

Forsythe II Multiparty Monitoring Group (MMG)
December 9, 2019, 5:00 PM to 8:00 PM
Nederland Public Library
200 CO-72, Nederland, CO 80466
Meeting Summary – FINAL

ATTENDANCE

Participants: Paul Alaback, Teagen Blakey, Chad Buser, Marin Chambers, Tania Corvalan, Aurelia DeNasha, Mark Foreman, Angie Gee, May Jarril, Alex Markevich, Mark Mendonca, Yvonne Short, Susan Wagner, and Kevin Zimlinghaus

Facilitation: Heather Bergman and Samuel Wallace

ACTION ITEMS

Kevin Zimlinghaus	<ul style="list-style-type: none"> • Update Samuel Wallace and Heather Bergman during weekly US Forest Service (USFS) calls when there are major updates (e.g., changes to treatments, changes to unit designations, completion of flagging). • Add a column to the master list to track whether the MMG has been informed of any changes or updates.
Angie Gee	<ul style="list-style-type: none"> • Evaluate the USFS internal procedures related to the pre-work meeting between the contracting officer representatives and contractors to generate a list of ideas to improve communication about contract specifications and details. • Share contracts for phase 3 and 4 treatments with Peak Facilitation to share with the MMG. • Consider how, when, and where the MMG can jointly flag and design units at future meetings. • Report to the MMG once the USFS knows more about a possible contract renewal with Denver Water.
Marin Chambers	<ul style="list-style-type: none"> • Research and report to the MMG about how tons per acre relates to the depth of lop and scatter slash (in inches). • Select pictures to illustrate different amounts of slash in tons per acre to demonstrate concepts like fire risk and nutrient cycling.
Aurelia DeNasha	Contact the elk collaring study's lead researcher to understand why there was a decrease in the number of observed elk between 2015 and 2016.
MMG Participants	<ul style="list-style-type: none"> • Share feedback on phase 3 and 4 treatment contracts by January 4. • Send Aurelia DeNasha updates about any elk herds congregating in a certain area for a couple of days. • Prepare for a conversation about delaying wildlife units by identifying what units they would like to see included in the next phases of Forsythe II.
Susan Wagner	Notify community members about the option to inform Aurelia DeNasha about any elk herds congregating in a certain area for a couple of days.
Peak Facilitation Group	<ul style="list-style-type: none"> • Send out major updates (e.g., changes to treatments, changes to unit designations, completion of flagging) to the entire MMG when they occur and update the master list. • Send out a Doodle to determine an alternate day for meetings if the primary meeting is cancelled.

	<ul style="list-style-type: none"> • Share phase 3 and 4 contracts with the MMG to review. • Prepare and distribute the meeting summary.
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DISCUSSION ABOUT THE IMPLEMENTATION OF TREATMENT SPECIFICATION CONCERNS

MMG participants discussed concerns related to the implementation of treatment specifications in the regeneration thin units. Their comments are summarized below.

