

South Lassen Watersheds Group Meeting
Thursday, December 8th, 2022, 1:00-3:30 pm

Meeting Synopsis:

In the December South Lassen Watersheds Group (SLWG) meeting, the collaborative heard updates on the West Lassen Headwaters Project Purpose and Need and had an opportunity to ask questions about the Upper Butte Creek Project PAPN. After that, the group heard an update about West Shore and Robbers Creek implementation and saw an implementation tracking format for the group to consider. The group also heard an update from the Lassen National Forest on the partner meeting hosted in November. The meeting concluded with an exploratory discussion on the use of herbicides that included a presentation from Ryan Tompkins on examples of previous herbicide use in the area, and the objectives and outcomes.

Attendees:

Ama Koenigshof: Sierra Institute	Mary Davidge: Friends of Warner Valley
Andrea Craig: The Nature Conservancy	Matt Barton: Friends of Warner Valley
Barbara Andrews: Silver Lake Homeowners	Michael Hall: Feather River RCD
Bella Bledsoe: Sierra Institute	Mikayla Eager: Sierra Institute
Cameron Musser: Butte County RCD	Nancy Nordensten: LAVO
Dan Ostmann: LAVO	Peggy Fulder: LAWG
Faith Churchill: Butte County RCD	Phred Starkweather: Battle Creek Meadows Ranch
Jim Houtman: Butte County Fire Safe Council	Ron Lunder: LAWG
Jonathan Kusel: Sierra Institute	Russell Nickerson: LNF
Kathryn Raeder: RCD of Tehama County	Ryan Tompkins: UC Cooperative Extension
Ken Roby: Feather River Trout Unlimited	Scott McReynolds: DWR
Kristy Hoffman: SNC	Sophie Castleton: Sierra Institute
Kyle Rodgers: Sierra Institute	Steve Buckley: National Park
Laura Corral: LNF	Thomas Tisch: LAWG
Lily Diaz-Hanna: Circle S Ranch	Tuli Potts: SNC
Lorena Gorbet: MSC	Wil Kingori: Local Resident
	Wolfy Rougle: Butte County RCD

Meeting Opening:

There were no comments on previous meeting notes. The group entertained a motion to approve the September meeting minutes, and the minutes were approved. The group entertained a motion to approve the agenda, and the agenda was approved. SLWG members also introduced themselves and identified their positions and affiliated organizations/agencies.

Large Landscape Projects: PAPN Discussion

West Lassen Headwaters PAPN Timeline and Process

- The project includes approximately 110,000 acres of Forest Service and Park Service land. The ID Team is working on the draft PAPN document and is using information from collaborative workshops to inform the PAPN.

- Sierra Institute has a matrix of notes compiled from all the collaborative workshops. We will drop those in the chat, and you can reach out to Sophie or Bella if you want the matrix.
- Right now, we have three purposes in mind.
 - *Forest Resilience*
 - Objective: Health and resiliency across the landscape, within upland conifer forest, pine, hardwoods, and aspen communities, in both green forest and within the Dixie Fire perimeter.
 - *Watershed Health*
 - Objective: Restoring watershed function and resilience in a changing climate.
 - *Fire Management*
 - Objective: Prepare the landscape and WUI for planned and unplanned fires. This includes fuel breaks, access and safety routes, as well as fuels reduction and implementing prescribed fire.
- We plan to get the draft PAPN to the SLWG for review in late February. Then, we will give the ID Team the month of March to review the input from the group and incorporate the input into the final PAPN. That will go out for public comment in late April.
- Sierra Institute applied to SNC funding for planning for the WLHP. We are always looking at other sources for implementation. We are pushing the boundary of the scale that funders have operated at in the past. All of us are working on scaling up what it takes to do work at this scale, even at the funder level.
- Tuli asked, how are recreation resources being considered in the WLHP? Are they?
- Sophie answered that we have been talking about addressing some recreation needs, specifically in the Deer Creek corridor. We are looking at campgrounds and other high-use areas. This might include repaving campgrounds, reinforcing the stream corridors that run through those areas, and addressing some trails that need upgrades.
- Kyle added that we are mostly addressing recreation to the degree that it addresses the three purposes described above. Purely recreation is outside the project scope at the moment.
- Mary asked, how do you prioritize? If you can't get the funding for all the things you think are important, is there some sort of hierarchy for prioritization?
- Sophie answered that the initial focus will be around communities--Mineral, Mill Creek. Initial funding will go towards working around communities.
- **Upper Butte Creek Project PAPN Presentation**
- Purposes of the Upper Butte Creek Project include: 1. forest health, 2. community protection, 3. cultural resources (keeping cultural sites resilient and safe, and restoring living cultural resources on the land--oak stands, meadows), 4. stream health (culverts, decommissioning/rerouting, making sure there is not too much sediment in-stream).

