Spruce Beetle Epidemic Aspen Decline Management Response (SBEADMR) Community Report

Fiscal Year 2022

History of SBEADMR and Adaptive Management Group (AMG)

In the Grand Mesa, Uncompahgre and Gunnison (GMUG) National Forests, approximately 40 percent of Engelmann spruce and aspen forests have been affected by insects and disease over the past decade. The Spruce Beetle Aspen Decline Management Response (SBEADMR) Environmental Impact Statement (EIS) was created to address a decade of disturbance issues and improve forest health for roughly 120,000 acres on the GMUG.

The purpose of SBEADMR is three-fold: minimize threats from falling, dead trees and better manage wildfires (safety); improve the resiliency of stands at risk to insects and disease (resiliency); and treat affected stands via recovery of salvageable timber and re-establishment of desired forest conditions (recovery).

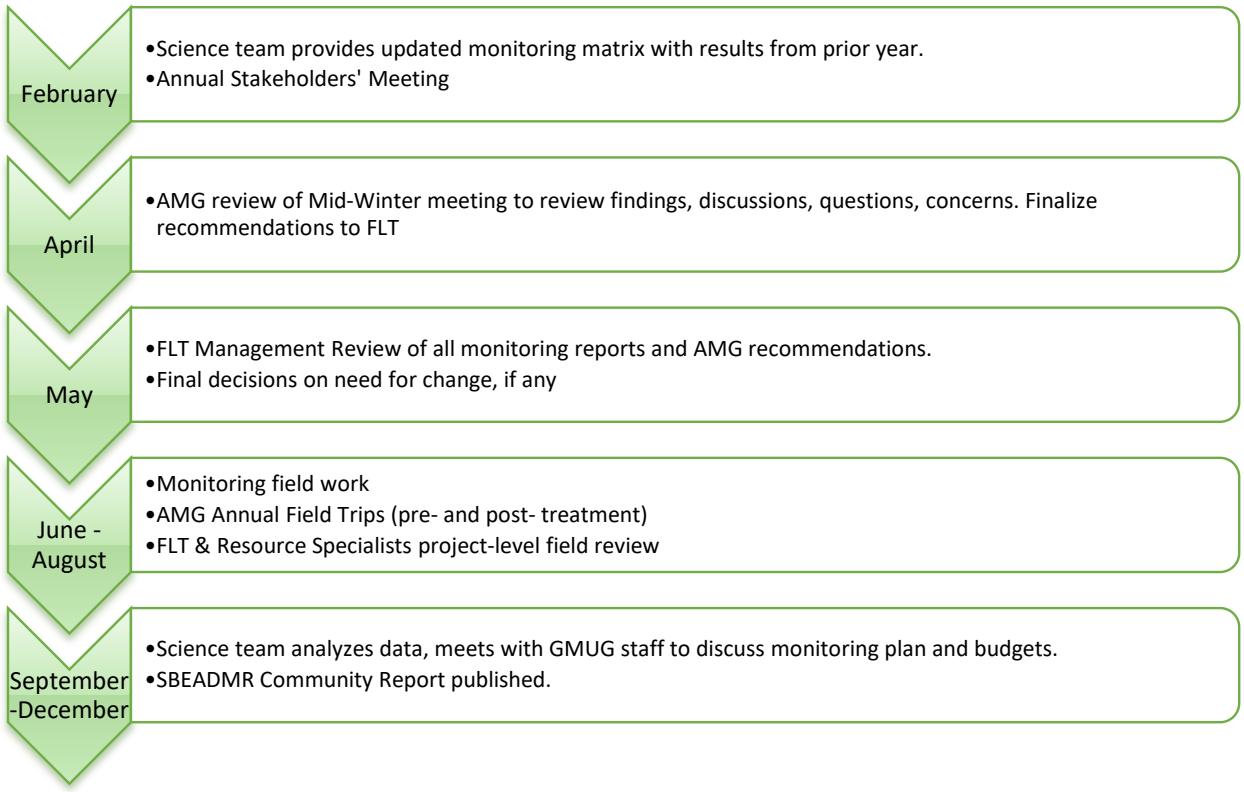
The SBEADMR Adaptive Management Group circles up at a pre-treatment review field trip for the Big Park Timber sale, August 2019

Launched by the GMUG in 2016, SBEADMR is designed to allow a more nimble "adaptive management" response to rapidly changing forest conditions associated with insect and disease outbreaks than is typically possible under U.S. Forest Service's (USFS) planning process. Conventional planning processes for forest treatments like timber harvesting can take years to complete. Although insect and disease outbreaks are part of natural disturbance cycles, the epidemic level outbreaks occurring over the last decade have produced significant mortality in the time it can take to complete the planning and analysis process for a forest treatment. Given the rapid rates of changes on forest landscapes, resiliency treatments frequently need to be redesigned into salvage treatments, a process that traditionally would require restarting the entire planning process. SBEADMR avoids this problem by using an adaptive management approach that allows the USFS to designate large swaths of land as priority treatment areas and then target specific stands of trees on an annual basis, based on current conditions.

While this novel approach provided flexibility for management response, it also generated concerns from local stakeholders because of the lack of specificity about the proposed projects and the areas that would be treated. Moreover, stakeholders wanted to see more science-driven management decisions and had concerns about the impacts of temporary logging roads, disruption to recreational users, impacts on wildlife and lack of public input on specific projects. To address these concerns the USFS agreed to fund an independent science advisory team to help identify treatment

locations and inform the adaptive approach and management decision making. The GMUG also supported stakeholders' interest in convening a community based collaborative working group, which later evolved into the SBEADMR Adaptive Management Group (AMG).

