



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region08

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Ref: 8ORA-N

Mary Erickson, Forest Supervisor
Custer Gallatin National Forest
P.O. Box 130
Boseman, Montana 59771

Dear Supervisor Erickson:

The U.S. Environmental Protection Agency Region 8 has reviewed the U.S. Department of Agriculture Forest Service Draft Revised Environmental Assessment (EA) for the South Plateau Landscape Area Treatment Project (South Plateau) in the Hebgen Lake Ranger District of the Custer Gallatin National Forest (Forest). In accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA), we are providing comments. These comments convey important questions or concerns that we recommend addressing during the NEPA process.

The 39,909-acre project area is located south and west of the town of West Yellowstone in Gallatin County, Montana, extending from U.S. Highway 20 on the north end to the Montana-Idaho border on the west and south and the Yellowstone National Park boundary on the east. The Forest is proposing fuels and vegetation treatments on up 16,462 acres across the project area. According to the Draft EA, the Forest will be using a combination of timber harvest and non-commercial fuels reduction projects to increase the resiliency of the landscape to insects and disease, contribute to a sustained yield of timber projects and improve the productivity of forested timber stands, and to treat hazardous fuels to aid in wildfire suppression. The proposed action includes 5,551 acres of clearcut harvest, including mature and old growth stands, and 56.8 miles of temporary road construction.

EPA's review of the information provided in the Draft EA identified one overarching concern. It appears the Forest is implementing a programmatic (vs. site-specific) approach and analysis that would authorize multiple non-commercial thinning, commercial logging, and prescribed fire projects without requiring future, site-specific project NEPA analyses. Given the lack of site-specific information and analysis, and potential for significant water quality, air quality and ecological impacts, it is unclear how the EA and FONSI will ensure significant impacts will be avoided for this project. We recommend the Forest develop this as a programmatic NEPA document that commits to tiered, site-specific NEPA analyses that provides opportunities for public involvement and comment on individual treatment projects.

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. 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.
Manager, NEPA Branch
Office of the Regional Administrator

Enclosure

Enclosure – EPA Comments on the Custer Gallatin National Forest South Plateau Draft EA

Site Specificity and Programmatic NEPA

According to the available information in the Draft EA, the Forest appears to be using a condition-based management approach for the South Plateau project. The Draft EA lacks site-specific information about existing conditions, analyses of impacts, and mitigation measures. Instead, the Forest proposes to use an implementation plan, treatment matrix, and design features to manage each individual treatment and logging area. Given this information, we were unable to evaluate the likelihood that significant effects will be avoided for the EA and FONSI. NEPA requires a “hard look” at potential environmental impacts of a proposed action and public disclosure of those impacts prior to implementation. The impacts associated with the proposed action will vary based on site-specific conditions including: vegetation community composition, soil-types, slopes, proximity to residences, proximity to aquatic resources, proximity to Class I airsheds, road construction needs, road maintenance status, volume and type of material burned, equipment used, volume of truck traffic, sensitive species habitat, etc., and those site-specific conditions are varied across the South Plateau landscape.

Although conditions vary throughout the planning area, and so impacts would be expected to vary as well, the Draft EA does not contain the actual locations of the timber sales and harvest units or where the temporary roads will be built and therefore it cannot disclose, analyze, or describe the localized impacts that can potentially occur. Individual treatment project design and impact assessment will occur post-FONSI, years after the public comment period on this Draft EA. This lack of site-specificity hampers informed decision-making as part of the NEPA process, and therefore meaningful public participation on the individual treatment projects, both important for understanding the potential for significant impacts and determining mechanisms for avoiding them.