- Prior to the meeting, members of the Magnolia Forest Group shared their concerns related to the implementation of treatment specifications via email. USFS staff responded via email with information on how mistakes were made and potential suggestions on how to reduce errors in the future.
- Some participants said that they had concerns about the role of the monitoring group and whether the feedback from the MMG will be respected and regarded going forward. At previous meetings, concerns were not addressed to a satisfactory degree. Additionally, some participants said that when they monitor a treatment and identify differences between the implementation and the details of the prescription, they are not sure if their feedback is acknowledged.
- In the past, the MMG had to decide what type of monitoring group they wanted to be. They chose whether they wanted to monitor the design, implementation, or post-treatment conditions. They chose to be a group that monitors the design and implementation of treatments. The conversation that the group has had related to the implementation of treatments is in alignment with the role they chose.
- Some participants said they recognized and appreciated the evaluation and feedback from the USFS staff and their acknowledgement of where the treatments could have been implemented differently.
- Some participants said that the concerns can be divided to higher-level issues and more specific issues with the implementation of specific units. They stated that MMG participants need to address the broader context to minimize problems. Although treatments will never be perfect, the number of errors in the past couple of months has not been acceptable to some MMG participants.
- When the MMG first formed, the Arapaho-Roosevelt National Forests forest supervisor and the deputy regional supervisor made commitments to pursue meaningful community engagement. The USFS is acting to honor and execute that commitment.
- The USFS has not met several commitments that they have made. The USFS said they would implement a rule in which the USFS would cut up to 30 feet from an aspen aggregation, and they would revisit Units 5, 7, and 8 to apply that rule. There was also a commitment to having a USFS contracting officer’s representative (COR) at each unit before cutting begins. The USFS also committed to allowing MMG members to review contracts. Some participants stated that they know it was not the USFS’ intention to fail to keep these commitments, and that problems often stemmed from other people who are on the ground implementing the treatments who are not aware of the commitments or do not take them as seriously as others. There may be a difference of opinions on how to implement a treatment, or staff may be too busy. One solution is to articulate the seriousness of the USFS’s commitments to all staff and contractors.

DISCUSSION OF IMPLEMENTATION IN THE REGENERATION THIN UNITS

MMG participants discussed the implementation of treatment specifications in the regeneration thin units. Their comments are summarized below.

- Some participants had specific concerns about treatments in the regeneration thin units where the specifications set by the prescription were not met, in part because the piles of

the slash took up space where trees could have potentially been left standing. Some participants said there could have been other solutions, such as piling slash around the treatment area. Because of the wide-spacing, some MMG participants are concerned that the regeneration from the thinning will be dense. Other participants said that they decided not to make piles outside of the unit boundary because there were limber pine and other trees that the USFS did not want to bury with slash piles in an effort to promote diversity.

- In the regeneration thin units, the USFS did not achieve the commitment that they had made to have a COR present at the beginning of each new treatment.
- Contractors have to complete treatments within a performance period, and it is common for contractors to come and go during this period. In this case, the contractor had contacted the COR on the Saturday before the work began, and the crew foreman and the COR met, went to the units, and discussed the work that needed to be done. The foreman said that a second foreman was also going to be overseeing the treatment. The COR had a doctor's appointment and could not be at the unit immediately before the cutting began.
- There was another COR who was overseeing the unit implementation that morning. By the time the COR hiked into the unit, the contractor had already cut the first two regeneration thin units, piled the first regeneration thin unit, and was in the process of piling the second unit. The COR who was present told the foreman that the crews had to bring their spacing in as the average spacing was greater than 12 feet. The COR then saw the foreman talk with the crews.
- The COR then hiked to the units where the second foreman was operating, and by the time the COR reached the second foreman, the contractor was finishing cutting their second unit. The COR then stayed with the second foreman and crew for the remainder of the day. The COR with the doctor's appointment was able to join later in the day to oversee the treatments.
- Some participants noted that the crews worked quickly and were spread out throughout the unit. The speed of the treatment makes it more difficult to communicate and change what crews are doing. In treatments that take multiple days, it is much easier to provide feedback and have crews change their practices.
- When the USFS awards a contract, they identify a COR as a point of contact for the USFS and the foreman as a point of contact for the contractor. The COR can talk with the foreman, but the COR cannot directly give directions to the contracting crew.
- As a part of the Forsythe II project, there are no more regeneration thin units identified. However, there may be pockets of regeneration on the landscape where the MMG will decide as a group to treat it like a regeneration aggregation. Under these circumstances, the MMG will have to revisit how to make sure that the treatment specifications are followed properly. Some ideas include MMG participants jointly flagging any future regeneration aggregations to give a contractor a sense of the spacing.

Clarifying Questions

MMG participants asked questions related to the implementation of treatment specifications in regeneration thin units. Questions are indicated in italics with corresponding answers in plain text.

Would both CORs have been present that day if both had been available?