The AMG is a citizen-based working group composed of individuals representing diverse local and regional interests and perspectives. Members are self-selected by stakeholder category except for the community at-large representatives, who are appointed by their respective county commissioners. Stakeholder categories include county commissioners, forestry processors, forestry loggers, conservation groups, water resources, recreation, wildlife and fish, education, Colorado State Forest Service and at-large members. The primary purpose of the AMG is to assist the GMUG in applying the adaptive management framework over a multi-year timeframe in accordance with the SBEADMR Record of Decision.



An overview of a typical year of engagement in the SBEADMR adaptive management process

The goals of the AMG are to:

- Provide comments on proposed treatment sites.
- Help with articulating monitoring questions.
- Participate in post-treatment evaluations.
- Review monitoring to make recommendations for adaptive management for future projects.
- Anticipate local roadblocks that may arise and work to resolve them.
- Strive for consensus of diverse interests on recommendations submitted to the GMUG.

In addition, the AMG appointed a Monitoring Committee to identify, organize, observe and monitor the following:

- Community understanding and engagement.
- Socio-economic data and impacts.
- Collaborative adaptive management process and outcomes.
- Tracking science studies and monitoring efforts.

The AMG also works directly with the SBEADMR Science Team to determine questions that need to be answered using the best available science. Comprised of researchers with expertise in forest ecology, silviculture, wildlife biology and natural resource socioeconomics, the Science Team designs rigorous studies and collects and analyzes data. The results of these scientific studies can then be used to guide management policies and projects on the ground.

SBEADMR Science Team Updates

The Science Team presented the 2021 monitoring results at the February 2022 SBEADMR Annual Meeting. Presentation summaries are listed below by project title.

Developing and implementing resiliency treatments in Engelmann spruce and Engelmann spruce-aspen forests of the Grand Mesa and Gunnison National Forest

Lead: Dr. Mike Battaglia, US Forest Service Rocky Mountain Research Station

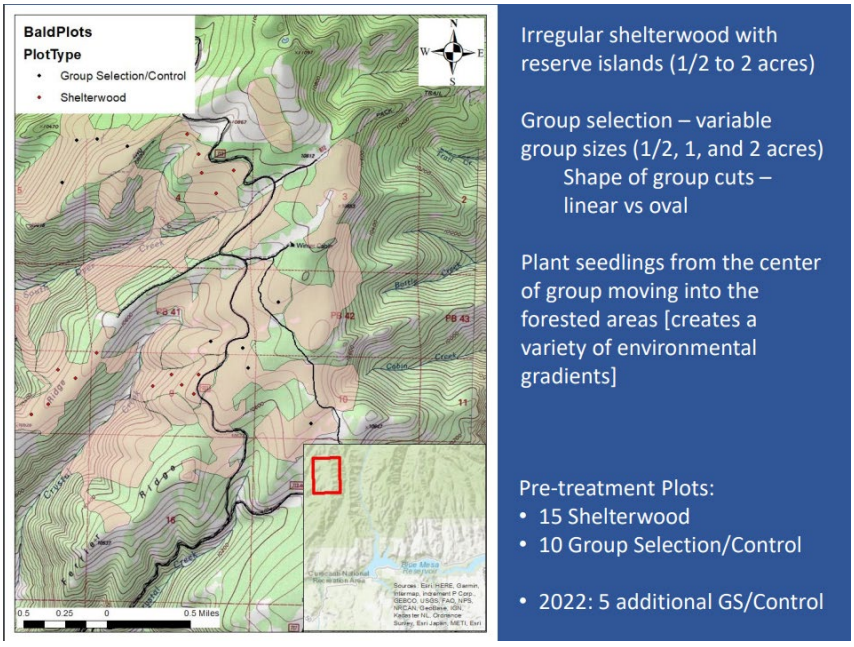
Background

As SBEADMR treatments have transitioned from primarily salvage to largely green tree "resiliency" treatments, stakeholders have expressed interest in science team monitoring focused on green treatments. As such, we established pre-treatment monitoring in Rainbow and Bald timber sales, and collaborated with Paonia RD timber staff to assist in development of prescriptions for the Bald timber sale.

2021 Work

In conjunction with GMUG Timber staff, we developed resiliency focused prescriptions for the Bald timber sale. Prescriptions are modified shelterwood and group selection cuts, randomly assigned across the 11 units within the project area.

We also established pre-treatment monitoring plots. Ten plots were established for the shelterwood units, and 15 plots were established for the group selection and control units. We will return in 2022 to establish 5 more group selection/control unit plots once sale layout is finalized.



Pre-treatment monitoring plots were established in the Bald timber sale in 2021

2021 Results

None at this point. Rainbow TS harvest has not yet been completed. Bald TS will most likely be implemented in 2023 or 2024. Results will be available after post-treatment monitoring occurs (2024 or later).

2021 Interpretation

None yet.

