



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

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May 1, 2023

Ref: 8ORA-N

Jason Brey, District Ranger
Hebgen Lake Ranger District
Custer Gallatin National Forest
330 Gallatin Road
West Yellowstone, Montana 59758

Dear District Ranger Brey:

The U.S. Environmental Protection Agency Region 8 has reviewed the U.S. Department of Agriculture Forest Service Final Environmental Assessment (EA), and the Draft Decision Notice (DN) and Finding of No Significant Impact (FONSI) for the South Plateau Landscape Area Treatment Project (South Plateau) in the Hebgen Lake Ranger District of the Custer Gallatin National Forest (Forest). The EA evaluates the environmental impacts of 16,462 acres of fuels and vegetation treatments across a 39,909-acre project area using a combination of timber harvest and non-commercial fuels reduction projects over a 15-year period. The proposed action includes 5,551 acres of clearcut harvest, including mature and old growth stands, and 56.8 miles of temporary road construction. We offer the enclosed comments consistent with our authority under Section 102(2)(C) of the National Environmental Policy Act (NEPA). Please note that this letter is not intended as a written objection under the Forest Service's objection process, rather it is intended to inform the proposed decision and anticipated signed EA and DN.

We appreciate the Forest's responses to our comments and the subsequent information that was added to the various NEPA planning documents regarding the water and air quality analyses, climate change, fen wetlands, and monitoring. The information that was added improves the analysis and public disclosure of the information that was considered by the Forest to draft its DN. Our remaining primary concern is with the condition-based or landscape-based nature of the project and site-specific information relevant to supporting a Finding of No Significant Impact during all phases of the project. In addition to this overarching concern, we have some remaining comments on the water quality, air quality and climate change analyses.

We appreciate the opportunity to provide recommendations for this NEPA planning document and enclosed are our detailed comments for your consideration. These comments are intended to facilitate the decision-making process and we thank you for considering our input. If we may provide further explanation of our comments, please contact me at (303) 312-6155, or Shannon Snyder of my staff at (303) 312-6335 or snyder.shannon@epa.gov.

Sincerely,

Melissa W. McCoy, Ph.D., J.D.
Manager, NEPA Branch
Office of the Regional Administrator

Enclosure

Enclosure – EPA Comments on the Custer Gallatin National Forest South Plateau Final EA, Draft Decision Notice, and FONSI

Site Specificity and Programmatic NEPA

The Comment Consideration and Response document contained several responses to our previous comments on site-specificity, condition-based management, and programmatic NEPA. One of the responses (#229-4, p. 195) states, “While not all project activities are yet laid out, a map of the first two planned sales that have been preliminarily laid out and served to test design features is available on the project webpage and a map of sale priority areas has been included in the Final EA. As more activities are planned, maps and accompanying data will be made available on the project webpage at least annually.” EPA reviewed this new information in the document titled “DRAFT Layout for Mosquito Gulch and Plateau Timber Sales.” This document indicates the Forest used the preliminary layout of these two timber sales to test the process of using the Treatment Matrix, Design Features, and Resource Review Checklists. It also states, “Preliminary sale lay-outs may be modified in response to public comments or consultation with the US Fish and Wildlife Service.”

These recent disclosures regarding timber sale areas, the roads needed to access those areas, and the design features and best management practices (BMPs) necessary to prevent significant impacts have occurred after the public comment period under NEPA. The results of consultation with the U.S. Fish and Wildlife Service will presumably also be disclosed outside of the NEPA process. These disclosures are with regard to just two of the 4-6 timber sales (*see* Final EA, p. 10) that could occur during project implementation, so it is likely the Forest will need to make more changes to project design after NEPA is completed and the additional sale and treatment areas are specified. Additionally, according to the new maps of the two first timber sales (Map 3), it appears a road will be built through old growth forest. This information was not disclosed previously in the Draft EA and, therefore, available for public comment. It is now only available during the objection period, which does not allow for full public participation. The Forest’s plan to post maps and accompanying data for future project activities at least annually on the project’s webpage, while helpful and encouraged, is not equivalent to the NEPA public participation process.¹

The Forest Service definition of condition-based management is “a management approach which supports responsiveness and flexibility between planning and implementation in natural resource management. Condition-based management allows for proposed treatments to be aligned-post-decision but prior to implementation with current conditions on the ground. It does this by focusing on collecting the right data at the right time for the right activity to meet the land management decision.”² We recognize and agree with the Forest Service’s concern that existing conditions can change over time, which is further complicated by a dynamic climate, particularly when potentially looking ahead over the 15-year project implementation period. To respond to a rapidly changing climate and environment, ensure site-specific planning and analysis of the effects of proposed activities, and provide meaningful public participation during the NEPA process, we continue to recommend the Forest develop the analysis for this project

¹ It is also uncertain if this annual update mentioned in the comment response document is the same as the annual update listed in the Implementation Process (Appendix A, p. 90), which is a post-project implementation update, or if this is a different annual update that would happen prior to project activity implementation.