The USFS delegates inspectors and CORs with some authority over the contract. Only one of the CORs had a specific delegation, and the other one was technically a harvest inspector. Normally, there would only be one individual overseeing the treatments; however, because Forsythe is the only contract in the area, both were able to be out there by the end of the day.

Is there a foreman always present with the crew during a treatment?

When crews are working, there is a foreman present more than 90% of the time. The foreman is there to communicate with crews about the specific work to be done. The foreman also has a copy of the instructions.

In Unit 82, a regeneration thin unit, the contractors took out the healthiest trees and left some large mistletoe-infested trees. What instructions does the COR give to the foreman about contract details? How does the COR communicate with the foreman (e.g., verbally, with visual aids, etc.)?

Much of the communication between the COR and contractor happens in the pre-work meeting. Having visual aids may be helpful to demonstrate physical characteristics of the unit, like mistletoe infestations or tree species. Normally, when the contractor begins implementing a contract, a COR or harvest inspector will stay with the contractor to answer any questions. As the contractor becomes more familiar with a contract, the COR will spend less time with the contractor except under special circumstances. The COR is also not there when the foreman briefs the crew.

Did the COR reference the written contract when they identified that the spacing was too wide?

To the knowledge of those in the meeting, the COR referenced the contract specs.

Did the USFS know in advance that the contractor would arrive with two teams? If so, did the USFS consider having two people available for two crews, especially since the regeneration units are so small?

The USFS did not know in advance that there were two crews coming until the Saturday when the COR talked with foreman.

When the COR knew he would not be available to oversee the contractors when they began the treatment, was the COR aware of the seriousness of the commitment between the USFS and the MMG?

When the COR knew he could not be available when the contract began, there was a conversation among the CORs and USFS staff, which did not include the Boulder District Ranger, who still takes responsibilities for not achieving the commitment made to the MMG. Since then, the USFS has had an internal conversation about how they failed to follow through on their commitment. In a circumstance where the USFS cannot achieve this commitment, they will share that information with the MMG.

DISCUSSION OF IMPLEMENTATION IN THE ASPEN UNITS

MMG participants discussed the implementation of treatment specifications in the aspen units. Their comments are summarized below.

- Some participants said that in Unit 5, an aspen restoration unit, the contractors removed extremely large Douglas firs with a diameter at breast height (DBH) greater than 14 inches. Next to those large trees that were removed, there were dead trees that the contractors did not remove. Some participants also noted that some of those Douglas firs were not close to the aspen aggregations.
- In aspen units, the specifications detail that the USFS will treat the trees within a 30-foot buffer around the aspen aggregation up to a certain DBH.
- The extra one and half acres that were cut as a result of cutting too many conifer trees around the aspen aggregation will be counted towards the total treatment acres of Unit 2.
- Similar to the strategy of flagging any regeneration thin aggregations, there may be an opportunity for MMG participants to flag the remaining aspen units to identify the conifer trees that are around the diameter at breast height (DBH) limit and to identify the 30-foot buffer around the aspen aggregation.

- Angie Gee will consider how the MMG could jointly flag units of high concern, what units that strategy might be advantageous (i.e., units with unusual treatment specifications), and when they could mark those units.
- The regeneration thin units were the only ones that required contractor interpretation. Moving forward, the mixed conifer units will be marked by USFS crews. Lodgepole pine clearcuts will not be marked as the operators will be able to distinguish the species of trees by the bark. The USFS will also not use blue and orange flags in the same contract to indicate take versus leave trees.

DISCUSSION OF COMMUNICATION BETWEEN THE USFS AND CONTRACTORS

MMG participants discussed ways to improve the communication between the USFS and contractors. Their comments are summarized below.

