



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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October 2, 2023

Ref: 8ORA-N

Kevin Wright, Forest Supervisor
Dixie National Forest
820 N. Main
Cedar City, Utah 84721

Dear Supervisor Wright:

The U.S. Environmental Protection Agency Region 8 has reviewed the U.S. Department of Agriculture Forest Service August 2023 Final Environmental Assessment (EA), Finding of No Significant Impact (FONSI) and Draft Decision Notice (DN) for the Dixie National Forest (Forest) Prescribed Fire Landscape Resiliency Project (Project). The Forest administers 1.631 million acres of National Forest System lands in Garfield, Washington, Kane and Piute Counties, Utah. In accordance with our responsibilities under Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA), we are providing comments. 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.

The stated purposes and needs in the final EA are for the Forest to act at a larger scale and increase the pace of actions to improve the health and resiliency of vegetation communities and habitat in fire dependent ecosystems to reduce the risk of uncharacteristic wildfire, increase resiliency of vegetation, improve ecological function of vegetation and habitats, and improve health and function and increase resiliency to wildfires (p. 4). The proposed action will use prescribed fire and associated pre-treatment activities across approximately 1.477 million burnable acres of National Forest lands administered by the Forest. The Forest intends to authorize prescribed fire on up to 49,500 acres annually across the Forest depending on annual budgets, resource availability, program capacity, burn windows, vegetation conditions, and burn plan authorizations (pp. 5-6).

EPA submitted comments on the draft EA in a December 22, 2022, letter recommending developing this Project as a programmatic NEPA document and tiering site-specific NEPA documents for each site-specific treatment plan. We also made recommendations for increasing site-specificity of the Proposed Action and for improving the level of analysis and protection for Forest resources and considerations, including water resources, air quality, climate change, and environmental justice. We would like to thank the Forest for their responses in the Public Response to Comments Report. We also appreciate the additional maps and tables that were added in the Water Resources Report Appendices, the qualitative description of existing air quality and potential air emissions in the Air Quality Analysis Addendum, and the addition of the EJScreen Reports and Socioeconomic Report. This supplementary information comprises valuable additions to the NEPA planning documents that will further public disclosure and understanding of the Project and can assist decision makers during project implementation.

EPA remains concerned that the Forest decided in the final EA to implement a programmatic (vs. site-specific) approach and analysis that would authorize multiple prescribed fire projects without requiring future, site-specific project NEPA analyses and formal public participation opportunities. Given the lack of site-specific information and analysis, and potential for significant water quality, air quality and ecological impacts, it is unclear that significant impacts will be avoided for this Project. Our enclosed comments address some areas where the publicly available analyses do not clearly support a FONSI. We recommend the Forest develop this as a programmatic NEPA document that commits to tiered, site-specific NEPA analyses that provides opportunities for formal public involvement and comment on individual treatment projects.

We appreciate the opportunity to provide recommendations during the NEPA planning process for this Project. 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., J.D.
Manager, NEPA Branch
Office of the Regional Administrator

Enclosure

Enclosure – EPA Comments on the Dixie National Forest Prescribed Fire Landscape Resiliency Project Final EA, FONSI and Draft Decision Notice

Programmatic NEPA and Site-Specific Analysis

In the final EA and FONSI, the Forest is relying upon a broad-scale, general analysis of existing conditions and potential impacts. Rather than carrying out a site-specific analysis and making site-specific decisions, it is planning to manage project implementation by applying design features, BMPs, and mitigation after it develops site-specific treatment plans. While we support the use of BMPs and mitigation measures, these are not a substitute for a more complete and accurate effects analysis. Overall, the EA resembles a programmatic document, which would mean the Forest should carry out site-specific NEPA analysis for each individual treatment plan. This approach would assist the decision maker with avoiding and minimizing impacts, and it would foster public understanding of impacts and an opportunity to suggest alternatives and ways to avoid, reduce, or offset impacts. We believe that meaningful public engagement during the NEPA planning process depends on access to site-specific information and analyses at some point in the process. Understanding the “what, when, where, and how” of federal projects on public lands is also key to the ability to effectively influence design features, Best Management Practices (BMPs) and mitigation. We continue to recommend the Forest develop this as a programmatic NEPA document that commits to tiered, site-specific NEPA analyses, which will provide opportunities for public involvement and comment on individual treatment projects. We also recommend committing to five-year reviews of the programmatic documents, consistent with the amendments to NEPA under the Fiscal Responsibility Act of 2023.¹

