

N. Blues Forest Collaborative *Minutes*

Meeting Date: June 25, 2020

Location: online

Approved: July 22, 2020

In Attendance:

NBFC Members and Guests: Paul Anderes (Union County Commissioner), Mike Billman (ODF), Hanalei Bunn (WR), Nils Christoffersen (WR), Alyssa Cudmore (WR), Pam Hardy (WELC), Kerry Kemp (TNC), Kelly Makela (WR), Katy Nesbitt (Wallowa County NRAC), Laura Platt (PSU), John Punches (OSU Extension), Darlene Rochna, Eric Wunz

Forest Service: Anthony Botello, Bill Gamble, Lucas Glick, Brian Goff, Amber Mahoney (Ingoglia), Nathan Poage

Staff: Jeff Costello (Facilitator)

Key Decisions:

- No key decisions. Just two Shared Learning Sessions:
 - Laura Platt's research findings on historic fire return intervals in MMC
 - Sheep Creek progress report
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Minutes Key

- Meeting minutes do not represent collaborative agreements, unless they specifically say so. They are meant to record three basic things only: 1) the issue discussed, 2) the major points or questions raised in the conversation, and 3) the resolution, if there was one. Unless specifically stated, resolutions are only the resolutions of the people present at the meeting.
 - Common Abbreviations:
 - Q: Question
 - A: Answer
 - Cmt: Comment
 - Tx: Treatment
 - Rx Fire: Prescribed Fire
 - Highlighted Items are typically those that require follow-up. (Usually suggestions for future agendas)
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Meeting Notes

Preliminaries:

- Introductions
- Agenda Review
no additions suggested
- Upcoming 2020 Meetings:
07/22-23, 08/26-27, 09/23-24, 10/21-22, 12/2-3

- PNW Forest Collaboratives SNW Workshop Webinar Series (July Webinars):
 - Collaborative Administrative & Judicial Review Opportunities
aka: How collaboratives can participate at the court if their projects are litigated
Presenter: Susan Jane Brown. For prep work, see SJ's paper on the topic [here](#).¹
July 9, 2020 (10-11:30am):
 - Historical Range of Variability – Uses & Various Approaches
Presenter: Nathan Poage
This is just a more general version of the presentation we saw in May.
July 17, 2020 (10-11:30am):

REGISTRATION REQUIRED (Use the following link):

<http://www.sustainablenorthwest.org/blog/posts/2020-pacific-northwest-forest-collaboratives-workshop>

- CFLRP FACA Committee met yesterday.
Our application was the highest rated new proposal submitted in the nation.
Even higher rated than all the renewal proposals except one – only Deschutes County was higher.
Still not sure there's funding, even if we were to be highly ranked.
Final decision is made by the Secretary of Agriculture, [Sonny Perdue](#).

Laura Platt

- Link to Laura's PowerPoint slides and Full Presentation:
<https://drive.google.com/drive/folders/1q-MtguC2fp1XOExlTFgCpJ9Ml2lgOuDg>
- Laura, in collaboration with Kerry Kemp, is trying to understand what the historic fire regimes were in the moist mixed conifer forests of the Umatilla and Wallowa Whitman NFs.
- Outline of today's presentation:
Results from Jubilee Lake – 1st year
Results from Beaver Creek – last year
Plans for this coming field season
- Fire is not new to these ecosystems.
It has been increasing in the last few decades.
However historic land use change, such as fire exclusion & grazing reduced fire for a while.
- There is evidence of big changes since pre-European times.
- Two dominant fire regimes are already well documented:
 - high-severity, low-frequency
 - Low-severity, high-frequency
 Laura's research is looking at the middle.
- Past fire dates are often determined based on evidence of cohorts
Cohort: When a bunch of little trees all start at the same time.
When you see a cohort, it's likely that they were all responding to openings after a fire.
- Past fires are also determined based on fire scars.
- Research questions
 - what were the fire patterns?
 - What were the patterns in tree establishment?

