

**Forsythe II Multiparty Monitoring Group (MMG)
 October 18, 2019, 2:00 PM to 5:00 PM
 Nederland Public Library
 200 CO-72, Nederland, CO 80466
 Meeting Summary – FINAL**

ATTENDANCE

Participants: Karen Blakemore, Teagen Blakey, Chad Buser, Marin Chambers, Mark Foreman, Angela Gee, Alex Markevich, Yvonne Short, Susan Wagner, and Kevin Zimlinghaus

Facilitation: Heather Bergman and Samuel Wallace

ACTION ITEMS

Kevin Zimlinghaus	<ul style="list-style-type: none"> • Gather and share information on the size of piles by volume for mechanical and manual treatment. • Review the Forsythe II Environmental Assessment and Lodgepole Pine treatment comparison document from the September 11, 2019 meeting for differences in how they characterize fire danger in lodgepole pine stands. • Confirm with Contracting Officer’s Representatives (CORs) that they are talking with crews before treatments begin. • Update the final treatment map of the Unit 9 complex and the spreadsheet with treatment details.
MMG	<ul style="list-style-type: none"> • Contact Marin Chambers for any requests to modify the map that contains the treatment areas for Forsythe II, Winiger Ridge, and Lumpy Tung. • Join the USFS mailing list to receive information about upcoming prescribed burns if desired.
Chad Buser	<ul style="list-style-type: none"> • Include the Forsythe II units as a layer in the broadcast burning map. • Add details on where the USFS will limb trees and construct handlines to the broadcast burning map.
Peak Facilitation Group	<ul style="list-style-type: none"> • Prepare and distribute the meeting summary. • Confirm that Heather Bergman is on the mailing list to receive notifications about upcoming burns.

Note: Following the field trip to the Unit 9 complex from 9:00 am to 1:00 pm, MMG members met at the Nederland Public Library to continue their discussion of the units in the Unit 9 complex.

REGENERATION THIN UNITS DISCUSSION

MMG participants discussed concerns in the regeneration thin units. Their comments are summarized below.

- MMG participants received a map that displayed aerial imagery with all the current Forsythe II units, the treatment areas from Winiger Ridge and Lumpy Tung, and the Gross Reservoir and Magnolia Trails expansions. MMG participants have access to use the map on Avenza. To request modifications to the map, MMG participants should contact Marin Chambers.

- There were several concerns with regeneration thin units that the US Forest Service (USFS) recently treated. In Unit 82, the contractors cut all of the largest trees and left all the 1-inch diameter trees. The spacing between trees was also very wide. In some units, the average spacing was 19 feet, which is outside the specifications of the Decision Notice. In the units with lodgepole pine stands, contractors removed almost all of the lodgepole pine trees. Contractors also removed aspen trees and left behind trees infected with mistletoe.
- Each of the regeneration thin units are about a tenth of an acre in size on average. Some participants differences in treatments were because each of the units had differently sized trees and different types of trees (e.g., aspen, lodgepole, mixed conifer, etc.). The contractors were looking for the best trees to retain while also following instructions to make sure there were no ladder fuels next to adjacent stands. Contractors were also preparing these stands for future prescribed fires.
- The goal was to space the thinned trees 15 feet away from each other, which is the upper limit for spacing according to the Decision Notice. They may have left some trees with mistletoe infections because it can be difficult to identify which trees have mistletoe. Additionally, they may have left trees with mistletoe because removing the tree would violate the spacing requirements.
- Some participants stated that they do not like that the USFS told them one plan and then executed a different plan; they expected 12-foot spacing with 300 trees per acre. Some participants said that what is on the landscape does not match that description. Other participants said that the reason for any changes was to address ladder fuel concerns and prepare the landscape for future management strategies, like prescribed burns. Some of the regeneration thin units are adjacent to clear cuts that the USFS completed under the Lumpy Tung Task Order (Lump Gulch decision). Because the USFS has already planted mixed conifer species in those clear cuts, they are comfortable with bringing prescribed fire onto the landscape. Some participants said that the regeneration thinning creates a diversity across the landscape that allows for different management responses in the future.
- In regeneration thin units that are a tenth of an acre to a half-acre in size, it is difficult to space the trees in between burn piles to make sure that burning the piles will not harm the trees. Contractors are trying to select the best, healthiest, and most dominant trees, which is not a determination that is entirely based on size.
- Some participants said they saw the crew vans, but they did not see USFS trucks early in the morning. They said that the lack of proper supervision resulted in differences in the treatment implementation in the regeneration thin units. Other participants said that during the day of treatments, USFS staff members were working with several crews. There was contact with all the crews at some point during the day and before the crews started cutting. It is not likely that a Contracting Officer's Representative (COR) can be with each crew for the entire cutting session. There was a question about what time CORs are out there to meet with crews. CORs are in the field as they need to be depending on their contract. They can be out there as early as 4 am.
- Some participants said they were disappointed that their concerns were not addressed and that the treatment implementation departed from the prescription. Some participants described an analogy for community member concerns. In the analogy, the USFS is the doctor, the forest is the patient, and community members are relatives of the patient. For the relatives (community members), mistakes on the patient (the forest) are more meaningful than they are to the doctor (USFS). Some participants stated that changes in the forestry prescription are meaningful to community members, and they want to see the USFS taking these types of concerns more seriously. Future meetings can address these procedural concerns.

