

**Forsythe II Multiparty Monitoring Group (MMG)
 July 22, 2019, 6:00 PM to 8:30 PM
 MPR Room, Nederland Community Center
 750 CO-72, Nederland, CO, 80466
 Meeting Summary – FINAL**

ATTENDANCE

Participants: Jessica Ansari, Teagen Blakey, Chad Buser, Marin Chambers, Tania Corvalan, Bea del Rio, Aurelia DeNasha, Lynne Deibel, Mark Foreman, Angela Gee, Lee Goertznowsky, Tori Hunter, Alex Markevich, Paul McCarthy, Mark Mendonca, Adam Mitchell, Yvonne Short, Susan Wagner, Maddie Wilson, and Kevin Zimlinghaus

Facilitation: Heather Bergman and Samuel Wallace

ACTION ITEMS

Teagen Blakey, Tania Corvalan, Susan Wagner, and Kevin Zimlinghaus	Identify a route, time, and necessary supplies for the August lodgepole pine field trip, which will include a walkthrough of Units 9, 10, and 11.
Teagan Blakey	Send Yellowstone study to Peak Facilitation Group to distribute to the group.
Aurelia DeNasha and Lynne Deibel	Provide photos of different possibilities for slash piles at the next meeting.
All Members	Provide questions and comments about the lodgepole pine units to the people planning the upcoming field trip.
Peak Facilitation Group	<ul style="list-style-type: none"> • Distribute the Yellowstone study to the group. • Prepare and distribute the meeting summary.

REVIEW OF MIXED CONIFER FIELD TRIP – WILDLIFE DISCUSSION

MMG participants discussed remaining wildlife questions that the group had following the mixed conifer field trip on June 22, 2019. Their comments are summarized below.

- The group discussed how the U.S. Forest Service (USFS) is going to incorporate wildlife corridors and values into the prescription with a specific focus on elk populations. Some group members stated that during the field trip, they had found areas with large amounts of elk scat. For those areas, they wanted to know how the USFS can plan their prescriptions to avoid disturbing elk migration corridors.
- Elk and other ungulates are generalists, which means that one specific type of treatment is not going to work in every area to promote elk populations. The USFS biologists will need to assess each area to determine what the needs of the elk are for that specific area.
- In order to complete this assessment, it would require the USFS biologists and silviculturists to work together to analyze specific wildlife needs alongside the treatment type. The USFS staff could then formulate a prescription that incorporates wildlife values while achieving USFS’ objectives.
- The group discussed the difference between “wildlife corridors” and “wildlife trails.” Wildlife trails are a component of a wildlife corridor and are significantly narrower than corridors. Colorado Parks & Wildlife (CPW) mapped the wildlife corridors in Colorado, which CPW considered to be much larger areas of habitat.

- Some participants expressed that they want the USFS to focus on incorporating wildlife corridors (not just trails) into the prescription. They said that elk herds do not strictly use a narrow path to migrate. Instead, elk herds browse and migrate in a much larger area. Other participants said that “wildlife corridor” is too broad of a term, and by focusing on wildlife trails and significant transit areas, they can offer more detailed adjustments to prescriptions. The group will return to this conversation in more detail at a later meeting focused on wildlife topics.

REVIEW OF MIXED CONIFER FIELD TRIP – SLASH PILES AND PRESCRIBED FIRE DISCUSSION

MMG participants discussed remaining slash piles and prescribed fire questions that the group had following the mixed conifer field trip on June 22, 2019. Their comments are summarized below.

