

Forsythe II Multiparty Monitoring Group Field Trip

Units 5, 7, 8, 24, and 89-101a

December 9, 2017

Attendees

Alex Markevich
Brett Wolk (CFRI)
Heather Bergman (Peak Facilitation)
Jody Jahn (CU)
Joseph J. Graham (USFS)
Kat Morici (CFRI)
Katarina Warnick (CFRI)
Kevin Zimlinghaus (USFS)
Marin Chambers (CFRI)
Mark Foreman
Peter Boyatt (CPW)
Teagan Blakely
Todd Adelman
Vivian Long
Yvonne Short

Agenda

9 AM meet at Front Range trailhead
9:15 visit Unit 24 – talk about Lodgepole units
10:15 visit Units 5, 7, 8 – talk about aspen regeneration units
11:15 visit regeneration thin units (89-101a)
12 PM return to Front Range trailhead

Meeting Notes

Handouts: Draft silvicultural prescriptions for regeneration thin, aspen enhancement, and lodgepole pine treatment; map of lodgepole patch cut unit; step transect data form and associated data sheets; basal area visualization

Field Trip Stop #1 – Lodgepole pine unit 24

Kevin Zimlinghaus (USFS): This lodgepole pine unit is 4.8 acres total, made up of 2 units. There is a 300-foot buffer on all sides because it is surrounded by private land. Originally, this was part of Forsythe I, old orange striping paint remains on trees and may not represent the new boundary. Orange flagging denotes the new boundary. All lodgepole will be removed, except small trees. Other species, if present, will be left. Snag retention is

set at 5 snags per acre, which will be grouped when possible. Some green trees may be left for future snags. This unit is leave tree marked with orange paint. The fire regime of lodgepole is that the stand grows up together, dies together, and burns together. The goal of this treatment is to break up homogenous forest structure.

Attendee Question: Do you plan to re-seed?

Kevin Zimlinghaus (USFS): We have in the past, but not for such small units.

Attendee Question: Do you want other tree species here?

Kevin Zimlinghaus (USFS): As the climate changes, other tree species are moving their ranges, and we want to give other trees a chance. We may plant 100-150 trees per acre of ponderosa pine, Douglas-fir, and limber pine. Lodgepole has plenty of seeds here and will come back regardless.

Attendee Question: Climate models predict that the southwest will become warmer and dryer. This area is predicted to get warmer, but there is disagreement between models as to whether it will become drier or wetter. The Magnolia corridor is wetter than surrounding areas. Where does the USFS get climate adaptation information? How are these decisions made?

Attendee Comment: We can come back to that question later, would like to walk around unit now.

Attendee Question: If lodgepole comes back very thick, will the USFS re-treat the area?

Kevin Zimlinghaus (USFS): Yes, that is in the decision. One option is weed whacking when the trees are small, about 4-5 years post-treatment.

Attendee Question: There is a 15-20 year old clear cut down the road that is dense and has spindly trees. Why work in this fairly healthy stand when other areas need restoration or management more than this stand?

Kevin Zimlinghaus (USFS): The original proposed unit was larger, but was reduced during the NEPA process. The forest represented in this unit is more continuous across the landscape. This is a disturbance-reliant system, and we are trying to re-start that system.

Attendee Question: Is there any way to change where cutting will occur? Can we re-locate the treatment to the other, less healthy unit?

Kevin Zimlinghaus (USFS): Some of the other unit was within the 300-foot buffer.

Kevin Zimlinghaus (USFS): This unit is 2.5 acres, not all leave snags have been marked yet. The design criteria requires at least 100' between cuts. The cuts in this unit are 275' apart.

Attendee Question: Will a 2-acre patch cut reduce the severity and intensity of fire?

Kevin Zimlinghaus (USFS): In combination with other openings and roads, it could make an anchor point for a fire. Reducing fire severity is tough with small units, so we try to combine with other features.

Attendee Question: Is it possible to get a zoomed-out map with patch cuts marked?

Kevin Zimlinghaus (USFS): Yes, apologies for the map, ArcMap was down and this was made with Google Earth.

Attendee Question: I think I heard that The CFLR Landscape Restoration Team has suggested not doing lodgepole treatments, why are you choosing to include these units?

Kevin Zimlinghaus (USFS): Typically, the CFLR is concentrated in the lower montane, this is upper montane. Lodgepole pine treatments are based on a stand-replacement disturbance regime.

Brett Wolk (CFRI): The CFLR receives lots of funding for ponderosa restoration, which is sometimes used for lodgepole. The debate stems more from use of funding. Reasons for treating lodgepole vary, but the CFLR Landscape Restoration Team is not explicitly opposed to treating lodgepole pine.

Attendee Question: This is a wildlife corridor. What studies have been done in the area to inform your treatment?

Kevin Zimlinghaus (USFS): Studies are landscape-level, we don't study every piece of ground. We can get into this more during the webinar.

Peter Boyatt (CPW): The Magnolia corridor is a wildlife corridor for elk. We need more areas where elk forage, which means less homogenous forest and more heterogeneity of forests across the larger landscape. Lots of other projects should be considered in conjunction with Forsythe II (the reservoir expansion, trails project). The Forsythe II project is good for wildlife on a long-term basis for many reasons.

Attendee Question: Is CPW trying to expand the elk population?

Peter Boyatt (CPW): In the management plan for elk, this herd's objectives are to keep a stable population. Front Range growth and development can have an impact on the herd. Hunting is used for management on public lands, so CPW is concerned about pushing elk to private lands due to recreation and development which creates difficulty using hunting to help management. Once elk find safe haven on private lands, we see a lot of challenges to the health of these herds.

