AUGUST 2024 ADVISORY COMMITTEE MEETINGS

Scott Valley Groundwater Advisory Committee Meeting

LARRY WALKER ASSOCIATES
science | policy | solutions

Stantec

Agenda

- GSP Implementation Updates
  - SGMA Compliance and GSP Implementation
    - GSP Revisions
    - Data Management System Update
    - Data Gaps- map with monitoring updates
    - Applied water, ET estimates, farm assessments (UCCE)
  - Fee Study
  - Well Inventory
  - Irrigation Ditch Recharge Projects
  - Upland Management
    - Ad-hoc meeting outcomes
    - Potential project list

Timeline – Implementation Projects

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- Annual Report for WY 2023

2024 Q2
- May AC Meetings- Update on implementation projects, discussion on upland management project selection

2024 Q3
- August AC Meetings- Update on implementation projects

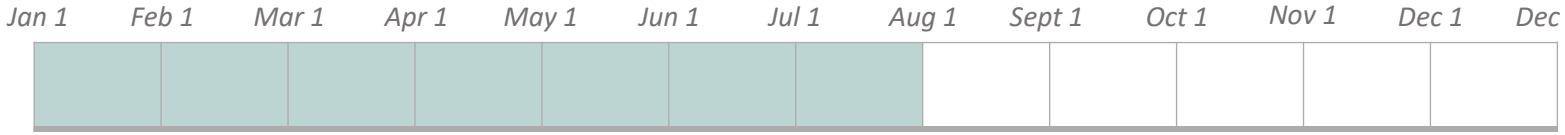
Timeline through Fall 2024

2024 Q3

- Summer sample collection
- Select upland management project and preliminary monitoring design plan
- Continue development of well inventory and approach to the fee study
- Preliminary Database Management System (DMS)
- August AC Meetings

2024 Q4

- Model scenario results with different management actions
- October AC Meetings
- Continued data collection
- Continue upland management project selection and preliminary monitoring design plan
- Continue well inventory and approach to the fee study



In Progress
Added to Backlog
Complete
Blocked

Implementation Grant Progress *Through August 2024*

#	Component	Notes	Status
1	**SGMA Compliance and GSP Updates**		
1.1	GSP Revisions	Due January 2027	In Progress
1.2	Reporting (Data and Annual Report)	Annual Reports due April 1 of each year	In Progress
1.3	Model Updates and Scenario Evaluation		In Progress
1.4	Data Gaps and Monitoring Expansion and DMS		In Progress
2	**Fee Study and Economic Analysis**		
2.1	Evaluation of Fee/Rate Options and Schedule Development		Not Started
2.2	Parcel scale groundwater use estimate		In Progress
2.3	Economic Analysis		Not Started
3	**Well Inventory**		
3.1	Database Development and Well Risk Assessment		In Progress
3.2	Monitoring Well Construction or Well Instrumentation		Not Started
4	**Irrigation Ditch Recharge Projects**		
4.1	Planning/Permitting, Installation of Monitoring Infrastructure	Diversion permits, diversion infrastructure, flowmeters	In Progress
4.2	Monitoring and Data Analysis, Annual Diversion Reports	Biological monitoring, flow measurements, water quality	In Progress
5	**Upland Management**		
5.1	Project Planning and Environmental Documentation	Develop workplan	In Progress
5.2	Monitoring Design, Data Collection, and Data Analysis	Assess monitoring needs	In Progress

2. SGMA Compliance and GSP Updates

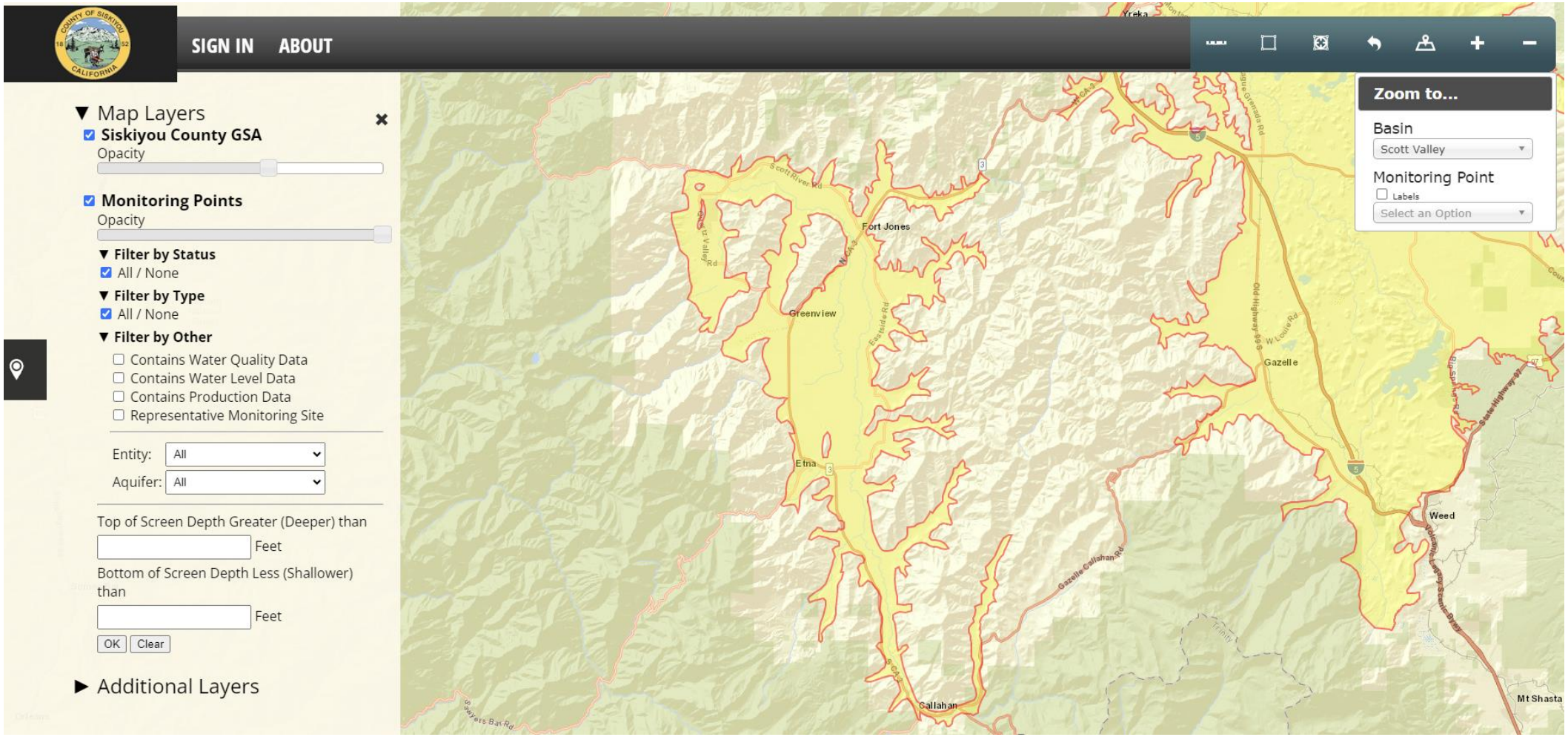
- GSP Evaluation and Response to DWR Comments
- Database Management System
- Data Gap Analysis
- Monitoring Network Expansion
- SVIHM Update
- Applied water, ET estimates, and farm assessments