- Some participants shared concerns related to how the USFS selects and communicates with contractors. MMG participants should think of ways to improve communication and training with the treatment crews on how to implement the prescriptions.
- Some participants stated that there are reoccurring issues with how the USFS communicates with contractors about treatment specification details and then how contractors and foreman and crews communicate among each other. One place in which there seems to be an opportunity to improve communications is during the pre-work meeting, which is largely dedicated to discussing the legal aspects of the contract and the signing of paperwork. The standard practice in those meetings is for the COR to review the specifications with the foreman and contractor, especially if the treatment is unusual.
- In the prework meetings, the COR does not always discuss the tree species because there is not a large variety of species in the Forsythe II area. The CORs did emphasize the importance of not cutting limber pine. If there was a limber pine that was accidentally cut, the USFS can take responsibility as they were the ones who marked them.
- Some participants said that the USFS should review their internal procedure to determine ways to better communicate to contractors and foremen during the pre-work meeting and update the MMG on different ideas to improve that process. It would be helpful if the USFS clarified the procedure.
- Some participants said that they would like to review the contracts as a group to strategize ways to improve communication around contract details considering that contracts have different levels of complexities, and contractors have different levels of experiences.
- Reviewing the internal procedure of the pre-work meeting will likely take a couple of months as the USFS drafts the next contracts, sends them out for bid, and determines who will likely be awarded the contract. Angie Gee will evaluate the USFS internal procedures related to the pre-work meeting between the CORs and contractors to generate a list of ideas to improve communication about contract specifications and details.
- After the pre-work meeting, the USFS provides further instruction to crews in the field. CORs and harvest inspectors will be on-site with measuring tape to determine whether the crews are meeting treatment specifications.
- There was a suggestion that the contract require the USFS be present with the foreman before the crews start cutting. This suggestion would likely not be possible to implement because the USFS cannot guarantee that they will have the capacity to follow through on that legal term. Although the USFS can currently have CORs present at the beginning of new treatments, there may be a time when there are multiple ongoing contracts that outpace the capacity of the USFS staff to be present at the beginning of every new treatment.
- There are times when it is difficult for CORs to keep up with the pace of the contractors and their crews. CORs tend to focus on communicating with the foreman at the beginning of a

new contract, and over time, directly oversee the foreman and crews less as they become more familiar with the treatment specifications. Considering that many of the units in Forsythe II are small and will likely take only one day to implement, it is important that the treatment specifications be communicated clearly at the beginning.

- When units are small (less than a half-acre in size), crews will spread out for safety reasons. There are also some crew members cutting and piling. At the beginning of implementation, the foreman will pay more attention to those cutting, and as the treatment goes on, the foreman will start to give more attention to the piling crews.
- CORs can only communicate with the foreman who relays the message to the crew. If the CORs are directing crew members, contractors can file a claim against the USFS saying that the CORs are distracting crew members, which increases the time to implement the project. Instructions have to follow the chain of command.
- There was a question about whether marking the first units with contractors to set expectations for contractors could improve implementation. Marking the first units of a contract may improve the crew's ability to follow specifications, but it depends on how many trees are in the unit and the variation of trees in the unit. The practice of thinning is fairly standardized in lodgepole pine regeneration stands; crew members look for the lodgepole pine showing dominance and then remove the other trees to the correct spacing. The Forsythe II regeneration thin units were fairly homogenous and only represented 17 acres of the 450 acres of the contract. Some participants said that the USFS should have placed more importance on these units knowing the commitments the USFS made to the MMG.
- The benefit of take marking is that there is no interpretation required for the contractor. Some participants said that they trust that the USFS crews will mark trees correctly more than they trust that the contractors will implement the treatment to specifications. Some participants said that there should be take markings in most units moving forward.
- When a contractor violates a contract, the contracting officer (CO) decides what the penalty will be. For example, in the Unit 46 mistake, the contractor was penalized by only being paid 50% of their award.
- The CO works for the acquisition management team, which is a part of the USFS National Office, not the Regional Office. The CO for Colorado is based in Fort Collins, and the CORs act on her behalf.

DISCUSSION OF INTERNAL COMMUNICATION WITHIN THE MMG

MMG participants discussed how to improve internal communications within the MMG when there are changes to the prescriptions or other updates. Their comments are summarized below.

