**SBEADMR Adaptive Management Group Meeting Notes**

**May 2, 2019**

The SBEADMR Adaptive Management Group (AMG) met at 10:00 AM on Thursday, May 2, 2019

at the Ute Museum in Montrose. Present and representing the various “seats” on the AMG were:

**Designated Seat**  **Regular Member** **Alternate Member**

Delta County absent absent

Gunnison County Jonathan Houck TBD

Hinsdale County Cindy Dozier absent

Montrose County absent absent

Ouray County Ben Tisdel absent

San Miguel County Hilary Cooper Lynn Padgett

Environmental/Conservation Chris Jauhola Enno Heuscher

Environmental/Conservation Lexi Tuddenham absent

Forestry Processor Norm Birtcher Molly Pitts

Forestry Logger absent Molly Pitts

Community at Large

 East Zone TBD TBD

 North Zone Mary Chapman TBD

 West Zone Nancy Fishering Andy Goldman

Water Resources Lynn Padgett absent

Recreational User Groups Ralph Files TBD

Wildlife and Fish absent Jamie Nogle

Education TBD TBD

**Resource/Staff Present**: Clay Speas, Carlyn Perovich, and Nicole Hutt, GMUG Nat’l Forest; Jason Sibold and Tony Cheng, SBEADMR Science Team; Scott Johnson, State Forest Service; and Susan Hansen, Meeting Facilitator

**Approval of 05/10/2018 and 2/7/2019 AMG Meeting Notes**: Approval of the draft notes of the 05/05/18 AMG and 2/7/2019 meeting were approved as submitted.

**Item No. 1: Debrief of Mid-Winter Forest Service SBEADMR Stakeholder Meeting – Carlyn Perovich and Clay Speas**

* ***The group debriefed the annual GMUG mid-winter SBEADMR Stakeholder meeting*** from the perspectives of GMUG staff, AMG and Science Team. Key points that were noted and discussed were:
* The addition of a morning session to provide for more detailed and technical presentations from the Science Team was very effective and deemed a success
	+ In the future, have the presenters sit as a panel in the front and provide time for them to respond to a presentation and/or audience questions at the end of presentation
	+ Figure out how to manage Q&A time at end of each presentation so as not to cut into time allotted for the subsequent presentations
	+ Science Team PowerPoint presentations (without sound due to recording difficulties)will be posted on Forest Service website
* Drop the Science Team’s “lighting round” (summary of morning presentations) in the afternoon as the morning session was more effective and not that many new attendees came in the afternoon
	+ In the future, the Science Team will prepare a one-page handout summarizing its work and key findings; this will substitute for the “lighting round” component
* The afternoon interactive “poster stations” for each timber zone were well attended and provided for more dialogue among FS staff and attendees
* Need for better clarity and distinction was noted to avoid confusion or misrepresentation in several areas as the Forest Service and AMG ramp up their public outreach efforts as follows:
	+ At introduction of science presentations or on program agenda, be very clear and explicitly distinguish research/monitoring that is specific to SBEADMR ROD as opposed to other “complimentary” science/research to be presented that is financed independent of SBEADMR and/or not being conducted on the GMUG yet may help inform SBEADMR management decisions; suggestion that on the agenda the SBEADMR related science/research presentations could be separated from the other science/research presentations
	+ Be careful with use of terminology, i.e. example of “clear cut” as a term that carries “baggage” and should to be carefully defined when used
	+ Be careful when citing research not conducted on the GMUG so as not to assume that what works or occurs in the Yukon, for example, could apply to the GMUG!!
* Continue to look for a better venue for the annual meeting in terms of room setup, sound system, ample microphones, separate meeting spaces, etc.
* ***Key Findings of the Science Team***. *Carlyn* presented the Science Team’s (*Sibold, Battaglia, Cheng and Ivan*) findings for 2018-2019. The findings may be found on page 4 of the attached draft handout entitled “2019 SBEADMR Management Review. May 2019”. The discussion was then opened for AMG members to share their thoughts/concerns for AMG recommendations to submit to the Forest Leadership Team (FLT) as follows:
* Lack of Seed Collection/Dispersal
	+ Although no seeds were collected in seed traps in summer 2018, it was noted that seed dispersal in spruce fir is highly variable; several years of collection data is needed before drawing conclusions/suggesting adaptations
	+ Seed dispersal trees (diameter greater than 12’) were dead in salvage treatment areas so did not have seeds to disperse
	+ As Forest Service moves to resiliency treatments in green stands, treatment plans call for leaving pockets of larger spruce for regeneration and group selections anywhere from 1/3 acre to 1 ½ acre s in size to allow for regeneration
	+ Place more seed traps in green/resilient treatment areas
	+ Smaller diameter trees are important to seed stock in addition to larger granddaddy seed trees
	+ Salvage treatments reduce fuel loads for catastrophic wildfires and thus help protect seedstock trees from risk of wildfire
	+ Design features are prescribed in contracts for salvage treatments to protect advance regeneration
	+ Residual stocking and mass regeneration in all sample plots exceeded the Forest Service’s minimum stocking guidelines
* Further AMG questions/points raised for consideration as recommendations
	+ Need a better understanding of how salvage treatments interface with wildfire. For instance, in design of salvage treatment what % of debris should be left on the ground to ensure a healthy landscape/wildlife habitat post wildfire?
	+ Are we creating regeneration opportunities with recurrent and adaptive resiliency treatments?
	+ Need for seed trees – need to understand what is a seed tree on the ground
	+ Possibility of rerunning the GIS optimization model with new data/science to see what has changed and how that might impact/modify treatment areas going forward. *Forest Service staff noted that the redoing the optimization exercise would not change the Priority Treatment Areas (PTA’s) identified in the ROD; a change in suitable base is more appropriately addressed at the Forest Plan level*
	+ Give attention to observation that south facing slopes have much less regeneration

