UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
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REGIONAL
ADMINISTRATOR'S
DIVISON

July 17, 2019

Duane F. Bishop
District Ranger
Middle Fork Ranger District
46375 Highway 58
Westfir, OR 97492

Dear Mr. Bishop:

The U.S. Environmental Protection Agency has reviewed the Forest Service's June 17, 2019 Federal Register Notice of Intent to prepare an Environmental Impact Statement for the Youngs Rock Rigdon project on the Willamette National Forest (EPA Region 10 project number 19-0037-AFS). Our review of the NOI was conducted in accordance with our responsibilities under the National Environmental Policy Act and Section 309 of the Clean Air Act.

According to the NOI, the purpose of the project is to provide a sustainable supply of timber products, improve stand conditions (density, diversity and structure), increase vegetative habitat complexity and hardwood composition along streams, and sustainably manage the network of road systems in the project area. Proposed project components include forest management treatments across 4,500 acres, including thinning and regeneration harvests. Additional proposed activities include aquatic restoration on approximately 700 acres of floodplain and riparian reserves.

The EPA supports the overarching purpose of the project, and we recognize the importance of moving the area toward a more diverse and resilient landscape structure. We are also supportive of the proposed road enhancements and decommissioning activities, which will improve aquatic habitat and hydrologic function within the area.

The scoping comments that follow are provided to inform the Forest Service of issues that the EPA believes should be considered as the EIS for the project is developed. We appreciate the opportunity to participate early in the planning process. If you would like to discuss these comments, please contact me at (20) 378-5757 or by email at hood.lynne@epa.gov

Sincerely,

Lynne Hood
Policy and Environmental Review Branch

Enclosure:
U.S. Environmental Protection Agency Scoping Comments on the Youngs Rock Rigdon Project

U.S. Environmental Protection Agency
Scoping Comments for Youngs Rock Rigdon

Roads

The scoping document for the project indicates that a sustainable road system is needed for administration utilization, and protection of National Forest Lands. The project includes constructing temporary roads and identifying roads for stabilization and decommissioning. As the DEIS is developed, we encourage the Forest to focus on the use of existing system roads that do not require extensive reconstruction and to minimize road construction to the maximum extent practicable.

Recommendations

1. We recommend the EIS include a description of how roads in the watershed currently impact resources and describe the change in road miles and density that will occur as a result of the project;
2. We support road reconstruction where it will lead to improved hydrologic function within the watershed, however it should be noted that roads that have been closed for a long time may have stabilized. The EIS should disclose where existing roads will be reconstructed and the current impacts or improvements they present to the resources of concern;
3. Where roads are proposed for closure, the EIS should describe how roads will be closed;
4. If the project includes administrative road closures, the EIS should describe what enforcement measures will be utilized and the monitoring program that will be implemented to ensure they are effective;
5. Where decommissioning/obliteration of roads are proposed, the EIS should describe measures to be used to stabilize the soil and keep it in place.

Water Quality

One of the EPA's primary considerations on any project is the potential effect of management actions on surface water quality. We recommend the EIS identify water bodies likely to be impacted by the project, the nature of the potential impacts, and the specific discharges and pollutants likely to impact those waters. The EIS should disclose information regarding relevant Total Maximum Daily Load allocations for any impaired waters listed on the latest state Clean Water Act 303(d) list or Integrated Report, along with the water quality standards and pollutants of concern. As the CWA anti-degradation provisions will also apply, we recommend the EIS demonstrate that the proposed action will prevent the deterioration of any water bodies that currently meet state water quality standards.