Landscape-scale Impacts of Spruce Bark Beetle and Climate on Forest Change

Lead: Dr. Jason Sibold, Colorado State University

Background

Understanding how the Engelmann spruce is reacting to changing temperatures and snowpack conditions and identifying specific landscape features that may be suitable for more successful regeneration in the future will be critical to guide treatment site selection. This data can tell us which areas on our landscape are more resilient to climate change and where spruce forests are more likely to persist in the coming decades. It also has implications for wildlife, like the Canada lynx. This project utilizes LIDAR (Light Detection and Ranging), a remote-sensing technology to model how high-quality lynx habitat has changed due to spruce beetle outbreaks. This habitat model can then be used in conjunction with GPS data from radio collared lynx to see how lynx are using these new landscapes.

Dr. Jason Sibold speaks to field trip participants at the Big Park pre-treatment review, August 2019

2021 Monitoring

I compiled all DHC plots from within the Lidar footprint for this question. After QA/QC work, I am using approximately 200 plots in the model. I am using the Forest-Based Classification and Regression model in the Spatial Analyst toolbox of ArcGIS Pro to analyze and predict DHC for this footprint. The Lidar data is consistently a top predictor of DHC along with topographic features, broad-scale climate conditions, soils and productivity (Landsat derived NPP). I am currently working to improve the model and might have to change to a "boosted" model. Specific concerns with the current model are its limited ability to differentiate DHC in middle ranges of DHC values (35-65% DHC). Nonetheless, I do have a landscape-scale predictive model of DHC for this footprint. The current model is broadly in agreement with the Canada lynx usage model created by Dr. David Theobald for this area.

The first draft of the topoclimate model will have a similar footprint to the Lidar footprint and should be available to incorporated into this model in February, 2022. This should improve the model, currently the only climate data in the model are long-term precipitation data and no temperature data are included. While the predictive model will be useful for management within this footprint it also demonstrates the potential value of Lidar for predicting habitat conditions/DHC in for the broader GUMG landscape.

Similar to the Lidar work above, I have compiled all recent (since 2017) DHC plots collected by my lab and USFS staff and USFS contractors that collected data for the change detection work. After QA/QC, I am working with about 440 plots and using the Forest-Based Classification and Regression model in the Spatial Analyst toolbox of ArcGIS Pro to analyze and predict DHC for the Gunnison

Drainage. Because this area includes large areas of high-severity spruce beetle outbreak I am able to identify the landscape implications of the outbreak for DHC. Specifically, I am representing outbreak severity in the model as the change in Net Primary Productivity (NPP) from a baseline calculated for the early 20002 compared to 2017, when most of the DHC plots were sampled in the beetle-killed areas. Beetle outbreak severity, as represented as change in NPP, is consistently a top variable in the model. I am having similar success and challenges as within the Lidar footprint/study area, specifically that it is challenging to differentiate between middle ranges of DHC values.

2021 Results

While I have a predictive landscape-scale model of DHC for the Gunnison basin at this time, I am working to improve the model. I am also currently overlaying the current model with Dr. Theobald's layer of Canada lynx usage layer and the earlier work on future spruce cover under different climate scenarios. This will allow us to start to identify locations on the landscape that have high-quality habitat that is being used and expected to persist into the future under different climate scenarios. This will be helpful to identify potential management options in these areas.

2021 Interpretation

Modeling results should be used for decision making at broader spatial scales (landscape) and in conjunction with other lines of evidence of spatial patterns of Canada lynx habitat quality. Specifically, these landscape-scale layers of dense horizontal cover would be best used to identify 1) larger areas (hundreds to thousands of acres) of high-quality habitat, and 2) the relationship of Canada lynx habitat with likely spruce-fir refugia sites and modeled habitat corridors. Ideally, prior to any large-scale management decisions, modeled habitat values should be verified in the field by a USFS biologist.

The landscape-scale model of Canada lynx habitat quality can be used in conjunction with modeled projections of the persistence of larger (hundreds to thousands of acres) patches of spruce forest in the context of projected warming. Ensemble spruce projections were completed earlier in this project. Management activities that are detrimental to Canada lynx habitat could be excluded from areas of current and projected high-quality habitat. In the context of connectivity, corridor areas that are modeled as high-quality habitat today but unlikely to persist into the future likely represent locations where a climate change resistance strategy (e.g. maintaining spruce in locations where it is no longer regenerating naturally) will have the largest benefit. Moreover, these locations likely represent places with underlying conditions (soils, topography) where resistance will have the largest chance of success.

Assessing progress and performance of the SBEADMR collaborative monitoring and adaptive management process

Lead: Tyler Beeton and Dr. Tony Cheng, Colorado Forest Restoration Institute

Background

One of the goals described in the SBEADMR FEIS is to "Continue the public participation and collaborative learning that occurred during the planning phase, encourage and support the continuation of collaborative workgroup efforts throughout implementation" (FEIS Appendix E, Public Engagement in Adaptive Implementation, Goal p. 2). In order to evaluate achievement of this goal, the SBEADMR Science Team is looking at the following questions:

- 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?

2021 Monitoring

Is the collaborative adaptive management process functioning as it was originally intended/expected by participants?

To address this question, we conducted key informant interviews in June and July 2021 with members of the AMG, Science Team, FLT, Resource Specialists, and public at large (n=12). Findings from these interviews were analyzed to inform the development of a questionnaire to assess expectations, successes, challenges, and recommendations for improvement from all participants engaged in SBEADMR. The questionnaire was first piloted by several SBEADMR AMG members, and then administered to all SBEADMR participants in late October. We received 58 usable responses.

GMUG staff, AMG members, and interested public learn about the planned Muddy Aspen timber sale on a 2022 field trip.