¹ https://www.nationalforests.org/assets/files/Admin_Legal-Review-Opportunities-for-Collabs_SJ-Brown-and-ERI-2015.pdf

- How has forest composition/species mix changed in these stands, over time? Does the WWNF have inventory data that could be overlain with fire history to determine how those fires either removed or added trees by species? If available, it would be interesting to see these data combined with Laura's results. Perhaps Nathan Poage could offer a presentation, to answer this question (maybe use Dave Powell's study on GLO surveys)?

Findings in Jubilee Lake area

- Area has both moist & dry systems in very close proximity.
- Key difficulty: moist conifers don't record fire as well as dry ponderosa pine.
so used numerous ways to cross date
 - patch size, kind, location
 - fire scars
 - core samples
 - cohorts
- Identified 7 structural types
Sampled in 13 plots across different structural types.
- Mean fire return interval was 14-42 years.
No widespread fire after 1894.
- Tree establishment
 - most existing live trees were established between 1880 and 1930
 - mostly grand firConsidered historic drought as a possible reason for establishment time – not correlated.
Establishment was correlated with fire events.
- Fire scars were hard to find because the ecosystem is so wet that trees rot.
- Tree coring is hard in these regions.
Sometimes several hours for a single core.

Beaver Creek Study Area

- Found/Used the same structural classes
- Found many more fire scars in this area.
Some fires were shared amongst many patches
Some were just in one patch.
- Tree establishment results
less grand fir, more larch
shift in species establishment is visible over time.
appears to be evidence of cohorts establishing after fire.

Ongoing Work

- Will be supplementing data from plots that were samples by Emily Heyerdahl in the 1990s.

Questions & Answers

- Q: Is the area that you're going to be sampling overlapping with the Morgan Nesbitt project?
A: Not certain. Do you have a shape file of the area that you can send?
Resp: We'll likely have lidar for that area by the end of 2020.

- Q: How often is there evidence of high-severity fire?
Can we infer anything about spread across the landscape.
A: in Jubilee Lake the high-severity fires were sometimes widespread, other times not.
(we haven't calculated Beaver Creek yet)
Resp: Could lightning strikes be responsible for locally intense fire
... maybe across a particular band where strikes are more likely.
- Q: I'm wondering what it means when you said that a scar was "mechanical" and not fire-caused. Does this mean that you think the scar was caused by equipment during an historical timber harvest/treatment?
A: Mechanical damage can be anything that bumps into the tree, like another tree falling.
These can be hard to distinguish from fires in the field. However, it's usually pretty easy to tell under the microscope in the lab.

None of the plots in which we looked at historical age structure have ever seen timber harvest.
- Q: Structure percentages – are those current or historic?
A: historic.
- Q: Lodgepole: why aren't we seeing as much historic lodgepole establishment?
A: There are notable areas of pure lodgepole in the watersheds, but we didn't sample it extensively.
- Q: did you see any correlation between drought and fire extent?
A: We haven't done the analysis yet, but we're very curious.
- Q: What are some major differences between the two study areas?
A: Sampling was much easier in Beaver Creek
We were able to reconstruct more fires in Beaver Creek – we saw more fires.
But that might just be because the trees are better recorders.
- Q: I'm curious about how forest composition (species mix) has changed in these stands over time. Does the Wallowa-Whitman Forest have inventory data that could be overlaid with the fire history to determine how those fires either removed or added trees by species? This may be a Bill Gamble question, but if it's available it would be interesting to see it combined with Lara's results.
A: The best source would be FIA data.
But the site locations are not public information, so we don't know if they're near our plots.
(but the data is public)

There was a project done on the Umatilla to re-discover historic inventories
It might be lurking on the corporate T drive.

There is likely more data that should be taken to really get at this.

Maybe we could identify common successional paths and likelihood of disturbance ...
- Q: What is the fire return interval in Beaver Creek
A: haven't done the analysis.
Q: Would it be accurate to say that it's not the 200+ type,
but not quite as frequent as the open pine types.
A: Yes.
- Q: In the dry forests fire return interval is typically a consistently narrow range, like every 10-20 years. It seems like here the fire return intervals may be wider.
A: Yes, it may be the same *mean* fire return interval, but a very different range.
Cmt: It would be helpful to turn these ideas into a probability set for state & transition modeling.
Cmt: that would likely be a great improvement on the "expert panel" form of determining HRV for a particular watershed.