DWR GSP Evaluation and Corrective Actions

- Provide current water budget
- Fill data gaps
  - Water quality
  - Interconnected surface water
- Revise Sustainable Management Criteria Definition
  - Water quality
  - Interconnected surface water sustainable management criteria
- Coordinate and collaborate with other agencies to understand beneficial users

Database Management System

https://siskiyou-sgma.gladata.com/#



Data Gap Analysis

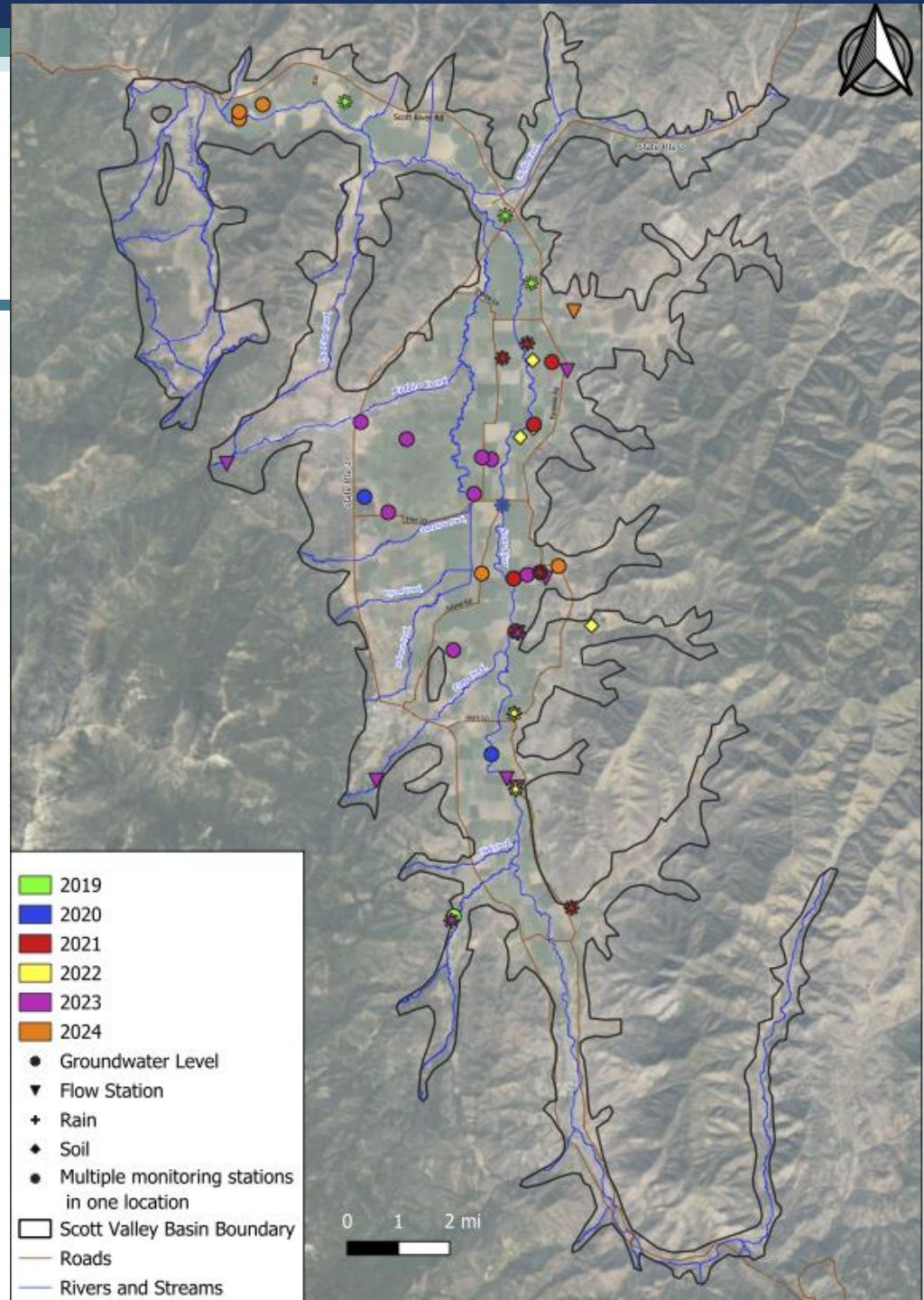
- Data gaps were identified in Appendix 3-A of the GSP.

Priority	Data Gap	Strategy to Fill	Progress
High	ISW Monitoring Network	Add continuous groundwater level and temperature sensors near river	Transect locations have been identified, planned installation in 2024
High	Groundwater quality monitoring network	Expand beyond public water supply wells to increase coverage	Several samples taken in spring 2024 in additional wells
High	Continuous groundwater monitoring network expansion	Add sensors as part of PMA implementation	See map for monitoring network expansion. 2024 so far: 5 new GW level sites and 1 river stage site

