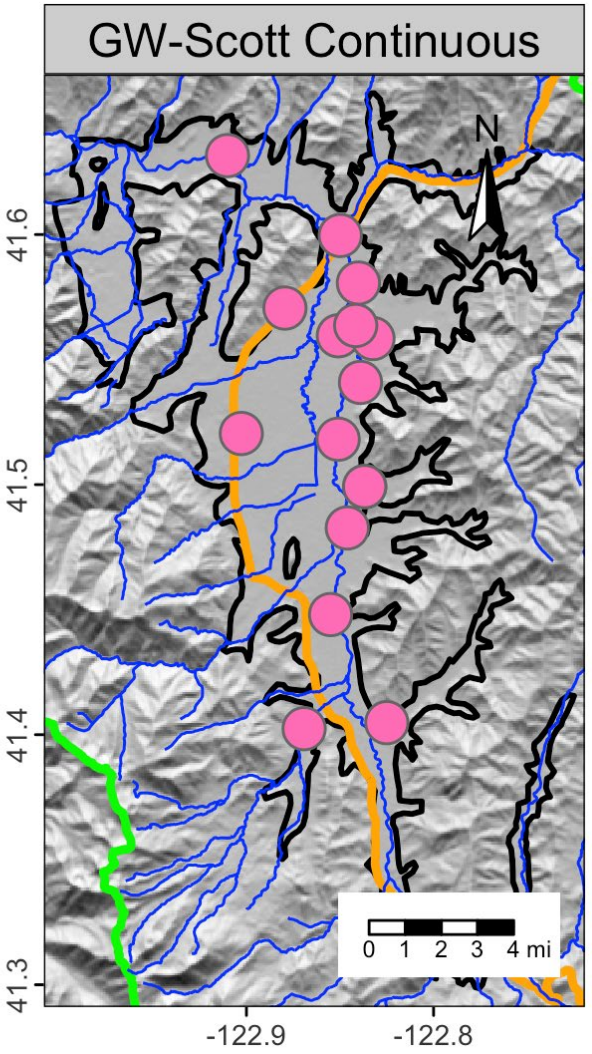
- Upland management would partner with other agencies completing projects to evaluate potential benefits to water supply through management of upland forest vegetation.

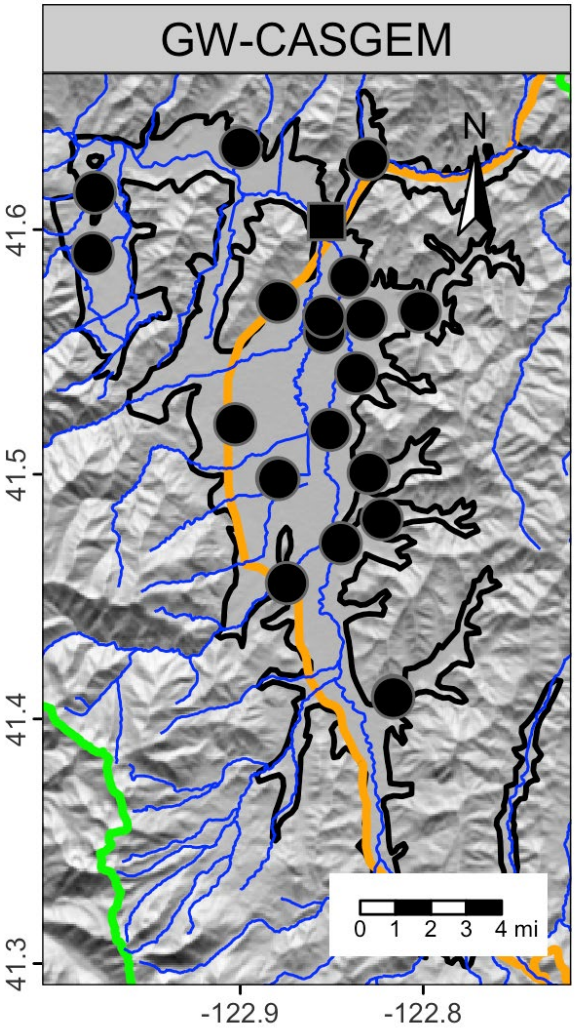
Work Group Formation- Discussion

- Work Groups proposed for
  - **Data gap and monitoring work group-** SGMA Compliance and GSP Updates
  - **Well inventory**
    - County-wide, representatives from each basin
  - **Others?**