To what extent has stakeholder participation changed over the project timeframe?

To address this question, we conducted a document analysis of meeting notes to track participation in the AMG meetings over time. We analyzed meeting attendance notes from AMG meetings – June 2017 – April 2021. We delineated the following metrics based on attendance data:

- Frequency
- Level of participation
- Diversity

- Redundancy
- Vacancy
- Longevity and turnover

This provides an indicator of the "collaborative-ness" of the process.

What adaptations have been made based on the results of administrative studies?

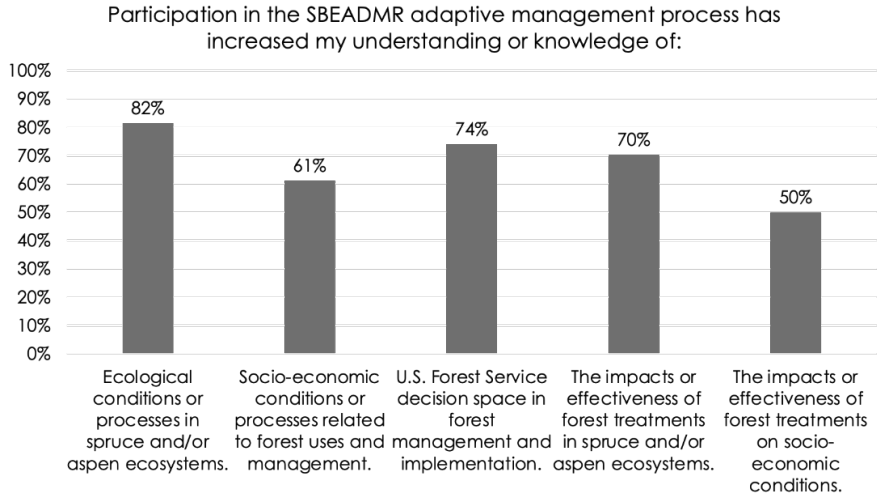
To address this question, we began to conduct a document review of the annual AMG Science matrix, Adaptive Implementation Annual Reports, FLT Management Reviews, community reports, and interviews.

2021 Results

Is the collaborative adaptive management process functioning as it was originally intended/expected by participants?

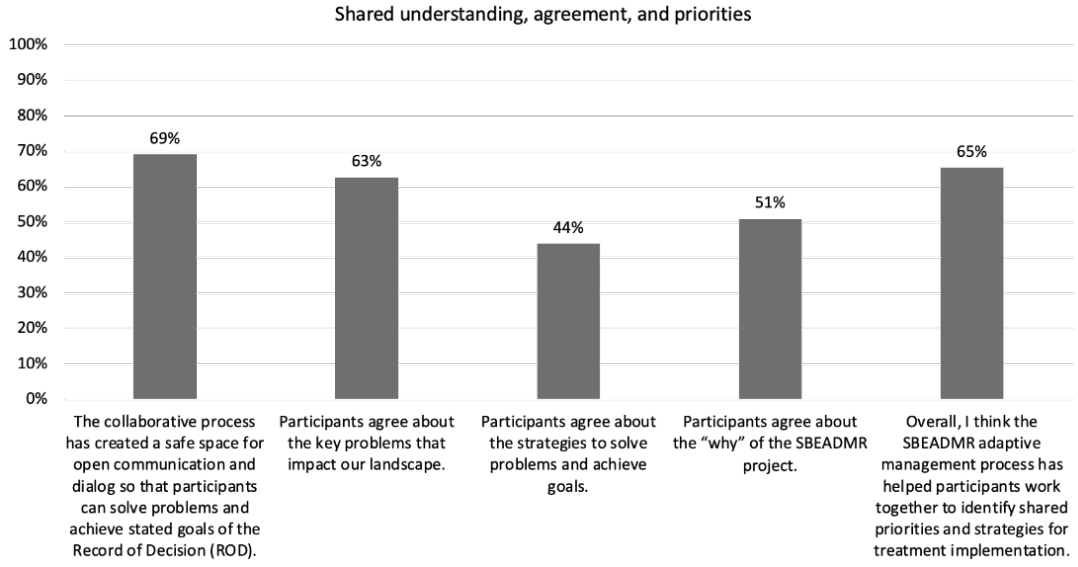
Diverse participation: 66% of respondents agreed or strongly agreed that the right people were engaged in the process (representative cross-section). The history of collaboration in the region, brought on by previous efforts by the PLP, and development of the AMG with seats designed to be representative helped support this. 25% disagreed to strongly disagreed that the right people were involved. While respondents emphasized the role of a core collaborative group of "doers" that have been involved since the beginning as a key factor for success, others reported that there seemed to be waning participation and enthusiasm outside the core group, and turnover in key positions that have impacted performance, trust, and led to diminished institutional memory. The logistical challenges of a large project spread out across a large geography, unpaid volunteers supporting efforts, and time required to fully engage in all annual activities was prohibiting. Further, there are currently several forest restoration initiatives in the region that compete for participants' time and energy (CFLRP, RMRI, Taylor AMG).

Continued learning: A majority of respondents reported that the SBEADMR process increased their understanding or knowledge of ecological processes in spruce-fir and aspen systems (82%), the effects of treatments on ecological systems (70%), and the USFS decision-space in planning and implementation (74%).

