

Forsythe II Multiparty Monitoring Group (MMG)
July 18, 2020, 9:00 AM to 1:00 PM
Field Trip Summary – FINAL

ATTENDANCE

Field Trip Participants: Teagen Blakey, Chad Buser, Marin Chambers, Aurelia DeNasha, Angie Gee, Alex Markevich, and Kevin Zimlinghaus

Facilitation: Samuel Wallace

ACTION ITEMS

Kevin Zimlinghaus, Chad Buser, Aurelia DeNasha	<ul style="list-style-type: none">• Develop specifications for treating existing surface fuels around piles in Unit 54.• Develop specifications for piling activity fuels in aspen treatments in Unit 80.
---	--

UNIT 52 DISCUSSION

Meeting participants discussed their perspectives on treatments in Unit 52. Their comments are summarized below.

Stop 1

Stop 1 in Unit 52 was on the edge of the Unit 52 boundary. There was a mix of aspen and ponderosa pine trees in this first stop, which is representative of other parts of Unit 52.

Unit 52 Current and Historic Conditions Discussion

- Mature, ponderosa pine trees characterize Unit 52. The tree regeneration occurring in the Unit is primarily Douglas fir except in large openings.
- Some trees in the area have branches near the base of the tree that reach towards the ground. These branches are an indication that fire has not been in the stand for a while. A fire in this Unit would potentially torch clumps of mature trees that should otherwise be maintained, creating a fire risk in the area.
- The amount of surface fuels in Unit 52 is low.
- There are patches of aspen stands in this Unit. The ponderosa pine trees are beginning to encroach into the aspen component of the Unit.
- There were a variety of perspectives on the age of the ponderosa pine and aspen trees in the area. One estimate was that the age of the older aspen trees is approximately 40 to 50 years old, while the estimated age of the older ponderosa pine trees is approximately 150 years old. Based on the age of the trees, it seems as though the aspen trees are encroaching into a conifer forest. In this case, the aspens likely grew in the area when the ponderosa pine trees were in an intermediate stage. Another perspective was that the historical data does not provide much certainty about the role of aspen in this area. Overall, the historical data and photos indicate that forests were more open and that there were more aspen trees on the landscape in the past. However, it is unclear if the aspen trees in this Unit are older than the ponderosa pine trees. The aspen in the area does not spread by seed as much; it mostly reproduces clonally. This dynamic makes it hard to prove how and when the aspen established itself in the area.
- The historical range of the forest is an important input to making a treatment decision, but it is not the only important piece of data. The treatment does not necessarily need to restore the forest to its historical conditions. Within complex systems, such as the forest, the system

needs to be able to adjust dynamically to changing conditions. This need to create forests that are resilient to changing conditions is another consideration for the prescription.

Goals of the Unit 52 Treatment Discussion

- Aspen aggregations on the landscape modify fire behavior and provide habitat for wildlife. The number of aspen stands should be increased at the landscape level for fire and wildlife purposes.
- There is a question about how and if the MMG wants to prioritize aspen stands in relation to maintaining and enhancing a mature ponderosa pine forest.
- The Arapaho and Roosevelt National Forests and Pawnee National Grassland (ARP) Forest Plan directs the US Forest Service (USFS) to prioritize aspen over late-successional forests under guideline 37. This guideline does not mean that all of Unit 52 will be turned into an aspen stand because it is possible to have both aspen stands and a mature ponderosa pine stand in the same unit.
- The areas outside of the Unit contain a mix of conifer and aspen trees. By treating in Unit 52 and not in the areas around Unit 52, the goal of the treatment is to create another forest type component on the landscape different from this mix conifer-aspen stand. Creating another forest type component leads to a diversity of forest types across the landscape.
- Mature ponderosa pine trees and the intermix of tree species in Unit 52 have value, particularly social and aesthetic values. The intermixing of tree species represents a polyculture rather than a monoculture. These diverse polycultures can be natural and beneficial to the forest. The treatment prescription should be based on the relative tradeoffs that come with either prioritizing aspen or mature conifer trees.
- There are examples of some forest types that are naturally a monoculture, like lodgepole pine forests.
- There is an important spiritual value of a forest that is natural versus a forest that is cultivated. The forests of Unit 52 have an energy due to the openings and diversity of tree species. An aggressive treatment can damage the spiritual value of the forest for some time. There are tradeoffs between spiritual values and other values.
- Unit 52 is one of three units, along with Units 53 and 77, that the community identified as particularly special.
- The Douglas fir regeneration should be treated because they are ladder fuels that could facilitate the transition of a fire from the surface to the canopy.
- Unit 52 lacks ponderosa pine regeneration. A treatment that only thins from below will not create the openings needed to promote ponderosa pine regeneration.