Scott Groundwater Level Monitoring





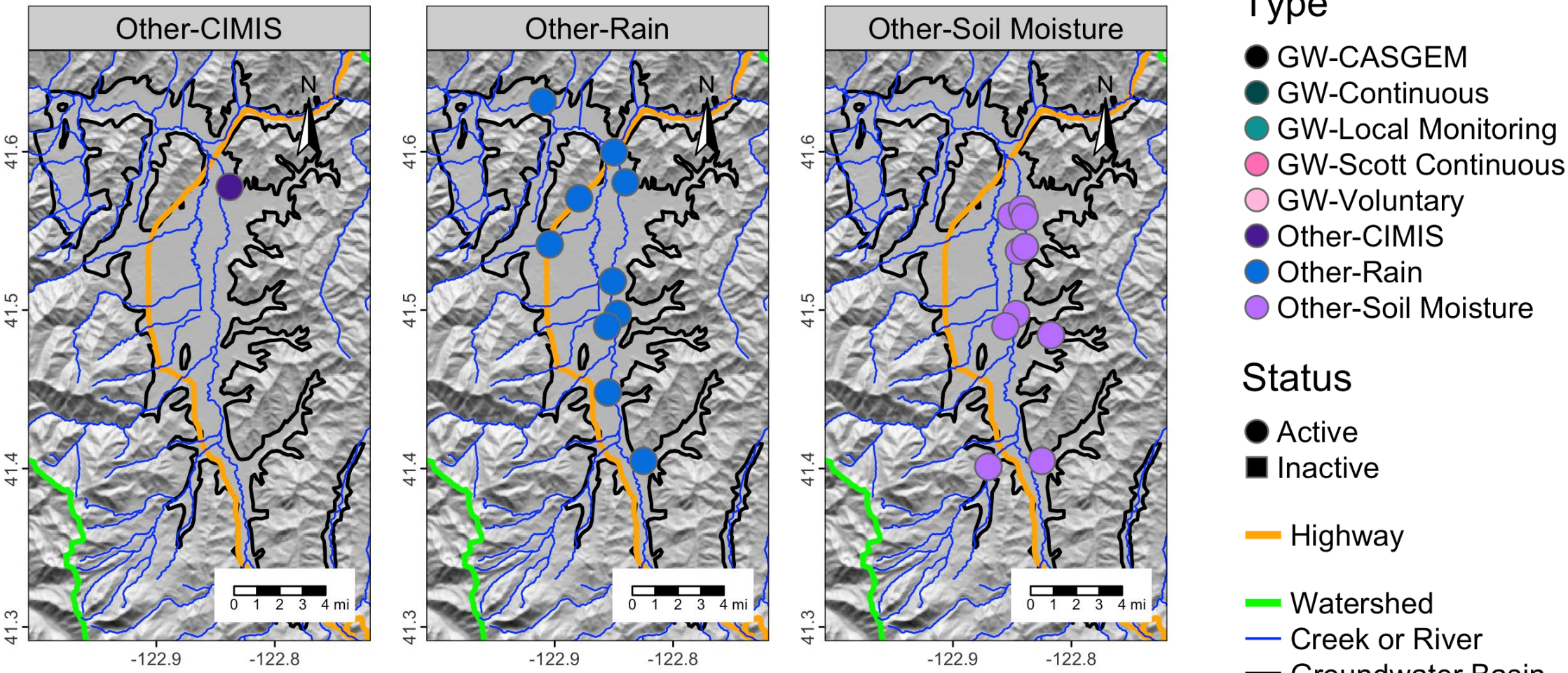


Type
- GW-CASGEM
- GW-Continuous
- GW-Local Monitoring
- GW-Scott Continuous
- GW-Voluntary
- Other-CIMIS
- Other-Rain
- Other-Soil Moisture

Status
- Active
- Inactive

- Highway
- Watershed
- Creek or River
- Groundwater Basin

Additional Monitoring



Scott Groundwater Level Monitoring

Monitoring Program	Number of Active Monitoring Wells	Wells with Data Shared
CASGEM	4	Available online[1]
Community Groundwater Measuring Program	12	9
LWA/ Continuous Measurements	19	10