- There is a question about the master stand list, which is a list that tracks the unit treatment designations and status, and what role it should play in communicating changes.
- In 2018, there were three regeneration units that were re-designated as aspen restoration units in the master list. However, those units were still treated during phase 1 as if they were regeneration units. The treatment of the restoration aspen units occurred because the USFS was not fully tracking the change from the master list to the on-the-ground flagging. There were other changes in the master list, of which MMG participants were not verbally informed.
- Some participants said that the master list can be a useful tool, but there needs to be updates more frequently to make it relevant. Some participants said that the USFS should update the master list depending on the pace of work (i.e., update it more frequently in the summer during the implementation season and less frequently in the winter when there are

fewer changes). Some MMG participants said that they do not expect the master list to be updated weekly or daily.

- There is a timestamp on the Forsythe II MMG website next to the master list link that indicates when the master list was last updated.
- One potential process to facilitate internal communication is for the USFS staff to send updates to Heather Bergman to forward to the rest of the MMG. The USFS staff will then update the master list to send to Marin Chambers to update on the website. In this case, MMG participants will receive emails more frequently.
- Some participants said that there should be verbal communication when there are changes to treatments, not only changes indicated in the master list. However, it is helpful to have both verbal communication and an update to the master list.
- Some participants said that the USFS should add a column to the master list to indicate whether a change has been discussed with the MMG.
- Some participants said that there are capacity issues, and it is important to consider how realistic it is for the USFS to update the master list frequently.
- Some participants said that emails do not have to be sent out for small changes. Major changes of which some participants said they would like to be informed included switching treatment designations (i.e., like when Unit 85, 86, and 100 were changed from regeneration thin to aspen restoration) and substantial changes to the treatment design (i.e., when Units 3 and 4 were switched from manual to mechanical treatment).
- Some participants said that there should also be updates for time sensitive actions, like when USFS crews complete the flagging of a unit and MMG participants only have a limited window to evaluate the flagging. In the case of these changes, the master list should be updated on a weekly or biweekly basis.
- When USFS crews are marking units, they often have multiple ongoing tasks. It can sometimes take a crew four weeks to mark one unit. In the past, USFS staff have focused on updating the master list more quickly when the crews have finished marking the units.
- When it is important for the USFS to update the MMG in a quicker timeframe, Kevin Zimlinghaus can update Samuel Wallace and Heather Bergman on their weekly call to send an update to the MMG.
- The changes made in Unit 3 have not been incorporated into the master list yet as the unit has been delayed. The master list will be updated once the MMG is ready to move forward on that unit.

DISCUSSION OF ELK COLLARING STUDY

MMG participants discussed an upcoming elk collaring study and its impact on the treatments in Forsythe II. Their comments are summarized below.

- A collaborative research team between Boulder County, USFS, US Fish and Wildlife Service (USFWS), and Colorado Parks and Wildlife (CPW) is preparing to conduct a study to monitor an elk herd that travels between Clear Creek County and Boulder County. The study will use collars to track the movement of the elk herd over the next five to seven years until the collars stop transmitting data.
- The research team has already awarded a contract and will be putting collars on the elk from December to April. The plan is to put collars on 41 elk, including five specifically designated for the Magnolia elk herd. They expect to start gathering data in the spring. They will also release an annual report about the data collected.
- As the research team begins to put collars on elk, MMG participants and members of the Nederland community should notify Aurelia DeNasha if there are elk herds congregating in a certain area over several days. Susan Wagner will notify the community through the

Magnolia Road community listserv about the option to contact Aurelia DeNasha about any congregating elk herds.

- There have been other successful elk collaring studies, like in the Sulphur Ranger District, which helped identify a narrow corridor where the elk herd moves consistently.
- It is difficult to interpret one year of data in a meaningful way. One year of data only describes how the elk herd moved that year, which could be dependent on unique factors like weather conditions. More data collected over multiple years is needed to develop a full picture of an elk herd's migration patterns. The researchers would like to have at least three years of data to develop a more robust picture of the elk migration patterns and to identify movement corridors.
- Drawing conclusions from two years of data would be difficult, especially if the data does not align year to year. Researchers also do not want to draw the conclusion that because an elk herd moved through one area in a year, that the herd will not migrate through other areas in a different year.
- This study is only the first of hopefully many studies. The ideal situation would be for this study to help researchers understand where there is a need for more data and funding.
- Besides understanding migration patterns and corridors, the study will also provide data on the ratio of young to old and male to female elk.