Upper Butte Creek Forest Health Initiative



Proposed Actions

- Mechanical and hand thinning
- Prescribed and cultural fire; pile-burning
- Ingress/egress prescription
- Mastication
- Removal of dead trees after high-severity fire
- Reforestation favoring shade-intolerant species; assisted migration
- Herbicide
- Beaver dam analogues and/or post-assisted log structures
- Borrowing & channel fill (Willow Creek meadow)
- Riffle augmentation
- Grade control structure
- Culvert removal/replacement
- Road decommission/improvements/construction

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- Herbicide is the only proposed action that is not concrete yet. Herbicide use will become more concrete across the Forest soon. The Forest is going to plan for this all at once rather than consider use project by project.
- We have been doing this planning for a long time. The draft PAPN is pulled together. Specialists should start reviewing the draft next week. The PAPN might be ready for review by the public starting in late January or early February.
- Ron asked what herbicides are being considered.
- Wolfy said that we are going to learn a lot more on December 14th after the Forest has had a meeting. She thinks three or four herbicides are being considered--Glyphosate, Triclopyr, and some others. Wolfy thinks herbicide will be used to support reforestation but not as a chronic vegetation management tool.
- Laura added that shrubs are going to be growing like crazy in a post-fire environment. Without herbicides, reforestation has been a failure on the Forest. I hope people will support herbicide use.
- Ken asked if the UBC project has had buy-in from the county to try and address some of their road issues.
- Wolfy said the main issue is where Humbug Rd crosses Willow Creek meadow. They have not identified other major issues yet. We want to talk more with the county before releasing the PAPN publically. They are hoping to go to the county with a proposed realignment for the road. The road would all be in Butte County.

Implementation Project Updates

- **Swain Meadow Restoration:** Kyle mentioned that some beaver dam analog structures went in. They worked with Chester and Westwood youth to put BDAs in, in October. They are planning riffle augmentation for next year at this point.
- Ken commented that riffle augmentation includes raising the channel bed with a low gradient structure intended to mimic a riffle in a channel. The goal is to raise the bed up to a point where you are increasing the probability of getting flows out onto the meadow, as they occurred historically.
- **West Shore and Robbers Creek Implementation Tracking**

- Bella developed a draft template for the SLWG about how the group might track project implementation. The tracking sheet includes the service contracts that have been let in a specific project and the timber sales. It also allows the group to see the progress of how many acres have been harvested/treated and how many acres remain. At some point, it would also be nice to track prescribed fire as well.
- Wolfy asked, how can we guarantee that temp roads will be restored to a natural condition? Can we incorporate that in the tracking sheet?
- Tom asked, can we track funding too? Specifically, what portions of project implementation have been funded, and what has not?
- Wolfy responded that in Butte County, they are uploading each project shapefile (as the project is proposed or authorized) into a countywide "Program of Work" map that allows them to track funding received and funding still needed (as well as acres treated).
- Ken asked, can we track acres that have been through NEPA, and that have been funded for implementation, but have not been contracted yet? The spreadsheet we looked at is a good tool. Knowing contracted work helps. However, we should also be tracking the work that has not been contracted out yet. We should know which pieces have been funded and which have not. We need to track work between planning and actually being contracted.