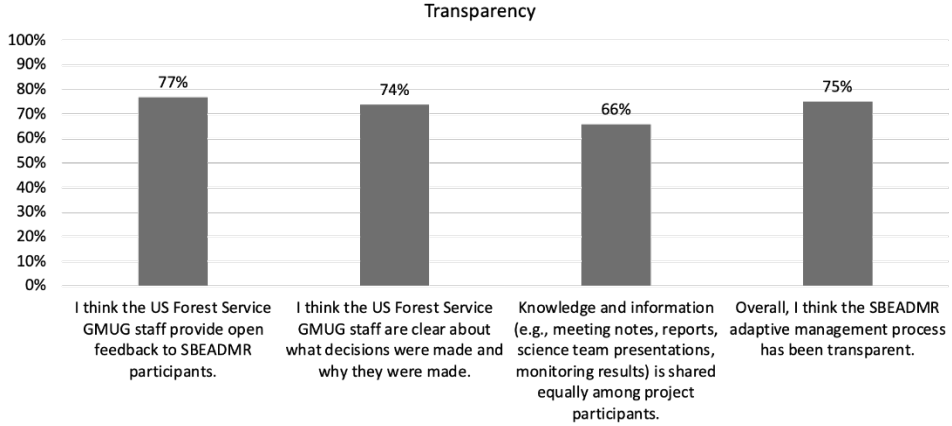


With respect to socio-economics, 61% agreed or strongly agreed that the SBEADMR processes increased their understanding of socio-economic conditions and processes related to forest management, while only half agreed or strongly agreed that the process increased their knowledge of the impacts of treatments on socio-economic conditions.

Shared priorities and understanding: A majority of respondents felt that: a) the collaborative process created a space for open communication and dialogue to achieve the stated goals of the record of decision (69%); b) participants agree about the key *problems* that impact their landscape (63%; and c) on the whole, the process has helped participants identify shared priorities and strategies for treatment implementation (65%). Less agreed that participants agree about the *strategies to solve problems and achieve goals (44%)* and the "why" of the SBEADMR project (51%). There could be several reasons for diminished agreement. Respondents indicated that getting agreement around the need for salvage treatments was less difficult than coming to agreement around the purpose, need, and approaches for green tree "resiliency" treatments. Also, respondents noted that turnover has been a challenge that has complicated shared agreement and understanding of the "why" of the SBEADMR project.



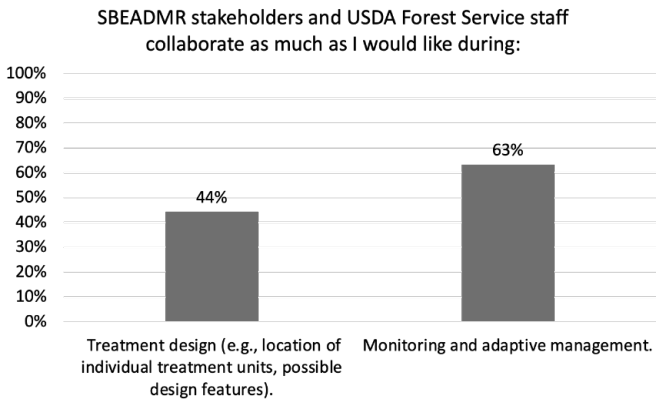
Transparency: A majority of respondents agreed or strongly agreed that the SBEADMR collaborative adaptive management process has been transparent, particularly regarding the GMUG's commitment to provide open feedback to participants (77%), being clear about what decisions were made (74%), and the accessibility of knowledge and information for interested participants (66%). Both the CFRI website and Story Map were new additions to SBEADMR, which respondents noted should help with accessibility of knowledge and information.



Responsiveness*:* A majority of respondents agreed or strongly agreed that the GMUG staffwere responsive to collaborative and public input (74%), new scientific information (82%), changing conditions on the ground (77%), and whether they use lessons learned from monitoring and adaptive management to improve their management actions (77%). One challenge that may warrant consideration was what the role was for, and the process within, SBEADMR in incorporating new scientific information that may be of concern to local participants but may be outside the scope of SBEADMR, not pertinent to the unique ecology and context on the GMUG, or not clear how it fits into the project.

Shared motivation (trust, relationships, commitment): More than 70% of respondents agreed or strongly agreed the process supported trust (77%), relationship-building (77%), and mutual respect (73%), while 79% and 73% felt that they and their colleagues, respectively, were committed to the process. Key factors to building trust, relationships, and respect reported were the open, inclusive meeting environments where participants had the opportunity to listen and learn about others' concerns, and voice their own. Strong leadership and facilitation was key to this. Additionally, trust and relationships are built by showing up, following through, being transparent, and responsive. Still, some respondents indicated some factors that have led to distrust and strained relationships among some participants, including failure in some cases to document agreed upon adaptations among the AMG, and a lack of documentation of, and follow-through on, discussions and agreements made during field trips.

Collaboration throughout treatment design, monitoring, and adaptive management: 44% and 63% of respondents agreed or strongly agreed that GMUG staff and other stakeholders collaborated as much as they would like in treatment design and monitoring and adaptive management, respectively. They suggested that details provided during out-year planning allowed for identification of, and comment on, where treatments would occur, but details were not specific enough to allow for participants to meaningfully engage and inform discussions related to the treatment design. In the same vein, questionnaire respondents perceived that there was little room for modification once the sale was proposed and the period for public comment was active.