EPA appreciates the confirmation that the proposed prescribed burning would be conducted within established law, regulation, and policy, and include the development of burn plans that consider air quality, timing fire operations when air quality conditions allow, and following the procedures guide - PMS 484 Interagency Prescribed Fire Planning and Implementation Procedures Guide (July 2017) (p. 40 of final EA). However, compliance with state and federal regulations, rules, policy, and guidance does not substitute for a more complete and accurate analysis of air quality impacts, or other impacts for which the EA also relies on such compliance to conclude a lack of significant effects. We understand from the NEPA documentation the Forest currently does not have the site-specific details that would allow it to accurately predict emissions, which is an example of why we recommend the Forest develop this as a programmatic NEPA document that commits to tiered, site-specific NEPA analyses for the site-specific burn plans. We also note the most current edition of the Interagency Guide is May 2022, not July 2017, and we recommend the NEPA document reference the current addition of this guidance for accuracy and disclosure.

Design Features and BMP Effectiveness, Inspection, and Enforcement

During the draft EA comment period, EPA commented that it is unclear if the Project will require new or temporary roads, and we recommended the Forest clarify this in the NEPA document. We also recommended that if roads will be built the Forest specify how many miles of each will be required. We

¹ Sec. 108; 42 U.S.C. § 4336b

note other commenters inquired about the miles of roads in the project area, and new and temporary roads that would be required. We located one response that stated no new roads would be constructed (p. 18). Another response states, “The proposed action does not propose to change road densities or close roads. Existing roads would be used for implementation, with cross-country motorized vehicle travel limited where necessary as resource conditions allow” (p. 32). We note the Forest did not respond to commenters with the number of temporary road miles that would be needed. Please clarify if temporary roads will be built, and if so, how many miles are needed. Temporary roads can also impact water quality and that appears to not have been assessed during this NEPA planning process.² 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.³ In 2016, the Forest Service issued a report titled, *Effectiveness of Best Management Practices that Have Application to Forest Roads: A Literature Synthesis*.⁴ 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, the report indicates that BMP effectiveness is uncertain and dependent upon site-specific conditions. Those site-specific conditions vary across a landscape-scale project. In the response to comments document, the Forest states, “Legal standards and effectiveness monitoring of BMPs are beyond the scope of this project” (p. 18). It is difficult to understand this since the effectiveness of BMPs plays a crucial role in a condition-based, landscape-scale project such as this one in which the Forest is relying upon design features and BMPs to support a FONSI. Since the effects described in this EA are dependent upon adhering to the design features and BMPs, there is a potential for significant impacts if these measures are not implemented, are implemented improperly, or are not as effective as intended. Therefore, we recommend the EA address the uncertainties discussed above as part of its findings regarding significance of impacts.

² See, e.g., <https://www.spokesman.com/stories/2020/may/16/temporary-roads-cause-more-than-temporary-damage/>

³ https://www.fs.usda.gov/naturalresources/watershed/pubs/FS_National_Core_BMPs_April2012.pdf

⁴ <https://www.fs.usda.gov/research/treearch/53428>

One way to address uncertainties in design feature and BMP effectiveness is through rigorous inspection and enforcement of the measures. The EA does not include enough information about inspection and enforcement of design features and BMPs. In the most recent National BMP Monitoring Report Summary (2015), about one third of road BMPs were found to be properly implemented.⁵ The 2015 Report also rated the relative effectiveness of each BMP, and approximately half of the road BMPs were rated marginally effective or not effective. We note the effectiveness of Project design features and the 2012 National BMPs will also be impacted by climate change and extreme weather events. Due to these uncertainties in compliance and effectiveness of measures designed to reduce impacts below a level of significance, we recommend the NEPA document include a design feature and BMP monitoring and inspection plan for the Proposed Action, including timeframes for corrective action. We also recommend discussing the process that will be applied if monitoring budgets fall short of the need for this project. Typically, lack of monitoring would automatically trigger a more conservative treatment area and/or set of mitigation measures.