² https://www.fs.usda.gov/sites/default/files/2022-04/%27CBM_FAQs_24JAN22%27%20of%20%27AR-%20Project%20Development%27.pdf

within a programmatic NEPA document and commit to tiered, site-specific NEPA analyses when the Forest plans the proposed project activities, specific locations, and defined timing of implementation. This approach allows for responding to ever-changing environmental conditions and would also provide opportunities for the public and other agencies to better understand on-the-ground environmental conditions and formally comment on the impacts and benefits of individual treatment projects, as well as design criteria and best management practices, within the NEPA process.

Water Quality

We appreciate the additional information in the Comment Consideration and Response document and Water Quality Specialist Report concerning the rationale for the application of the 6th class (HUC-6) subwatershed scale to the effects analysis, the clarification of the Watershed Condition Classification Ratings, information about the mitigating effects of tree shading on potential temperature impacts, and potential impacts to downstream waterbodies. We have some remaining comments for your consideration.

Page 4 of the Water Quality Specialist Report indicates the analysis relies upon a sediment yield standard from the 2006 Gallatin NF Travel Management Plan (TMP) for the allowable threshold of impact (Standard E-4: allowable limit of 30% above reference level for sediment in Class A streams and 50% above reference level for sediment in Class B streams). Our review of the Watershed (Water Quality) analysis from the 2006 Gallatin NF TMP indicated Standard E-4 is actually from the 1987 Gallatin NF Forest Plan (p. 3-556). The 2020 Custer Gallatin NF Forest Plan replaced the 1987 Gallatin NF Forest Plan and we were unable to locate this same standard in the 2020 Forest Plan, so it appears this standard is not in effect. We recommend the Forest include the rationale for why it chose this standard/threshold from the 1987 Gallatin NF Forest Plan for its analysis of South Plateau, rather than an appropriate standard from the 2020 Forest Plan. Further, if the Forest decides to use this standard/threshold for its analysis of South Plateau, we recommend evaluating how this threshold is appropriate and protective under current Forest conditions. Forest conditions and water quality conditions have changed greatly since 1987 when the Forest conducted its analysis prior to establishing the standard. The fact that the current sediment yield of 8% above naturally occurring conditions in the Middle South Fork Madison River watershed is associated with a watershed that is “functioning at risk” due to “poor” watershed condition ratings for aquatic biota and soil raises further questions about whether a sediment yield standard of 30% above reference conditions is protective. Therefore, an evaluation of the protectiveness of this apparently obsolete standard, including whether current sediment yields of 8% above reference are contributing to the poor watershed conditions, appears warranted to support the conclusion that increasing sediment yield to 27-30% above reference conditions will not result in significant effects. In the absence of a current standard on sediment yield, an evaluation of whether an increase in yield to 30% above reference conditions would lead to exceedance of relevant state water quality standards under the Clean Water Act (CAA) would also be relevant to an evaluation of significance.

With regard to effects on specific water bodies, the Aquatic Resources Specialist Report states, “The South Plateau Landscape Area Treatment Project could affect habitat and water quality within and immediately downstream of the project area in tributary streams before they flow into Hebgen Lake” (p. 3). The response document states “Hebgen lake is located immediately downstream of the South Fork Madison River, which is the principal water body draining the project area. Hebgen Lake is not listed as an impaired water body by the Montana DEQ. With respect to water quality sediment is the issue of concern; and project related sediment reaching the lake would settle to the lake bottom” (p. 107). We

cannot locate any further discussion of these downstream tributaries and whether they could potentially be impacted by sediment as it flows to Hebgen Lake. We recommend the specialist report(s) include information about these downstream tributaries, including whether these tributaries are on the most recent EPA-approved Montana CWA 303(d) list. We recommend using this information, including the considerations in the paragraph above, to evaluate the level of impacts to these tributaries and determine if additional design features and BMPs are needed to ensure water quality in these downstream tributaries meets water quality standards. Additionally, the fact that sediment that flows to Hebgen Lake has the potential to settle does not mean it is innocuous. Increased sediment affects the ecology of lakes by impacting water quality parameters, such as total suspended solids, total dissolved solids, heavy metals, nutrients, and aquatic biota. Infilling with sediment can also decrease water storage capacity. Therefore, we recommend evaluating the significance of the impacts from sedimentation in Hebgen Lake.