Stop 2

Stop 2 in Unit 52 was in a ponderosa pine stand that is located between the north boundary of the Unit and the rocky knolls.

Unit 52 Treatments in Old-Growth Development Ponderosa Pine Discussion

- When there is a group of trees of similar size, the treatment should take out the mid-sized trees and leave the biggest one on the landscape or leave whichever tree is in better condition. Taking out the mid-sized trees creates an opening for seedlings while maintaining some of the tree groupings on the landscapes.
- Approximately 77% of the Unit has conifer trees with a DBH greater than 12 inches. Aspen trees make up approximately 12% of the overstory. These percentages are an estimate.
- Unit 52 appears to be an old-growth development forest. The field trip participants agreed that the forest in Unit 52 should be treated as an old-growth development forest.

- A treatment that removes all the trees with a 14-inch diameter at breast height (DBH) or less would change the character of the forest. The treatment should leave trees with a DBH greater than 12 inches because it is an old-growth development forest. The treatment should also not remove all of the trees with a 12-inch DBH or less. The treatment should maintain the minimum number of large trees per acre to ensure the forest can still be classified as old-growth. The field trip participants agreed not to take out any trees with a DBH greater than 12 inches.
- The average existing basal area for Unit 52 is 82 ft² per acre. Historically, a basal area of 40 ft² per acre was the average for this forest type. The treatment should bring the average basal area down to 40 ft² per acre to make the stand more resilient to forecasted changes. It is possible to maintain the character of an old-growth development forest at 40 ft² per acre because historically, old-growth development forests had the average basal area of 40 ft² per acre.
- The report that estimates that the basal area of a historic ponderosa pine forest was around 40 ft² per acre may have large margins of error due to their method for analyzing error.
- Old-growth definitions are based on the number of old-growth trees per acre, not on the basal area. The data on the number of large trees (DBH greater than 12 inches) per acre in Unit 52 has not been collected. They will collect that data once the USFS crew begins to mark the trees. The estimate is that there are roughly 150 trees with a DBH greater than 12 inches per acre in the immediate area, but that estimate may be a little high.
- Other characteristics define an old-growth forest other than the number of large trees. The number of snags and structure of the forest are also key characteristics of an old-growth forest. There are not many snags in the stands of Unit 52.
- Ponderosa pine regeneration is struggling because the large clumps of mature trees are out-competing them for resources. The moisture, in particular, is probably the largest limiting factor for ponderosa pine regeneration. A dense stand with limited moisture will make the trees weak and vulnerable to insects and disease. There could more surface fuels left on the ground to help retain moisture. The local landowner has been cleaning up the slash in the Unit to reduce the risk of wildfire.
- In the ponderosa pine stands, the USFS should not remove all conifer trees up to a 12-inch DBH. One goal of the treatment is to create openings for a new cohort of ponderosa pine regeneration and create gaps in the canopy to stop canopy fires from spreading. This goal does not require removing all the conifer trees up to a 12-inch DBH. Field trip participants agreed that taking out trees up to a 12-inch DBH, but not all the trees, in the ponderosa pine stands is a prescription that they can accept.
- The lodgepole pines can be removed if that is beneficial to the treatment. Field trip participants agreed that the treatment should prioritize removing Douglas firs and lodgepole pines from Unit 52.
- There are some larger snags in Unit 52, but there may be an opportunity to girdle some trees with a DBH between 8 inches and 12 inches to create more snags in the future.