Mitigation

We recommend if the Forest determines the impacts are less than significant after it applies project design features, BMPs and mitigation, that it clearly articulates in the FONSI the mitigation required, including any applicable monitoring and enforcement provisions, to keep impacts below the level of significance.⁶

Old Growth

Regarding our comment on whether old growth would be treated, the Response to Public Comments Report stated, “The proposed action does not include the removal of old growth. Any treatment activity implemented within areas that are identified as old growth would be implemented in a manner in which old growth characteristics would be retained. The Dixie NF does not currently have areas of old growth mapped” (p. 27). However, the Implementation Checklist indicates that resource specialists would “[r]eview the proposed burn area and measures that would be taken to meet old growth standards outlined in the [1986] Dixie National Forest Plan” (p. 106). Further, the Silvicultural Report states the Forest Plan does not provide a rationale for defining old growth, and that currently there are no stands formally classified as old growth (p. 27). It also states, “In a general sense, the forest plan seems to characterize “old growth” stands by age, or having an undisturbed state, or large trees (i.e., goshawk). However, this is not entirely the shared vision of old growth” (p. 28). If the 1986 Forest Plan is using an outdated definition of old growth and the Forest currently does not have any areas classified or mapped as old growth, it does not appear that the effects analysis can assess potential impacts with any specificity. Further, it is unclear how resource specialists will identify old growth and include design features to retain old growth. We note we were unable to locate in the final EA design features specific to protecting old growth. This is an example of how site-specific NEPA is important. Having clear definitions of old growth, areas of old growth mapped, and specific design features to protect old growth in the NEPA

⁵ See https://www.fs.usda.gov/biology/resources/pubs/watershed/FS-1070BMP_MonitoringSummaryReport2015_reduced.pdf

⁶ See 40 CFR § 1501.6 Findings of no significant impact.

(c) The finding of no significant impact shall state the authority for any mitigation that the agency has adopted and any applicable monitoring or enforcement provisions. If the agency finds no significant impacts based on mitigation, the mitigated finding of no significant impact shall state any enforceable mitigation requirements or commitments that will be undertaken to avoid significant impacts.

document would help the decision maker and public understand whether such design features will avoid, minimize, or mitigate impacts to this important resource.

We note the final EA states, “The proposed action is in compliance with Executive Order 14072 due to the proposed action promoting the restoration of ecological processes and functions upon that landscape that would mitigate wildfire risk to communities, municipal watersheds, and resources, including mature and old growth forests” (p. 43). It also notes that EO 14072 directs the Forest Service and Bureau of Land Management to define old growth and mature forest conditions and complete an inventory of old growth and mature forest on federal lands. The EA then points to the 2023 “Mature and Old-Growth Forests: Definitions, Identification, and Initial Inventory on Lands Managed by the Forest Service and Bureau of Land Management” for definitions and inventory of old growth and mature forests (pp. 42-43). It is unclear how the proposed action is in compliance with EO 14072 when it is managing old growth according to the 1986 Forest Plan, is using an outdated definition of old growth, and old growth is not classified nor mapped on the Forest. We recommend the Forest develop this proposal as a programmatic NEPA document and require tiered site-specific NEPA when it has the relevant information called for in EO 14072.

Biological Soil Crusts

The NEPA planning documents indicate the Forest will utilize an Implementation Checklist (Appendix C) to determine what resources are present, what condition they are in, the potential effects, and which design features, BMPs and mitigation will be applied to minimize those effects. In response to our comment regarding Biological Soil Crusts (BSCs), the EA states, “It is not feasible to map BSCs given the varied extent they occur across a landscape” (p. 14). Additionally, it states that “it is not feasible to implement prescribed fire and associated treatments and avoid all Biological Soil Crusts” and that “[t]he Implementation Checklist provides for field analysis by a soil scientist prior to site-specific project implementation. If deemed necessary to protect an area with BSCs, sensitive soils design features *could* be applied” (*emphasis added*) (p. 14). From this response, it does not appear BSCs shall be protected, rather they could be protected. We note the Implementation Checklist does not include identification of BSCs specifically. Adding BSCs to the Implementation Checklist and a BSC-specific design feature to the EA would help ensure the avoidance of impacts to these irreplaceable resources. This is also an example where the public may have information to help the Forest identify where BSCs are located and should have an opportunity to influence whether prescribed fire is applied to a specific area with BSCs, and if it is, under what conditions. We recommend the Forest develop this proposal as a programmatic NEPA document and require tiered site-specific NEPA once it knows where BSCs are located in the project area, the degree of effects, and applicable design features, BMPs and mitigation. This would allow for full public disclosure and meaningful engagement during the NEPA process.