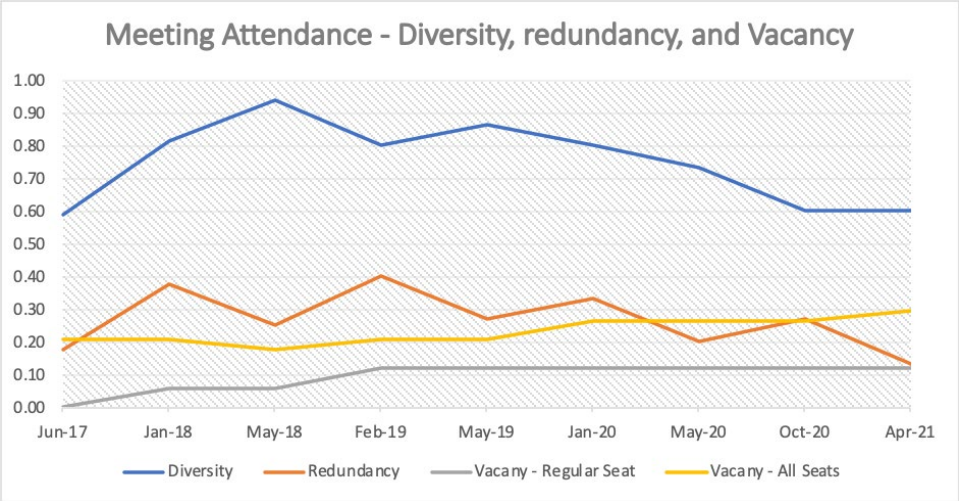


To what extent has stakeholder participation changed over the project timeframe?

Level of participation: We defined active participants, partial and non-participants by each seat category – Active participants were present at 5 or more meetings (n=12 seats); Partial participants were present at 1-4 meetings (n=4), and non-participants did not participate in meetings (n=1).

Meeting diversity, redundancy, and vacancy: We assessed the percentage of seats (regular or alternate member) present at each meeting, while taking into account vacant positions.

Diversity rose after the first meeting and stayed relatively high until Jan 2020. Representation decreased following the January 2020 meeting, potentially a result of COVID-19 pandemic.



Redundancy refers to the number of seats that had both the regular and alternate member present at a meeting. Redundancy varied across meetings. It has remained relatively low since May 2020. This can have implications for institutional memory if members of designated seats do not communicate about meeting outcomes.

Vacancy refers to the percent of vacant positions among all seats and regular seats (out of 34 and 17 possible seats, respectively).

- Vacancy - All – Relatively stable at 20% of seats vacancy until Jan 2020, where saw increase up to 30% by April 2021 meeting.
- Vacancy – Regular – Since February of 2019, 2 regular seats have been vacant and remain so today.

Longevity and turnover: We assessed changes in members representing each seat (when both regular and alternate changed). Membership has been relatively stable. The AMG witnessed an early change in the environmental/conservation seat. A change in the forest processor representative occurred in early 2020. A change in Hinsdale County representation occurred in May 2020, with no subsequent participation of that seat.

What adaptations have been made based on the results of administrative studies?

Results forthcoming on this question.

2021 Interpretation

- Collaborativeness of AMG - Core group of 'doers' has remained invested and committed to the collaborative adaptive management process. Some vacancies in key positions and intermittent participation in the AMG were observed.
- The SBEADMR process is generally meeting its goals of diverse participation, collaborative learning, developing shared understanding and agreement, transparency, responsiveness, trust- and relationship-building, and a participatory collaborative process.
- Yet, participants identified some areas that need improvement. For example:

- Participants suggested a number of individuals/organizations to invite or consult with on projects
- Learning and understanding of socio-economic forest management context
- Shared understanding and agreement around the priorities for achieving goals, and the “why” of the SBEADMR project. This may be due to turnover, shifts to resiliency treatments, among others.
- More opportunities to understand and inform annual implementation cycle – particularly treatment design and annual adjustments or adaptations that are made.

Adaptive Management

The GMUG's Annual Management Reviews consider input from AMG recommendations, GMUG resource specialists, SBEADMR Science Team and other relevant research in order to make adaptive management decisions for the design and implementation of SBEADMR projects. Management Reviews are conducted by the GMUG Forest Leadership Team (FLT) who make final decisions on changes to SBEADMR implementation. The following changes were made in 2022.

FY 2022 SBEADMR Treatment Checklist Changes

After considerable internal discussion and following recommendation by the AMG, the checklist was updated to allow for use of tethered cut-to-length equipment on a "pilot project" basis. Initial project use of this equipment on slopes over 40% within SBEADMR PTAs will be subject to pre- and post-implementation monitoring which will inform future adaptations of the SBEADMR checklist. Further use of this technology in SBEADMR projects will be subject to success of the pilot project, as measured by the ability to meet project objectives while minimizing soil disturbance (erosion, displacement, and compaction).

Three checklist items were changed to allow for use of this technology (changed text in red):

(WQSB-7B(A)) Skid trail locations will be agreed to by the Forest Service in advance of construction; spacing will be approximately 100 feet apart, allowing for topographic variation and skid trail convergence. If cut-to-length logging equipment that travels over a slash mat rather than bare soil is used, 50-60 foot spacing of trails is acceptable. Space water bars as appropriate on skid trails according to slope and soil type, as indicated in Table A-14.