Lassen National Forest Partner Meeting

- The partner meeting happened on November 9th.
- The LNF discussed doing better at prioritizing projects as a Forest. Right now, there are a lot of projects happening. The SLWG is working on the Almanor Ranger District. Burney Hat Creek is working on the Hat Creek Ranger District. Eagle Lake does not have a strong collaborative group right now. There is a need to look at the program of work as a Forest at the Forest-wide level.
- The Forest developed a good draft of priorities that will be used to rank projects (e.g., adjacent to communities, collaborative support). Once these are finalized, partners will be able to weigh in.
- LNF plans to have two partner meetings a year. The goal is to make things more transparent.
- Refining the program of work will also help with budgeting. The Forest will be able to say, here are all the projects we are doing next year. We will be able to see what is planned and funded and what is planned and not funded. The program of work will cover both NEPA and implementation (what do we plan first; what do we implement first).
- Consistent partner meetings will also help connect partners for Forest Wide Projects. This goal is to collaborate across the entire forest and feed all the different needs.
- We had about 35 or 40 partners show up. We are going to send around a summary of the meeting soon. This will include the prioritization criteria for projects and a project submittal form. Individual partners, or collaborative groups can fill this out.
- Jonathan asked, how do we make sure implementation is done in line with our values--using community contractors. We are currently able to weigh in on the planning side, but it is important for partners to weigh in on implementation as well.
- Russell responded that the tracking sheet is helpful; it can help hold us accountable. And it creates space for collaborative group members to ask questions about things-- "hey, I thought that road was going to be closed. What is happening with that?" We are trying to be better. I can't fix all the FS problems, but I can pick some of them up and move them forward now.

- Phred: Phred asked if he should be bringing detailed information about the Ranch management to the SLWG? Is that the expectation? Is that the kind of thing that is supposed to be trackable by the collaborative?
- Jonathan responded that expectations for private landowners are a bit different. We see it more as opportunities for engagement and cross-boundary coordination. We have our eyes on the landscape and want to provide support to collectively treat the landscape.

Forest Restoration Practices (Herbicide Use)

- Ryan Tompkins started off by providing some examples of herbicide use. Ryan is the UC Cooperative Extension Forster and Natural Resource Advisor for Plumas, Lassen, and Sierra counties. He is very familiar with post-fire restoration.
- Who gets up in the morning and wants to spray herbicides? No one. But it is a tool used in the toolbox for various reasons.
- Industrial timberland managers act really quickly after a wildfire. The clock started ticking in the summer of 2021. Ryan added if we were not having large fires, at uncharacteristic severities and scales, I don't think herbicides would be very widespread, in reforestation use.
- There are examples of areas where no herbicide use was successful. For example by Antelope Lake, there is an area that was salvage logged and replanted within nine months. We were able to mitigate the fuel hazard and reestablish trees. We have a nine-year window to really mitigate fire behavior. Nine years is not that much. NEPA takes three years. And then we only have six years to respond.
- Responding quickly is critical. After a year, shrubs are established on sites that you want to reforest and restore. We need to be planning right now because, by the time we are done planning, the environment will look different.
- Reburning of an area is a very real concern in the 21st century. If we have not thought wisely about dead and dying fuels, these landscapes are prone to reburning at high severity. Interacting disturbances (e.g., multiple wildfires) can create alternate steady states. Areas that burned at high severity are vulnerable to continuing to burn at high severity. We have lost 30% of forest cover in a decade. We have to figure out how to sustain forests into the future.
- Ryan showed a picture of an area in the Moonlight fire scar. One side was reforested, and one side was untouched. The side that was not managed reburned intensely in the Dixie Fire.
- Trees become more fire adapted as they get larger. As they get larger, they develop thick bark, tall trees, and cones that can open after a fire.
- Ryan commented that there is value in not relying on a single tool. We need to do it all--mechanized, herbicide, grazing, prescribed fire, hand or manual treatments. They all come with different costs and different effectiveness.
- After the Chips Fire, we replanted after the salvage. Within a year of planting, there was a lot of ceanothus cover. These shrubs look really small on the surface, but they have huge tap roots, making them effective at colonizing sites. They compete for water with the seedlings and are far more successful. Herbicides can help invest in the growth of seedlings. If we expect a reburn, we need trees to be able to grow quickly so that they can withstand fire. That means we need to reduce shrub cover, below 25%. Over 25% shrub cover leads to competition for resources, and limits how fast trees can grow.
- Further, even if you get in as fast as possible and establish seedlings, like in that area by Antelope Lake, the shrubs that grow can drive fire behavior. That area we replanted had some shrub cover, and it reburned, and we lost a lot of trees.