After a lengthy discussion the Forest Service offered to prepare a summary of the recommendations which the AMG would distribute to members for review and comment prior to formal submittal for FLT consideration. Attached as Exhibit A is the “List of Recommended Changes” as prepared by FS staff.

**Item No. 2a: Review/Discussion of AMG Monitoring Matrix and Objectives**

The group discussed at length the purpose, format and content of the AMG Monitoring Matrix (December 2018 revised draft) and how it had evolved from a simple matrix to a more technical matrix. The group discussed how it might be modified to be less onerous and more user friendly yet still meet the objectives of tracking the SBEADMR research/monitoring efforts/questions over time and illustrating how monitoring and research results are linked to adaptive management decisions. Given the current format of multiple columns for data the monitoring findings consumed the first 18 pages. Some of the suggestions for modifying were:

* Change the format but keep the content
* Create a separate matrix for the research/monitoring tracking component
* Denote which science research is pertinent to SBEADMR ROD and which is included as “complimentary” research to inform SBEADMR
* Keep questions and current monitoring findings in an acceptable format to track and then separate out the other more technical information
* Forest Service should prioritize what is really important to monitor in short term and long term; those priorities should be focus of the matrix questions/findings
* Consider the “audience” in terms of appropriate level of information/detail – monitoring matrix is intended as an internal document for AMG, more of a narrative summary of key points may be more appropriate for public distribution
	+ What general public cares about – Is there going to be a forest? Is it going to burn? What happens when you cut down that stand? What is happening economically? What will it cost to be sustainable? What will it look like when you do this?
* *Tony Cheng* offered three next steps:
	+ Reconstitute the ad hoc group (monitoring subcommittee) and dig into harder questions, i.e. What are the decisions to adapt? Who makes those decisions? What does that adaptation look like and for what purpose? Monitoring approach could also be adapted – adapt the method of generating feedback.
	+ Ask Forest Service what decisions FLT/project staff would be adapting on a year to year basis and what monitoring is required to inform that adaptation;
	+ If there are other monitoring findings that are beyond the scope of the AMG they may be linked to Forest Plan monitoring – i.e. longer timeframe and larger geographic scale.

*Discussion Wrap Up/Next Steps*

* AMG Monitoring Subcommittee will reconvene in June to further explore how and what questions/data relate to SBEADMR adaptive management and implementation. A second task would be to try and complete some of the columns for questions around public engagement/understanding and the adaptive management process from AMG perspective
* Forest Service and Science Team to meet in August to review science monitoring questions and prioritize what is important in the short term versus long term

**Item No 2b: Discussion of Forest Service Recommendations for Adaptation – Clay Speas**

Clay distributed the attached handout “2019 SBEADMR Management Report, May 2019” which highlights SBEADMR project performance to date and proposes actions for continued performance improvement. He reported on the “triggers” that were identified in the FEIS for: Canada Lynx, watershed impacts, habitat structural diversity, soil productivity and bare soil resulting from burning of slash piles. None of the thresholds in the above categories have been exceeded to date. This report also highlights the Science Team’s findings and recommendations as referred to earlier by Carlyn and referenced in the attached Exhibit A – “Recommended Changes for SBEADMR”

Clay also distributed the attached draft of “SBEADMR Checklist Suggested Changes” pertaining to: range and invasive species surveys, sensitive plan survey, design feature table, etc. In the interest of time, Clay encouraged attendees to contact him if they had questions regarding the suggested checklist changes.