ASPEN UNIT TREATMENT DISCUSSION

MMG participants discussed mycorrhizal networks and surface fuels in aspen unit treatments. Their comments are summarized below.

- Some participants shared information that illustrates that aspen and mixed conifers share carbon through mycorrhizal networks. Thus, in the Forsythe II aspen units, removing mixed conifers may have detrimental effects on the aspen stands by also removing these mycorrhizal networks. Some participants stated that mycorrhizal networks occur throughout the forest. Some of the recent research on mycorrhizal networks have come out British Columbia or in a laboratory/greenhouse setting. Because of differences in geography and climate, it is uncertain that the results of the aforementioned research applies to the forests in Colorado, which are much drier. In other places, like California, foresters planted trees that were inoculated with mycorrhizae spores. It is difficult to test whether inoculating newly planted trees with mycorrhizae spores had an impact on the development of those trees. This is because researchers would have to remove the entire tree to monitor the extent of mycorrhizal growth. The foresters also used nutrient and water retention packets. The USFS has previously used a mycorrhizal inoculant in Boulder county in planting efforts previously, and as they begin to plant, the USFS could look for mycorrhizal solutions to inoculate newly planted trees.
- Some participants said that the USFS should keep more mixed conifer in the aspen stands to maintain the mycorrhizal networks. For future MMG monitoring efforts, MMG members could look for evidence that removing mixed conifer trees affect the regeneration of aspen. A potential location to observe the impacts of conifer removal on aspen regeneration is on a unit just west of the Boy Scout Trailhead gate along Magnolia Road.
- Participants stated that another reason to leave some mixed conifers in aspen stands is to improve the aesthetics. Leaving in mixed conifers in different age groups make the aspen stands less of a monoculture. Some participants suggested that when deciding how many mixed conifers to leave in an aspen treatment, the default for the USFS should be to round up.
- Some participants identified differences between the Forsythe II Environmental Assessment and a document from the September 11, 2019 meeting titled Lodgepole Pine Treatment Comparison related to the spread of fire in the understory. USFS will review the documents to check for differences in how the documents characterize fire in lodgepole pine stands.
- Some participants stated that the amount of surface fuels that the USFS places on the ground after treatment could increase the spread of fire on the ground. It is not possible to claim the treatment is decreasing fire risk when the USFS is increasing fire risk in some areas by adding more surface fuels. Other participants said that fires have different levels of intensity. Fire behavior depends on multiple conditions and factors. For example, whether a fire enters into a stand during the day or at night affects fire behavior. Fires can occur in old-growth lodgepole pine forests in the right conditions, which is what happened in the Cold Springs Fire. Others said that it is historically still rare for fires to occur on north-facing lodgepole pine forests.