For example, the water quality effects analysis was performed on a watershed level using either modeling or professional judgement to analyze four parameters that could potentially be impacted by the proposed project: water yield, peak flows, sediment yield, and stream channel stability. While the EA concludes the effects to these four parameters will be minor on a watershed basis, it is uncertain if the effects would be minor on a localized scale specific to the individual treatment areas, treatment types, associated activities, road construction, time of year the activities occur, aquatic resources present, etc. The water quality specialist report indicates that sediment modeling is sometimes carried out on smaller catchments, and therefore on a more localized basis, and is warranted when there is a reason to focus special attention on an area, such as when there are sensitive fish populations present. According to the report, the Middle South Fork Madison River watershed is rated as functioning at risk due to "poor" watershed condition ratings for aquatic biota and soil. Sediment yield in this watershed is currently at 8% above reference conditions; therefore, it is not clear how a further increase in sediment yield to 30% would not impact the condition of this watershed (as concluded on page 20 of the water quality specialist report), including its aquatic biota and soil. It is also not clear why a more localized study is not warranted in this already impacted area, especially if it could determine that increases in sediment yield above 30% could occur within the watershed.

We also note the EA did not analyze other water quality parameters that could be impacted by vegetation treatments and clearcutting (e.g., temperature), nor did it look at water quality impacts downstream of the project area (e.g., impacts to impaired waterbodies). We recommend that the EA analyze these impacts.

The EA states the Forest proposes this “landscape approach to account for potential changes in on the ground conditions over the 15-year period of implementation.” The Council on Environmental Quality (CEQ) NEPA regulations anticipated the need for a deft approach to an ever-changing landscape. Those regulations allow for a programmatic NEPA analysis to define the sideboards of the program, and for quicker and more efficient site-specific project analyses tiered to it. A programmatic analysis followed by tiered site-specific NEPA analyses would be consistent with CEQ’s regulations and would be expected to speed the consideration and implementation of individual treatments while providing the “hard look” and required opportunity for public review and input under NEPA. Also, the long-term nature of the project (15 years) raises the concern that conditions, and therefore impacts of individual projects, could change with time, especially as the climate continues to change. Our recommendation to treat this EA as a programmatic document and carry out site-specific analyses in tiered NEPA documents would ensure that those impacts are evaluated, disclosed, and informed by public engagement.

Air Quality

The air quality section of the Draft EA only mentions that it incorporates design features to mitigate the impacts of prescribed fire smoke. It does not discuss the baseline air quality conditions, nor the different sources of air pollutants or emissions associated with the project activities. For instance, it does not mention emissions, including GHG emissions, associated with heavy equipment use, projected logging truck trips, or downstream transportation and milling. We recommend the EA describe the existing air quality conditions and evaluate whether project activities could affect air quality and what measures are needed to prevent significant impacts. Examples of potential air emissions associated with the proposed project activities include air pollutants from conducting the planned burns (broadcast, pile burning, etc.), gasoline and diesel emissions from equipment used in the planned activities, emissions from idling equipment, and emissions from vehicles traveling on paved and unpaved roads, including re-entrained dust. To better understand project effects, the EPA recommends the EA describe the management activities and where possible provide timelines for implementation. This will be the basis of the information that will inform the level of emission generating activity and potential air quality impact. We recommend including maps to identify areas where management activities will be focused in relation to existing Forest features and resources. We also recommend the EA estimate the amount of material to be combusted and the method of combustion (pile burning, backing fire, etc.), the types of emissions generating equipment needed, and number of truck trips associated with thinning and logging operations. Emission factors may then be used to estimate emissions from planned activities. Based on this information, we recommend an emission inventory be prepared that could inform a discussion of the pollutants generated from project activities. The preparation of annual emission estimates will inform long-term and potential long-range implications of the proposal that may not be captured by the prescribed fire planning process that will be followed as project activities are implemented. Once the Forest has an emissions inventory, please discuss in the EA the direct, indirect, and cumulative impacts associated with the proposed action to air quality.

Climate Change

The Draft EA does not contain a climate change analysis, rather it includes a Carbon Storage and Sequestration Specialist Report. The following excerpt from this Report is provided for context for our comments.

“In a global atmospheric CO₂ context, even the maximum potential management levels described by the plan alternatives would have a negligible impact on national and global emissions and on forest carbon stocks, as described below. As in this case, when impacts on carbon emissions (and carbon stocks) are small, a quantitative analysis of carbon effects is not warranted and thus is not meaningful for a reasoned choice among plan alternatives (U.S. Department of Agriculture 2009). Although advances in research have helped to account for and document the relationship between GHG and global climate change, it remains difficult to reliably simulate observed temperature changes and distinguish between natural or human causes at smaller than continental scales (Intergovernmental Panel on Climate Change 2007). This analysis considers the potential effects of management actions on climate change as indicated by consideration of changes in carbon sequestration and storage arising from natural and management driven processes.”