The scoping notice states that management within riparian reserves is proposed. The EIS should disclose the activities and demonstrate that they are designed to provide adequate temperature regulation, nutrient filtering, streambank stability, and a supply of coarse woody debris to channels. Consistent with this recommendation, we anticipate that the alternatives will be designed to minimize impacts to shade in the primary shade zone. As prescriptions are developed, we encourage the Forest to consider the 2011 Northwest Forest Plan Temperature TMDL Implementation Strategy.[1]

Please note that, in general, the EPA does not support the assumption that the time period between 1000 and 1400 hours each day represents the period of greatest solar loading. Although solar loading occurs during this timeframe, 42% of the solar load to the stream occurs during the other parts of the day. In

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[1]Northwest Forest Plan Temperature TMDL Implementation Strategies – Evaluation of the Northwest Forest Plan Aquatic Conservation Strategy and Associated Tools to achieve and maintain stream temperature water quality standards. USFS and BLM. Update of September 5, 2005 DEQ Conditionally Approved Version November 15, 2010

addition, it is broadly accepted that trees located outside of the zone providing shade between 1000 - 1400 will still have some effect on shade. We therefore recommend that the EIS refrain from utilizing assumptions about primary shade based on solar loading between 1000 and 1400.

Recommendations:

1. Where waters are listed as impaired under section 303(d) of the Clean Water Act, the EIS should describe existing restoration and enhancement efforts for those waters, how the project will coordinate with on-going protection efforts, and any mitigation measures that will be implemented to avoid further degradation of water quality within impaired waters;
2. Where waters are not impaired, the EIS should demonstrate that the proposed action will comply with anti-degradation provisions of the CWA that prevent deterioration of water quality within waterbodies that currently meet water quality standards;
3. We recommend that the primary shade zone widths in the EIS reflect those in Table 4 of the Updated TMDL Strategy[1] (i.e., 70 to 85 feet depending on hill slope).

Riparian Restoration

The EPA recognizes that silvicultural treatments can benefit riparian stands where stand density, structure, or species composition are not sustainable or appropriate to the forest type that would naturally occur on a site. Where silvicultural treatments are needed to achieve or accelerate restoration of system potential riparian conditions (SPRC), we support those treatments. We recommend that a site-specific demonstration that treatments are needed to achieve or accelerate SPRC should be made in the EIS, particularly where riparian treatments have the potential to impact water quality and associated riparian functions.

Recommendations:

1. Where silvicultural treatments are proposed, the EIS should provide site specific rationale for treatment based on the need to protect or restore the riparian ecosystem;
2. We recommend that silvicultural treatments be designed to achieve or accelerate system potential riparian conditions;
3. Where need is established to enter a riparian zone, we encourage the Forest to consider an alternative that limits the use of heavy equipment in and around riparian areas; and
4. Where ecological benefit can be established, we support the directional felling (and leaving) of trees within the riparian reserve.

Timber Harvest, Invasive Weeds and Rare Plants

Timber harvest can accelerate erosion, impact sensitive resources, alter forest structure and composition, and increase the risk of introduction of invasive species.

Recommendations

1. We recommend that the EIS discuss how logging will proceed in sensitive areas (i.e., previously burned areas, fragile soils, steep slopes, riparian areas, watersheds with severe sedimentation problems, and fish population strongholds);
2. The EIS should explore how the timing of entry can be adjusted to minimize environmental impacts;
3. We recommend that the EIS discuss how proposed prescriptions will promote and restore forest structure, composition, and function, especially in areas near or adjacent to stream corridors;

4. We recommend that the EIS include a description of current conditions, and best management practices that will be utilized to reduce the likelihood of introduction and spread of invasive species;
5. The EIS should also identify whether there are any threatened, endangered, candidates, sensitive, or other plant species of concern within or near the project area that could be affected by proposed actions. We recommend that the EIS include general locations of rare or special status plants, and how these sites would be managed to avoid impacts on the plants.

Ecological Forestry

The EPA supports silvicultural practices which are based on an understanding of natural disturbance and stand development processes. Such an approach has come to be referred to as ecological forestry. Managing established stands to sustain or restore structural and compositional heterogeneity is an important principle of ecological forestry. The treatments described in the NOI are broadly consistent with this principle. We recommend that the EIS seek to ensure that proposed activities are consistent with an understanding of natural disturbance and stand development processes and disclose the level of consistency likely to be achieved.