1. https://www.casgem.water.ca.gov/

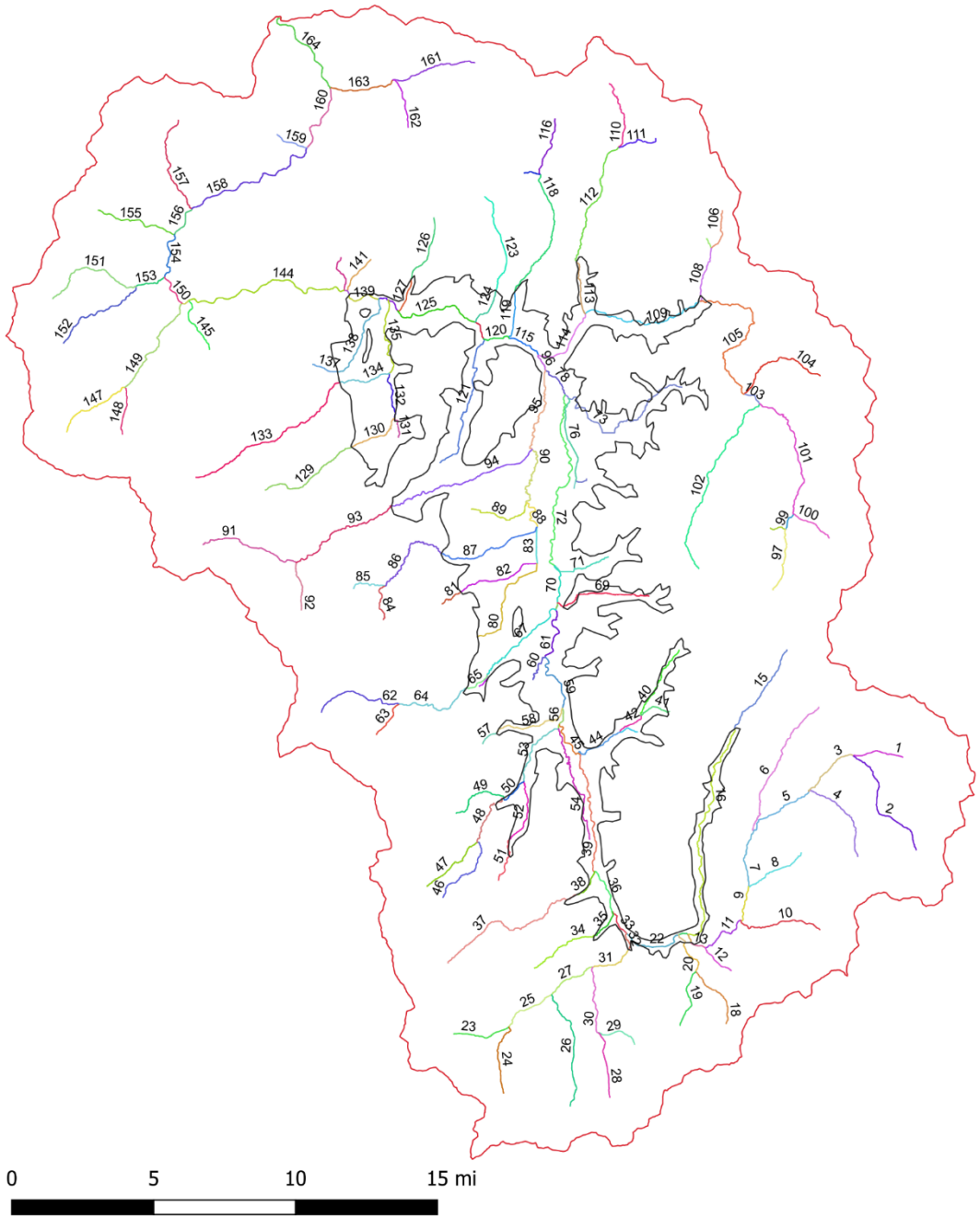
SVIHM Update

- SVIHM can now be automatically updated with the last month's recent precipitation, evapotranspiration, and Fort Jones streamflow (okay, this was a pre-Winter upgrade)
- Incorporated latest tributary data from DWR
- The SWBM and MODFLOW model now only have be run once (as opposed to twice previously) thanks to a new streamlined package representing soil saturation-excess overland flow
- The SWBM now supports monthly changes in crop/land use, very useful for representing local cooperative solutions (LCSs)
- Built a sediment texture-driven hydraulic property model of the Scott Valley using borehole logs and AEM resistivity data (under refinement & review, intended to become part of SVIHM)
- (If you're mentioning the PRMS models) SVIHM will use PRMS tributary predictions, in combination with tributary observations, on a daily basis, improving upon the current use of monthly tributary inflows
- Ongoing developments to ensure everyone can run the model - no programming experience required (batteries not included)