DISCUSSION ABOUT NOT MEETING TREATMENT SPECIFICATIONS

MMG participants discussed recent treatments in which the treatment did not meet specifications. Their comments are summarized below.

- In the upper northwest section of Unit 5, which is an aspen unit, participants earlier in the week observed that the conifers that the USFS cut did not meet the specifications. The portion of the unit is an oval of conifer trees surrounded by aspen. The USFS was only

supposed to cut conifer trees up to 30 feet away from aspen stands. Instead, the USFS cut conifers a minimum of 100 feet in between the aspen stands. Had the USFS met the specifications, there should have been an island of 20 to 30 conifer trees in the middle of the oval.

- Some participants said that in the past, there was an agreement to check Units 5, 7, and 8 to ensure that the USFS was meeting the clarified specifications of a 30 foot limit for cutting conifer trees around aspen stands. The USFS did check the Units but missed this half-acre of conifer trees.
- There was a concern that the USFS cut aspen and regeneration thin units when they were only supposed to cut regeneration thin units. Three of these units, 85, 86, and 100, were changed from regeneration thin to aspen treatment, and the USFS should not have cut the newly classified aspen treatment units at this time. In Unit 85, the result was that the contractors left half of the unit with aspen and removed all the lodgepole from the other half. Some participants stated that the USFS should come to the group when they realize there will be a change in a treatment. When the USFS changes the procedure without consulting the group, participants lose confidence.
- One of the difficulties with the process so far is the time constraints that the MMG has faced. When the group has to make last-minute decisions and then the USFS has to implement them quickly, the USFS has made mistakes, including not following the specifications for aspen treatment in Unit 5. The USFS is making commitments, but if the agency does not follow through or there is a perception that the USFS is not following through, the result is the erosion of trust. This erosion of trust is not the intention of the USFS. Moving forward into future phases, the MMG will be in a better position to be ahead of the conversation before contracting begins next fall. This timeline will allow the group to discuss the process in a more timely manner, including reviewing draft contracts. It allows for the MMG to take new approaches, such as having MMG participants layout the unit treatment before the USFS staff does and then having a joint discussion. Now that the hard push for contracting in 2019 is complete, there is an opportunity to have conversations far in advance about the next set of units.
- For multiple years, MMG participants have been discussing what treatments will look like, but now that treatments are being implemented, new questions/comments/concerns are coming up. This is in addition to ongoing discussions about what treatments will look like in future phases. All of this takes time for the USFS to respond to, which may lead to the perception that the USFS is not taking MMG concerns seriously. That is not the intention of the USFS. The USFS is doing their best to review and respond to all inquiries in a timely manner.
- There was a question about how MMG participants can communicate with the USFS. In the past, some emails were ignored, and concerns were not included on the agenda. The USFS struggles with the number of emails they receive. They are trying to answer all of them and will continue to work to answer emails promptly.
- MMG participants can choose to CC Angie Gee on emails to other USFS staff like Kevin Zimlinghaus or Aurelia DeNasha, but they do not have to.
- Organizing more field trips earlier may be helpful while planning treatments in the future. Some of the time constraints came from the USFS with personnel adjustments.
- One of the greatest challenges in a collaborative is forgiving while also holding each other accountable. There will be an agenda item to discuss this in greater detail at a future meeting.

UNIT 10 AND 11 DISCUSSION

MMG participants discussed the prescriptions in Unit 10 and 11. Their comments are summarized below.