Stop 3

Stop 3 is located in an area with scattered aspen clones.

Unit 52 Treatments in Aspen Aggregations Discussion

- There is not a map of the aspen aggregations in Unit 52, but the USFS collected data via step transects. The step transect data confirmed that the Unit has an aspen component with a conifer overstory. In areas where there is an aspen component with a conifer overstory, the treatment should remove all conifer trees with a DBH of 12 inches or less.

- The field trip participants agreed to treat conifer trees with a 12-inch DBH or less in aspen stands. It would be helpful for the MMG to see which trees the USFS is going to cut under these treatment specifications.

Unit 52 Manual, Mechanical, and Surface Fuel Treatments Discussion

- There is a tradeoff between mechanical and manual treatments in this Unit. A manual treatment would leave larger logs on the ground, while a mechanical treatment could remove more of the surface fuels off of the ground. The soil in Unit 52 is fragile, and mechanical equipment could damage the soil. Mechanical treatments may also exacerbate some of the recreation impacts that are occurring in the Nederland area by inviting people into the Unit.
- There are fire concerns with the surface fuels that are left on the ground following a manual treatment. In a manual treatment, they can pile slash with a DBH of 8 inches or less. That means the boles with a DBH between 8 inches and 12 inches would be left of the ground. In a mechanical treatment, they could take out the 8-inch to 12-inch boles and leave less residual wood on the ground.
- The 8- to 12-inch boles on the ground can benefit wildlife over time, especially if they have branches. Over time, branches create holes in the boles for wildlife to use. There is an ARP forest standard related to leaving a certain size class and length of tree on the ground for wildlife. Field trip participants agreed to treat the Unit manually; however, that means that boles with a DBH between 8 and 12 inches will be left on the ground.
- Field trip participants agreed that they will not treat existing surface fuels in Unit 52.

Stop 4

Stop 4 was a brief stop next to a fire pit built by dispersed campers.

Recreation Discussion

- There are three types of camping on USFS land. The first type is developed campgrounds, which are formal campgrounds with formal facilities (e.g., Kelly Dahl). The second type is designated dispersed campgrounds. The third type is dispersed camping, which is camping that occurs outside of developed facilities.
- Some areas are appropriate for dispersed camping, and some areas are not according to the ARP Forest Plan.
- During their stewardship days, the USFS takes volunteers to break up fire rings and add natural barriers to prevent unauthorized dispersed camping.

Unit 52 Agreements

- Unit 52 should be treated as an old-growth development forest.
- Any trees with a DBH greater than 12 inches will not be cut.
- Conifer trees with a 12-inch DBH or less will be cut in aspen stands.
- In the ponderosa pine stands, treatments will prioritize removing lodgepole pine and Douglas fir trees with a 12-inch DBH or less. Some trees with a DBH of 12 inches or less will be removed in the ponderosa pine stands, but not all.
- The treatment will be implemented manually, which will leave boles with a DBH between 8 and 12 inches on the ground. The boles with an 8-inch DBH or less will be piled.
- The prescription will not treat existing surface fuels in Unit 52; only activity fuels will be piled.

UNIT 53 DISCUSSION

Meeting participants discussed their perspectives on treatments in Unit 53. Their comments are summarized below.

Stop 1

Stop 1 occurred next to a designated dispersed camping area in Unit 53.