In the comment response document, the Forest acknowledges that with respect to water quality, sediment is the main issue of concern (p. 107), and in numerous responses to comments it asserts the project design features and BMPs will prevent significant impacts to water quality. The main source of sediment from projects such as this is from roads, and temporary roads can impact water quality.³ The Forest Service utilizes a document titled, *National Best Management Practices for Water Quality Management on National Forest System Lands*, which includes specific road BMPs for controlling sediment delivery into surface water and protecting water quality.⁴ In 2016, the Forest Service issued a report titled, *Effectiveness of Best Management Practices that Have Application to Forest Roads: A Literature Synthesis*.⁵ It summarized research and monitoring on the effectiveness of different BMP treatments for road construction, presence, and use, and stated the following:

“Many road BMP effectiveness studies do exist; however, the effectiveness of most forest road BMPs has not been investigated rigorously (including replicated and quantitative studies) under a wide variety of geologic, topographic, physiographic, and climatic conditions since their development decades ago. Much more quantification of effectiveness is needed (Anderson and Lockaby 2011a, Moore and Wondzell 2005, Stafford et al. 1996) to understand the site characteristics for which each BMP is most suitable and for proper selection of the most effective BMP techniques (Carroll et al. 1992, Weggel and Ruston 1992).”

The report cites different reasons for why BMPs may not be as effective as commonly thought (p. 133). “Most watershed-scale studies are short-term and do not account for variation over time, sediment measurements taken at the mouth of a watershed do not account for in-channel sediment storage and lag times, and it is impossible to measure the impact of individual BMPs when taken at the watershed-scale.” When individual BMPs are evaluated for effectiveness, the “lack of broad-scale testing in different physiographies, climates, soil types, and other factors for most BMPs weakens the argument that their effectiveness is scientifically well proven.” Further, the report observes, “The similarity of forest road BMPs used in many different states’ forestry BMP manuals and handbooks suggests a degree of confidence validation that may not be justified,” because they rely on just a single study (p. 133-32). Therefore, it would appear that BMP effectiveness is dependent upon site-specific conditions, and those site-specific conditions vary across a landscape-scale project. The effectiveness of BMPs plays a crucial role in a condition-based, landscape-scale project because the Forest is relying upon design features and

³ See, e.g., <https://www.spokesman.com/stories/2020/may/16/temporary-roads-cause-more-than-temporary-damage/>

⁴ https://www.fs.usda.gov/naturalresources/watershed/pubs/FS_National_Core_BMPs_April2012.pdf

⁵ <https://www.fs.usda.gov/research/treearch/53428>

BMPs to support a FONSI. Given that the majority of site-specific project-level information and analysis is postponed under a condition-based project, it is unclear how significant impacts will be avoided for this project over the life of the project implementation period. To ensure such avoidance, we recommend carrying out field-testing of BMPs, like that done for the first two timber sales, as part of tiered, site-specific NEPA analysis of the remaining project activities not yet laid out.

Air Quality

EPA made a comment on the Draft EA regarding the air quality analysis and estimation of emissions. Comment response #229-9 (p. 2) refers to the Revised Fire and Fuels Specialist Report for additional analysis. The revised analysis in that referenced report indicates the Forest utilized the First Order Fire Effects Model (FOFEM) and the Piled Fuels Biomass and Emissions Calculator, with assumptions for daily activities, to estimate daily emissions from the action as well as wildfire (emissions listed in Table 1 (p. 3)). It states “Calculations representing typical smoke outputs were made for 300 hand piles, 5 landing piles or 100 acres of broadcast burning per day, which are considered average daily amounts based on past implementation. These could be slightly higher or lower, depending on conditions. [P]roposed treatment outputs are compared to a local high intensity wildfire, the Madison Arm fire, which burned approximately 3,000 acres in one day on June 27, 2007” (p. 3).

We appreciate this additional analysis and data that begins illustrating potential air emissions related to prescribed fire, but we note it does not include an emissions inventory that addresses other sources of emissions from vehicles and equipment, nor does it provide the detailed assumptions such as information related to the size of these modeled hand piles and landing piles, emission factors for the type of vegetation that will be burned, the amount of material to be combusted, types of emissions generating equipment, vehicle miles traveled, etc. We recommend providing this information in the Revised Fire and Fuels Report.