The 2009 U.S. Department of Agriculture reference in this excerpt, *Climate Change Considerations in Project Level NEPA Analysis*, is 13 years old and the IPCC report referenced is 15 years old (and there is a more recent IPCC report available). CEQ has also issued more recent guidance regarding the consideration of GHG emissions and climate change in NEPA analysis, *Final Guidance for Federal Departments and Agencies on the Consideration of Greenhouse Gas (GHG) Emissions and the Effects of Climate Change in NEPA Reviews* (August 1, 2016). We recommend utilizing more recent resources on the impacts of climate change, including the Fourth National Climate Assessment,¹ EPA’s Climate Change Indicators,² and the Fifth Assessment Report of the Intergovernmental Panel on Climate Change,³ to analyze and discuss the direct, indirect and cumulative climate-related impacts associated with the proposed action. We also recommend the Forest use the CEQ guidance in its analysis of the GHG emissions and climate impacts, including the ways in which climate change may exacerbate environmental effects and health impacts associated with the proposed action. This guidance provides a reasonable approach for analysis of GHG emissions, opportunities to reduce those emissions, analysis of climate impacts on the planning area, and climate change adaptation strategies. The NEPA.gov website⁴ includes a non-exhaustive list of GHG accounting tools available to agencies.

Additionally, the Draft EA tiered to the Custer Gallatin Land Management Plan’s (LMP) qualitative carbon storage and sequestration (CSS) analysis that concluded the LMP would not significantly, adversely, or permanently affect carbon storage. Based on this conclusion, the EA carried out no further analysis. In an open letter to Congress, over 100 climate and forest scientists warned “logging in U.S. forests emits 723 million tons of uncounted CO₂ into our atmosphere each year—more than 10 times the amount emitted by wildfires and tree mortality from insects combined. Greenhouse gas emissions from logging in U.S. forests are now comparable to the annual CO₂ emissions from U.S. coal burning, and annual emissions from the building sector. Logging conducted as commercial “thinning,” under the rubric of fire management, emits about three times more CO₂ than wildfire alone.”⁵ We recommend the Forest conduct a quantitative project-level carbon storage and sequestration analysis for the South Plateau project for inclusion in the EA. This analysis should consider the direct and indirect GHG emissions associated with the proposed action, including logging truck trips and downstream GHG emissions

¹ <https://nca2018.globalchange.gov/>

² <https://www.epa.gov/climate-indicators>

³ <https://archive.ipcc.ch/report/ar5/syr/>

⁴ https://ceq.doe.gov/guidance/ceq_guidance_nepa-ghg.html

⁵ See https://johnmuirproject.org/wp-content/uploads/2021/11/ScientistLetterOpposingLoggingProvisionsInBBB_BIF4Nov21.pdf

associated with transportation and milling of timber.

EPA recommends the EA include a discussion of reasonably foreseeable climate change impacts in the planning area—such as changes in precipitation patterns, hydrology, vegetation distribution in respective watersheds, and temperature. This could help inform the development of measures to improve the resilience of the Forest’s resources. Climate considerations in the EA should include how the shifting baseline of climate may need to be considered with regard to the resilience of the forest as affected by each of the future treatments, and the potential to influence the significance of impacts in various resource areas over time. This is consistent with the 2020 NEPA regulations as updated by the NEPA Phase 1 Final Rule (April 2022). We recommend utilizing this evaluation to develop the design features, monitoring, and mitigation to protect Forest resources.