Clarifying Questions

MMG participants asked questions related to the elk collaring study. Questions are indicated in italics with corresponding answers in plain text.

In a copy of CPW's study plan, there appears to be a large die-off of elk in 2016 as the number of elk observed between 2015 and 2016 decreased dramatically. What happened in 2016 to the elk herd?
This drop in the number of observed elk in 2016 may be related more to a lack of funding, which disrupted the study methodology, than an actual die-off. Aurelia DeNasha will contact the study's lead researcher to gather more information on why there was less elk observed in 2016.

One of the objectives of the study is to understand movement corridors in relation to recreational trails, elk conflicts, and highway construction. What results will this study produce that will help understand how elk use different habitats in relation to land use practices across the landscape?

- The study will not only allow the researchers to see where the elk are moving, but it will also help them calibrate the flight data so researchers can use aerial photography to see what is happening on the ground more specifically.
- Researchers want to use the data to help inform land use practices. The data that researchers collect will not necessarily lead to a decision that prohibits all treatments; instead, agencies can use the data to determine when and how to implement a treatment to the benefit of elk. For example, the strategy in Forsythe II to leave retention islands across the landscape helps elk move across the landscape.
- Human uses may be influencing where elk move and may be habituating them, but the comprehensive effect of humans on elk is undetermined.

How could the information from this study influence the decisions of the MMG?

- That is a difficult question to answer without the data. The way that the USFS forester and wildlife biologist are currently developing treatments is working. Since the data will not develop a complete picture for several years, postponing units may not be the appropriate response. However, if data collected over the next several years indicates strong results, the MMG can adjust their recommendations accordingly.

- Some participants said that the Twin Sisters (Unit 77) and Boy Scout Trail areas are important to community members because of the wildlife that use those areas. There is a desire to postpone treatment of those areas so that the data can inform the treatments. Other participants said that having complete data from the elk collaring study may not be necessary if the USFS wildlife biologist continues to gather on-the-ground information from community members to inform treatments. Community members have shared information on concerns in the Twin Sisters area, which the USFS staff is now discussing to potentially re-work treatments within the interior and old-growth forest to make the habitat work for various wildlife species. Postponing the units may not be the answer as much as tweaking and refining the treatments.
- Some participants said that a problem with postponing units is that it will take the MMG longer to achieve the conditions necessary for broadcast burning.

Do different treatments have different impacts on elk?

It depends on the area and habitat. Elk are not always the target species. For example, in interior forests, treatments would not be designed for elk; instead, the design would be targeted towards martens and birds from a wildlife perspective.

DISCUSSION OF THE TIMELINE FOR TREATMENTS USING DENVER WATER FUNDING

MMG participants discussed the timeline for Forsythe II treatments within the context of the agreement for funding between Denver Water and the USFS. Their comments are summarized below.

- The timeline for the Forsythe II project over the next several years is as follows:
 - 2020
 - Implement phase 2, 3, and 4 treatments (note: there are some phase 2 treatments that were delayed from 2019 to 2020 because bids were too expensive)
 - Layout treatments for phases 5 and 6
 - Year 1 of collecting elk collaring data
 - 2021
 - Implement phases 5 and 6
 - Layout phases 7 and 8
 - Current five-agreement between Denver Water and the USFS expires
 - Year 2 of collecting elk collaring data
 - 2022
 - Implement phases 7 and 8
 - Year 3 of collecting elk collaring data
- Denver Water provides funding for the Forsythe II project and has certain expectations on what will be achieved from the project. There is a five-year agreement between Denver Water and the USFS that expires in 2021.
- Denver Water funds forestry projects to reduce the risk of catastrophic wildfire which ultimately decreases their costs. After a catastrophic wildfire, sediment enters into waterways, which impacts water quality, reduces the storage capacity of reservoirs, and weakens dam infrastructure. For example, Denver Water spent \$18 million dollars dredging Strontia Springs Reservoir with little success.
- Whether or not the Gross Reservoir expansion occurs does not influence Denver Water's interest to protect the reservoir or the agreement.
- The funding from Denver Water can only be spent in Denver Water's zones of concern, in which Forsythe II is located.

