SBEADMR Pre-treatment Field Trip Notes

Boomerang Road, Telluride, 7/22/21

Update on other West Zone timber sales (Julie Wingate, Joseph Gonzales)

The potential Devil's Chair timber sale is being dropped because it no longer meets SBEADMR objectives. Subalpine fir in the proposed project area continues to die, leaving the total stand basal area at a good level with the remaining live Engelmann spruce, so no treatment is required.

The Groundhog timber sale is moving forward with the units on FS 611. Units on FS 616 may be dropped.

The Lone Craver timber sale was offered but went no-bid. GMUG staff are currently working on repackaging that sale. Challenges include that it is a mixed aspen-conifer sale which can be challenging for industry. The project area also includes some elk calving areas and thus timing restrictions on operation.

Overview of Boomerang project area current conditions (Julie Wingate, Joseph Gonzales)

Potential project area is ~ 400 acre wedge-shaped steep, forested slope between the town of Telluride and Mountain Village. Stand is a mix of subalpine fir, Engelmann spruce, and aspen. The subalpine fir has high mortality, largely caused by spruce budworm. This project is *very* early in the planning stages. A portion of it is covered by a SBEADMR PTA, but additional NEPA (CE) would be required for much of the area. Some of the proposed project area is on the GMUG NF, other landowners include Telski, the town of Telluride, and private individuals. *This project requires a cross-boundary approach to achieve desired outcomes.*

Discussion

Sibold – We are learning from East Troublesome fire in terms of what fuel breaks can and can't achieve. It is important to not oversell what fuel treatments can do in extreme fire weather.

Battaglia – Treating this slope will moderate fire behavior but will not stop it in its tracks

Jauhola – Example of a fuels treatment on Nature Conservancy land in Oregon. Large fire hit the treated area and while it wasn't stopped, the treated area did knock the fire down on the ground from the canopy.

Fuels treatment objectives, Potential Operational Delineations (PODS) (Stewart Robertson, Eric Brantingham)

Most forests in Region 2 are in the process of or have completed development of PODs for fire management. PODs are spatial management and analysis units whose boundaries are relevant to fire containment operations (e.g. roads, ridgetops, fuel transitions). PODs help compartmentalize the GMUG landscape. The lines are not permanent and are open to management discretion and adaptation.

Flame length modeling for the proposed project area indicates a need for fuels treatments. While PODs on the GMUG are still in draft form, this area will certainly end up in a "protect" POD because of all the values at risk in the area.

Management actions that would moderate fire behavior in the project area include: removal of standing dead, opening of the canopy, and removal of surface fuels. Due to steep slopes implementing these actions will likely prove challenging/expensive.

This project could possibly be completed in a single season, but two is more likely. It will need maintenance, but appears to be fairly promising to maintain as aspen-dominated stands. Conifer seedlings in the area are rare and are getting hit by spruce budworm.

Discussion

Battaglia – an effective fuels treatment in this forest type will look very different than HRV (historic range of variability) for this system

Sibold – has established monitoring plots in the project area. There is a lot of aspen regeneration in areas where the canopy is dominated by conifers, but also a lot of evidence of ungulate browsing on aspen. High potential for increasing aspen in the area if we can manage/overwhelm the browse pressure on seedlings.

Gomez – This treatment will need to engage private landowners and others to succeed – HOA, Mountain Village, Water Users.

Cooper – aspen is really important to the public, confident that with continued public engagement this project will find broad support.

Eno- the mine is interested in using leftover wood for tailings cover

Explanation of PONSSE technology (Nicole Hutt)

PONSSE is a tether-based, cut-to-length system of timber machinery that is a game-changer for operations on steep slopes. It does not require skid trails and is significantly more economical than helicopter logging. A fuels project has recently been implemented on the east side of Monarch Pass (Pike-San Isabel NF) using this technology. Chuck Rhoades at the USFS Rocky Mountain Research Station is establishing monitoring of soil erosion from PONSSE. These treatments can be visually jarring (long strips of cut trees) but the technology is a really useful technology for operating on steep slopes and will likely be important for fuels projects moving forward.

Science team updates

Jason Sibold

Continuing to work on modeling lynx habitat connectivity in cooperation with John Squires and Jake Ivan. GMUG has a lot of high quality lynx habitat and the Cochetopa Hills are a lynchpin for lynx connectivity between the San Juans, Sangre de Cristos, Collegiates, and West Elks. Adding in a component of higher elevation fire refugia ("old forest"). Will model projected areas of fire refugia and overlay these models on areas of projected spruce forest in 2090.

Strength of refugia to keep fire out is changing along with climate change. We've lost ~ 20% of high elevation fire refugia since 2002. Consider reinforcing fire breaks to maintain high elevation refugia.

Mike Battaglia

Work thus far has demonstrated that regeneration was protected in salvage timber sales. This was a big concern at the beginning of the SBEADMR project. In spruce-aspen stands the aspen is taking over as much of the spruce has died. Aspen overstory and regen both look good.

Moving forward we have pre-treatment plots established in a couple of green tree sales. Rainbow TS and Bald TS. The silvicultural prescriptions for Bald are designed to be experimental – will have replications of a group selection treatment and a modified shelterwood/variable retention treatment. Also plan to plant a mix of species (Douglas-fir, possibly) post-treatment in Bald.

Jarod Dunn

Working under Tony Cheng's guidance on the economic questions related to SBEADMR. Continuing to have conversations with Montrose Forest Products to better understand who they employ, and develop a better understanding of how contractors fit into the broader SBEADMR economic picture. Also developing methods for monitoring timber impacts to recreation. Colorado Mountain Club has an app where users can note real-time impacts to trails (i.e. down trees); possibility that we can implement an add-on to this app which would capture timber operation impacts to recreation.

Tyler Beeton

Working on addressing the social science/adaptive management aspect of SBEADMR, including the following questions on the Science Team Matrix: Is the collaborative adaptive management process functioning as it was originally intended/expected by participants?; To what extent has stakeholder participation changed over the project timeframe?; What adaptations have been made based on the results of administrative studies?

The first step in this work was key informant interviews which have been completed in the last month; currently in the process of transcribing and summarizing those. Next steps include a written questionnaire sent out to the broader SBEADMR group. We will send out the questionnaire by email in Fall 2021 (September or October). Please look for an email from Tyler Beeton or Susan Hansen and take a few minutes to fill out the questionnaire if you want to share your perspectives on the SBEADMR adaptive management process and ways to improve it!

Kate Dwire

I was brought in to the SBEADMR science team to address public comments questioning whether the standard 100 foot buffer for timber operations near fens used for SBEADMR is sufficient to protect this valuable groundwater resource. There are a host of potential impacts to consider/monitor for, including hydrology, nutrients, and sediment. Thus far work this summer has focused on recon for potential fens to instrument in Taylor Park and on the Grand Mesa. Recent fires in Colorado have added another consideration about fen buffers and whether it might be better to remove fuels up to the fen edge. The Mullen Fire (2020) on the Medicine Bow NF burned several fens that are still smoldering. For the most part these burned fens appear to be ones with altered hydrology (i.e. may not be fully functioning as fens). Next steps include establishing instrumentation and collecting pre-treatment data on fens on the GMUG.