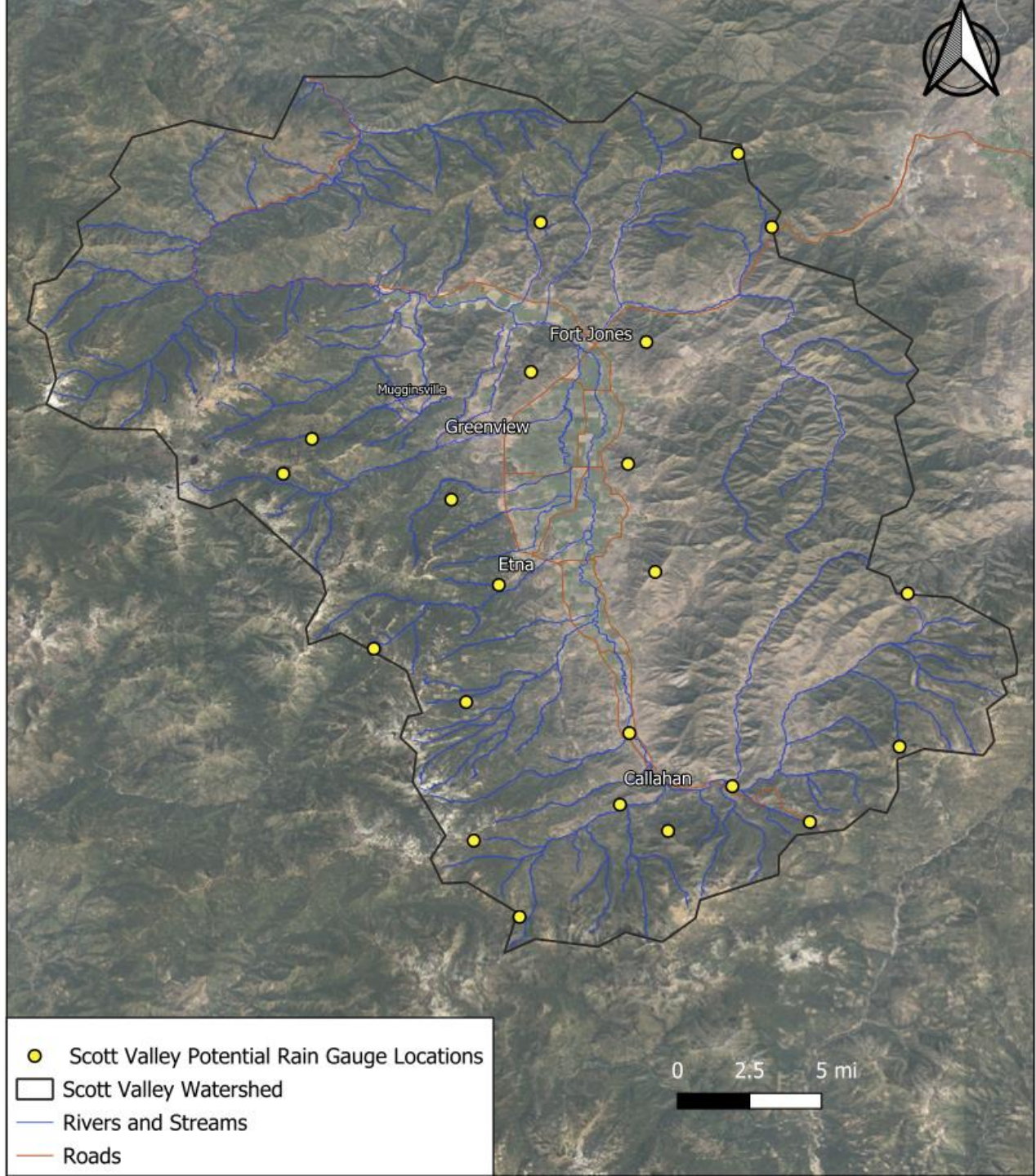
Data Gap Analysis

Priority	Data Gap	Strategy to Fill	Progress
Medium	Groundwater Extraction Data	Voluntary program to install at representative sites	Ongoing discussion with UCCE, and coordination with SWRCB.
Medium	Identification and evaluation of GDEs	Use satellite imagery, use experts (biologists) to conduct study	Not initiated.
Medium	Continuous groundwater monitoring network expansion	Addition of sensors through PMA implementation	2024: 5 new GW level sites and 1 river stage site.
Low	Collect additional precipitation data in different areas of Scott Valley	Add rain sensors in multiple areas to collect precipitation data in different areas of Scott Valley	Rain sensors purchased, potential sites.

Data Collection and Monitoring Expansion



Potential Rain Station Locations



SVIHM Update

- [PLACEHOLDER- UPDATE PENDING]

Applied Water Estimates, ET, Farm Assessment

- Discussion

3. Fee Study

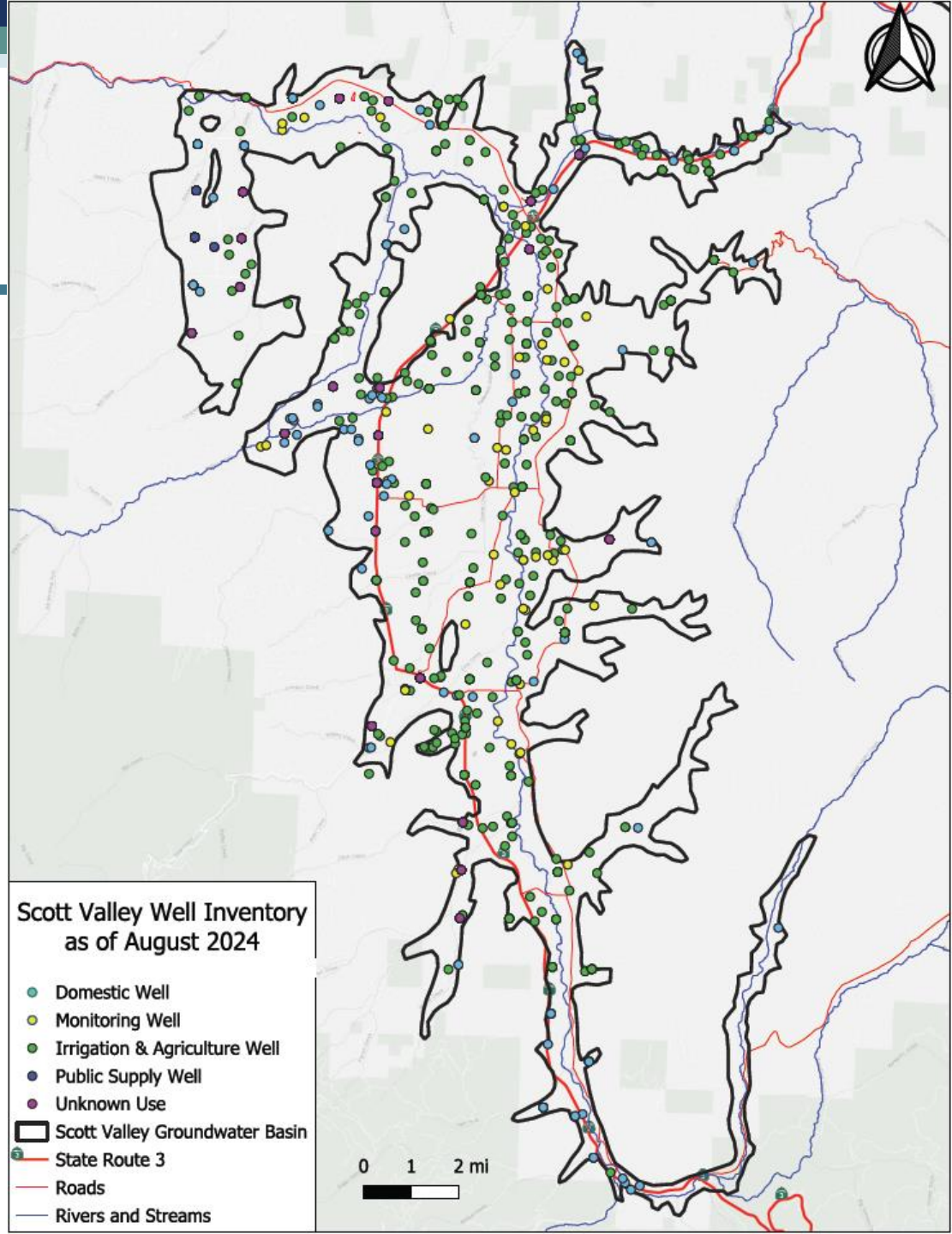
- Evaluation of Fee/Rate Options and Schedule Development
- Groundwater Use Estimate
- Economic Analysis
  - Existing studies: “Economic Analysis of Agriculture in the Klamath Basin”

4. Well Inventory

- Well Inventory Development and Database
  - Integrating existing well datasets into DWR's WCR dataset
  - Develop inventory of unknown or missing wells
    - Mailer? Paper Records?
    - Model to inform water level and estimate well depth
- Well Risk Assessment and Mitigation Program
  - Well Outage Risk Maps
  - Monitoring to assist with the well risk assessment (volunteers?)