- The USFS is going to engage with Denver Water about extending the agreement or signing a new agreement. Those conversations are just starting, and it is uncertain what the results of those discussions will be. The USFS can report to the MMG once they know more about the agreement negotiation with Denver Water, which may take months.
- The funding from the current agreement between Denver Water and the USFS is enough to complete all of Forsythe II by 2021, including activities like pile burning and managing invasive weeds, provided that the bids are not very high. Without the Denver Water funding, the USFS will have to find other sources of funding to complete Forsythe II.
- Some participants said that they do not want to lose the funding from Denver Water to complete Forsythe II.
- The USFS pays for contracts as soon as they are awarded. Hypothetically, this means that the USFS could award a contract in 2021 for work to be completed in 2022 using funding from the current Denver Water agreement. However, it is more common for the contract to be awarded the same year that the work is completed unless the contract is for multiple years of work.
- For prescribed burning, the USFS staff will be conducting the burns. When funding from the Denver Water agreement is used to fund USFS staff, the USFS spends it as they go. The USFS cannot allocate any of the funding from the Denver Water agreement for burning activities past 2021 because USFS staff are overseeing the burns, not contractors.
- Some participants expressed concerns that if the Denver Water agreement expires in 2021 and there are piles left on the ground, then there will not be the funding to burn those piles. The fact that more time is needed to burn piles could be a point to advocate for an extended or renewed contract with Denver Water.
- There may be the potential for Denver Water to expand the zone of concern, which would be beneficial to the Forsythe II project as it would allow the Boulder District to achieve acreage results by implementing treatments in areas outside of Forsythe II.

DISCUSSION OF ACREAGE COUNTING METHODOLOGY

MMG participants discussed how the USFS counts and reports acres. Their comments are summarized below.

- It would be difficult to delay wildlife sensitive units while also meeting the desired acreage results of Forsythe II over the next couple of years. It is also difficult to determine any remaining units that are not wildlife sensitive.
- The USFS sets certain targets for the number of acres that they would like to accomplish in a year. Each ranger district is expected to contribute to the total acreage goal of the National Forest. Currently, the only forestry project in the Boulder Ranger District is Forsythe II, so there are no other projects from the Boulder Ranger District to draw from to contribute to the total Arapaho-Roosevelt National Forest acreage targets. The acreage target for the Boulder Ranger District for 2020 is around 820 acres.
- The USFS's counts treated acres every time they engage in an activity in an acre, even if the activities occur in the same acre. For example, if the USFS treats an acre manually, they report that acre twice: first when they cut the trees and second when they pile the trees. In 2019, the Boulder Ranger District treated around 465 acres, but they reported around 1,000 acres of treatment because there were multiple treatment activities in most of the acres.
- Mechanical treatments are counted three times for cutting, moving, and piling.
- Burning activities count towards the total reported acres. However, burning may be delayed depending on weather conditions, so it is difficult to rely on burning activities to counts toward the total acreage in the same fiscal year that treatments occur.