- MMG participants discussed fire strategy through these two units. Some participants said that the treatments and fire breaks between Unit 9 and Unit 102 seemed to achieve the goal of mitigating fire risks. The treatments in Units 10 and 11 do not achieve that goal to the same degree because the treatments are further off the ridge. The forests in Units 10 and 11 are also dense, pristine, and north-facing. The north-facing characteristic makes the forest wetter and less at risk of fire. Wildlife, especially deep forest species, use the forests of Units 10 and 11 for habitat. The costs of cutting the forest in Units 10 and 11 do not match the benefits gained from the reduction in fire risk.
- Some participants said they do not agree that fire is rare on the north-facing slopes. The Cold Springs Fire, which happened three years ago, began on a north-facing slope and burned well through the forest. It was fortunate at the time that fire crews had the right resources to catch that fire. When everything comes into alignment, north-facing slopes can be receptive to fire, and when it does occur, there are fewer options for fire crews to manage the fires. Treatments on the ridgeline give fire crews more time to react to fires and use different strategies to slow it down or stop it. The treatments ultimately protect both wildlife habitat and human habitat if a fire were to come through the area. There was a point in which treatments were going to be on the ridgetop. There were compromises to lower the treatments in elevation for wildlife reasons and to reduce windthrow.
- There was a question about how the USFS develops the exact polygons for the treatment areas. The original proposal included more areas in the northern part of the Unit 9 complex. There was a reduction in the total area from the proposal to the final Decision Notice. The USFS specialists in fire, silviculture, and wildlife each discussed the treatments they would like to see in the area. Each of the USFS specialists also goes out into the field to develop their recommendations. Each recommendation is processed to design the prescriptions for the units.
- Some participants said that there are philosophical and scientific differences with the treatments in Units 10 and 11. There are concerns that patchcuts will dry out the ground, increase windspeed, and ultimately increase fire hazard. Additionally, skid roads will invite people to enter into the forest and increase ignition risks. They stated that one reason the Cold Springs fire was able to jump the canyon was that there were piles from previous treatment next to the roads. Others said that the Cold Springs fire did burn in untreated areas.
- There was a discussion on whether the treatments in Unit 10 would be effective enough to manage a fire. Some participants said that in a high-intensity fire, three acres on a ridge in Unit 10 would likely not be effective for fighting a fire. There are many residents in the Nederland area that understand that they run the risk of wildfire when they choose to live in the forest. Not all residents in Nederland share this perspective. Residents of Nederland also consider defensible space and construction material of the home to be more important in protecting individual property and life than the forestry treatments around the individual property.
- In Unit 11, some participants said that the mixed conifer treatment that connects to Unit 9 seems to achieve the goal of managing fire risk. However, the patchcuts in Unit 10 and the patchcuts in Unit 11 achieve this goal only in incremental values while incurring costs to wildlife habitat.
- Some participants stated that there is a tradeoff between choosing treatments for wildfire or wildlife reasons. Because prescribed burning is less of a consideration in this area, the

USFS fire specialists chose critical areas related to fire suppression. The treatments are meant to buy time and create opportunities to minimize the spread of a large-scale wildfire, but it may not work in all cases. The Unit 10 west patchcut could fulfill these purposes because of its placement along the ridgeline.