Well Inventory

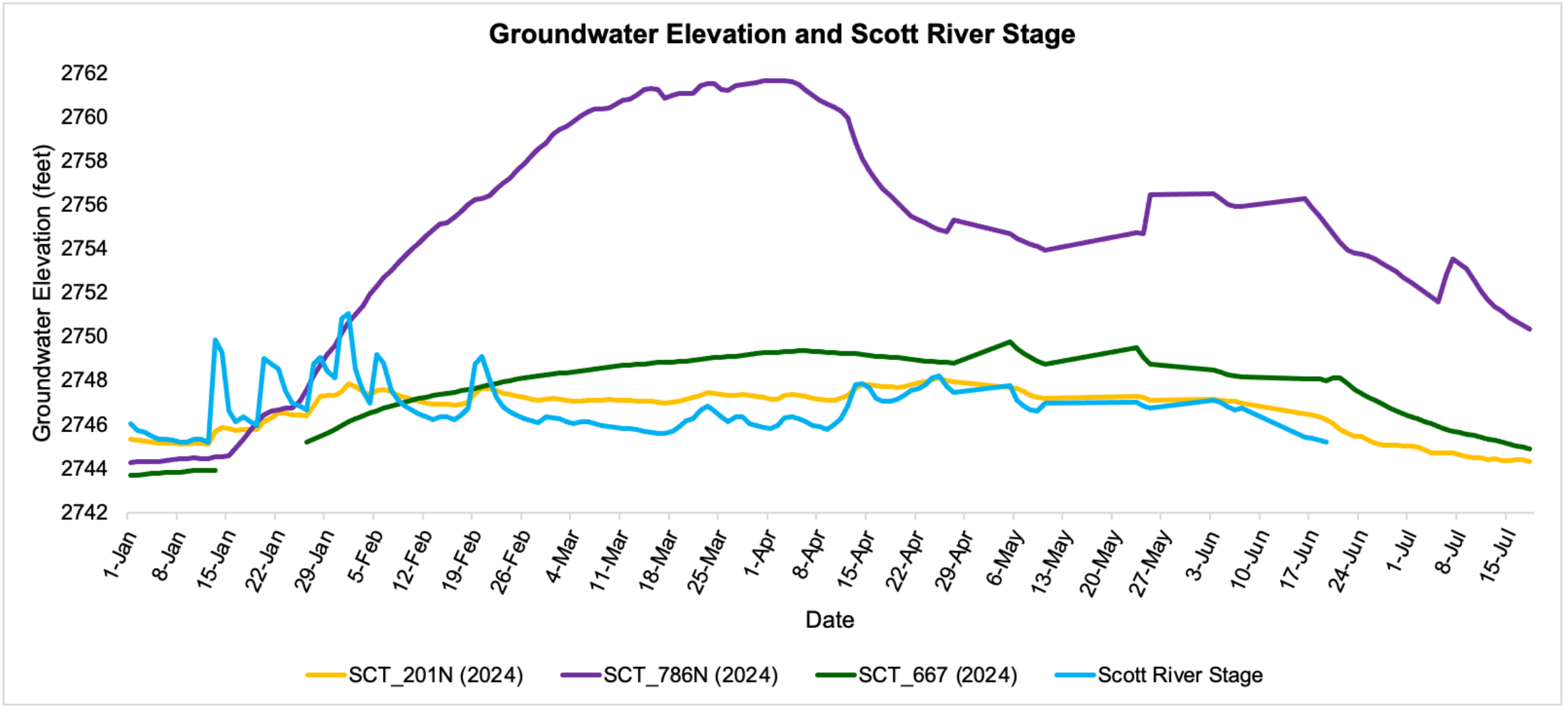
- Progress as of August 2024
- Next steps include:
  - Integrating location of known wells from existing datasets
  - Identifying wells that are not included in DWR's Online System of Well Completion Reports (OSWCR), or other existing datasets



SVID Recharge Project

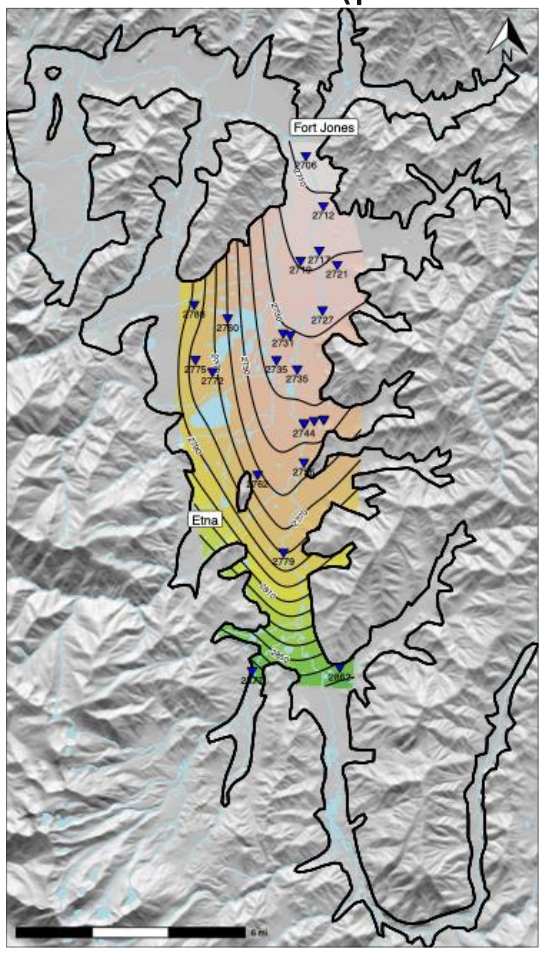
- Diversion Summary Report
- Permitting Update
  - 180 day renewal submitted
  - 5-year temporary permit application in progress
- Updates for next year
  - New transects
  - Additional flow monitoring to fields?

Groundwater Level Data



Recharge 2024, GW Level Changes

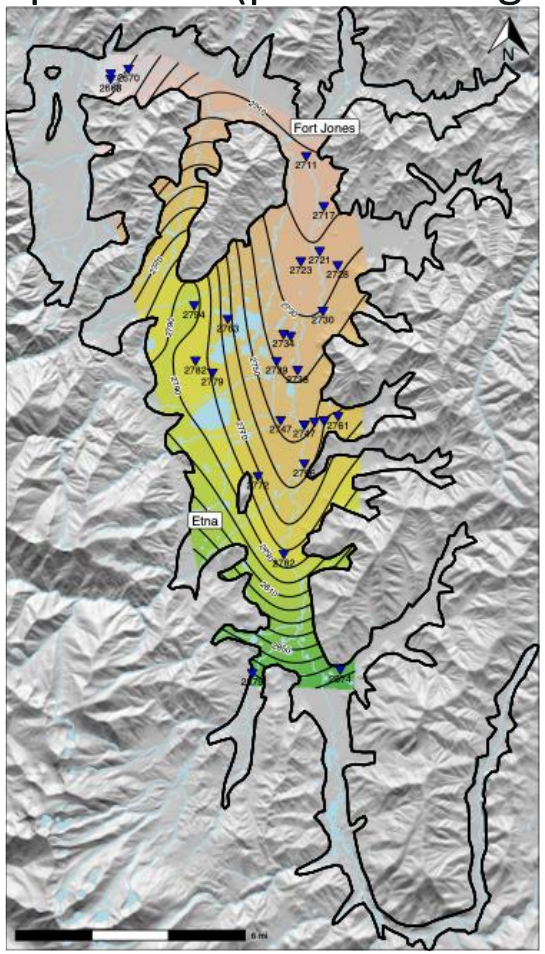
December 2023 (pre-recharge)