(WFRP-11) Skid trails and landings will be located to minimize impacts to advanced regeneration. Skid trails will be placed at least 100 feet apart, except where they need to tie in together at landings. If cut-to-length logging equipment that travels over a slash mat rather than bare soil is used, 50-60 foot spacing of trails is acceptable.

WQSP-5B(D) Avoid ground skidding on sustained slopes steeper than 40 percent and on moderate to severely burned sustained slopes greater than 30 percent. Use of cut-to-length harvester/forwarder systems that travel on a slash mat, rather than bare soil, is acceptable on slopes up to 60%. Conduct logging to disperse runoff as practicable.

Per internal recommendation, the cover page of the checklist was updated to allow space for a brief project summary.

Other Changes

The AMG made several recommendations to GMUG FLT during the spring management review process. FLT concurred with recommendations review and prioritize recommendations for improvement from CFRI's adaptive management review, including additional outreach from the AMG to groups identified in survey responses. Per AMG request, the GMUG shared information on where SBEADMR PTAs and Potential Operational Delineation (POD) polygons for fire/fuels management overlap.

Due to some SBEADMR treatment units exceeding soil disturbance limits, the AMG recommended additional design criteria or other means to ensure exceedance does not occur in the future. In response, the GMUG soil scientist and sale admin team conducted a field review to better understand the issue and will report review findings at the May 2023 AMG meeting.

Full text of AMG recommendations and FLT response can be found in the Adaptive Implementation Annual Report for 2022.

Log deck on the Big Willow Good Neighbor Authority timber sale

SBEADMR Timber Treatments
Sales awarded from Fiscal Year 2016 through Fiscal Year 2022

Sale Name	FY Awarded	Resource Zone*	Treatment Type	Acres Treated	Volume Produced (CCF)	Miles of Temporary Road	Treatment Status
Horse Mountain	2016	North	Resiliency	110	1,449	0	Complete
Cathedral	2017	East	Salvage	640	13,497	10	Complete
Nutras	2017	East	Salvage	210	5,835	1.8	Complete
Pauline	2017	East	Salvage	1,874	18,615	9.7	Complete
Skeleton	2017	East	Salvage	610	12,777	8.4	Complete
Willow Mesa	2017	East	Salvage	440	5,800	6.4	Complete
Moore Knots	2017	North	Sanitation	15	70	0	Complete
Little Cone	2017	West	Resiliency	86	1,775	0	Complete
Cooler	2018	East	Salvage	244	2,167	1.4	Complete
Divide Salvage	2018	East	Salvage	160	2,545	1	Complete
Last Tree	2018	East	Salvage	466	6,270	3.7	Complete
Millswitch	2018	East	Salvage	885	18,516	2.6	Active
Quill	2018	East	Salvage	569	6,708	4.4	Complete
Sargents Mesa	2018	East	Salvage	1,468	14,195	9.7	Complete
Crane	2018	North	Resiliency	475	8,552	1.6	Complete
High Mesa	2018	West	Salvage	320	13,178	3	Complete
Big Willow	2019	East	Salvage	2177	41,224	12	Active
Buffalo Forks	2019	East	Salvage/ Resiliency	100	1,441	2	Sold
Ridgestock	2019	East	Salvage	1,300	28,858	12	Active
Sage Park	2019	East	Salvage	14	130	0	Complete
Jackson	2019	West	Salvage/ Resiliency	321	10,789	2	Active
Telski	2019	West	Resiliency	50	500	0	Complete
Overland	2020	North	Resiliency	701	18,761	4	Sold
Hubbard	2020	North	Resiliency	896	16,114	7.2	Sold
Rainbow	2020	East	Resiliency	956	5,418	5.6	Complete
Grouse Glade	2020	West	Resiliency	20	111	0	Complete
Big Park	2020	West	Salvage/Resiliency	1,056	16,145	1	Active
Big Creek	2021	North	Resiliency	309	2,902	3.72	Complete
Kannah	2021	North	Resiliency	345	2791	3.27	Sold
Kitson	2021	North	Salvage	21	228	0.7	Sold

Lost 80	2021	North	Salvage	22	103	0	Sold
Muddy Aspen	2021	North	Resiliency	159	4,524		Sold
Rim	2021	North	Resiliency	359	3,883	0	Sold
Sweaty	2021	North	Resiliency	184	1,832	0	Sold
Antelope	2021	East	Resiliency	1,258	7,680	0	Sold
Little Cone GNA	2021	West	Resiliency	86	1,895	n/a	Complete
Lone Craver	2021	West	Resiliency	545	14,142	0	Sold
Telski Forest Health	2021	West	Resiliency	12	746	0	Sold
Boston Peak	2022	East	Resiliency	1,010	12,984		Sold
Groundhog	2022	West	Resiliency	170	1,974		Sold
Totals				***20,643***	***327,124***	***117.2***	

*****Resource Zones: East = Gunnison Ranger District, North = Grand Valley and Paonia Districts, West = Ouray and Norwood Ranger Districts