**Item 2c: Vision for Annual Socio-Economic Monitoring – Tony Cheng and Molly Pitts**

*Tony and Molly* reported briefly that they envisioned developing a 2-3 page summary to capture the results of the annual data collection from the socio-economic questionnaire. A draft of the questionnaire was reviewed in February and has been revised and reduced in scope to encourage better participation from small scale operators. In terms of Forest Service cost/benefit impacts of SBEADMR projects, Tony is going to explore whether or not IMPLAN can be utilized and will visit further with Clay about how to improve tracking internally within the Forest Service.

**Item No. 3: Brief Update of Scheduled Treatments/Activities for the 2019 Seasons – Clay Speas and**

 **Nicole Hutt**

Forest Service staff reported that there was no change to the scheduled treatments or activities that were presented and discussed in the afternoon “poster stations” for each timber zone at the SBEADMR Annual Stakeholder meeting in April. The scheduled treatments will be posted on the Forest Service’s SBEADMR website.

**Item No 4: 2019 Summer Field Trips – Carlyn Perovich and Nicole Hutt**

Annual Summer SBEADMR Stakeholder Field Trip: Date: Thursday, August 8, 2019

Site: Big Park Timber Sale (Cimarron area) on the Ouray Ranger District about 50 miles SE of Montrose (2 hour drive)

Comment - Stands being treated are located in the Firebox Park and Big Park Areas in a cool-moist high elevation spruce-fir stand west of the Alpine Plateau.  There are about 1,000 acres marked for treatment. The objective of the harvest is to promote a more resilient and multi- aged stand into the future. There are spruce bark beetles present throughout the stand as well as Armillaria root disease.

Annual Best Management Practices (BMP) Field Trip (AMG members only with Forest Service staff/specialists) Date: Thursday, August 15, 2019

Site: High Mesa Timber Sale on the Ouray Ranger District; site of 2018 summer field trip

Comment – timber sale has been completed; site offers good example of roads that have been decommissioned

**Item No. 5: Update on Plan to Increase Public Awareness of SBEADMR – Hilary Cooper**

Hilary reported that negotiations were ongoing with a perspective journalist, Samantha Wright, to develop a public outreach campaign utilizing newspaper reporting, developing annual one page briefs covering social science, wildlife science, forest ecology/biogeography (??) and silvaculture. Samantha attended many of the earlier working group meetings on SBEADMR, attended this year’s annual stakeholder meeting and was in attendance for most of this meeting. She is prepared to develop a formal proposal to be reviewed and approved by the Forest Service. All materials developed with be “fact checked” by both the Forest Service staff and the Science team for accuracy.

**Item No. 6: Opportunity for Public Comment** – there were no public comments

**Item No. 7: Non-Agenda Items** - Susan to put out Doodle Poll to schedule AMG Monitoring Committee

 meeting

**Item No: 8: Schedule Next Meeting** – next meeting will be scheduled after the summer field season

Meeting adjourned at 12:20 PM

**EXHIBIT A**

**Recommended Changes to SBEADMR**

 **1. The Forest and AMG needs to tell our story better.**

Findings:

* + Keep the Forest Service Website/Facebook/Twitter up-to-date
		- Proposed treatments write-ups
		- Maps of treatment areas
		- SBEADMR news – treatments completed to date, haul routes, etc.
		- Monitoring results – Science Team PowerPoints, key findings etc.
* AMG meeting notes and current happenings.
	+ Utilize social media better – local newspapers, annual report written for the general public, etc.
	+ Provide documents for AMG review 3 days in advance of the meeting.