Groundwater elevation in Scott River Valley, in feet above mean sea level

2700 2720 2740 2760 2780 2800 2820 2840 2860 2880

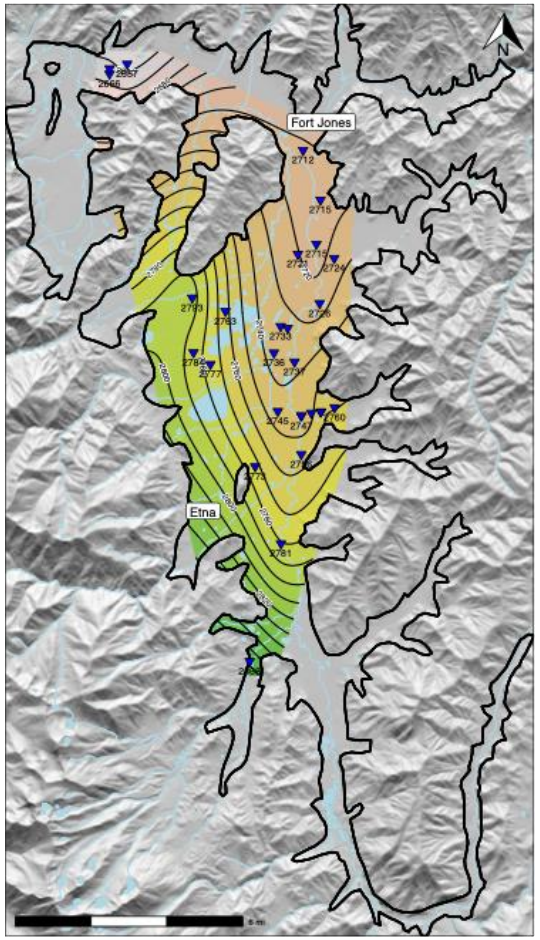
April 2024 (post-recharge)



Groundwater elevation in Scott River Valley, in feet above mean sea level

2660 2680 2700 2720 2740 2760 2780 2800 2820 2840 2860 2880

June 2024 (Summer)



Groundwater elevation in Scott River Valley, in feet above mean sea level

2650 2670 2690 2710 2730 2750 2770 2790 2810 2830 2850 2870

Recharge 2024- SVIHM

- [PLACEHOLDER- SCENARIO RESULTS PENDING]

Project Update

- 2024 Diversion Summary Report submitted end of June 2024
  - Revised to address comments and include model results
- 180- day temporary diversion permit renewal
  - Submitted June 2024
- 5-year temporary permit application
- Improvements for 2025
  - Addition of transects to evaluate groundwater level changes between recharge fields and river
  - Additional groundwater level sites in targeted locations to determine hydraulic gradient
  - Assessment of LSA agreement, NCRWQCB Waiver, and CEQA components

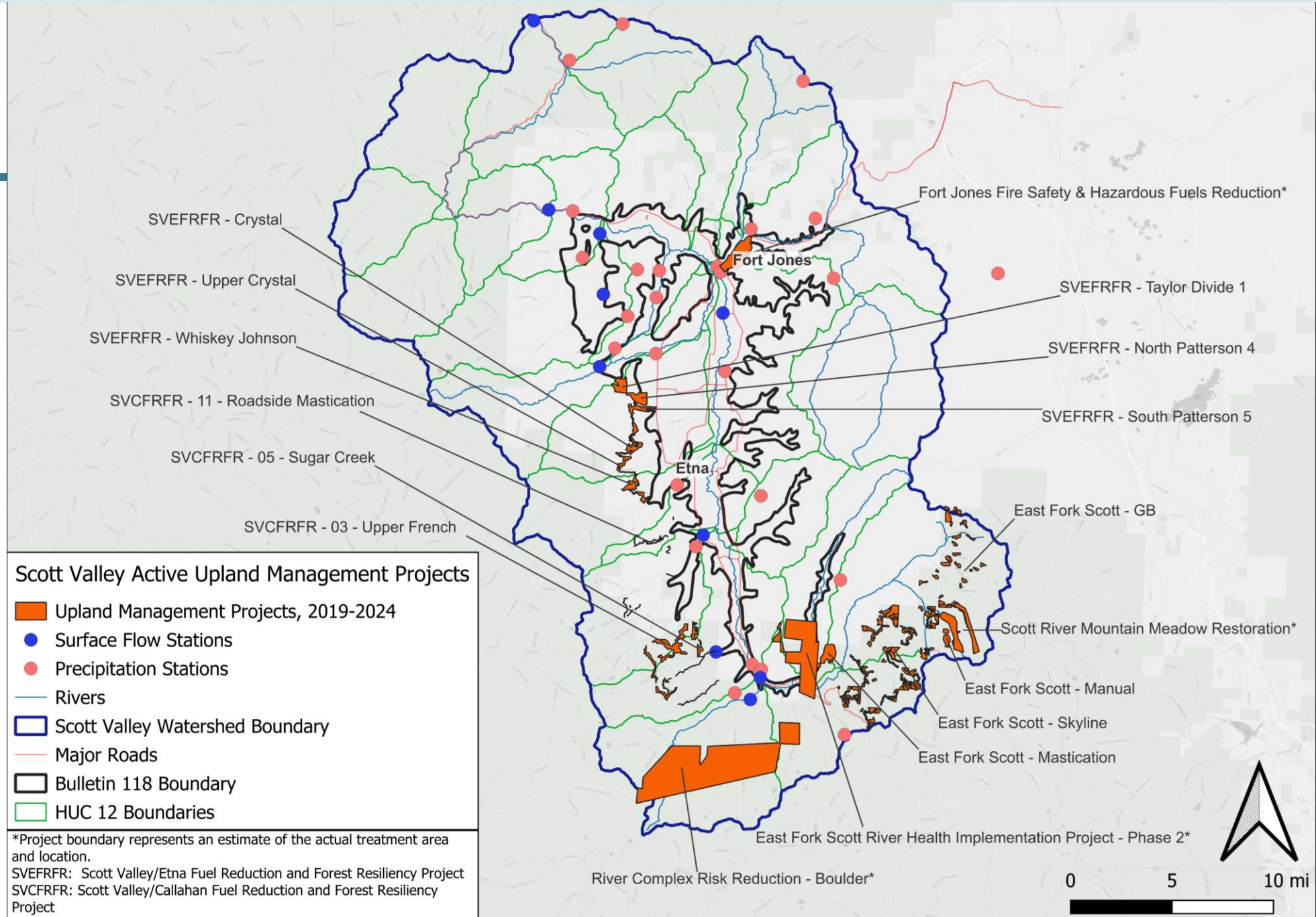
Upland Management

- Purpose
- Upland Management Projects and Monitoring
  - Project Planning and Design
- Evaluation of stream gage data correlated with spatial datasets
  - Forest fires
  - Timber harvest locations
  - Forest management projects (prescribed burns and vegetation thinning/removal)
- Modeling integration
  - Forest service meadow model
  - PRMS