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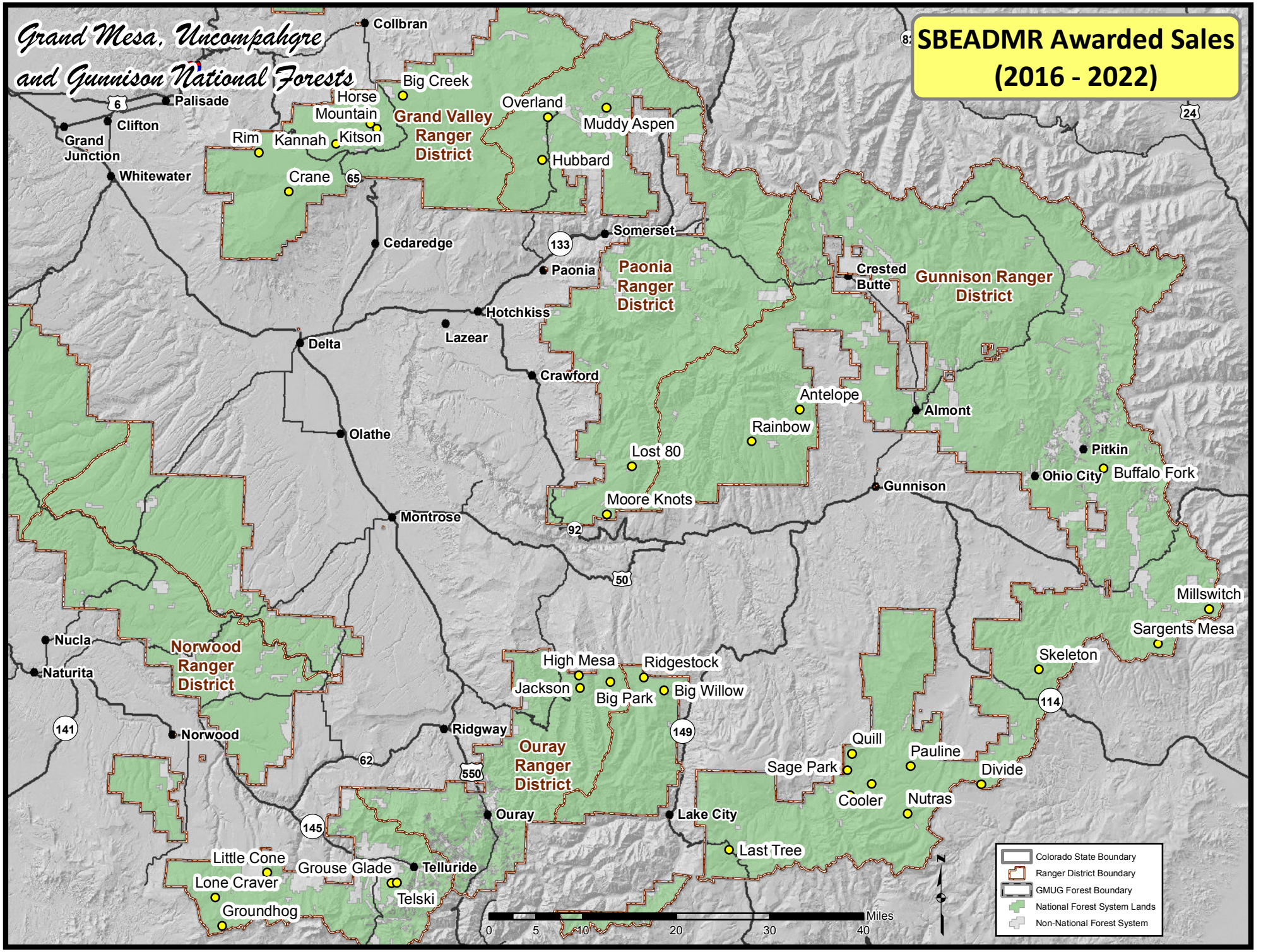
North Zone (Grand Valley and Paonia Ranger Districts) – Christie LaDue, christie.ladue@usda.gov
West Zone (Norwood and Ouray Ranger Districts) – Ian Reiling, ian.c.reiling@usda.gov

SBEADMR websites

Overview, Current Meeting Information,and Archives:
https://cfri.colostate.edu/projects/sbeadmr/
GMUG SBEADMR Implementation (current FY only):
https://www.fs.usda.gov/detail/gmug/landmanagement/resourcemanagement/?cid=fseprd497061
Story Map and Online Comment Platform

SBEADMR Facilitator

Susan Hansen - shansen42@gmail.com


Grand Mesa, Uncompahgre and Gunnison National Forests
SBEADMR Awarded Sales (2016 - 2022)
Collbran
Big Creek
Horse Mountain
Palisade
Clifton
Grand Junction
Rim
Kannah
Kitson
Grand Valley Ranger District
Overland
Muddy Aspen
Hubbard
Whitewater
Crane
Cedaredge
Somerset
Paonia
Paonia Ranger District
Crested Butte
Gunnison Ranger District
Hotchkiss
Lazear
Delta
Crawford
Antelope
Almont
Rainbow
Olathe
Lost 80
Pitkin
Ohio City
Buffalo Fork
Gunnison
Moore Knots
Montrose
Millswitch
Sargents Mesa
Skeleton
Nucla
Naturita
Norwood Ranger District
High Mesa
Ridgestock
Jackson
Big Park
Big Willow
Norwood
Ridgway
Ouray Ranger District
Quill
Pauline
Sage Park
Divide
Cooler
Nutras
Ouray
Lake City
Last Tree
Little Cone
Grouse Glade
Telluride
Lone Craver
Telski
Groundhog
Colorado State Boundary
Ranger District Boundary
GMUG Forest Boundary
National Forest System Lands
Non-National Forest System
Miles
0 5 10 20 30 40