- In the right conditions, there could potentially be an addition of 300 acres from broadcast burning to the total acreage targets in the winter of 2020.
- Lop-and-scatter activities also are counted as an activity towards total acres treated. Treatment of invasive weeds also count towards total acres treated but does not count towards the total hazardous fuels reduction acres.
- The units east of the Boy Scout Trail units, excluding the eastern part of Unit 9, would have been the next logical place for treatments. The total treated acres in these units would be 188 acres. The reported acres then would be somewhere between two or three times larger than 188 acres because some treatments would be manual and other treatments would be mechanical. There may be an option to delay these units if there are other units to cover the total acreage.
- Other options for units to treat if the units east of the Boy Scout Trail units or Unit 77 are delayed include Units 23, 24, or 81. Some of these acres are only about 4 to 6 acres in size.
- Other potential larger units include Unit 29. In lodgepole pine units, like Unit 29, the treatment can only go up to 30% of the entire acreage of the unit. Some participants said that changing lodgepole pine units to mixed conifer units would allow the treatment to extend to the whole unit rather than only 30% of the unit.
- Other options could include splitting units into multiple parts. Some participants said that they do not want to split units into multiple parts.
- Some participants said that if the goal is to delay the wildlife units while researchers collect more data from the elk collaring study, then delaying units by one year does not make a difference as it will take three to five years for the data to become more definitive.
- Some participants stated that MMG participants should not only discuss the prioritization of units, but they should also discuss the design of treatments in those units. If the MMG can design wildlife-friendly treatments, then the decision about which units they treat first becomes less critical.

DISCUSSION OF SURFACE FUEL TREATMENTS

MMG participants discussed the potential for surface fuel treatments in phases 5 and 6. Their comments are summarized below.

- Another option for treating acres is surface fuel treatments. Surface fuel treatments would involve piling the already existing surface fuels on the ground and then burning them. The only unit where surface fuel treatments are planned is Unit 74.
- There may be more opportunities for surface fuel treatments in other units, like Units 1, 2, and 10, provided that the surface fuel treatment helps achieve the goals of the Decision Notice. On page 39 of the Decision Notice, it says the contractors can pile created and existing slash up to 6-inches in diameter.
- There was a question about what unit characteristics MMG participants should look for to identify the potential for surface fuel treatments. The strategy for identifying units for surface fuel treatments would require finding pockets of downed surface fuels and places where there is the potential for broadcast burns.
- The USFS would need to conduct a categorical exclusion to change NEPA if the group is interested in pursuing surface fuel treatments.
- The USFS Arapaho-Roosevelt National Forests recently received a Joint Chiefs' Landscape Restoration grant to expand broadcast burning. Even though part of the Joint Chiefs' Landscape Restoration grant expands slightly into the Forsythe II area, the USFS will still need to conduct a categorical exclusion.

NEXT STEPS

- The USFS Boulder Ranger District needs to report their acreage target goals at the beginning of 2020 so that other ranger districts in the Arapaho-Roosevelt National Forest can adjust their acreage target goals accordingly, so it would be better to discuss delaying wildlife units sooner. MMG participants should prepare for this conversation by identifying what units they would like to see in the next phases of Forsythe II.
- Some participants said they would like to review and discuss contracts during the January meeting. The USFS will send out the contracts for phases 3 and 4, and MMG participants will provide feedback by January 4.
- Some participants identified surface fuels as an important discussion topic, especially if the MMG is going to start discussing surface fuel treatments. The surface fuel conversation could get complicated as the group discusses the balance between fire and nutrient cycling and other scientific concepts. It will be important to talk about the comprehensive view of surface fuels related to design and potential surface fuel treatments. Some participants also said they want to better understand the relationship between tons per acre and depth of slash (in inches). Marin Chambers will research and report to the MMG about how tons per acre relates to the depth of lop and scatter slash (in inches).
- Some participants said they would like to discuss treatment design. Because of the time sensitivity of the conversations around delaying wildlife units, contracts, and surface fuels, the conversation around treatment designs will be postponed until February.
- During the January MMG meeting, MMG participants will discuss delaying the wildlife units, contracts, and surface fuels.
- MMG participants said that the second Wednesday of the month from 5pm to 8pm will work for them in 2020. Samuel Wallace will coordinate an alternative date for MMG meetings in case the primary meeting is cancelled.
- Researchers from University of Colorado – Boulder recently completed a paper on the MMG. The paper will be available on the Forsythe II website for MMG participants to read.