Goals of the Unit 53 Treatment Discussion

- One goal of the prescription should be to make sure the aspen do not get overtaken by the ponderosa pine regeneration in the Unit. There were two suggestions for removing ponderosa pine regeneration: one was to remove regeneration up to a 2-inch DBH, and the other was to remove regeneration up to a 4-inch DBH.
- The bigger trees in the Unit are dropping seeds, but large trees outside of the Unit are also dropping seeds. So, removing the larger trees from the Unit may not have a big impact on preventing regeneration.
- In the overstory, there are large conifer trees with a DBH greater than 14 inches. These large conifer trees have aesthetic and social value for the nearby campers. Some of the conifer trees are clumping, but that clumping contributes to the visual effect of the Unit.
- A prescription that treats all conifers with a DBH of 14 inches or less would leave some bigger trees but would take out a lot.
- One proposal for the treatment is to take out smaller regeneration trees but leave the bigger trees (DBH greater than 12 inches). It may also be possible to leave some smaller and intermediate conifer trees and take out some larger conifer trees to create generational diversity.
- The primary goal of the treatment should be to restore aspen. Unit 53 is an aspen unit and should be treated according to the Decision Notice (DN). In the absence of fire, the number of aspen stands on the landscape is decreasing. One goal of the ARP Forest Plan is to promote aspen across the landscape.
- When the Winiger treatment occurred 20 years ago, they chose to leave the bigger trees to ensure the aspen are getting plenty of sunlight.
- The Winiger project treatment left many conifer trees on the landscape at the direction of the Preserve Upper Magnolia Association (PUMA). Although PUMA had a role in planning the Winiger project, a new ranger came in and changed the treatment, so PUMA did not have that much influence on the final treatment.
- The Winiger project treatment was light and did not accomplish a lot from the fuels perspective.
- Forsythe II has a variety of wildlife, fire, forest health, and social objectives. The Decision Notice (DN) formed the multiparty monitoring group to balance ecological and social values in the treatment design process.
- There is not a disagreement that it is beneficial to promote aspen stands on the landscape. The aspen stand in Unit 53, however, has special social and aesthetic values that should be maintained, and the prescription should include an exception for this aspen unit based on these social and aesthetic values. Treating the regenerating conifers with a DBH of 2 inches or less prevents the conifers from taking over the stand. This prescription is meant to balance keeping the aspen clones healthy while maintaining the special aesthetic feel. Taking out some of the smaller conifer trees would potentially decrease competition with the aspen trees and result in the aspen growing in height and diameter.
- Large trees are useful for wildlife, but so are aspen. Cutting conifers up to a 12-inch DBH would help promote aspen and maintain some of the larger trees for wildlife.

- One proposal for the treatment was to create a buffer around the campsite. As the treatment is implemented farther away from the designated camping area, the treatment would become more heavy-handed for conifer trees with a 12-inch DBH or less. This proposal would be beneficial for firefighting purposes. A fire coming up the hill through Unit 53 towards Magnolia Road would be slowed down by this treatment enough for firefighters to use Magnolia Road as a containment line to manage the fire.
- The regenerating conifers in Unit 53 present a fire risk to larger trees and may lead to some of the larger trees being torched.
- The proposal of creating a buffer around the campsite for treatment does not maintain the social and aesthetic values of the area. The aesthetic value comes from the whole area and not only the area immediately around the campsite.

Stop 2

Stop 2 in Unit 53 was alongside Magnolia Road.

Treatment along Magnolia Road Discussion

- A treatment along Magnolia Road would be beneficial for firefighting purposes because Magnolia Road would serve as a main holding line in the event of a fire.
- There is a lot of ground juniper located along Magnolia Road. Ground juniper is highly flammable and has a flame length that is doubled or tripled the flame length of dry grass. The flame length could be six to eight feet. In the case of a fire, the diurnal winds would be pushing the fire uphill towards Magnolia Road, and once the fire hit the ground juniper, it could transition from the surface to the canopy. More intensive treatments along Magnolia Road would help make the road a more effective fire control buffer.
- Ground juniper is a prolific species. Mowing ground juniper is not effective because it grows back quickly (approximately five to ten years). Trying to remove the ground juniper would also potentially result in damage to the ground.
- It is possible to burn ground juniper, but it would require frequent burns to control it effectively. It is also possible to burn piles in the ground juniper, but that will only create patches in the ground juniper and will not be enough to substantially reduce the fire risk. Fire crews would also be more comfortable burning the ground juniper if there was no overstory above it.
- Treating the conifer trees with a DBH of 12 inches or less above the ground juniper would break up the crowns and reduce the ability of ladder fuels to transition surface fires to the canopy.
- It would be helpful for MMG participants to walk the area alongside Magnolia Road to determine where the ground juniper is located exactly.
- The desired area to treat conifers with a 12-inch DBH or less would be either three-fourths or half of the distance between Magnolia Road and the dispersed campsite in Unit 53. Treating conifers in this area would prevent a fire that is being pushed uphill from diurnal winds from spotting on the other side of the road. If a fire crosses Magnolia Road, there will be significantly fewer good options for firefighters to fight a fire. When ground juniper burns, it can generate many sparks that could spot a fire on the opposite side of Magnolia Road.
- On the other side of Magnolia Road, there is not another Forsythe II unit. The land ownership is a mix of USFS and private landowners. The area has been treated in the past as a regeneration thin treatment. Currently, there is Douglas fir regeneration on the other side of the road. There was also a patchcut east of Unit 53 on the other side of Magnolia Road,