Consistent with Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad* (January 27, 2021), we recommend the Forest include management actions to provide for diverse, healthy ecosystems that are resilient to climate stressors; require effective mitigation and encourage voluntary mitigation to offset the adverse impacts of projects or actions; reduce greenhouse gas emissions from authorized activities to the lowest practical levels; identify and protect areas of potential climate refugia; reduce barriers to plant migration; use pollinator-friendly plant species in restoration and revegetation projects; and consider project design (e.g., road construction) to mitigate potential structural impacts associated with extreme weather events. We also recommend discussing actions to improve the Forest’s ability to adapt to changing environmental conditions, such as selecting resilient native species for replanting. This should anticipate the effects rising temperatures may have on soil moisture levels, seeds/seedlings growth, the vulnerability of specific species under projected climate conditions in the short and longer term, and any anticipated shift of forest species to more suitable range elevations.

Fen Wetlands

Based upon available information there are potentially fen wetlands in the project area. The water quality specialist report states there are 1,002 acres of wetlands in the project area, and the Draft EA mentions fens in its wetland design features, but fens are not included in the water quality analysis nor is there a map showing their locations in reference to planned activities. Fens are groundwater-fed, peat-forming wetlands that often host rare plants and animals. Fens also provide important ecological and hydrological functions by improving water quality in headwater streams, sequestering carbon, and providing base flows to streams during late summer and/or drought periods. Fen wetlands rely on permanently saturated soil conditions which slows the decomposition of organic material, and therefore fen communities are very sensitive to hydrologic alterations. With accumulation of peat occurring at rates between 4 and 16 inches per 1,000 years, these ecosystems are generally considered to be irreplaceable. The U.S. Fish and Wildlife Service (USFWS) designated fen wetlands a Resource Category 1, which is habitat that is considered unique and irreplaceable on a national basis or at the ecoregion level.⁶ Further underlining the uniqueness and importance of fens in Montana, the U.S. Army Corps of Engineers revoked the use of Nationwide Permits in peatlands/fen-type wetlands to protect this unique wetland type.

When fen hydrology is disturbed and peat is exposed to aerobic conditions (e.g., due to a change or elimination of groundwater flow paths) soil microbes shift from anerobic respiration to aerobic respiration

⁶ [fws.gov/policy/501fw2.html](https://www.fws.gov/policy/501fw2.html)

and begin to consume the organic matter within the soils. Oxidation of the organic soils can permanently alter groundwater flow paths and hydro-physical properties of the soil such that restoration relies on the development of new peat material above the impaired soils. Restoration of fens is therefore both an extremely lengthy and challenging process. The USFWS's Region 6 fen protection policy states, "*Therefore, onsite or in-kind replacement of peat wetlands is not thought to be possible. Furthermore, at present there are no known reliable methods to create a new fully functional fen or to restore a severely degraded fen.*" Mitigation for fen impacts is not possible on regulatory time scales, therefore impacts to fens are irretrievable.

Because fens develop over thousands of years, have unique ecological values and are irreplaceable, EPA considers any temporary or permanent impact to fens or to their groundwater source to be a "significant" impact under NEPA. We recommend the EA include a description and the acreage of fens within the planning area and the potential direct and indirect impacts to fens and their groundwater supply that could result from the project. Additionally, and in accordance with the Clean Water Act Section 404 regulatory program, we strongly recommend that the alternatives analysis include requirements to avoid and minimize both direct and indirect impacts to these effectively irreplaceable resources. Clean Water Act Section 404 serves to direct impacts away from waters of the U.S., including wetlands and other aquatic sites, and no activity shall be permitted if there is a practicable alternative which would have less adverse impact on the aquatic ecosystem [40 CFR § 230.10]. It is important to note that compliance with the 404(b)(1) guidelines may involve the use of different screening criteria for alternatives as compared to NEPA, particularly related to the regulatory definitions of practicability versus reasonable [40 CFR § 230.10(a)(4)]. Incorporating 404 permitting considerations into the NEPA alternatives analysis can reduce both time and effort by avoiding the need to supplement the NEPA documents with additional information.

Inspection and Enforcement of Design Features

The Draft EA does not include information about inspection and enforcement of design features and best management practices. If the effects described in this EA are wholly dependent upon adhering to the design features and BMPs, there is a potential for significant impacts if these measures aren't implemented or implemented properly. We recommend the EA outline a monitoring and inspection plan for the proposal, including timeframes for corrective action.