Although the Proposed Action is certain to result in impacts, the No Action is speculative and therefore the impacts resulting from it are uncertain. The Fire and Fuels Report compares the daily emissions from the Proposed Action with daily emissions from emissions estimates for the Madison Arm Fire. However, the report does not discuss whether the Madison Arm Fire is representative of an average wildfire in the project area. In addition, the report does not include the details of that wildfire, such as the time of year the fire occurred, the types of vegetation that burned, moisture levels, wind speed, density of vegetation, and how that fire relates to average wildfire events in the area. Wildfire may occur or may never occur, and the spatial and temporal aspects of that potential impact, including the intensity, are currently unknown, making it difficult to predict the magnitude of effects. The 2019 Carbon Assessment for the Custer Gallatin National Forest acknowledges that although wildfire has been the most prevalent disturbance detected on the Forest since 1990, fire disturbances are variable in terms of intensity and are small (less than 2 percent of the total amount of carbon stored on the forest” (p. 23). In the Final EA and Fire and Fuels Report, please include the rationale for why the Forest used the Madison Arm Fire as a reference wildfire and the site-specific conditions that existed at the time of that fire. We also recommend including, as additional reference conditions, a range of wildfire events that capture variations in size, intensity, and severity, and their likelihood of occurrence (if able to be estimated). This will help in understanding the likelihood that one alternative may be more environmentally beneficial than another.

Climate Change

On the Draft EA, EPA submitted comments on climate change, and the comment response document responded to those comments. We appreciate the information the Forest added to the Final EA and various specialist reports regarding the potential impacts of climate change. Comment response #229-15 responds to our recommendation that the Forest conduct a quantitative project-level carbon stocks analysis and states that “Currently the Forest Service does not have legal obligations to address the full carbon life cycle disclosures requested by the commenters” (p. 13). Even though the Forest has chosen not to implement the CEQ 2023 *Interim Climate Guidance for NEPA* for South Plateau (p. 1-2 of the Revised Carbon Summary), the guidance provides direction for analyzing and discussing project-related direct, indirect, and cumulative climate-related impacts. Section IV(I), Special Considerations for Biological GHG Sources and Sinks states “In NEPA reviews, for actions involving potential changes to biological GHG sources and sinks, agencies should include a comparison of net GHG emissions and carbon stock changes that are anticipated to occur, with and without implementation of the proposed action and reasonable alternatives. The analysis should consider the estimated GHG emissions (from biogenic and fossil-fuel sources), carbon sequestration potential, and the net change in relevant carbon stocks in light of the proposed actions and timeframes under consideration and explain the basis for the analysis.” Therefore, we continue to recommend the Forest analyze carbon stock changes and GHG emissions associated with the project in combination with the cumulative effects of the many other ongoing and planned projects on national forests. While as stated by the South Plateau Revised Carbon Summary (p. 4), project-related reductions in carbon stocks would be mitigated with time, short-term actions and changes in GHGs are critical for our ability to address the climate crisis and prevent the most catastrophic effects of climate change. Since the Disturbance Report provided quantitative analysis of changes in forest carbon stocks due to past disturbances like timber harvest and fire, without further explanation it appears that estimates of changes in carbon stocks due to similar future activities are possible.

The Revised Carbon Summary does not explain how it tiers to the Custer Gallatin Carbon Assessment from the Land Management Plan EIS to come to its conclusion that the “proposed action impacts a relatively small amount of forest land and carbon on the Custer Gallatin National Forest and, in the near-term, might contribute a small quantity of carbon relative to the forests carbon uptake and stores which would be mitigated by a more resilient forest condition and future carbon uptake.” (p. 4). The basis for this conclusion is that the proposed action is consistent with the Land Management Plan EIS; however, this reasoning is unclear as the Custer Gallatin Carbon Assessment does not quantify or directly provide information on effects to carbon storage from future project-level activities. Therefore, if the Forest does not follow the Interim CEQ Guidance for this analysis, we recommend the NEPA document clarify how the Custer Gallatin Carbon Assessment informs on the expected amount of change to carbon stocks due to the South Plateau project, especially in light of the quantitative analysis in the Disturbance Report, and discuss the limitations of the analysis in that regard. However, in making conclusions about the significance of changes in carbon stocks and emissions, we recommend that the Forest Service avoid comparisons between project-level and national or global stocks and emissions, as this approach is limited by the cumulative nature of GHG concentrations and the impacts of climate change. Because of these limitations, these comparisons inappropriately minimize the significance of project-level changes to carbon stocks and emissions and do not provide meaningful information for a project-level analysis.