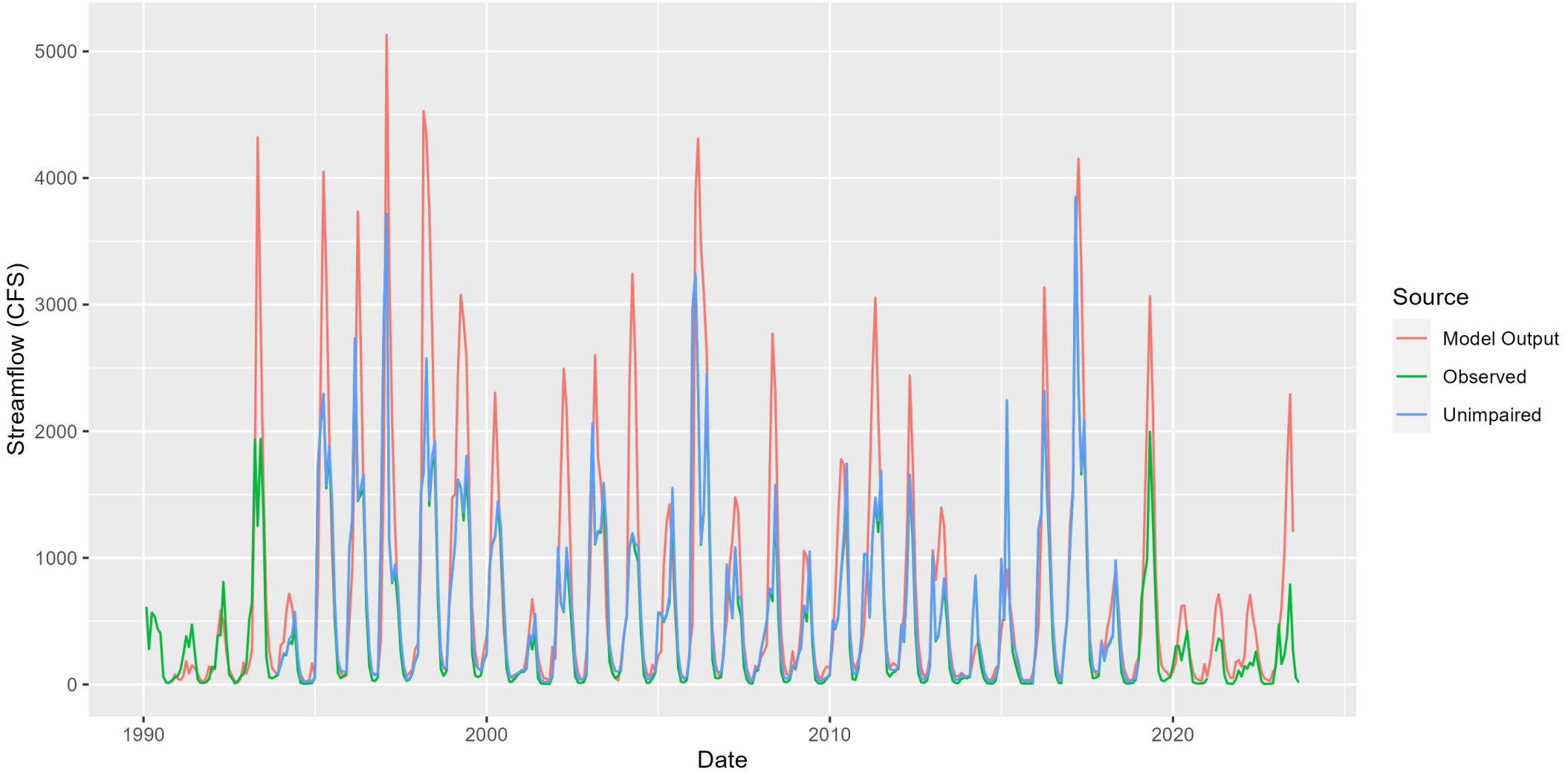
Scott Valley Precipitation Runoff Modeling System (PRMS)

- Update SVIHM with PRMS
  - Streamflow in SVIHM is controlled by a simple statistical regression.
  - PRMS calculates streamflow while considering snowpack, runoff, plant canopy, and other parameters.
  - Watershed scale
  - Time-dependent streamflow from October 1990 to June 2023
    - Low flow and high flows
    - Daily streamflow

- Future Work
  - Every year will update PRMS to new water year.



