

South Lassen Watersheds Group Meeting
Tuesday, March 29th, 2021, 1:00-3:30 pm

Meeting Synopsis:

In the March South Lassen Watersheds Group meeting, the collaborative heard from Michelle Coppoletta, a Forest Service ecologist, about the post-Dixie Fire Assessment her team developed for mixed conifer forest in the Dixie Fire and Sugar Fire footprints. After that presentation, the group heard from agencies and other land managers about the progress of their post-Dixie Fire work. From there, the group turned to a discussion about how to do post-fire restoration thoughtfully. The meeting concluded with updates on the Upper Butte Creek Forest Health Initiative and the West Lassen Headwaters Project.

Attendees:

Ava Scally: UC Davis	Michelle Coppoletta: USFS
Bella Bledsoe: Sierra Institute	Mike Klimek: LVNP
Bennie Johnson: Collins	Patricia Puterbaugh: Lassen Forest Preservation Group
Cameron Musser: Butte County RCD	Rob Rianda: RCD of Tehama County
Eileen Becich: UC Davis	Ron Lunder: LAWG
Heidi Van Gieson: LNF	Ryan Burnett: Point Blue
Jonathan Kusel: Sierra Institute	Sophie Castleton: Sierra Institute
Ken Roby: Trout Unlimited	Steve Buckley: NPS
Kristy Hoffman: SNC	Thomas Tisch: LAWG
Kyle Rodgers: Sierra Institute	Tuli Potts: SNC
Laura Corral: LNF	Wolfy Rougle: Butte County RCD
Mary Davidge: Friends of Warner Valley	
Matt Barton: Friends of Warner Valley	

Meeting Opening:

There were no comments on previous meeting notes. The group entertained a motion to approve the January 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.

Post-Dixie Fire Assessment (Michelle Coppoletta)

- Michelle provided background on the post-Dixie Fire assessment; the assessment also included the Sugar Fire. The combined fire footprints totaled over a million acres.
- These fires impacted a wide range of ownerships. We have a huge challenge ahead of us to appropriately respond to the fire's impacts, given that there is a narrow window of opportunity to affect change on the landscape. Given this, the assessment is meant to help land owners and managers think about where to go and what to do.
- The assessment uses the principles outlined in GTR-270: Postfire restoration framework for national forests in California. The document is a science based guide for management, and the assessment uses this framework to identify ecological restoration opportunities on the landscape.

- Michelle described that land managers tend to gravitate towards the most severely burned areas for restoration. However, she was interested in also looking at areas where fire might have been restorative, and areas where we can effectively build on the effects of the fire.
- The framework starts by gathering a team, identifying a resource of concentration (in Michelle's case it was mixed conifer forest), and then defining goals for that resource. Given the flow of the framework, Michelle convened a team, and the team gathered and analyzed as much spatial data as possible. Michelle's team wanted to start right after the fire, and there was no time to collect additional field data. Given that, most of the assessment and analysis uses data that was readily available. It is a large-scale, rapid assessment, and Michelle emphasized that it does not replace ground-truthed, interdisciplinary work.
- From there, Michelle's team used the post-fire flow chart to partition the landscape into categories, centered around different restoration opportunities and actions for mixed conifer forest.
- This framework was also used for California Spotted Owl, and that analysis, led by Kyle Merriam, will be made public and available to partners as well. The framework can be used on other resources as well; it is just a lens to look through when trying to evaluate the landscape.
- Michelle's team came up with three primary goals for the mixed conifer forest analysis. These included, 1) reducing the risk of severe wildfire in priority areas (e.g., communities, owl habitat), 2) increasing the resilience of stands that did survive the fire, and 3) where the forest was significantly impacted, facilitating forest recovery.
- Through the analysis, Michelle's team determined that about 50% of the forest burned at high severity, and the other 50% burned at low to moderate severity, or was considered unchanged by the fire. This means that approximately 400,000 acres burned at high severity and need some intervention.
- Michelle described the decision tree that was used to think about the fire's effects further; for example, the team looked at where the fire's effects were departed from the natural range of variation. Low to moderate severity fire, or small patches of high severity fire are within the natural range of variation. In contrast, large continuous patches of high severity fire are out of the natural range of variation. The team found that about 66% of the fire's effects were within the natural range of variation, while 34% were departed.
- Within the fire footprint, there were many small patches of high severity fire (over 3,000 patches of high severity fire of less than 100 acres). However, out of all the area that burned at high severity, 67% was large patch sizes. Historically in these systems, high severity burned areas were small--less than 250-acre patches. Conifers cannot disperse seeds over long distances, so when the patch sizes get too large, there is no natural conifer regeneration in these areas. This means that large areas of the Dixie Fire are unlikely to regenerate conifers without intervention. About 175,000 acres of Forest Service lands, outside of wilderness, would require an active effort for reforestation, with about 81,000 acres in the Lassen National Forest.
- Michelle mentioned that it is important to think about where reforestation will be most feasible, given that the Forest will not be able to reforest every acre. Factors of feasibility might include, slopes less than 35%, areas that are 2000 ft from a road, and/or future climate conditions in specific areas.
- Michelle's team also looked at areas that may have been improved by the fire. Those areas were often treated before the fire, then burned at low to moderate severity during the fire; these areas totaled about 38,000 acres.