Sheep Creek

- Draft EA expected out Fall 2020. NBFC had a lot to do with the Purpose and Need.
There are many locations in Sheep Creek that have similar ecosystems to those that Laura is investigating.
- See PowerPoint Link Here: <https://drive.google.com/drive/folders/1q-MtguC2fp1XOExITFqCpJ9Ml2lgOuDg>
- We expect to see stuff a lot like Laura's Beaver Creek, and James Johnston's N. Fork John Day area work.
We also want to look at the differences.
- Lucas Glick presented: "Bridging the gap between current & desired conditions."
- This area has seen a LOT of activity in the past.
Grazing, RR logging, etc.
- Lots of fire suppression.
No large wildfire in the last 100 years.
Only 5 fires in the project area have exceeded 1 acre in the last 50 years.
- The area lacks old forest.
We are almost there on the OFMS, but significantly lacking OFSS.
There is plenty of stem exclusion & understory reinitiation.
- Cold Forest is the largest ~ 50% of the project area.
Dry & Moist are about equal in the other half.
- There is some designated WUI near a private ranch.
Will focus on fuels Tx near that border.
- Potential Control Lines ("PCL") (aka good fuel breaks) are designated across the project.
- DFPZs – Defensive Fuel Profile Zones
This is the description of the kind of tx along the PCLs
ie: thinner, so it's good for slowing fire, and dropping crown fires to the ground.
- Insect activity: there's a lot out there.
They do aerial insect surveys every year (except this year – Covid)
The density has increased competition and reduced resilience to insects.
We've seen that in hot dry conditions, we get outbreaks.
- Goshawks – we surveyed the area. There are two active nests.
300-acre nest – no Tx area.
PFAs have mgmt, but during very limited windows of time to avoid disturbing the nests.
- There is a soil map for the area.
Soils influence water holding capacity
 - Two key kinds:
 - Mollisol, decomposed granite, low moisture retention
 - Ash cap from Mt. Mazama – holds more water
 - Climate Change considerations:
Expecting hotter drier summers
Will be thinning a bit more around lower moisture soils.
 - Trying to avoid the "wilting point" – the point at which trees lose enough water to function.
- Using all the recent science in the area.
 - Laura Platt, James JohnstonAnticipating hotter drier conditions.

- There will be a focus on restoring Western Larch
Evidence is that this species occurs substantially less than historically.
It needs open conditions and full sunlight to get started.
- Goal: reduce density to a point where there is not inter-tree competition.

Questions

- Q: Tx to lower mgmt zones: why such small openings?
What if you need to remove more grand fir to get larch?
A: In the dry forests there will be some larger openings.
In the “improvement” tx’s we will be going to very low basal areas – maybe below the lower end of the normal mgmt zone to remove over-represented grand fir, and create an opening for larch.
Cmt: You have to be so aggressive to get ahead of the grand fir & lodgepole in the early seral.
Might have to go back in 15 years later to remove the lodgepole again, even if you plant larch.
- Q: is there much western white pine in this area?
A: Yes. Just saw a 36” white pine the other day.
We’ll be protecting and promoting that extensively.
- Q: A pattern that’s already apparent in Laura’s data is that all sorts of species establish after fire. We don’t need to shift all stands in that direction. Fire is the thing that made these shifts historically. Should we ask it to help us here? That might require multiple, short-cycle re-entries that remove lodgepole or fir before it goes to seed. How is fire a part of your prescription?
A: Yes – it’s under consideration. But it’s beyond the scope of this project to some extent. Also, this area has been messed up for a long time. It’s going to take multiple projects here to get us back to resilience.
- Q: Does jackpot burning get larch regen?
Or do you need a pretty hot large landscape burn?
A: There is good anecdotal evidence that larch takes advantage of the fire beds left by the jackpot burning.
We’ve seen that work well before.
- Q: How different are these “fuel tx’s” from restoration tx’s?
A: Not very – they’re compatible.
- Q: to what extent are you considering spatial variability?
A: Our fuels guys are receptive to that. We try to leave some clumps, gaps & openings.
Leaving those clumps is “acceptable risk” for wildlife benefits, especially along wildlife corridors.
- Suggestion: self-guided field trip.

Adjourn: 2:50