Upland Management Projects

Active Upland Management Projects with potential for monitoring

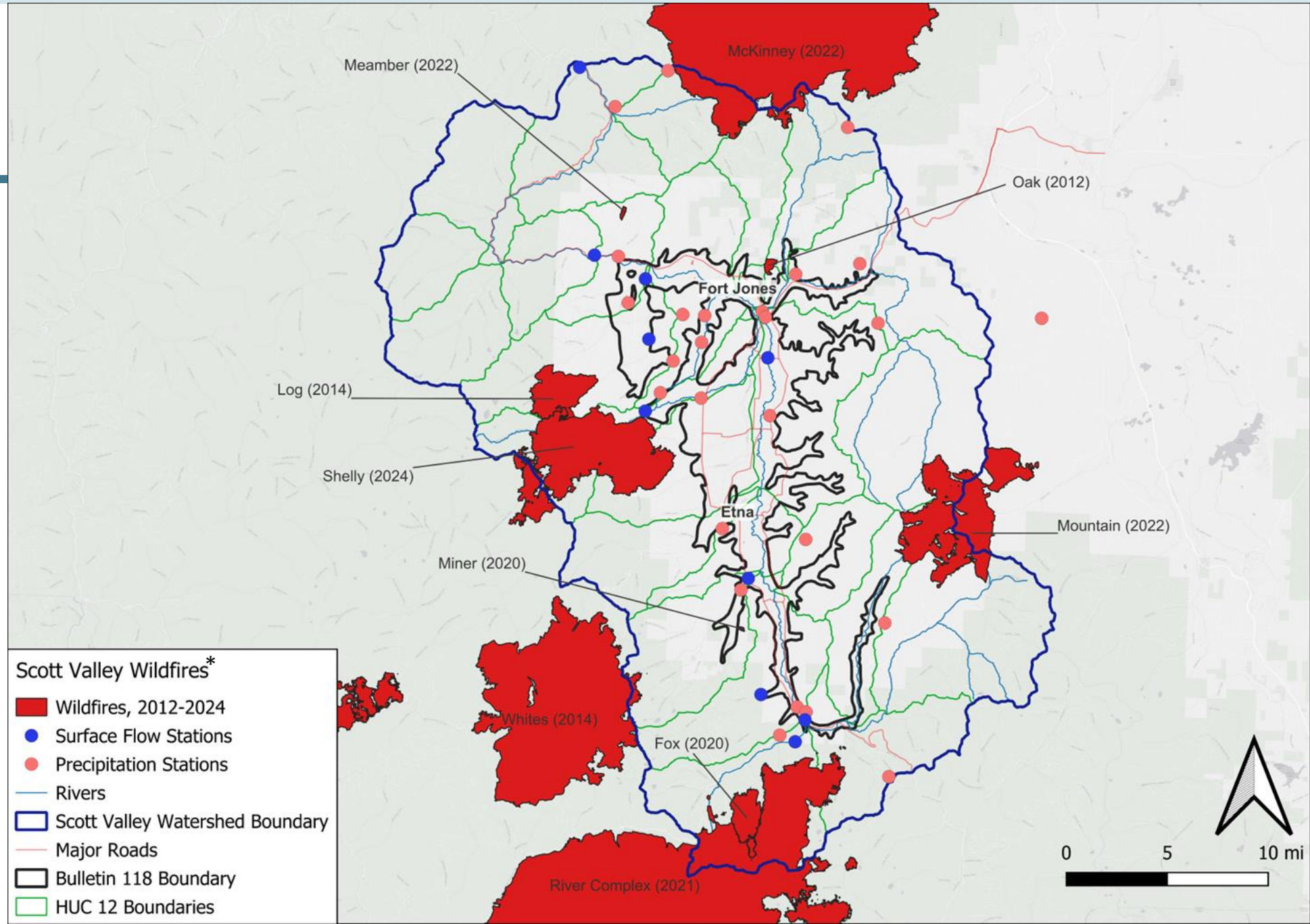
- Projects from multiple sources (CAL FIRE, USFA Forest Service, North Coast Resource Partnership)



Wildfires

Historic fire perimeters, CAL FIRE, Fire and Resource Assessment Program (FRAP)

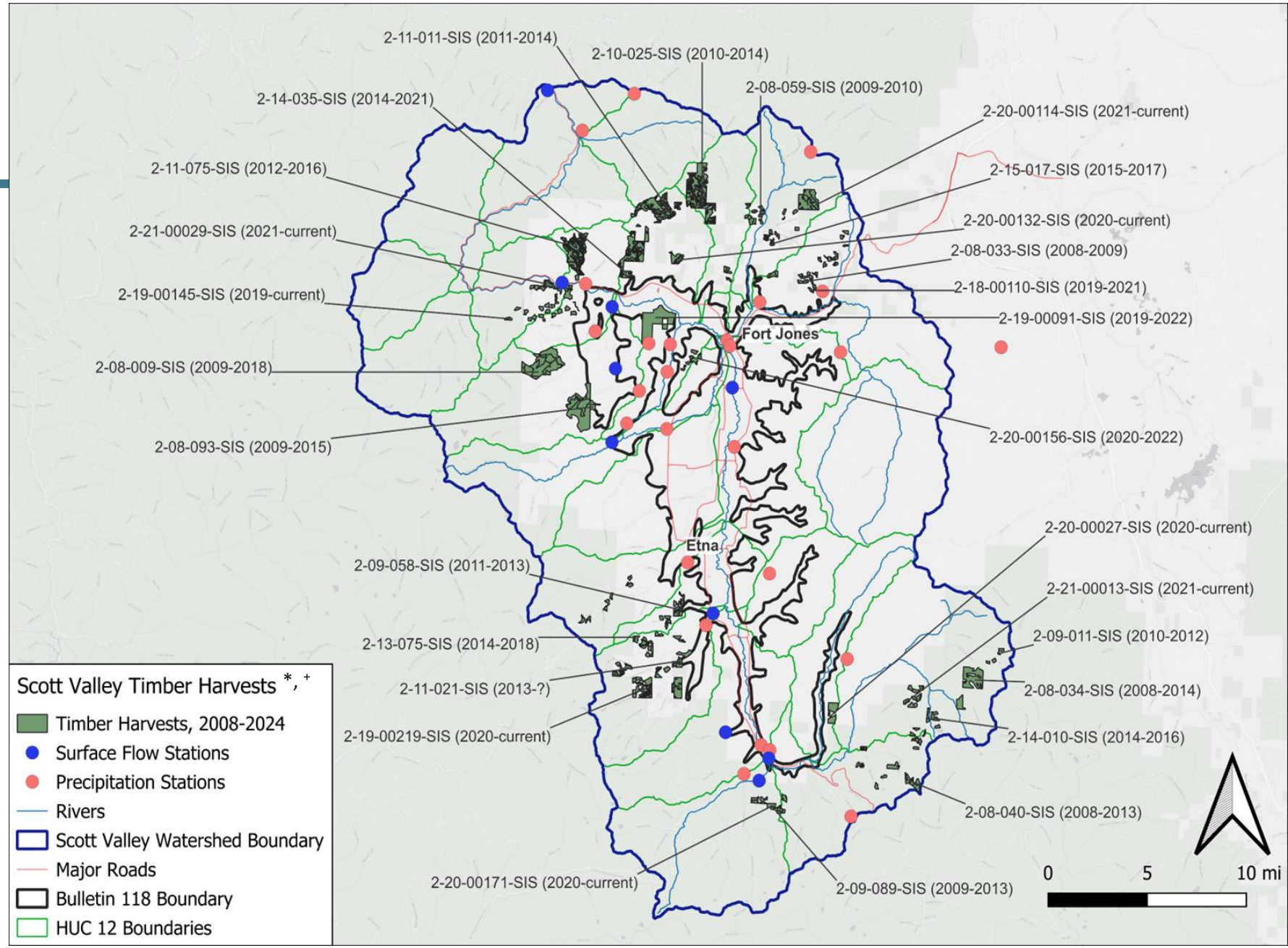
*Only includes wildfires upstream of stream gauges with measurement during the fire