- They also looked at areas that may have been improved by repeat fire. The Dixie Fire burned through old fire scars, and some of those areas had burned three to four times over the last 20 years, causing beneficial effects on surface fuels. There were about 33,000 acres that burned multiple times at low to moderate severity.
- The team also analyzed areas that needed a bit of a closer look; these were areas that were often highly departed pre-Dixie that then burned at low or moderate severity during the Dixie. These areas are likely still departed after a single fire, and the Dixie may not have been enough to restore these stands.
- Another focus in the analysis was remnant green islands. These areas may have burned at low to moderate severity, but are surrounded by extensive patches of high severity fire. Green islands will receive elevated fuel loads created by high severity fire, which will threaten these stands in the future.
- As a next step, Michelle's team is going to work with partners to take these restoration opportunities and discuss how to refine them into doable actions. This will help identify high-priority areas for restoration.
- Wolfy mentioned that she heard about a Forest-wide post Dixie Fire planning effort. She wondered if some of the Proposed Actions would revolve around these recommendations? What is the process of going from this analysis to determine units and catalyze work getting done?
- Michelle responded that each Forest (Plumas and Lassen) is doing it differently.
- Laura added that both the Upper Butte Creek Project and West Lassen Headwaters Project include a portion of the Dixie Fire. Laura hopes to feed this assessment into those projects. Outside of those projects, the Lassen is doing a broader Dixie Fire recovery NEPA process. The Forest is still parsing through the details. Is it going to be one whole project? Or will it center on the WUI, and become smaller projects. There is still no timeline for that project yet; it may take about 2 years to get to a decision for that project.
- Trish asked, why wouldn't the Lassen be using the assessment info in the same way as the Plumas?
- Laura responded that the Lassen will use this information, and it will funnel into the PAPN. Further, Laura thinks there is an opportunity to use this assessment on the portions of the West Shore and the Robbers Creek projects that burned. These data layers can inform a lot of different projects, but how each Forest tackles the pieces will vary.
- Matt asked if this assessment will be released to partners from outside the agency?
- Michelle responded that her team did the analysis across ownerships because she wants partners to all have the same baseline. She said the assessment will be shared.
- Ken asked if climate change was factored into the assessment, especially thinking about regeneration?
- Michelle responded that climate was considered, mostly precipitation data. Michelle was specifically interested in the likelihood that planted seedlings will be suitable in the future.
- Ken also asked if the assessment accounts for the risk of future severe fire. Specifically, he is interested in areas that appear to reburn over and over again.
- Michelle responded that the assessment looked at stands that were very dense prior to the fire and burned at high severity; these areas likely have dense fuels post-fire.
- Ryan built on Ken's question and asked if the assessment considered future fire risk, as a means of deprioritizing areas for reforestation? If an area is going to burn again soon, we should probably deprioritize those areas for replanting.