but the size of that patchcut is unknown. That patchcut may serve as an opportunity for firefighters.

- Field trip participants agreed to cut conifer trees with a 12-inch DBH above the ground juniper to create a buffer area. They did not decide on how large the buffer area would be for this prescription; some suggestions were half or three-quarters of the way between Magnolia Road and the designated dispersed camping sites.
- MMG participants will need to continue to discuss Unit 53 to come to more agreements on how to treat the rest of the unit beyond the area along Magnolia Road.

Unit 53 Agreements

The conifer trees near Magnolia Road will be cut up to a DBH of 12 inches with a focus on trees above the ground juniper. The size of the area between Magnolia Road and the designated dispersed camping site in which conifer trees with a DBH up to 12 inches will be treated is undecided. Some suggestions include half or three-quarters of the distance between Magnolia Road and the designated dispersed camping site.

UNIT 54 DISCUSSION

Meeting participants discussed their perspectives on treatments in Unit 54. Their comments are summarized below.

Stop 1

There was one stop in Unit 54 in a north-facing old-growth forest.

Unit 54 Mixed Conifer Old-Growth Forest Treatments Discussion

- Unit 54 is designated for manual treatment. Field trip participants agreed that this Unit will be treated manually.
- Old-growth development forests should have two different prescriptions: one prescription for north-facing slopes and another prescription for south-facing slopes. Trying to tailor prescriptions to more characteristics other than slope will make it difficult for USFS crews to mark.
- The proposed prescriptions apply to north-facing old-growth forests.
- In old-growth units, the prescription must maintain 40% of the overstory. This rule requires that the USFS maintain 40% of the overstory of the unit as a whole and does not apply to individual areas.
- There are practices and parameters required to maintain the character of the old-growth forest, including not removing more than 30% of a basal area. Because the Unit is being treated manually, the treatment cannot feasibly reach a 30% reduction in basal area.
- The old-growth forest in Unit 54 is a ponderosa pine and Douglas fir old-growth forest. Lodgepole pine trees in the Unit should be targeted because they do not contribute to the mixed conifer old-growth characteristics of the forest.
- Some goals of the prescription should be to thin the dense understory and maintain the snags in the forest. Another goal should be to take out some of the overstory to create space for burn piles to avoid scorching when the fire crews burn the piles.
- Scorching some larger trees would be beneficial to wildlife, especially cavity nesters, because scorching would create a variety of snags with different wood densities and sizes. Leaving and then intentionally scorching some lodgepole pine trees would be beneficial for some wildlife species.

- The Douglas fir and ponderosa pine trees have craggy, loose bark that is beneficial to wildlife. The lodgepole pine trees in the area do not have that type of bark, so the Douglas fir and ponderosa pine trees may have higher wildlife value.
- There are differing perspectives on whether the area is going to dry under changing climatic conditions or whether there will be both more extreme wet and dry conditions due to climate change. If the climate creates drier conditions, then the lodgepole pine trees in this Unit will naturally migrate out of the area and be replaced by ponderosa pine and Douglas fir trees. Since the Unit is primarily a ponderosa pine and Douglas fir old-growth forest, removing the lodgepole pine to reduce the density of the overstory and reduce ladder fuels will maintain the old-growth character of the forest.
- The prescription should prioritize retaining ponderosa pine and Douglas firs. If there is ponderosa pine regeneration that is acting as a ladder fuel to a larger tree, the ponderosa pine regeneration should be cut.
- Field trip participants agreed to occasionally take out a Douglas fir tree or lodgepole pine tree up to a 12-inch DBH to help retain the ponderosa pine trees. They also agreed to remove ladder fuels to the crown of ponderosa pine trees. They also agreed to prioritize retaining ponderosa pine and Douglas fir trees and remove lodgepole pine. The MMG will want to evaluate how many trees are being taken out when the field crews mark them.