- The group discussed the plan for slash piles during the implementation of the treatment. There is room for improvement in how the contractors pile slash to be more aesthetically pleasing. Additionally, how contractors construct slash piles is dependent on the treatment method (manual or mechanical) and the purpose of the pile (for wildlife or for burning). For Phase I, the USFS has already defined the way that the contractors will pile the slash. However, it is possible to change the type of slash piles for Phase III and Phase IV. The USFS biologists will bring photos of different types of slash piles to a future meeting, and the MMG can discuss the topic in more depth then.
- The group discussed how slash piles are going to affect future opportunities for prescribed burns. Whether slash piles will make it easier or more difficult to implement prescribed burns is unique to each situation. When there are fewer surface fuels, slash piles may make it easier for prescribed burns to carry through the forest. However, when there are more surface fuels, slash piles may also narrow the window of appropriate weather conditions for implementing prescribed burns on the landscape.
- Participants asked for visual documentation of areas with varying amounts of surface fuels so that they could have a better idea of when slash piles would assist or hinder the use of prescribed burns. One area from the field trip where adding slash would be beneficial for prescribed burns was by the camping area.
- Some participants stated that they would like the USFS to prioritize prescribed fires when creating prescriptions. Currently, the USFS is considering Units 39 and 45 for broadcast burning. These are both units the USFS designated for broadcast burning in the final decision notice. Part of the objective of the treatment is to strategically modify wildfire behavior so they can introduce prescribed fires in the future.
- Participants asked whether it is easier to use prescribed fire as a management tool in untreated areas or treated areas. In treated areas, the open canopy triggers regrowth, which may make it more difficult to introduce prescribed fire to the land. The facilitator postponed this conversation until the unit discussions later this fall.

REVIEW OF THE UPDATED 2019 WORK PLAN

MMG participants reviewed and discussed the updated work plan for 2019. Their comments are summarized below.

- MMG members discussed the timeline for developing the new prescription for Phases III and IV. The USFS crew recently finished collecting data using step transects. The transect information is critical as it gives Kevin Zimlinghaus the data to help him write the prescription.
- The crews are currently marking trees in the Lazy Z area, specifically in Unit 43. After the crews are finished with marking trees in Unit 43, they will move on to mark trees in Units

47 and 68. However, they will need to begin marking Units 9, 10, and 11 by September before the USFS crews leave for the season.

- There is time to have a conversation about the Boy Scout area (Unit 9, 10, 11) before the USFS begins marking trees. MMG participants want to have a substantive conversation so they can provide input for the prescriptions in Units 9, 10, 11, 12, and 103. The group decided that they should add time during the August 14 field trip to visit Units 9, 10, and 11 and discuss the prescription.
- Knowing that Units 1, 2, 3, and 4 are contentious, the USFS is willing to delay the work that needs to get done on those units. However, the delay of work in Units 1, 2, 3, and 4 may cause frustration with people in the community.

AVENZA AND MONITORING UPDATES

The group discussed updates in the Avenza points and monitoring efforts. Their conversation is summarized below.

- The USFS extended the deadline to submit Avenza points to June 30, but no one submitted any additional Avenza points during the extension.
- The submitted Avenza points focused on six units: 9, 10, 11, 12, 102, and 103. Some of the reoccurring themes included specific tree species of concern (Rocky Mountain juniper, limber pine, and mixed conifer) and evidence of turkey and moose habitat. New themes that people identified using the Avenza points included areas that were already thinned, the presence of barbed wire, and the presence of mistletoe infections. There are more details in the Forsythe II Phase 3 & 4 Avenza Point summary document.
- MMG participants discussed upcoming opportunities to monitor the implementation of Phase I and Phase II projects. The USFS expects Phase I projects to begin next week. To accommodate this schedule, the USFS will arrange for MMG members to walk through Phase I units with the Contracting Officer's representative to inspect the work that the contractors will complete. The USFS has marked all the trees that the contractor will remove with blue paint so it will be clear which trees should be removed. The goal is to have ongoing opportunities to monitor the implementation of Phases I and II so that the MMG can walk through different areas and units.
- Colorado Forest Restoration Institute (CFRI) is currently undertaking ecological monitoring in Units 26, 27, and 28, which are lodgepole pine units that the Decision Notice designates for mechanical removal. This monitoring is based around a botany-oriented protocol to gather data on the biodiversity of the understory vegetation. The CFRI will also be collecting data in Unit 45, a mixed conifer unit that will be treated manually. This data will serve as a baseline to assess the effectiveness of the lodgepole pine mechanical treatments and mixed conifer manual treatments. These monitoring efforts are not necessarily to inform Forsythe II. They are occurring as a result of the Forests-to-Faucets program, a partnership among USFS, Colorado State Forest Service, Natural Resources Conservation Service, and Denver Water.