Attendee Question: Discussion of deep forests, leaving corridors in layout of treatment. How many units have been decreased to create corridors for access? Also, where are corridors?

Brett Wolk (CFRI): Wildlife corridors aren't lines, they are broader swaths of movement.

Kevin Zimlinghaus (USFS): We will cover interior forests and wildlife corridors on the webinar in more detail.

Marin Chambers (CFRI): Can Peter help us understand how CPW collects data on wildlife in this area? How many plots, across what area, how data informs management of wildlife?

Heather Bergman (Peak Facilitation): Let's address that question later, for now we need to move on to other units on the field trip

Field trip stop #2- Aspen enhancement units 5, 7, 8

Kevin Zimlinghaus (USFS): This will be manually treated in phase 1. The objective is to remove conifers up to diameter caps for species. Slash will be piled or lop/scattered. Pure aspen has been encroached in absence of fire. Treatment aims to enhance aspen clones and expand them. Aspen modifies fire behavior, and is good for some wildlife species.

Attendee Question: All conifers in this unit will be taken out? Or only ones around aspen?

Kevin Zimlinghaus (USFS): In the unit, most conifers will be taken out. The mechanical portion is outside the clone, 30' from the edge of aspen can be removed, material within is left on site or piled and burned. This unit is 17 acres.

Attendee Question: Have you considered leaving a few conifers around so it doesn't look so manicured?

Kevin Zimlinghaus (USFS): Aspen would come back first after a fire, we are working with the ecological cycle in the absence of fire.

Attendee Question: For the aspen prescription, around any clone, only cut 30' from the clone?

Kevin Zimlinghaus (USFS): Yes. No sample marks here because cutting all conifers less than 12-14" DBH (will need to check actual diameter cap). Only required to mark in mixed conifer stands.

Joe Graham (USFS): As a contracting officer, I follow behind the contractor at the beginning of work on the contract, and flag things that were not done correctly. Then I talk with the foreman and show the crew. Usually we have more issues with undercutting than overcutting.

Attendee Question: Will you cut blue spruce if it is within the aspen?

Kevin Zimlinghaus (USFS): Will need to check design criteria to answer that.

Attendee Comment: Noticed few areas with previously cut conifers, aspen haven't moved into that area. Around conifers, aspen seems to be spreading in.

Kevin Zimlinghaus (USFS): Aspen may not expand to everywhere we cut. Conifers spread seeds, we want to set back conifer regeneration and focus on aspen regeneration here.

Joe Graham (USFS): The language in the prescription is simplified for the contract, put into plain terms.

Kevin Zimlinghaus (USFS): Meadow enhancement, forage for elk on public lands, having different aggregations next to one another adds to landscape complexity, and provides opportunities for a variety of wildlife species.

Field trip stop #3- Regeneration unit 82

Kevin Zimlinghaus (USFS): Correction on handout- regen units are units 82-101a. Prescription is to thin young lodgepole to approximately 15 feet apart with variation to reflect natural regeneration and stand structure, generally favoring the healthiest trees and retaining other species. Orange and black flagging is on leave trees. Some leave trees are bunched together, others are spread out. Right now, there are approximately 10,000 trees per acre. We aim to reduce that to 300 trees per acre. These regen units are included in the estimated 950,000 trees to be removed over the whole project.

Attendee Question: The mature lodgepole at stop #1 started out looking dense, but self-thinned and ended up more spaced out. Why actively manage this process?

Kevin Zimlinghaus (USFS): This unit is a fire hazard. Trees grow faster when thinned. Also, the mature stand at stop #1 had been thinned in the past.

Attendee Question: Do you expect all remaining trees to survive?

Kevin Zimlinghaus (USFS): Most should survive.

Attendee Question: Why not thin less aggressively?

Kevin Zimlinghaus (USFS): Then we would have to re-enter the unit later.

Kevin Zimlinghaus (USFS): The unit next to this one has been planted with ponderosa, Douglas fir and limber pine.

Attendee Question: This is an exposed, windy area, why are leave trees not clumped more? They seem pretty uniformly spread.

Kevin Zimlinghaus (USFS): There will be some clumps. Small trees can develop resistance to wind.

Attendee Question: You are thinning to space out this unit so it is more like unit 24, the patch cut. Why undo the work by cutting there?

Kevin Zimlinghaus (USFS): We want to maintain different structures across the landscape. Different areas will grow up differently. Also, decreasing fuel density now decreases the potential for high intensity fire, and is more resilient to fire and bugs.

Back at the trailhead

Kevin Zimlinghaus (USFS): The step transect data form gathers data that helps develop a prescription. We walk transects and collect data at points around the unit to get a unit profile based on tree structure. At each point, the tree overstory description goes in the top row and understory in the left row, to create a tally in the boxes that describe the percent of overstory and understory tree sizes and species. Since we are not timber cruising, we don't need to do common stand exams. Instead, we pace along transects, taking points after a given number of paces. Usually, at least 2 points per acre. We use the basal area prism at each point along with the overstory/understory tally. With that information, I develop diagrams that show the tree size and species distribution in a stand, and write prescriptions that meet objectives for the stand.

Participants had an opportunity to measure points along a transect, using a basal area prism and the overstory/understory tally method.

Heather Bergman (facilitator): A follow-up webinar will be a week from Monday (email forthcoming).