Unit 54 Regeneration Thin Treatments Discussion

- The community prescription proposal includes the idea of thinning in patches to create alternating patches of thinned areas and denser, untouched areas. Thinning conifer involves treating conifers with a 4-inch DBH or less.
- A prescription that exclusively thins from below will not create the gaps necessary to pile and burn activity fuels without scorching trees. Treating trees up to a 4-inch DBH will create the gaps needed to pile fuels and not scorch trees.
- Unit 54 is surrounded by private land and non-treated areas, so it is less necessary to create wildlife islands, like what was done in Unit 9. It would still be beneficial to maintain some small regenerating trees because that is part of the old-growth character. If regenerating trees are removed, they should be done where they act as ladder fuels underneath larger trees. When there are ladder fuels underneath a larger tree, the options are either to remove the ladder fuels or the larger tree.
- Removing only some of the regenerating trees up to a 4-inch DBH would create heterogeneity and achieve aesthetic, structural diversity, and wildlife objectives.
- Field trip participants agreed to cut regenerating trees up to a 4-inch DBH. The treatment should maintain a few small clumps of regenerating trees while focusing on taking regeneration from underneath larger trees.

Unit 54 Aspen Treatments Discussion

- There are many small aspen aggregations in Unit 54. Applying the 30-foot buffer around the aspen aggregations in this Unit would make most of the conifers in the Unit eligible for cutting.
- Promoting aspen by taking out the regeneration would be beneficial for wildlife that munch on the aspen leaves. Taking out some of the regenerating trees in the aspen stands would also remove potential ladder fuels.
- Field trip participants agreed to take conifer regeneration out of the aspen clumps and allow aspen to expand but with a barrier to that expansion.

Unit 54 Surface Fuel Treatments Discussion

- The surface fuels in Unit 54 create subnivean space for wildlife.
- From the fire perspective, fewer surface fuels would be beneficial. If much of the understory is treated, then the surface fuels are less of an issue. In areas where the understory is not treated as heavily, the prescription should include surface fuels treatment.
- Surface fuels are a key characteristic of an old-growth forest, especially when the surface fuels are decaying into the ground. A surface fuel treatment should only pile loose surface fuels and not the surface fuels that are decaying into the ground.
- The heat from burn piles near young trees can sometimes impact their roots and kill the whole tree.
- The downed material supports moisture retention for native plants and helps prevent noxious weeds from proliferating.
- The treatment will involve piling and burning most of the activity fuels, with some being left on the ground after treatment for wildlife and moisture retention.
- There should be a buffer around each burn pile in which they will treat surface fuels. The field trip participants agreed the only existing surface fuels treatment that will occur in the Unit is around burn piles. Kevin Zimlinghaus, Chad Buser, and Aurelia DeNasha will come up with specifications on the size of the buffer and to what size they will treat existing surface fuels around piles in Unit 54.

Unit 54 Agreements

- For north-aspect old-growth forests in both Units 54 and 55, the field trip participants agreed to:
 - Treat manually.
 - Take out lodgepole pine trees and prioritize retaining ponderosa pine and Douglas fir trees.
 - Take out the occasional lodgepole pine and Douglas fir tree up to a 12-inch DBH around ponderosa pine trees and remove ladder fuels underneath ponderosa pine trees.
 - Cut regenerating trees up to a 4-inch DBH while maintaining some small clumps of regenerating trees and focusing on removing ladder fuels.
 - Take regenerating trees out of aspen clumps and allow aspen clumps to expand but leave a barrier.
 - Treat existing surface fuels around piles to a certain specification.
- The agreed-upon prescriptions for Unit 54 also apply to north-facing old-growth forests in Unit 55.