Cumulative Impacts

In the Response to Public Comments Report regarding the lack of a cumulative effects analysis in the EA, it states, “Cumulative effects would be considered prior to implementation by the interdisciplinary team in selecting locations for burning, developing burn areas, identifying location-specific desired conditions and objectives, and applying design features to eliminate the potential for significant effects” (p. 2). NEPA requires cumulative impacts are assessed during the NEPA planning process, not during project implementation. By deferring the cumulative impact analyses to the implementation stage, it is unknown

to the public what the cumulative impacts of all reasonably foreseeable actions are. To determine whether a project has significant effects on the environment, it is important to examine the direct, indirect, and cumulative impacts to resource characteristics of the project area during the NEPA planning process.

The EA states, “While this proposal includes authorization of prescribed fire over a large area, the proposed activities involved in this project are similar to routine activities the Dixie National Forest has analyzed and implemented repeatedly on the landscape without significant long-term impacts to most resource areas, either directly, indirectly, or cumulatively” (p.47). This statement is difficult to evaluate without data to support it. In addition, EPA knows of at least two other vegetation management projects on the Forest (Hungry Creek Vegetation Improvement Project and Pine Valley Wildlife Habitat and Ecological Resiliency Improvement Project). We recommend the Forest complete a cumulative effects analysis during this current NEPA planning process to meet NEPA’s “hard look” requirement, and to determine if the incremental effects of this proposed action, when added to the effects of other past, present, and reasonably foreseeable actions, including these two other vegetation management projects, are cumulatively significant and whether a FONSI is supported or an EIS is needed.

Climate Change

In response to our recommendation that the analysis should consider the direct and indirect GHG emissions associated with the Proposed Action, including emissions associated with burning, heavy equipment use, truck trips, and reasonably foreseeable downstream GHG emissions, the response to comments states, “There are no applicable legal or regulatory requirements or established thresholds concerning management of forest carbon or greenhouse gas emissions. Meaningful and relevant conclusions on the effects of a land management action such as this on global greenhouse gas emissions or global climate change is neither possible nor warranted in this case. While huge advances have been made in accounting and documenting the relationship between greenhouse gases and global climate change, difficulties remain in reliably simulating and attributing observed temperature changes to natural or human causes at smaller than continental scales (IPCC 2007, p. 72)” (p. 9).

On January 9, 2023, the CEQ published Interim Guidance to assist federal agencies in assessing and disclosing climate change impacts during environmental reviews.⁷ CEQ developed this guidance in response to Executive Order (EO) 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*. This Interim Guidance is currently in effect. The Interim Guidance provides direction for analyzing and discussing project-related direct, indirect, and cumulative climate-related impacts and indicates that agencies should consider applying the guidance to on-going NEPA processes if doing so would inform the consideration of alternatives or help address comments raised through the public comment process. The EPA recommends the EA apply the Interim Guidance to ensure robust quantification of GHG emissions and consideration of potential climate impacts, mitigation, and adaptation issues. We also note that since the 2007 IPCC Report the science and evaluation of climate change has evolved, and that report has been replaced by the IPCC Sixth Assessment Report (2022).⁸ We recommend determining if the above quoted information in the most updated IPCC Report is still accurate and adjusting conclusions if not.

⁷ <https://www.federalregister.gov/documents/2023/01/09/2023-00158/national-environmental-policy-act-guidance-on-consideration-of-greenhouse-gas-emissions-and-climate>

⁸ See <https://www.ipcc.ch/report/ar6/wg2/>

The 2020 Dixie NF Carbon White Paper points to the 2014 IPCC Report that states “forestry and other land uses contributed just 12 percent of all human-caused global CO₂ emissions” between 2000-2009 (p. 2). We note the Interim Guidance states that NEPA requires more than a statement that emissions from a Proposed Action represent only a fraction of domestic or global emissions. It notes such a statement only conveys the nature of the climate change challenge in that diverse individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large effect. The guidance states this is not a useful or appropriate method for deciding whether or to what extent to consider climate change effects under NEPA or for characterizing the extent of a proposed action’s or alternatives’ contributions to climate change. Additionally, while the guidance does not establish any particular quantity of GHG emissions as “significantly” affecting the quality of the human environment, it instructs lead agencies to quantify a proposed action’s reasonably foreseeable GHG emissions whenever possible, and place those emissions in appropriate context in order to analyze a proposed action’s reasonably foreseeable climate change effects.