- Michelle responded that the assessment looks at areas where there is an opportunity for restoration and intervention, but does not prioritize areas where it would be most beneficial necessarily. She added that you could add other filters to the assessment to overlay on the data to help with prioritization.

Post-Dixie Report Outs (Laura and Heidi -FS, Mike - NPS, Bennie - Collins)

- The group heard from the Forest, Lassen Volcanic National Park, and Collins about how they are continuing to respond to the Dixie.
- Laura started by reporting that the Forest is interested in focusing on remnant forest patches, and is hoping to treat those patches. She also added that if the Forest replants, they will need to commit to prescribed fire or some other treatment to minimize fuels within the replanted areas. The Forest is still working through the specifics, such as what tree species to plant, species composition, and density.
- Mike reported that the Park is letting fire play its natural role in the ecosystem, to the greatest extent feasible. The Park will prioritize their future treatments adjacent to residual habitat, and they will continue to use prescribed fire. They are not going to replant within the Park. Mike added that in areas where they saw large patch sizes of high severity burned areas, they are not going to see much conifer regeneration. The Park recognizes that perhaps there is gonna be some type conversion, given that they are not replanting.
- Jonathan added that this brings up an interesting issue. The Park Service works within policy that encourages “nature running its course.” Jonathan wonders if the impacts of fire are profound enough, does that warrant a policy intervention or shift?
- Mike responded that given that the Park is wilderness, they are going to let natural processes proceed unencumbered, whatever they may be.
- Jonathan said that in the past, they have been able to do some work in the Park that accommodates the wilderness designation, such as through using hand saws. He sees this as facilitating a natural process that we have excluded in the past. However, he understands that replanting is different in many respects.
- Trish asked if certain areas, such as the areas above the Feather River Canyon, have always been forested. Has the forest grown up in the absence of fire? Was it always forest?
- Ryan commented that it just depends. We have a lot of trees older than our contemporary records. We know forests did exist; they just looked really different. Ryan added that whether the Park intervenes or not, they have been managing the land for a long time. They have a different philosophy, and they are constrained. They have a watch and learn culture, and that is a totally reasonable approach. We have no record of successfully reforesting anyway. Plantations burn over and over again. We need to take different approaches. Type conversion is not forever, it is just in our lifetimes, but there is still a successional path for which the forest is a possibility. The land reforests itself, just not in our Western thinking time frame.
- Bennie reported for Collins. Pre-Dixie Fire Collins managed our forests heavily, but we still had a lot of stand-replacing fire. Collins is thinking about what conditions they can create to ensure the forest persists. Pyrodiversity is good. Clumpy and gappy is good.
- Collins jumped right into salvage logging after the fire. But they are still thinking about habitat, and specifically what crucial forest elements are missing that they can recreate, such as woody debris piles that small carnivores might need on the landscape. Collins understands that once they go in and salvage and do biomass removal, whatever they leave is what is left for the next 50-100 years. They are leaving

large sugar pines. They are working to figure out what is needed so animals can more readily return to the area, and they understand edges are going to be critical.