Scott Valley PRMS – Fort Jones Streamflow Station



Model Coordination with USGS and USBR

- **USGS**: Quartz Valley refined model
  - LWA team working with USGS and providing model input (from the watershed model and from the soil water budget)
  - Results will be compared to SVIHM before publication
- **USBR/USGS**: Larger Klamath effort
  - Phase 3 includes development of model scenarios for Scott and Shasta
  - Upon review of our GSP models, USGS will be using our models and we will work collaboratively on the update

Thank You

Updates on Groundwater Related Projects

IFRMP Rank #1 – 24 points
SGMA – Tier II

Scott River Mountain Meadow Restoration Planning & Implementation

5 Projects

Scott River Watershed Council

Objective: Multiple projects are weaved together to understand the extent, condition, and restoration actions for all the mountain meadows within the basin. There are also several on-the-ground implementation aspects that include conifer removal, cattle exclusion, and instream process-based actions

Deliverables:

- Comprehensive and prioritized restoration plan for over 800 acres of mountain meadows
- 100 acres of conifer removal
- Construct and maintain over a 100 acres of cattle exclusionary fencing
- Improve vertical and longitudinal hydrologic connectivity on 125 acres by installing low-tech process-based structures in perennial and ephemeral stream channels

Funders: United States Fish and Wildlife Service, United States Forest Service, Wildlife Conservation Board, California Department of Fish and Wildlife's Restoration Grant Programs: Nature-Based Solutions –Wetlands and Mountain Meadows and North Coast Resource Partnership

Partners: Landowners (EFM & The Wildlands Conservancy), Quartz Valley Indian Reservation, agencies (CDFW, WCB, NOAA, NCRWQCB, USFWS, USFS-KNF), Stillwater Sciences, Southern Oregon University, BBW & Associates, Klamath Meadow Partnership, Klamath Bird Observatory, Rocky Mountain Elk Foundation

Timeline: Varies from grant to grant ~ Next 5 years

IFRMP Rank #2 – 21.4 pts
SGMA – Tier I

Scott River Tailings Comprehensive Restoration Planning

Scott River Watershed Council

Objective: To complete the restoration plan that will integrate the existing SVIHM with a refined ground/surface water model with a surface terrain model to use as a predictive tool to evaluate potential restoration, land, and water management options. The goal is to decrease the physical and temporal extent of dewatering, thereby increasing fish passage, improving habitat conditions, accessing existing isolated cold water refugial areas, increasing channel complexity, and improving riparian vegetation

Deliverables: Two preferred restoration alternatives on 664 acres of the tailings encompassing both the upstream and downstream extent of influence.

- One alternative will be for current opportunities
- One alternative on entire reach, not constrained by current land use or water rights.

Funders: California Department of Fish and Wildlife's Fisheries Restoration Grant Program (FRGP), California State Coastal Conservancy, and CDFW's Drought Protecting Salmon

Partners: Landowners, agencies (CDFW, CC, NOAA, NCRWQCB, USFWS), Larry Walker and Associates, Stillwater Sciences, Vista Clara, Quartz Valley Indian Reservation, Farm Bureau, TNC, Gary Black, Seatone Consulting

Timeline: Project completion date is December 31, 2024

IFRMP Rank #3 & #6
SGMA – N/A

Grouse Creek Restoration Planning

Scott River
Watershed Council

Objective: The Project will consider multiple restoration options to address these issues. Potential options may be creating side-channels, oxbows, wetlands installing large wood or beaver dam analogues, and/or a geomorphic grade-line reset on Grouse Creek. Specifically, the Project will initiate the restoration of 1 mile in East Fork Scott River and an accumulation of 1.6 miles in Grouse Creek. The Project will also include enhancement of 35 acres of floodplain and potential of groundwater recharge