The response to our recommendation that the Forest explain how it tiers to the 2020 Dixie NF Forest Carbon Report, and how this report accounts for the potential effects to GHG emissions and carbon stocks from the Proposed Action, did not appear to directly address that recommendation. The Interim 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 recommend the Forest utilize the Interim Guidance to 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. Even if the Forest concludes that prescribed fire should generally increase the Forest’s long-term ability to store carbon, 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.

Environmental Justice

EPA made recommendations for the EJ analysis in the Draft EA, and the response to comments document stated a socioeconomic report will be provided before a decision is made (p. 25). We located the Socioeconomic Report and EJSscreen Reports in the project record and reviewed the information. The Socioeconomic Report concluded, “There are some low-income populations in the project area; however, no low-income populations are expected to be disproportionately affected by environmental effects resulting from the proposed action. The proposed action would be implemented over a long period of time and space. Overall, affected communities would benefit from secured ecosystem services as the result of the project. The project would reduce the wildfire risk to municipal water sources” (p. 2). The EA and report do not provide the evaluation and analysis that was used as the basis for the conclusion there would be no disproportionate impacts to EJ communities. On April 21, 2023, President Biden signed Executive Order (EO) 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All*, which strengthens the federal government's commitment to provide meaningful opportunities for engagement of

communities with EJ concerns.⁹ The government-wide approach in Section 3 of the EO requires each agency “identify, analyze, and address disproportionate and adverse human health and environmental effects (including risks) and hazards of Federal activities, including those related to climate change and cumulative impacts of environmental and other burdens on communities with environmental justice concerns.” Specifically, it directs agencies to conduct NEPA reviews that analyze direct, indirect, and cumulative effects of federal actions on communities with environmental justice concerns. We recommend including this information in the EA as the Forest further considers any additional measures to avoid, minimize, or mitigate disproportionate and adverse human health and environmental effects of project activities on communities with environmental justice concerns.

Tribal Consultation

The final EA states that consultation with American Indian tribes has been initiated and is ongoing (p. 10). It listed the tribes to which the Forest reached out and which tribes responded. It indicates that tribal comments will be addressed during ongoing consultation prior to implementation. It also notes that tribal consultation would be an ongoing process during implementation (p. 11). We appreciate that the tribes would be notified of annual implementation unit goals through regular, ongoing consultation (through quarterly forums or other venues) to identify historic properties or areas with traditional religious and cultural significance. We also appreciate that traditional ecological knowledge would be identified and implementation strategies discussed during the ongoing consultation process. In the Tribal Consultation Section, we recommend the EA thoroughly describe the process and outcome of government-to-government consultation carried out so far between the Forest and tribes, including issues that were raised and how those issues were addressed in the development and selection of the proposed alternative and proposed mitigation. Section 2 of the *Standards for Tribal Consultation*¹⁰ states “Consultation requires that information obtained from tribes be given meaningful consideration, and agencies should strive for consensus with tribes or a mutually desired outcome.” The *Standards* present best practices and consultation policies that call on federal agencies to incorporate tribal treaty and reserved rights into agency decision-making with the goal of co-management and co-stewardship of federal land and water. To the extent such information is not sensitive or otherwise confidential, we recommend the EA summarize the areas in which consensus with tribes has been or is expected to be achieved regarding their treaty or reserved rights and mutually desired outcomes.

⁹ <https://www.energy.gov/nepa/articles/eo-14096-revitalizing-our-nations-commitment-environmental-justice-all-2023>

¹⁰ *Presidential Memorandum on Uniform Standards for Tribal Consultation* at <https://www.whitehouse.gov/briefing-room/presidential-actions/2022/11/30/memorandum-on-uniform-standards-for-tribal-consultation>.