- Collins' foresters will continue their forest management practices of looking at each stand, noting things like disease, beetles, shading, drought, and trying to let the stand guide their future management.
- Kyle wondered how does the collaborative, partners, and agencies begin to achieve more acceptance around tree mortality from fire? Prescribed fire is going to kill trees, is Collins willing to do that on company forest land?
- Bennie stated that Collins values prescribed fire, and Collins' foresters want to see fire on the landscape. They are willing to do prescribed fire in their meadows and aspen stands. Collins does understory thinning of nonmerchantable biomass, and they know that fire is helpful to the understory. They are doing their best to replicate those benefits with mechanical thinning.
- Kyle added that we are gonna kill trees from prescribed fire; the intention of prescribed fire is to kill small trees.
- Ken mentioned that the public perception of prescribed fire makes it hard for the FS and the NPS to do burns. Agencies get a lot of complaints when things burn too hot. Ken said that he drives by Mt Hough, and often looks at the results of the suppression fire; there are big patches of moderate-high severity fire up there. But, compared to the other slopes in Indian Valley, Mt Hough looks pretty good. The public perception of what a successful prescribed fire looks like has to change.
- Kyle responded that there are a diversity of interests and perspectives. How do we pull together in the West Lassen Headwaters Project, and decide what is acceptable, what we want, and what is possible?
- Mary noted that there are long-term implications of different strategies, and we should try to produce a regional plan.
- Tom asked, how do we protect ourselves from liability to do prescribed fire? Liability is very real, but it inhibits us from doing the things we want to do.
- Mike responded that there is a level of acceptance required for prescribed burns. Once you put fire on the ground, you cannot take it back. People have varying ranges of risk aversion and varying ideas of what is acceptable. There is a risk involved with putting fire on the ground, and the outcomes of your decisions could change your career. There is a lot of pressure and responsibility. We are making an effort to create a more resilient landscape, working with the right science and intent, but it is hard. There is always the fear of liability and someone going after you. That's why we work hard to build strong fire plans.
- Bennie commented that for Collins, acceptable risk is having machinery on the ground during the summer that could start a fire. However, putting fire on the ground is not a level of risk they can take right now, given that some liability will fall on them. The risk exceeds the value right now.
- Ryan added that we need to use more than just prescribed burns, and we need to take advantage of natural fire ignitions. We have to broaden our acceptance of fire. We are going to get fire no matter what; on our terms (prescribed fire) or on other terms. Fire and how we get it back on the landscape is something crucial to consider. We are going to have to take advantage of wildland fire. It took 15 years to get a 10,000-acre prescribed fire on the ground in Tahoe. That is too slow. How do we sufficiently address liability, and make private landowners comfortable enough to do burns?
- Matt said he imagines there is quite a bit of reluctance for private landowners to use fire as a tool. There is probably a reluctance to do anything that would generate additional liability. It is really tough.

Should we be held liable and accountable for things we did not do? Not doing things, such as forest management, for over 100 years has created a greater risk. We are reluctant to take action, and reluctant to do nothing.

- Phred stated that it is difficult for a private landowner to take on that type of liability. He would have to persuade a group of board members for the Battle Creek Meadows Ranch that these are good decisions. It is difficult to build a consensus.
- Battle Creek Meadows Ranch recognizes their overstocking challenges, and we have looked to Collins as a model to work towards. We are working on managing our risk and continuing to make progress.
- Bennie said that Collins wants to burn, it is just scary. We are willing to burn piles or a meadow, but they cannot take on the liability right now.
- Kyle wondered if there is policy work we should be doing at the state level around liability. Further, we should think about what public support from this group looks like, for prescribed fire. How are we creating a public perception of support?
- Peggy mentioned that there is an urgency to answer some of these questions. She is worried there will be another fire event like the Dixie Fire soon. She agreed with Ryan that, wouldn't we rather be in charge of the fire, rather than having it happen totally out of our control? We should be helping to shape public perception.
- In Plumas County, there is the Plumas Underburn Cooperative that does prescribed burns around communities and homes. Cooperatives are a valuable tool if you have them in your county. They help build the social license for fire.
- Mike reiterated that there is a ton of social pressure around putting fire on the landscape. It is hard to know what the right tool for the job is in that moment, and many hard decisions had to be made during the Dixie Fire, and some of them led to detrimental impacts, such as in the Mill Creek drainage. However, no action could have led to lost communities, such as Mineral and Mill Creek. They had to take action, and there is professional accountability. They have to be willing to get beat up by the public and others. The Reading Fire is an example of a managed fire that got out of control. A lightning strike started the fire, and the Park tried to build containment lines and use the natural ignition for a managed fire. It getting out of control cost the public lots of money, however when the Dixie Fire hit the Reading scar footprint, we saw some benefits. It slowed the Dixie Fire down substantially. We have to be accountable as professionals, and public perception matters. It is much easier to push for the right thing when you have support from your peers, but we will carry on making these hard decisions as needed.