- Some participants stated that they were unsure of how much value the patchcuts in Unit 11 and Unit 10 east generate for fighting a fire. Other participants said that the Unit 11 west patchcut connects with Unit 9 and 102 treatments, which creates a larger strategic area for fighting fires. Unit 11 east has less strategic value, but it is not valueless because it could modify fire behavior. For example, the patchcut in Unit 11 east could slow a running crown fire. A reduction in the intensity of a crown fire would allow fire crews to manage the fire at that point.
- The patchcut in Unit 10 east creates an opportunity to tie together the mature ponderosa forest on the ridge to nearby aspen stands. This connectivity contributes to the diversity of the forest on the lodgepole-dominated landscape, which can benefit wildlife. Some participants said that cutting a healthy ecosystem would not contribute to wildlife regardless of whether the treatment connects aspen and ponderosa pine stands.
- There was a suggestion to the group that the MMG omit the Unit 10 east patchcut and Unit 11 east patchcut from treatment. Participants agreed to omit these two patchcuts. Some participants said that the northern section of Unit 10 west (northwards of where the Unit 10 west narrows about 4/5 up the patchcut) should also be omitted based on the wildlife biologist's concerns. Participants agreed that the northern section of the Unit 10 west could be omitted as well.
- Unit 11 west connects with the top of the ridge. The Unit 11 west patchcut serves as a potential way to reduce fire intensity and disperse fire retardant. There was a question about whether the eastern section of the Unit 11 west patchcut, which extends outwards and upwards from the main body of the proposed patchcut, could be omitted. The eastern section of the Unit 11 west patchcut is shaped in that way because there are rock outcrops and a drainage in that area. Participants agreed to omit the eastern section of the Unit 11 west patchcut.
- There was a discussion about whether the contractors will treat the Unit 10 and 11 patchcuts manually or mechanically. The contractors will treat the Unit 11 patchcut manually and the Unit 10 west patchcut mechanically. Mechanical treatment in Unit 10 west will maximize fire risk reduction. Participants said that the mechanical treatment of Unit 10 west is acceptable. With mechanical treatment, there were concerns about making sure there is enough natural wood on the ground to retain moisture and the development of skid roads into Unit 10.
- The agreement among the MMG for the Unit 10 and 11 treatments was to omit Unit 10 east and Unit 11 east from treatment. There will also be an omission of the northern section of Unit 10 west and the eastern section of Unit 11 west from treatment. Contractors will treat Unit 10 mechanically.

PRESCRIBED FIRE DISCUSSION

MMG participants discussed upcoming plans to prepare for prescribed fires. Their comments are summarized below.

- The USFS is starting the process to administer broadcast burns on Units 38 and 44. They divided Units 38 and 44 into six different burn blocks. There was a map that was distributed that outlines each of the proposed burn blocks. According to the Decision Notice, a broadcast burn cannot exceed 340 acres at one time. The USFS created the six burn blocks to meet those expectations.

- The plan is to burn the burn blocks in three phases. The Phase 1 burn block is outlined in green on the map first. There are two different areas in this burn block, one directly in contact with the reservoir to the east and another western area that is bounded by Winiger Ridge on its northern boundary.
- To prepare for the eastern section of the Phase 1 burn block, the USFS would need to limb the trees adjacent to the road up to 6 to 8 feet in height. Limbing the trees will allow burn crews and suppression crews to access the areas if necessary. The road represents the southern boundary of the Phase 1 burn block.
- For the western section of the first burn block, the orientation of the block with the ridge to the north is strategic. By using the ridgeline, the burn crews can capitalize on seasons to help control the fire. Because snow will melt faster on the southerly aspect than on the northerly aspect, the crews can burn on the southerly aspect early in the season while there is still snow on the northerly aspect. This strategy reduces the chance of broadcast burns spreading beyond the containment boundaries. The ridgeline is not entirely continuous, so the burn crews will need to strategically use roads as well as construct handlines to create barriers. The western section of the Phase 1 burn block is bounded by trails and ridgelines to the north, a road to the south, and two-track to the west. The USFS will need to limb the trees on the road on the southern side up to 6 to 8 feet in height.
- There has been a fire in the western section of the Phase 1 burn block in the past. A broadcast burn in this area would represent a second entry for fire. As a result, there are fewer ladder fuels in the area.
- There is a proposal to construct handlines on the east and west boundaries of the western section of the Phase 1 burn block and on the northern boundary of the eastern section of the Phase 1 burn block. A handline is 12 inches wide, which the burn crews will construct before the burn.
- The USFS would like to construct the handlines and limb the trees before the work season is over so they can take advantage of an opportunity to broadcast burn if one arises this season.
- In the Phase 3 burn blocks, there are still piles from previous treatments. There are two main sections, a northern and southern section, of the Phase 3 burn block. The piles are on the western side of the southern section of the Phase 3 burn block. The USFS will need to burn the piles before broadcast burning the area. Whether the burn crews will be able to burn the Phase 3 burn block is dependent on if there is an opportunity to burn the piles. There may be an opportunity to burn the eastern side of the southern Phase 3 burn block, which does not have slash piles.
- The process of organizing a broadcast burn is considerable. There are many steps the USFS must take, including evaluating the area for archaeological resources and receiving smoke permits.
- Before the USFS begins the lengthy process to receive approval for broadcast burning, they wanted to hear from MMG participants about the broadcast burn plans.
- There were concerns that downed wood on the northern boundary of the western Phase I block may present a risk for the fire spreading. Depending on the abundance of downed wood and the amount of decay, the downed wood may or may not burn. The USFS has design criteria to transport at-risk fuels into the forest to decrease the risk of the fire spreading.
- The northern Phase 3 block is closer to private houses. There is uncertainty about whether the USFS can burn the northern Phase 3 block at all. The burning of that burn block is years into the future.