- Managing shrub cover supports regrowth. Over 25 years, it can mean a 15-foot difference, depending on how well the shrub cover was managed. What is the probability the site will burn in 25 years? Planted trees from the Moonlight Fire are swimming in shrub cover, and we are seeing a repeat of high severity fire in these areas.
- Here is a photo in the Moonlight scar, showing private vs. public lands. Private lands used herbicides. The FS did limited brush control. The private land was able to buffer some of the Dixie Fire. However, when brush is not managed, the area burns at high severity. This whole site had no suppression. How we manage our plantations and post-fire environments has an effect on how the landscape will reburn, and the severity of the reburn. Controlling shrubs is a form of fuel reduction.
- Steve added that herbicides are an important tool in the toolbox. Done judiciously, done well, and with the correct sideboards, they can be helpful. It really challenges land managers when we just say a blanket no.
- Ron asked about the use of manual release to limit the brush. Ron said he once cut brush on a 22-acre plantation on the LNF. Having people do this could create work for a lot of people. It could also limit some of the worry about toxic effects.
- Mary asked, how can we mitigate herbicide getting into waterways and getting into streams.
- Ryan answered that he has used manual release. In some cases, he got the trees growing after a fire. However, manual release is really only effective the first year or two after a fire. Three years after a fire, the root systems are so thick, it is hard to get under the root ball. Everything is a tool. Everything has a place, a purpose, an effectiveness, and a cost.
- Ryan added near streams, land managers use herbicide that is not soluble, and does not travel in water.
- Trish commented that really good targeted herbicide use can be great for invasive species. Invasive species are becoming extremely dangerous for our environment. Trish is worried that if both private industry and the FS are using herbicides, it is a bit concerning. Herbicides can be carcinogens.
- Jonathan added that he understands the major concern of losing forests, as well as the major concern about herbicides.
- Steve added that the Park has used herbicides in the backcountry. The Park does not have the staff power to remove all invasives by hand. The Park uses very low concentrations; it's not like they are taking a bottle of Roundup and just pouring it out. It is really important to think about sideboards; herbicides can be used sparingly. None of this is done without a lot of careful thought to concentration and residence time. It is a highly regulated system to protect land, water, and communities.
- Matt understands that there is frustration from reforestation without herbicides. He also understands that there is a willingness and interest in trying new things to be successful. Matt thinks there is value in taking a step back and focusing on the full picture. Sometimes we do not know the full results of what we are doing for many years. In the 1960s, we used Agent Orange; that is still being remediated today. Sometimes, in the heat of the moment, in trying to accomplish specific goals, we do not see the whole picture. If we harm our water systems, it will not go away.

Partner Updates

- Sierra Nevada Conservancy
 - We have several applications currently from partners for our Forest Health Program. We have one from the SLWG. We will have more info at the end of the month, at the end of December.
- Friends of Warner Valley



- The visioning exercise and process for Warner Valley is basically complete. In it, we define what the community is looking for; we define a set of priorities and actions. One of the pieces we have been trying to forward is our work with neighbors (USFS, NPS, SPI). All of this has been citizen-driven so far. We hope to continue to work with neighbors, and others, to push this vision forward.
- Sierra Institute
 - Houses are almost done in Greenville. SI will host a formal tour soon.

Adjourn