Project Updates

- Wolfy provided an update on the Upper Butte Creek Forest Health Initiative. The Almanor District is embarking on two large NEPA projects this year--Upper Butte Creek and West Lassen Headwaters. Upper Butte Creek is about 19,800 acres, and about 50% of the project area has burned.
- The Upper Butte Creek project is interested in doing some edge hardening of green stands and seeing what they can do to make the remaining forest resilient to future wildfire. There are a number of PACs that burned in the project area; they are revisiting those PACs and remapping them. There are also more PACs in the green, and wildlife is a big motivation for this project.
- There are also a number of assets at risk in the project area, including the community of Jonesville, streams, meadow areas, and aspen areas.

- The project area has an extremely dense canopy cover, and there is no record of it burning in over 100 years. There is a shrub field in one section of the project area from an old fire. Most of the forest in the project area is white-fir-dominated, given the history of fire suppression. Much of the area has not been treated in the past because it is steep (above 35% slopes).
- The Upper Butte Creek project is working on developing the PAPN. They hope to begin scoping in May and June and then refine the Proposed Action. Most of the surveys will likely happen after the decision is signed. They plan to analyze alternatives in the Fall, and a decision will follow that.
- Kyle provided an update on the West Lassen Headwaters Project. The project had an initial ID Team meeting in February. The team is working through some initial discussions such as how to do condition-based management, how much data needs to be collected before a decision, and generally outlining what a timeline might look like.
- Laura added that from the Forest Service side, some staff are working on both projects (Upper Butte Creek and West Lassen), so they are trying to make sure the timelines for the projects are a bit staggered.
- Sophie added that Sierra Institute is working on helping to bring the collaborative group in earlier on the planning process. In February, we had an existing conditions workshop where we discussed what we have on the landscape. April will include four more workshops, focusing on desired conditions, so that the South Lassen Watersheds Group can provide recommendations to the Forest, as the lead agency.

Partner Updates

- Kristy said the Sierra Nevada Conservancy's next round of Forest Health grants are coming up this summer. The guidelines will be similar to the ones that were circulated for the Forest Health grants in January. Requests for proposals are open for the Vibrant Recreation and Tourism funding program right now.
- Matt reported for Friends of Warner Valley (FoWV). Warner Valley residents are thinking about the basics of post-fire work, such as clean-up and rebuilding. The long-term goal is to advocate for an integrative plan for the watershed in Warner Valley, which includes about 10,000 acres. The plan will hopefully include a community vision that residents are united behind, as well as research, data, and science. They hope to marry the vision and the science to create a path forward. For now, homeowners are looking into programs such as the Feather River RCD's EFoRT program, for help with site clearing and reforestation. But long term, FoWV hopes to work with agency partners to build an integrative plan to work towards.
- Point Blue is working on the Child's Meadow project, and hopes to start implementation this fall.
- Sierra Institute provided an update on some of their work through the Sierra to Nevada All Lands Enhancement (SCALE) effort. Patrick Wright, a participant in the Forest Resilience and Fire Management Task Force seems willing to consider block grants for collaborative groups. The SCALE network is working on pushing block grants forward. Stay tuned for more.

3:30 Adjourn

Next Meeting: field tour of the West Lassen Headwaters Project at the beginning of June