- Some participants requested that the Forsythe II units be added as a layer in the broadcast burning map. They also requested that the map include the details on where the USFS will limb trees and construct handlines.
- There are protocols to inform the community about broadcast burning before the USFS administers them. The USFS has a mailing list through which they notify those on the list about upcoming prescribed burns. The USFS will make sure Heather Bergman is on the mailing list for the prescribed burns, and she can share information with the MMG. Teagen Blakey will also share information with those in the Magnolia Forest Group about upcoming prescribed burns.
- There are piles in Unit 74 that the USFS would like to burn this season, depending on the appropriate snow conditions. The USFS will not burn the piles in Unit 45 and 40 this season as those piles are not ready at this time.
- The earliest fire could be on the ground is in November for pile burns. Broadcast burns are traditionally in the early summer or late fall. There may be windows of opportunity to burn in late winter and early spring as well. The earliest time for broadcast burns would likely be in late February or early March, depending on the winter.
- There was a question on the progress that the USFS has made on acquiring air quality control permits. The air quality control permits are standardized. There is more scrutiny when the broadcast burns are near homes. To receive permits, the USFS has to answer exactly how they will mitigate smoke concerns. There are also specific questions on what days of the week the USFS will burn, how long, etc. There is optimism that the USFS could receive those permits in several months.
- There was a question about how the broadcast burning ties into the potential operational delineations (PODs) structure for the Arapaho-Roosevelt National Forests. PODs are a systematic approach to wildfire risk mitigation in which crews model a landscape. They identify control lines, trails, roads, and other barriers to find the best opportunities to contain a high-intensity fire. PODs are composed of large areas. The broadcast burns in Forsythe II do not relate to the PODs.
- One of the steps in the process for approving a broadcast burn is completing a complexity analysis. A complexity analysis occurs before and after a prescribed burn and analyzes factors, like overstory mortality, to understand the risk of a burn. The complexity analysis determines what level of qualifications a burn crew must have to manage the burn. There are three types of burns, type 1, 2, and 3. Type 3 burns are the least risky, such as pile burns. Most broadcast burns are type 2 burns, but some exceptionally complex and sensitive burns are type 1 burns.
- Burn crews must have certain qualifications to manage certain burns. For example, Chad Buser of the USFS is a type 2 burn boss, which means that he can oversee a type 2 burn.
- There was a suggestion that the USFS wildfire specialists present on prescribed burns. A prescribed burn presentation could potentially be a topic for a future meeting.

NEXT STEPS

- MMG participants discussed whether they would like not to have a meeting in November. MMG participants said that they would prefer to have a meeting in November.
- Some participants said that they would like to discuss what is the appropriate amount of surface fuels after a treatment to balance wildlife with wildfire risk concerns. There is a large amount of scientific information out there, so a scientific review would take a considerable amount of work. There was a question about whether examining the science would be valuable for the MMG. Participants can discuss how to move forward with the surface fuels discussion at the November meeting.

- Potential agenda items for the November meeting include:
 - Discussion about upcoming 2020 units,
 - Treatment in the regeneration thin units,
 - Process during the implementation of treatments,
 - Recreation management and trail planning,
 - Approaches to the surface fuels discussion,
 - Wildlife piles,
 - Prescribed burns.