Recommendations:

1. The EIS should describe how proposed harvest and thinning prescriptions reflect the consideration of natural disturbance and stand development processes;
2. In determining the level of consistency likely to be achieved with the principles of ecological forestry, the EIS should consider the existing seed bank (i.e. what is likely to regenerate naturally), and the level, extent, and species composition of any replanting;
3. Thinning and treatments should create and maintain structural and compositional complexity and heterogeneity consistent with stand development processes and disturbance agents. Relevant references include:
    a. Churchill, D.J., A.J. Larson, S.M.A. Jeronimo, P.W. Fischer M.C. Dalhgreen, and J.F. Franklin. 2016. The ICO approach to quantifying and restoring forest spatial pattern: Implementation guide. Version 3.3 Stewardship Forestry and Science, Vashon, Washington, USA. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/103397_FSPLT3_3986281.pdf
    b. Churchill, D.J., A.J. Larson, S.M.A., M.C. Dalhgreen, and J.F. Franklin. 2013. The ICO approach to quantifying and restoring forest spatial pattern: Implementation guide. Version 2.0. Stewardship Forestry, Vashon, Washington, USA
    c. Churchill, D.J., A.J. Larson, M.C. Dalhgreen, J.F. Franklin, Hessburg, P.F., and James A. Lutz. Restoring forest resilience: From reference spatial patterns to silvicultural prescriptions and monitoring. Forest Ecology and Management 291 (2013) 442-457
    d. USDA General Technical Report NRS-19 "Natural Disturbance and Stand Development Principles for Ecological Forestry" http://www.fs.fed.us/nrs/pubs/gtr/gtr_nrs19.pdf
    e. Larson, A.J., Churchill, D. 2012. Tree spatial patterns in fire-frequent forests of western North America, including mechanisms of pattern formation and implications for designing fuel reduction and restoration treatments. Forest Ecology and Management, 267 (2012) pp 74-92
    f. Franklin, J.F., K.N. Johnson, D.J. Churchill, K. Hagmann, D. Johnson, and J. Johnston. 2013. Restoration of dry forests in eastern Oregon: a field guide. The Nature Conservancy, Portland, OR. 202 p.

Habitat
Project activities may directly and indirectly impact habitat quality and connectivity. In addition, the NOI states that the project is within fish habitat listed as threatened or endangered under the Endangered Species Act. We recommend that the EIS discuss options to avoid or mitigate impacts to habitat quality. We also recommend disclosing ESA listed species in the project area. The EIS should include/summarize the Biological Assessment and identify any terms and conditions required by U.S. Fish and Wildlife Service and National Marine Fisheries Service.

Recommendations:
To protect the quality and connectivity of aquatic and terrestrial habitat we recommend that the EIS:

1. Describe the current quality of habitat on and near the proposed project area;
2. Identify known fish and wildlife corridors, migration routes, and areas of seasonal fish and wildlife congregation;
3. Evaluate the cumulative alteration and fragmentation of aquatic and terrestrial habitat caused by roads, land use, management activities and human activity;
4. Evaluate effects on plants, fish and wildlife from habitat removal and alternation, aquatic and terrestrial habitat fragmentation caused by roads, land use, management activities and human activity;
5. Discuss how the proposed activities would support the retention of large snags, downed logs and large wood in streams, and
6. Incorporate the range of firewood gatherers from roads into the snag retention guidelines.
7. Disclose ESA listed species and consultation with the Services.

Cumulative Effects
The EPA has issued guidance on how we are to provide comments on the assessment of cumulative impacts, *Consideration of Cumulative Impacts in EPA Review of NEPA Documents*, which can be found on the EPA's web site at:
https://www.epa.gov/sites/production/files/2014-08/documents/cumulative.pdf . The guidance states that, in order to assess the adequacy of the cumulative impact assessment, five key areas should be considered. The EPA assesses whether the cumulative effects analysis of an EIS:

1. Identifies resources, if any, that are being cumulatively impacted;
2. Determines the appropriate geographic area (within natural ecological boundaries) and the time period over which the effects have occurred and would occur;
3. Describes a benchmark or baseline;
4. Looks at all past, present, and reasonably foreseeable future actions that have affected, are affecting, or would affect resources of concern;
5. Includes scientifically defensible threshold levels.