Timber Harvests

Timber Harvesting Plans (THPs), approved by CAL FIRE for commercial purposes on non-federal land

*Only includes timber harvests upstream of stream gauges with measurement during the harvest



+ On non-federal land

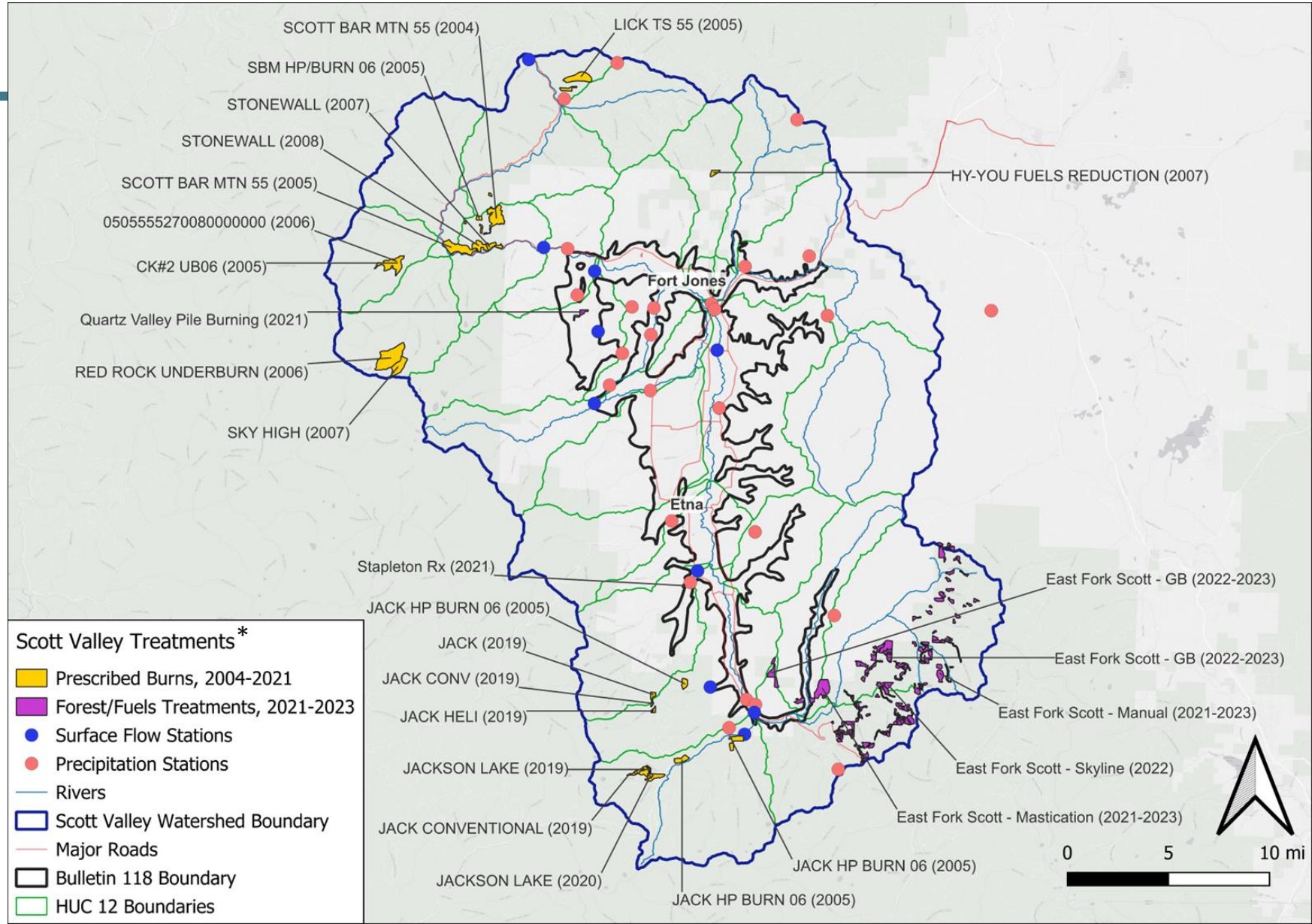
Prescribed Burns and Treatments

Prescribed burn fire perimeters from multiple agencies (compiled by CAL FIRE)

Forest and fuel treatments include information from CAL FIRE Wildland Fuel Reduction Programs

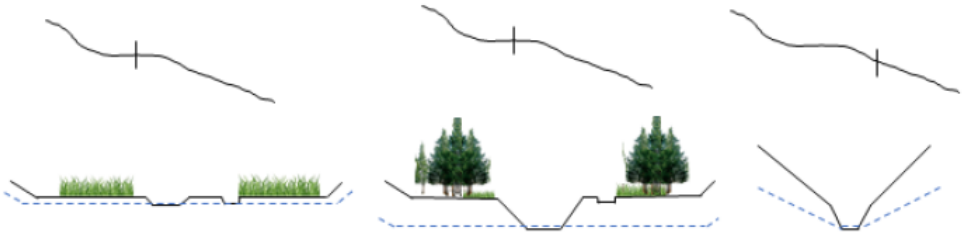
- Variety of treatments, including Broadcast Burn, Fuel Reduction, Fuel Break, Right of Way Clearance, etc.

*Only includes treatments located upstream of stream gages with measurement during the treatment



Upland Management- Model Integration

- Couple the Scott Valley Precipitation Runoff Modeling System (PRMS) and USDA Lost Meadow Model
  - Identify promising meadow restoration projects from the USDA Lost Meadow Model, then use the PRMS model to simulate the potential impact to streamflow, ET, interflow, and baseflow.
  - Simulate restoration of meadow vegetation, (i.e., removal of juniper) and changes to water accumulation from restored floodplains and shallow channels.



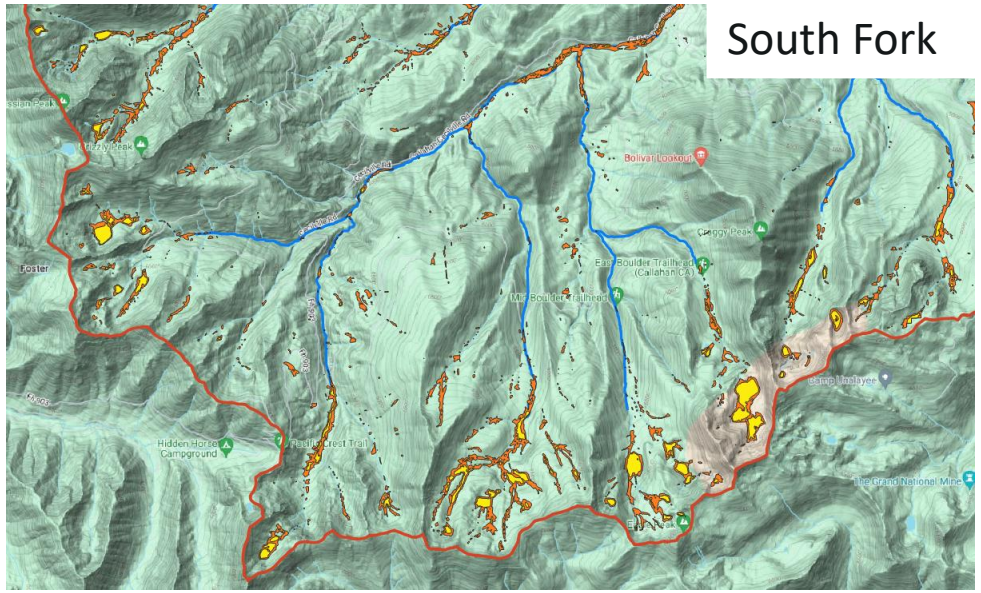
Existing meadow: Wide, flat floodplain where water accumulates. Expect shallow channels, high groundwater elevation, and predominantly graminoids and forbs.