Deliverables: Three preferred restoration alternatives and 100% designs for the following:

- 35 acres of floodplain and a 0.90-mile reach of Grouse Creek
- 0.76 miles of Grouse Creek from the downstream end of the depositional valley to the confluence with the East Fork Scott
- Remediate any identified anthropogenic fish passage barriers
- 1 mile of the East Fork Scott from 0.5 miles above and 0.5 miles below the confluence of Grouse Creek

Funders: California Department of Fish and Wildlife's Restoration Grant Programs: Nature-Based Solutions –Wetlands and Mountain Meadows, United States Forest Service – Klamath Nation Forest

Partners: Landowner, agencies (CDFW, CC, NOAA, NCRWQCB, USFWS), Stillwater Sciences, Quartz Valley Indian Reservation

Timeline: Project completion date is March 1, 2027

IFRMP Rank #3 & #6
SGMA – Tier I (ALL)

French Creek, Sugar Creek & Patterson Creek Instream Restoration Implementation

Scott River Watershed Council

Objective: Multiple instream projects are designed to improve habitat for all life stages for Coho Salmon. Other benefits such as water quality and groundwater recharge are anticipated by these restoration actions

Deliverables:

- French Creek – ~ 5 acres of instream work including large wood, construction of side channels and floodplains and blackberry removal
- Sugar Creek – Construction of a large ~ 1 acre floodplain with connection to isolated water in the Tailings
- Patterson Creek – 12 engineered log jams, 3 double root wad structures, and 1 apex jam, with associated planting of cottonwood and willow on ~630' of stream channel

Funders: United States Fish and Wildlife Service's Partners Program and BIL, Bureau of Reclamation, North Coast Resource Partnership

Partners: Landowner, agencies (CDFW, NOAA, NCRWQCB), Cascade Stream Solutions, Stillwater Sciences, North River Construction, TNC, PCI ecological design & planning

Timeline: Projects completion date fall of 2024

IFRMP Rank #7
SGMA – Tier II (ALL)

Scott Valley Fuel and Forestry Projects

5 Projects

Scott River Watershed Council

Objective: Removal of dead, dying, and reducing stocking density of small to medium-diameter live trees, fundamentally altering the spatial arrangement of trees to minimize crown-to-crown spread of fire using heavy equipment, hand crews, and prescribed fire around the areas of Quartz Valley Indian Reservation, the southern portion of Quartz Valley, City of Etna, Kidder Creek, and areas around Callahan. Additionally, the use of biochar from a shade fuel break on the west side of the Valley was applied to 5 agricultural lands to assess nutrient and water consumption

Deliverables:

- Treatment of ~1500 acres of fuel reduction work on strategic location (highly traveled roads, higher density housing, and connectivity to existing fuel treatments and fire breaks) and landowner interest
- Prescribed burning using both broadcast and pile burning on at least 200 acres with focus on species such as white oak (*Quercus alba*) and black oak (*Quercus velutina*), along with any specials of interest including Sugar pine (*Pinus lambertiana*), madrone (*Arbutus*) and Incense cedar (*Calocedrus decurrens*). Special attention will focus on species such as Ponderosa pine (*Pinus ponderosa*) and Douglas fir (*Pseudotsuga menziesii*), both of which outcompeted other species in the absence of frequent fire

Funders: CALFIRE, United States Fish and Wildlife Service's BIL, California State Coastal Conservancy, North Coast Resource Partnership, Shasta Valley RCD, Wildlife Conservation Society, NRCS

Partners: Landowners, Quartz Valley Indian Reservation, Jefferson Resource Company, Siskiyou Prescribed Burn Association, CALFIRE, Siskiyou County, local fire departments

Timeline: Varies from grant to grant ~ Next 3 years

Open Committee Member Discussion

Chair to facilitate discussion among Committee Members to remark on the updates provided during today's meeting and provide any recommendations on next steps or actions to GSA staff or Board as appropriate.

Closing, Next Steps, Future Agenda Items

The next Advisory Committee meeting is scheduled for October 24.

Anticipated topics include:

- Update on Strategy Document and new facilitation support activities
- Fee study
- Updated information on water use for 2023

Adjournment & Forming Ad Hoc Groups

Thanks for your participation! We'll see you in October.