Recommendations to Forest Service:

* + Implement all suggested actions

 **2. Monitoring and recommendations for change.**

#  a. Science Team Findings

Dr. Jason Sibold, Dr. Mike Battaglia, Dr. Tony Cheng, and Dr. Jake Ivan make up the SBEADMR Science Team. Science team findings for 2018-2019 are as follows:

**i. Jake Ivan, CPW**

* Snowshoe hare distribution, occupancy, and density has remained largely unchanged post-beetles; same for distribution and occupancy of lynx; red squirrel occupancy and density has declined.
* Snowshoe hare density may be driven more strongly by stem density of young fir compared to young spruce; selection of lynx may follow this pattern as well – important to protect regenerating saplings when entering an area.
* Salvage activities may reduce occupancy of snowshoe hares and their predators in the few decades immediately after implementation; logging practices that maintain small cut-sizes interspersed with large patches of boreal forest are least likely to have negative effects.

**ii. Mike Battaglia, RMRS & Kevin Barrett, CFRI**

* Spruce overstory and sapling survival is lowest in salvaged spruce stands (6080%). Survival > 90% for spruce and aspen in all other stands.
* Regeneration survival in spruce stands > 88%.
* No statistically significant differences between stand types.
* Regeneration survival in spruce-aspen stands is statistically lower in controls for spruce AND aspen.
* Smaller size classes generally have lower survival rates across all stands.

At this point, no management changes are indicated as a result of science team findings.

 b. **AMG Recommendations for Science Team**

i. Forest Service and Science Team will review matrix and determine which

monitoring questions can be addressed with current knowledge and which require field work. Example, surface fuel loads load can be determined through the use of photos and related to how these loads could affect soils and the ability of the fire to be carried through a treated stand. Use of Browns transects or other methods may nor significantly increase our knowledge of fire impacts in treated versus non-treated stands.

DRAFT

ii.Monitoring matrix should be broken into easily digestible pieces – Economic, Wildlife, Applied Silviculture, and Social (public acceptance of the process, adaptive learning and changes in agency culture).

1. Monitoring should shift salvage to green (resiliency) treatments (e.g. Do groups selections regenerate the stand?). Monitoring in salvage stands will continue but at a reduced rate or through monitoring of a sub-set of metric**.**
2. Seed Traps- The Science Team will put out additional traps as time allows this summer. The goal is to expand the years of seed data being collected to establish year-to-year variability.

 **3. Final Environmental Impact Statement Triggers.**

 **a. Findings**

**i. Compliance with Southern Rockies Lynx Amendment**.

* + - 1. VEG S1 – Less than 30% of lynx habitat in a Lynx Analysis Unit (LAU) in a stand initiation structural stage (SISS). The BO established a trigger of 25% SISS. **No LAU exceeds the 25% trigger.**
			2. VEG S2 - Less than 15% of lynx habitat in an LAU would be regenerated (SISS) over a 10-year period. The BO established a trigger of 10% SISS. **No LAU exceeds the 10% trigger.**
			3. Less than 3% of lynx habitat on the forest will be thinned. The BO established a trigger of 2.5% thinned. **The 2.5% trigger has not been reached.**

**ii. Watershed** - Wildfire and cumulative management activities will not exceed 25% of HUC12 watershed as determined by weighted acres of harvest, roads and severe fire. The FEIS established a trigger of 20% disturbance. **No watershed exceeds this threshold.**

 **iii. Habitat Structural Diversity** – Maintain 5-15% of vegetation at the HUC

12 watershed scale in structural stages 4A, 4B and 4C where biological feasible. In areas with high mortality of older mature trees, maintain live trees to the greatest extent practicable. All watersheds meet or exceed 15% of the stands in structure stage 4A, 4B and 4C. **In watershed with large live trees, structural stages 4A, 4B and 4C exceed minimum requirements.**

**iv. Soil Productivity** – maintain soil productivity by limiting adverse soil disturbance to 15% or less. The treatment design checklist is to be used to determine if this requirement is being met. **All completed checklists indicate soil disturbance, once management actions are complete, are below the 15% threshold.**

**v.Soil damage from machine pile burning** – within 3 years of pile burning have no more than 200 sq. ft. of adverse soil impacts on a burn scare (bare soil, multiple rills, and deep gullies). Appendix D (Annual Treatment Review) of the FEIS will be used to monitor this indicator. **The first piles burned under SBEADMR occurred in winter 2018. Rehabilitation of the burn pits has not occurred to date. A review will be completed in 2020 to determine compliance.**

 **b. Recommendations**

No FEIS triggers have been exceeded and therefore there is no need for change at this time.