Model-predicted potential meadow: Wide, flat floodplain where water accumulates. Expect deeper channels, lower groundwater elevation and predominantly shrubs and trees.

Not predicted as meadow: Steep channel without a flat floodplain.

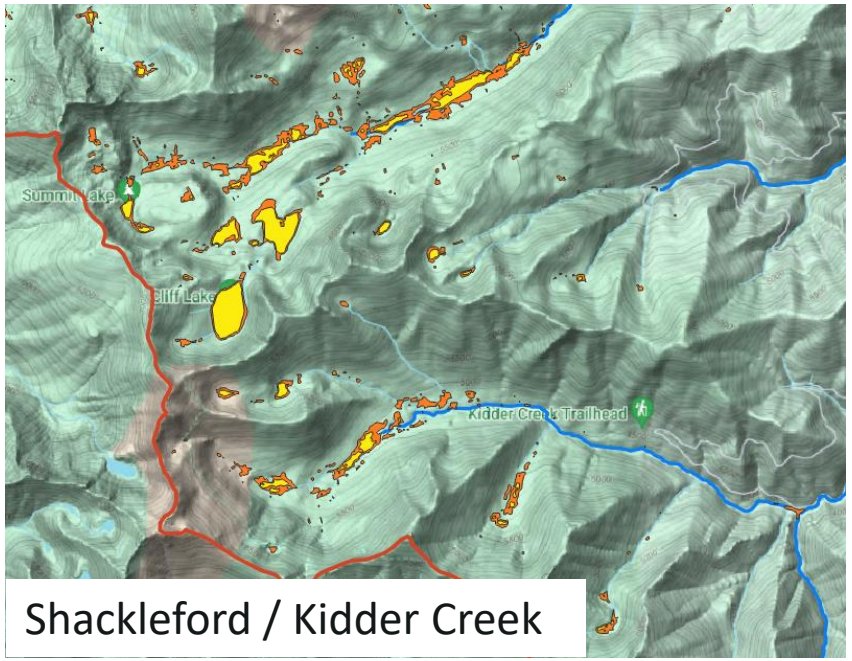
Upland Management- Model Integration

- Couple the Scott Valley Precipitation Runoff Modeling System (PRMS) and USDA Lost Meadow Model
  - The current list of modeled meadows is being analyzed for feasible meadow restoration projects and further study.



South Fork

Orange = Medium Confidence
Yellow = High Confidence

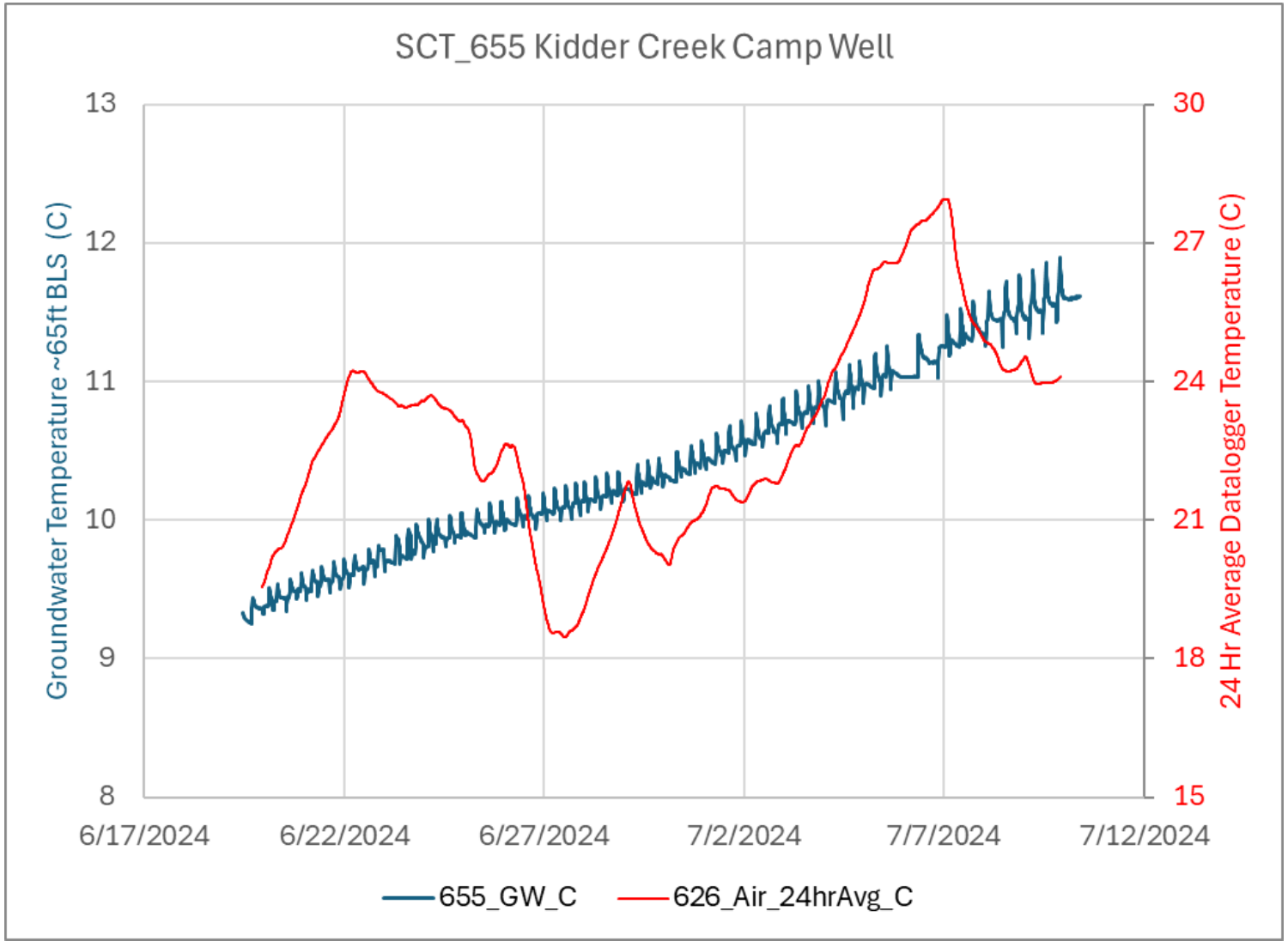


Shackleford / Kidder Creek

Upland Management

- Discussion- are Shelly Fire impacts of interest?
  - Existing Monitoring Sites
    - GW Level and temperature
    - Barker Ditch Flow
    - Kidder Creek Flow (?)
  - Additional Monitoring ?

Temperature at Kidder Creek Well



Thank You