LANDSCAPE-SCALE DISCUSSION: LODGEPOLE PINE PRESENTATION

Angela Gee, the Boulder District Ranger of the USFS, gave a presentation about the different variables of a prescription for lodgepole cover type. The presentation is summarized below.

- One of the USFS's primary objectives in the lodgepole pine cover type is to "reduce the severity and intensity of a wildfire within the wildland-urban interface (WUI)." Another primary objective is to "emulate natural disturbance in lodgepole pine-dominated stands to mimic variable structural and spatial patterns across the landscape in order to increase resistance and resilience to future natural disturbance."

- The variables that the group should think about when discussing potential prescriptions include:
 - *Diameter at breast height (DBH)*: The USFS can use DBH in the prescription decision to identify which trees the contractors should remove and not remove based on size.
 - *Treatment location, timing, and sequencing*: The USFS can identify critical areas that they must treat to achieve objectives; consider the treatments occurring in adjacent areas and the cumulative effect of treatments on the landscape; stagger treatments to improve visual aesthetics; and consider timing to protect wildlife needs.
 - *Replanting*: Choosing what species to replant following the removal of trees allows the USFS to affect species composition and stand density. Replanting may occur two to three years after the initial treatment and depend on the type of treatment (mechanical versus manual). Additionally, any physical planting will occur at least one year after the treatment because the USFS needs to order specific plants and seeds from a nursery, which takes a year to cultivate.
 - *Habitat structural stage*: The habitat structural stages represent the stages of succession in a coniferous forest following a disturbance event. In the current condition of the forest, there are more areas in the young and mature forest stages than in the grass-forb, shrub-seedling, and pole-sapling stages. One goal of the prescription is to emulate a natural disturbance event to bring more structural diversity to the forest.
 - *Species type*: Thinking about species type is important when choosing what trees to remove and what vegetation to replant following the treatment. Altering species type may allow the USFS to implement treatments in a manner that prepares the forest for future conditions.
 - *Manual versus mechanical*: The USFS uses each treatment type for different reasons. Mechanical removal involves removing the whole tree and leaves behind fewer stumps and slash piles because the contractors can pile larger trees into more concentrated piles. However, there are restrictions to where the USFS can implement mechanical treatments due to inaccessible terrain and areas of high sensitivity to disturbances. Manual treatments focus on smaller trees and leave behind more stumps and slash piles across the landscape.
 - *Openings*: Openings can provide browsing and forage opportunities for elk.
 - *Prescribed fire*: Using prescribed fire in lodgepole pine forests can be difficult due to the sparseness of undergrowth and vulnerability to crown fires.
 - *Treatment types*: In the Decision Notice, the treatment options for lodgepole cover type are patch cuts (one to five acres) and clear cuts (five to ten acres). When treating aggregations, the USFS achieves a higher rate of basal area thinning. MMG can consider aspen enhancement and restoration, mixed conifer thinning, and lodgepole regeneration thinning following treatment.

CLARIFYING QUESTIONS

MMG members asked several clarifying questions about the different variables of a treatment plan. Questions are indicated in italics with corresponding answers in plain text.

Is the USFS considering other forestry projects in Boulder County when developing the prescriptions?
 Fire does not end at the borders of USFS land. The USFS needs to look at the landscape as a whole, including other forestry management work in Boulder County and on private land, to make decisions about the prescription.

Are there requirements to treat a certain number of acres mechanically?

The USFS' goals for the forest are normally quantified by numbers of acres treated and/or tree volume. The USFS assigns their goals to the forest as a whole and not to specific areas within the forest. As a result, there are preferred areas of the forest where it is easier to apply treatments than others due to accessibility and amount of contiguous land. Furthermore, the USFS is not required to implement a certain type of treatment (mechanical, manual, prescribed fire, etc.), to reach their acreage goals. Group members requested more information on the USFS acreage goals.

Some participants expressed their concerns that patch cuts and clear cuts produce windblown forests on the adjacent land. Why doesn't the USFS do one large clear cut to minimize the wind damage in adjacent forests?

The USFS has size limits for how much they can cut at once. For example, clear cuts cannot be larger than ten acres. They also have to make sure they manage the treatment areas to take wildlife corridors into consideration

Why is the USFS cutting down healthy forests?