UNIT 80 DISCUSSION

Meeting participants discussed their perspectives on treatments in Unit 80. Their comments are summarized below.

Stop 1

Stop 1 was along the road located in Unit 80.

Step Transect Data Discussion

- The step transect data that the USFS collects gives information on the overstory and understory composition based on tree size and tree species.

- The USFS collects step transect data in two plots per acre. They collect information on the different species and tree sizes in the overstory and understory. They also measure the basal area of a unit using the step transect data.
- When the USFS collects step transect data, they do not mark the exact location of their plot. When they return to collect post-treatment data, their plots will not be in the same location.
- The USFS collects step transect data to determine if they have reached the objectives outlined in the DN. For example, if the post-treatment step transect data indicates that areas of mid-sized trees moved to bare ground, then they can show that they removed ladder fuels. The data is also used to compare how the different types of treatments affect the species composition.
- The differences between the pre- and post-treatment step transect data are starker when the treatment is implemented mechanically.
- The step transect data also builds an understanding of what is in the unit. The USFS does not want to rely on common stand exams to design and implement treatments. The step transect data better characterizes the whole unit.
- A recommendation for the future is to try to collect step transect in the same plots before and after treatment. Not collecting data in the same plots increases the margin of error. For the purposes that the USFS uses the data, the current method is acceptable.
- According to the step transect data, approximately 30% of the Unit had aspen trees in its overstory. The remainder of the overstory was conifer trees of various size classes. The forest in Unit 80 is a mixed conifer unit, but the approximately 30% of the Unit with aspen in the overstory indicates there is an opportunity to promote aspen.
- Of the existing overstory, aspen trees make up 38% of the overstory, ponderosa pine makes up 19%, lodgepole pine makes up 10%, and Douglas fir makes up 33%.

Unit 80 Aspen Treatment Discussion

- A proposal for the prescription is to take conifer trees with a DBH of 14 inches or less in aspen aggregations.
- In areas where there is an aspen understory, the aspen should be promoted. The treatments would apply in areas where there is an aspen understory and a small sawlog (8-inch to 12-inch DBH) or pole (5-inch to 8-inch) conifer overstory. Small sawlogs represent 19% of the overstory. Since 10% of that 19% has an aspen understory, the prescription would remove conifers in that 10% of the sawlog overstory. The treatment would leave the additional 9% of the sawlog overstory on the landscape.
- It would be helpful to see a map where the aspen boundaries are delineated to ensure that the area where aspen treatments will be applied does not extend far beyond 40% of the Unit, per the step transect data.
- Aspen treatments along the road corridor will be beneficial for firefighters and those who are using the road as an ingress and egress. There is a section of Unit 80 that also has ground juniper along the road that should be treated.
- The field trip participants agreed to promote aspen and cut conifer trees up to a 12-inch DBH in aspen aggregations except for limber pine.
- Field trip participants agreed that the surface fuels should be piled in the aspen treatments. However, not all of the surface fuels should be piled in the aspen treatment, and some should be left to benefit wildlife. The USFS will need to develop the specifications for how to treat surface fuels in Unit 80 (e.g., pile everything with a DBH of 4 inches or less).

Unit 80 Mixed Conifer Treatment Discussion

- In the areas where the mixed conifer trees are the primary tree in the overstory and understory, one proposal is to thin conifer trees up to a 12-inch DBH. Thinning the conifer trees will involve taking out trees of different size classes and species to maintain the forest structure.
- The field trip participants agreed to treat the mixed conifer components (mixed conifer overstory/understory) of Unit 80 in the same fashion that they will treat old-growth north-facing forests in Unit 54.
- There were differing perspectives on whether treatments will increase or decrease moisture in the area to support vegetation that prefers wet conditions, like maple trees. One perspective is that treatments will increase the amount of direct sunlight to the ground and decrease moisture. Another perspective is that conifers are taking precipitation from the ground and canopy, and removing them would theoretically increase moisture. The impact of treatments on moisture availability is complex and not something for the MMG to address in their prescriptions.
- The treatment will only cut conifers, so the maple and long-leaf cottonwood trees will not be cut.