The NEPA analysis should take these above steps to analyze and disclose cumulative impacts to identified resources of concern.

Ecosystem Services
Juxtaposition of landscape features affects key physical, chemical, and biological functions that convey myriad social, ecological, and economic benefits.[2] For example, mature, complex forests recharge groundwater, provide clean drinking water, regulate stream flows, purify air and water, absorb

[2] U.S. EPA. Website accessed 7/9/19. Ecosystem Services resources and planning tools. https://www.epa.gov/eco-research/ecosystem-services

greenhouse gases, and offer scenery, recreation, and wildlife habitat. Fully functional floodplains enhance water quality, provide valuable aquatic habitat, and reduce flooding. Maintenance and restoration of such key functions enhance the resilience of communities and ecosystems to stressors, such as those that may arise due to changes in climate. We recommend that these services be acknowledged, accounted for using quantitative (where feasible) or qualitative means, and fully considered in decision making.

We recommend considering the Millennium Ecosystem Assessment[3] for a classification of ecosystem services, which may assist in identifying the service provided (i.e., specific components associated with provisioning, regulating service, and/or cultural service). In addition, the following is a suggested approach to integrate ecosystem service analyses into decision making:[4]

1. Define the study area;
2. Identify key stakeholders:
3. Discuss the desired condition;
4. Identify the ecosystem service present;
5. Assess the effect of the changes in ecosystem services associated with the action; and
6. Consider management options to achieve desired conditions.

In addition, the U.S. Department of Agriculture, Ecosystem Services Assessment Portal provides a Guidance Matrix for documents and toolkits that offer approaches to valuing ecosystem services. https://www.oem.usda.gov/content/es-portal?qt-ncnre_tables=1#quicktabs-ncnre_tables

Climate Adaptation

Consistent with the guidance issued by the Forest Service in January 2009,[5] we recommend that the EIS discuss the potential effect of the proposed project on changes to the climate as well as the effect of changes in climate on the proposed project.

EPA recommends that the EIS include a discussion of reasonably foreseeable effects that changes in the climate may have on the proposed project and the project area, including its long-term infrastructure (principally roads, bridges and culverts). This could help inform the development of measures to improve the resilience of the proposed project. If projected changes could notably exacerbate the environmental impacts of the project, EPA recommends these impacts be considered as part of the NEPA analysis.

Coordination with Tribal Governments

We recommend that EIS development be conducted in consultation with all affected tribal governments, consistent with Executive Order 13175 (*Consultation and Coordination with Indian Tribal Governments)*. We further recommend that the EIS should discuss whether the proposed project would affect tribal natural and/or cultural resources and address any concerns of the tribes in accordance with federal tribal trust responsibilities.

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[3] Millennium Ecosystem Assessment. 2005. A Framework for Assessment. MA Board of Directors key messages, Page 17. https://www.millenniumassessment.org/documents/document.429.aspx.pdf

[4] Everard M and Waters R. 2013. Ecosystem services assessment: How to do one in practice. Institution of Environmental Sciences, London. www.ies-uk.org.uk/resources/ecosystem-servicesassessment

[5] http://www.fs.fed.us/emc/nepa/climate_change/includes/cc_nepa_guidance.pdf

Monitoring

We recommend that the project include a monitoring program designed to assess impacts from the project, and the implementation and effectiveness of measures taken to mitigate impacts. We support the use of multi-party monitoring and encourage the Forest to develop a multi-party monitoring protocol. The EIS should describe the monitoring program, how it would be used in present and future resources management, and the likely extent to which it would be adequately implemented/funded.