What may seem like a healthy forest may actually be unhealthy due to a lack of structural diversity. Structural diversity promotes a healthier forest because it makes the forest more resilient to beetle infestations and other infections, like mistletoe. If there is not enough structural diversity, the forest becomes vulnerable to these types of infestations.

One participant stated that they read a study that said replanted trees were not growing due to increased temperatures. How do you manage replanting and regrowth, particularly in a changing climate?

To replant, the USFS collects seedlings of tree species from different elevations and areas. By planting a diversity of seedlings, there is a higher likelihood that at least some of the seedlings will grow given a variety of conditions.

How will treatments affect the density of the forests?

The USFS has about a 15-year period until they will start thinning. At this time, the USFS has the opportunity to return to treatment areas to thin trees based on which trees are performing better depending on the climate. This allows the USFS to select mixed conifer or lodgepole for thinning treatments and manage the forest for multiple climate scenarios.

What are the statistics related to the USFS returning to thin the areas following initial treatments?

The USFS tries to return to thin the previously treated areas. However, when the USFS does not have permission for reentry or other issues arise, it changes their ability to implement follow-up treatments.

What ability does the USFS have to gather windthrown trees and pile them into slash piles?

If the USFS are doing a manual treatment, they cannot pile any windblown trees larger than 8 inches in diameter. If they are doing a mechanical treatment, there is more of an opportunity to take larger windblown trees with a diameter larger than 8 inches and pile them into the slash piles.

Group Discussion:

The group discussed the different variables of a prescription. Their comments are summarized below.

- MMG discussed future climatic conditions of the area. Some participants said that the climate will become drier while others said that the science is not determinative of whether the area will become drier or wetter in the future. Some participants stated that it was not

necessary to remove lodgepole pine from the landscape to prepare for a drier climate, especially considering that the climate potentially could become wetter. Other participants stated that removing lodgepole pine and replanting with mixed conifer allows the USFS to prepare for multiple future conditions of the area. By replanting with mixed conifers, the USFS has the flexibility to manage the area for either mixed conifer or lodgepole pine cover type in the future depending on the climatic conditions.

- Some participants questioned whether completing all the patch-cutting and clear-cutting at the same time creates a landscape where all the trees are in the same age group, leading to less structural diversity. Other participants responded by saying that in the Forsythe II area, the current number of acres of each age type favors larger, more mature stands than seedlings. Currently, there are 700 acres of mature stands versus 235 acres that are in the regeneration stage. In this situation, they stated that is more desirable to create structural diversity by removing more mature trees and increasing the number of acres in younger structural stages.
- Participants cited a recent study from the University of Wisconsin about a forest in Yellowstone that recently burned at a high-intensity level. Some of the participants expressed concerns that by patch- or clear-cutting the forest, they are replicating conditions similar to Yellowstone where fires will burn hotter.
- Some participants stated that the conditions of the forest in Forsythe II will not be similar to the forests in Yellowstone because the USFS will actively manage the forest by thinning it. This type of active management did not occur in the Yellowstone example. The group disagreed about whether there are enough surface fuels for the forests to have similar conditions to the forests in Yellowstone.
- Some members said that if the USFS cannot guarantee that they will be able to return for follow-up thinning, then the forest will resemble the forest in Yellowstone. If this is the case, then the USFS should not complete the initial treatment. Some members disagreed with this statement.

NEXT STEPS

- The next meeting will be a field trip to the lodgepole units on August 14, which Teagen Blakey, Susan Wagner, Tania Corvalan, and Kevin Zimlinghaus will plan. The field trip will also include a walkthrough of Units 9, 10, and 11 in the Boy Scout area.
 - Aurelia DeNasha, Lynne Diebel, and Mark McCarthy preferred meeting before the rest of the field trip, and Alex Markevich preferred meeting after.
 - The remaining members did not indicate a preference for whether the additional walkthrough of Units 9, 10, and 11 will occur before or after the lodgepole units.
- Other potential agenda topics for the lodgepole unit field trip:
 - Discussion of conditions that increase or decrease the risk of fire using visual references from the landscape;
 - Discussion of structural diversity of the lodgepole units following treatment;
 - Discussion of how the forest in the Forsythe II area is similar and different to the Yellowstone forest;
 - Discussion of MMG's preference related to different type of slash piles.