Stop 2

Stop 2 was located on the road at the boundary of Unit 80.

Firefighting and Fuel Terminology Discussion

- The canopy of the stand adjacent to stop 2 did not have many gaps, which would make it difficult for firefighters to stop a canopy fire.
- Patchcuts along the road can create open spots for firefighters.
- When fire crews are fighting a fire, they use different terminology to categorize the open areas from which they can fight fires.
 - Deployment zones are areas where there are no gaps and where the fires cannot reach firefighters. In deployment zones, firefighters can deploy fire shelters to protect them if they are caught in a fire. Deployment zones have to be at least two times taller than the fuel height (i.e., an area with 50-foot trees would need a clearing of 100-feet to be considered acceptable for a deployment zone).
 - Staging areas are areas where firefighters are going to pile resources until they are ready to engage a fire. There is no threat of wildfire in these areas. The Twin Sisters meadow would serve as a marginally good staging area.
 - Safety zones are areas where firefighters could be safely located in the middle of a fire without worries of being burned or suffocated. The standard for a safety zone is that the clearing should be eight times the fuel height and on flat ground. For conifer stands, a safety zone should be sixteen times the fuel height. In the Forsythe II area, there are almost no safety zones. When firefighters enter into an area, they plan their escape routes to the nearest safety zones. In Forsythe II, this means that firefighters would need to plan an escape route to Twin Sisters, which would be the closest safety zone.
- If Magnolia Road is considered a primary holding line, the purpose of the treatments is to create secondary and tertiary holding lines to slow down a fire before it reaches the primary holding line. Treating fuels along the road helps reinforce the road as an ingress and egress as well as a holding line. The patchcuts and aspen treatments are not enough to manage a fire on its own, and they are not the appropriate size for a fire safety zone.

- The utility of the treatments depends on the intensity of the fire. The tradeoff of intensely treating the forest should be put in relation to the risk and intensity of a fire. At some point, small fire breaks will not matter against the most intense fire. With intermediately sized fires, the treatments might have more of an impact. With ground fires, large safety zones, like the Twin Sisters meadow, are not necessary.
- The purpose of the fuel breaks is to help firefighters in the case of a severe fire. If there are fuel breaks between primary holding lines, firefighters can use those breaks to build holding lines.
- There are differing perspectives on the level of dryness in the Nederland area. One perspective is that the Nederland area is experiencing an extremely dry season. Another perspective is that there are several microclimates in the Nederland area, including along Magnolia Road, where some areas are drier than others.
- There were differing perspectives on whether the current treatments are reaching fuel objectives. One perspective is that considering the size of the clearing needed for safety zones, the treatments are not achieving the fuels objectives. Another perspective is that treating for the most extreme fires impacts other social and aesthetic values.

Unit 80 Agreements

- The prescription will include treating conifer trees with a DBH of 12 inches or less in aspen aggregations. The MMG should have a clear understanding of the aspen boundaries and treatment size to understand the extent of the aspen treatments further.
- The surface fuels will be piled in the aspen treatments with some component of the surface fuels being left for wildlife.
- The treatments in the component of the Unit with a mixed conifer overstory and understory will be treated in the same way as the treatments on north-facing old-growth forests in Units 54 and 55.

NEXT STEPS

- The next MMG meeting is on Wednesday, July 22, from 5pm to 8pm. At that meeting, the MMG will be discussing the treatments and points they agreed upon on the field trip.
- The MMG will need to discuss the treatment on south-facing old-growth forests during the meeting on July 22.
- The field trip participants agreed that the USFS marking crew can start flagging the boundaries of Units 52, 53, 54, 55, and 80. They may also flag the boundaries between north- and south-facing slopes to help guide the marking crew.
- The USFS will begin marking by using flags, but if the flags begin to disappear, they may need to paint the trees.